



SITE CHARACTERIZATION REPORT

WTX to EMSU Battery to Byrd Pump Segment
Crude Oil Release
NMOCD Incident No. NOY1822242858
Unit P, Section 11, Township 20S, Range 36E
Latitude 32.583874, Longitude -103.317460
Lea County, New Mexico
December 2020

A handwritten signature in blue ink, reading "Richard Varnell".

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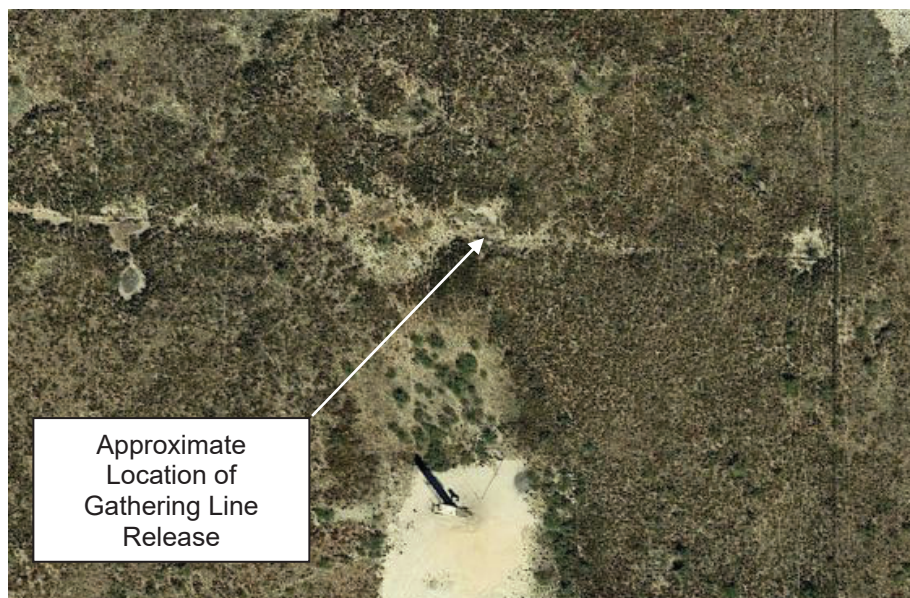




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1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Site Characterization Report on behalf of Holly Energy Partners – Operating, L.P. (HEP). This document summarizes the environmental investigation performed to date at a crude oil release site on HEP's WTX to EMSU Battery to Byrd Pump Segment gathering line (the "Site"). The Site is located on land owned by L&K Ranch LLC off of County Road 46 in Lea County, New Mexico. The Site is located within Unit P, Section 11, Township 20 South, Range 36 East. The original coordinates reported for the release were latitude 32.583989, longitude -103.317743. However, while performing the field work in November 2020, it was discovered that the actual release location was approximately 40 feet further east, at latitude 32.583874, longitude -103.317460. The Site location is depicted on a topographic map in Figure 1.

2.0 BACKGROUND

2.1 Release Discovery and Initial Investigation

A gathering line release was identified at the Site during an aerial patrol on July 11, 2018. The gathering line was immediately inspected, the leak confirmed, and that segment of line was shut down for repair. The release was determined to originate from a pinhole at the bottom of the 6-inch line and was initially thought to be less than 1 barrel (bbl) in volume.

HEP initiated excavation activities to remove affected soil and attempted to vertically delineate impacts through exploratory trenches. Excavation activities occurred between July 11 and August 6, 2018. On August 6, 2018, the excavation had reached 17 feet below ground surface (bgs) and affected soil had not been vertically delineated. This determination was based on field screening or observations, not analytical data. The excavation was discontinued at that point and the excavated soil was returned to the excavation as backfill. The release was then reported on Form C-141 (Release Notification and Corrective Action) to Ms. Olivia Yu at the New Mexico Oil Conservation Division (NMOCD) District 1 Office in Hobbs, New Mexico on August 10, 2018, in accordance with Title 19 Chapter 15 Part 29 of the New Mexico Administrative Code (19.15.29 NMAC).

HEP retained GHD, an environmental consulting firm, to perform subsurface assessment activities in accordance with 19.15.29 NMAC. On August 16, 2018, GHD submitted a Soil Delineation Work Plan to NMOCD and to the Bureau of Land Management (the mineral owner). NMOCD approved the work plan on September 10, 2018.

The initial assessment was completed in September 2018, and included the determination of site-specific NMOCD Closure Criteria and installation of four soil borings (SB-1 through SB-4) to a maximum depth of 35 feet bgs. Although groundwater was not encountered during the investigation, the NMOCD Closure Criteria determined appropriate for the Site was for sites with groundwater at a depth of less than 50 feet bgs.



Soil borings SB-1, SB-2, and SB-4 were each installed to a total depth of 35 feet bgs. Soil boring SB-3 was terminated at a depth of 25 feet bgs due to auger refusal. As mentioned above, groundwater was not encountered in any of the borings. Soil samples collected from borings SB-1 through SB-4 were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B, total petroleum hydrocarbons (TPH) by EPA Method 8015, and chloride by EPA Method 300. The results indicated the following:

- Benzene and total BTEX concentrations were below the site-specific NMOCD Closure Criteria at all of the sampled locations. BTEX constituents were not detected in any of the samples from borings SB-2 through SB-4.
- Chloride and TPH concentrations were also below the Closure Criteria in all locations except for source area boring SB-1:
 - SB-1 (20-21 feet bgs) contained a chloride concentration of 625 milligrams per kilogram (mg/kg). The location was vertically delineated with a sample (77.9 mg/kg) collected from 34-35 feet bgs.
 - SB-1 (34-35 feet bgs) contained a TPH concentration of 1,240 mg/kg. This was the deepest sample obtained from the source area and thus TPH was not vertically delineated.
 - TPH was not detected in any of the samples from SB-2 through SB-4.
 - Chloride was detected in samples from SB-2 through SB-4 collected from intervals deeper than 5 feet bgs, but none of the concentrations exceeded 600 mg/kg.

On November 1, 2018, HEP submitted a *Soil Assessment Report and Supplemental Assessment Work Plan* (SAWP) to the NMOCD, which approved the SAWP on January 17, 2019. GHD obtained monitoring well permits from the New Mexico Office of State Engineer (NMOSE) on March 18, 2019. The scope of work proposed in the SAWP was delayed pending access agreement negotiations with the landowner. The access agreement with L&K Ranch, LLC (landowner) was signed in March 2020, which allowed HEP to proceed with the investigation activities described in this report.

2.2 2020 Activities

In 2020, HEP retained TRC to complete the next phase of investigation activities. A modified scope was proposed to NMOCD as compared to what had been previously proposed in the SAWP. That modified proposed scope was provided to NMOCD by email on April 15, 2020, and in a *Remediation Plan and Status Update* document that was submitted to NMOCD on April 29, 2020. NMOCD reviewed the *Remediation Plan and Status Update* and requested by email on August 26, 2020 that a revised C-141 Form be submitted for the Site. The revised C-141 Form was submitted on September 10, 2020 and was approved by NMOCD on September 23, 2020. The revised C-141 Form and NMOCD's approval email are provided in Appendix A of this report.



NMOCD approved the C-141 Form with the following condition: "The release needs to be horizontally delineated at the surface." Based on this request, HEP installed eight hand auger borings (SB-9 to SB-16) to horizontally delineate the release at the surface. For this assessment the upper 4 feet of soil was considered "surface" in accordance with 19.15.29.13 NMAC.

2.3 Field Observations and Deviation From Previously Reported Conditions

On November 2, 2020, during canvassing prior to performing the site investigation approved by NMOCD, it was discovered that the release point coordinates initially reported was incorrect. The actual release point coordinates, as indicated by an excavated and backfilled area inside a fence, is approximately 80 feet to the east of the initially reported release location. In addition, it appears that GHD misreported the locations of their four borings and of the excavation that occurred on-site. GHD apparently inverted the positions of their borings and the initial 17-foot deep excavation relative to HEP's gathering line.

Based on photographs of the 2018 exploratory excavation and the location of the disturbed area inside the fence, the excavation to 17 feet bgs occurred on the north side of the gathering line, not the south side. In addition, based on the locations of four drums that contain soil cuttings, the borings (SB-1 to SB-4) installed by GHD were located to the northeast, northwest, and south of the release point; not to the north, southeast, and southwest of the release point as previously reported. TRC and HEP have reasonably assumed that the four drums were located adjacent to boring locations SB-1 to SB-4. The originally reported locations of these features, as well as what appears to be the actual locations, are provided on Figure 2. Because the release location and the excavation location relative to the pipeline were revised, the proposed boring locations relative to the actual release point were adjusted as well.

3.0 NMOCD CLOSURE CRITERIA

Rule 19.15.29 NMAC provides cleanup standards for crude oil spills. The cleanup standards (described in the rule as "Closure Criteria") are based primarily on depth to groundwater, but are also based on other criteria. Three different Closure Criteria are provided in the rule. The most stringent apply to sites where groundwater is found within 50 feet of the ground surface or if the release occurred within one of the following areas:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.



- Within 1000 feet of any fresh water well or spring.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

Available information was reviewed to determine the Closure Criteria for the Site. The findings of this evaluation are summarized below.

3.1 Groundwater Evaluation

Based on the findings of our Site investigation, the depth to groundwater at the Site varies from 36 to 38 feet bgs. Based on this information, the Closure Criteria for a Site where groundwater is found within 50 feet of the ground surface are applicable to the Site.

3.2 Surface Features and Other Development

Although the depth to groundwater at the Site has been established, relevant information was also reviewed to determine if any of the other conditions listed above apply to the Site. As part of this process, recent aerial photographs, topographic maps, the NMOSE POD (Point of Discharge) GIS website, and information available from the Lea County, New Mexico Central Appraisal District website were reviewed. As shown on Figure 3, the Site is **not** located:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
 - No watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the aerial photography or on the topographic map (Figure 1).
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
 - The topographic map, aerial photography, and wetland maps (discussed below) each show a stock pond located approximately 920 feet to the north of the Site. However, there is not a lakebed, sinkhole, or playa lake located within 200 feet of the Site.
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.



- The aerial photography and information available from the Lea County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution or church within 300 feet of the Site.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
 - No wells or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed.
- Within 1,000 feet of any fresh water well or spring.
 - No fresh water wells or springs located within 1,000 feet of the Site appear in any of the records reviewed.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
 - Based on the property and other records review, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine.
 - The Site does not overlie a subsurface mine.

3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicates that the Site is not located within 300 feet of a wetland. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within the “low karst potential” area. Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the Site is not located in the 100-year floodplain. Figures 4, 5, and 6 depict the Site and USFWS wetlands, karst potential, and FEMA floodplain information, respectively.

4.0 SITE ASSESSMENT/CHARACTERIZATION RESULTS

19.15.29.11 NMAC requires that a Site Characterization Report have the components described in Sections 4.1 through 4.5 of this document.

4.1 Site Map

As required by 19.15.29.11 NMAC, a scaled diagram showing significant Site infrastructure, sample locations, and known subsurface features such as utilities is provided as Figure 2.



4.2 Depth to Groundwater

As discussed in Section 3.1, the depth to groundwater beneath the Site varies from 36 to 38 feet bgs. According to the Geologic Map of New Mexico, soils immediately beneath the Site are mapped as quaternary-aged Eolian and piedmont deposits ("Qep"), which consist of interlayered eolian sands and piedmont-slope deposits. These eolian deposits appear to be underlain by the southern edge of the Pliocene-aged Ogallala Formation. The Ogallala Formation consists of fine to very-fine sand but also includes minor quantities of clay, silt, coarse sand, and gravel¹. Most of the Ogallala is unconsolidated, although beds of caliche have formed near the top of the formation. The lower third of the Ogallala contains a higher proportion of coarse sediments than the upper two-thirds. Extensive beds of coarse sand and gravel are found in some of the buried stream channels cut into the Mesozoic bedrock underlying the Ogallala. The Ogallala is the principal source of groundwater in Northern Lea County.

4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 6. Based on the available information there are two wells (excluding soil borings and monitoring wells) within one-half mile of the release point. The wells are depicted on Figure 6, and include the following:

NMOSE Well ID	Distance/Direction from Release Point	Well Details
L14648-POD1 through L14648-POD4	Site	These are monitoring wells that were permitted for this investigation.
L10251	675 Feet to the Southwest	Windmill used for domestic uses and livestock watering was formerly located in this approximate location. Was in use prior to 1931. No longer present.
L14799 POD1	0.5 Miles to the Southwest	Fifty (50) foot deep PVC well permitted in December 2019 for livestock watering.
L14816 POD7	0.5 Miles to the West	Environmental soil boring installed and plugged on August 3, 2020 as part of EMSU B #865 delineation by XTO Energy.

Other than the wells listed above, there are no known water sources, including springs, other wells, or other sources of fresh water extraction, within 0.5-mile of the Site.

¹ *Ground-Water Conditions in Northern Lea County, New Mexico, Hydrologic Atlas 62*, by Sidney R. Ash, United States Geological Survey, dated 1963.



4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site (see Figure 3).

4.5 Site Characteristics

4.5.1 Summary of Soil Investigation

During November 2-6, 2020, four 50-foot deep soil borings (SB-05 to SB-08) were installed at the Site using hollow-stem auger (HSA) drilling techniques. The intent of the borings was to either vertically delineate impacts above the water table or, if groundwater was encountered prior to vertical delineation, install monitoring wells to assess groundwater. Photographs taken during the investigation are provided in Appendix B. Based on the results of field screening performed during the assessment (summarized on Boring Logs/Well Construction Diagrams in Appendix C) and the presence of groundwater at an approximate depth of 39 feet bgs, all four borings were converted to monitoring wells (MW-1 to MW-4).

Soil boring SB-05 was installed adjacent to the release point. Prior to installing this boring, "daylighting" was performed at the adjacent gathering line using a hydro-excavator to confirm its location, ensure that the boring was installed adjacent to the repaired portion of the line, and to prevent damage to the gathering line. Per the plan, soil borings SB-06, SB-07, and SB-08 were installed to the north, southwest, and southeast of the release, respectively. However, the locations of these borings were moved from their previously proposed locations to the new locations so that they were positioned around the actual release point (as discussed in Section 2.3).

In addition to the four deeper borings, eight hand auger borings (SB-09 to SB-16) were installed at the Site to laterally delineate soil in the upper 4 feet around the release. These borings were also positioned around the actual release point versus their previously proposed locations.

Soil cores were continuously collected from the HSA borings using a split spoon sampler. Soil was also collected and evaluated from the hand auger bucket in the shallow borings. Lithology and field observations of potential presence of petroleum hydrocarbons, including hydrocarbon odor, staining, photo-ionization detector (PID) readings, and chloride test kit results, were recorded for each boring. The boring locations are depicted on Figure 7. The field observations and PID screening data for the hand auger borings are summarized in Table 1. As mentioned above, field screening data for SB-05 through SB-08 are provided on the boring logs in Appendix B.

Discrete soil samples were collected from the soil cores and hand auger borings. Non-dedicated sampling equipment was decontaminated prior to its initial use and before each sample was collected. Soil samples were collected for laboratory analysis based on field observations of the potential presence of hydrocarbons and PID readings as follows:



- Five soil samples were collected for laboratory analysis from SB-05 (MW-1). These samples were collected from within the upper 4 feet of ground surface, from intervals with elevated PID readings, and from what appeared to be the capillary fringe immediately above the water table.
- Four soil samples and one duplicate were collected for laboratory analysis from SB-06. These samples were collected from within the upper 4 feet of ground surface, from an interval that exhibited an elevated PID reading, from stained soil at what appeared to be the capillary fringe immediately above the water table, and from the bottom of the boring. One duplicate sample (Duplicate-01) was collected from the stained soil at the capillary fringe.
- Four soil samples were collected for laboratory analysis from SB-07 (MW-3). These samples were collected from within the upper 4 feet of ground surface, from intervals with the highest PID readings, from what appeared to be the capillary fringe immediately above the water table, and from the bottom of the boring.
- Three soil samples were collected for laboratory analysis from SB-08 (MW-4). These samples were collected from within the upper 4 feet of ground surface, from the interval with the highest PID reading, and from what appeared to be the capillary fringe immediately above the water table.
- One to two soil samples were collected from each of the hand auger borings.
 - Two samples were collected from SB-09 and SB-11, which were installed adjacent to the gathering line and inside the previously excavated area. From these borings, the uppermost sample was collected from disturbed, previously excavated material, and the deeper sample was collected from undisturbed native material.
 - One sample was collected from SB-10 and SB-12, which were installed adjacent to the gathering line, but outside of the previously excavated area. These samples were collected from undisturbed native material.
 - Two samples were collected from SB-13, SB-14, and SB-15. These borings were installed to the northwest, northeast, and south, respectively, of the release point. One duplicate sample (Duplicate-02) was collected from SB-14. Based on the field screening results from SB-14, boring SB-16 was installed further to the northeast of the release point and two samples were collected. These four borings were completed in undisturbed native material.

Following investigation and soil sampling activities, the HSA borings were converted to monitoring wells and the hand auger borings were backfilled with hydrated bentonite. Photographs of the Site and sampling activities are provided in Appendix B. Boring Logs/Well Construction Diagrams are presented in Appendix C.



4.5.2 Summary of Groundwater Investigation

As previously mentioned, borings SB-05 through SB-08 were converted to monitoring wells MW-1 through MW-4, respectively. Well MW-1 is adjacent to the release point and was installed through the 17-foot deep exploratory excavation that was part of the initial response performed at the Site. Well MW-2 was installed to the north of the release point, well MW-3 was installed to the southwest of the release point, and well MW-4 was installed to the southeast of the release point. All four wells are approximately 50 feet deep, were installed with 20 feet of 2-inch polyvinyl chloride (PVC) 0.010-inch slotted screen and approximately 30 feet of 2-inch PVC riser pipe. Between 23 and 25 feet of filter (sand) pack was installed in the annular space of each well from the bottom to approximately 3 to 5 feet above the top of the screened interval. A minimum 2-foot thick seal of hydrated bentonite was installed above the filter pack. The remaining annular space above the bentonite seal was grouted to the surface with bentonite grout. The wells were finished with flush mount surface completions.

An interface probe was used to check for the presence of Light Non-Aqueous Phase Liquid (LNAPL). LNAPL was not found in the four monitoring wells.

Depth to groundwater was gauged in each well and varied from 36.29 feet below the top of the well casing (btoc) to 37.92 feet btoc. Based on a monitoring well survey, the groundwater elevations vary from a high of 3,525.35 feet above mean sea level (amsl) in well MW-2 to a low of 3,525.20 feet amsl in well MW-4. The potentiometric surface appears to be relatively flat with a groundwater flow direction to the southeast.

A summary of the groundwater elevations is provided in Table 2. A groundwater gradient map is presented as Figure 8. Well construction diagrams are provided in Appendix C, and the well survey performed at the Site is provided in Appendix D.

4.6 Analytical Results

The soil and groundwater samples were submitted to ALS Laboratory in Houston, Texas, for laboratory analysis of BTEX by EPA Method SW8260; TPH by EPA Method 8015M; and chloride by EPA Method 300. Groundwater samples were also analyzed for total dissolved solids (TDS) by EPA Method 2540C.

4.6.1 Soil Sample Analytical Results

Laboratory analytical results for each soil sample were compared to the NMOCD Closure Criteria. As previously discussed, the Closure Criteria that apply to the Site are those where groundwater is found at less than 50 feet bgs. The following summarizes exceedances of the applicable NMOCD Closure Criteria:

- BTEX constituents were not detected in samples from any boring except source area borings SB-1 and SB-05. The Total BTEX concentration in the sample from 34-35 feet bgs



at SB-1 was 0.0208 mg/kg. The Total BTEX concentrations in the samples from SB-05 ranged from non-detect to 0.71 mg/kg. No benzene concentrations were detected. The detected Total BTEX concentrations in samples from SB-1 and SB-05 were below the Closure Criterion of 50 mg/kg for Total BTEX.

- The sum of TPH gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) (i.e., total TPH) was detected above the Closure Criterion of 100 mg/kg in multiple borings.
 - The sample collected from 34-35 feet at SB-1 (GHD's source area boring) contained a TPH concentration of 1,240 mg/kg, which is above the Closure Criterion of 100 mg/kg.
 - All five samples collected from SB-05 (TRC's source area boring) contained TPH concentrations above 100 mg/kg. TPH concentrations in these samples ranged from 410 to 21,400 mg/kg.
 - TPH concentration exceedances were also found in SB-06 at a depth of 39.5-40 feet bgs. This stained soil was found at the capillary fringe and may represent a "smear zone". SB-06 is located north of the release location.
 - TPH exceedances were detected in samples from SB-09, SB-11, SB-13, and SB-14. SB-09 and SB-11 are located along the gathering line in the area that was excavated to 3 feet. SB-13 is located northwest of the release area and SB-14 is located northeast of the release area. TPH impacts are laterally delineated in surface soil in all directions except to the south of boring SB-09, west of boring SB-13 and east of boring SB-14. This is based on samples from SB-10, SB-12, SB-15, and SB-16. TPH impacts are not vertically delineated at these four boring locations.
- Chloride was not detected in any of the 41 soil samples above the Closure Criterion of 600 mg/kg with exception of one sample. The sample from boring SB-1 at 20-21 feet had a chloride concentration of 625 mg/kg, which was slightly above the Closure Criterion. Most of the near surface soils were non-detect for chloride.

The soil sample analytical data and Closure Criteria are presented in Table 3. Soil sample locations and a summary of the results are depicted in Figure 7. The laboratory analytical reports are attached as Appendix E.

4.6.2 Groundwater Sample Analytical Results

Laboratory analytical results for each groundwater sample were compared to several standards. The comparisons were based on the following:

- BTEX results were compared against the Human Health Standards for Groundwater presented in NMAC 20.6.2.3103(A).



- TPH results were not compared against a groundwater action level as NMOCD does not have an action level for TPH.
- Chloride results were compared against the Other Standards for Domestic Water Supply obtained from NMAC 20.6.2.3103(B).

Based on those comparisons, the data indicate that:

- BTEX constituents were not detected in any groundwater samples.
- TPH (specifically detections of GRO and DRO) was detected in the sample obtained from well MW-1, but was not detected in samples from wells MW-2, MW-3, or MW-4.
 - The sample from well MW-1 contained a GRO concentration of 0.098 milligrams per Liter (mg/L) and a DRO concentration of 0.084 mg/L.
- Chloride was detected in all four groundwater samples at concentrations ranging from 736 to 1,260 mg/L. All of the detected concentrations exceed the standard for chloride in a domestic water supply of 250 mg/L. However, based on the either low detections or non-detect chloride concentrations in almost every soil sample collected at the Site (including samples exhibiting some of the highest TPH concentrations indicative of the gathering line release) and 40 of 41 soil samples being below the Closure Criterion, it appears that the chloride concentrations in groundwater may be a natural condition or a regional issue, and thus not related to the release from the WTX to EMSU Battery to Byrd Pump gathering line.
- TDS concentrations in the groundwater samples ranged from 1,970 to 3,020 mg/L.

Data from groundwater samples are summarized in Table 4. Groundwater sample locations and a summary of the results are depicted in Figure 9. The laboratory analytical reports are attached as Appendix E.

4.6.3 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in work orders HS20110371, HS20110458, and HS20110463 generated by ALS Laboratory in Houston, Texas, were reviewed to ensure that reported analytical results meet data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes are defensible and that measurement data reliability is within the expected limits of sampling and analytical error. The analytical results are usable for characterization of affected media at the Site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were reached based on the information obtained during this investigation:



- Soil at the Site is impacted with TPH above the Closure Criterion of 100 mg/kg applicable to the Site.
 - Surface soil has TPH concentrations above the Closure Criterion in the vicinity of the release point (borings SB-5, SB-9, SB-11, SB-13 and SB-14). TPH concentrations in shallow soil above the Closure Criterion are laterally delineated in all directions except to the south of boring SB-09, west of boring SB-13 and east of boring SB-14. TPH impacts are not vertically delineated at these four boring locations.
 - Soil below the surface soil to the water table had TPH concentrations above the Closure Criterion at SB-1, SB-05 and SB-06.
 - TPH concentrations in soil samples from source area borings SB-1 and SB-05 ranged from 410 to 21,400 mg/kg. The TPH concentration in boring SB-05 at the groundwater capillary fringe at a depth of 39 to 40 feet bgs was 4,405.4 mg/kg.
 - The TPH concentration in boring SB-06 (north of the release area) at the groundwater capillary fringe (“smear zone”) at a depth of 39.5 to 40 feet bgs was 860.36 mg/kg.
 - TPH concentrations in deeper soil above the Closure Criterion are delineated in all directions except to the north of SB-06. The presence of TPH at 39 to 40 feet bgs in SB-06 appears to be related to the “smear zone”, in other words, the groundwater capillary fringe based on soil core saturation.
 - TPH concentrations in samples from borings SB-2, SB-3, SB-4, SB-07, SB-08, SB-15 and SB-16 were either non-detect or below the Closure Criterion for the Site.
 - BTEX constituents were not detected in samples from any boring except source area borings SB-1 and SB-05. No benzene concentrations were detected in samples collected from borings SB-1 and SB-05. The Total BTEX concentrations in the samples from SB-01 and SB-05 ranged from non-detect to 0.71 mg/kg. The detected Total BTEX concentrations in samples from borings SB-1 and SB-05 were below the Closure Criterion of 50 mg/kg for Total BTEX.
 - Chloride was not detected in any of the 41 soil samples above the Closure Criterion of 600 mg/kg with exception of the sample from boring SB-1 at 20-21 feet that had a chloride concentration of 625 mg/kg, which was slightly above the Closure Criterion. Most of the near surface soils were non-detect for chloride.
- Groundwater with TPH detections is present at the Site.
 - TPH GRO and DRO concentrations of 0.098 and 0.084 mg/L, respectively, were detected in the groundwater sample collected from well MW-1. BTEX constituents were not detected in well MW-1.
 - Samples from wells MW-2 (where there appears to be TPH in the “smear zone”), MW-3, and MW-4 were each non-detect for BTEX and TPH.



- Chloride was detected in all four groundwater samples at concentrations ranging from 736 to 1,260 mg/L. All of the detected concentrations exceed the standard for chloride in a domestic water supply of 250 mg/L. However, based on the either low detections or non-detect chloride concentrations in almost every soil sample collected at the Site (including in samples exhibiting some of the highest TPH concentrations indicative of the gathering line release) and 40 of 41 soil samples being below the Closure Criterion, it appears that the chloride concentrations in groundwater may be a natural condition or a regional issue, and thus not related to the release from the WTX to EMSU Battery to Byrd Pump gathering line.
- The potentiometric surface is relatively flat with a slight gradient to the southeast.

The following recommendations are made based on these conclusions:

- Lateral delineation of surface soil exceeding the TPH Closure Criterion by installing soil borings at the following locations and analyzing for TPH:
 - To the south of boring SB-09;
 - To the west of boring SB-13; and,
 - To the east of boring SB-14.
- Vertical delineation of soil exceeding the TPH Closure Criterion by installing borings adjacent to borings SB-09, SB-11, SB-13, and SB-14 and analyzing for TPH. The borings will be completed to a depth that indicates no impacts based on field conditions and PID screening.
- Lateral delineation of soil in the “smear zone” exceeding the TPH Closure Criterion at SB-06 by installing a boring to the north-northwest of boring SB-06. Samples from this proposed boring will be analyzed for TPH and chlorides.
- Additional assessment of BTEX in soil is not warranted based on the data collected to date.
- Collection of groundwater samples from MW-1 through MW-4 for analysis of BTEX, TPH, and chloride to obtain temporal data.
- Install a monitoring well (MW-5) at the location of the boring proposed north-northwest of SB-06. Based on the potentiometric surface this proposed well is upgradient of SB-06 and the release point. This monitoring well will be sampled for chlorides to serve as a background point to evaluate the presence of chloride in groundwater upgradient of and otherwise anticipated to be unaffected by the crude oil release. The objective is to determine if chlorides in groundwater are due to a natural condition or a regional issue. The well will also be sampled for BTEX and TPH.

Proposed delineation borings/wells are shown on Figure 10.



After the delineation is complete, a Remediation Plan will be developed for submittal to NMOCD and will include the following:

- A plan to remove surface soil (top 4 feet bgs) with concentrations above the Closure Criteria to the degree feasible around the gathering line and restore surface conditions at the Site in accordance with 19.15.29 NMAC;
- A plan to remove, remediate, mitigate, or control soil with concentrations above the Closure Criteria at depths below 4 feet bgs (if necessary); and,
- A plan to remediate, monitor, mitigate, or control groundwater with concentrations above the Closure Criteria (if necessary).



TABLES

TABLE 1
SUMMARY OF FIELD OBSERVATIONS AND MEASUREMENTS FROM HAND AUGER BORINGS
NOVEMBER 4-7, 2020 FIELD WORK
WTX TO EMSU BATTERY TO BYRD PUMP SEGMENT, LEA COUNTY, NM

Boring Number	Location	Depth (feet bgs)	Depth (inches bgs)	PID Measurement (ppm)	Chloride Test Kit Measurement (ppm)	Sample Submitted to Lab?	Lithology
SB-09	East	1'	8-10"	0	NC		Sand dominant topsoil.
		2'	24-26"	0	<289	Yes	
		4'	46-48"	0	<289	Yes	
SB-10	East	1'	10-12"	0	NC		Sand dominant topsoil.
		2'	22-24"	0	NC		
		3'	36-38"	0	<289	Yes	Refusal on rock at 3.75 feet.
SB-11	West	1'	10-12"	0	NC		Sand dominant topsoil.
		2'	24-26"	0	<289	Yes	
		3.5'	40-43"	0	<289	Yes	
SB-12	West	1'	10-12"	0	NC		Sand dominant topsoil.
		2'	24-26"	0	NC		
		3'	38-40"	0	NC		
		4'	46-48"	0	<289	Yes	
SB-13	Northwest	1.5'	16-18"	1.9	NC		Sand dominant topsoil.
		2.5'	28-30"	1.3	<289	Yes	
		3.5'	38-40"	0.1	<289	Yes	
SB-14	Northeast	1.5'	16-18"	136.3	<289	Yes	Sand dominant topsoil.
		2'	24-26"	129.4	NC		
		3'	36-38"	124.6	NC		
		4'	46-48"	130.1	<289	Yes	
SB-15	South	1.5'	16-18"	0	NC		Sand dominant topsoil.
		2'	24-26"	0	<289	Yes	
		3'	36-38"	0.4	NC		
		4'	46-48"	0.2	<289	Yes	
SB-16	Northeast	1.75'	18-20"	0	<289	Yes	Sand dominant topsoil.
		2'	24-26"	0	NC		
		3'	34-36"	0	NC		
		4'	44-46"	0	<289	Yes	

Notes: bgs = below ground surface.

ppm = parts per million.

' = feet; " = inches

NC = Not Collected

Please refer to boring logs for lithology and field screening results from SB-05 through SB-08.

TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS
WTX TO EMSU BATTERY TO BYRD PUMP SEGMENT, LEA COUNTY, NM

Monitor Well ID	Well Total Depth (ft, btoc)	Ground Surface at Well Elevation (ft, amsl)	Well Top of Casing Elevation (ft, amsl)	Screened Interval (ft, btoc)	Gauging Date	Depth to LNAPL (ft, btoc)	Depth to Water (ft, btoc)	LNAPL Thickness (ft)	Corrected Depth to Water (ft, btoc)	Corrected Groundwater Elevation (ft, amsl)	Well Saturated Thickness (ft)
MW-1	50.0	3,561.71	3,561.53	30.0 - 50.0	11/07/20	NA	36.29	0.00	36.29	3,525.24	13.71
MW-2	50.0	3,563.09	3,562.94	30.0 - 50.0	11/07/20	NA	37.59	0.00	37.59	3,525.35	12.41
MW-3	50.0	3,562.91	3,562.81	30.0 - 50.0	11/07/20	NA	37.58	0.00	37.58	3,525.23	12.42
MW-4	50.0	3,563.26	3,563.12	30.0 - 50.0	11/07/20	NA	37.92	0.00	37.92	3,525.20	12.08

Notes:

ft	feet
amsl	above mean sea level
btoc	below top of casing
LNAPL	Light Non-Aqueous Phase Liquid
DTW	Depth to Water

TABLE 3
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
WTX TO EMSU BATTERY TO BYRD PUMP SEGMENT, LEA COUNTY, NM

Location Details		Boring ID	Depth Interval	Sample Date	Constituent of Concern (COC)									Chloride (mg/kg)
					BTEX (mg/kg)					TPH (mg/kg)				
					Benzene	Ethyl-benzene	Toluene	Total Xylenes	Total BTEX	GRO	DRO	MRO	TPH ³	
NMOCD Closure Criteria ¹					10				50 ²				100 ⁴	600
SOURCE AREA	SB-1 (GHD)	(4-5')	9/28/2018	<0.00210	<0.00210	<0.00210	<0.00210	<0.00210	<15.7	<15.7	<15.7	<15.7	<5.22	
		(20-21')	9/28/2018	<0.00271	<0.00271	<0.00271	<0.00271	<0.00271	<20.4	22.7	<20.4	22.7	625	
		(34-35')	9/28/2018	<0.00242	0.00418	<0.00242	0.0166	0.0208	34.1	1030	178	1240	77.9	
	SB-05 (MW-1)	(2.5-3')	11/3/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.050	120	290	410	5.91	
		(16.5-17')	11/3/2020	<0.0048	0.16	0.0097	0.5	0.6697	200	13000	8200	21400	148	
		(27.5-28')	11/3/2020	<0.0050	0.13	<0.0050	0.18	0.31	170	11000	7300	18470	<4.98	
		(32.5-33')	11/3/2020	<0.0050	0.16	<0.0050	0.55	0.71	110	8000	6100	14210	14.0	
		(39-40')	11/3/2020	<0.0048	0.047	<0.0048	0.042	0.089	5.4	2400	2000	4405.4	60.6	
LATERAL DELINEATION - DRILL RIG	North-west	SB-4 (GHD)	(4-5')	9/28/2018	<0.00219	<0.00219	<0.00219	<0.00219	<0.00219	<16.2	<16.2	<16.2	<16.2	<5.46
			(24-25')	9/28/2018	<0.00226	<0.00226	<0.00226	<0.00226	<0.00226	<16.9	<16.9	<16.9	<16.9	513
			(34-35')	9/28/2018	<0.00236	<0.00236	<0.00236	<0.00236	<0.00236	<17.7	<17.7	<17.7	<17.7	262
	North	SB-06 (MW-2)	(2.5-3')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.050	3.6	6.8	10.4	<4.91
			(14.5-15')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	3.5	5.3	8.8	386
			(39.5-40')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	0.3	400	390	790.3	98.1
			Duplicate-01	11/4/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.36	390	470	860.36	95.5
			(47.5-48')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.048	4.2	5.1	9.3	166
	North-east	SB-3 (GHD)	(4-5')	9/28/2018	<0.00231	<0.00231	<0.00231	<0.00231	<0.00231	<17.4	<17.4	<17.4	<17.4	<5.76
			(24-25')	9/28/2018	<0.00217	<0.00217	<0.00217	<0.00217	<0.00217	<16.4	<16.4	<16.4	<16.4	37.8
	South-east	SB-08 (MW-4)	(2-2.5')	11/5/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<1.7	4.1	4.1	<4.99
			(14.5-15')	11/5/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.054	<1.7	<3.4	<3.4	268
			(39.5-40')	11/5/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.051	<1.7	<3.4	<3.4	73.2
	South	SB-2 (GHD)	(4-5')	9/28/2018	<0.00215	<0.00215	<0.00215	<0.00215	<0.00215	<16.0	<16.0	<16.0	<16.0	<5.34
			(10-11')	9/28/2018	<0.00225	<0.00225	<0.00225	<0.00225	<0.00225	<16.8	<16.8	<16.8	<16.8	381
			(34-35')	9/28/2018	<0.00238	<0.00238	<0.00238	<0.00238	<0.00238	<17.8	<17.8	<17.8	<17.8	84.2
	Southwest	SB-07 (MW-3)	(2-2.5')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	52	25	77	6.57
			(34.5-35')	11/4/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.051	4.1	4.2	8.3	402
			(39.5-40')	11/4/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.054	<1.7	<3.4	<3.4	105
		(49-50')	11/4/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.048	<1.7	<3.4	<3.4	114	
LATERAL DELINEATION - HAND AUGER	East	SB-09	2' (24-26")	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.052	480	1400	1880	<4.96
			4' (46-48")	11/6/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.054	100	700	800	<4.97
		SB-10	3' (36-38")	11/6/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.050	<1.7	<3.4	<3.4	<4.99
	West	SB-11	2' (24-26")	11/6/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.050	5.2	28	33.2	<4.99
			3.5' (40-43")	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.052	44	110	154	<4.97
		SB-12	4' (46-48")	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.048	<1.7	5.3	5.3	<5.00
	North-west	SB-13	1.5' (16-18")	11/6/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	740	2100	2840	<5.00
			3.5' (38-40")	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.054	87	530	617	<4.97
	Northeast	SB-14	1.5' (16-18")	11/6/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	16	9100	8000	17116	<4.99
			4' (46-48")	11/6/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	13	5500	4700	10213	<5.00
			Duplicate-02	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7.4	4700	4300	9007.4	<5.00
		SB-16	1.5' (13-20")	11/6/2020	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.053	2.6	6.2	8.8	<4.98
		4' (44-46")	11/6/2020	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.054	<1.7	5.1	5.1	<4.95	
	South	SB-15	2' (24-26")	11/6/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.054	<1.7	12	12	<5.00
4' (46-48")			11/6/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.050	<1.7	11	11	<4.97	

Notes: NMOCDC Closure Criteria = New Mexico Oil Conservation District Closure Criteria for a Site (varies with depth to groundwater)

¹ = Closure Criteria provided for sites with groundwater at a depth of less than 50' bgs.

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes. TRC samples analyzed by EPA Method 8260; GHD samples analyzed by EPA Method 8021b.

² = This value is compared against the sum of the benzene + toluene + ethylbenzene + total xylenes concentrations.

TPH = Total Petroleum Hydrocarbons by EPA Method 8015.

GRO = Gasoline Range Organics.

DRO = Diesel Range Organics.

MRO = Motor Oil Range Organics.

³ = TPH is the sum of the GRO + DRO + MRO concentrations.

⁴ = This value is compared against the sum of the GRO + DRO + MRO concentrations.

Notes (continued):

Chloride concentrations determined by EPA Method 300.0.

mg/kg = milligrams of COC per kilogram of soil.

' = feet

' bgs = feet below ground surface

GHD = Boring and samples collected by GHD

Detected concentrations reported in bold.

Orange shading represents concentration above NMOCD Closure Criteria for sites with groundwater at depths $\leq 50'$ bgs.

Duplicate sample data provided immediately below paired assessment sample.

TABLE 4
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
WTX TO EMSU BATTERY TO BYRD PUMP SEGMENT, LEA COUNTY, NM

Monitoring Well ID	Sample Date	Constituent of Concern (COC)								
		BTEX (mg/L)				TPH (mg/L)			TDS (mg/L)	Chloride (mg/L)
		Benzene	Ethyl-benzene	Toluene	Total Xylenes	GRO	DRO	MRO		
Groundwater Action Levels		0.005	0.7	1	0.62	None	None	None		250
MW-1	11/7/2020	<0.005	<0.005	<0.010	<0.005	0.098	0.084	<0.10	3000	1260
MW-2	11/7/2020	<0.005	<0.005	<0.010	<0.005	<0.050	<0.050	<0.10	2970	1210
MW-3	11/7/2020	<0.005	<0.005	<0.010	<0.005	<0.050	<0.050	<0.10	1970	736
MW-4	11/7/2020	<0.005	<0.005	<0.010	<0.005	<0.050	<0.050	<0.10	3020	1190

Notes: Groundwater Action Levels = Human health and drinking water standards for groundwater obtained from various sources.

BTEX = Human Health Standards for Groundwater obtained from NMAC 20.6.2.3103 (A).

TPH = NMOCD does not have a groundwater action level for TPH.

Chloride = Other Standards for Domestic Water Supply obtained from NMAC 20.6.2.3103 (B).

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8260.

TPH = Total Petroleum Hydrocarbons by EPA Method 8015.

GRO = Gasoline Range Organics.

DRO = Diesel Range Organics.

MRO = Motor Oil Range Organics.

Chloride concentrations determined by EPA Method 300.0.

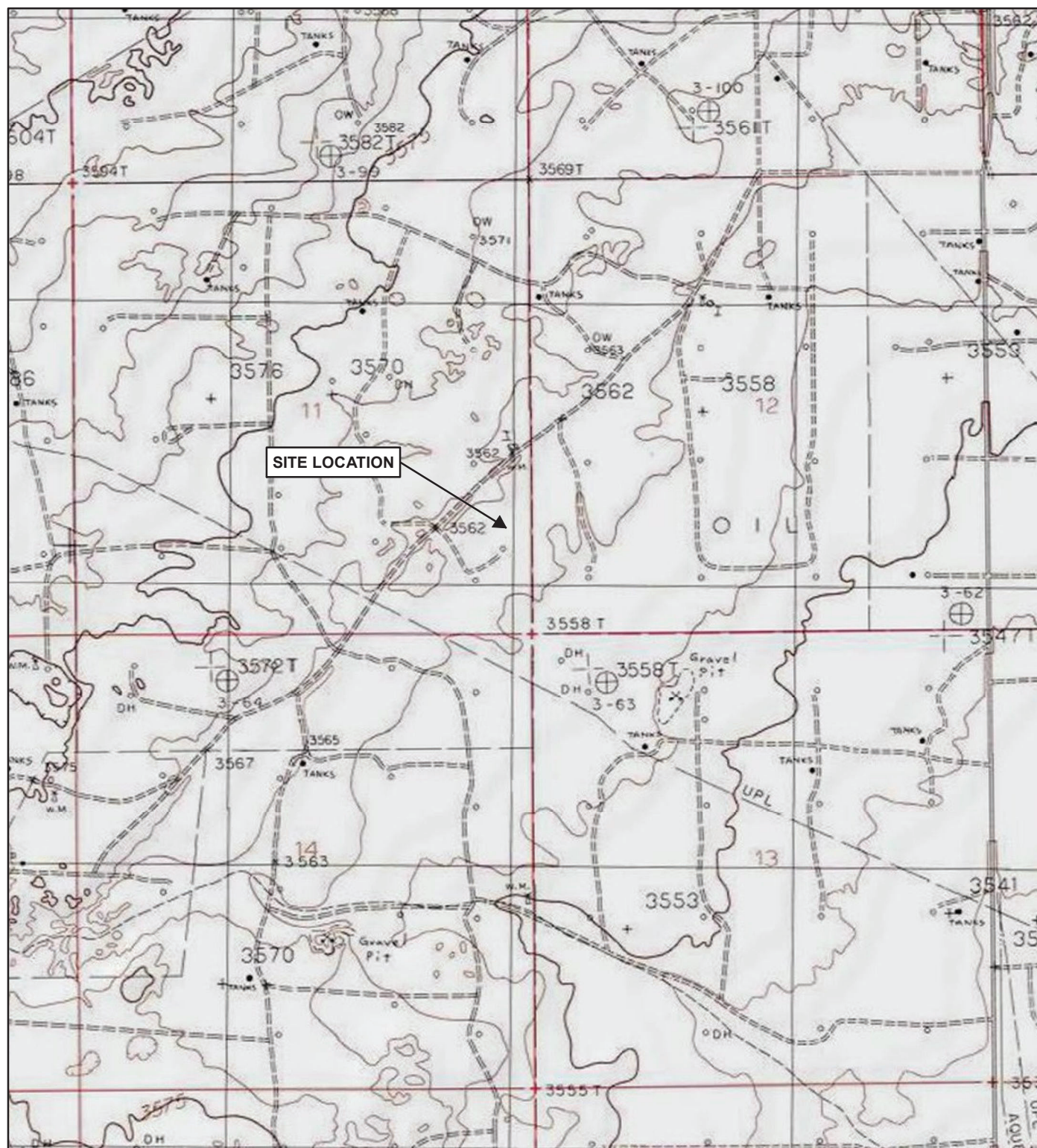
mg/L = milligrams of COC per Liter of groundwater.

Detected concentrations reported in bold.

Yellow shading represents concentration above Other Standards for Domestic Water Supply.



FIGURES



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES - MONUMENT SOUTH, NEW MEXICO (32103-E3)



505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

TRC - GIS

PROJECT:

**HOLLY ENERGY PARTNERS - OPERATING, L.P.
MONUMENT, LEA COUNTY, NEW MEXICO
WTX TO EMSU BATTERY RELEASE SITE**

TITLE:

SITE LOCATION MAP

DRAWN BY: M.JAGOE

CHECKED BY: RDV

APPROVED BY: S. HOOVER

DATE: DECEMBER 2020

PROJ. NO.: 374611

FILE: 374611_1.mxd

FIGURE 1

S:\1-PROJECTS\HOLLY ENERGY PARTNERS\374611\mxd\374611_1.mxd -- Saved By: MJAGOE on 12/8/2020, 14:36:14 PM

TRC - GIS
Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 F U S Foot US
Map Rotation: 0

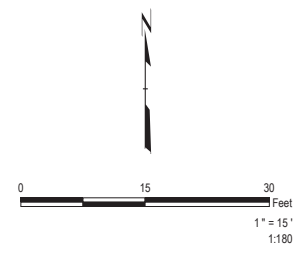
Plot Date: 12/21/2020 16:33:57 PM by MJAQOE -- LAYOUT: ANSI B (11"x17")
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SOURCE: BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (11/2/2017).

LEGEND

- RELEASE LOCATION
- SOIL BORING LOCATION (BASED ON DRUM LOCATIONS)
- 6" GATHERING LINE
- RAMP
- 3 FOOT DEEP EXCAVATION
- 17 FOOT DEEP EXCAVATION
- INITIALLY REPORTED RELEASE POINT
- INITIALLY REPORTED SOIL BORING LOCATION
- INITIALLY REPORTED EXPLORATORY TRENCH LIMITS
- INITIALLY REPORTED EXPLORATORY EXCAVATION LIMITS



PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE: LOCATIONS OF INITIALLY REPOTED AND CORRECT SITE FEATURES	
DRAWN BY: M. JAGOE	PROJ NO.: 374611
CHECKED BY: RDV	
APPROVED BY: S. HOOVER	
DATE: DECEMBER 2020	
FIGURE 2	
505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.: 374611_2	

TRC - GIS
Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 F1 US Foot US
Map Rotation: 0

Plot Date: 12/28/2020 14:45:12 PM by MJAGOE - LAYOUT: ANSI (11x17)
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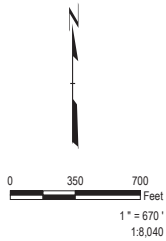
SOURCE: BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (11/2/2017).

CLOSURE CRITERIA MODIFIERS

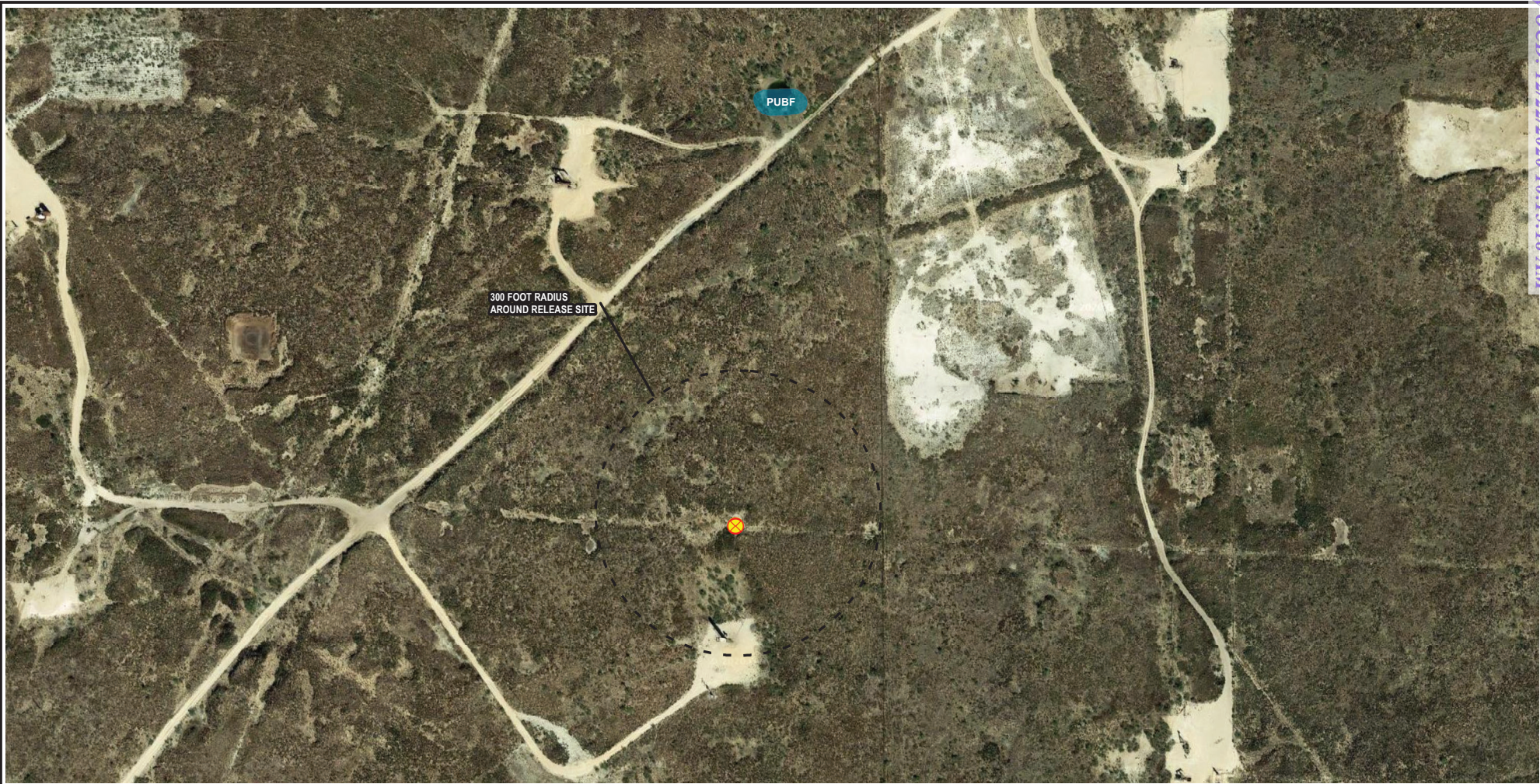
1. WITHIN 200 FEET OF ANY LAKEBED, SINKHOLE, OR PLAYA LAKE (MEASURED FROM THE ORDINARY HIGH-WATER MARK).
2. WITHIN 300 FEET OF ANY CONTINUOUSLY FLOWING WATERCOURSE OR ANY OTHER SIGNIFICANT WATERCOURSE, OR FROM AN OCCUPIED PERMANENT RESIDENCE, SCHOOL, HOSPITAL OR CHURCH.
3. WITHIN 500 FEET OF A SPRING OR A PRIVATE, DOMESTIC FRESH WATER WELL USED BY LESS THAN FIVE HOUSEHOLDS FOR DOMESTIC OR STOCK WATERING PURPOSES.
4. WITHIN 1,000 FEET OF ANY FRESH WATER WELL OR SPRING.

LEGEND

- RELEASE LOCATION
- 200 FOOT RADIUS ((SEE CLOSURE CRITERIA MODIFIER 1)
- 300 FOOT RADIUS (SEE CLOSURE CRITERIA MODIFIER 2)
- 500 FOOT RADIUS (SEE CLOSURE CRITERIA MODIFIER 3)
- 1000 FOOT RADIUS (SEE CLOSURE CRITERIA MODIFIER 4)



PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE: CLOSURE CRITERIA MODIFIERS	
DRAWN BY: M. JAGOE	PROJ NO.: 374611
CHECKED BY: RDV	
APPROVED BY: S. HOOVER	
DATE: DECEMBER 2020	
FIGURE 3	
505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.: 374611_3	

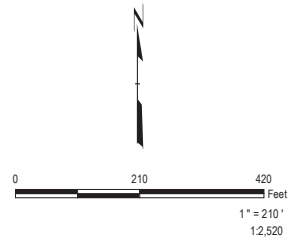


LEGEND

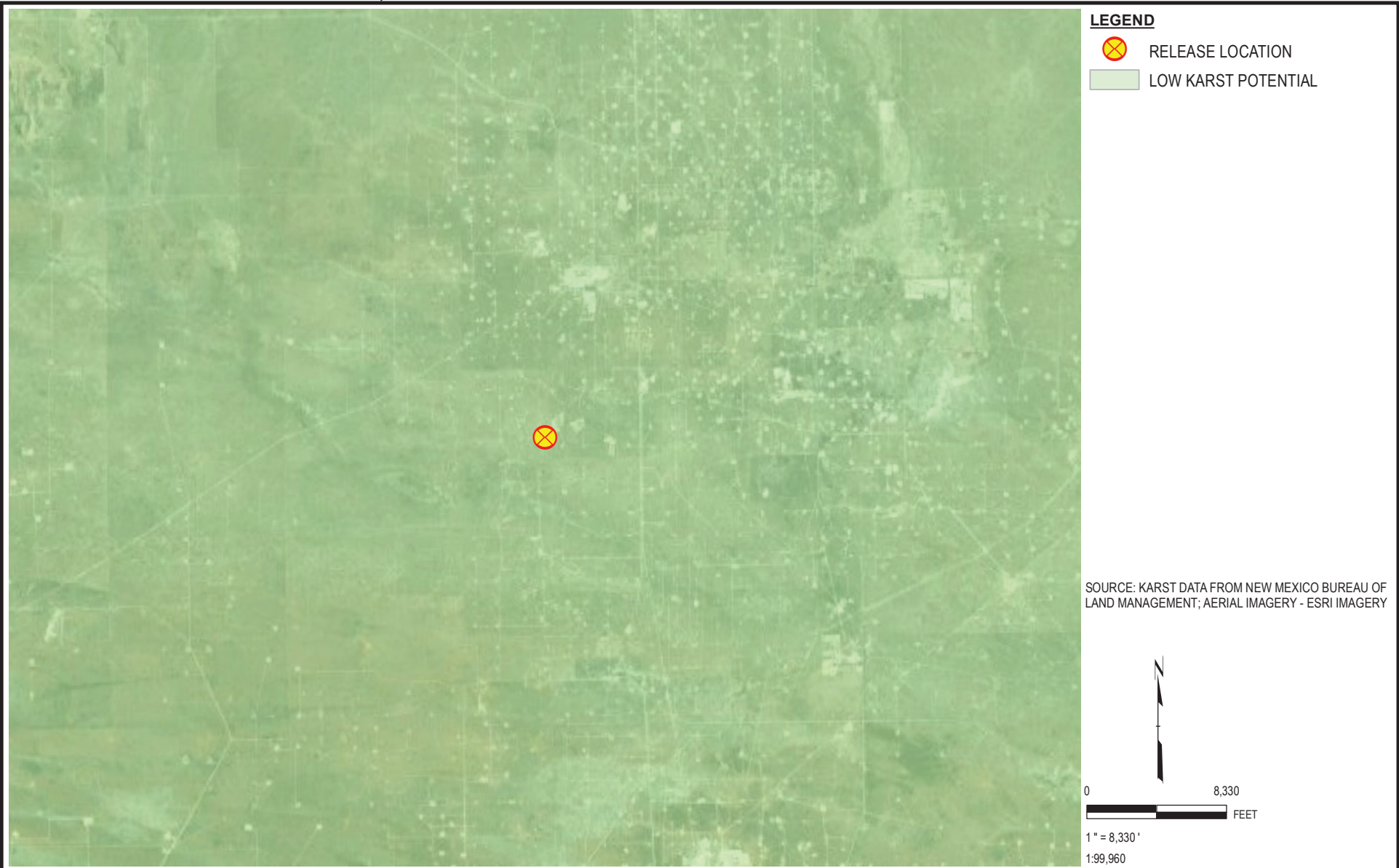
 FRESHWATER POND

SOURCE: WETLANDS - FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY

NOTES:
1. PUBF = PALUSTRINE (P), UNCONSOLIDATED BOTTOM (UB), SEMIPERMANENTLY FLOODED (F)
2. CLOSURE CRITERIA MODIFIER APPLIES IF SITE IS WITHIN 300 FEET OF A WETLAND



PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE:		WETLANDS MAP	
DRAWN BY:	M. JAGOE	PROJ NO.:	374611
CHECKED BY:	RDV		
APPROVED BY:	S. HOOVER		
DATE:	DECEMBER 2020	FIGURE 4	
		505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:	374611_4		



505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

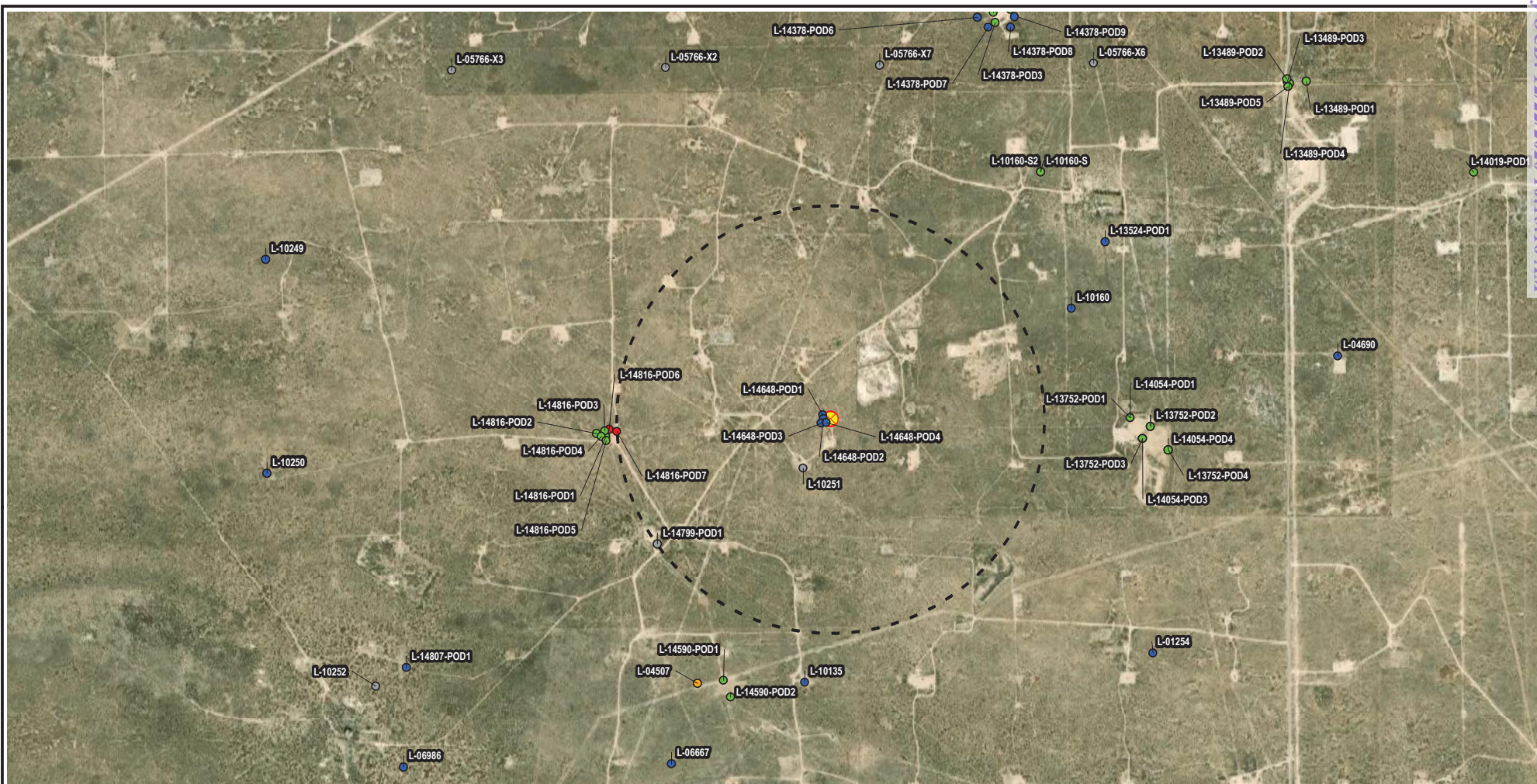
TRC - GIS

PROJECT: **HOLLY ENERGY PARTNERS - OPERATING, L.P.
MONUMENT, LEA COUNTY, NEW MEXICO
WTX TO EMSU BATTERY RELEASE SITE**

TITLE: **KARST POTENTIAL MAP**

DRAWN BY: M. JAGOE
CHECKED BY: RDV
APPROVED BY: S. HOOVER
DATE: DECEMBER 2020
PROJ. NO.: 374611
FILE: 374611_5.mxd

FIGURE 5



SOURCE: FLOODPLAIN - FEMA FLOOD MAP SERVICE CENTER (MSC); AERIAL IMAGERY - ERSI WORLD IMAGERY

LEGEND

NEW MEXICO
OFFICE OF
STATE
ENGINEER
(OSE) POINTS
OF DIVERSION
(PODS)

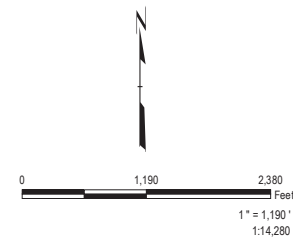
- ACTIVE
- PENDING
- CAPPED
- PLUGGED
- UNKNOWN

300 FOOT RADIUS

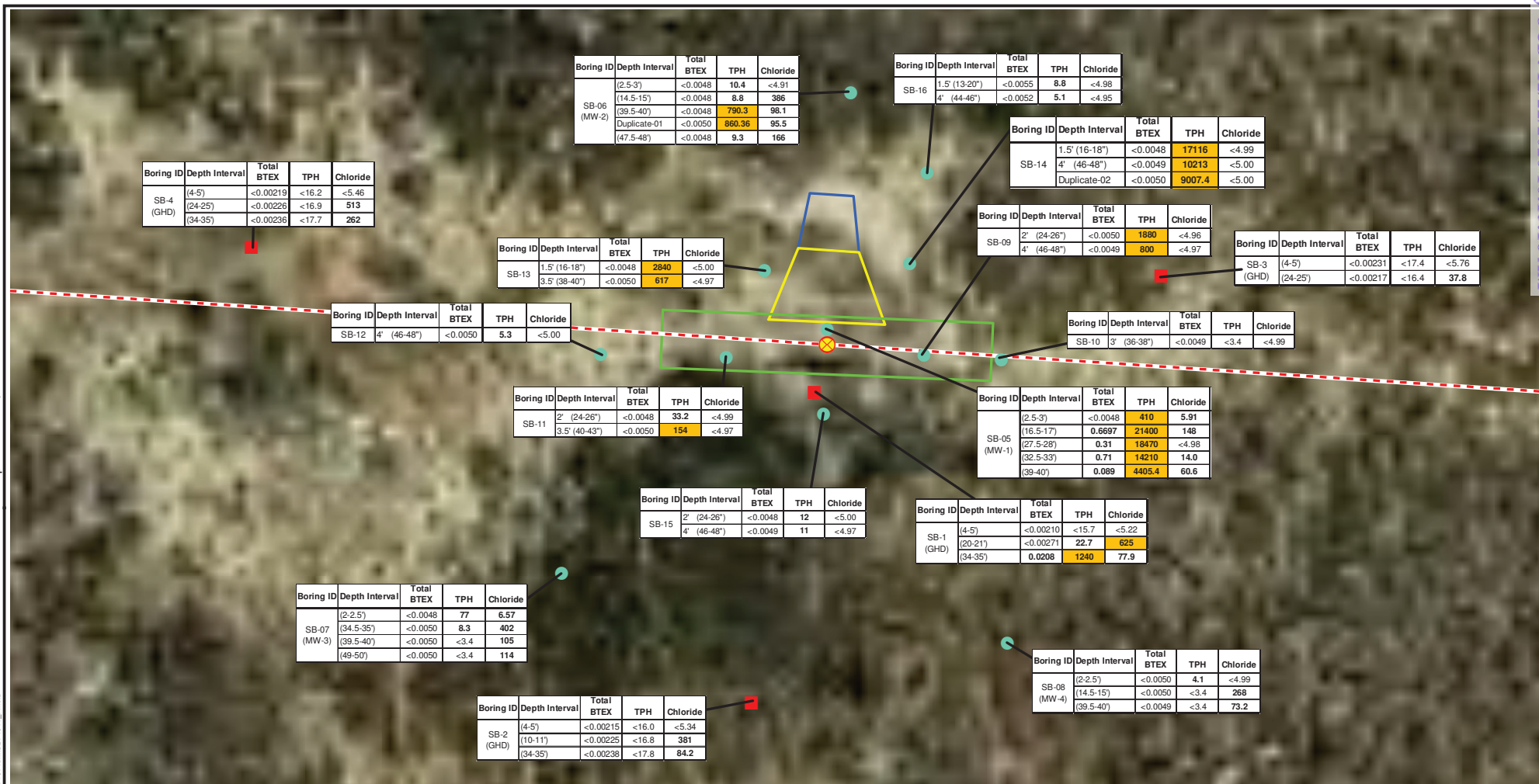
NOTES:

1. NO 100 YEAR FLOOD PLAINS IDENTIFIED WITHIN APPROXIMATELY 310 SQUARE MILES OF SITE LOCATION.

2. OSE PODs REPRESENT WATER WELLS AND GROUNDWATER RIGHTS THAT HAVE BEEN REGISTERED WITH THE OSE.



PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE:		AND WELLHEAD PROTECTION AREA MAP	
DRAWN BY:	M. JAGOE	PROJ NO.:	374611
CHECKED BY:	RDV		
APPROVED BY:	S. HOOVER		
DATE:	DECEMBER 2020		
		FIGURE 6	
		505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:	374611_6		



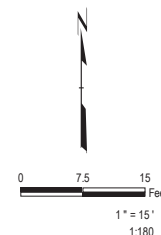
SOURCE: AERIAL IMAGERY - GOOGLE AND THEIR DATA PARTNERS (11/2/2017)

NOTE:

1. ORANGE SHADING REPRESENTS VALUE ABOVE CLOSURE CRITERIA.
2. GHD SOIL SAMPLES (SB-1 THROUGH SB-4) COLLECTED ON 9/28/2018.
3. TRC SOIL SAMPLES (SB-05 THROUGH SB-16) COLLECTED ON 11/3-6/2020.

LEGEND

- RELEASE LOCATION
 GHD SOIL BORING LOCATION
 TRC SOIL BORING LOCATION
 6" GATHERING LINE
 RAMP
 3 FOOT DEEP EXCAVATION
 17 FOOT DEEP EXCAVATION



PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE: SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS	
DRAWN BY: M. JAGOE	PROJ NO: 374611
CHECKED BY: RDV	
APPROVED BY: S. HOOVER	FIGURE 7
DATE: DECEMBER 2020	
505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.329.6930 www.trcsolutions.com	
FILE NO:	374611_7

TRC - GIS
Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 FUS (Foot US)
Map Rotation: 0

Plot Date: 12/21/2020 15:36:19 PM by: MJAGOE -- LAYOUT: ANSI B(11"x17")
Path: S:\PROJECTS\HOLLY ENERGY PARTNERS\374611.mxd\374611_8.mxd



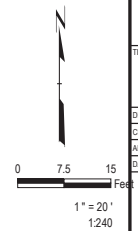
LEGEND

-  RELEASE LOCATION
-  MONITORING WELL
-  POTENTIOMETRIC CONTOUR (DASHED WHERE INFERRED)
- 3525.25 GROUNDWATER ELEVATION

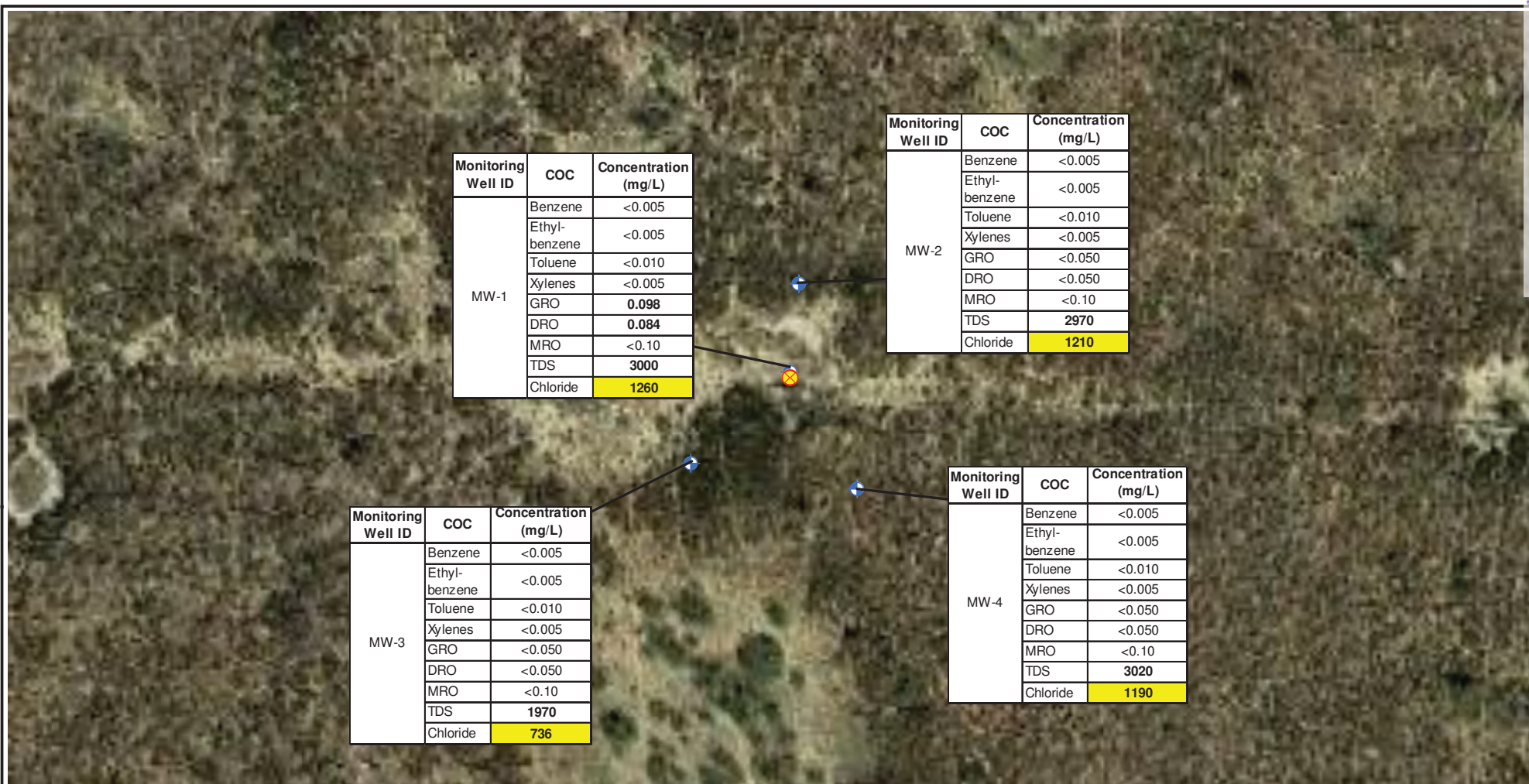
 GROUNDWATER FLOW DIRECTION

NOTE:
1. DEPTH TO WATER MEASUREMENTS COLLECTED ON NOVEMBER 7, 2020

SOURCE: AERIAL IMAGERY - GOOGLE AND THEIR DATA PARTNERS (11/2/2017)



PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE			
TITLE: GROUNDWATER GRADIENT MAP NOVEMBER 7, 2020			
DRAWN BY: M. JAGOE	PROJ NO.: 374611	FIGURE 8	
CHECKED BY: RDV			
APPROVED BY: S. HOOVER			
DATE: DECEMBER 2020			
		505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.329.6080 www.trcsolutions.com	
FILE NO.: 374611_8			

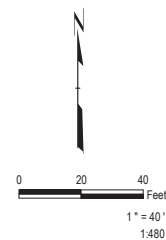


LEGEND

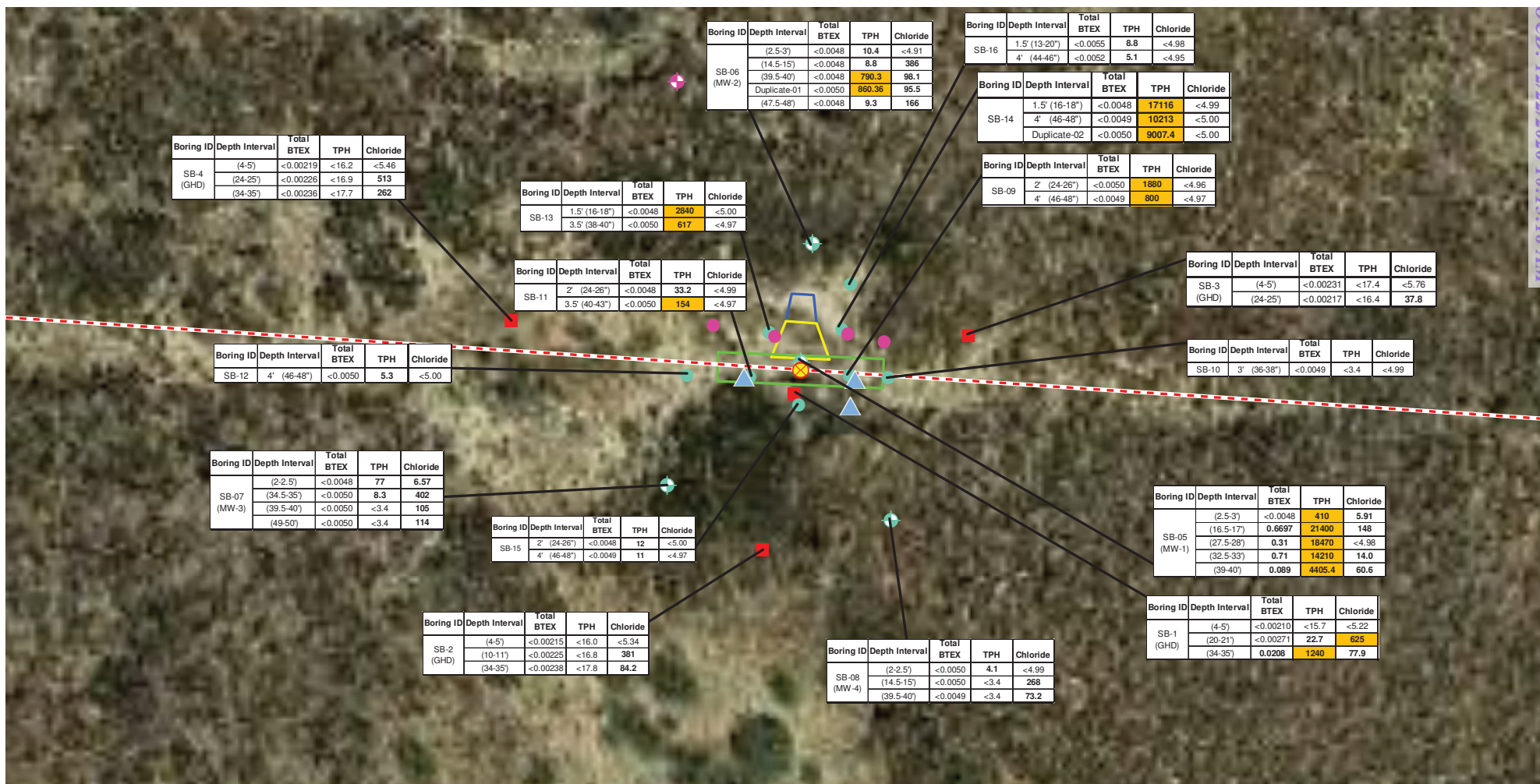
- RELEASE LOCATION
- MONITORING WELL

SOURCE: AERIAL IMAGERY - GOOGLE AND THEIR DATA PARTNERS (11/2/2017)

- NOTES:
- 1. YELLOW SHADING REPRESENTS CONTAMINANT CONCENTRATION ABOVE OTHER STANDARDS FOR DOMESTIC WATER SUPPLY.
 - 2. GROUNDWATER SAMPLES (MW-1 THROUGH MW-4) COLLECTED ON 11/7/2020.



PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE: SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS	
DRAWN BY: M. JAGOE	PROJ. NO.: 374611
CHECKED BY: RDV	
APPROVED BY: S. HOOVER	FIGURE 9
DATE: DECEMBER 2020	
505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.325.6950 www.trcsolutions.com	
FILE NO.: 374611_9	



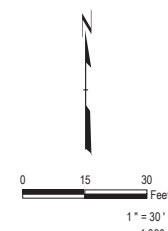
SOURCE: AERIAL IMAGERY - GOOGLE AND THEIR DATA PARTNERS (11/2/2017)

LEGEND

- RELEASE LOCATION
- GHD SOIL BORING LOCATION
- TRC SOIL BORING/MONITORING WELL LOCATION
- TRC SOIL BORING LOCATION
- 6" GATHERING LINE
- RAMP
- 3 FOOT DEEP EXCAVATION
- 17 FOOT DEEP EXCAVATION
- PROPOSED DRILL RIG BORING
- PROPOSED SOIL BORING/MONITORING WELL
- PROPOSED HAND AUGER BORING

NOTE:

1. ORANGE SHADING REPRESENTS VALUE ABOVE CLOSURE CRITERIA.
2. GHD SOIL SAMPLES (SB-1 THROUGH SB-4) COLLECTED ON 9/28/2018.
3. TRC SOIL SAMPLES (SB-05 THROUGH SB-16) COLLECTED ON 11/3-6/2020.



PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE	
TITLE: PROPOSED SAMPLE LOCATIONS	
DRAWN BY: M. JAGOE	PROJ. NO.: 374611
CHECKED BY: RDV	
APPROVED BY: S. HOOVER	
DATE: DECEMBER 2020	FIGURE 10
FILE NO.: 374611_10	505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.325.6930 www.trcsolutions.com



Appendix A: Form C-141 and NMOCD Approval

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Holly Energy Partners (HEP)	OGRID: 282505
Contact Name: Melanie Nolan	Contact Telephone: 214-605-8303
Contact email: Melanie.Nolan@hollyenergy.com	Incident # (assigned by OCD) NOY1822242858
Contact mailing address: 1602 W. Main, Artesia NM 88210	

Location of Release Source

Latitude 32.583989° N

Longitude -103.317743° W

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: WTX to EMSU Battery to Byrd Pump Segment	Site Type: Gathering line
Date Release Discovered: 7/11/18 1310	API# (if applicable)

Unit Letter	Section	Township	Range	County
P	11	20S	36E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: L&K Ranch LLC)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls): Estimated at 5 bbl	Volume Recovered (bbls): 0.5 bbl
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Air patrol flying HEP's West Texas Crude district spotted a leak west of Monument Junction. HEP personnel confirmed leak from a pinhole caused by corrosion discovered in a gathering line and shut down that line segment for immediate repair. At initial encounter the release was determined to be less than 1 barrel of crude. Line repair was completed and the initial excavation of affected soil started. The release was not initially reported due to estimates being under reportable limits. On August 6, 2018, the excavation was halted due to discovery that the initial area affected was larger than previously thought. Based on excavation efforts to date, the release was approximately 5 barrels. The surface owner has been notified of release. Project was delayed due to protracted access agreement negotiation.

Form C-141

State of New Mexico

Page 2

Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? 	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☐ The impacted area has been secured to protect human health and the environment. ☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: The source of the release was stopped and the line was repaired. Approximately 0.5 bbls of free liquids were removed by HEP contractor as part of initial response. Initial observations of affected soil in the top 17 feet of soil (0-17 feet below ground surface [bgs]) were not confirmed through soil sampling as part of initial investigation. Near surface (0-4 feet bgs) soil affected by the release may still be on-site (will confirm with proposed site investigation). The impacted area has not been fenced off but is located inside a fenced ranch. No open excavations remain on-site.	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Melanie Nolan</u>	Title: <u>Environmental Specialist, Holly Energy Partners</u>
Signature: <u>Melanie Nolan</u>	Date: <u>9/10/2020</u>
email: <u>Melanie.Nolan@hollyenergy.com</u>	Telephone: <u>575-748-8972</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Form C-141

State of New Mexico

Page 3

Oil Conservation Division

Incident ID	NOY1822242858
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?

Unknown -
Anticipated to be
between 45-65 ft
bgs (ft bgs)

Did this release impact groundwater or surface water? **NOTE: WILL BE EVALUATED DURING NEXT PHASE OF SITE ASSESSMENT.**

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?

☐ Yes ☒ No

Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?

☐ Yes ☒ No

Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?

☐ Yes ☒ No

Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?

☐ Yes ☒ No

Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a wetland?

☐ Yes ☒ No

Are the lateral extents of the release overlying a subsurface mine?

☐ Yes ☒ No

Are the lateral extents of the release overlying an unstable area such as karst geology?

☐ Yes ☒ No

Are the lateral extents of the release within a 100-year floodplain?

☐ Yes ☒ No

Did the release impact areas **not** on an exploration, development, production, or storage site?

☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination

☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release **NOTE: WILL BE PROVIDED AS PART OF NEXT REPORT SUBMITTED FOR SITE.**

- ☒ Boring or excavation logs
- ☐ Photographs including date and GIS information **NOTE: WILL BE PROVIDED AS PART OF NEXT REPORT SUBMITTED FOR SITE.**

- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

Form C-141

State of New Mexico

Page 4

Oil Conservation Division

Incident ID	NOY1822242858
District RP	
Facility ID	
Application ID	

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Melanie NolanTitle: Environmental Specialist, Holly Energy PartnersSignature: Melanie NolanDate: 9/10/2020email: Melanie.Nolan@hollyenergy.comTelephone: 575-748-8972**OCD Only**Received by: Cristina EadsDate: 12/22/2020

Form C-141

State of New Mexico

Page 5

Oil Conservation Division

Incident ID	NOY1822242858
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- ☐ Detailed description of proposed remediation technique **NOTE: To Be Determined (TBD)**
- ☒ Scaled sitemap with GPS coordinates showing delineation points **Note: Scaled Site Map Previously Provided but GPS Coordinates Not Depicted on Map, Data Table or Boring Logs.**
- ☐ Estimated volume of material to be remediated **NOTE: TBD**
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) **NOTE: TBD**

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Melanie Nolan Title: Environmental Specialist, Holly Energy Partners

Signature: Melanie Nolan Date: 9/10/2020

email: Melanie.Nolan@hollyenergy.com Telephone: 575-748-8972

OCD Only

Received by: Cristina Eads Date: 12/22/2020

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Cristina Eads Date: 12/30/2020

Varnell, Richard

From: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Sent: Wednesday, September 23, 2020 5:33 PM
To: melanie.nolan
Cc: Varnell, Richard; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Venegas, Victoria, EMNRD
Subject: [EXTERNAL] NOY1822242858 HOLLY ENERGY WTX TO EMSU BATTERY TO BYRD PUMP SEGM @ FOY1822242653
Attachments: (C-141 Remediation Plan) NOY1822242858.pdf

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

NOY1822242858 HOLLY ENERGY WTX TO EMSU BATTERY TO BYRD PUMP SEGM @ FOY1822242653

Melanie,

The OCD has approved the Remediation Plan for incident # NOY1822242858 with the following condition:

- The release needs to be horizontally delineated at the surface.

The signed C-141 can be found in the online image data base under the incident #. Please let me know if you have any questions.

Thanks,

Cristina Eads

Environmental Bureau

EMNRD – Oil Conservation Division

5200 Oakland Avenue NE, Suite 100

Albuquerque, New Mexico 87113

505.670-5601

email: Cristina.Eads@state.nm.us



OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Form C-141

State of New Mexico

Oil Conservation Division

Page 5

Incident ID	NOY1822242858
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- ☐ Detailed description of proposed remediation technique **NOTE: To Be Determined (TBD)**
- ☒ Scaled sitemap with GPS coordinates showing delineation points **Note: Scaled Site Map Previously Provided but GPS Coordinates Not Depicted on Map, Data Table or Boring Logs.**
- ☐ Estimated volume of material to be remediated **NOTE: TBD**
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) **NOTE: TBD**

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Melanie Nolan Title: Environmental Specialist, Holly Energy Partners

Signature: Melanie Nolan Date: 9/10/2020

email: Melanie.Nolan@hollyenergy.com Telephone: 575-748-8972

OCD Only

Received by: Cristina Eads Date: 09/10/2020

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Cristina Eads Date: 09/23/2020



Appendix B: Photograph Log

Appendix B Photograph Log



Photo 1: View facing north of fenced former excavation around release point and GHD drums. The drums appear to be associated (from left to right) with SB-2 (left foreground), SB-1 (center background, next to fence), and SB-3 (right background).



Photo 2: View looking east of the GHD drum associated with SB-1 and the fenced former excavation. The flags inside the fenced area mark the location of the WTX to EMSU Battery to Byrd Pump Segment gathering line.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
374611	Mr. Cody Gaston 11/2-5/2020	1 of 3	Holly Energy Partners – Operating, L.P.	WTX to EMSU Battery Gathering Line Crude Oil Release, Lea County, NM	

Appendix B Photograph Log



Photo 3: View facing east of the former excavation at the release point. The excavation was made on the north side of the gathering line (flags marking its location are visible on the right side of the photograph and on the south side of the former excavated area).



Photo 4: View facing northwest of field crew hydro-excavating across marked location of gathering line to confirm its location and depth.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
374611	Mr. Cody Gaston 11/2-5/2020	2 of 3	Holly Energy Partners – Operating, L.P.	WTX to EMSU Battery Gathering Line Crude Oil Release, Lea County, NM	

Appendix B Photograph Log



Photo 5: View of the exposed gathering line.



Photo 6: View facing northeast of the installation of SB-08.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
374611	Mr. Cody Gaston 11/2-5/2020	3 of 3	Holly Energy Partners – Operating, L.P.	WTX to EMSU Battery Gathering Line Crude Oil Release, Lea County, NM	

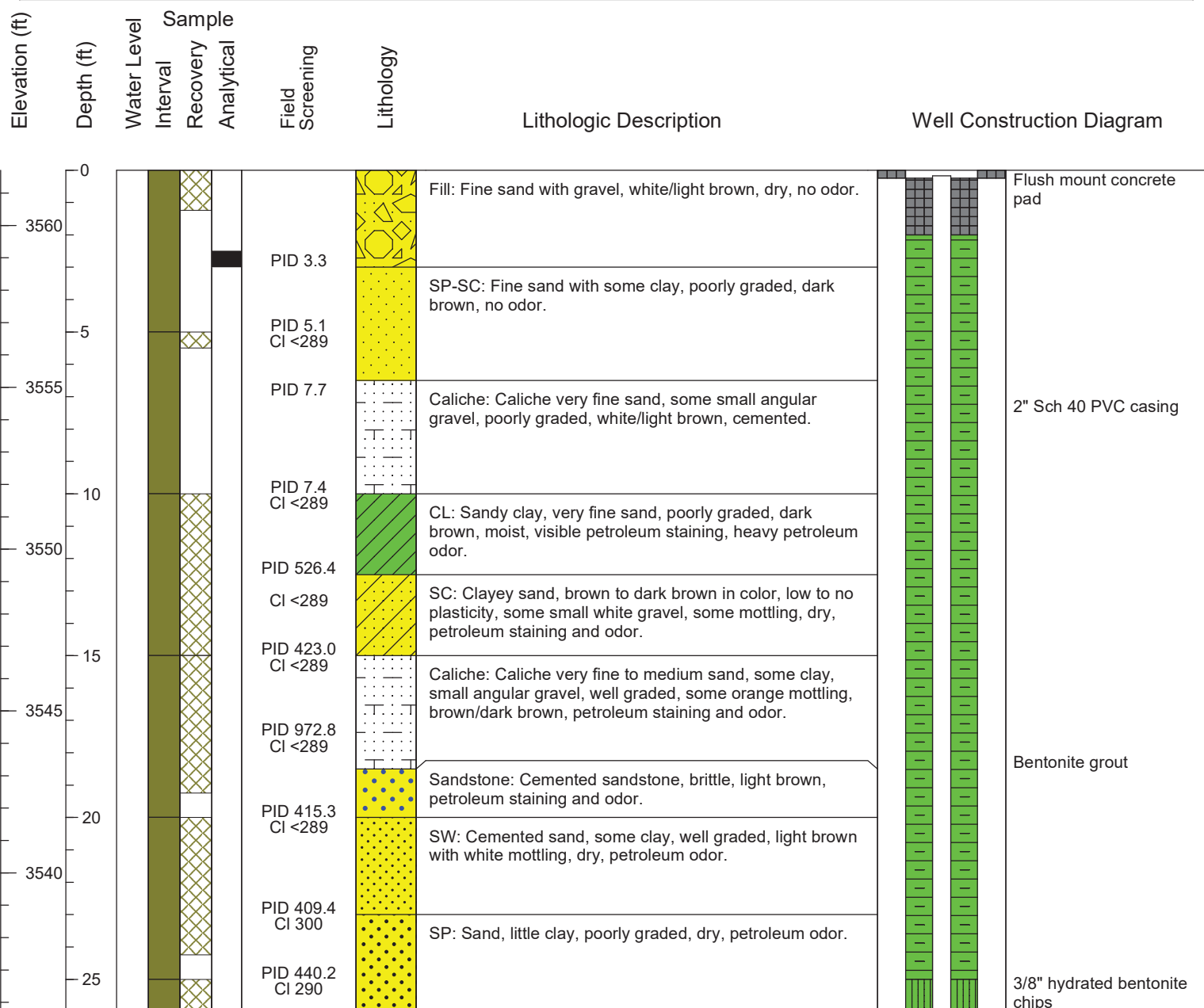


Appendix C: Boring Logs/Well Construction Diagrams



MW-01 (SB-05)

Client: Holly Energy Partners		TRC Project #: 374611	
Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release		Start Date: 11/03/2020	
Address: Klein Ranch, Monument, NM		Finish Date: 11/03/2020	
Project: Monitoring Well Installation		Permit #: NA	
Drilling Company: Talon LPE		Drilling Crew: Ronnie Rodriquez & crew	
Drilling Method: Hollow Stem Auger		TRC Site Rep.: C. Gaston	
Boring Diameter (in): 7.88		TRC Reviewer:R. Varnell	
Boring Depth (ft bgs):50		Coord. System:NAD 83	
Sampling Method: Grab		Latitude: 32.583908	
Blow Count Method: NA		Longitude:-103.317464	
Field Screening Parameter: Volatile organic compounds / Chlorine		Elevation Datum: NAD 88	
Meter: MiniRAE Lite / Chlorine QuanTab Test Strips		Ground Elevation (ft): 3561.71	
Units:ppm / ppm		Well Elevation (ft): 3561.53	
Well Depth (ft bgs): 49.43		Well Measuring Point: Top of casing	
Well Depth (ft toc): 49.25		Depth to Water (ft toc): 36.29	
Casing Length (ft): 29.25		Date/Time: 11/07/2020 16:00	
Screen Length (ft): 20.0			
Surface Completion:Flush mount concrete pad			
Well Development: Purged 55 gallons			





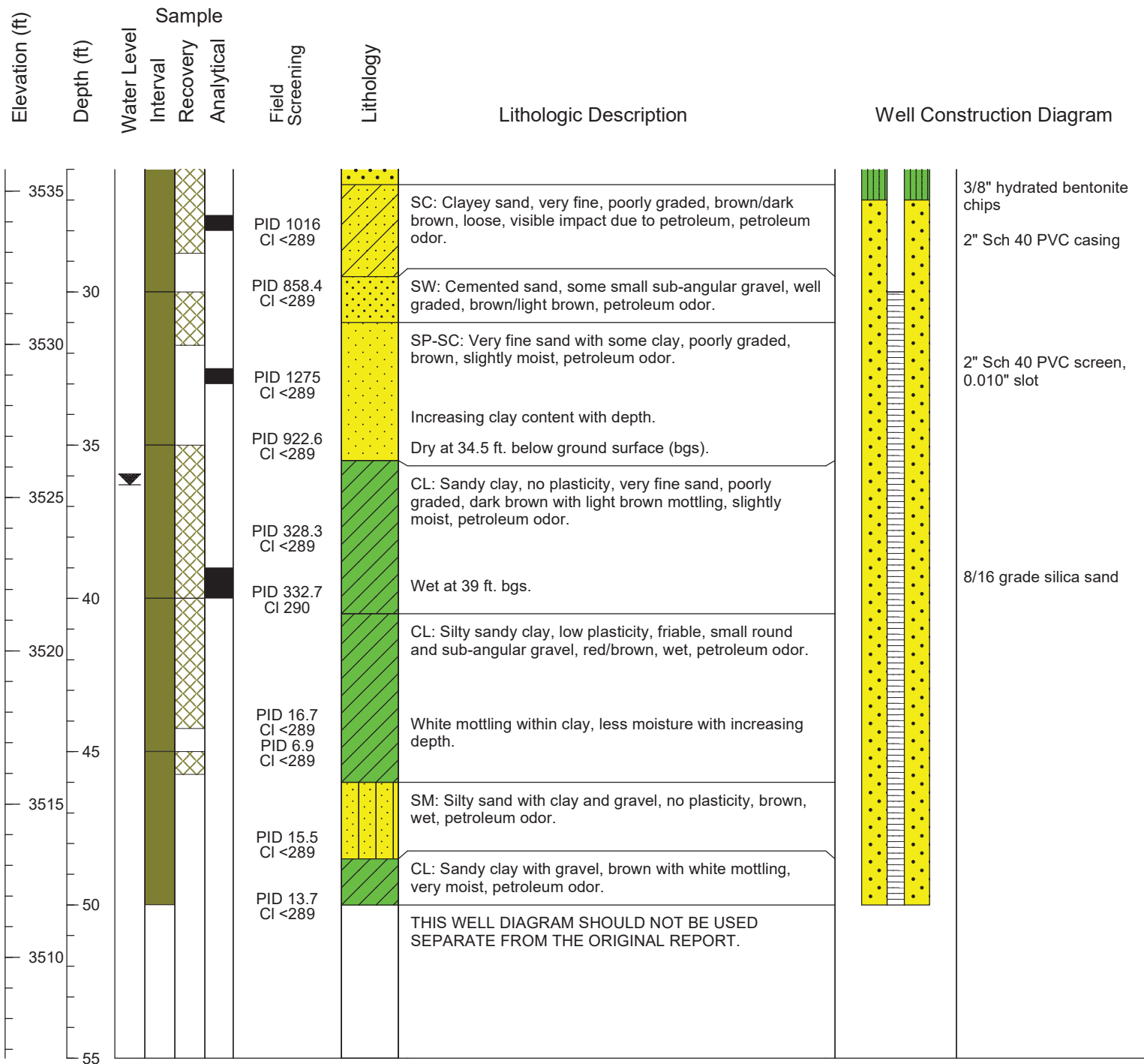
MW-01 (SB-05)

Client: Holly Energy Partners

Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release

Project #: 374611

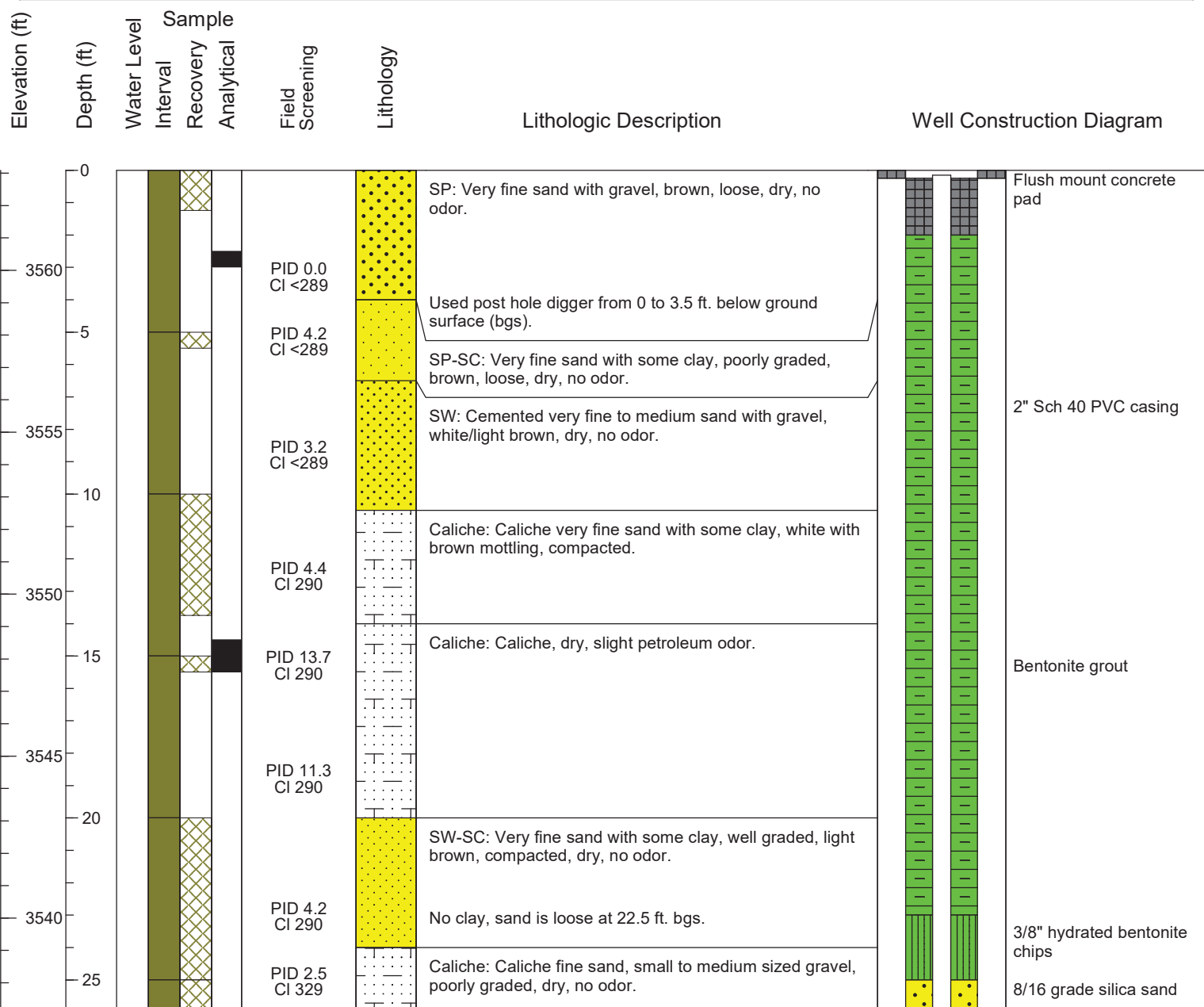
Page 2 of 2





MW-02 (SB-06)

Client: Holly Energy Partners		TRC Project #: 374611
Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release		Start Date: 11/04/2020
Address: Klein Ranch, Monument, NM		Finish Date: 11/04/2020
Project: Monitoring Well Installation		Permit #: NA
Drilling Company: Talon LPE	Drilling Crew: Ronnie Rodriguez & crew	TRC Site Rep.: C. Gaston
Drilling Method: Hollow Stem Auger		TRC Reviewer: R. Varnell
Boring Diameter (in): 7.88	Boring Depth (ft bgs): 50	Coord. System: NAD 83
Sampling Method: Grab		Latitude: 32.584046
Blow Count Method: NA		Longitude: -103.317430
Field Screening Parameter: Volatile organic compounds / Chlorine		Elevation Datum: NAD 88
Meter: MiniRAE Lite / Chlorine QuanTab Test Strips	Units: ppm / ppm	Ground Elevation (ft): 3563.09
Well Depth (ft bgs): 49.64	Well Depth (ft toc): 49.49	Well Elevation (ft): 3562.94
Casing Length (ft): 29.49	Screen Length (ft): 20.0	Well Measuring Point: Top of casing
Surface Completion: Flush mount concrete pad		Depth to Water (ft toc): 37.59
Well Development: Purged 55 gallons		Date/Time: 11/07/2020 13:45





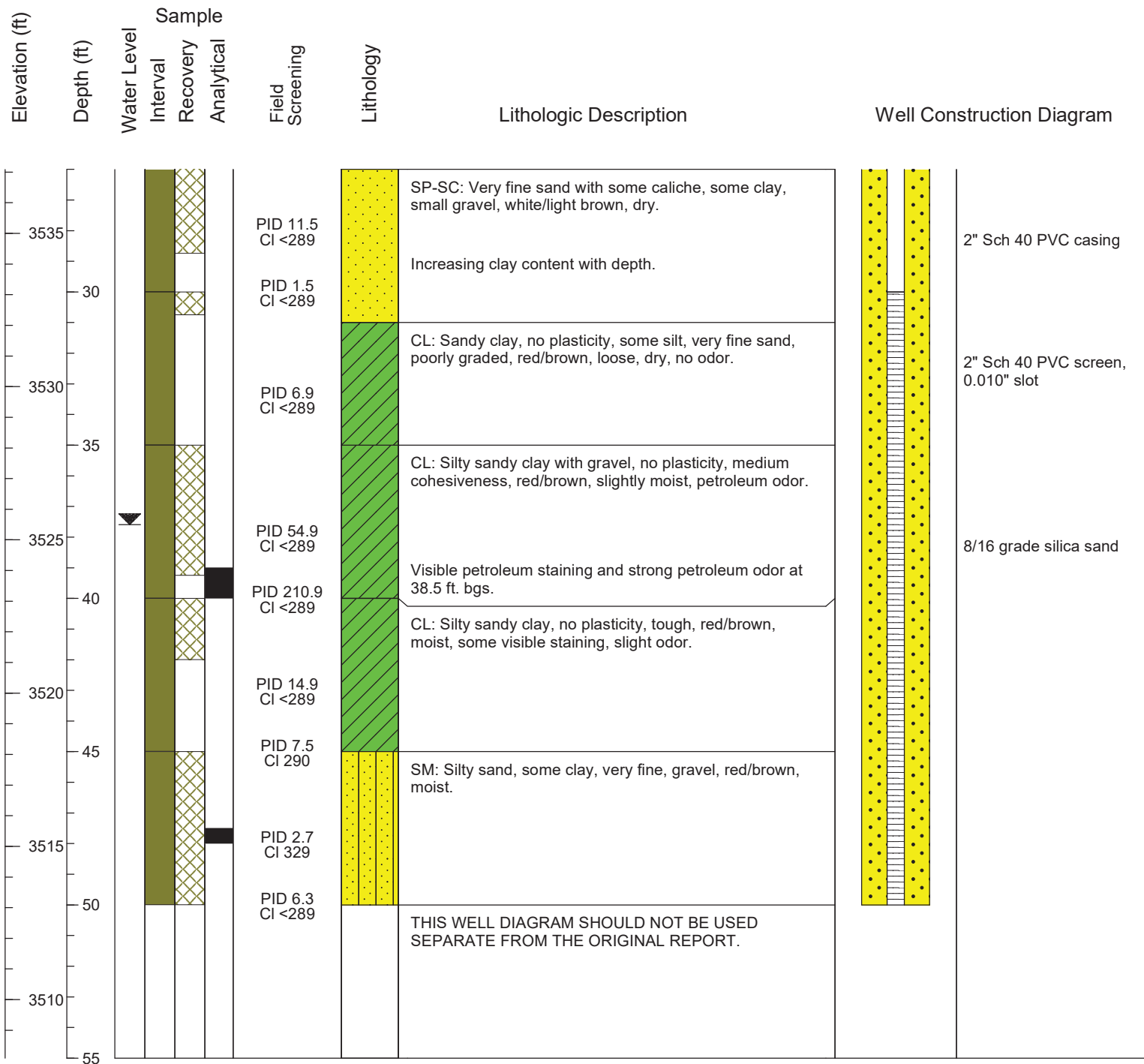
MW-02 (SB-06)

Client: Holly Energy Partners

Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release

Project #: 374611

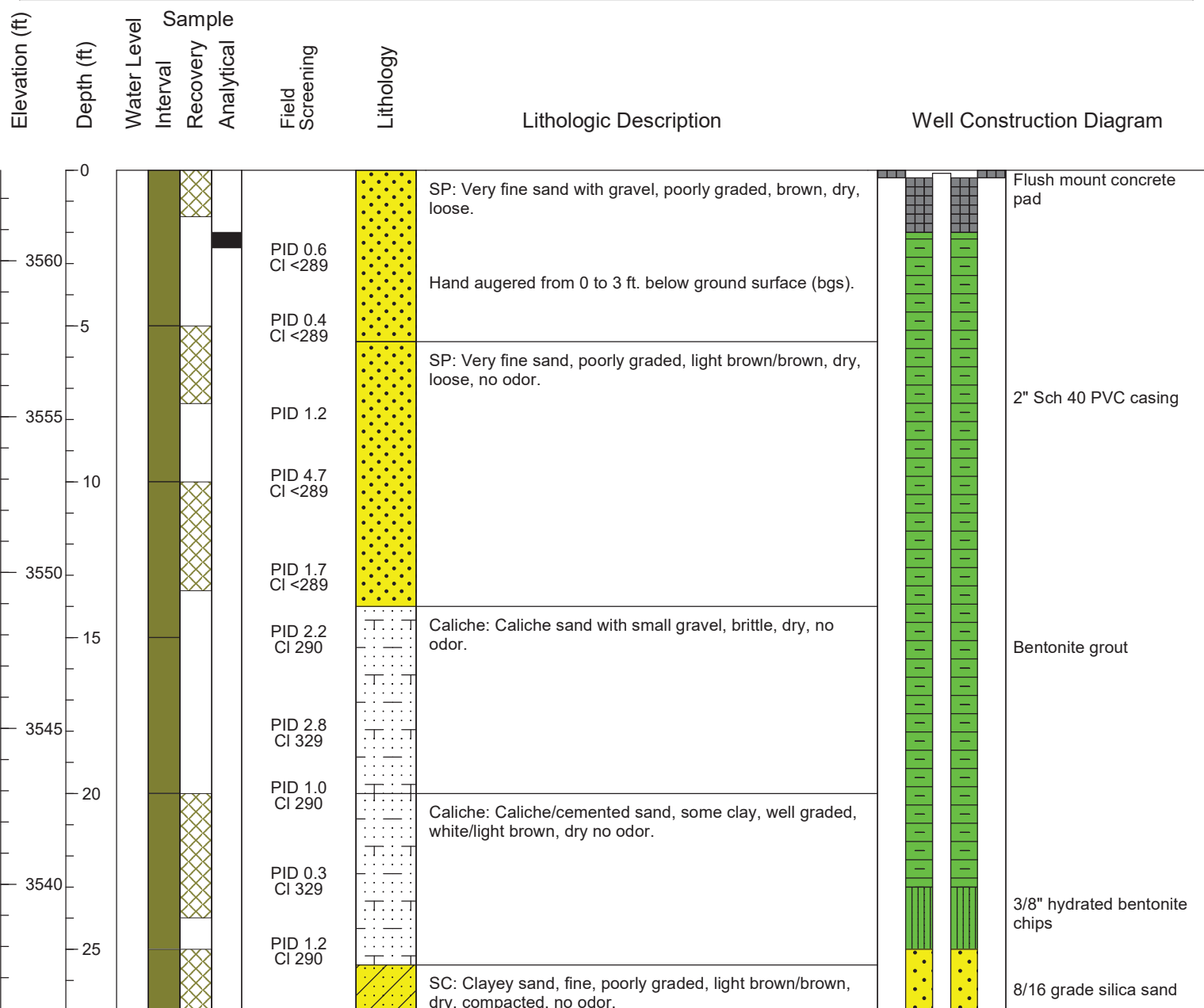
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MW-03 (SB-07)

Client: Holly Energy Partners		TRC Project #: 374611
Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release		Start Date: 11/04/2020
Address: Klein Ranch, Monument, NM		Finish Date: 11/04/2020
Project: Monitoring Well Installation		Permit #: NA
Drilling Company: Talon LPE	Drilling Crew: Ronnie Rodriguez & crew	TRC Site Rep.: C. Gaston
Drilling Method: Hollow Stem Auger		TRC Reviewer: R. Varnell
Boring Diameter (in): 7.88	Boring Depth (ft bgs): 50	Coord. System: NAD 83
Sampling Method: Grab		Latitude: 32.583788
Blow Count Method: NA		Longitude: 103.317594
Field Screening Parameter: Volatile organic compounds / Chlorine		Elevation Datum: NAD 88
Meter: MiniRAE Lite / Chlorine QuanTab Test Strips	Units: ppm / mg/L	Ground Elevation (ft): 3562.91
Well Depth (ft bgs): 50.03	Well Depth (ft toc): 49.93	Well Elevation (ft): 3562.81
Casing Length (ft): 29.93	Screen Length (ft): 20.0	Well Measuring Point: Top of casing
Surface Completion: Flush mount concrete pad		Depth to Water (ft toc): 37.58
Well Development: Purged 30 gallons		Date/Time: 11/07/2020 09:00





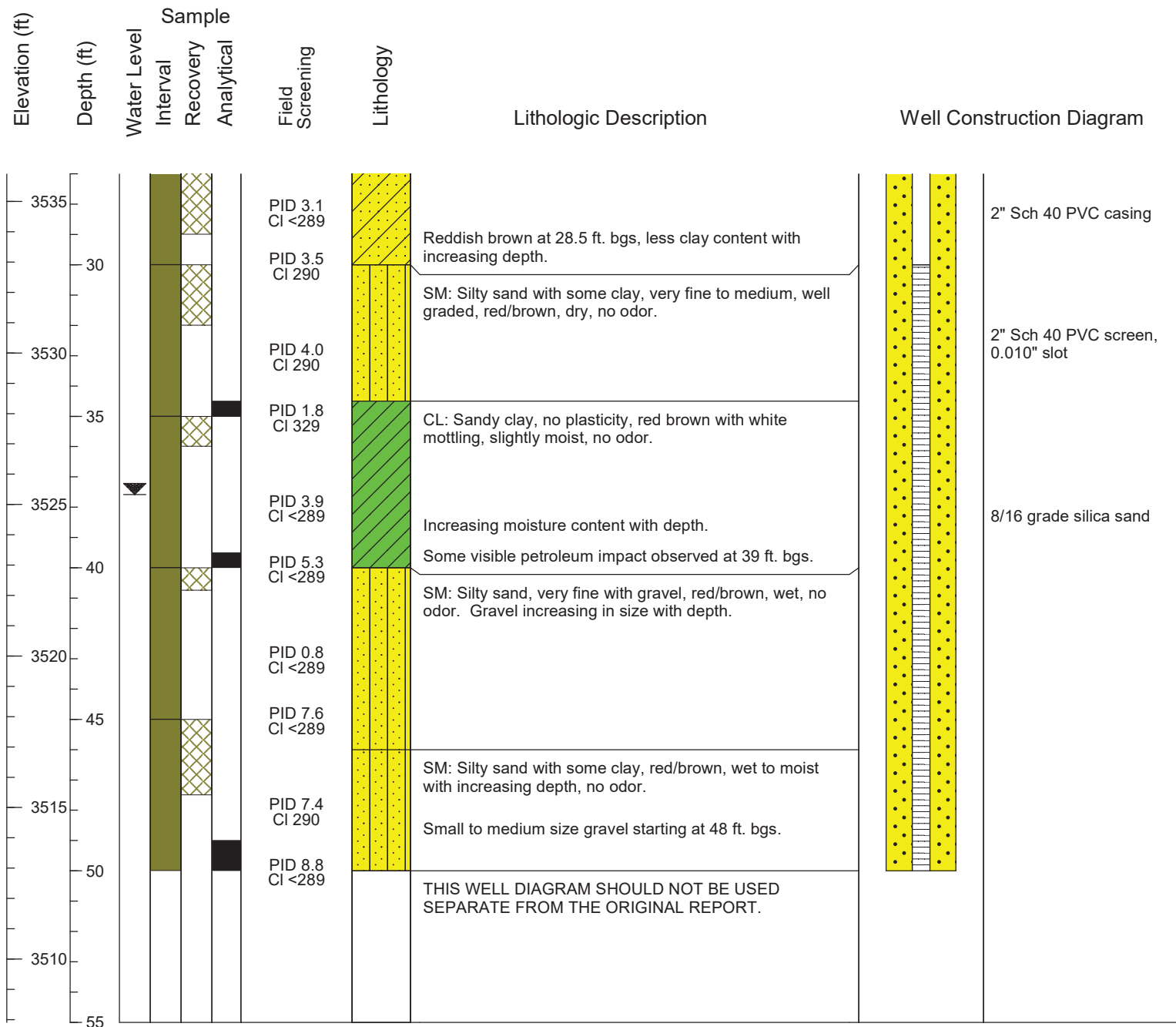
MW-03 (SB-07)

Client: Holly Energy Partners

Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release

Project #: 374611

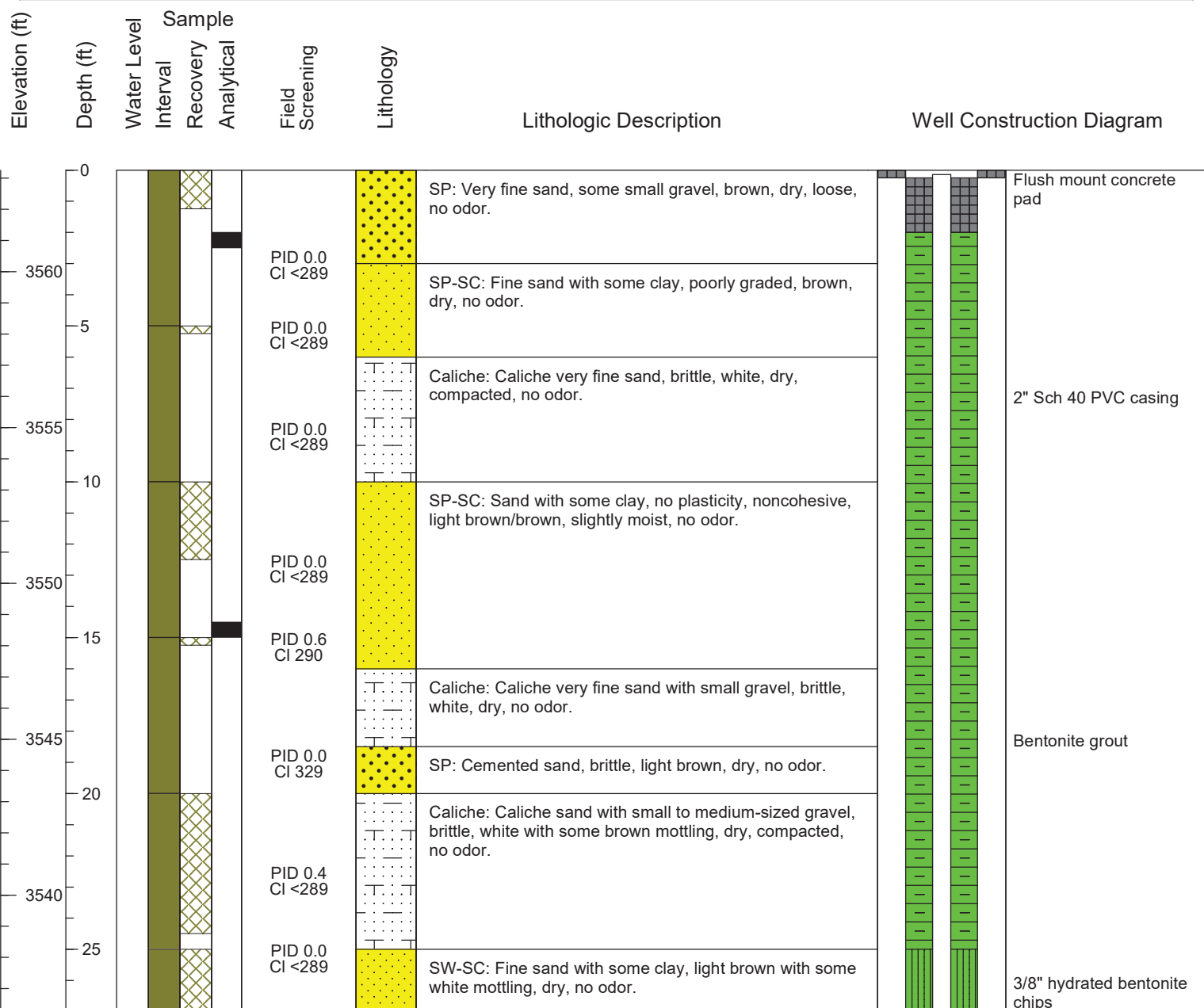
Page 2 of 2





MW-04 (SB-08)

Client: Holly Energy Partners		TRC Project #: 374611	
Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release		Start Date: 11/05/2020	
Address: Klein Ranch, Monument, NM		Finish Date: 11/05/2020	
Project: Monitoring Well Installation		Permit #: NA	
Drilling Company: Talon LPE	Drilling Crew: Ronnie Rodriquez & crew		TRC Site Rep.: C. Gaston
Drilling Method: Hollow Stem Auger		TRC Reviewer:R. Varnell	
Boring Diameter (in): 7.88	Boring Depth (ft bgs):50		Coord. System:NAD 83
Sampling Method: Grab		Latitude: 32.583756	
Blow Count Method: NA		Longitude:-103.317355	
Field Screening Parameter: Volatile organic compounds / Chlorine		Elevation Datum: NAD 88	
Meter: MiniRAE Lite / Chlorine QuanTab Test Strips	Units:ppm / ppm		Ground Elevation (ft): 3563.26
Well Depth (ft bgs): 50.45	Well Depth (ft toc): 50.31		Well Elevation (ft): 3563.12
Casing Length (ft): 30.31	Screen Length (ft): 20.0		Well Measuring Point: Top of casing
Surface Completion:Flush mount concrete pad		Depth to Water (ft toc): 37.92	
Well Development: Purged 100 gallons		Date/Time:11/07/2020 11:45	





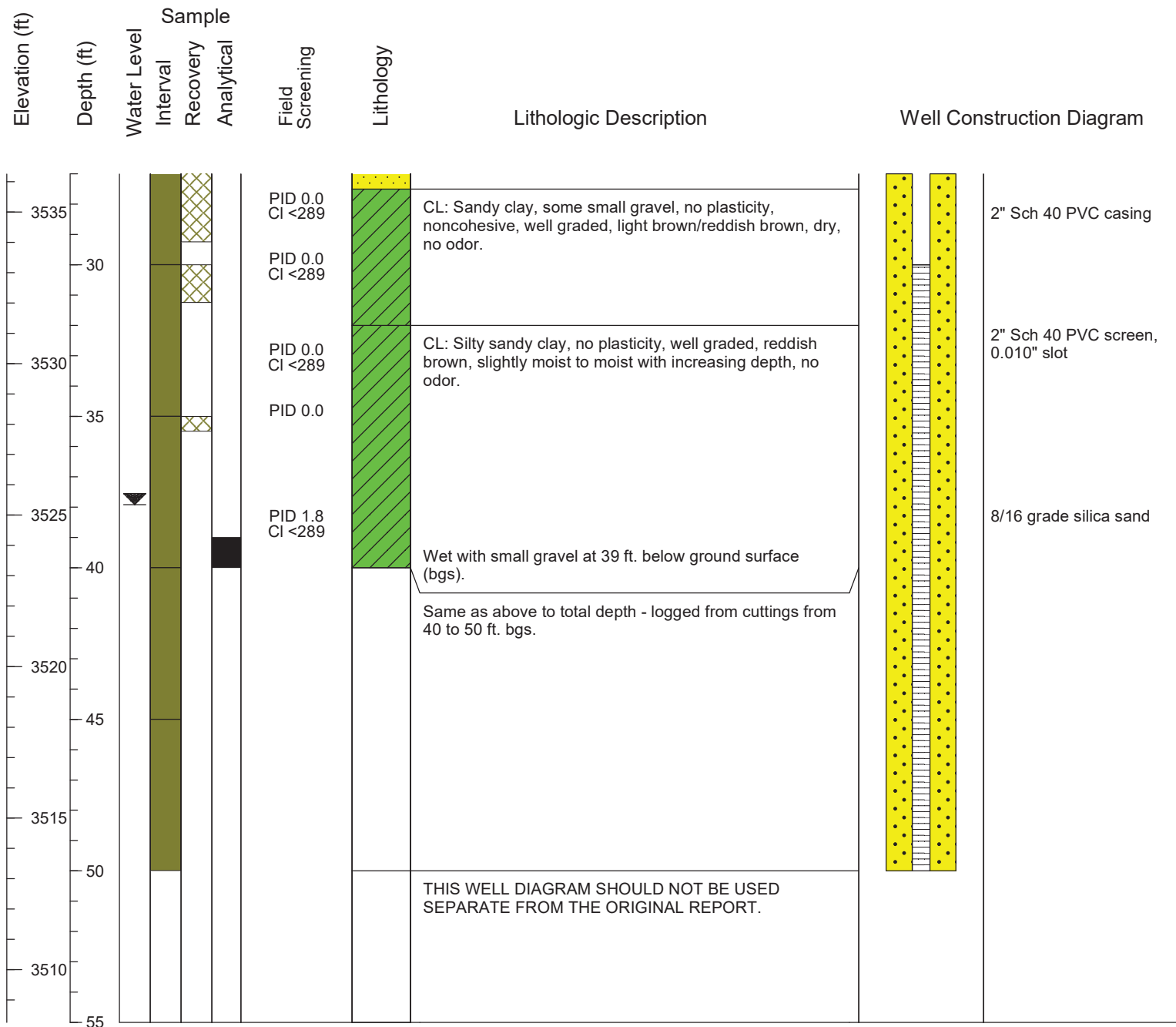
MW-04 (SB-08)

Client: Holly Energy Partners

Site: WTX to EMSU Battery to Byrd Pump Segment Crude Oil Release

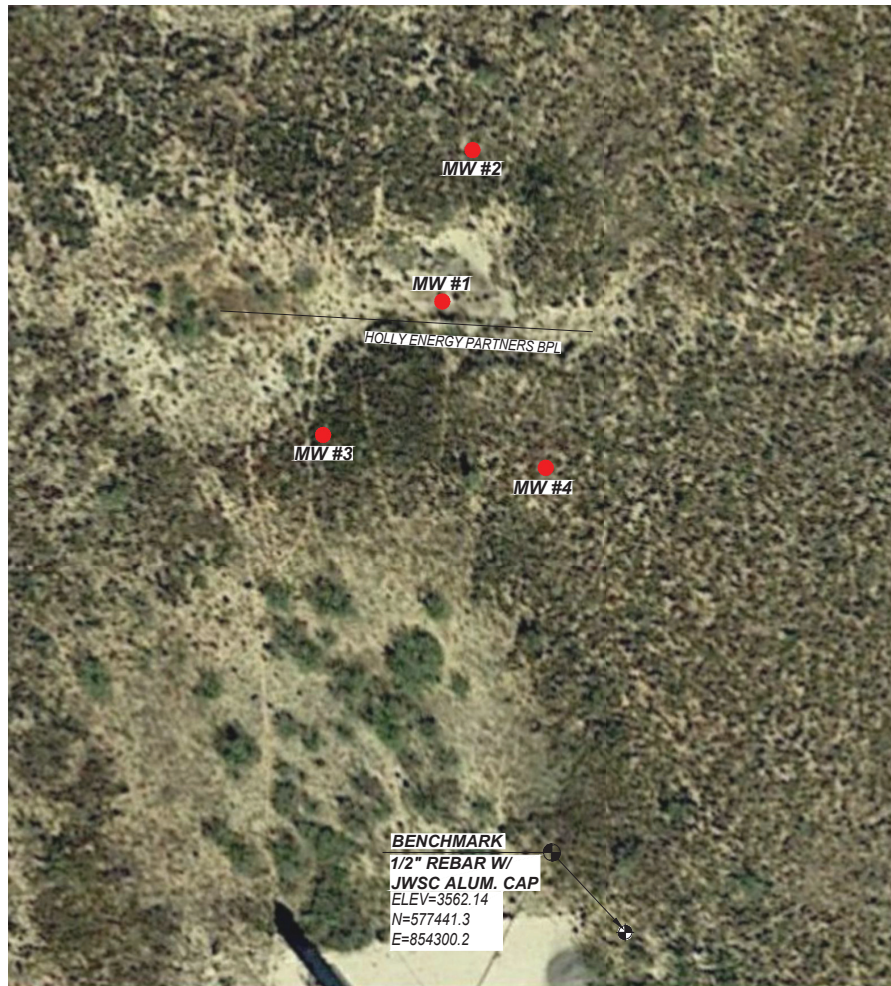
Project #: 374611

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Appendix D: Survey Information



COORDINATE TABLE

COORDINATES VALUES SHOWN ARE RELATIVE TO THE NORTH AMERICAN DATUM 1983, "NEW MEXICO EAST ZONE".
ELEVATIONS ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM 1988

WELL	COORDINATES		ELEVATIONS
MW #1	577650.4 N 854239.6 E	LAT.=32.583908° N LONG.=103.317464° W	NATURAL GROUND - 3561.71' TOP OF CONCRETE - 3561.91' TOP OF 2 1/2" PVC - 3561.53'
MW #2	577700.6 N 854249.6 E	LAT.=32.584046° N LONG.=103.317430° W	NATURAL GROUND - 3563.09' TOP OF CONCRETE - 3563.33' TOP OF 2 1/2" PVC - 3562.94'
MW #3	577606.2 N 854200.1 E	LAT.=32.583788° N LONG.=103.317594° W	NATURAL GROUND - 3562.91' TOP OF CONCRETE - 3563.11' TOP OF 2 1/2" PVC - 3562.81'
MW #4	577595.3 N 854273.9 E	LAT.=32.583756° N LONG.=103.317355° W	NATURAL GROUND - 3563.26' TOP OF CONCRETE - 3563.53' TOP OF 2 1/2" PVC - 3563.12'



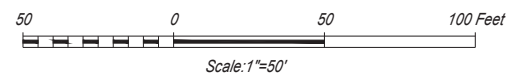
SURVEYOR'S CERTIFICATE:

I, GARY G. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 12641, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Gary G. Eidson
DATE: 11/23/2020

LEGEND:

- - DENOTES NEW MONITOR WELL
- ⊕ - DENOTES BENCHMARK 5/8" STL. ROD W/2" A.C.



TRC

**MONITOR WELL LOCATIONS
IN SECTION 11, TOWNSHIP 20 SOUTH,
RANGE 36 EAST, N.M.P.M.
LEA COUNTY, NEW MEXICO**



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 11/20/2020	CAD Date: 11/23/2020	Drawn By: ACK
W.O. No.: 20110545	Rev:	Rel. W.O.:
		Sheet 1 of 1



Appendix E: Laboratory Analytical Reports

Site Characterization Report
HEP, WTX to EMSU Battery to Byrd Pump Segment Release, Lea County, NM
NMOCD Incident No. NOY1822242858

December 2020
374611



Analytical Data Review Checklist

Site: WTX to EMSU Location: Klein Ranch, Lea County, NM Client Name: HEP-Operating Project #: 374611	Laboratory: ALS Lab Report #: HS20110371	QA Reviewer: R Varnell Date: 11/19/2020
Analytical Method(s): EPA Methods 8015M, 8260, E300, and 3550.	Matrices Sampled: Soil, water (trip blank)	Sample Collection Date(s): 11/3-5/2020
Sampling Objective(s): Delineate impacted media		
Sample IDs: (list IDs or attach COC): Please see attached COC.		

NOTE: Provide comments if any of the shaded boxes are checked.

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
Sample Traceability / Chain of Custody					
1	Were COC forms appropriately completed?	X			
2	Did the laboratory report correct sample IDs?	X			
3	Do the laboratory reported sample collection dates and times agree with the COC forms?	X			
Sample Preservation and Integrity					
4	Did samples arrive at the laboratory appropriately preserved?	X			EnCore sample collection not required.
	Was the cooler temperature between 0-6°C?	X			
	Was acid used for preservation when required (e.g., aqueous VOC and metals samples)?			X	
	Were soil/sediment VOC samples preserved in the field or collected in EnCore® samplers?			X	
5	Were samples received by the laboratory in an acceptable condition (i.e., no breakages, leaks, etc.)?	X			
6	Were any issues noted by the laboratory upon receipt?		X		
7	Were sample preparation and analysis holding time requirements met?	X			
8	<u>AIR ONLY:</u> Were canisters received with an acceptable vacuum? Were the RPDs between the initial and final canister flow controller calibrations <20?			X	
Data Completeness					
9	Are results reported for all analytical methods requested?	X			
10	Are results reported for all samples submitted for analysis?	X			
11	Were the requested analytical methods used?	X			
12	Are results reported for all target analytes, but no additional analytes?	X			
13	Were soil/sediment results reported on a dry weight basis?	X			

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Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
14	If requested, were detected results below the reporting limit (i.e., "J" values) reported?	X			
15	Did we receive the required deliverables (e.g., EDD, Level 4 data, laboratory certification, etc.) in the correct formats?	X			
Sensitivity					
16	Do the reporting limits meet the project specifications (e.g., QAPP or Work Plan)?	X			
17	Were dilutions performed? If so, note sample(s) and parameter(s) affected and the dilution factor(s).	X			Dilutions on multiple samples due to high contaminant concentrations.
18	Did the laboratory provide an adequate explanation as to why dilutions were performed?	X			High Contaminant Concentration.
QC Results					
19	Were any target analytes detected in the method blanks? If yes, list contaminants, concentrations detected and associated samples.		X		
20	Does each analytical or preparation batch have its own method blank?	X			
21	Were any target analytes detected in the field blank(s) (e.g., trip blanks, equipment blanks)? If yes, list contaminants, concentrations detected and associated samples (or attach field blank results).		X		
22	Are there any potential false positive results based on questions 19 and/or 21? If concentrations of contaminants in associated samples are $\leq 10\times$ the blank concentration for common laboratory contaminants and $\leq 5\times$ the blank concentration for other contaminants, sample result is most likely a false positive. ⁽²⁾ Common blank contaminants: methylene chloride, acetone, 2-butanone, phthalates.		X		
23	Are LCS/LCSD recoveries within QC limits ⁽³⁾ ? If no, list analytes affected, the LCS/LCSD recoveries and the affected samples.	X			
24	Does each analytical or preparation batch have its own LCS?	X			
25	Are LCS/LCSD RPDs within QC limits ⁽³⁾ ? If no, list analytes affected, the RPDs and the affected samples.	X			
26	Are MS/MSD recoveries within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the MS/MSD recoveries and the sample that was spiked.		X		MSD for Batch 159530 (HS20110509-05MSD) had a low Percent Recovery for MRO (60.5%). However, MRO recovery in the MS & LCS were within specifications, so no data qualification was necessary.
27	Are MS/MSD RPDs within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required, If no, list analytes affected, the RPDs and the sample that was spiked.	X			



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
28	Are laboratory duplicate RPDs within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was prepared/analyzed in duplicate.	X			
29	Are field duplicate RPDs within QC limits? If no, list analytes affected, the RPDs and the associated samples. NOTE: Typical criteria ⁽⁴⁾ are RPD ≤50 for solid samples and RPD ≤30 for aqueous and air samples when results are >2x the reporting limit; otherwise these criteria are doubled. However, project-specific or regulatory-based criteria may supersede these criteria.	X			
30	<u>ORGANIC ANALYSES ONLY:</u> Are surrogate recoveries within QC limits ⁽³⁾ ? If no, list samples, surrogate recoveries and analytes affected.		X		See lab QC sheet. Surrogate recoveries did not result in need to qualify data.
Laboratory Comments					
31	Did the case narrative describe any analytical anomalies (i.e., problems or unique occurrences)? If yes, list the comments that have potential impact to sample results (or attach case narrative and highlight the comments that have potential impact to sample results).		X		
32	Were any other potential data quality issues identified? If yes, describe issues.		X		
Do the Data Make Sense?					
33	Do any results look questionable? If yes, ASK THE LAB!		X		
34	Has the EDD been compared with the lab report?		X		EDD not used to create data tables.

- (1) Comments generally need to be addressed in the TRC deliverable presenting the laboratory data but this will be dependent on project requirements.
- (2) Check if local or regional criteria for blank assessments are available; these will supersede criteria in this checklist.
- (3) Use QC limits in QAPP, if available. If not, use QC limits provided by laboratory in data package.
- (4) EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Guidance/Procedures, April 22, 2013.

COC = Chain-of-Custody

EDD = Electronic Data Deliverable

LCS/LCSD = Laboratory Control Sample / Laboratory Control Sample Duplicate

MS/MSD = Matrix Spike / Matrix Spike Duplicate

QAPP = Quality Assurance Project Plan

QC = Quality Control

RPD = Relative Percent Difference = $|A-B|/((A+B)/2)$

VOC = Volatile Organic Compounds

NOTE: After data tables are created, check that reporting limits are below the project action levels (e.g., screening criteria, remediation standards, etc.) and compare data with historical results, if applicable.

Additional Comments:

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**SUMMARY OF DATA VALIDATION RPD CALCULATIONS FOR FIELD DUPLICATES
WTX TO EMSU BATTERY TO BYRD PUMP SEGMENT, LEA COUNTY, NM**

Boring ID	Depth Interval	Sample Date	Constituent of Concern (COC)									
			BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)
			Benzene	Ethyl-benzene	Toluene	Total Xylenes	Total BTEX	GRO	DRO	MRO	TPH ³	
SB-06 (MW-2)	Reporting Limit		0.005	0.005	0.005	0.005	0.005	0.048	84	170	NA	4.91
	(39.5-40')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	0.3	400	390	790.3	98.1
	Duplicate-01	11/4/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.36	390	470	860.36	95.5
	RPD		4.08%	4.08%	4.08%	4.08%	4.08%	18.18%	2.53%	18.60%	8.49%	2.69%
SB-14	Reporting Limit		0.005	0.005	0.005	0.005	0.005	0.053	170	340	NA	5.00
	4' (46-48")	11/6/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	13	5500	4700	10213	<5.00
	Duplicate-02	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7.4	4700	4300	9007.4	<5.00
	RPD		2.02%	2.02%	2.02%	2.02%	2.02%	54.90%	15.69%	8.89%	12.55%	0.00%

Detected concentrations reported in bold.

Orange shading represents RPD outside of TRC QC limits.

Duplicate sample data provided immediately below paired assessment sample.



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

November 16, 2020

Richard (RD) Varnell
TRC Corporation
505 East Huntland Drive
Suite 250
Austin, TX 78752

Work Order: **HS20110371**

Laboratory Results for: **AFE Investigation**

Dear Richard (RD) Varnell,

ALS Environmental received 18 sample(s) on Nov 06, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

RJ Modashia
Project Manager

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110371

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20110371-01	SB-05-2.5'-3.0'	Soil		03-Nov-2020 13:20	06-Nov-2020 09:25	☐
HS20110371-02	SB-05-16.5'-17.0'	Soil		03-Nov-2020 13:55	06-Nov-2020 09:25	☐
HS20110371-03	SB-05-27.5'-28.0'	Soil		03-Nov-2020 14:40	06-Nov-2020 09:25	☐
HS20110371-04	SB-05-32.5'-33.0'	Soil		03-Nov-2020 14:55	06-Nov-2020 09:25	☐
HS20110371-05	SB-05-39.0'-40.0'	Soil		03-Nov-2020 15:12	06-Nov-2020 09:25	☐
HS20110371-06	SB-06-14.5'-15.0'	Soil		04-Nov-2020 09:17	06-Nov-2020 09:25	☐
HS20110371-07	SB-06-2.5'-3.0'	Soil		04-Nov-2020 08:45	06-Nov-2020 09:25	☐
HS20110371-08	SB-06-39.5'-40.0'	Soil		04-Nov-2020 11:00	06-Nov-2020 09:25	☐
HS20110371-09	SB-06-47.5'-48.0'	Soil		04-Nov-2020 11:32	06-Nov-2020 09:25	☐
HS20110371-10	Duplicate-01	Soil		03-Nov-2020 00:00	06-Nov-2020 09:25	☐
HS20110371-11	SB-07-2.0'-2.5'	Soil		04-Nov-2020 13:50	06-Nov-2020 09:25	☐
HS20110371-12	SB-07-34.5'-35.0'	Soil		04-Nov-2020 15:10	06-Nov-2020 09:25	☐
HS20110371-13	SB-07-39.5'-40.0'	Soil		04-Nov-2020 15:20	06-Nov-2020 09:25	☐
HS20110371-14	SB-07-49.0'-50.0'	Soil		04-Nov-2020 16:00	06-Nov-2020 09:25	☐
HS20110371-15	TB-11-05-20-1	Water	CG-102720 -50	05-Nov-2020 13:00	06-Nov-2020 09:25	☐
HS20110371-16	SB-08-2.0'-2.5'	Soil		05-Nov-2020 07:56	06-Nov-2020 09:25	☐
HS20110371-17	SB-08-14.5'-15.0'	Soil		05-Nov-2020 08:52	06-Nov-2020 09:25	☐
HS20110371-18	SB-08-39.0'-40.0'	Soil		05-Nov-2020 09:48	06-Nov-2020 09:25	☐

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110371

CASE NARRATIVE

GC Semivolatiles by Method SW8015M**Batch ID: 159385****Sample ID: Duplicate-01 (HS20110371-10)**

- Surrogate recoveries were outside of the control limits due to matrix interference.

Sample ID: SB-05-16.5'-17.0' (HS20110371-02)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-05-27.5'-28.0' (HS20110371-03)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-05-32.5'-33.0' (HS20110371-04)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-05-39.0'-40.0' (HS20110371-05)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-06-39.5'-40.0' (HS20110371-08)

- Surrogate recoveries were outside of the control limits due to matrix interference.

Batch ID: 159530**Sample ID: HS20110509-05MSD**

- MSD is for an unrelated sample

GC Volatiles by Method SW8015**Batch ID: R372241****Sample ID: SB-05-16.5'-17.0' (HS20110371-02)**

- Surrogate recoveries were outside of the control limits due to matrix interference.

Batch ID: R372270

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: R372543,R372559,R372563**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW3550**Batch ID: R372631**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300**Batch ID: 159464**

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110371

CASE NARRATIVE

WetChemistry by Method E300

Batch ID: 159464

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-05-2.5'-3.0'
 Collection Date: 03-Nov-2020 13:20

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 14:30
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 14:30
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 14:30
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 14:30
Surr: 1,2-Dichloroethane-d4	87.7		70-126	%REC	1	13-Nov-2020 14:30
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	13-Nov-2020 14:30
Surr: Dibromofluoromethane	90.4		70-130	%REC	1	13-Nov-2020 14:30
Surr: Toluene-d8	100		70-130	%REC	1	13-Nov-2020 14:30
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.050		0.050	mg/Kg	1	09-Nov-2020 16:01
Surr: 4-Bromofluorobenzene	109		70-123	%REC	1	09-Nov-2020 16:01
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	120		17	mg/Kg	10	11-Nov-2020 02:12
TPH (Motor Oil Range)	290	n	34	mg/Kg	10	11-Nov-2020 02:12
Surr: 2-Fluorobiphenyl	66.7		60-129	%REC	10	11-Nov-2020 02:12
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	5.91		4.93	mg/Kg	1	15-Nov-2020 11:20
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	13.4		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-05-16.5'-17.0'
 Collection Date: 03-Nov-2020 13:55

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	14-Nov-2020 04:50
Ethylbenzene	0.16		0.0048	mg/Kg	1	14-Nov-2020 04:50
Toluene	0.0097		0.0048	mg/Kg	1	14-Nov-2020 04:50
Xylenes, Total	0.050		0.0048	mg/Kg	1	14-Nov-2020 04:50
Surr: 1,2-Dichloroethane-d4	92.7		70-126	%REC	1	14-Nov-2020 04:50
Surr: 4-Bromofluorobenzene	119		70-130	%REC	1	14-Nov-2020 04:50
Surr: Dibromofluoromethane	94.3		70-130	%REC	1	14-Nov-2020 04:50
Surr: Toluene-d8	123		70-130	%REC	1	14-Nov-2020 04:50
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	200		0.24	mg/Kg	1	09-Nov-2020 16:17
Surr: 4-Bromofluorobenzene	144	S	70-123	%REC	1	09-Nov-2020 16:17
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	13,000		1700	mg/Kg	500	10-Nov-2020 06:02
TPH (Motor Oil Range)	8,200	n	3400	mg/Kg	500	10-Nov-2020 06:02
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	500	10-Nov-2020 06:02
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	148		4.91	mg/Kg	1	15-Nov-2020 11:38
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	18.2		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-05-27.5'-28.0'
 Collection Date: 03-Nov-2020 14:40

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	14-Nov-2020 05:14
Ethylbenzene	0.13		0.0050	mg/Kg	1	14-Nov-2020 05:14
Toluene	< 0.0050		0.0050	mg/Kg	1	14-Nov-2020 05:14
Xylenes, Total	0.18		0.0050	mg/Kg	1	14-Nov-2020 05:14
Surr: 1,2-Dichloroethane-d4	92.8		70-126	%REC	1	14-Nov-2020 05:14
Surr: 4-Bromofluorobenzene	109		70-130	%REC	1	14-Nov-2020 05:14
Surr: Dibromofluoromethane	90.9		70-130	%REC	1	14-Nov-2020 05:14
Surr: Toluene-d8	116		70-130	%REC	1	14-Nov-2020 05:14
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	170		0.48	mg/Kg	1	09-Nov-2020 16:33
Surr: 4-Bromofluorobenzene	115		70-123	%REC	1	09-Nov-2020 16:33
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020		Analyst: PVL
TPH (Diesel Range)	11,000		850	mg/Kg	500	10-Nov-2020 06:26
TPH (Motor Oil Range)	7,300	n	1700	mg/Kg	500	10-Nov-2020 06:26
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	500	10-Nov-2020 06:26
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020		Analyst: YP
Chloride	< 4.98		4.98	mg/Kg	1	15-Nov-2020 11:56
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	14.9		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-05-32.5'-33.0'
 Collection Date: 03-Nov-2020 14:55

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	14-Nov-2020 05:38
Ethylbenzene	0.16		0.0050	mg/Kg	1	14-Nov-2020 05:38
Toluene	< 0.0050		0.0050	mg/Kg	1	14-Nov-2020 05:38
Xylenes, Total	0.55		0.0050	mg/Kg	1	14-Nov-2020 05:38
Surr: 1,2-Dichloroethane-d4	90.6		70-126	%REC	1	14-Nov-2020 05:38
Surr: 4-Bromofluorobenzene	107		70-130	%REC	1	14-Nov-2020 05:38
Surr: Dibromofluoromethane	91.9		70-130	%REC	1	14-Nov-2020 05:38
Surr: Toluene-d8	114		70-130	%REC	1	14-Nov-2020 05:38
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	110		0.27	mg/Kg	1	09-Nov-2020 16:50
Surr: 4-Bromofluorobenzene	94.5		70-123	%REC	1	09-Nov-2020 16:50
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020		Analyst: PVL
TPH (Diesel Range)	8,000		340	mg/Kg	200	11-Nov-2020 02:37
TPH (Motor Oil Range)	6,100	n	680	mg/Kg	200	11-Nov-2020 02:37
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	200	11-Nov-2020 02:37
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020		Analyst: YP
Chloride	14.0		4.99	mg/Kg	1	15-Nov-2020 12:14
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	12.5		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-05-39.0'-40.0'
 Collection Date: 03-Nov-2020 15:12

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 14:54
Ethylbenzene	0.047		0.0048	mg/Kg	1	13-Nov-2020 14:54
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 14:54
Xylenes, Total	0.042		0.0048	mg/Kg	1	13-Nov-2020 14:54
Surr: 1,2-Dichloroethane-d4	91.9		70-126	%REC	1	13-Nov-2020 14:54
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	13-Nov-2020 14:54
Surr: Dibromofluoromethane	92.7		70-130	%REC	1	13-Nov-2020 14:54
Surr: Toluene-d8	107		70-130	%REC	1	13-Nov-2020 14:54
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	5.4		0.050	mg/Kg	1	09-Nov-2020 18:00
Surr: 4-Bromofluorobenzene	118		70-123	%REC	1	09-Nov-2020 18:00
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	2,400		170	mg/Kg	100	10-Nov-2020 07:15
TPH (Motor Oil Range)	2,000	n	340	mg/Kg	100	10-Nov-2020 07:15
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	100	10-Nov-2020 07:15
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	60.6		4.93	mg/Kg	1	15-Nov-2020 13:08
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	11.9		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-06-14.5-15.0'
 Collection Date: 04-Nov-2020 09:17

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:18
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:18
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:18
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:18
Surr: 1,2-Dichloroethane-d4	91.9		70-126	%REC	1	13-Nov-2020 15:18
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	13-Nov-2020 15:18
Surr: Dibromofluoromethane	91.3		70-130	%REC	1	13-Nov-2020 15:18
Surr: Toluene-d8	97.3		70-130	%REC	1	13-Nov-2020 15:18
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.052		0.052	mg/Kg	1	09-Nov-2020 18:16
Surr: 4-Bromofluorobenzene	120		70-123	%REC	1	09-Nov-2020 18:16
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	3.5		1.7	mg/Kg	1	10-Nov-2020 07:39
TPH (Motor Oil Range)	5.3	n	3.4	mg/Kg	1	10-Nov-2020 07:39
Surr: 2-Fluorobiphenyl	78.2		60-129	%REC	1	10-Nov-2020 07:39
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	386		4.91	mg/Kg	1	15-Nov-2020 13:26
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	7.85		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-06-2.5'-3.0'
 Collection Date: 04-Nov-2020 08:45

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:42
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:42
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:42
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 15:42
Surr: 1,2-Dichloroethane-d4	92.5		70-126	%REC	1	13-Nov-2020 15:42
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	13-Nov-2020 15:42
Surr: Dibromofluoromethane	91.9		70-130	%REC	1	13-Nov-2020 15:42
Surr: Toluene-d8	99.5		70-130	%REC	1	13-Nov-2020 15:42
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.050		0.050	mg/Kg	1	09-Nov-2020 18:33
Surr: 4-Bromofluorobenzene	118		70-123	%REC	1	09-Nov-2020 18:33
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	3.6		1.7	mg/Kg	1	10-Nov-2020 08:03
TPH (Motor Oil Range)	6.8	n	3.4	mg/Kg	1	10-Nov-2020 08:03
Surr: 2-Fluorobiphenyl	61.1		60-129	%REC	1	10-Nov-2020 08:03
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	< 4.91		4.91	mg/Kg	1	15-Nov-2020 14:20
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	1.38		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-06-39.5'-40.0'
 Collection Date: 04-Nov-2020 11:00

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:06
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:06
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:06
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:06
Surr: 1,2-Dichloroethane-d4	89.8		70-126	%REC	1	13-Nov-2020 16:06
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	13-Nov-2020 16:06
Surr: Dibromofluoromethane	91.3		70-130	%REC	1	13-Nov-2020 16:06
Surr: Toluene-d8	99.5		70-130	%REC	1	13-Nov-2020 16:06
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	0.30		0.050	mg/Kg	1	09-Nov-2020 18:49
Surr: 4-Bromofluorobenzene	111		70-123	%REC	1	09-Nov-2020 18:49
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	400		17	mg/Kg	10	10-Nov-2020 08:28
TPH (Motor Oil Range)	390	n	34	mg/Kg	10	10-Nov-2020 08:28
Surr: 2-Fluorobiphenyl	201	S	60-129	%REC	10	10-Nov-2020 08:28
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	98.1		5.00	mg/Kg	1	15-Nov-2020 14:38
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	8.38		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-06-47.5'-48.0'
 Collection Date: 04-Nov-2020 11:32

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-09
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:30
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:30
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:30
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 16:30
Surr: 1,2-Dichloroethane-d4	85.7		70-126	%REC	1	13-Nov-2020 16:30
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	13-Nov-2020 16:30
Surr: Dibromofluoromethane	89.3		70-130	%REC	1	13-Nov-2020 16:30
Surr: Toluene-d8	99.7		70-130	%REC	1	13-Nov-2020 16:30
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.048		0.048	mg/Kg	1	09-Nov-2020 19:05
Surr: 4-Bromofluorobenzene	116		70-123	%REC	1	09-Nov-2020 19:05
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	4.2		1.7	mg/Kg	1	10-Nov-2020 08:52
TPH (Motor Oil Range)	5.1	n	3.4	mg/Kg	1	10-Nov-2020 08:52
Surr: 2-Fluorobiphenyl	77.0		60-129	%REC	1	10-Nov-2020 08:52
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	166		4.96	mg/Kg	1	15-Nov-2020 14:56
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	16.1		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: Duplicate-01
 Collection Date: 03-Nov-2020 00:00

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-10
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 16:54
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 16:54
Toluene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 16:54
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 16:54
Surr: 1,2-Dichloroethane-d4	90.1		70-126	%REC	1	13-Nov-2020 16:54
Surr: 4-Bromofluorobenzene	98.9		70-130	%REC	1	13-Nov-2020 16:54
Surr: Dibromofluoromethane	92.3		70-130	%REC	1	13-Nov-2020 16:54
Surr: Toluene-d8	99.8		70-130	%REC	1	13-Nov-2020 16:54
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	0.36		0.048	mg/Kg	1	09-Nov-2020 19:21
Surr: 4-Bromofluorobenzene	118		70-123	%REC	1	09-Nov-2020 19:21
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	390		84	mg/Kg	50	10-Nov-2020 09:16
TPH (Motor Oil Range)	470	n	170	mg/Kg	50	10-Nov-2020 09:16
Surr: 2-Fluorobiphenyl	256	S	60-129	%REC	50	10-Nov-2020 09:16
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	95.5		4.91	mg/Kg	1	15-Nov-2020 15:14
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	8.15		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-07-2.0'-2.5'
 Collection Date: 04-Nov-2020 13:50

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-11
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 17:18
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 17:18
Toluene	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 17:18
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	13-Nov-2020 17:18
Surr: 1,2-Dichloroethane-d4	92.7		70-126	%REC	1	13-Nov-2020 17:18
Surr: 4-Bromofluorobenzene	97.2		70-130	%REC	1	13-Nov-2020 17:18
Surr: Dibromofluoromethane	93.0		70-130	%REC	1	13-Nov-2020 17:18
Surr: Toluene-d8	100		70-130	%REC	1	13-Nov-2020 17:18
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.052		0.052	mg/Kg	1	09-Nov-2020 19:37
Surr: 4-Bromofluorobenzene	118		70-123	%REC	1	09-Nov-2020 19:37
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	52		1.7	mg/Kg	1	10-Nov-2020 10:30
TPH (Motor Oil Range)	25	n	3.4	mg/Kg	1	10-Nov-2020 10:30
Surr: 2-Fluorobiphenyl	74.1		60-129	%REC	1	10-Nov-2020 10:30
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	6.57		4.99	mg/Kg	1	15-Nov-2020 15:32
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	0.668		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-07-34.5'-35.0'
 Collection Date: 04-Nov-2020 15:10

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 17:42
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 17:42
Toluene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 17:42
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 17:42
Surr: 1,2-Dichloroethane-d4	91.4		70-126	%REC	1	13-Nov-2020 17:42
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	13-Nov-2020 17:42
Surr: Dibromofluoromethane	92.9		70-130	%REC	1	13-Nov-2020 17:42
Surr: Toluene-d8	99.0		70-130	%REC	1	13-Nov-2020 17:42
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.051		0.051	mg/Kg	1	09-Nov-2020 21:30
Surr: 4-Bromofluorobenzene	118		70-123	%REC	1	09-Nov-2020 21:30
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	4.1		1.7	mg/Kg	1	10-Nov-2020 10:54
TPH (Motor Oil Range)	4.2	n	3.4	mg/Kg	1	10-Nov-2020 10:54
Surr: 2-Fluorobiphenyl	65.2		60-129	%REC	1	10-Nov-2020 10:54
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	402		5.00	mg/Kg	1	15-Nov-2020 15:50
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	13.1		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-07-39.5'-40.0'
 Collection Date: 04-Nov-2020 15:20

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-13
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 21:40
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 21:40
Toluene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 21:40
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 21:40
Surr: 1,2-Dichloroethane-d4	84.3		70-126	%REC	1	13-Nov-2020 21:40
Surr: 4-Bromofluorobenzene	99.8		70-130	%REC	1	13-Nov-2020 21:40
Surr: Dibromofluoromethane	91.2		70-130	%REC	1	13-Nov-2020 21:40
Surr: Toluene-d8	99.9		70-130	%REC	1	13-Nov-2020 21:40
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.054		0.054	mg/Kg	1	09-Nov-2020 21:46
Surr: 4-Bromofluorobenzene	117		70-123	%REC	1	09-Nov-2020 21:46
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020		Analyst: PVL
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	12-Nov-2020 10:02
TPH (Motor Oil Range)	< 3.4	n	3.4	mg/Kg	1	12-Nov-2020 10:02
Surr: 2-Fluorobiphenyl	66.5		60-129	%REC	1	12-Nov-2020 10:02
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020		Analyst: YP
Chloride	105		4.91	mg/Kg	1	15-Nov-2020 16:45
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	12.7		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-07-49.0'-50.0'
 Collection Date: 04-Nov-2020 16:00

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:04
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:04
Toluene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:04
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:04
Surr: 1,2-Dichloroethane-d4	84.8		70-126	%REC	1	13-Nov-2020 22:04
Surr: 4-Bromofluorobenzene	98.0		70-130	%REC	1	13-Nov-2020 22:04
Surr: Dibromofluoromethane	89.7		70-130	%REC	1	13-Nov-2020 22:04
Surr: Toluene-d8	99.5		70-130	%REC	1	13-Nov-2020 22:04
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.048		0.048	mg/Kg	1	09-Nov-2020 22:02
Surr: 4-Bromofluorobenzene	115		70-123	%REC	1	09-Nov-2020 22:02
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	12-Nov-2020 18:35
TPH (Motor Oil Range)	< 3.4	n	3.4	mg/Kg	1	12-Nov-2020 18:35
Surr: 2-Fluorobiphenyl	60.5		60-129	%REC	1	12-Nov-2020 18:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	114		5.00	mg/Kg	1	15-Nov-2020 17:03
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	17.8		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: TB-11-05-20-1
 Collection Date: 05-Nov-2020 13:00

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-15
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260					Analyst: QX
Benzene	< 0.0050		0.0050	mg/L	1	13-Nov-2020 02:53
Ethylbenzene	< 0.0050		0.0050	mg/L	1	13-Nov-2020 02:53
m,p-Xylene	< 0.010		0.010	mg/L	1	13-Nov-2020 02:53
o-Xylene	< 0.0050		0.0050	mg/L	1	13-Nov-2020 02:53
Toluene	< 0.0050		0.0050	mg/L	1	13-Nov-2020 02:53
Xylenes, Total	< 0.0050		0.0050	mg/L	1	13-Nov-2020 02:53
Surr: 1,2-Dichloroethane-d4	98.2		70-126	%REC	1	13-Nov-2020 02:53
Surr: 4-Bromofluorobenzene	97.0		82-124	%REC	1	13-Nov-2020 02:53
Surr: Dibromofluoromethane	101		77-123	%REC	1	13-Nov-2020 02:53
Surr: Toluene-d8	103		82-127	%REC	1	13-Nov-2020 02:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-08-2.0'-2.5'
 Collection Date: 05-Nov-2020 07:56

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-16
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:28
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:28
Toluene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:28
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:28
Surr: 1,2-Dichloroethane-d4	84.8		70-126	%REC	1	13-Nov-2020 22:28
Surr: 4-Bromofluorobenzene	96.2		70-130	%REC	1	13-Nov-2020 22:28
Surr: Dibromofluoromethane	89.8		70-130	%REC	1	13-Nov-2020 22:28
Surr: Toluene-d8	98.3		70-130	%REC	1	13-Nov-2020 22:28
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.050		0.050	mg/Kg	1	09-Nov-2020 22:18
Surr: 4-Bromofluorobenzene	111		70-123	%REC	1	09-Nov-2020 22:18
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	12-Nov-2020 17:19
TPH (Motor Oil Range)	4.1	n	3.4	mg/Kg	1	12-Nov-2020 17:19
Surr: 2-Fluorobiphenyl	60.5		60-129	%REC	1	12-Nov-2020 17:19
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	< 4.99		4.99	mg/Kg	1	15-Nov-2020 17:21
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	0.682		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-08-14.5'-15.0'
 Collection Date: 05-Nov-2020 08:52

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-17
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:52
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:52
Toluene	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:52
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	13-Nov-2020 22:52
Surr: 1,2-Dichloroethane-d4	88.4		70-126	%REC	1	13-Nov-2020 22:52
Surr: 4-Bromofluorobenzene	97.6		70-130	%REC	1	13-Nov-2020 22:52
Surr: Dibromofluoromethane	92.0		70-130	%REC	1	13-Nov-2020 22:52
Surr: Toluene-d8	98.3		70-130	%REC	1	13-Nov-2020 22:52
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.054		0.054	mg/Kg	1	09-Nov-2020 22:35
Surr: 4-Bromofluorobenzene	117		70-123	%REC	1	09-Nov-2020 22:35
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	12-Nov-2020 17:47
TPH (Motor Oil Range)	< 3.4	n	3.4	mg/Kg	1	12-Nov-2020 17:47
Surr: 2-Fluorobiphenyl	65.5		60-129	%REC	1	12-Nov-2020 17:47
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	268		4.99	mg/Kg	1	15-Nov-2020 17:39
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	5.81		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-08-39.0'-40.0'
 Collection Date: 05-Nov-2020 09:48

ANALYTICAL REPORT

WorkOrder:HS20110371
 Lab ID:HS20110371-18
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0049		0.0049	mg/Kg	1	14-Nov-2020 00:03
Ethylbenzene	< 0.0049		0.0049	mg/Kg	1	14-Nov-2020 00:03
Toluene	< 0.0049		0.0049	mg/Kg	1	14-Nov-2020 00:03
Xylenes, Total	< 0.0049		0.0049	mg/Kg	1	14-Nov-2020 00:03
Surr: 1,2-Dichloroethane-d4	85.1		70-126	%REC	1	14-Nov-2020 00:03
Surr: 4-Bromofluorobenzene	97.7		70-130	%REC	1	14-Nov-2020 00:03
Surr: Dibromofluoromethane	90.7		70-130	%REC	1	14-Nov-2020 00:03
Surr: Toluene-d8	100		70-130	%REC	1	14-Nov-2020 00:03
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.051		0.051	mg/Kg	1	09-Nov-2020 22:51
Surr: 4-Bromofluorobenzene	118		70-123	%REC	1	09-Nov-2020 22:51
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	12-Nov-2020 18:11
TPH (Motor Oil Range)	< 3.4	n	3.4	mg/Kg	1	12-Nov-2020 18:11
Surr: 2-Fluorobiphenyl	68.1		60-129	%REC	1	12-Nov-2020 18:11
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	73.2		4.95	mg/Kg	1	15-Nov-2020 17:57
MOISTURE		Method:SW3550		Analyst: JAC		
Percent Moisture	10.6		0.0100	wt%	1	13-Nov-2020 10:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 16-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110371

Batch ID: 3999

Start Date: 09 Nov 2020 13:18

End Date: 09 Nov 2020 13:18

Method: GASOLINE RANGE ORGANICS BY SW8015C

Prep Code:

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20110371-01	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS20110371-02	1	1.04 (g)	5 (mL)	4.81	Bulk (5030B)
HS20110371-03	1	0.52 (g)	5 (mL)	9.62	Bulk (5030B)
HS20110371-04	1	0.94 (g)	5 (mL)	5.32	Bulk (5030B)
HS20110371-05	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS20110371-06	1	4.76 (g)	5 (mL)	1.05	Bulk (5030B)
HS20110371-07	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS20110371-08	1	4.98 (g)	5 (mL)	1	Bulk (5030B)
HS20110371-09	1	5.27 (g)	5 (mL)	0.95	Bulk (5030B)
HS20110371-10	1	5.18 (g)	5 (mL)	0.97	Bulk (5030B)
HS20110371-11	1	4.79 (g)	5 (mL)	1.04	Bulk (5030B)
HS20110371-12	1	4.91 (g)	5 (mL)	1.02	Bulk (5030B)
HS20110371-13	1	4.63 (g)	5 (mL)	1.08	Bulk (5030B)
HS20110371-14	1	5.26 (g)	5 (mL)	0.95	Bulk (5030B)
HS20110371-16	1	4.94 (g)	5 (mL)	1.01	Bulk (5030B)
HS20110371-17	1	4.67 (g)	5 (mL)	1.07	Bulk (5030B)
HS20110371-18	1	4.92 (g)	5 (mL)	1.02	Bulk (5030B)

Batch ID: 4007

Start Date: 11 Nov 2020 13:45

End Date: 11 Nov 2020 13:45

Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS20110371-01	1	5.257 (g)	5 (mL)	0.95	Bulk (5030B)
HS20110371-02	1	5.179 (g)	5 (mL)	0.97	Bulk (5030B)
HS20110371-03	1	4.968 (g)	5 (mL)	1.01	Bulk (5030B)
HS20110371-04	1	5.065 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110371-05	1	5.273 (g)	5 (mL)	0.95	Bulk (5030B)
HS20110371-06	1	5.223 (g)	5 (mL)	0.96	Bulk (5030B)
HS20110371-07	1	5.209 (g)	5 (mL)	0.96	Bulk (5030B)
HS20110371-08	1	5.201 (g)	5 (mL)	0.96	Bulk (5030B)
HS20110371-09	1	5.129 (g)	5 (mL)	0.97	Bulk (5030B)
HS20110371-10	1	5.076 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110371-11	1	5.26 (g)	5 (mL)	0.95	Bulk (5030B)
HS20110371-12	1	5.072 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110371-13	1	4.942 (g)	5 (mL)	1.01	Bulk (5030B)
HS20110371-14	1	5.067 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110371-16	1	5.054 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110371-17	1	4.978 (g)	5 (mL)	1	Bulk (5030B)
HS20110371-18	1	5.125 (g)	5 (mL)	0.98	Bulk (5030B)

ALS Houston, US

Date: 16-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110371

Batch ID: 159385

Start Date: 09 Nov 2020 13:35

End Date: 09 Nov 2020 21:30

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110371-01		30.34 (g)	1 (mL)	0.03296
HS20110371-02		30.05 (g)	2 (mL)	0.06656
HS20110371-03		30.17 (g)	1 (mL)	0.03315
HS20110371-04		30.01 (g)	1 (mL)	0.03332
HS20110371-05		30.09 (g)	1 (mL)	0.03323
HS20110371-06		30.1 (g)	1 (mL)	0.03322
HS20110371-07		30.3 (g)	1 (mL)	0.033
HS20110371-08		30.14 (g)	1 (mL)	0.03318
HS20110371-09		30.09 (g)	1 (mL)	0.03323
HS20110371-10		30.21 (g)	1 (mL)	0.0331
HS20110371-11		30.29 (g)	1 (mL)	0.03301
HS20110371-12		30.37 (g)	1 (mL)	0.03293

Batch ID: 159464

Start Date: 11 Nov 2020 12:00

End Date: 11 Nov 2020 14:00

Method: 300 ANIONS SOIL PREP

Prep Code: 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110371-01		5.0691 (g)	50 (mL)	9.864
HS20110371-02		5.0934 (g)	50 (mL)	9.817
HS20110371-03		5.0209 (g)	50 (mL)	9.958
HS20110371-04		5.0105 (g)	50 (mL)	9.979
HS20110371-05		5.0717 (g)	50 (mL)	9.859
HS20110371-06		5.0902 (g)	50 (mL)	9.823
HS20110371-07		5.0876 (g)	50 (mL)	9.828
HS20110371-08		5.0003 (g)	50 (mL)	9.999
HS20110371-09		5.0417 (g)	50 (mL)	9.917
HS20110371-10		5.0889 (g)	50 (mL)	9.825
HS20110371-11		5.0138 (g)	50 (mL)	9.972
HS20110371-12		5.0012 (g)	50 (mL)	9.998
HS20110371-13		5.087 (g)	50 (mL)	9.829
HS20110371-14		5.0018 (g)	50 (mL)	9.996
HS20110371-16		5.0081 (g)	50 (mL)	9.984
HS20110371-17		5.0079 (g)	50 (mL)	9.984
HS20110371-18		5.052 (g)	50 (mL)	9.897

Batch ID: 159530

Start Date: 11 Nov 2020 16:00

End Date: 11 Nov 2020 19:00

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110371-13		30.02 (g)	1 (mL)	0.03331
HS20110371-14		30.37 (g)	1 (mL)	0.03293
HS20110371-16		30.31 (g)	1 (mL)	0.03299
HS20110371-17		30.17 (g)	1 (mL)	0.03315
HS20110371-18		30.28 (g)	1 (mL)	0.03303

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 159385 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20110371-01	SB-05-2.5'-3.0'	03 Nov 2020 13:20		09 Nov 2020 13:35	11 Nov 2020 02:12	10
HS20110371-02	SB-05-16.5'-17.0'	03 Nov 2020 13:55		09 Nov 2020 13:35	10 Nov 2020 06:02	500
HS20110371-03	SB-05-27.5'-28.0'	03 Nov 2020 14:40		09 Nov 2020 13:35	10 Nov 2020 06:26	500
HS20110371-04	SB-05-32.5'-33.0'	03 Nov 2020 14:55		09 Nov 2020 13:35	11 Nov 2020 02:37	200
HS20110371-05	SB-05-39.0'-40.0'	03 Nov 2020 15:12		09 Nov 2020 13:35	10 Nov 2020 07:15	100
HS20110371-06	SB-06-14.5'-15.0'	04 Nov 2020 09:17		09 Nov 2020 13:35	10 Nov 2020 07:39	1
HS20110371-07	SB-06-2.5'-3.0'	04 Nov 2020 08:45		09 Nov 2020 13:35	10 Nov 2020 08:03	1
HS20110371-08	SB-06-39.5'-40.0'	04 Nov 2020 11:00		09 Nov 2020 13:35	10 Nov 2020 08:28	10
HS20110371-09	SB-06-47.5'-48.0'	04 Nov 2020 11:32		09 Nov 2020 13:35	10 Nov 2020 08:52	1
HS20110371-10	Duplicate-01	03 Nov 2020 00:00		09 Nov 2020 13:35	10 Nov 2020 09:16	50
HS20110371-11	SB-07-2.0'-2.5'	04 Nov 2020 13:50		09 Nov 2020 13:35	10 Nov 2020 10:30	1
HS20110371-12	SB-07-34.5'-35.0'	04 Nov 2020 15:10		09 Nov 2020 13:35	10 Nov 2020 10:54	1
Batch ID: 159464 (0)		Test Name : ANIONS BY E300.0			Matrix: Soil	
HS20110371-01	SB-05-2.5'-3.0'	03 Nov 2020 13:20		10 Nov 2020 17:13	15 Nov 2020 11:20	1
HS20110371-02	SB-05-16.5'-17.0'	03 Nov 2020 13:55		10 Nov 2020 17:13	15 Nov 2020 11:38	1
HS20110371-03	SB-05-27.5'-28.0'	03 Nov 2020 14:40		10 Nov 2020 17:13	15 Nov 2020 11:56	1
HS20110371-04	SB-05-32.5'-33.0'	03 Nov 2020 14:55		10 Nov 2020 17:13	15 Nov 2020 12:14	1
HS20110371-05	SB-05-39.0'-40.0'	03 Nov 2020 15:12		10 Nov 2020 17:13	15 Nov 2020 13:08	1
HS20110371-06	SB-06-14.5'-15.0'	04 Nov 2020 09:17		10 Nov 2020 17:13	15 Nov 2020 13:26	1
HS20110371-07	SB-06-2.5'-3.0'	04 Nov 2020 08:45		10 Nov 2020 17:13	15 Nov 2020 14:20	1
HS20110371-08	SB-06-39.5'-40.0'	04 Nov 2020 11:00		10 Nov 2020 17:13	15 Nov 2020 14:38	1
HS20110371-09	SB-06-47.5'-48.0'	04 Nov 2020 11:32		10 Nov 2020 17:13	15 Nov 2020 14:56	1
HS20110371-10	Duplicate-01	03 Nov 2020 00:00		10 Nov 2020 17:13	15 Nov 2020 15:14	1
HS20110371-11	SB-07-2.0'-2.5'	04 Nov 2020 13:50		10 Nov 2020 17:13	15 Nov 2020 15:32	1
HS20110371-12	SB-07-34.5'-35.0'	04 Nov 2020 15:10		10 Nov 2020 17:13	15 Nov 2020 15:50	1
HS20110371-13	SB-07-39.5'-40.0'	04 Nov 2020 15:20		10 Nov 2020 17:13	15 Nov 2020 16:45	1
HS20110371-14	SB-07-49.0'-50.0'	04 Nov 2020 16:00		10 Nov 2020 17:13	15 Nov 2020 17:03	1
HS20110371-16	SB-08-2.0'-2.5'	05 Nov 2020 07:56		10 Nov 2020 17:13	15 Nov 2020 17:21	1
HS20110371-17	SB-08-14.5'-15.0'	05 Nov 2020 08:52		10 Nov 2020 17:13	15 Nov 2020 17:39	1
HS20110371-18	SB-08-39.0'-40.0'	05 Nov 2020 09:48		10 Nov 2020 17:13	15 Nov 2020 17:57	1
Batch ID: 159530 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20110371-13	SB-07-39.5'-40.0'	04 Nov 2020 15:20		11 Nov 2020 16:00	12 Nov 2020 10:02	1
HS20110371-14	SB-07-49.0'-50.0'	04 Nov 2020 16:00		11 Nov 2020 16:00	12 Nov 2020 18:35	1
HS20110371-16	SB-08-2.0'-2.5'	05 Nov 2020 07:56		11 Nov 2020 16:00	12 Nov 2020 17:19	1
HS20110371-17	SB-08-14.5'-15.0'	05 Nov 2020 08:52		11 Nov 2020 16:00	12 Nov 2020 17:47	1
HS20110371-18	SB-08-39.0'-40.0'	05 Nov 2020 09:48		11 Nov 2020 16:00	12 Nov 2020 18:11	1

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R372241 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20110371-01	SB-05-2.5'-3.0'	03 Nov 2020 13:20			09 Nov 2020 16:01	1
HS20110371-02	SB-05-16.5'-17.0'	03 Nov 2020 13:55			09 Nov 2020 16:17	1
HS20110371-03	SB-05-27.5'-28.0'	03 Nov 2020 14:40			09 Nov 2020 16:33	1
HS20110371-04	SB-05-32.5'-33.0'	03 Nov 2020 14:55			09 Nov 2020 16:50	1
HS20110371-05	SB-05-39.0'-40.0'	03 Nov 2020 15:12			09 Nov 2020 18:00	1
HS20110371-06	SB-06-14.5-15.0'	04 Nov 2020 09:17			09 Nov 2020 18:16	1
HS20110371-07	SB-06-2.5'-3.0'	04 Nov 2020 08:45			09 Nov 2020 18:33	1
HS20110371-08	SB-06-39.5'-40.0'	04 Nov 2020 11:00			09 Nov 2020 18:49	1
HS20110371-09	SB-06-47.5'-48.0'	04 Nov 2020 11:32			09 Nov 2020 19:05	1
HS20110371-10	Duplicate-01	03 Nov 2020 00:00			09 Nov 2020 19:21	1
HS20110371-11	SB-07-2.0'-2.5'	04 Nov 2020 13:50			09 Nov 2020 19:37	1
Batch ID: R372270 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20110371-12	SB-07-34.5'-35.0'	04 Nov 2020 15:10			09 Nov 2020 21:30	1
HS20110371-13	SB-07-39.5'-40.0'	04 Nov 2020 15:20			09 Nov 2020 21:46	1
HS20110371-14	SB-07-49.0'-50.0'	04 Nov 2020 16:00			09 Nov 2020 22:02	1
HS20110371-16	SB-08-2.0'-2.5'	05 Nov 2020 07:56			09 Nov 2020 22:18	1
HS20110371-17	SB-08-14.5'-15.0'	05 Nov 2020 08:52			09 Nov 2020 22:35	1
HS20110371-18	SB-08-39.0'-40.0'	05 Nov 2020 09:48			09 Nov 2020 22:51	1
Batch ID: R372543 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS20110371-02	SB-05-16.5'-17.0'	03 Nov 2020 13:55			14 Nov 2020 04:50	1
HS20110371-03	SB-05-27.5'-28.0'	03 Nov 2020 14:40			14 Nov 2020 05:14	1
HS20110371-04	SB-05-32.5'-33.0'	03 Nov 2020 14:55			14 Nov 2020 05:38	1
HS20110371-13	SB-07-39.5'-40.0'	04 Nov 2020 15:20			13 Nov 2020 21:40	1
HS20110371-14	SB-07-49.0'-50.0'	04 Nov 2020 16:00			13 Nov 2020 22:04	1
HS20110371-16	SB-08-2.0'-2.5'	05 Nov 2020 07:56			13 Nov 2020 22:28	1
HS20110371-17	SB-08-14.5'-15.0'	05 Nov 2020 08:52			13 Nov 2020 22:52	1
HS20110371-18	SB-08-39.0'-40.0'	05 Nov 2020 09:48			14 Nov 2020 00:03	1
Batch ID: R372559 (0)		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS20110371-15	TB-11-05-20-1	05 Nov 2020 13:00			13 Nov 2020 02:53	1

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Project: AFE Investigation
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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R372563 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS20110371-01	SB-05-2.5'-3.0'	03 Nov 2020 13:20			13 Nov 2020 14:30	1
HS20110371-05	SB-05-39.0'-40.0'	03 Nov 2020 15:12			13 Nov 2020 14:54	1
HS20110371-06	SB-06-14.5'-15.0'	04 Nov 2020 09:17			13 Nov 2020 15:18	1
HS20110371-07	SB-06-2.5'-3.0'	04 Nov 2020 08:45			13 Nov 2020 15:42	1
HS20110371-08	SB-06-39.5'-40.0'	04 Nov 2020 11:00			13 Nov 2020 16:06	1
HS20110371-09	SB-06-47.5'-48.0'	04 Nov 2020 11:32			13 Nov 2020 16:30	1
HS20110371-10	Duplicate-01	03 Nov 2020 00:00			13 Nov 2020 16:54	1
HS20110371-11	SB-07-2.0'-2.5'	04 Nov 2020 13:50			13 Nov 2020 17:18	1
HS20110371-12	SB-07-34.5'-35.0'	04 Nov 2020 15:10			13 Nov 2020 17:42	1
Batch ID: R372631 (0)		Test Name : MOISTURE			Matrix: Soil	
HS20110371-01	SB-05-2.5'-3.0'	03 Nov 2020 13:20			13 Nov 2020 10:20	1
HS20110371-02	SB-05-16.5'-17.0'	03 Nov 2020 13:55			13 Nov 2020 10:20	1
HS20110371-03	SB-05-27.5'-28.0'	03 Nov 2020 14:40			13 Nov 2020 10:20	1
HS20110371-04	SB-05-32.5'-33.0'	03 Nov 2020 14:55			13 Nov 2020 10:20	1
HS20110371-05	SB-05-39.0'-40.0'	03 Nov 2020 15:12			13 Nov 2020 10:20	1
HS20110371-06	SB-06-14.5'-15.0'	04 Nov 2020 09:17			13 Nov 2020 10:20	1
HS20110371-07	SB-06-2.5'-3.0'	04 Nov 2020 08:45			13 Nov 2020 10:20	1
HS20110371-08	SB-06-39.5'-40.0'	04 Nov 2020 11:00			13 Nov 2020 10:20	1
HS20110371-09	SB-06-47.5'-48.0'	04 Nov 2020 11:32			13 Nov 2020 10:20	1
HS20110371-10	Duplicate-01	03 Nov 2020 00:00			13 Nov 2020 10:20	1
HS20110371-11	SB-07-2.0'-2.5'	04 Nov 2020 13:50			13 Nov 2020 10:20	1
HS20110371-12	SB-07-34.5'-35.0'	04 Nov 2020 15:10			13 Nov 2020 10:20	1
HS20110371-13	SB-07-39.5'-40.0'	04 Nov 2020 15:20			13 Nov 2020 10:20	1
HS20110371-14	SB-07-49.0'-50.0'	04 Nov 2020 16:00			13 Nov 2020 10:20	1
HS20110371-16	SB-08-2.0'-2.5'	05 Nov 2020 07:56			13 Nov 2020 10:20	1
HS20110371-17	SB-08-14.5'-15.0'	05 Nov 2020 08:52			13 Nov 2020 10:20	1
HS20110371-18	SB-08-39.0'-40.0'	05 Nov 2020 09:48			13 Nov 2020 10:20	1

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QC BATCH REPORT

Batch ID: 159385 (0)		Instrument: FID-8		Method: TPH DRO/ORO BY SW8015C					
MBLK	Sample ID: MBLK-159385	Units: mg/Kg		Analysis Date: 10-Nov-2020 05:14					
Client ID:	Run ID: FID-8_372286		SeqNo: 5824304		PrepDate: 09-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	< 1.7	1.7							
TPH (Motor Oil Range)	< 3.4	3.4							
Surr: 2-Fluorobiphenyl	2.784	0.10	3.33	0	83.6	70 - 130			

LCS	Sample ID: LCS-159385	Units: mg/Kg		Analysis Date: 10-Nov-2020 05:38					
Client ID:	Run ID: FID-8_372286		SeqNo: 5824305		PrepDate: 09-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	32.83	1.7	33.33	0	98.5	70 - 130			
TPH (Motor Oil Range)	24.18	3.4	33.33	0	72.5	70 - 130			
Surr: 2-Fluorobiphenyl	2.876	0.10	3.33	0	86.4	70 - 130			

MS	Sample ID: HS20110311-01MS	Units: mg/Kg		Analysis Date: 10-Nov-2020 06:26					
Client ID:	Run ID: FID-8_372286		SeqNo: 5824307		PrepDate: 09-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	44.01	1.7	33	12.29	96.1	70 - 130			
TPH (Motor Oil Range)	42.34	3.4	33	14.2	85.3	70 - 130			
Surr: 2-Fluorobiphenyl	3.242	0.099	3.297	0	98.3	60 - 129			

MSD	Sample ID: HS20110311-01MSD	Units: mg/Kg		Analysis Date: 10-Nov-2020 06:51					
Client ID:	Run ID: FID-8_372286		SeqNo: 5824308		PrepDate: 09-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	39.72	1.7	33.3	12.29	82.4	70 - 130	44.01	10.2	30
TPH (Motor Oil Range)	38.93	3.4	33.3	14.2	74.3	70 - 130	42.34	8.39	30
Surr: 2-Fluorobiphenyl	3.037	0.10	3.327	0	91.3	60 - 129	3.242	6.52	30

The following samples were analyzed in this batch:			
HS20110371-01	HS20110371-02	HS20110371-03	HS20110371-04
HS20110371-05	HS20110371-06	HS20110371-07	HS20110371-08
HS20110371-09	HS20110371-10	HS20110371-11	HS20110371-12

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Client: TRC Corporation
Project: AFE Investigation
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QC BATCH REPORT

Batch ID: 159530 (0)		Instrument: FID-7		Method: TPH DRO/ORO BY SW8015C					
MBLK	Sample ID: MBLK-159530	Units: mg/Kg		Analysis Date: 12-Nov-2020 08:48					
Client ID:	Run ID: FID-7_372462		SeqNo: 5828403		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

TPH (Diesel Range)	< 1.7	1.7							
TPH (Motor Oil Range)	< 3.4	3.4							
Surr: 2-Fluorobiphenyl	2.345	0.10	3.33	0	70.4	70 - 130			

LCS	Sample ID: LCS-159530	Units: mg/Kg		Analysis Date: 12-Nov-2020 09:12					
Client ID:	Run ID: FID-7_372462		SeqNo: 5828404		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

TPH (Diesel Range)	29.6	1.7	33.33	0	88.8	70 - 130			
TPH (Motor Oil Range)	24.38	3.4	33.33	0	73.2	70 - 130			
Surr: 2-Fluorobiphenyl	2.831	0.10	3.33	0	85.0	70 - 130			

MS	Sample ID: HS20110509-05MS	Units: mg/Kg		Analysis Date: 12-Nov-2020 14:23					
Client ID:	Run ID: FID-7_372462		SeqNo: 5829702		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

TPH (Diesel Range)	36.95	1.7	33.13	2.872	103	70 - 130			
TPH (Motor Oil Range)	31.08	3.4	33.13	7.37	71.6	70 - 130			
Surr: 2-Fluorobiphenyl	3.212	0.099	3.31	0	97.0	60 - 129			

MSD	Sample ID: HS20110509-05MSD	Units: mg/Kg		Analysis Date: 12-Nov-2020 14:47					
Client ID:	Run ID: FID-7_372462		SeqNo: 5829703		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

TPH (Diesel Range)	33.6	1.7	33.21	2.872	92.5	70 - 130	36.95	9.49	30	
TPH (Motor Oil Range)	27.46	3.4	33.21	7.37	60.5	70 - 130	31.08	12.4	30	S
Surr: 2-Fluorobiphenyl	2.836	0.10	3.318	0	85.5	60 - 129	3.212	12.4	30	

The following samples were analyzed in this batch: HS20110371-13 HS20110371-14 HS20110371-16 HS20110371-17
 HS20110371-18

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QC BATCH REPORT

Batch ID: R372241 (0)		Instrument: FID-14		Method: GASOLINE RANGE ORGANICS BY SW8015C					
MBLK	Sample ID: MBLK-110920	Units: mg/Kg		Analysis Date: 09-Nov-2020 10:48					
Client ID:	Run ID: FID-14_372241		SeqNo: 5822696		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics < 0.050 0.050

Surr: 4-Bromofluorobenzene 0.1056 0.0050 0.1 0 106 75 - 121

LCS	Sample ID: LCS-110920	Units: mg/Kg		Analysis Date: 09-Nov-2020 10:31					
Client ID:	Run ID: FID-14_372241		SeqNo: 5822695		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.108 0.050 1 0 111 72 - 121

Surr: 4-Bromofluorobenzene 0.09908 0.0050 0.1 0 99.1 75 - 121

MS	Sample ID: HS20110179-01MS	Units: mg/Kg		Analysis Date: 09-Nov-2020 12:54					
Client ID:	Run ID: FID-14_372241		SeqNo: 5822700		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.174 0.051 1.02 0 115 70 - 130

Surr: 4-Bromofluorobenzene 0.1094 0.0051 0.102 0 107 70 - 123

MSD	Sample ID: HS20110179-01MSD	Units: mg/Kg		Analysis Date: 09-Nov-2020 13:10					
Client ID:	Run ID: FID-14_372241		SeqNo: 5822701		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.109 0.050 0.99 0 112 70 - 130 1.174 5.69 30

Surr: 4-Bromofluorobenzene 0.09204 0.0050 0.099 0 93.0 70 - 123 0.1094 17.3 30

The following samples were analyzed in this batch:				HS20110371-01	HS20110371-02	HS20110371-03	HS20110371-04
				HS20110371-05	HS20110371-06	HS20110371-07	HS20110371-08
				HS20110371-09	HS20110371-10	HS20110371-11	

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QC BATCH REPORT

Batch ID: R372270 (0)		Instrument: FID-14		Method: GASOLINE RANGE ORGANICS BY SW8015C					
MBLK	Sample ID: MBLK-111020	Units: mg/Kg		Analysis Date: 09-Nov-2020 20:25					
Client ID:	Run ID: FID-14_372270	SeqNo: 5823836		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics < 0.050 0.050

Surr: 4-Bromofluorobenzene 0.1079 0.0050 0.1 0 108 75 - 121

LCS	Sample ID: LCS-111020	Units: mg/Kg		Analysis Date: 09-Nov-2020 19:53					
Client ID:	Run ID: FID-14_372270	SeqNo: 5823834		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.109 0.050 1 0 111 72 - 121

Surr: 4-Bromofluorobenzene 0.09477 0.0050 0.1 0 94.8 75 - 121

LCSD	Sample ID: LCSD-111020	Units: mg/Kg		Analysis Date: 09-Nov-2020 20:09					
Client ID:	Run ID: FID-14_372270	SeqNo: 5823835		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.146 0.050 1 0 115 72 - 121 1.109 3.28 30

Surr: 4-Bromofluorobenzene 0.09791 0.0050 0.1 0 97.9 75 - 121 0.09477 3.26 30

MS	Sample ID: HS20110368-02MS	Units: mg/Kg		Analysis Date: 09-Nov-2020 23:39					
Client ID:	Run ID: FID-14_372270	SeqNo: 5823847		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 0.9056 0.048 0.95 0 95.3 70 - 130

Surr: 4-Bromofluorobenzene 0.06894 0.0048 0.095 0 72.6 70 - 123

MSD	Sample ID: HS20110368-02MSD	Units: mg/Kg		Analysis Date: 09-Nov-2020 23:55					
Client ID:	Run ID: FID-14_372270	SeqNo: 5823848		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 0.9751 0.050 1 0 97.5 70 - 130 0.9056 7.39 30

Surr: 4-Bromofluorobenzene 0.08106 0.0050 0.1 0 81.1 70 - 123 0.06894 16.2 30

The following samples were analyzed in this batch: HS20110371-12 HS20110371-13 HS20110371-14 HS20110371-16
 HS20110371-17 HS20110371-18

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Client: TRC Corporation
Project: AFE Investigation
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QC BATCH REPORT

Batch ID: R372543 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKS2-111320	Units: ug/Kg		Analysis Date: 13-Nov-2020 20:53					
Client ID:	Run ID: VOA5_372543	SeqNo: 5832646		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	42.84	0	50	0	85.7	76 - 125			
Surr: 4-Bromofluorobenzene	48.34	0	50	0	96.7	80 - 120			
Surr: Dibromofluoromethane	45.93	0	50	0	91.9	80 - 119			
Surr: Toluene-d8	49.64	0	50	0	99.3	81 - 118			

LCS	Sample ID: VLCSS2-111320	Units: ug/Kg		Analysis Date: 13-Nov-2020 20:05					
Client ID:	Run ID: VOA5_372543	SeqNo: 5832645		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46.14	5.0	50	0	92.3	75 - 124			
Ethylbenzene	47.21	5.0	50	0	94.4	70 - 123			
Toluene	45.26	5.0	50	0	90.5	76 - 122			
Xylenes, Total	141.8	5.0	150	0	94.5	77 - 128			
Surr: 1,2-Dichloroethane-d4	46.95	0	50	0	93.9	76 - 125			
Surr: 4-Bromofluorobenzene	50.47	0	50	0	101	80 - 120			
Surr: Dibromofluoromethane	47.95	0	50	0	95.9	80 - 119			
Surr: Toluene-d8	49.06	0	50	0	98.1	81 - 118			

MS	Sample ID: HS20110371-17MS	Units: ug/Kg		Analysis Date: 13-Nov-2020 23:16					
Client ID: SB-08-14.5'-15.0'	Run ID: VOA5_372543	SeqNo: 5832652		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	39.38	5.0	50	0	78.8	70 - 130			
Ethylbenzene	39.73	5.0	50	0	79.5	70 - 130			
Toluene	38.7	5.0	50	0	77.4	70 - 130			
Xylenes, Total	119.7	5.0	150	0	79.8	70 - 130			
Surr: 1,2-Dichloroethane-d4	45.43	0	50	0	90.9	70 - 126			
Surr: 4-Bromofluorobenzene	49.98	0	50	0	100.0	70 - 130			
Surr: Dibromofluoromethane	46.73	0	50	0	93.5	70 - 130			
Surr: Toluene-d8	49.16	0	50	0	98.3	70 - 130			

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: R372543 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MSD		Sample ID: HS20110371-17MSD		Units: ug/Kg		Analysis Date: 13-Nov-2020 23:40			
Client ID: SB-08-14.5'-15.0'		Run ID: VOA5_372543		SeqNo: 5832653		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	42.08	5.0	50.5	0	83.3	70 - 130	39.38	6.64	30
Ethylbenzene	42.2	5.0	50.5	0	83.6	70 - 130	39.73	6.04	30
Toluene	40.65	5.0	50.5	0	80.5	70 - 130	38.7	4.9	30
Xylenes, Total	126.9	5.0	151.5	0	83.8	70 - 130	119.7	5.89	30
Surr: 1,2-Dichloroethane-d4	47.96	0	50.5	0	95.0	70 - 126	45.43	5.42	30
Surr: 4-Bromofluorobenzene	50.18	0	50.5	0	99.4	70 - 130	49.98	0.401	30
Surr: Dibromofluoromethane	48.54	0	50.5	0	96.1	70 - 130	46.73	3.81	30
Surr: Toluene-d8	49.34	0	50.5	0	97.7	70 - 130	49.16	0.361	30
The following samples were analyzed in this batch:									
HS20110371-02		HS20110371-03		HS20110371-04		HS20110371-13			
HS20110371-14		HS20110371-16		HS20110371-17		HS20110371-18			

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: R372559 (0)		Instrument: VOA6		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-201112	Units: ug/L		Analysis Date: 12-Nov-2020 23:02					
Client ID:	Run ID: VOA6_372559	SeqNo: 5830885		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
m,p-Xylene	< 10	10							
o-Xylene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	49.33	0	50	0	98.7	70 - 130			
Surr: 4-Bromofluorobenzene	49.58	0	50	0	99.2	82 - 115			
Surr: Dibromofluoromethane	51.53	0	50	0	103	73 - 126			
Surr: Toluene-d8	51.2	0	50	0	102	81 - 120			

LCS	Sample ID: VLCSW-201112	Units: ug/L		Analysis Date: 12-Nov-2020 22:20					
Client ID:	Run ID: VOA6_372559	SeqNo: 5830884		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.38	5.0	20	0	91.9	74 - 120			
Ethylbenzene	17.9	5.0	20	0	89.5	77 - 117			
m,p-Xylene	35.87	10	40	0	89.7	77 - 122			
o-Xylene	18.37	5.0	20	0	91.9	75 - 119			
Toluene	17.08	5.0	20	0	85.4	77 - 118			
Xylenes, Total	54.24	5.0	60	0	90.4	75 - 122			
Surr: 1,2-Dichloroethane-d4	47.21	0	50	0	94.4	70 - 130			
Surr: 4-Bromofluorobenzene	49.74	0	50	0	99.5	82 - 115			
Surr: Dibromofluoromethane	50.34	0	50	0	101	73 - 126			
Surr: Toluene-d8	49.74	0	50	0	99.5	81 - 120			

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: R372559 (0)		Instrument: VOA6		Method: VOLATILES - SW8260C					
MS		Sample ID: HS20110377-01MS		Units: ug/L		Analysis Date: 13-Nov-2020 01:29			
Client ID:		Run ID: VOA6_372559		SeqNo: 5830892		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.73	5.0	20	0	93.7	70 - 127			
Ethylbenzene	16.6	5.0	20	0	83.0	70 - 124			
m,p-Xylene	35.26	10	40	0	88.1	70 - 130			
o-Xylene	17.06	5.0	20	0	85.3	70 - 124			
Toluene	17.09	5.0	20	0	85.5	70 - 123			
Xylenes, Total	52.31	5.0	60	0	87.2	70 - 130			
Surr: 1,2-Dichloroethane-d4	50.97	0	50	0	102	70 - 126			
Surr: 4-Bromofluorobenzene	52.37	0	50	0	105	82 - 124			
Surr: Dibromofluoromethane	50.86	0	50	0	102	77 - 123			
Surr: Toluene-d8	50.39	0	50	0	101	82 - 127			

MSD		Sample ID: HS20110377-01MSD		Units: ug/L		Analysis Date: 13-Nov-2020 01:50			
Client ID:		Run ID: VOA6_372559		SeqNo: 5830893		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.6	5.0	20	0	93.0	70 - 127	18.73	0.724	20
Ethylbenzene	16.97	5.0	20	0	84.9	70 - 124	16.6	2.21	20
m,p-Xylene	34.91	10	40	0	87.3	70 - 130	35.26	0.983	20
o-Xylene	16.46	5.0	20	0	82.3	70 - 124	17.06	3.52	20
Toluene	16.35	5.0	20	0	81.8	70 - 123	17.09	4.4	20
Xylenes, Total	51.38	5.0	60	0	85.6	70 - 130	52.31	1.8	20
Surr: 1,2-Dichloroethane-d4	48.18	0	50	0	96.4	70 - 126	50.97	5.62	20
Surr: 4-Bromofluorobenzene	50.3	0	50	0	101	82 - 124	52.37	4.03	20
Surr: Dibromofluoromethane	49.71	0	50	0	99.4	77 - 123	50.86	2.3	20
Surr: Toluene-d8	49.25	0	50	0	98.5	82 - 127	50.39	2.3	20

The following samples were analyzed in this batch: HS20110371-15

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: R372563 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKS1-111320	Units: ug/Kg		Analysis Date: 13-Nov-2020 08:56					
Client ID:	Run ID: VOA5_372563	SeqNo: 5830964		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	44.45	0	50	0	88.9	76 - 125			
Surr: 4-Bromofluorobenzene	47.93	0	50	0	95.9	80 - 120			
Surr: Dibromofluoromethane	46.24	0	50	0	92.5	80 - 119			
Surr: Toluene-d8	48.49	0	50	0	97.0	81 - 118			

LCS	Sample ID: VLCSS1-111320	Units: ug/Kg		Analysis Date: 13-Nov-2020 08:08					
Client ID:	Run ID: VOA5_372563	SeqNo: 5830963		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.52	5.0	50	0	99.0	75 - 124			
Ethylbenzene	53.19	5.0	50	0	106	70 - 123			
Toluene	49.65	5.0	50	0	99.3	76 - 122			
Xylenes, Total	157.5	5.0	150	0	105	77 - 128			
Surr: 1,2-Dichloroethane-d4	45.02	0	50	0	90.0	76 - 125			
Surr: 4-Bromofluorobenzene	48.85	0	50	0	97.7	80 - 120			
Surr: Dibromofluoromethane	47.21	0	50	0	94.4	80 - 119			
Surr: Toluene-d8	48.34	0	50	0	96.7	81 - 118			

MS	Sample ID: HS20110308-18MS	Units: ug/Kg		Analysis Date: 13-Nov-2020 13:42					
Client ID:	Run ID: VOA5_372563	SeqNo: 5831344		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	42.87	4.8	47.5	0	90.3	70 - 130			
Ethylbenzene	45.16	4.8	47.5	0	95.1	70 - 130			
Toluene	43.57	4.8	47.5	0	91.7	70 - 130			
Xylenes, Total	136.9	4.8	142.5	0	96.1	70 - 130			
Surr: 1,2-Dichloroethane-d4	43.97	0	47.5	0	92.6	70 - 126			
Surr: 4-Bromofluorobenzene	47.31	0	47.5	0	99.6	70 - 130			
Surr: Dibromofluoromethane	43.37	0	47.5	0	91.3	70 - 130			
Surr: Toluene-d8	46.57	0	47.5	0	98.0	70 - 130			

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: R372563 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MSD	Sample ID: HS20110308-18MSD	Units: ug/Kg			Analysis Date: 13-Nov-2020 14:06				
Client ID:	Run ID: VOA5_372563	SeqNo: 5831345		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	45.39	4.8	48.5	0	93.6	70 - 130	42.87	5.71	30
Ethylbenzene	47.62	4.8	48.5	0	98.2	70 - 130	45.16	5.31	30
Toluene	44.88	4.8	48.5	0	92.5	70 - 130	43.57	2.95	30
Xylenes, Total	139.9	4.8	145.5	0	96.1	70 - 130	136.9	2.13	30
Surr: 1,2-Dichloroethane-d4	44.99	0	48.5	0	92.8	70 - 126	43.97	2.29	30
Surr: 4-Bromofluorobenzene	47.25	0	48.5	0	97.4	70 - 130	47.31	0.128	30
Surr: Dibromofluoromethane	45.28	0	48.5	0	93.4	70 - 130	43.37	4.3	30
Surr: Toluene-d8	48.33	0	48.5	0	99.7	70 - 130	46.57	3.71	30
The following samples were analyzed in this batch:		HS20110371-01		HS20110371-05		HS20110371-06		HS20110371-07	
		HS20110371-08		HS20110371-09		HS20110371-10		HS20110371-11	
		HS20110371-12							

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: 159464 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0					
MBLK	Sample ID: MBLK-159464	Units: mg/Kg		Analysis Date: 15-Nov-2020 21:34					
Client ID:	Run ID: ICS-Integrion_372696	SeqNo: 5834111		PrepDate: 10-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	< 5.00	5.00							
LCS	Sample ID: LCS-159464	Units: mg/Kg		Analysis Date: 15-Nov-2020 21:52					
Client ID:	Run ID: ICS-Integrion_372696	SeqNo: 5834112		PrepDate: 10-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	197	5.00	200	0	98.5	90 - 110			
MS	Sample ID: HS20110458-01MS	Units: mg/Kg		Analysis Date: 15-Nov-2020 18:33					
Client ID:	Run ID: ICS-Integrion_372696	SeqNo: 5834105		PrepDate: 10-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	102.4	4.99	99.88	2.381	100	75 - 125			
MS	Sample ID: HS20110371-06MS	Units: mg/Kg		Analysis Date: 15-Nov-2020 13:44					
Client ID: SB-06-14.5-15.0'	Run ID: ICS-Integrion_372696	SeqNo: 5834089		PrepDate: 10-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	489.9	4.91	98.2	386	106	75 - 125			
MSD	Sample ID: HS20110458-01MSD	Units: mg/Kg		Analysis Date: 15-Nov-2020 18:51					
Client ID:	Run ID: ICS-Integrion_372696	SeqNo: 5834106		PrepDate: 10-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	97.59	4.97	99.34	2.381	95.8	75 - 125	102.4	4.79	20
MSD	Sample ID: HS20110371-06MSD	Units: mg/Kg		Analysis Date: 15-Nov-2020 14:02					
Client ID: SB-06-14.5-15.0'	Run ID: ICS-Integrion_372696	SeqNo: 5834090		PrepDate: 10-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	490.5	4.95	98.92	386	106	75 - 125	489.9	0.12	20
The following samples were analyzed in this batch:		HS20110371-01		HS20110371-02		HS20110371-03		HS20110371-04	
		HS20110371-05		HS20110371-06		HS20110371-07		HS20110371-08	
		HS20110371-09		HS20110371-10		HS20110371-11		HS20110371-12	
		HS20110371-13		HS20110371-14		HS20110371-16		HS20110371-17	
		HS20110371-18							

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

QC BATCH REPORT

Batch ID: R372631 (0)		Instrument: Balance1		Method: MOISTURE	
DUP	Sample ID: HS20110371-16DUP	Units: wt%		Analysis Date: 13-Nov-2020 10:20	
Client ID: SB-08-2.0'-2.5'	Run ID: Balance1_372631	SeqNo: 5832552		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Percent Moisture	0.705	0.0100		0.682	3.32 20
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The following samples were analyzed in this batch:

HS20110371-01	HS20110371-02	HS20110371-03	HS20110371-04
HS20110371-05	HS20110371-06	HS20110371-07	HS20110371-08
HS20110371-09	HS20110371-10	HS20110371-11	HS20110371-12
HS20110371-13	HS20110371-14	HS20110371-16	HS20110371-17
HS20110371-18			

ALS Houston, US

Date: 16-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110371

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
wt%	

ALS Houston, US

Date: 16-Nov-20

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	20-030-0	26-Mar-2021
California	2919, 2020-2021	30-Apr-2021
Dept of Defense	PJLA L20-507	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322020-4	09-May-2021
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2020-2021	30-Apr-2021
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2020-2021	30-Apr-2021
Texas	T104704231-20-26	30-Apr-2021

ALS Houston, US

Date: 16-Nov-20

Sample Receipt Checklist

Work Order ID: HS20110371

Date/Time Received: 06-Nov-2020 09:25

Client Name: TRC-AUS

Received by: Pablo Martinez

Completed By: <u>/S/ Paresh M. Giga</u>	07-Nov-2020 13:31	Reviewed by: <u>/S/ RJ Modashia</u>	08-Nov-2020 20:04
eSignature	Date/Time	eSignature	Date/Time

Matrices: Soil/WaterCarrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:233179/233180
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	2.0C U/C IR25		
Cooler(s)/Kit(s):	45506		
Date/Time sample(s) sent to storage:	11/6/2020 18:00		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:	Do not login TPH per RJ		

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



Cincinnati, OH	Fort Collins, CO
+1 513 733 5336	+1 970 490 1511
Everett, WA	Holland, MI
+1 425 356 2600	+1 616 399 6070

Chain of Custody Form

Page 1 of 2

HS20110371

TRC Corporation
Artesia Station West



cocid: 233179

ALS Project Manager:

Customer Information				Project Information				ALS Project Manager:											
Purchase Order		Project Name	AFE Investigation	A	8250 (BTEX)														
Work Order		Project Number	Lea County, NM	B	8015 (DRO/ORO)														
Company Name	TRC Corporation	Bill To Company	TRC Corporation	C	8015 (GRO)														
Send Report To	Richard (RD) Varnell	Invoice Attn	TRC-AP	D	300 (Chloride)														
Address	505 East Huntland Drive Suite 250	Address	505 East Huntland Drive Suite 250	E	TDS_W 2540C (TDS)														
City/State/Zip	Austin, TX 78752	City/State/Zip	Austin TX 78752	F	MOIST_SW3550 (Percent Moisture)														
Phone	(512) 329-6080	Phone	(512) 329-6080	G	Full TCLP (TCLP VOC, SVOC, RCRA 8 Metals)														
Fax	(512) 329-8750	Fax	(512) 329-8750	H	RCRA Characteristics (RCF Profile)														
e-Mail Address	RVarvell@trccompanies.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	I	TX1005_S_REV3 (TPH)														
No.	Sample Description			Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-05-2.5'-3.0'			11-3-20	1320	S	nme	2	X	X	X	X		X			X		
2	SB-05-16.5'-17.0'				1355			2	X	X	X	X		X			X		
3	SB-05-27.5'-28.0'				1440			2	X	X	X	X		X			X		
4	SB-05-32.5'-33.0'				1455			2	X	X	X	X		X			X		
5	SB-05-39.0'-40.0'				1512			2	X	X	X	X		X			X		
6	SB-06-14.5'-15.0'			11-4-20	1512 845	Day 17		2	X	X	X	X		X			X		
7	SB-06-2.5'-3.0'				845			2	X	X	X	X		X			X		
8	SB-06-39.5'-40.0'				1100			2	X	X	X	X		X			X		
9	SB-06-47.5'-48.0'				1132			2	X	X	X	X		X			X		
10	Duplicate - 01			-	-			2	X	X	X	X		X			X		

Shipments Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Poly-Gaston Chemical		Fedex		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by:	Date: 11-5-20	Received by:	Date: 11-6-20	Notes: Artesia Station West			
Relinquished by:	Date:	Received by (Laboratory):	Date:	Cooler ID		Cooler Temp.	
Relinquished by:	Date:	Checked by (Laboratory):	Date:	45506		2.0°C	
Logged by (Laboratory):				QC Package: (Check One Box Below)			
				Level II Std QC ☒			
				Level III Std QC/Raw Data ☐			
				Level IV SW846/CLP ☐			
				Other ☐			

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

TRRP Checklist: TRRP Level IV ☐

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

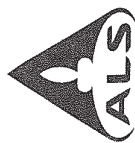
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125 CFO

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Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	

cocid: 233180

ALS Project Manager:	
----------------------	--

Customer Information				Project Information													
Purchase Order				Project Name	AFE Investigation												
Work Order				Project Number	8260 (BTEX)												
Company Name	TRC Corporation			Bill To Company	Lea County, NM												
Send Report To	Richard (RD) Varnell			Invoice Attn	TRC Corporation												
Address	505 East Huntland Drive Suite 250			Address	505 East Huntland Drive Suite 250												
City/State/Zip	Austin, TX 78752			City/State/Zip	Austin TX 78752												
Phone	(512) 329-6080			Phone	(512) 329-6080												
Fax	(512) 329-8750			Fax	(512) 329-8750												
e-Mail Address	RVarnell@trccompanies.com			e-Mail Address	apinvoiceapprovat@trcsolutions.com												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-07-2.0'-2.5'	11-4-2020	1350	S	none	2	X	X	X	X	X	X	X	X	X	X	
2	SB-07-34.5'-35.0'	↓	1510	↓	↓	2	X	X	X	X	X	X	X	X	X	X	
3	SB-07-39.5'-40.0'	↓	1520	↓	↓	2	X	X	X	X	X	X	X	X	X	X	
4	SB-07-49.0'-50.0'	↓	1600	↓	↓	2	X	X	X	X	X	X	X	X	X	X	
5	TB-11-05.20-1	11-5-20	1300	w	-	2											X
6	SB-08-2.0'-2.5'	↓	756	S	none	2	X	X	X	X	X	X	X	X	X	X	
7	SB-08-14.5'-15.0'	↓	852	S	↓	2	X	X	X	X	X	X	X	X	X	X	
8	SB-08-39.0'-40.0'	↓	948	S	↓	2	X	X	X	X	X	X	X	X	X	X	
9																	
10																	

Sample(s) Please Print & Sign		Shipment Method	Required Turnaround Time: (Check Box)		Other	Results Due Date:	
Lody Guston		Fedex	☒ STD 1c Wk Days	☐ 5 Wk Days	☐ 2 Wk Days	☐ 24 Hour	
Relinquished by:	Date: 11-5-20	Received by:	Antesia Station West				
Relinquished by:	Date: 11-5-20	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)		
Logged by (Laboratory):	Date:	Checked by (Laboratory):	43506		☒ Level II Std QC	☐ TRAP Checklist	
					☐ Level III Std QC/Raw Data	☐ TRAP Level IV	
					☐ Level IV SW/MS/CLP	☐ Other	

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note:

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. *The Chain of Custody is a legal document and is not to be tampered with.*

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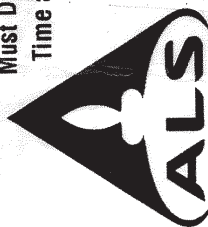
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45506 NOV 06 2020

Part # 59469-494 RIT2 EXP 09/21

**Must Deliver Next Business Day
Time and Temperature Sensitive!**



45506

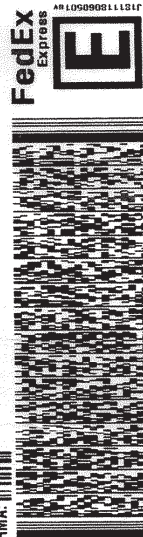
ORIGIN ID:SGRA (512) 329-6090
CITY: GASTON
TRC: SA
14321 RED MAPLE WOOD
SAN ANTONIO, TX 78249
UNITED STATES US

SHIP DATE: 26OCT20
ACTWT: 1.00 LB 15.00 OZ
DIM: 26.1x14.1x11.1

TO **CLIENT SERVICES**
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099

(281) 530-6668
REF: AFE INVESTIGATION - BO 74597 - RJ

RMA: 111111



FedEx
TRK# 1891 8882 0940
0221

FRI
PRIORIT.

AB SGRA

TX-US 1M



#716460 11/05 568J3/5108/2765



Analytical Data Review Checklist

Site: WTX to EMSU Location: Klein Ranch, Lea County, NM Client Name: HEP-Operating Project #: 374611	Laboratory: ALS Lab Report #: HS20110458	QA Reviewer: R Varnell Date: 12/2/2020
Analytical Method(s): EPA Methods 8015M, 8260, E300, 3550, 1311/8270, 1311/6020, 7470, 7.3.3.2, 9045, 7.3.4.2.	Matrices Sampled: Soil, water (trip blank)	Sample Collection Date(s): 11/6/2020
Sampling Objective(s): Delineate impacted media		
Sample IDs: (list IDs or attach COC): Please see attached COC.		

NOTE: Provide comments if any of the shaded boxes are checked.

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
Sample Traceability / Chain of Custody					
1	Were COC forms appropriately completed?	X			
2	Did the laboratory report correct sample IDs?	X			
3	Do the laboratory reported sample collection dates and times agree with the COC forms?	X			
Sample Preservation and Integrity					
4	Did samples arrive at the laboratory appropriately preserved?	X			EnCore sample collection not required.
	Was the cooler temperature between 0-6°C?	X			
	Was acid used for preservation when required (e.g., aqueous VOC and metals samples)?			X	
	Were soil/sediment VOC samples preserved in the field or collected in EnCore® samplers?			X	
5	Were samples received by the laboratory in an acceptable condition (i.e., no breakages, leaks, etc.)?	X			
6	Were any issues noted by the laboratory upon receipt?		X		
7	Were sample preparation and analysis holding time requirements met?		X		Holding time for pH (waste characterization analysis) exceeded.
8	<u>AIR ONLY:</u> Were canisters received with an acceptable vacuum?			X	
	Were the RPDs between the initial and final canister flow controller calibrations <20?				
Data Completeness					
9	Are results reported for all analytical methods requested?	X			
10	Are results reported for all samples submitted for analysis?	X			
11	Were the requested analytical methods used?	X			
12	Are results reported for all target analytes, but no additional analytes?	X			



Analytical Data Review Checklist

	Review Item or Question	Y	N	NA	Comments ⁽¹⁾
13	Were soil/sediment results reported on a dry weight basis?	X			
14	If requested, were detected results below the reporting limit (i.e., "J" values) reported?	X			
15	Did we receive the required deliverables (e.g., EDD, Level 4 data, laboratory certification, etc.) in the correct formats?	X			
Sensitivity					
16	Do the reporting limits meet the project specifications (e.g., QAPP or Work Plan)?	X			
17	Were dilutions performed? If so, note sample(s) and parameter(s) affected and the dilution factor(s).	X			Dilutions on multiple samples due to high contaminant concentrations.
18	Did the laboratory provide an adequate explanation as to why dilutions were performed?	X			High Contaminant Concentration.
QC Results					
19	Were any target analytes detected in the method blanks? If yes, list contaminants, concentrations detected and associated samples.		X		
20	Does each analytical or preparation batch have its own method blank?	X			
21	Were any target analytes detected in the field blank(s) (e.g., trip blanks, equipment blanks)? If yes, list contaminants, concentrations detected and associated samples (or attach field blank results).		X		
22	Are there any potential false positive results based on questions 19 and/or 21? If concentrations of contaminants in associated samples are $\leq 10x$ the blank concentration for common laboratory contaminants and $\leq 5x$ the blank concentration for other contaminants, sample result is most likely a false positive. ⁽²⁾ Common blank contaminants: methylene chloride, acetone, 2-butanone, phthalates.			X	
23	Are LCS/LCSD recoveries within QC limits ⁽³⁾ ? If no, list analytes affected, the LCS/LCSD recoveries and the affected samples.	X			Yes. Percent recoveries for reactive cyanide & sulfide represent were low but inside lab control limits. These data were not used for delineation.
24	Does each analytical or preparation batch have its own LCS?	X			
25	Are LCS/LCSD RPDs within QC limits ⁽³⁾ ? If no, list analytes affected, the RPDs and the affected samples.	X			
26	Are MS/MSD recoveries within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the MS/MSD recoveries and the sample that was spiked.			X	Low recoveries/Other issues: Batch 159580: MS/MSD for HS20110458-03 low recovery. Batch 159530: MS/MSD from difference site so not applicable. Batch R373025: MS/MSD from difference site (N/A). Batch 159446: MS from difference site (N/A). Batch 159619: MS from difference site (N/A). Batch 160056: MS/MSD from difference site (N/A). Batch 159745: MS/MSD from difference site (N/A).



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
27	Are MS/MSD RPDs within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was spiked.	X			
28	Are laboratory duplicate RPDs within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was prepared/analyzed in duplicate.	X			
29	Are field duplicate RPDs within QC limits? If no, list analytes affected, the RPDs and the associated samples. NOTE: Typical criteria ⁽⁴⁾ are RPD ≤50 for solid samples and RPD ≤30 for aqueous and air samples when results are >2x the reporting limit; otherwise these criteria are doubled. However, project-specific or regulatory-based criteria may supersede these criteria.		X		The RPD of GRO detections in the sample pair of SB-14-46"-48" (HS20110458-10) and Duplicate-02 (HS20110458-13) was 54.90%, slightly outside of TRC's RPD range of 50% (see attached). However, due to the low relative concentration of the detected GRO no data were qualified.
30	<u>ORGANIC ANALYSES ONLY:</u> Are surrogate recoveries within QC limits ⁽³⁾ ? If no, list samples, surrogate recoveries and analytes affected.		X		See lab QC sheet. Surrogate recoveries did not result in need to qualify data.
Laboratory Comments					
31	Did the case narrative describe any analytical anomalies (i.e., problems or unique occurrences)? If yes, list the comments that have potential impact to sample results (or attach case narrative and highlight the comments that have potential impact to sample results).		X		
32	Were any other potential data quality issues identified? If yes, describe issues.		X		
Do the Data Make Sense?					
33	Do any results look questionable? If yes, ASK THE LAB!		X		
34	Has the EDD been compared with the lab report?		X		EDD not used to create data tables.

- (1) Comments generally need to be addressed in the TRC deliverable presenting the laboratory data but this will be dependent on project requirements.
- (2) Check if local or regional criteria for blank assessments are available; these will supersede criteria in this checklist.
- (3) Use QC limits in QAPP, if available. If not, use QC limits provided by laboratory in data package.
- (4) EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Guidance/Procedures, April 22, 2013.

COC = Chain-of-Custody

EDD = Electronic Data Deliverable

LCS/LCSD = Laboratory Control Sample / Laboratory Control Sample Duplicate

MS/MSD = Matrix Spike / Matrix Spike Duplicate

QAPP = Quality Assurance Project Plan

QC = Quality Control

RPD = Relative Percent Difference = $|((A-B)/((A+B)/2))|$

VOC = Volatile Organic Compounds

NOTE: After data tables are created, check that reporting limits are below the project action levels (e.g., screening criteria,

ECR Practice
November 2015
Page 3 of 4



Analytical Data Review Checklist

remediation standards, etc.) and compare data with historical results, if applicable.

Additional Comments:

Richard Vanell

**SUMMARY OF DATA VALIDATION RPD CALCULATIONS FOR FIELD DUPLICATES
WTX TO EMSU BATTERY TO BYRD PUMP SEGMENT, LEA COUNTY, NM**

Boring ID	Depth Interval	Sample Date	Constituent of Concern (COC)									
			BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)
			Benzene	Ethyl-benzene	Toluene	Total Xylenes	Total BTEX	GRO	DRO	MRO	TPH ³	
SB-06 (MW-2)	Reporting Limit		0.005	0.005	0.005	0.005	0.005	0.048	84	170	NA	4.91
	(39.5-40')	11/4/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	0.3	400	390	790.3	98.1
	Duplicate-01	11/4/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.36	390	470	860.36	95.5
	RPD		4.08%	4.08%	4.08%	4.08%	4.08%	18.18%	2.53%	18.60%	8.49%	2.69%
SB-14	Reporting Limit		0.005	0.005	0.005	0.005	0.005	0.053	170	340	NA	5.00
	4' (46-48")	11/6/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	13	5500	4700	10213	<5.00
	Duplicate-02	11/6/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7.4	4700	4300	9007.4	<5.00
	RPD		2.02%	2.02%	2.02%	2.02%	2.02%	54.90%	15.69%	8.89%	12.55%	0.00%

Detected concentrations reported in bold.

Orange shading represents RPD outside of TRC QC limits.

Duplicate sample data provided immediately below paired assessment sample.



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

November 30, 2020

Richard (RD) Varnell
TRC Corporation
505 East Huntland Drive
Suite 250
Austin, TX 78752

Work Order: **HS20110458**

Laboratory Results for: **AFE Investigation**

Dear Richard (RD) Varnell,

ALS Environmental received 17 sample(s) on Nov 10, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER

RJ Modashia
Project Manager

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110458

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20110458-01	SB-09-24"-26"	Soil		06-Nov-2020 09:06	10-Nov-2020 10:55	☐
HS20110458-02	SB-09-46"-48"	Soil		06-Nov-2020 09:12	10-Nov-2020 10:55	☐
HS20110458-03	SB-10-36"-38"	Soil		06-Nov-2020 09:36	10-Nov-2020 10:55	☐
HS20110458-04	SB-11-24"-26"	Soil		06-Nov-2020 10:07	10-Nov-2020 10:55	☐
HS20110458-05	SB-11-40"-43"	Soil		06-Nov-2020 10:15	10-Nov-2020 10:55	☐
HS20110458-06	SB-12-46"-48"	Soil		06-Nov-2020 11:20	10-Nov-2020 10:55	☐
HS20110458-07	SB-13-16"-18"	Soil		06-Nov-2020 12:26	10-Nov-2020 10:55	☐
HS20110458-08	SB-13-38"-40"	Soil		06-Nov-2020 12:35	10-Nov-2020 10:55	☐
HS20110458-09	SB-14-16"-18"	Soil		06-Nov-2020 12:51	10-Nov-2020 10:55	☐
HS20110458-10	SB-14-46"-48"	Soil		06-Nov-2020 13:01	10-Nov-2020 10:55	☐
HS20110458-11	SB-15-24"-26"	Soil		06-Nov-2020 13:48	10-Nov-2020 10:55	☐
HS20110458-12	SB-15-46"-48"	Soil		06-Nov-2020 13:55	10-Nov-2020 10:55	☐
HS20110458-13	Duplicate - 02	Soil		06-Nov-2020 00:00	10-Nov-2020 10:55	☐
HS20110458-14	WC-01	Soil		06-Nov-2020 14:00	10-Nov-2020 10:55	☐
HS20110458-15	SB-16-13"-20"	Soil		06-Nov-2020 16:39	10-Nov-2020 10:55	☐
HS20110458-16	SB-16-44"-46"	Soil		06-Nov-2020 16:51	10-Nov-2020 10:55	☐
HS20110458-17	TB-11-09-20-2	Water		09-Nov-2020 14:00	10-Nov-2020 10:55	☐

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110458

CASE NARRATIVE**Work Order Comments**

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

GC Semivolatiles by Method SW8015M**Batch ID: 159891**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: 159580**Sample ID: Duplicate - 02 (HS20110458-13)**

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-10-36"-38" (HS20110458-03MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: SB-10-36"-38" (HS20110458-03MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

Sample ID: SB-13-16"-18" (HS20110458-07)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-14-16"-18" (HS20110458-09)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: SB-14-46"-48" (HS20110458-10)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: WC-01 (HS20110458-14)

- Surrogate recoveries were outside of the control limits due to matrix interference.

Batch ID: 159530**Sample ID: HS20110509-05MSD**

- MSD is for an unrelated sample

Sample ID: SB-09-24"-26" (HS20110458-01)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

GC Volatiles by Method SW8015**Batch ID: R372464,R372539,R373029**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110458

CASE NARRATIVE

GCMS Semivolatiles by Method SW1311/8270**Batch ID: 159508**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: R373025****Sample ID: HS20110514-03MS**

- MS and MSD are for an unrelated sample

Batch ID: R372651,R372943

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: 159446**Sample ID: HS20110707-03MS**

- MS is for an unrelated sample

Metals by Method SW1311/6020**Batch ID: 159619****Sample ID: HS20110420-01MSD**

- MSD is for an unrelated sample

Metals by Method SW7470**Batch ID: 159560**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method ASTM D2216**Batch ID: R372751,R372752,R373307**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method ASTM D92-12b**Batch ID: R372762**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.3.2**Batch ID: R372789**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9045D**Batch ID: R372692**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110458

CASE NARRATIVE

WetChemistry by Method SW9045D

WetChemistry by Method SW7.3.4.2**Batch ID: R372687**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300**Batch ID: 160056****Sample ID: HS20111195-01MS**

- MS and MSD are for an unrelated sample (Chloride)

Batch ID: 159745**Sample ID: HS20110702-04MS**

- MS and MSD are for an unrelated sample (Chloride)

Batch ID: 159464

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-09-24"-26"
 Collection Date: 06-Nov-2020 09:06

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 01:21
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 01:21
Toluene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 01:21
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 01:21
Surr: 1,2-Dichloroethane-d4	87.7		70-126	%REC	1	15-Nov-2020 01:21
Surr: 4-Bromofluorobenzene	94.7		70-130	%REC	1	15-Nov-2020 01:21
Surr: Dibromofluoromethane	92.0		70-130	%REC	1	15-Nov-2020 01:21
Surr: Toluene-d8	98.6		70-130	%REC	1	15-Nov-2020 01:21
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.052		0.052	mg/Kg	1	12-Nov-2020 15:20
Surr: 4-Bromofluorobenzene	103		70-123	%REC	1	12-Nov-2020 15:20
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	480		170	mg/Kg	100	12-Nov-2020 16:00
TPH (Motor Oil Range)	1,400	n	330	mg/Kg	100	12-Nov-2020 16:00
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	100	12-Nov-2020 16:00
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	5.32		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	< 4.96		4.96	mg/Kg	1	15-Nov-2020 18:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-09-46"-48"
 Collection Date: 06-Nov-2020 09:12

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 01:45
Ethylbenzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 01:45
Toluene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 01:45
Xylenes, Total	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 01:45
Surr: 1,2-Dichloroethane-d4	87.8		70-126	%REC	1	15-Nov-2020 01:45
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	15-Nov-2020 01:45
Surr: Dibromofluoromethane	93.1		70-130	%REC	1	15-Nov-2020 01:45
Surr: Toluene-d8	98.5		70-130	%REC	1	15-Nov-2020 01:45
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.054		0.054	mg/Kg	1	12-Nov-2020 15:36
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	12-Nov-2020 15:36
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 11-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	100		85	mg/Kg	50	12-Nov-2020 16:55
TPH (Motor Oil Range)	700	n	170	mg/Kg	50	12-Nov-2020 16:55
Surr: 2-Fluorobiphenyl	81.4	J	60-129	%REC	50	12-Nov-2020 16:55
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	12.4		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	< 4.97		4.97	mg/Kg	1	15-Nov-2020 19:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-10-36"-38"
 Collection Date: 06-Nov-2020 09:36

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 02:09
Ethylbenzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 02:09
Toluene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 02:09
Xylenes, Total	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 02:09
Surr: 1,2-Dichloroethane-d4	84.4		70-126	%REC	1	15-Nov-2020 02:09
Surr: 4-Bromofluorobenzene	96.9		70-130	%REC	1	15-Nov-2020 02:09
Surr: Dibromofluoromethane	90.0		70-130	%REC	1	15-Nov-2020 02:09
Surr: Toluene-d8	98.4		70-130	%REC	1	15-Nov-2020 02:09
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.050		0.050	mg/Kg	1	12-Nov-2020 15:52
Surr: 4-Bromofluorobenzene	111		70-123	%REC	1	12-Nov-2020 15:52
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	13-Nov-2020 13:47
TPH (Motor Oil Range)	< 3.4	n	3.4	mg/Kg	1	13-Nov-2020 13:47
Surr: 2-Fluorobiphenyl	103		60-129	%REC	1	13-Nov-2020 13:47
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	32.9		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 10-Nov-2020 Analyst: YP		
Chloride	< 4.99		4.99	mg/Kg	1	15-Nov-2020 19:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-11-24"-26"
 Collection Date: 06-Nov-2020 10:07

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 02:33
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 02:33
Toluene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 02:33
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 02:33
Surr: 1,2-Dichloroethane-d4	87.0		70-126	%REC	1	15-Nov-2020 02:33
Surr: 4-Bromofluorobenzene	95.7		70-130	%REC	1	15-Nov-2020 02:33
Surr: Dibromofluoromethane	91.1		70-130	%REC	1	15-Nov-2020 02:33
Surr: Toluene-d8	98.5		70-130	%REC	1	15-Nov-2020 02:33
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.050		0.050	mg/Kg	1	12-Nov-2020 16:08
Surr: 4-Bromofluorobenzene	114		70-123	%REC	1	12-Nov-2020 16:08
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	5.2		1.7	mg/Kg	1	13-Nov-2020 16:41
TPH (Motor Oil Range)	28	n	3.4	mg/Kg	1	13-Nov-2020 16:41
Surr: 2-Fluorobiphenyl	102		60-129	%REC	1	13-Nov-2020 16:41
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	3.87		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 4.99		4.99	mg/Kg	1	22-Nov-2020 15:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-11-40"-43"
 Collection Date: 06-Nov-2020 10:15

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 02:57
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 02:57
Toluene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 02:57
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 02:57
Surr: 1,2-Dichloroethane-d4	90.5		70-126	%REC	1	15-Nov-2020 02:57
Surr: 4-Bromofluorobenzene	97.7		70-130	%REC	1	15-Nov-2020 02:57
Surr: Dibromofluoromethane	94.8		70-130	%REC	1	15-Nov-2020 02:57
Surr: Toluene-d8	97.0		70-130	%REC	1	15-Nov-2020 02:57
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.052		0.052	mg/Kg	1	12-Nov-2020 16:24
Surr: 4-Bromofluorobenzene	111		70-123	%REC	1	12-Nov-2020 16:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	44		17	mg/Kg	10	13-Nov-2020 16:17
TPH (Motor Oil Range)	110	n	34	mg/Kg	10	13-Nov-2020 16:17
Surr: 2-Fluorobiphenyl	126		60-129	%REC	10	13-Nov-2020 16:17
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	10.0		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 4.97		4.97	mg/Kg	1	22-Nov-2020 16:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-12-46"-48"
 Collection Date: 06-Nov-2020 11:20

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 03:20
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 03:20
Toluene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 03:20
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 03:20
Surr: 1,2-Dichloroethane-d4	87.4		70-126	%REC	1	15-Nov-2020 03:20
Surr: 4-Bromofluorobenzene	98.1		70-130	%REC	1	15-Nov-2020 03:20
Surr: Dibromofluoromethane	91.5		70-130	%REC	1	15-Nov-2020 03:20
Surr: Toluene-d8	99.7		70-130	%REC	1	15-Nov-2020 03:20
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.048		0.048	mg/Kg	1	12-Nov-2020 16:40
Surr: 4-Bromofluorobenzene	111		70-123	%REC	1	12-Nov-2020 16:40
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	13-Nov-2020 17:05
TPH (Motor Oil Range)	5.3	n	3.4	mg/Kg	1	13-Nov-2020 17:05
Surr: 2-Fluorobiphenyl	93.8		60-129	%REC	1	13-Nov-2020 17:05
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	9.02		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 5.00		5.00	mg/Kg	1	22-Nov-2020 16:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-13-16"-18"
 Collection Date: 06-Nov-2020 12:26

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 03:44
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 03:44
Toluene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 03:44
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 03:44
Surr: 1,2-Dichloroethane-d4	90.0		70-126	%REC	1	15-Nov-2020 03:44
Surr: 4-Bromofluorobenzene	96.3		70-130	%REC	1	15-Nov-2020 03:44
Surr: Dibromofluoromethane	93.7		70-130	%REC	1	15-Nov-2020 03:44
Surr: Toluene-d8	99.4		70-130	%REC	1	15-Nov-2020 03:44
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.052		0.052	mg/Kg	1	12-Nov-2020 16:56
Surr: 4-Bromofluorobenzene	105		70-123	%REC	1	12-Nov-2020 16:56
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	740		170	mg/Kg	100	13-Nov-2020 17:30
TPH (Motor Oil Range)	2,100	n	340	mg/Kg	100	13-Nov-2020 17:30
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	100	13-Nov-2020 17:30
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	4.00		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 5.00		5.00	mg/Kg	1	22-Nov-2020 16:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-13-38"-40"
 Collection Date: 06-Nov-2020 12:35

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 04:08
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 04:08
Toluene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 04:08
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 04:08
Surr: 1,2-Dichloroethane-d4	89.7		70-126	%REC	1	15-Nov-2020 04:08
Surr: 4-Bromofluorobenzene	97.4		70-130	%REC	1	15-Nov-2020 04:08
Surr: Dibromofluoromethane	93.1		70-130	%REC	1	15-Nov-2020 04:08
Surr: Toluene-d8	99.1		70-130	%REC	1	15-Nov-2020 04:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.054		0.054	mg/Kg	1	12-Nov-2020 17:12
Surr: 4-Bromofluorobenzene	109		70-123	%REC	1	12-Nov-2020 17:12
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	87		84	mg/Kg	50	13-Nov-2020 17:54
TPH (Motor Oil Range)	530	n	170	mg/Kg	50	13-Nov-2020 17:54
Surr: 2-Fluorobiphenyl	146	JS	60-129	%REC	50	13-Nov-2020 17:54
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	11.7		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 4.97		4.97	mg/Kg	1	19-Nov-2020 22:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-14-16"-18"
 Collection Date: 06-Nov-2020 12:51

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-09
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 07:19
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 07:19
Toluene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 07:19
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 07:19
Surr: 1,2-Dichloroethane-d4	84.9		70-126	%REC	1	15-Nov-2020 07:19
Surr: 4-Bromofluorobenzene	99.4		70-130	%REC	1	15-Nov-2020 07:19
Surr: Dibromofluoromethane	90.8		70-130	%REC	1	15-Nov-2020 07:19
Surr: Toluene-d8	102		70-130	%REC	1	15-Nov-2020 07:19
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	16		0.056	mg/Kg	1	12-Nov-2020 18:17
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	12-Nov-2020 18:17
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	9,100		680	mg/Kg	400	16-Nov-2020 16:33
TPH (Motor Oil Range)	8,000	n	1400	mg/Kg	400	16-Nov-2020 16:33
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	400	16-Nov-2020 16:33
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	6.90		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 4.99		4.99	mg/Kg	1	22-Nov-2020 17:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-14-46"-48"
 Collection Date: 06-Nov-2020 13:01

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-10
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 04:32
Ethylbenzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 04:32
Toluene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 04:32
Xylenes, Total	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 04:32
Surr: 1,2-Dichloroethane-d4	88.6		70-126	%REC	1	15-Nov-2020 04:32
Surr: 4-Bromofluorobenzene	99.3		70-130	%REC	1	15-Nov-2020 04:32
Surr: Dibromofluoromethane	93.5		70-130	%REC	1	15-Nov-2020 04:32
Surr: Toluene-d8	102		70-130	%REC	1	15-Nov-2020 04:32
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	13		0.054	mg/Kg	1	12-Nov-2020 18:33
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	12-Nov-2020 18:33
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	5,500		170	mg/Kg	100	13-Nov-2020 18:43
TPH (Motor Oil Range)	4,700	n	340	mg/Kg	100	13-Nov-2020 18:43
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	100	13-Nov-2020 18:43
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	7.69		0.0100	wt%	1	16-Nov-2020 15:35
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 5.00		5.00	mg/Kg	1	22-Nov-2020 17:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-15-24"-26"
 Collection Date: 06-Nov-2020 13:48

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-11
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 04:56
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 04:56
Toluene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 04:56
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 04:56
Surr: 1,2-Dichloroethane-d4	85.4		70-126	%REC	1	15-Nov-2020 04:56
Surr: 4-Bromofluorobenzene	96.7		70-130	%REC	1	15-Nov-2020 04:56
Surr: Dibromofluoromethane	89.3		70-130	%REC	1	15-Nov-2020 04:56
Surr: Toluene-d8	98.8		70-130	%REC	1	15-Nov-2020 04:56
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.054		0.054	mg/Kg	1	12-Nov-2020 18:49
Surr: 4-Bromofluorobenzene	114		70-123	%REC	1	12-Nov-2020 18:49
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	13-Nov-2020 19:07
TPH (Motor Oil Range)		12	3.4	mg/Kg	1	13-Nov-2020 19:07
Surr: 2-Fluorobiphenyl	106	n	60-129	%REC	1	13-Nov-2020 19:07
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	3.46		0.0100	wt%	1	16-Nov-2020 16:21
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 5.00		5.00	mg/Kg	1	22-Nov-2020 17:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-15-46"-48"
 Collection Date: 06-Nov-2020 13:55

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 05:20
Ethylbenzene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 05:20
Toluene	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 05:20
Xylenes, Total	< 0.0049		0.0049	mg/Kg	1	15-Nov-2020 05:20
Surr: 1,2-Dichloroethane-d4	89.5		70-126	%REC	1	15-Nov-2020 05:20
Surr: 4-Bromofluorobenzene	98.0		70-130	%REC	1	15-Nov-2020 05:20
Surr: Dibromofluoromethane	92.1		70-130	%REC	1	15-Nov-2020 05:20
Surr: Toluene-d8	96.8		70-130	%REC	1	15-Nov-2020 05:20
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	< 0.050		0.050	mg/Kg	1	12-Nov-2020 19:05
Surr: 4-Bromofluorobenzene	110		70-123	%REC	1	12-Nov-2020 19:05
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	13-Nov-2020 19:31
TPH (Motor Oil Range)		11 n		3.4 mg/Kg		
Surr: 2-Fluorobiphenyl	120		60-129	%REC	1	13-Nov-2020 19:31
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	12.0		0.0100	wt%	1	16-Nov-2020 16:21
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 4.99		4.99	mg/Kg	1	22-Nov-2020 18:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: Duplicate - 02
 Collection Date: 06-Nov-2020 00:00

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-13
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 05:43
Ethylbenzene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 05:43
Toluene	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 05:43
Xylenes, Total	< 0.0050		0.0050	mg/Kg	1	15-Nov-2020 05:43
Surr: 1,2-Dichloroethane-d4	89.1		70-126	%REC	1	15-Nov-2020 05:43
Surr: 4-Bromofluorobenzene	99.7		70-130	%REC	1	15-Nov-2020 05:43
Surr: Dibromofluoromethane	93.2		70-130	%REC	1	15-Nov-2020 05:43
Surr: Toluene-d8	101		70-130	%REC	1	15-Nov-2020 05:43
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: JLJ		
Gasoline Range Organics	7.4		0.053	mg/Kg	1	12-Nov-2020 19:21
Surr: 4-Bromofluorobenzene	105		70-123	%REC	1	12-Nov-2020 19:21
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	4,700		170	mg/Kg	100	13-Nov-2020 19:07
TPH (Motor Oil Range)	4,300	n	340	mg/Kg	100	13-Nov-2020 19:07
Surr: 2-Fluorobiphenyl	0	JS	60-129	%REC	100	13-Nov-2020 19:07
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JAC		
Percent Moisture	9.93		0.0100	wt%	1	16-Nov-2020 16:21
ANIONS BY E300.0		Method:E300		Prep:E300 / 17-Nov-2020 Analyst: YP		
Chloride	< 5.00		5.00	mg/Kg	1	22-Nov-2020 18:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: WC-01
 Collection Date: 06-Nov-2020 14:00

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES		Method:SW8260	Leache:SW1311 / 11-Nov-2020	Prep:SW1311 / 11-Nov-2020	Analyst: PC	
1,1-Dichloroethene	< 100		100	ug/L	20	18-Nov-2020 06:57
1,2-Dichloroethane	< 100		100	ug/L	20	18-Nov-2020 06:57
1,4-Dichlorobenzene	< 100		100	ug/L	20	18-Nov-2020 06:57
2-Butanone	< 200		200	ug/L	20	18-Nov-2020 06:57
Benzene	< 100		100	ug/L	20	18-Nov-2020 06:57
Carbon tetrachloride	< 100		100	ug/L	20	18-Nov-2020 06:57
Chlorobenzene	< 100		100	ug/L	20	18-Nov-2020 06:57
Chloroform	< 100		100	ug/L	20	18-Nov-2020 06:57
Tetrachloroethene	< 100		100	ug/L	20	18-Nov-2020 06:57
Trichloroethene	< 100		100	ug/L	20	18-Nov-2020 06:57
Vinyl chloride	< 40		40	ug/L	20	18-Nov-2020 06:57
Surr: 1,2-Dichloroethane-d4	86.4		70-126	%REC	20	18-Nov-2020 06:57
Surr: 4-Bromofluorobenzene	92.6		82-124	%REC	20	18-Nov-2020 06:57
Surr: Dibromofluoromethane	79.7		77-123	%REC	20	18-Nov-2020 06:57
Surr: Toluene-d8	103		82-127	%REC	20	18-Nov-2020 06:57
VOLATILES BY SW8260C		Method:SW8260	Analyst: WLR			
Benzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 06:07
Ethylbenzene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 06:07
Toluene	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 06:07
Xylenes, Total	< 0.0048		0.0048	mg/Kg	1	15-Nov-2020 06:07
Surr: 1,2-Dichloroethane-d4	85.3		70-126	%REC	1	15-Nov-2020 06:07
Surr: 4-Bromofluorobenzene	95.4		70-130	%REC	1	15-Nov-2020 06:07
Surr: Dibromofluoromethane	90.8		70-130	%REC	1	15-Nov-2020 06:07
Surr: Toluene-d8	99.5		70-130	%REC	1	15-Nov-2020 06:07
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015	Analyst: QX			
Gasoline Range Organics	0.60		0.053	mg/Kg	1	12-Nov-2020 20:26
Surr: 4-Bromofluorobenzene	117		70-123	%REC	1	12-Nov-2020 20:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: WC-01
 Collection Date: 06-Nov-2020 14:00

ANALYTICAL REPORT

WorkOrder: HS20110458
 Lab ID: HS20110458-14
 Matrix: Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP SEMIVOLATILES						
	Method: SW1311/8270		Leache: SW1311 / 11-Nov-2020	Prep: SW3510 / 11-Nov-2020		Analyst: GEY
2,4,5-Trichlorophenol	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
2,4,6-Trichlorophenol	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
2,4-Dinitrotoluene	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Cresols, Total	< 15		15	ug/L	1	11-Nov-2020 18:46
Hexachlorobenzene	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Hexachlorobutadiene	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Hexachloroethane	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Nitrobenzene	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Pentachlorophenol	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Pyridine	< 5.0		5.0	ug/L	1	11-Nov-2020 18:46
Surr: 2,4,6-Tribromophenol	74.9		39-153	%REC	1	11-Nov-2020 18:46
Surr: 2-Fluorobiphenyl	75.1		40-147	%REC	1	11-Nov-2020 18:46
Surr: 2-Fluorophenol	73.8		21-110	%REC	1	11-Nov-2020 18:46
Surr: 4-Terphenyl-d14	90.0		39-141	%REC	1	11-Nov-2020 18:46
Surr: Nitrobenzene-d5	88.4		37-140	%REC	1	11-Nov-2020 18:46
Surr: Phenol-d6	80.2		11-110	%REC	1	11-Nov-2020 18:46
TPH DRO/ORO BY SW8015C						
	Method: SW8015M			Prep: SW3541 / 12-Nov-2020		Analyst: PVL
TPH (Diesel Range)	110		17	mg/Kg	10	13-Nov-2020 19:31
TPH (Motor Oil Range)	180	n	34	mg/Kg	10	13-Nov-2020 19:31
Surr: 2-Fluorobiphenyl	184	S	60-129	%REC	10	13-Nov-2020 19:31
TCLP METALS BY SW6020A						
	Method: SW1311/6020		Leache: SW1311 / 11-Nov-2020	Prep: SW3010A / 13-Nov-2020		Analyst: JHD
Arsenic	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:41
Barium	0.800		0.200	mg/L	1	13-Nov-2020 23:41
Cadmium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:41
Chromium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:41
Lead	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:41
Selenium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:41
Silver	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:41
TCLP MERCURY BY SW7470A						
	Method: SW7470		Leache: SW1311 / 11-Nov-2020	Prep: SW7470 / 12-Nov-2020		Analyst: JC
Mercury	< 0.000200		0.000200	mg/L	1	12-Nov-2020 17:38
MOISTURE - ASTM D2216						
	Method: ASTM D2216					Analyst: JAC
Percent Moisture	9.76		0.0100	wt%	1	16-Nov-2020 16:21
FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B						
	Method: ASTM D92-12b					Analyst: TH
Flash Point	> 212	n	50.0	°F	1	17-Nov-2020 08:00
ANIONS BY E300.0						
	Method: E300			Prep: E300 / 17-Nov-2020		Analyst: YP
Chloride	125		4.98	mg/Kg	1	22-Nov-2020 18:39
REACTIVE CYANIDE						
	Method: SW7.3.3.2			Prep: SW7.3.3.2		Analyst: KVL
Reactive Cyanide	< 100	n	100	mg/Kg	1	17-Nov-2020 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Sample ID: WC-01
Collection Date: 06-Nov-2020 14:00

ANALYTICAL REPORT

WorkOrder:HS20110458
Lab ID:HS20110458-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: KVL		
Reactive Sulfide	< 100	n	100	mg/Kg	1	16-Nov-2020 13:10
PH SOIL BY SW9045D		Method:SW9045D		Analyst: JAC		
pH	8.42	H	0.100	pH Units	1	16-Nov-2020 13:56
Temp Deg C @pH	21.8	H	0	°C	1	16-Nov-2020 13:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-16-13"-20"
 Collection Date: 06-Nov-2020 16:39

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-15
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0055		0.0055	mg/Kg	1	20-Nov-2020 02:09
Ethylbenzene	< 0.0055		0.0055	mg/Kg	1	20-Nov-2020 02:09
Toluene	< 0.0055		0.0055	mg/Kg	1	20-Nov-2020 02:09
Xylenes, Total	< 0.0055		0.0055	mg/Kg	1	20-Nov-2020 02:09
Surr: 1,2-Dichloroethane-d4	86.3		70-126	%REC	1	20-Nov-2020 02:09
Surr: 4-Bromofluorobenzene	95.9		70-130	%REC	1	20-Nov-2020 02:09
Surr: Dibromofluoromethane	91.9		70-130	%REC	1	20-Nov-2020 02:09
Surr: Toluene-d8	100		70-130	%REC	1	20-Nov-2020 02:09
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.053		0.053	mg/Kg	1	19-Nov-2020 14:56
Surr: 4-Bromofluorobenzene	114		70-123	%REC	1	19-Nov-2020 14:56
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 19-Nov-2020 Analyst: MBG		
TPH (Diesel Range)	2.6		1.7	mg/Kg	1	20-Nov-2020 19:30
TPH (Motor Oil Range)	6.2	n	3.4	mg/Kg	1	20-Nov-2020 19:30
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	20-Nov-2020 19:30
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: DFF		
Percent Moisture	5.23		0.0100	wt%	1	23-Nov-2020 07:45
ANIONS BY E300.0		Method:E300		Prep:E300 / 24-Nov-2020 Analyst: YP		
Chloride	< 4.98		4.98	mg/Kg	1	26-Nov-2020 01:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: SB-16-44"-46"
 Collection Date: 06-Nov-2020 16:51

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-16
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	< 0.0052		0.0052	mg/Kg	1	20-Nov-2020 02:33
Ethylbenzene	< 0.0052		0.0052	mg/Kg	1	20-Nov-2020 02:33
Toluene	< 0.0052		0.0052	mg/Kg	1	20-Nov-2020 02:33
Xylenes, Total	< 0.0052		0.0052	mg/Kg	1	20-Nov-2020 02:33
Surr: 1,2-Dichloroethane-d4	94.3		70-126	%REC	1	20-Nov-2020 02:33
Surr: 4-Bromofluorobenzene	97.5		70-130	%REC	1	20-Nov-2020 02:33
Surr: Dibromofluoromethane	94.9		70-130	%REC	1	20-Nov-2020 02:33
Surr: Toluene-d8	98.1		70-130	%REC	1	20-Nov-2020 02:33
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.054		0.054	mg/Kg	1	19-Nov-2020 15:12
Surr: 4-Bromofluorobenzene	112		70-123	%REC	1	19-Nov-2020 15:12
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 19-Nov-2020 Analyst: MBG		
TPH (Diesel Range)	< 1.7		1.7	mg/Kg	1	20-Nov-2020 20:43
TPH (Motor Oil Range)	5.1	n	3.4	mg/Kg	1	20-Nov-2020 20:43
Surr: 2-Fluorobiphenyl	63.7		60-129	%REC	1	20-Nov-2020 20:43
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: DFF		
Percent Moisture	11.7		0.0100	wt%	1	23-Nov-2020 07:45
ANIONS BY E300.0		Method:E300		Prep:E300 / 24-Nov-2020 Analyst: YP		
Chloride	< 4.95		4.95	mg/Kg	1	26-Nov-2020 02:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: TB-11-09-20-2
 Collection Date: 09-Nov-2020 14:00

ANALYTICAL REPORT

WorkOrder:HS20110458
 Lab ID:HS20110458-17
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260					Analyst: PC
Benzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 03:02
Ethylbenzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 03:02
m,p-Xylene	< 0.010		0.010	mg/L	1	19-Nov-2020 03:02
o-Xylene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 03:02
Toluene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 03:02
Xylenes, Total	< 0.0050		0.0050	mg/L	1	19-Nov-2020 03:02
Surr: 1,2-Dichloroethane-d4	103		70-126	%REC	1	19-Nov-2020 03:02
Surr: 4-Bromofluorobenzene	97.1		82-124	%REC	1	19-Nov-2020 03:02
Surr: Dibromofluoromethane	97.4		77-123	%REC	1	19-Nov-2020 03:02
Surr: Toluene-d8	102		82-127	%REC	1	19-Nov-2020 03:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 30-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110458

Batch ID: 4010

Start Date: 12 Nov 2020 14:59

End Date: 12 Nov 2020 14:59

Method: GASOLINE RANGE ORGANICS BY SW8015C

Prep Code:

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20110458-01	1	4.778 (g)	5 (mL)	1.05	Bulk (5030B)
HS20110458-02	1	4.599 (g)	5 (mL)	1.09	Bulk (5030B)
HS20110458-03	1	5.073 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110458-04	1	5.057 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110458-05	1	4.781 (g)	5 (mL)	1.05	Bulk (5030B)
HS20110458-06	1	5.149 (g)	5 (mL)	0.97	Bulk (5030B)
HS20110458-07	1	4.74 (g)	5 (mL)	1.05	Bulk (5030B)
HS20110458-08	1	4.602 (g)	5 (mL)	1.09	Bulk (5030B)
HS20110458-09	1	4.507 (g)	5 (mL)	1.11	Bulk (5030B)
HS20110458-10	1	4.635 (g)	5 (mL)	1.08	Bulk (5030B)
HS20110458-11	1	4.683 (g)	5 (mL)	1.07	Bulk (5030B)
HS20110458-12	1	5.042 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110458-13	1	4.702 (g)	5 (mL)	1.06	Bulk (5030B)
HS20110458-14	1	4.725 (g)	5 (mL)	1.06	Bulk (5030B)

Batch ID: 4011

Start Date: 13 Nov 2020 09:02

End Date: 13 Nov 2020 09:02

Method: TCLP VOLATILES

Prep Code:

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20110458-14	1	5.223 (g)	5 (mL)	0.96	Bulk (5030B)
HS20110458-01	1	4.947 (g)	5 (mL)	1.01	Bulk (5030B)
HS20110458-02	1	5.105 (g)	5 (mL)	0.98	Bulk (5030B)
HS20110458-03	1	5.117 (g)	5 (mL)	0.98	Bulk (5030B)
HS20110458-04	1	5.216 (g)	5 (mL)	0.96	Bulk (5030B)
HS20110458-05	1	4.969 (g)	5 (mL)	1.01	Bulk (5030B)
HS20110458-06	1	5.027 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110458-07	1	5.174 (g)	5 (mL)	0.97	Bulk (5030B)
HS20110458-08	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS20110458-09	1	5.191 (g)	5 (mL)	0.96	Bulk (5030B)
HS20110458-10	1	5.109 (g)	5 (mL)	0.98	Bulk (5030B)
HS20110458-11	1	5.262 (g)	5 (mL)	0.95	Bulk (5030B)
HS20110458-12	1	5.125 (g)	5 (mL)	0.98	Bulk (5030B)
HS20110458-13	1	5.008 (g)	5 (mL)	1	Bulk (5030B)
HS20110458-14	1	5.223 (g)	5 (mL)	0.96	Bulk (5030B)

Batch ID: 4024

Start Date: 18 Nov 2020 16:20

End Date: 18 Nov 2020 16:20

Method: GASOLINE RANGE ORGANICS BY SW8015C

Prep Code:

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20110458-15	1	4.728 (g)	5 (mL)	1.06	Bulk (5030B)
HS20110458-16	1	4.673 (g)	5 (mL)	1.07	Bulk (5030B)

Batch ID: 4027

Start Date: 19 Nov 2020 13:24

End Date: 19 Nov 2020 13:24

Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS20110458-15	1	4.535 (g)	5 (mL)	1.1	Bulk (5030B)
HS20110458-16	1	4.756 (g)	5 (mL)	1.05	Bulk (5030B)

ALS Houston, US

Date: 30-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110458

Batch ID: 159446 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP ZHE (VOL EXTRACTION) Prep Code: 1311ZHE

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14		25 (g)	500 (mL)	20

Batch ID: 159449 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP SAMPLE EXTRACTION SEMI Prep Code: 1311LO_SV

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14		150 (grams)	3000 (mL)	20

Batch ID: 159450 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP MERCURY EXTRACTION BY SW1311 Prep Code: 1311LHG EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14		150 (grams)	3000 (mL)	20

Batch ID: 159451 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP METALS EXTRACTION BY SW1311 Prep Code: 1311LM EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14		150 (grams)	3000 (mL)	20

Batch ID: 159464 Start Date: 11 Nov 2020 12:00 End Date: 11 Nov 2020 14:00

Method: 300 ANIONS SOIL PREP Prep Code: 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-01		5.0392 (g)	50 (mL)	9.922
HS20110458-02		5.0331 (g)	50 (mL)	9.934
HS20110458-03		5.0082 (g)	50 (mL)	9.984

Batch ID: 159508 Start Date: 11 Nov 2020 10:30 End Date: 11 Nov 2020 15:00

Method: SV AQ SEP FUNNEL EXTRACTION - SW3510C Prep Code: 3510_B

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14	1	1000 (mL)	1 (mL)	0.001

Batch ID: 159530 Start Date: 11 Nov 2020 16:00 End Date: 11 Nov 2020 19:00

Method: SOPREP: 3541 TPH Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-01		30.45 (g)	1 (mL)	0.03284
HS20110458-02		30.08 (g)	1 (mL)	0.03324

Batch ID: 159560 Start Date: 12 Nov 2020 10:00 End Date: 12 Nov 2020 12:00

Method: MERCURY TCLP PREP BY SW7470A Prep Code: 1311_HGPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14		10 (mL)	10 (mL)	1

ALS Houston, US

Date: 30-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110458

Batch ID: 159580

Start Date: 12 Nov 2020 15:00

End Date: 12 Nov 2020 18:00

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-03		30.28 (g)	1 (mL)	0.03303
HS20110458-04		30.26 (g)	1 (mL)	0.03305
HS20110458-05		30.38 (g)	1 (mL)	0.03292
HS20110458-06		30.31 (g)	1 (mL)	0.03299
HS20110458-07		30.24 (g)	1 (mL)	0.03307
HS20110458-08		30.22 (g)	1 (mL)	0.03309
HS20110458-09		30.19 (g)	1 (mL)	0.03312
HS20110458-10		30.03 (g)	1 (mL)	0.0333
HS20110458-11		30.18 (g)	1 (mL)	0.03313
HS20110458-12		30.27 (g)	1 (mL)	0.03304
HS20110458-13		30.01 (g)	1 (mL)	0.03332
HS20110458-14		30.1 (g)	1 (mL)	0.03322

Batch ID: 159619

Start Date: 13 Nov 2020 08:30

End Date: 13 Nov 2020 12:30

Method: TCLP LEACHATE DIGESTION BY SW3010A

Prep Code: 3010A_TCLP

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-14		1 (mL)	10 (mL)	10

Batch ID: 159745

Start Date: 17 Nov 2020 13:05

End Date: 17 Nov 2020 16:00

Method: 300 ANIONS SOIL PREP

Prep Code: 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-04		5.0051 (g)	50 (mL)	9.99
HS20110458-05		5.0321 (g)	50 (mL)	9.936
HS20110458-06		5.0015 (g)	50 (mL)	9.997
HS20110458-07		5.0019 (g)	50 (mL)	9.996
HS20110458-08		5.0304 (g)	50 (mL)	9.94
HS20110458-09		5.0071 (g)	50 (mL)	9.986
HS20110458-10		5.0015 (g)	50 (mL)	9.997
HS20110458-11		5.0013 (g)	50 (mL)	9.997
HS20110458-12		5.0117 (g)	50 (mL)	9.977
HS20110458-13		5.0017 (g)	50 (mL)	9.997
HS20110458-14		5.0151 (g)	50 (mL)	9.97

Batch ID: 159891

Start Date: 19 Nov 2020 18:10

End Date: 19 Nov 2020 22:30

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-15		30.2 (g)	1 (mL)	0.03311
HS20110458-16		30.16 (g)	1 (mL)	0.03316

Batch ID: 160056

Start Date: 24 Nov 2020 13:35

End Date: 24 Nov 2020 16:00

Method: 300 ANIONS SOIL PREP

Prep Code: 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110458-15		5.0158 (g)	50 (mL)	9.968
HS20110458-16		5.0455 (g)	50 (mL)	9.91

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 159446 (0)		Test Name : TCLP VOLATILES			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00	11 Nov 2020 10:00	11 Nov 2020 11:47	18 Nov 2020 06:57	20
Batch ID: 159464 (0)		Test Name : ANIONS BY E300.0			Matrix: Soil	
HS20110458-01	SB-09-24"-26"	06 Nov 2020 09:06		10 Nov 2020 17:13	15 Nov 2020 18:15	1
HS20110458-02	SB-09-46"-48"	06 Nov 2020 09:12		10 Nov 2020 17:13	15 Nov 2020 19:09	1
HS20110458-03	SB-10-36"-38"	06 Nov 2020 09:36		10 Nov 2020 17:13	15 Nov 2020 19:27	1
Batch ID: 159508 (0)		Test Name : TCLP SEMIVOLATILES			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00	11 Nov 2020 10:00	11 Nov 2020 13:47	11 Nov 2020 18:46	1
Batch ID: 159530 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20110458-01	SB-09-24"-26"	06 Nov 2020 09:06		11 Nov 2020 16:00	12 Nov 2020 16:00	100
HS20110458-02	SB-09-46"-48"	06 Nov 2020 09:12		11 Nov 2020 16:00	12 Nov 2020 16:55	50
Batch ID: 159560 (0)		Test Name : TCLP MERCURY BY SW7470A			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00	11 Nov 2020 10:00	12 Nov 2020 10:00	12 Nov 2020 17:38	1
Batch ID: 159580 (1)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20110458-03	SB-10-36"-38"	06 Nov 2020 09:36		12 Nov 2020 15:00	13 Nov 2020 13:47	1
HS20110458-04	SB-11-24"-26"	06 Nov 2020 10:07		12 Nov 2020 15:00	13 Nov 2020 16:41	1
HS20110458-05	SB-11-40"-43"	06 Nov 2020 10:15		12 Nov 2020 15:00	13 Nov 2020 16:17	10
HS20110458-06	SB-12-46"-48"	06 Nov 2020 11:20		12 Nov 2020 15:00	13 Nov 2020 17:05	1
HS20110458-07	SB-13-16"-18"	06 Nov 2020 12:26		12 Nov 2020 15:00	13 Nov 2020 17:30	100
HS20110458-08	SB-13-38"-40"	06 Nov 2020 12:35		12 Nov 2020 15:00	13 Nov 2020 17:54	50
HS20110458-09	SB-14-16"-18"	06 Nov 2020 12:51		12 Nov 2020 15:00	16 Nov 2020 16:33	400
HS20110458-10	SB-14-46"-48"	06 Nov 2020 13:01		12 Nov 2020 15:00	13 Nov 2020 18:43	100
HS20110458-11	SB-15-24"-26"	06 Nov 2020 13:48		12 Nov 2020 15:00	13 Nov 2020 19:07	1
HS20110458-12	SB-15-46"-48"	06 Nov 2020 13:55		12 Nov 2020 15:00	13 Nov 2020 19:31	1
HS20110458-13	Duplicate - 02	06 Nov 2020 00:00		12 Nov 2020 15:00	13 Nov 2020 19:07	100
HS20110458-14	WC-01	06 Nov 2020 14:00		12 Nov 2020 15:00	13 Nov 2020 19:31	10
Batch ID: 159619 (0)		Test Name : TCLP METALS BY SW6020A			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00	11 Nov 2020 10:00	13 Nov 2020 12:30	13 Nov 2020 23:41	1

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Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 159745 (0)		Test Name : ANIONS BY E300.0			Matrix: Soil	
HS20110458-04	SB-11-24"-26"	06 Nov 2020 10:07		17 Nov 2020 13:05	22 Nov 2020 15:57	1
HS20110458-05	SB-11-40"-43"	06 Nov 2020 10:15		17 Nov 2020 13:05	22 Nov 2020 16:14	1
HS20110458-06	SB-12-46"-48"	06 Nov 2020 11:20		17 Nov 2020 13:05	22 Nov 2020 16:32	1
HS20110458-07	SB-13-16"-18"	06 Nov 2020 12:26		17 Nov 2020 13:05	22 Nov 2020 16:50	1
HS20110458-08	SB-13-38"-40"	06 Nov 2020 12:35		17 Nov 2020 13:05	19 Nov 2020 22:39	1
HS20110458-09	SB-14-16"-18"	06 Nov 2020 12:51		17 Nov 2020 13:05	22 Nov 2020 17:08	1
HS20110458-10	SB-14-46"-48"	06 Nov 2020 13:01		17 Nov 2020 13:05	22 Nov 2020 17:27	1
HS20110458-11	SB-15-24"-26"	06 Nov 2020 13:48		17 Nov 2020 13:05	22 Nov 2020 17:45	1
HS20110458-12	SB-15-46"-48"	06 Nov 2020 13:55		17 Nov 2020 13:05	22 Nov 2020 18:03	1
HS20110458-13	Duplicate - 02	06 Nov 2020 00:00		17 Nov 2020 13:05	22 Nov 2020 18:21	1
HS20110458-14	WC-01	06 Nov 2020 14:00		17 Nov 2020 13:05	22 Nov 2020 18:39	1
Batch ID: 159891 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20110458-15	SB-16-13"-20"	06 Nov 2020 16:39		19 Nov 2020 18:10	20 Nov 2020 19:30	1
HS20110458-16	SB-16-44"-46"	06 Nov 2020 16:51		19 Nov 2020 18:10	20 Nov 2020 20:43	1
Batch ID: 160056 (0)		Test Name : ANIONS BY E300.0			Matrix: Soil	
HS20110458-15	SB-16-13"-20"	06 Nov 2020 16:39		24 Nov 2020 13:35	26 Nov 2020 01:26	1
HS20110458-16	SB-16-44"-46"	06 Nov 2020 16:51		24 Nov 2020 13:35	26 Nov 2020 02:20	1
Batch ID: R372464 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20110458-01	SB-09-24"-26"	06 Nov 2020 09:06			12 Nov 2020 15:20	1
HS20110458-02	SB-09-46"-48"	06 Nov 2020 09:12			12 Nov 2020 15:36	1
HS20110458-03	SB-10-36"-38"	06 Nov 2020 09:36			12 Nov 2020 15:52	1
HS20110458-04	SB-11-24"-26"	06 Nov 2020 10:07			12 Nov 2020 16:08	1
HS20110458-05	SB-11-40"-43"	06 Nov 2020 10:15			12 Nov 2020 16:24	1
HS20110458-06	SB-12-46"-48"	06 Nov 2020 11:20			12 Nov 2020 16:40	1
HS20110458-07	SB-13-16"-18"	06 Nov 2020 12:26			12 Nov 2020 16:56	1
HS20110458-08	SB-13-38"-40"	06 Nov 2020 12:35			12 Nov 2020 17:12	1
HS20110458-09	SB-14-16"-18"	06 Nov 2020 12:51			12 Nov 2020 18:17	1
HS20110458-10	SB-14-46"-48"	06 Nov 2020 13:01			12 Nov 2020 18:33	1
HS20110458-11	SB-15-24"-26"	06 Nov 2020 13:48			12 Nov 2020 18:49	1
HS20110458-12	SB-15-46"-48"	06 Nov 2020 13:55			12 Nov 2020 19:05	1
HS20110458-13	Duplicate - 02	06 Nov 2020 00:00			12 Nov 2020 19:21	1
Batch ID: R372539 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00			12 Nov 2020 20:26	1

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Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R372651 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS20110458-01	SB-09-24"-26"	06 Nov 2020 09:06			15 Nov 2020 01:21	1
HS20110458-02	SB-09-46"-48"	06 Nov 2020 09:12			15 Nov 2020 01:45	1
HS20110458-03	SB-10-36"-38"	06 Nov 2020 09:36			15 Nov 2020 02:09	1
HS20110458-04	SB-11-24"-26"	06 Nov 2020 10:07			15 Nov 2020 02:33	1
HS20110458-05	SB-11-40"-43"	06 Nov 2020 10:15			15 Nov 2020 02:57	1
HS20110458-06	SB-12-46"-48"	06 Nov 2020 11:20			15 Nov 2020 03:20	1
HS20110458-07	SB-13-16"-18"	06 Nov 2020 12:26			15 Nov 2020 03:44	1
HS20110458-08	SB-13-38"-40"	06 Nov 2020 12:35			15 Nov 2020 04:08	1
HS20110458-09	SB-14-16"-18"	06 Nov 2020 12:51			15 Nov 2020 07:19	1
HS20110458-10	SB-14-46"-48"	06 Nov 2020 13:01			15 Nov 2020 04:32	1
HS20110458-11	SB-15-24"-26"	06 Nov 2020 13:48			15 Nov 2020 04:56	1
HS20110458-12	SB-15-46"-48"	06 Nov 2020 13:55			15 Nov 2020 05:20	1
HS20110458-13	Duplicate - 02	06 Nov 2020 00:00			15 Nov 2020 05:43	1
HS20110458-14	WC-01	06 Nov 2020 14:00			15 Nov 2020 06:07	1
Batch ID: R372687 (0)		Test Name : REACTIVE SULFIDE			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00			16 Nov 2020 13:10	1
Batch ID: R372692 (0)		Test Name : PH SOIL BY SW9045D			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00			16 Nov 2020 13:56	1
Batch ID: R372751 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20110458-01	SB-09-24"-26"	06 Nov 2020 09:06			16 Nov 2020 15:35	1
HS20110458-02	SB-09-46"-48"	06 Nov 2020 09:12			16 Nov 2020 15:35	1
HS20110458-03	SB-10-36"-38"	06 Nov 2020 09:36			16 Nov 2020 15:35	1
HS20110458-04	SB-11-24"-26"	06 Nov 2020 10:07			16 Nov 2020 15:35	1
HS20110458-05	SB-11-40"-43"	06 Nov 2020 10:15			16 Nov 2020 15:35	1
HS20110458-06	SB-12-46"-48"	06 Nov 2020 11:20			16 Nov 2020 15:35	1
HS20110458-07	SB-13-16"-18"	06 Nov 2020 12:26			16 Nov 2020 15:35	1
HS20110458-08	SB-13-38"-40"	06 Nov 2020 12:35			16 Nov 2020 15:35	1
HS20110458-09	SB-14-16"-18"	06 Nov 2020 12:51			16 Nov 2020 15:35	1
HS20110458-10	SB-14-46"-48"	06 Nov 2020 13:01			16 Nov 2020 15:35	1
Batch ID: R372752 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20110458-11	SB-15-24"-26"	06 Nov 2020 13:48			16 Nov 2020 16:21	1
HS20110458-12	SB-15-46"-48"	06 Nov 2020 13:55			16 Nov 2020 16:21	1
HS20110458-13	Duplicate - 02	06 Nov 2020 00:00			16 Nov 2020 16:21	1
HS20110458-14	WC-01	06 Nov 2020 14:00			16 Nov 2020 16:21	1
Batch ID: R372762 (0)		Test Name : FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00			17 Nov 2020 08:00	1

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R372789 (0)		Test Name : REACTIVE CYANIDE			Matrix: Soil	
HS20110458-14	WC-01	06 Nov 2020 14:00			17 Nov 2020 15:00	1
Batch ID: R372943 (0)		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS20110458-17	TB-11-09-20-2	09 Nov 2020 14:00			19 Nov 2020 03:02	1
Batch ID: R373025 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS20110458-15	SB-16-13"-20"	06 Nov 2020 16:39			20 Nov 2020 02:09	1
HS20110458-16	SB-16-44"-46"	06 Nov 2020 16:51			20 Nov 2020 02:33	1
Batch ID: R373029 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20110458-15	SB-16-13"-20"	06 Nov 2020 16:39			19 Nov 2020 14:56	1
HS20110458-16	SB-16-44"-46"	06 Nov 2020 16:51			19 Nov 2020 15:12	1
Batch ID: R373307 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20110458-15	SB-16-13"-20"	06 Nov 2020 16:39			23 Nov 2020 07:45	1
HS20110458-16	SB-16-44"-46"	06 Nov 2020 16:51			23 Nov 2020 07:45	1

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Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159530 (0)		Instrument: FID-7		Method: TPH DRO/ORO BY SW8015C						
MBLK	Sample ID: MBLK-159530	Units: mg/Kg		Analysis Date: 12-Nov-2020 08:48						
Client ID:	Run ID: FID-7_372462		SeqNo: 5828403		PrepDate: 11-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	< 1.7	1.7								
TPH (Motor Oil Range)	< 3.4	3.4								
Surr: 2-Fluorobiphenyl	2.345	0.10	3.33	0	70.4	70 - 130				
LCS	Sample ID: LCS-159530	Units: mg/Kg		Analysis Date: 12-Nov-2020 09:12						
Client ID:	Run ID: FID-7_372462		SeqNo: 5828404		PrepDate: 11-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	29.6	1.7	33.33	0	88.8	70 - 130				
TPH (Motor Oil Range)	24.38	3.4	33.33	0	73.2	70 - 130				
Surr: 2-Fluorobiphenyl	2.831	0.10	3.33	0	85.0	70 - 130				
MS	Sample ID: HS20110509-05MS	Units: mg/Kg		Analysis Date: 12-Nov-2020 14:23						
Client ID:	Run ID: FID-7_372462		SeqNo: 5829702		PrepDate: 11-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	36.95	1.7	33.13	2.872	103	70 - 130				
TPH (Motor Oil Range)	31.08	3.4	33.13	7.37	71.6	70 - 130				
Surr: 2-Fluorobiphenyl	3.212	0.099	3.31	0	97.0	60 - 129				
MSD	Sample ID: HS20110509-05MSD	Units: mg/Kg		Analysis Date: 12-Nov-2020 14:47						
Client ID:	Run ID: FID-7_372462		SeqNo: 5829703		PrepDate: 11-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	33.6	1.7	33.21	2.872	92.5	70 - 130	36.95	9.49	30	
TPH (Motor Oil Range)	27.46	3.4	33.21	7.37	60.5	70 - 130	31.08	12.4	30	S
Surr: 2-Fluorobiphenyl	2.836	0.10	3.318	0	85.5	60 - 129	3.212	12.4	30	
The following samples were analyzed in this batch:										
			HS20110458-01	HS20110458-02						

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159580 (1)		Instrument: FID-8		Method: TPH DRO/ORO BY SW8015C					
MBLK	Sample ID: MBLK-159580	Units: mg/Kg		Analysis Date: 13-Nov-2020 10:53					
Client ID:	Run ID: FID-8_372596		SeqNo: 5833603		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	< 1.7	1.7							
TPH (Motor Oil Range)	< 3.4	3.4							
Surr: 2-Fluorobiphenyl	2.386	0.10	3.33	0	71.6	70 - 130			

LCS	Sample ID: LCS-159580	Units: mg/Kg		Analysis Date: 13-Nov-2020 12:58					
Client ID:	Run ID: FID-8_372596		SeqNo: 5833604		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	32.69	1.7	33.33	0	98.1	70 - 130			
TPH (Motor Oil Range)	26.28	3.4	33.33	0	78.8	70 - 130			
Surr: 2-Fluorobiphenyl	2.87	0.10	3.33	0	86.2	70 - 130			

MS	Sample ID: HS20110458-03MS	Units: mg/Kg		Analysis Date: 13-Nov-2020 14:11					
Client ID: SB-10-36"-38"	Run ID: FID-8_372596		SeqNo: 5833606		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	26.2	1.7	33.31	0.653	76.7	70 - 130			
TPH (Motor Oil Range)	19.48	3.4	33.31	2.31	51.6	70 - 130			S
Surr: 2-Fluorobiphenyl	3.685	0.10	3.328	0	111	60 - 129			

MSD	Sample ID: HS20110458-03MSD	Units: mg/Kg		Analysis Date: 13-Nov-2020 14:35					
Client ID: SB-10-36"-38"	Run ID: FID-8_372596		SeqNo: 5833607		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

TPH (Diesel Range)	32.28	1.7	33.16	0.653	95.4	70 - 130	26.2	20.8	30
TPH (Motor Oil Range)	22.91	3.4	33.16	2.31	62.1	70 - 130	19.48	16.2	30 S
Surr: 2-Fluorobiphenyl	4.182	0.10	3.313	0	126	60 - 129	3.685	12.6	30

The following samples were analyzed in this batch:			
HS20110458-03	HS20110458-04	HS20110458-05	HS20110458-06
HS20110458-07	HS20110458-08	HS20110458-09	HS20110458-10
HS20110458-11	HS20110458-12	HS20110458-13	HS20110458-14

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159891 (0)		Instrument: FID-7		Method: TPH DRO/ORO BY SW8015C						
MBLK	Sample ID: MBLK-159891	Units: mg/Kg		Analysis Date: 20-Nov-2020 18:41						
Client ID:	Run ID: FID-7_373229		SeqNo: 5846986		PrepDate: 19-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	< 1.7	1.7								
TPH (Motor Oil Range)	< 3.4	3.4								
Surr: 2-Fluorobiphenyl	2.437	0.10	3.33	0	73.2	70 - 130				
LCS	Sample ID: LCS-159891	Units: mg/Kg		Analysis Date: 20-Nov-2020 19:06						
Client ID:	Run ID: FID-7_373229		SeqNo: 5846987		PrepDate: 19-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	29.99	1.7	33.33	0	90.0	70 - 130				
TPH (Motor Oil Range)	23.96	3.4	33.33	0	71.9	70 - 130				
Surr: 2-Fluorobiphenyl	2.335	0.10	3.33	0	70.1	70 - 130				
MS	Sample ID: HS20110458-15MS	Units: mg/Kg		Analysis Date: 20-Nov-2020 19:54						
Client ID: SB-16-13"-20"	Run ID: FID-7_373229		SeqNo: 5846989		PrepDate: 19-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	35.06	1.7	33.16	2.57	98.0	70 - 130				
TPH (Motor Oil Range)	35.31	3.4	33.16	6.166	87.9	70 - 130				
Surr: 2-Fluorobiphenyl	2.947	0.10	3.313	0	88.9	60 - 129				
MSD	Sample ID: HS20110458-15MSD	Units: mg/Kg		Analysis Date: 20-Nov-2020 20:19						
Client ID: SB-16-13"-20"	Run ID: FID-7_373229		SeqNo: 5846990		PrepDate: 19-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	31.97	1.7	33.22	2.57	88.5	70 - 130	35.06	9.22	30	
TPH (Motor Oil Range)	34.39	3.4	33.22	6.166	85.0	70 - 130	35.31	2.63	30	
Surr: 2-Fluorobiphenyl	2.793	0.10	3.319	0	84.1	60 - 129	2.947	5.38	30	
The following samples were analyzed in this batch:										
HS20110458-15			HS20110458-16							

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372464 (0)		Instrument: FID-14		Method: GASOLINE RANGE ORGANICS BY SW8015C					
MBLK	Sample ID: MBLK-111220	Units: mg/Kg		Analysis Date: 12-Nov-2020 10:16					
Client ID:	Run ID: FID-14_372464	SeqNo: 5828416		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics < 0.050 0.050

Surr: 4-Bromofluorobenzene 0.09903 0.0050 0.1 0 99.0 75 - 121

LCS	Sample ID: LCS-111220	Units: mg/Kg		Analysis Date: 12-Nov-2020 09:59					
Client ID:	Run ID: FID-14_372464	SeqNo: 5828415		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.169 0.050 1 0 117 72 - 121

Surr: 4-Bromofluorobenzene 0.1019 0.0050 0.1 0 102 75 - 121

MS	Sample ID: HS20110509-01MS	Units: mg/Kg		Analysis Date: 12-Nov-2020 12:16					
Client ID:	Run ID: FID-14_372464	SeqNo: 5828941		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.016 0.050 0.99 0 103 70 - 130

Surr: 4-Bromofluorobenzene 0.09933 0.0050 0.099 0 100 70 - 123

MSD	Sample ID: HS20110509-01MSD	Units: mg/Kg		Analysis Date: 12-Nov-2020 12:32					
Client ID:	Run ID: FID-14_372464	SeqNo: 5828942		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 0.8976 0.045 0.9 0 99.7 70 - 130 1.016 12.4 30

Surr: 4-Bromofluorobenzene 0.08161 0.0045 0.09 0 90.7 70 - 123 0.09933 19.6 30

The following samples were analyzed in this batch:	HS20110458-01	HS20110458-02	HS20110458-03	HS20110458-04
	HS20110458-05	HS20110458-06	HS20110458-07	HS20110458-08
	HS20110458-09	HS20110458-10	HS20110458-11	HS20110458-12
	HS20110458-13			

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372539 (0)		Instrument: FID-14		Method: GASOLINE RANGE ORGANICS BY SW8015C						
MBLK	Sample ID: MBLK-1112201	Units: mg/Kg		Analysis Date: 12-Nov-2020 20:09						
Client ID:	Run ID: FID-14_372539	SeqNo: 5830598		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	< 0.050	0.050								
Surr: 4-Bromofluorobenzene	0.1062	0.0050	0.1	0	106	75 - 121				
LCS	Sample ID: LCS-1112201	Units: mg/Kg		Analysis Date: 12-Nov-2020 19:37						
Client ID:	Run ID: FID-14_372539	SeqNo: 5830596		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.099	0.050	1	0	110	72 - 121				
Surr: 4-Bromofluorobenzene	0.09382	0.0050	0.1	0	93.8	75 - 121				
LCSD	Sample ID: LCSD-1112201	Units: mg/Kg		Analysis Date: 12-Nov-2020 19:53						
Client ID:	Run ID: FID-14_372539	SeqNo: 5830597		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.087	0.050	1	0	109	72 - 121	1.099	1.04	30	
Surr: 4-Bromofluorobenzene	0.09508	0.0050	0.1	0	95.1	75 - 121	0.09382	1.33	30	
MS	Sample ID: HS20110458-14MS	Units: mg/Kg		Analysis Date: 12-Nov-2020 21:46						
Client ID: WC-01	Run ID: FID-14_372539	SeqNo: 5830603		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.578	0.054	1.09	0.6033	89.4	70 - 130				
Surr: 4-Bromofluorobenzene	0.09237	0.0054	0.109	0	84.7	70 - 123				
MSD	Sample ID: HS20110458-14MSD	Units: mg/Kg		Analysis Date: 12-Nov-2020 22:02						
Client ID: WC-01	Run ID: FID-14_372539	SeqNo: 5830604		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.489	0.052	1.05	0.6033	84.4	70 - 130	1.578	5.78	30	
Surr: 4-Bromofluorobenzene	0.08493	0.0052	0.105	0	80.9	70 - 123	0.09237	8.4	30	
The following samples were analyzed in this batch: HS20110458-14										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R373029 (0)		Instrument: FID-14		Method: GASOLINE RANGE ORGANICS BY SW8015C					
MBLK	Sample ID: MBLK-111920	Units: mg/Kg		Analysis Date: 19-Nov-2020 10:48					
Client ID:	Run ID: FID-14_373029		SeqNo: 5842214		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics < 0.050 0.050

Surr: 4-Bromofluorobenzene 0.1069 0.0050 0.1 0 107 75 - 121

LCS	Sample ID: LCS-111920	Units: mg/Kg		Analysis Date: 19-Nov-2020 10:32					
Client ID:	Run ID: FID-14_373029		SeqNo: 5842213		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics 1.184 0.050 1 0 118 72 - 121

Surr: 4-Bromofluorobenzene 0.1012 0.0050 0.1 0 101 75 - 121

MS	Sample ID: HS20110868-04MS	Units: mg/Kg		Analysis Date: 19-Nov-2020 13:16					
Client ID:	Run ID: FID-14_373029		SeqNo: 5842221		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics 1.595 0.052 1.04 0.5629 99.3 70 - 130

Surr: 4-Bromofluorobenzene 0.1086 0.0052 0.104 0 104 70 - 123

MSD	Sample ID: HS20110868-04MSD	Units: mg/Kg		Analysis Date: 19-Nov-2020 13:32					
Client ID:	Run ID: FID-14_373029		SeqNo: 5842222		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics 1.553 0.048 0.97 0.5629 102 70 - 130 1.595 2.66 30

Surr: 4-Bromofluorobenzene 0.0948 0.0048 0.097 0 97.7 70 - 123 0.1086 13.6 30

The following samples were analyzed in this batch: HS20110458-15 HS20110458-16

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159560 (0)		Instrument: HG03		Method: TCLP MERCURY BY SW7470A					
MBLK	Sample ID: MBLKT2-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:09					
Client ID:	Run ID: HG03_372445		SeqNo: 5830024		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT4-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:12					
Client ID:	Run ID: HG03_372445		SeqNo: 5830026		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT6-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:16					
Client ID:	Run ID: HG03_372445		SeqNo: 5830028		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT7-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:17					
Client ID:	Run ID: HG03_372445		SeqNo: 5830029		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT5-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:14					
Client ID:	Run ID: HG03_372445		SeqNo: 5830027		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT3-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:10					
Client ID:	Run ID: HG03_372445		SeqNo: 5830025		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159560 (0)		Instrument: HG03		Method: TCLP MERCURY BY SW7470A						
MBLK	Sample ID: MBLKT1-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:07						
Client ID:	Run ID: HG03_372445		SeqNo: 5830023		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	< 0.000200	0.000200								
MBLK	Sample ID: MBLK-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:05						
Client ID:	Run ID: HG03_372445		SeqNo: 5830022		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	< 0.000200	0.000200								
LCS	Sample ID: LCS-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:31						
Client ID:	Run ID: HG03_372445		SeqNo: 5830032		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	0.00506	0.000200	0.005	0	101	80 - 120				
MS	Sample ID: HS20110420-01MS	Units: mg/L		Analysis Date: 12-Nov-2020 17:34						
Client ID:	Run ID: HG03_372445		SeqNo: 5830034		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	0.00564	0.000200	0.005	0	113	75 - 125				
MSD	Sample ID: HS20110420-01MSD	Units: mg/L		Analysis Date: 12-Nov-2020 17:36						
Client ID:	Run ID: HG03_372445		SeqNo: 5830035		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	0.00563	0.000200	0.005	0	113	75 - 125	0.00564	0.177	20	
The following samples were analyzed in this batch: HS20110458-14										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
MBLK	Sample ID: MBLKT2-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:10					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833039		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLKT4-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:14					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833041		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLKT5-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:16					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833042		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
MBLK	Sample ID: MBLKT3-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:12					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833040		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLKT1-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:08					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833038		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLK-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:06					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833037		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.00500	0.00500							
Barium	< 0.0200	0.0200							
Cadmium	< 0.00500	0.00500							
Chromium	< 0.00500	0.00500							
Lead	< 0.00500	0.00500							
Selenium	< 0.00500	0.00500							
Silver	< 0.00500	0.00500							

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
LCS		Sample ID: LCS-159619		Units: mg/L		Analysis Date: 13-Nov-2020 23:18			
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833043		PrepDate: 13-Nov-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.04736	0.00500	0.05	0	94.7	80 - 120			
Barium	0.04624	0.0200	0.05	0	92.5	80 - 120			
Cadmium	0.05	0.00500	0.05	0	100	80 - 120			
Chromium	0.04681	0.00500	0.05	0	93.6	80 - 120			
Lead	0.04801	0.00500	0.05	0	96.0	80 - 120			
Selenium	0.04924	0.00500	0.05	0	98.5	80 - 120			
Silver	0.04963	0.00500	0.05	0	99.3	80 - 120			

MS		Sample ID: HS20110420-01MS		Units: mg/L		Analysis Date: 13-Nov-2020 23:27			
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833048		PrepDate: 13-Nov-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.5751	0.0500	0.5	0.00322	114	80 - 120			
Barium	1.728	0.200	0.5	1.203	105	80 - 120			
Cadmium	0.5447	0.0500	0.5	0.00027	109	80 - 120			
Chromium	0.5666	0.0500	0.5	-0.00087	113	80 - 120			
Lead	0.5617	0.0500	0.5	0.00764	111	80 - 120			
Selenium	0.579	0.0500	0.5	-0.00408	117	80 - 120			
Silver	0.5384	0.0500	0.5	0.00007	108	80 - 120			

MSD		Sample ID: HS20110420-01MSD		Units: mg/L		Analysis Date: 13-Nov-2020 23:29			
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833049		PrepDate: 13-Nov-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.5576	0.0500	0.5	0.00322	111	80 - 120	0.5751	3.09	20
Barium	1.817	0.200	0.5	1.203	123	80 - 120	1.728	5	20 S
Cadmium	0.556	0.0500	0.5	0.00027	111	80 - 120	0.5447	2.05	20
Chromium	0.543	0.0500	0.5	-0.00087	109	80 - 120	0.5666	4.26	20
Lead	0.5458	0.0500	0.5	0.00764	108	80 - 120	0.5617	2.88	20
Selenium	0.5708	0.0500	0.5	-0.00408	115	80 - 120	0.579	1.43	20
Silver	0.5373	0.0500	0.5	0.00007	107	80 - 120	0.5384	0.203	20

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
PDS	Sample ID: HS20110420-01PDS	Units: mg/L		Analysis Date: 13-Nov-2020 23:31					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833050		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Arsenic	0.9394	0.0500	1	0.00322	93.6	75 - 125			
Barium	1.977	0.200	1	1.203	77.4	75 - 125			
Cadmium	0.9482	0.0500	1	0.00027	94.8	75 - 125			
Chromium	0.9231	0.0500	1	-0.00087	92.4	75 - 125			
Lead	0.9322	0.0500	1	0.00764	92.5	75 - 125			
Selenium	0.9781	0.0500	1	-0.00408	98.2	75 - 125			
Silver	0.9058	0.0500	1	0.00007	90.6	75 - 125			

SD	Sample ID: HS20110420-01SD	Units: mg/L		Analysis Date: 13-Nov-2020 23:25					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833047		PrepDate: 13-Nov-2020		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Arsenic	< 0.250	0.250					0.00322	0	10
Cadmium	< 0.250	0.250					0.00027	0	10
Chromium	< 0.250	0.250					-0.00087	0	10
Lead	< 0.250	0.250					0.00764	0	10
Selenium	< 0.250	0.250					-0.00408	0	10
Silver	< 0.250	0.250					0.00007	0	10

The following samples were analyzed in this batch: HS20110458-14

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159508 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
MBLK	Sample ID: MBLK-159508	Units: ug/L		Analysis Date: 11-Nov-2020 17:42						
Client ID:	Run ID: SV-4_372422	SeqNo: 5829824		PrepDate: 11-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	< 5.0	5.0								
2,4,6-Trichlorophenol	< 5.0	5.0								
2,4-Dinitrotoluene	< 5.0	5.0								
Cresols, Total	< 15	15								
Hexachlorobenzene	< 5.0	5.0								
Hexachlorobutadiene	< 5.0	5.0								
Hexachloroethane	< 5.0	5.0								
Nitrobenzene	< 5.0	5.0								
Pentachlorophenol	< 5.0	5.0								
Pyridine	< 5.0	5.0								
Surr: 2,4,6-Tribromophenol	81.46	5.0	100	0	81.5	39 - 153				
Surr: 2-Fluorobiphenyl	84.15	5.0	100	0	84.1	40 - 147				
Surr: 2-Fluorophenol	99.4	5.0	100	0	99.4	21 - 110				
Surr: 4-Terphenyl-d14	93	5.0	100	0	93.0	39 - 141				
Surr: Nitrobenzene-d5	96.72	5.0	100	0	96.7	37 - 140				
Surr: Phenol-d6	101.1	5.0	100	0	101	11 - 110				

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159508 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
LCS		Sample ID: LCS-159508		Units: ug/L		Analysis Date: 11-Nov-2020 19:08				
Client ID:		Run ID: SV-4_372422		SeqNo: 5829867		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	76.03	5.0	100	0	76.0	55 - 120				
2,4,6-Trichlorophenol	76.18	5.0	100	0	76.2	55 - 120				
2,4-Dinitrotoluene	34.1	5.0	50	0	68.2	55 - 125				
Cresols, Total	190.4	15	250	0	76.2	48 - 115				
Hexachlorobenzene	33.8	5.0	50	0	67.6	55 - 120				
Hexachlorobutadiene	31.7	5.0	50	0	63.4	55 - 120				
Hexachloroethane	38.87	5.0	50	0	77.7	55 - 120				
Nitrobenzene	39.96	5.0	50	0	79.9	55 - 120				
Pentachlorophenol	80.83	5.0	100	0	80.8	50 - 135				
Pyridine	38.88	5.0	50	0	77.8	30 - 120				
Surr: 2,4,6-Tribromophenol	70.43	5.0	100	0	70.4	39 - 153				
Surr: 2-Fluorobiphenyl	83.51	5.0	100	0	83.5	40 - 147				
Surr: 2-Fluorophenol	92.1	5.0	100	0	92.1	21 - 110				
Surr: 4-Terphenyl-d14	88.66	5.0	100	0	88.7	39 - 141				
Surr: Nitrobenzene-d5	95.01	5.0	100	0	95.0	37 - 140				
Surr: Phenol-d6	88.72	5.0	100	0	88.7	11 - 110				

ALS Houston, US

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Client: TRC Corporation
 Project: AFE Investigation
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QC BATCH REPORT

Batch ID: 159508 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
LCSD		Sample ID: LCSD-159508		Units: ug/L		Analysis Date: 11-Nov-2020 18:25				
Client ID:		Run ID: SV-4_372422		SeqNo: 5829826		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	80.48	5.0	100	0	80.5	55 - 120	76.03	5.68	20	
2,4,6-Trichlorophenol	78.64	5.0	100	0	78.6	55 - 120	76.18	3.18	20	
2,4-Dinitrotoluene	35.97	5.0	50	0	71.9	55 - 125	34.1	5.32	20	
Cresols, Total	210.1	15	250	0	84.0	48 - 115	190.4	9.85	20	
Hexachlorobenzene	34.34	5.0	50	0	68.7	55 - 120	33.8	1.56	20	
Hexachlorobutadiene	31.96	5.0	50	0	63.9	55 - 120	31.7	0.812	20	
Hexachloroethane	37.07	5.0	50	0	74.1	55 - 120	38.87	4.74	20	
Nitrobenzene	41.5	5.0	50	0	83.0	55 - 120	39.96	3.78	20	
Pentachlorophenol	80.96	5.0	100	0	81.0	50 - 135	80.83	0.152	20	
Pyridine	34.62	5.0	50	0	69.2	30 - 120	38.88	11.6	20	
Surr: 2,4,6-Tribromophenol	80.93	5.0	100	0	80.9	39 - 153	70.43	13.9	20	
Surr: 2-Fluorobiphenyl	88.75	5.0	100	0	88.8	40 - 147	83.51	6.08	20	
Surr: 2-Fluorophenol	102.8	5.0	100	0	103	21 - 110	92.1	11	20	
Surr: 4-Terphenyl-d14	97.56	5.0	100	0	97.6	39 - 141	88.66	9.56	20	
Surr: Nitrobenzene-d5	102.5	5.0	100	0	102	37 - 140	95.01	7.55	20	
Surr: Phenol-d6	100.7	5.0	100	0	101	11 - 110	88.72	12.7	20	

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159508 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES					
MS		Sample ID: HS20110458-14MS		Units: ug/L		Analysis Date: 11-Nov-2020 18:04			
Client ID: WC-01		Run ID: SV-4_372422		SeqNo: 5829866		PrepDate: 11-Nov-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
2,4,5-Trichlorophenol	62.22	5.0	100	0	62.2	55 - 120			
2,4,6-Trichlorophenol	60.75	5.0	100	0	60.7	55 - 120			
2,4-Dinitrotoluene	28.52	5.0	50	0	57.0	55 - 125			
Cresols, Total	163.9	15	250	0	65.6	48 - 115			
Hexachlorobenzene	28.31	5.0	50	0	56.6	55 - 120			
Hexachlorobutadiene	35.93	5.0	50	0	71.9	55 - 120			
Hexachloroethane	30.99	5.0	50	0	62.0	55 - 120			
Nitrobenzene	32.98	5.0	50	0	66.0	55 - 120			
Pentachlorophenol	64.16	5.0	100	0	64.2	50 - 135			
Pyridine	28.74	5.0	50	0	57.5	30 - 120			
Surr: 2,4,6-Tribromophenol	60.01	5.0	100	0	60.0	39 - 153			
Surr: 2-Fluorobiphenyl	68.86	5.0	100	0	68.9	40 - 147			
Surr: 2-Fluorophenol	77.63	5.0	100	0	77.6	21 - 110			
Surr: 4-Terphenyl-d14	82.95	5.0	100	0	83.0	39 - 141			
Surr: Nitrobenzene-d5	78.32	5.0	100	0	78.3	37 - 140			
Surr: Phenol-d6	75.32	5.0	100	0	75.3	11 - 110			

The following samples were analyzed in this batch: HS20110458-14

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159446 (0)		Instrument: VOA6		Method: TCLP VOLATILES						
MBLK	Sample ID: MBLK-159446	Units: ug/L		Analysis Date: 18-Nov-2020 06:15						
Client ID:	Run ID: VOA6_372827	SeqNo: 5837557		PrepDate: 11-Nov-2020		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	< 100	100								
1,2-Dichloroethane	< 100	100								
1,4-Dichlorobenzene	< 100	100								
2-Butanone	< 200	200								
Benzene	< 100	100								
Carbon tetrachloride	< 100	100								
Chlorobenzene	< 100	100								
Chloroform	< 100	100								
Tetrachloroethene	< 100	100								
Trichloroethene	< 100	100								
Vinyl chloride	< 40	40								
Surr: 1,2-Dichloroethane-d4	874.8	100	1000	0	87.5	70 - 130				
Surr: 4-Bromofluorobenzene	916.4	100	1000	0	91.6	82 - 115				
Surr: Dibromofluoromethane	826.9	100	1000	0	82.7	73 - 126				
Surr: Toluene-d8	1014	100	1000	0	101	81 - 120				

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159446 (0)		Instrument: VOA6		Method: TCLP VOLATILES						
LCS		Sample ID: VLCSW-159446		Units: ug/L		Analysis Date: 17-Nov-2020 22:52				
Client ID:		Run ID: VOA6_372827		SeqNo: 5837553		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.64	5.0	20	0	103	70 - 130				
1,2-Dichloroethane	20.24	5.0	20	0	101	70 - 124				
1,4-Dichlorobenzene	17.53	5.0	20	0	87.7	79 - 113				
2-Butanone	36.35	10	40	0	90.9	70 - 130				
Benzene	21.11	5.0	20	0	106	74 - 120				
Carbon tetrachloride	21.84	5.0	20	0	109	71 - 125				
Chlorobenzene	18.41	5.0	20	0	92.0	76 - 113				
Chloroform	20.91	5.0	20	0	105	71 - 121				
Tetrachloroethene	22.36	5.0	20	0	112	76 - 119				
Trichloroethene	20.91	5.0	20	0	105	77 - 121				
Vinyl chloride	24.35	2.0	20	0	122	70 - 130				
Surr: 1,2-Dichloroethane-d4	55.15	5.0	50	0	110	70 - 130				
Surr: 4-Bromofluorobenzene	54.18	5.0	50	0	108	82 - 115				
Surr: Dibromofluoromethane	52.88	5.0	50	0	106	73 - 126				
Surr: Toluene-d8	55.67	5.0	50	0	111	81 - 120				

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159446 (0)		Instrument: VOA6		Method: TCLP VOLATILES						
MS		Sample ID: HS20110707-03MS		Units: ug/L		Analysis Date: 18-Nov-2020 00:59				
Client ID:		Run ID: VOA6_372827		SeqNo: 5837600		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	13.69	5.0	20	0	68.5	70 - 130				S
1,2-Dichloroethane	14.42	5.0	20	1.084	66.7	70 - 127				S
1,4-Dichlorobenzene	13.35	5.0	20	0	66.7	70 - 114				S
2-Butanone	27.74	10	40	0	69.4	70 - 130				S
Benzene	15.54	5.0	20	0	77.7	70 - 127				
Carbon tetrachloride	15.59	5.0	20	0	77.9	70 - 130				
Chlorobenzene	12.83	5.0	20	0	64.1	70 - 114				S
Chloroform	13.86	5.0	20	0	69.3	70 - 125				S
Tetrachloroethene	15.32	5.0	20	0	76.6	70 - 130				
Trichloroethene	17.59	5.0	20	4.23	66.8	70 - 129				S
Vinyl chloride	16.54	2.0	20	0	82.7	70 - 130				
Surr: 1,2-Dichloroethane-d4	44.29	5.0	50	0	88.6	70 - 126				
Surr: 4-Bromofluorobenzene	48.78	5.0	50	0	97.6	82 - 124				
Surr: Dibromofluoromethane	41.39	5.0	50	0	82.8	77 - 123				
Surr: Toluene-d8	51.14	5.0	50	0	102	82 - 127				
The following samples were analyzed in this batch: HS20110458-14										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372651 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKS2-111420	Units: ug/Kg		Analysis Date: 14-Nov-2020 22:57					
Client ID:	Run ID: VOA5_372651	SeqNo: 5833015		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	41.37	0	50	0	82.7	76 - 125			
Surr: 4-Bromofluorobenzene	48.62	0	50	0	97.2	80 - 120			
Surr: Dibromofluoromethane	45.32	0	50	0	90.6	80 - 119			
Surr: Toluene-d8	49.69	0	50	0	99.4	81 - 118			

LCS	Sample ID: VLCSS2-111420	Units: ug/Kg		Analysis Date: 14-Nov-2020 22:10					
Client ID:	Run ID: VOA5_372651	SeqNo: 5833014		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	43.42	5.0	50	0	86.8	75 - 124			
Ethylbenzene	45.25	5.0	50	0	90.5	70 - 123			
Toluene	42.6	5.0	50	0	85.2	76 - 122			
Xylenes, Total	137.6	5.0	150	0	91.7	77 - 128			
Surr: 1,2-Dichloroethane-d4	47.14	0	50	0	94.3	76 - 125			
Surr: 4-Bromofluorobenzene	49.77	0	50	0	99.5	80 - 120			
Surr: Dibromofluoromethane	47.8	0	50	0	95.6	80 - 119			
Surr: Toluene-d8	48.19	0	50	0	96.4	81 - 118			

MS	Sample ID: HS20110207-01MS	Units: ug/Kg		Analysis Date: 14-Nov-2020 23:45					
Client ID:	Run ID: VOA5_372651	SeqNo: 5833017		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	45.9	4.9	49	0	93.7	70 - 130			
Ethylbenzene	47.82	4.9	49	0	97.6	70 - 130			
Toluene	45.37	4.9	49	0	92.6	70 - 130			
Xylenes, Total	145.4	4.9	147	0	98.9	70 - 130			
Surr: 1,2-Dichloroethane-d4	44.56	0	49	0	90.9	70 - 126			
Surr: 4-Bromofluorobenzene	48.32	0	49	0	98.6	70 - 130			
Surr: Dibromofluoromethane	46.43	0	49	0	94.8	70 - 130			
Surr: Toluene-d8	47.41	0	49	0	96.8	70 - 130			

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372651 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MSD		Sample ID: HS20110207-01MSD		Units: ug/Kg		Analysis Date: 15-Nov-2020 00:09			
Client ID:		Run ID: VOA5_372651		SeqNo: 5833018		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	44.71	4.9	49	0	91.2	70 - 130	45.9	2.62	30
Ethylbenzene	47.8	4.9	49	0	97.6	70 - 130	47.82	0.0294	30
Toluene	45.52	4.9	49	0	92.9	70 - 130	45.37	0.335	30
Xylenes, Total	143.1	4.9	147	0	97.3	70 - 130	145.4	1.62	30
Surr: 1,2-Dichloroethane-d4	44.36	0	49	0	90.5	70 - 126	44.56	0.456	30
Surr: 4-Bromofluorobenzene	48.89	0	49	0	99.8	70 - 130	48.32	1.18	30
Surr: Dibromofluoromethane	45.82	0	49	0	93.5	70 - 130	46.43	1.34	30
Surr: Toluene-d8	49.18	0	49	0	100	70 - 130	47.41	3.66	30
The following samples were analyzed in this batch:									
		HS20110458-01		HS20110458-02		HS20110458-03		HS20110458-04	
		HS20110458-05		HS20110458-06		HS20110458-07		HS20110458-08	
		HS20110458-09		HS20110458-10		HS20110458-11		HS20110458-12	
		HS20110458-13		HS20110458-14					

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Client: TRC Corporation
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QC BATCH REPORT

Batch ID: R372943 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-201118	Units: ug/L		Analysis Date: 19-Nov-2020 00:13					
Client ID:	Run ID: VOA9_372943	SeqNo: 5840186		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
m,p-Xylene	< 10	10							
o-Xylene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	50.19	0	50	0	100	70 - 130			
Surr: 4-Bromofluorobenzene	49.04	0	50	0	98.1	82 - 115			
Surr: Dibromofluoromethane	48.77	0	50	0	97.5	73 - 126			
Surr: Toluene-d8	51.18	0	50	0	102	81 - 120			

LCS	Sample ID: VLCSW-201118	Units: ug/L		Analysis Date: 18-Nov-2020 23:31					
Client ID:	Run ID: VOA9_372943	SeqNo: 5840185		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.02	5.0	20	0	90.1	74 - 120			
Ethylbenzene	17.32	5.0	20	0	86.6	77 - 117			
m,p-Xylene	35.87	10	40	0	89.7	77 - 122			
o-Xylene	18.63	5.0	20	0	93.2	75 - 119			
Toluene	17.53	5.0	20	0	87.6	77 - 118			
Xylenes, Total	54.5	5.0	60	0	90.8	75 - 122			
Surr: 1,2-Dichloroethane-d4	49.86	0	50	0	99.7	70 - 130			
Surr: 4-Bromofluorobenzene	50.66	0	50	0	101	82 - 115			
Surr: Dibromofluoromethane	49.7	0	50	0	99.4	73 - 126			
Surr: Toluene-d8	50.73	0	50	0	101	81 - 120			

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372943 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MS		Sample ID: HS20110463-05MS		Units: ug/L		Analysis Date: 19-Nov-2020 01:38			
Client ID:		Run ID: VOA9_372943		SeqNo: 5840190		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.64	5.0	20	0	103	70 - 127			
Ethylbenzene	22.64	5.0	20	0	113	70 - 124			
m,p-Xylene	43.84	10	40	0	110	70 - 130			
o-Xylene	22.4	5.0	20	0	112	70 - 124			
Toluene	21.25	5.0	20	0	106	70 - 123			
Xylenes, Total	66.24	5.0	60	0	110	70 - 130			
Surr: 1,2-Dichloroethane-d4	51	0	50	0	102	70 - 126			
Surr: 4-Bromofluorobenzene	49.93	0	50	0	99.9	82 - 124			
Surr: Dibromofluoromethane	50.27	0	50	0	101	77 - 123			
Surr: Toluene-d8	51.22	0	50	0	102	82 - 127			

MSD		Sample ID: HS20110463-05MSD		Units: ug/L		Analysis Date: 19-Nov-2020 01:59			
Client ID:		Run ID: VOA9_372943		SeqNo: 5840191		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	19.11	5.0	20	0	95.6	70 - 127	20.64	7.67	20
Ethylbenzene	21	5.0	20	0	105	70 - 124	22.64	7.51	20
m,p-Xylene	42.03	10	40	0	105	70 - 130	43.84	4.21	20
o-Xylene	21.26	5.0	20	0	106	70 - 124	22.4	5.24	20
Toluene	20.2	5.0	20	0	101	70 - 123	21.25	5.07	20
Xylenes, Total	63.29	5.0	60	0	105	70 - 130	66.24	4.56	20
Surr: 1,2-Dichloroethane-d4	49.68	0	50	0	99.4	70 - 126	51	2.62	20
Surr: 4-Bromofluorobenzene	51.1	0	50	0	102	82 - 124	49.93	2.32	20
Surr: Dibromofluoromethane	49.16	0	50	0	98.3	77 - 123	50.27	2.23	20
Surr: Toluene-d8	51.43	0	50	0	103	82 - 127	51.22	0.416	20

The following samples were analyzed in this batch: HS20110458-17

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R373025 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKS1-112020	Units: ug/Kg		Analysis Date: 20-Nov-2020 00:33					
Client ID:	Run ID: VOA5_373025	SeqNo: 5842116		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	43.22	0	50	0	86.4	76 - 125			
Surr: 4-Bromofluorobenzene	47.72	0	50	0	95.4	80 - 120			
Surr: Dibromofluoromethane	46.35	0	50	0	92.7	80 - 119			
Surr: Toluene-d8	49.35	0	50	0	98.7	81 - 118			

LCS	Sample ID: VLCSS1-112020	Units: ug/Kg		Analysis Date: 19-Nov-2020 23:46					
Client ID:	Run ID: VOA5_373025	SeqNo: 5842115		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	47.61	5.0	50	0	95.2	75 - 124			
Ethylbenzene	48.51	5.0	50	0	97.0	70 - 123			
Toluene	47.15	5.0	50	0	94.3	76 - 122			
Xylenes, Total	142.6	5.0	150	0	95.1	77 - 128			
Surr: 1,2-Dichloroethane-d4	48.94	0	50	0	97.9	76 - 125			
Surr: 4-Bromofluorobenzene	50.53	0	50	0	101	80 - 120			
Surr: Dibromofluoromethane	49.61	0	50	0	99.2	80 - 119			
Surr: Toluene-d8	49.5	0	50	0	99.0	81 - 118			

MS	Sample ID: HS20110514-03MS	Units: ug/Kg		Analysis Date: 20-Nov-2020 01:21					
Client ID:	Run ID: VOA5_373025	SeqNo: 5842118		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.36	4.7	47	0	43.3	70 - 130			S
Ethylbenzene	16.2	4.7	47	0	34.5	70 - 130			S
Toluene	18.41	4.7	47	0	39.2	70 - 130			S
Xylenes, Total	45.77	4.7	141	0	32.5	70 - 130			S
Surr: 1,2-Dichloroethane-d4	49.52	0	47	0	105	70 - 126			
Surr: 4-Bromofluorobenzene	47.23	0	47	0	100	70 - 130			
Surr: Dibromofluoromethane	46.11	0	47	0	98.1	70 - 130			
Surr: Toluene-d8	46.22	0	47	0	98.3	70 - 130			

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R373025 (0)		Instrument: VOA5		Method: VOLATILES BY SW8260C							
MSD		Sample ID: HS20110514-03MSD		Units: ug/Kg		Analysis Date: 20-Nov-2020 01:45					
Client ID:		Run ID: VOA5_373025		SeqNo: 5842119		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	26.34	4.8	48	0	54.9	70 - 130	20.36	25.6	30	S	
Ethylbenzene	20.38	4.8	48	0	42.5	70 - 130	16.2	22.9	30	S	
Toluene	23.44	4.8	48	0	48.8	70 - 130	18.41	24	30	S	
Xylenes, Total	56.22	4.8	144	0	39.0	70 - 130	45.77	20.5	30	S	
Surr: 1,2-Dichloroethane-d4	49.55	0	48	0	103	70 - 126	49.52	0.0626	30		
Surr: 4-Bromofluorobenzene	47.56	0	48	0	99.1	70 - 130	47.23	0.698	30		
Surr: Dibromofluoromethane	47	0	48	0	97.9	70 - 130	46.11	1.92	30		
Surr: Toluene-d8	47.69	0	48	0	99.3	70 - 130	46.22	3.13	30		
The following samples were analyzed in this batch: HS20110458-15 HS20110458-16											

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159464 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0					
MBLK	Sample ID: MBLK-159464	Units: mg/Kg		Analysis Date: 15-Nov-2020 21:34					
Client ID:	Run ID: ICS-Integrion_372696		SeqNo: 5834111		PrepDate: 10-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	< 5.00	5.00							
LCS	Sample ID: LCS-159464	Units: mg/Kg		Analysis Date: 15-Nov-2020 21:52					
Client ID:	Run ID: ICS-Integrion_372696		SeqNo: 5834112		PrepDate: 10-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	197	5.00	200	0	98.5	90 - 110			
MS	Sample ID: HS20110458-01MS	Units: mg/Kg		Analysis Date: 15-Nov-2020 18:33					
Client ID: SB-09-24"-26"	Run ID: ICS-Integrion_372696		SeqNo: 5834105		PrepDate: 10-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	102.4	4.99	99.88	2.381	100	75 - 125			
MS	Sample ID: HS20110371-06MS	Units: mg/Kg		Analysis Date: 15-Nov-2020 13:44					
Client ID:	Run ID: ICS-Integrion_372696		SeqNo: 5834089		PrepDate: 10-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	489.9	4.91	98.2	386	106	75 - 125			
MSD	Sample ID: HS20110458-01MSD	Units: mg/Kg		Analysis Date: 15-Nov-2020 18:51					
Client ID: SB-09-24"-26"	Run ID: ICS-Integrion_372696		SeqNo: 5834106		PrepDate: 10-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	97.59	4.97	99.34	2.381	95.8	75 - 125	102.4	4.79	20
MSD	Sample ID: HS20110371-06MSD	Units: mg/Kg		Analysis Date: 15-Nov-2020 14:02					
Client ID:	Run ID: ICS-Integrion_372696		SeqNo: 5834090		PrepDate: 10-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	490.5	4.95	98.92	386	106	75 - 125	489.9	0.12	20
The following samples were analyzed in this batch:									
		HS20110458-01		HS20110458-02		HS20110458-03			

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 159745 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0					
MBLK	Sample ID: MBLK-159745	Units: mg/Kg		Analysis Date: 18-Nov-2020 09:43					
Client ID:	Run ID: ICS-Integrion_372954		SeqNo: 5840377		PrepDate: 17-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	< 5.00	5.00							
LCS	Sample ID: LCS-159745	Units: mg/Kg		Analysis Date: 18-Nov-2020 10:01					
Client ID:	Run ID: ICS-Integrion_372954		SeqNo: 5840378		PrepDate: 17-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	193.7	5.00	200	0	96.9	90 - 110			
MS	Sample ID: HS20110702-04MS	Units: mg/Kg		Analysis Date: 18-Nov-2020 14:20					
Client ID:	Run ID: ICS-Integrion_372954		SeqNo: 5840382		PrepDate: 17-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	1469	4.96	99.19	1172	299	75 - 125			SEO
MS	Sample ID: HS20110458-08MS	Units: mg/Kg		Analysis Date: 19-Nov-2020 22:57					
Client ID: SB-13-38"-40"	Run ID: ICS-Integrion_373082		SeqNo: 5843253		PrepDate: 17-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	96.45	5.00	99.96	1.044	95.4	75 - 125			
MSD	Sample ID: HS20110702-04MSD	Units: mg/Kg		Analysis Date: 18-Nov-2020 14:39					
Client ID:	Run ID: ICS-Integrion_372954		SeqNo: 5840383		PrepDate: 17-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	1502	4.89	97.9	1172	337	75 - 125	1469	2.21	20 SEO
MSD	Sample ID: HS20110458-08MSD	Units: mg/Kg		Analysis Date: 19-Nov-2020 23:15					
Client ID: SB-13-38"-40"	Run ID: ICS-Integrion_373082		SeqNo: 5843254		PrepDate: 17-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	97.43	5.00	99.96	1.044	96.4	75 - 125	96.45	1.02	20
The following samples were analyzed in this batch:									
HS20110458-04		HS20110458-05		HS20110458-06		HS20110458-07			
HS20110458-08		HS20110458-09		HS20110458-10		HS20110458-11			
HS20110458-12		HS20110458-13		HS20110458-14					

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: 160056 (0)		Instrument: ICS2100		Method: ANIONS BY E300.0						
MBLK	Sample ID: MBLK-160056	Units: mg/Kg		Analysis Date: 25-Nov-2020 08:42						
Client ID:	Run ID: ICS2100_373419	SeqNo: 5851717		PrepDate: 24-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	< 5.00	5.00								
LCS	Sample ID: LCS-160056	Units: mg/Kg		Analysis Date: 25-Nov-2020 09:00						
Client ID:	Run ID: ICS2100_373419	SeqNo: 5851718		PrepDate: 24-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	199.6	5.00	200	0	99.8	90 - 110				
MS	Sample ID: HS20111195-01MS	Units: mg/Kg		Analysis Date: 25-Nov-2020 02:22						
Client ID:	Run ID: ICS2100_373419	SeqNo: 5851711		PrepDate: 24-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	954.2	4.95	98.98	826.9	129	75 - 125				SO
MS	Sample ID: HS20110868-08MS	Units: mg/Kg		Analysis Date: 26-Nov-2020 04:45						
Client ID:	Run ID: ICS2100_373559	SeqNo: 5855349		PrepDate: 24-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	117.5	4.91	98.16	24	95.3	75 - 125				
MSD	Sample ID: HS20111195-01MSD	Units: mg/Kg		Analysis Date: 25-Nov-2020 02:40						
Client ID:	Run ID: ICS2100_373419	SeqNo: 5851712		PrepDate: 24-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	853.2	4.88	97.66	826.9	26.9	75 - 125	954.2	11.2	20	SO
MSD	Sample ID: HS20110868-08MSD	Units: mg/Kg		Analysis Date: 26-Nov-2020 05:03						
Client ID:	Run ID: ICS2100_373559	SeqNo: 5855350		PrepDate: 24-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	124.4	4.91	98.29	24	102	75 - 125	117.5	5.68	20	
The following samples were analyzed in this batch: HS20110458-15 HS20110458-16										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372687 (0)		Instrument: WetChem_HS		Method: REACTIVE SULFIDE						
MBLK	Sample ID: MBLK-R372687	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372687		SeqNo: 5834014		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	< 100	100								
LCS	Sample ID: LCS-R372687	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372687		SeqNo: 5834013		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	60	100	100	0	60.0	20 - 120				J
MS	Sample ID: HS20110463-06MS	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372687		SeqNo: 5834063		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	56	100	100	0	56.0	20 - 120				J
The following samples were analyzed in this batch: HS20110458-14										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372692 (0)		Instrument: WetChem_HS		Method: PH SOIL BY SW9045D					
DUP	Sample ID: HS20110470-01DUP	Units: pH Units		Analysis Date: 16-Nov-2020 13:56					
Client ID:	Run ID: WetChem_HS_372692		SeqNo: 5834072		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
pH	7.38	0.100					7.41	0.406	10
Temp Deg C @pH	21.8	0					22	0.913	10

The following samples were analyzed in this batch: HS20110458-14

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372751 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20110458-09DUP	Units: wt%		Analysis Date: 16-Nov-2020 15:35					
Client ID: SB-14-16"-18"	Run ID: Balance1_372751		SeqNo: 5835574		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	6.63	0.0100					6.9	3.99	20
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The following samples were analyzed in this batch:

HS20110458-01	HS20110458-02	HS20110458-03	HS20110458-04
HS20110458-05	HS20110458-06	HS20110458-07	HS20110458-08
HS20110458-09	HS20110458-10		

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372752 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20110724-02DUP	Units: wt%		Analysis Date: 16-Nov-2020 16:21					
Client ID:	Run ID: Balance1_372752		SeqNo: 5835594		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Percent Moisture	19.1	0.0100					18.2	4.83	20
The following samples were analyzed in this batch:									
HS20110458-11 HS20110458-12 HS20110458-13 HS20110458-14									

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372762 (0)		Instrument: WetChem_HS		Method: FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B					
DUP	Sample ID: HS20110552-03DUP	Units: °F		Analysis Date: 17-Nov-2020 08:00					
Client ID:	Run ID: WetChem_HS_372762		SeqNo: 5835838		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Flash Point	> 212	50.0					0	0	30

The following samples were analyzed in this batch: HS20110458-14

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R372789 (0)		Instrument: UV-2450		Method: REACTIVE CYANIDE						
MBLK	Sample ID: MBLK-R372789	Units: mg/Kg		Analysis Date: 17-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372789		SeqNo: 5836274		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	< 100	100								
LCS	Sample ID: LCS-R372789	Units: mg/Kg		Analysis Date: 17-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372789		SeqNo: 5836273		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.6	100	10	0	6.00	5 - 100				J
MS	Sample ID: HS20110463-06MS	Units: mg/Kg		Analysis Date: 17-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372789		SeqNo: 5836277		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.65	100	10	-0.01	6.60	5 - 100				J
The following samples were analyzed in this batch: HS20110458-14										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

QC BATCH REPORT

Batch ID: R373307 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216						
DUP	Sample ID: HS20110597-13DUP	Units: wt%		Analysis Date: 23-Nov-2020 07:45						
Client ID:	Run ID: Balance1_373307		SeqNo: 5848938		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	21.7	0.0100					21.5	0.926	20	
The following samples were analyzed in this batch:										
HS20110458-15 HS20110458-16										

ALS Houston, US

Date: 30-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110458

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
Date	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter

ALS Houston, US

Date: 30-Nov-20

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	20-030-0	26-Mar-2021
California	2919, 2020-2021	30-Apr-2021
Dept of Defense	PJLA L20-507	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322020-4	09-May-2021
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2020-2021	30-Apr-2021
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2020-2021	30-Apr-2021
Texas	T104704231-20-26	30-Apr-2021

ALS Houston, US

Date: 30-Nov-20

Sample Receipt Checklist

Work Order ID: HS20110458

Date/Time Received: 10-Nov-2020 10:55

Client Name: TRC-AUS

Received by: Jared R. Makan

Completed By: <u>/S/ Jared R. Makan</u>	10-Nov-2020 15:07	Reviewed by: <u>/S/ RJ Modashia</u>	10-Nov-2020 19:52
eSignature	Date/Time	eSignature	Date/Time

Matrices: **Soil, Trip Blank**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☒	Not Present ☐
Chain of custody present?	Yes ☒	No ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:233181, 233178
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	1.1°C/1.1°C, 0.9°C/0.9°C UC/C		
Cooler(s)/Kit(s):	46628		
Date/Time sample(s) sent to storage:	11/10/2020 15:10		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

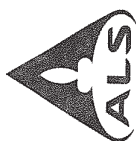
Comments:

Corrective Action:

HS20110458

TRC Corporation
Artesia Station West

Chain of Custody Form

Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600

Page 1 of 2

COC ID: 233181

ALS Project Manager:

Customer Information				Project Information													
Purchase Order	Project Name	AFE Investigation	A	8260 (BTEX)													
Work Order	Project Number	Lea County, NM	B	8015 (DRO/ORO)													
Company Name	Bill To Company	TRC Corporation	C	8015 (GRO)													
Send Report To	Invoice Attn	TRC-AP	D	300 (Chloride)													
Address	Address	505 East Huntland Drive Suite 250	E	TDS_W 2540C (TDS)													
City/State/Zip	City/State/Zip	Austin, TX 78752	F	MOIST_SW3550 (Percent Moisture)													
Phone	Phone	(512) 329-6080	G	Full TCLP (TCLP VOC, SVOC, RCRA 8 Metals)													
Fax	Fax	(512) 329-8750	H	RCRA Characteristics (RCI Profile)													
e-Mail Address	e-Mail Address	RVarrell@trccompanies.com	I	TX1005_S_REV3 (TPH)													
		apinvoiceapproval@trcsolutions.com	J														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-09-24" - 26"	11-6-20	906	S	None	2	X	X	X	X	X	X	X	X	X	X	
2	SB-09-46" - 48"		912	S		2	X	X	X	X	X	X	X	X	X	X	
3	SB-10-36" - 38"		936	S		2	X	X	X	X	X	X	X	X	X	X	
4	SB-11-24" - 26"		1007	S		2	X	X	X	X	X	X	X	X	X	X	
5	SB-11-40" - 43"		1015	S		2	X	X	X	X	X	X	X	X	X	X	
6	SB-12-46" - 48"		1120	S		2	X	X	X	X	X	X	X	X	X	X	
7	SB-13-16" - 18"		1226	S		2	X	X	X	X	X	X	X	X	X	X	
8	SB-13-38" - 40"		1235	S		2	X	X	X	X	X	X	X	X	X	X	
9	SB-14-16" - 18"		1251	S		2	X	X	X	X	X	X	X	X	X	X	
10	SB-14-46" - 48"		1301	S		2	X	X	X	X	X	X	X	X	X	X	

Sampler(s) Please Print & Sign

Cody Gaston

Shipment Method

Fedex

Required Turnaround Time: (Check Box)

STD 10 Wk Days

5 Wk Days

2 Wk Days

Other

Results Due Date:

24 Hour

Relinquished by:

Cody Gaston

Date:

11-09-20

Time:

1400

Received by (Laboratory):

J. Varrell

Checked by (Laboratory):

Cody Gaston

Time:

10:55

Relinquished by:

Cody Gaston

Date:

11/10/20

Time:

10:55

Received by (Laboratory):

J. Varrell

Checked by (Laboratory):

Cody Gaston

Time:

10:55

Logged by (Laboratory):

Cody Gaston

Date:

11/10/20

Time:

10:55

Received by (Laboratory):

J. Varrell

Checked by (Laboratory):

Cody Gaston

Time:

10:55

Preservative Key:

1-HCl

2-HNO₃3-H₂SO₄

4-NaOH

5-Na₂S₂O₃6-NaHSO₄

7-Other

8-4°C

9-5035

Cooler ID

Cooler Temp.

QC Package: (Check One Box Below)

Level II Std QC

Level III Std QC/Raw Date

Level IV SW/46/CLP

Other

Level II Std QC

Level III Std QC/Raw Date

Level IV SW/46/CLP

Other

Level II Std QC

Level III Std QC/Raw Date

Level IV SW/46/CLP

TRRP Checklist

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

TRRP Level IV

Note:

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

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CFO

11/23/20

46628

46630

Sum 11/10/20

11/23/20

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+1 513 733 5336
Everett, WA
+1 425 356 2600

Chain of Custody Form

Page 2 of 2

HS20110458

TRC Corporation
Artesia Station West

COC ID: 233178

ALS Project Manager:

Customer Information				Project Information													
Purchase Order	Project Name	AFE Investigation	A	8260 (BTEX)													
Work Order	Project Number	Lea County, NM	B	8015 (DRO/ORO)													
Company Name	Bill To Company	TRC Corporation	C	8015 (GRO)													
Send Report To	Invoice Attn	TRC-AP	D	300 (Chloride)													
Address	Address	505 East Huntland Drive Suite 250	E	TDS_W 2540C (TDS)													
City/State/Zip	City/State/Zip	Austin, TX 78752	F	MOIST_SW3550 (Percent Moisture)													
Phone	Phone	(512) 329-6080	G	Full TCLP (TCLP VOC, SVOC, RCRA 8 Metals)													
Fax	Fax	(512) 329-8750	H	RCRA Characteristics (RCI Profile)													
e-Mail Address	e-Mail Address	RVarrell@trocompanies.com	I	TX1005_S_REV3 (TPH)													
		apinvoicerequest@trcsolutions.com	J	VOC (3260)													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-15-24"-20"	11-6-20	1348	S	NONE	2	X	X	X	X		X					
2	SB-15-24"-48"	11-6-20	1355	S		2	X	X	X	X		X					
3	Duplicate - 02	11-6-20		S		2	X	X	X	X		X					
4	WC-01	11-6-20	1400	S		2	X	X	X	X		X		X			
5	SB-16-18"-20"	11-6-20	1639	S	NONE	2	X	X	X	X		X					X
6	SB-16-44"-46"	11-6-20	1651	S	NONE	2	X	X	X	X		X					X
7	TB-11-09-20-2	11-09-20	1400	W	HCI	2										X	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Relinquished by:	<i>Colby Gaston</i>	Time:	11-09-20	☒ STD 10 Wk Days	☐ 5 Wk Days	☐ 2 Wk Days	☐ 24 Hour
Relinquished by:	<i>Colby Gaston</i>	Time:	1400	☐ Other			
Logged by (Laboratory):	<i>Colby Gaston</i>	Date:	11/10/20	Notes: Artesia Station West			
		Date:	10:55	OC Package: (Check One Box Below)			
		Date:		Level II Std OC ☒			
		Date:		Level III Std OC/Raw Data ☐			
		Date:		Level IV SW846/CLP ☐			
		Date:		Other ☐			
Preservative Key:	1-HCI 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other	8-4°C	9-5035	Cooler ID			
				Cooler Temp.			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

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FedEx
TRK# 1891 8802 0930
0221

43 SGRA

TUE - 10 NOV 10:30A
PRIORITY OVERNIGHT

77099
TX-US IAH



#3815433 11/09 563.15/10089/1766



Analytical Data Review Checklist

Site: WTX to EMSU Location: Klein Ranch, Lea County, NM Client Name: HEP-Operating Project #: 374611	Laboratory: ALS Lab Report #: HS20110463	QA Reviewer: R Varnell Date: 12/2/2020
Analytical Method(s): EPA Methods 8015M, 8260, E300, 3550, 1311/8270, 1311/6020, 7470, 1010, 2540C, 7.3.3.2, 4500H+, 9045, 7.3.4.2, & ASTM D92-12b.	Matrices Sampled: Plastic, water	Sample Collection Date(s): 11/7/2020
Sampling Objective(s): Delineate impacted media		
Sample IDs: (list IDs or attach COC): Please see attached COC.		

NOTE: Provide comments if any of the shaded boxes are checked.

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
Sample Traceability / Chain of Custody					
1	Were COC forms appropriately completed?	X			
2	Did the laboratory report correct sample IDs?	X			
3	Do the laboratory reported sample collection dates and times agree with the COC forms?	X			
Sample Preservation and Integrity					
4	Did samples arrive at the laboratory appropriately preserved?	X			EnCore sample collection not required.
	Was the cooler temperature between 0-6°C?	X			
	Was acid used for preservation when required (e.g., aqueous VOC and metals samples)?			X	
	Were soil/sediment VOC samples preserved in the field or collected in EnCore® samplers?			X	
5	Were samples received by the laboratory in an acceptable condition (i.e., no breakages, leaks, etc.)?	X			
6	Were any issues noted by the laboratory upon receipt?		X		
7	Were sample preparation and analysis holding time requirements met?		X		Holding time for pH (waste characterization analysis) exceeded.
8	<u>AIR ONLY:</u> Were canisters received with an acceptable vacuum?			X	
	Were the RPDs between the initial and final canister flow controller calibrations <20?				
Data Completeness					
9	Are results reported for all analytical methods requested?	X			
10	Are results reported for all samples submitted for analysis?	X			
11	Were the requested analytical methods used?	X			
12	Are results reported for all target analytes, but no additional analytes?	X			



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
13	Were soil/sediment results reported on a dry weight basis?	X			
14	If requested, were detected results below the reporting limit (i.e., "J" values) reported?	X			
15	Did we receive the required deliverables (e.g., EDD, Level 4 data, laboratory certification, etc.) in the correct formats?	X			
Sensitivity					
16	Do the reporting limits meet the project specifications (e.g., QAPP or Work Plan)?	X			
17	Were dilutions performed? If so, note sample(s) and parameter(s) affected and the dilution factor(s).	X			Dilutions on multiple samples due to high contaminant concentrations.
18	Did the laboratory provide an adequate explanation as to why dilutions were performed?	X			High Contaminant Concentration.
QC Results					
19	Were any target analytes detected in the method blanks? If yes, list contaminants, concentrations detected and associated samples.		X		
20	Does each analytical or preparation batch have its own method blank?	X			
21	Were any target analytes detected in the field blank(s) (e.g., trip blanks, equipment blanks)? If yes, list contaminants, concentrations detected and associated samples (or attach field blank results).		X		
22	Are there any potential false positive results based on questions 19 and/or 21? If concentrations of contaminants in associated samples are $\leq 10\times$ the blank concentration for common laboratory contaminants and $\leq 5\times$ the blank concentration for other contaminants, sample result is most likely a false positive. ⁽²⁾ Common blank contaminants: methylene chloride, acetone, 2-butanone, phthalates.			X	
23	Are LCS/LCSD recoveries within QC limits ⁽³⁾ ? If no, list analytes affected, the LCS/LCSD recoveries and the affected samples.	X			Yes. Percent recoveries for reactive cyanide & sulfide represent were low but inside lab control limits. These data were not used for delineation.
24	Does each analytical or preparation batch have its own LCS?	X			
25	Are LCS/LCSD RPDs within QC limits ⁽³⁾ ? If no, list analytes affected, the RPDs and the affected samples.	X			
26	Are MS/MSD recoveries within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the MS/MSD recoveries and the sample that was spiked.			X	Low recoveries/Other issues: Batch 159619: MS/MSD from difference site so not applicable. Batch R373320: MS/MSD from difference site (N/A).
27	Are MS/MSD RPDs within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required, If no, list analytes affected, the RPDs and the sample that was spiked.	X			



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments ⁽¹⁾
28	Are laboratory duplicate RPDs within QC limits ⁽³⁾ ? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was prepared/analyzed in duplicate.	X			
29	Are field duplicate RPDs within QC limits? If no, list analytes affected, the RPDs and the associated samples. NOTE: Typical criteria ⁽⁴⁾ are RPD ≤50 for solid samples and RPD ≤30 for aqueous and air samples when results are >2x the reporting limit; otherwise these criteria are doubled. However, project-specific or regulatory-based criteria may supersede these criteria.			X	
30	<u>ORGANIC ANALYSES ONLY:</u> Are surrogate recoveries within QC limits ⁽³⁾ ? If no, list samples, surrogate recoveries and analytes affected.	X			
Laboratory Comments					
31	Did the case narrative describe any analytical anomalies (i.e., problems or unique occurrences)? If yes, list the comments that have potential impact to sample results (or attach case narrative and highlight the comments that have potential impact to sample results).		X		
32	Were any other potential data quality issues identified? If yes, describe issues.		X		
Do the Data Make Sense?					
33	Do any results look questionable? If yes, ASK THE LAB!		X		
34	Has the EDD been compared with the lab report?		X		EDD not used to create data tables.

- (1) Comments generally need to be addressed in the TRC deliverable presenting the laboratory data but this will be dependent on project requirements.
- (2) Check if local or regional criteria for blank assessments are available; these will supersede criteria in this checklist.
- (3) Use QC limits in QAPP, if available. If not, use QC limits provided by laboratory in data package.
- (4) EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Guidance/Procedures, April 22, 2013.

COC = Chain-of-Custody

EDD = Electronic Data Deliverable

LCS/LCSD = Laboratory Control Sample / Laboratory Control Sample Duplicate

MS/MSD = Matrix Spike / Matrix Spike Duplicate

QAPP = Quality Assurance Project Plan

QC = Quality Control

RPD = Relative Percent Difference = $| (A-B) / ((A+B)/2) |$

VOC = Volatile Organic Compounds

NOTE: After data tables are created, check that reporting limits are below the project action levels (e.g., screening criteria, remediation standards, etc.) and compare data with historical results, if applicable.

Additional Comments:

ECR Practice
November 2015
Page 3 of 3



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

November 24, 2020

Richard (RD) Varnell
TRC Corporation
505 East Huntland Drive
Suite 250
Austin, TX 78752

Work Order: **HS20110463**

Laboratory Results for: **AFE Investigation**

Dear Richard (RD) Varnell,

ALS Environmental received 9 sample(s) on Nov 10, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

RJ Modashia
Project Manager

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110463

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20110463-01	MW-01	Water		07-Nov-2020 16:50	10-Nov-2020 10:55	☐
HS20110463-02	MW-02	Water		07-Nov-2020 14:50	10-Nov-2020 10:55	☐
HS20110463-03	MW-03	Water		07-Nov-2020 10:45	10-Nov-2020 10:55	☐
HS20110463-04	MW-04	Water		07-Nov-2020 12:55	10-Nov-2020 10:55	☐
HS20110463-05	Duplicate - 03	Water		07-Nov-2020 00:00	10-Nov-2020 10:55	☐
HS20110463-06	WC-02	Water		07-Nov-2020 17:35	10-Nov-2020 10:55	☐
HS20110463-07	WC-03	Solid		07-Nov-2020 17:30	10-Nov-2020 10:55	☐
HS20110463-08	TB-11-09-20-3	Water	CG 102720 -35	09-Nov-2020 14:00	10-Nov-2020 10:55	☐
HS20110463-09	TB-11-09-20-4	Water	CG 102720 -39	09-Nov-2020 14:00	10-Nov-2020 10:55	☐

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110463

CASE NARRATIVE**Work Order Comments**

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

GC Semivolatiles by Method SW8015M**Batch ID: 159576**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GC Volatiles by Method SW8015**Batch ID: R372456**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Semivolatiles by Method SW1311/8270**Batch ID: 159482,159574**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: 159446****Sample ID: HS20110707-03MS**

- MS is for an unrelated sample,

Batch ID: R372931,R372943

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW1311/6020**Batch ID: 159619****Sample ID: HS20110420-01MSD**

- MSD is for an unrelated sample

Metals by Method SW7470**Batch ID: 159560**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300**Batch ID: R373320****Sample ID: HS20110506-01MS**

- MS and MSD are for an unrelated sample (Chloride)

WetChemistry by Method SW1010**Batch ID: R372703**

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
Work Order: HS20110463

CASE NARRATIVE

WetChemistry by Method SW1010**Batch ID: R372703**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C**Batch ID: R372719**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.3.2**Batch ID: R372789,R372790**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method ASTM D92-12b**Batch ID: R372762**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM4500H+ B**Batch ID: R372698**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9045D**Batch ID: R372692**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.4.2**Batch ID: R372687,R372694**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: MW-01
 Collection Date: 07-Nov-2020 16:50

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-01
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: PC		
Benzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 20:41
Ethylbenzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 20:41
m,p-Xylene	< 0.010		0.010	mg/L	1	18-Nov-2020 20:41
o-Xylene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 20:41
Toluene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 20:41
Xylenes, Total	< 0.0050		0.0050	mg/L	1	18-Nov-2020 20:41
Surr: 1,2-Dichloroethane-d4	103		70-126	%REC	1	18-Nov-2020 20:41
Surr: 4-Bromofluorobenzene	97.6		82-124	%REC	1	18-Nov-2020 20:41
Surr: Dibromofluoromethane	97.8		77-123	%REC	1	18-Nov-2020 20:41
Surr: Toluene-d8	100		82-127	%REC	1	18-Nov-2020 20:41
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	0.0980		0.0500	mg/L	1	11-Nov-2020 14:58
Surr: 4-Bromofluorobenzene	108		70-123	%REC	1	11-Nov-2020 14:58
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3510C / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	0.084		0.050	mg/L	1	13-Nov-2020 13:47
TPH (Motor Oil Range)	< 0.10	n	0.10	mg/L	1	13-Nov-2020 13:47
Surr: 2-Fluorobiphenyl	67.4		60-135	%REC	1	13-Nov-2020 13:47
ANIONS BY E300.0		Method:E300		Analyst: YP		
Chloride	1,260		50.0	mg/L	100	24-Nov-2020 02:09
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	3,000		10.0	mg/L	1	13-Nov-2020 16:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: MW-02
 Collection Date: 07-Nov-2020 14:50

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-02
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: PC		
Benzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:02
Ethylbenzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:02
m,p-Xylene	< 0.010		0.010	mg/L	1	18-Nov-2020 21:02
o-Xylene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:02
Toluene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:02
Xylenes, Total	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:02
Surr: 1,2-Dichloroethane-d4	102		70-126	%REC	1	18-Nov-2020 21:02
Surr: 4-Bromofluorobenzene	95.8		82-124	%REC	1	18-Nov-2020 21:02
Surr: Dibromofluoromethane	98.0		77-123	%REC	1	18-Nov-2020 21:02
Surr: Toluene-d8	101		82-127	%REC	1	18-Nov-2020 21:02
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.0500		0.0500	mg/L	1	11-Nov-2020 15:14
Surr: 4-Bromofluorobenzene	107		70-123	%REC	1	11-Nov-2020 15:14
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3510C / 12-Nov-2020		Analyst: PVL
TPH (Diesel Range)	< 0.050		0.050	mg/L	1	13-Nov-2020 14:11
TPH (Motor Oil Range)	< 0.10	n	0.10	mg/L	1	13-Nov-2020 14:11
Surr: 2-Fluorobiphenyl	66.5		60-135	%REC	1	13-Nov-2020 14:11
ANIONS BY E300.0		Method:E300		Analyst: YP		
Chloride	1,210		50.0	mg/L	100	24-Nov-2020 02:27
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	2,970		10.0	mg/L	1	13-Nov-2020 16:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: MW-03
 Collection Date: 07-Nov-2020 10:45

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-03
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: PC		
Benzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:23
Ethylbenzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:23
m,p-Xylene	< 0.010		0.010	mg/L	1	18-Nov-2020 21:23
o-Xylene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:23
Toluene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:23
Xylenes, Total	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:23
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	18-Nov-2020 21:23
Surr: 4-Bromofluorobenzene	98.8		82-124	%REC	1	18-Nov-2020 21:23
Surr: Dibromofluoromethane	96.7		77-123	%REC	1	18-Nov-2020 21:23
Surr: Toluene-d8	102		82-127	%REC	1	18-Nov-2020 21:23
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.0500		0.0500	mg/L	1	11-Nov-2020 15:30
Surr: 4-Bromofluorobenzene	107		70-123	%REC	1	11-Nov-2020 15:30
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3510C / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 0.050		0.050	mg/L	1	13-Nov-2020 14:35
TPH (Motor Oil Range)	< 0.10	n	0.10	mg/L	1	13-Nov-2020 14:35
Surr: 2-Fluorobiphenyl	75.2		60-135	%REC	1	13-Nov-2020 14:35
ANIONS BY E300.0		Method:E300		Analyst: YP		
Chloride	736		50.0	mg/L	100	24-Nov-2020 02:45
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	1,970		10.0	mg/L	1	13-Nov-2020 16:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: MW-04
 Collection Date: 07-Nov-2020 12:55

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-04
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: PC		
Benzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:45
Ethylbenzene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:45
m,p-Xylene	< 0.010		0.010	mg/L	1	18-Nov-2020 21:45
o-Xylene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:45
Toluene	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:45
Xylenes, Total	< 0.0050		0.0050	mg/L	1	18-Nov-2020 21:45
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	18-Nov-2020 21:45
Surr: 4-Bromofluorobenzene	97.8		82-124	%REC	1	18-Nov-2020 21:45
Surr: Dibromofluoromethane	96.2		77-123	%REC	1	18-Nov-2020 21:45
Surr: Toluene-d8	100		82-127	%REC	1	18-Nov-2020 21:45
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.0500		0.0500	mg/L	1	11-Nov-2020 15:46
Surr: 4-Bromofluorobenzene	108		70-123	%REC	1	11-Nov-2020 15:46
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3510C / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 0.050		0.050	mg/L	1	13-Nov-2020 15:00
TPH (Motor Oil Range)	< 0.10	n	0.10	mg/L	1	13-Nov-2020 15:00
Surr: 2-Fluorobiphenyl	60.4		60-135	%REC	1	13-Nov-2020 15:00
ANIONS BY E300.0		Method:E300		Analyst: YP		
Chloride	1,190		50.0	mg/L	100	24-Nov-2020 03:04
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	3,020		10.0	mg/L	1	13-Nov-2020 16:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: Duplicate - 03
 Collection Date: 07-Nov-2020 00:00

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-05
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: PC		
Benzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 01:17
Ethylbenzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 01:17
m,p-Xylene	< 0.010		0.010	mg/L	1	19-Nov-2020 01:17
o-Xylene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 01:17
Toluene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 01:17
Xylenes, Total	< 0.0050		0.0050	mg/L	1	19-Nov-2020 01:17
Surr: 1,2-Dichloroethane-d4	103		70-126	%REC	1	19-Nov-2020 01:17
Surr: 4-Bromofluorobenzene	97.8		82-124	%REC	1	19-Nov-2020 01:17
Surr: Dibromofluoromethane	95.5		77-123	%REC	1	19-Nov-2020 01:17
Surr: Toluene-d8	100		82-127	%REC	1	19-Nov-2020 01:17
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	< 0.0500		0.0500	mg/L	1	11-Nov-2020 16:03
Surr: 4-Bromofluorobenzene	108		70-123	%REC	1	11-Nov-2020 16:03
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3510C / 12-Nov-2020 Analyst: PVL		
TPH (Diesel Range)	< 0.050		0.050	mg/L	1	13-Nov-2020 15:24
TPH (Motor Oil Range)	< 0.10	n	0.10	mg/L	1	13-Nov-2020 15:24
Surr: 2-Fluorobiphenyl	72.1		60-135	%REC	1	13-Nov-2020 15:24
ANIONS BY E300.0		Method:E300		Analyst: YP		
Chloride	1,200		50.0	mg/L	100	24-Nov-2020 03:58
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	3,040		10.0	mg/L	1	13-Nov-2020 16:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: WC-02
 Collection Date: 07-Nov-2020 17:35

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-06
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES		Method:SW8260	Leache:SW1311 / 11-Nov-2020	Prep:SW1311 / 11-Nov-2020	Analyst: PC	
1,1-Dichloroethene	< 100		100	ug/L	20	18-Nov-2020 07:18
1,2-Dichloroethane	< 100		100	ug/L	20	18-Nov-2020 07:18
1,4-Dichlorobenzene	< 100		100	ug/L	20	18-Nov-2020 07:18
2-Butanone	< 200		200	ug/L	20	18-Nov-2020 07:18
Benzene	< 100		100	ug/L	20	18-Nov-2020 07:18
Carbon tetrachloride	< 100		100	ug/L	20	18-Nov-2020 07:18
Chlorobenzene	< 100		100	ug/L	20	18-Nov-2020 07:18
Chloroform	< 100		100	ug/L	20	18-Nov-2020 07:18
Tetrachloroethene	< 100		100	ug/L	20	18-Nov-2020 07:18
Trichloroethene	< 100		100	ug/L	20	18-Nov-2020 07:18
Vinyl chloride	< 40		40	ug/L	20	18-Nov-2020 07:18
Surr: 1,2-Dichloroethane-d4	89.8		70-126	%REC	20	18-Nov-2020 07:18
Surr: 4-Bromofluorobenzene	96.1		82-124	%REC	20	18-Nov-2020 07:18
Surr: Dibromofluoromethane	84.0		77-123	%REC	20	18-Nov-2020 07:18
Surr: Toluene-d8	106		82-127	%REC	20	18-Nov-2020 07:18
TCLP SEMIVOLATILES		Method:SW1311/8270	Leache:SW1311 / 10-Nov-2020	Prep:SW3510 / 12-Nov-2020	Analyst: GEY	
2,4,5-Trichlorophenol	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
2,4,6-Trichlorophenol	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
2,4-Dinitrotoluene	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Cresols, Total	< 15		15	ug/L	1	13-Nov-2020 18:21
Hexachlorobenzene	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Hexachlorobutadiene	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Hexachloroethane	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Nitrobenzene	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Pentachlorophenol	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Pyridine	< 5.0		5.0	ug/L	1	13-Nov-2020 18:21
Surr: 2,4,6-Tribromophenol	63.1		39-153	%REC	1	13-Nov-2020 18:21
Surr: 2-Fluorobiphenyl	71.7		40-147	%REC	1	13-Nov-2020 18:21
Surr: 2-Fluorophenol	69.6		21-110	%REC	1	13-Nov-2020 18:21
Surr: 4-Terphenyl-d14	88.0		39-141	%REC	1	13-Nov-2020 18:21
Surr: Nitrobenzene-d5	85.4		37-140	%REC	1	13-Nov-2020 18:21
Surr: Phenol-d6	67.3		11-110	%REC	1	13-Nov-2020 18:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: WC-02
 Collection Date: 07-Nov-2020 17:35

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-06
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP METALS BY SW6020A						
	Method:SW1311/6020		Leache:SW1311 / 10-Nov-2020	Prep:SW3010A / 13-Nov-2020		Analyst: JHD
Arsenic	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:43
Barium	0.477		0.200	mg/L	1	13-Nov-2020 23:43
Cadmium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:43
Chromium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:43
Lead	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:43
Selenium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:43
Silver	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:43
TCLP MERCURY BY SW7470A						
	Method:SW7470		Leache:SW1311 / 10-Nov-2020	Prep:SW7470 / 12-Nov-2020		Analyst: JC
Mercury	< 0.000200		0.000200	mg/L	1	12-Nov-2020 17:39
PH BY SM4500H+ B						
	Method:SM4500H+ B					Analyst: JAC
pH	7.33	H	0.100	pH Units	1	16-Nov-2020 14:00
Temp Deg C @pH	22.4	H	0	°C	1	16-Nov-2020 14:00
FLASH POINT BY PENSKEY-MARTENS SW1010A						
	Method:SW1010					Analyst: TH
Ignitability	> 212		70.0	°F	1	16-Nov-2020 08:00
REACTIVE CYANIDE						
	Method:SW7.3.3.2			Prep:SW7.3.3.2		Analyst: KVL
Reactive Cyanide	< 100	n	100	mg/Kg	1	16-Nov-2020 15:00
REACTIVE SULFIDE						
	Method:SW7.3.4.2					Analyst: KVL
Reactive Sulfide	< 100	n	100	mg/Kg	1	16-Nov-2020 13:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: WC-03
 Collection Date: 07-Nov-2020 17:30

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-07
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES						
	Method:SW8260		Leache:SW1311 / 11-Nov-2020	Prep:SW1311 / 11-Nov-2020		Analyst: PC
1,1-Dichloroethene	< 100		100	ug/L	20	18-Nov-2020 07:39
1,2-Dichloroethane	< 100		100	ug/L	20	18-Nov-2020 07:39
1,4-Dichlorobenzene	< 100		100	ug/L	20	18-Nov-2020 07:39
2-Butanone	< 200		200	ug/L	20	18-Nov-2020 07:39
Benzene	< 100		100	ug/L	20	18-Nov-2020 07:39
Carbon tetrachloride	< 100		100	ug/L	20	18-Nov-2020 07:39
Chlorobenzene	< 100		100	ug/L	20	18-Nov-2020 07:39
Chloroform	< 100		100	ug/L	20	18-Nov-2020 07:39
Tetrachloroethene	< 100		100	ug/L	20	18-Nov-2020 07:39
Trichloroethene	< 100		100	ug/L	20	18-Nov-2020 07:39
Vinyl chloride	< 40		40	ug/L	20	18-Nov-2020 07:39
Surr: 1,2-Dichloroethane-d4	87.2		70-126	%REC	20	18-Nov-2020 07:39
Surr: 4-Bromofluorobenzene	93.0		82-124	%REC	20	18-Nov-2020 07:39
Surr: Dibromofluoromethane	80.7		77-123	%REC	20	18-Nov-2020 07:39
Surr: Toluene-d8	105		82-127	%REC	20	18-Nov-2020 07:39
TCLP SEMIVOLATILES						
	Method:SW1311/8270		Leache:SW1311 / 11-Nov-2020	Prep:SW3510 / 11-Nov-2020		Analyst: GEY
2,4,5-Trichlorophenol	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
2,4,6-Trichlorophenol	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
2,4-Dinitrotoluene	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Cresols, Total	< 15		15	ug/L	1	11-Nov-2020 20:12
Hexachlorobenzene	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Hexachlorobutadiene	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Hexachloroethane	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Nitrobenzene	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Pentachlorophenol	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Pyridine	< 5.0		5.0	ug/L	1	11-Nov-2020 20:12
Surr: 2,4,6-Tribromophenol	69.3		39-153	%REC	1	11-Nov-2020 20:12
Surr: 2-Fluorobiphenyl	69.8		40-147	%REC	1	11-Nov-2020 20:12
Surr: 2-Fluorophenol	74.8		21-110	%REC	1	11-Nov-2020 20:12
Surr: 4-Terphenyl-d14	81.6		39-141	%REC	1	11-Nov-2020 20:12
Surr: Nitrobenzene-d5	78.1		37-140	%REC	1	11-Nov-2020 20:12
Surr: Phenol-d6	83.4		11-110	%REC	1	11-Nov-2020 20:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: WC-03
 Collection Date: 07-Nov-2020 17:30

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-07
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP METALS BY SW6020A						
	Method:SW1311/6020		Leache:SW1311 / 11-Nov-2020	Prep:SW3010A / 13-Nov-2020		Analyst: JHD
Arsenic	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:45
Barium	< 0.200		0.200	mg/L	1	13-Nov-2020 23:45
Cadmium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:45
Chromium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:45
Lead	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:45
Selenium	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:45
Silver	< 0.0500		0.0500	mg/L	1	13-Nov-2020 23:45
TCLP MERCURY BY SW7470A						
	Method:SW7470		Leache:SW1311 / 11-Nov-2020	Prep:SW7470 / 12-Nov-2020		Analyst: JC
Mercury	< 0.000200		0.000200	mg/L	1	12-Nov-2020 17:41
FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B						
	Method:ASTM D92-12b					Analyst: TH
Flash Point	> 212	n	50.0	°F	1	17-Nov-2020 08:00
REACTIVE CYANIDE						
	Method:SW7.3.3.2			Prep:SW7.3.3.2		Analyst: KVL
Reactive Cyanide	< 100	n	100	mg/Kg	1	17-Nov-2020 15:00
REACTIVE SULFIDE						
	Method:SW7.3.4.2					Analyst: KVL
Reactive Sulfide	< 100	n	100	mg/Kg	1	16-Nov-2020 13:10
PH SOIL BY SW9045D						
	Method:SW9045D					Analyst: JAC
pH	8.50	H	0.100	pH Units	1	16-Nov-2020 13:56
Temp Deg C @pH	22.4	H	0	°C	1	16-Nov-2020 13:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: TB-11-09-20-3
 Collection Date: 09-Nov-2020 14:00

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-08
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: PC		
Benzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:34
Ethylbenzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:34
m,p-Xylene	< 0.010		0.010	mg/L	1	19-Nov-2020 00:34
o-Xylene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:34
Toluene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:34
Xylenes, Total	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:34
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	19-Nov-2020 00:34
Surr: 4-Bromofluorobenzene	97.1		82-124	%REC	1	19-Nov-2020 00:34
Surr: Dibromofluoromethane	95.7		77-123	%REC	1	19-Nov-2020 00:34
Surr: Toluene-d8	100		82-127	%REC	1	19-Nov-2020 00:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 Sample ID: TB-11-09-20-4
 Collection Date: 09-Nov-2020 14:00

ANALYTICAL REPORT

WorkOrder:HS20110463
 Lab ID:HS20110463-09
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260					Analyst: PC
Benzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:55
Ethylbenzene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:55
m,p-Xylene	< 0.010		0.010	mg/L	1	19-Nov-2020 00:55
o-Xylene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:55
Toluene	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:55
Xylenes, Total	< 0.0050		0.0050	mg/L	1	19-Nov-2020 00:55
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	19-Nov-2020 00:55
Surr: 4-Bromofluorobenzene	98.4		82-124	%REC	1	19-Nov-2020 00:55
Surr: Dibromofluoromethane	97.2		77-123	%REC	1	19-Nov-2020 00:55
Surr: Toluene-d8	102		82-127	%REC	1	19-Nov-2020 00:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

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Date: 24-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110463

Batch ID: 159439 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP MERCURY EXTRACTION BY SW1311 Prep Code: 1311LHG EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-07		100 (grams)	2000 (mL)	20

Batch ID: 159441 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP METALS EXTRACTION BY SW1311 Prep Code: 1311LM EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-07		100 (grams)	2000 (mL)	20

Batch ID: 159445 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP SAMPLE EXTRACTION SEMI Prep Code: 1311LO_SV

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-07		100 (grams)	2000 (mL)	20

Batch ID: 159446 Start Date: 10 Nov 2020 17:00 End Date: 11 Nov 2020 10:00

Method: TCLP ZHE (VOL EXTRACTION) Prep Code: 1311ZHE

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06		25 (g)	500 (mL)	20
HS20110463-07		25 (g)	500 (mL)	20

Batch ID: 159463 Start Date: 10 Nov 2020 16:00 End Date: 10 Nov 2020 17:00

Method: TCLP MERCURY EXTRACTION BY SW1311 Prep Code: 1311LHG EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06		100 (grams)	2000 (mL)	20

Batch ID: 159465 Start Date: 10 Nov 2020 16:00 End Date: 10 Nov 2020 17:00

Method: TCLP METALS EXTRACTION BY SW1311 Prep Code: 1311LM EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06		100 (grams)	2000 (mL)	20

Batch ID: 159467 Start Date: 10 Nov 2020 16:00 End Date: 10 Nov 2020 17:00

Method: TCLP SAMPLE EXTRACTION SEMI Prep Code: 1311LO_SV

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06		100 (grams)	2000 (mL)	20

Batch ID: 159482 Start Date: 11 Nov 2020 10:30 End Date: 11 Nov 2020 15:00

Method: SV AQ SEP FUNNEL EXTRACTION - SW3510C Prep Code: 3510_B

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-07	1	1000 (mL)	1 (mL)	0.001

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Date: 24-Nov-20

Weight / Prep Log

Client: TRC Corporation

Project: AFE Investigation

WorkOrder: HS20110463

Batch ID: 159560 **Start Date:** 12 Nov 2020 10:00 **End Date:** 12 Nov 2020 12:00**Method:** MERCURY TCLP PREP BY SW7470A **Prep Code:** 1311_HGPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06		10 (mL)	10 (mL)	1
HS20110463-07		10 (mL)	10 (mL)	1

Batch ID: 159574 **Start Date:** 12 Nov 2020 08:00 **End Date:** 12 Nov 2020 14:30**Method:** SV AQ SEP FUNNEL EXTRACTION - SW3510C **Prep Code:** 3510_B

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06	1	1000 (mL)	1 (mL)	0.001

Batch ID: 159576 **Start Date:** 12 Nov 2020 10:00 **End Date:** 12 Nov 2020 15:00**Method:** AQPREP: 3510C TPH **Prep Code:** 8015WPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-01	1	1000 (mL)	1 (mL)	0.001
HS20110463-02	1	1000 (mL)	1 (mL)	0.001
HS20110463-03	1	1000 (mL)	1 (mL)	0.001
HS20110463-04	1	1000 (mL)	1 (mL)	0.001
HS20110463-05	1	1000 (mL)	1 (mL)	0.001

Batch ID: 159619 **Start Date:** 13 Nov 2020 08:30 **End Date:** 13 Nov 2020 12:30**Method:** TCLP LEACHATE DIGESTION BY SW3010A **Prep Code:** 3010A_TCLP

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20110463-06		1 (mL)	10 (mL)	10
HS20110463-07		1 (mL)	10 (mL)	10

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Project: AFE Investigation
WorkOrder: HS20110463

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 159446 (0)		Test Name : TCLP VOLATILES			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30	11 Nov 2020 10:00	11 Nov 2020 11:47	18 Nov 2020 07:39	20
Batch ID: 159446 (0)		Test Name : TCLP VOLATILES			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35	11 Nov 2020 10:00	11 Nov 2020 11:47	18 Nov 2020 07:18	20
Batch ID: 159482 (0)		Test Name : TCLP SEMIVOLATILES			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30	11 Nov 2020 10:00	11 Nov 2020 08:54	11 Nov 2020 20:12	1
Batch ID: 159560 (0)		Test Name : TCLP MERCURY BY SW7470A			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30	11 Nov 2020 10:00	12 Nov 2020 10:00	12 Nov 2020 17:41	1
Batch ID: 159560 (0)		Test Name : TCLP MERCURY BY SW7470A			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35	10 Nov 2020 17:13	12 Nov 2020 10:00	12 Nov 2020 17:39	1
Batch ID: 159574 (1)		Test Name : TCLP SEMIVOLATILES			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35	10 Nov 2020 17:17	12 Nov 2020 08:00	13 Nov 2020 18:21	1
Batch ID: 159576 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water	
HS20110463-01	MW-01	07 Nov 2020 16:50		12 Nov 2020 10:00	13 Nov 2020 13:47	1
HS20110463-02	MW-02	07 Nov 2020 14:50		12 Nov 2020 10:00	13 Nov 2020 14:11	1
HS20110463-03	MW-03	07 Nov 2020 10:45		12 Nov 2020 10:00	13 Nov 2020 14:35	1
HS20110463-04	MW-04	07 Nov 2020 12:55		12 Nov 2020 10:00	13 Nov 2020 15:00	1
HS20110463-05	Duplicate - 03	07 Nov 2020 00:00		12 Nov 2020 10:00	13 Nov 2020 15:24	1
Batch ID: 159619 (0)		Test Name : TCLP METALS BY SW6020A			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30	11 Nov 2020 10:00	13 Nov 2020 12:30	13 Nov 2020 23:45	1
Batch ID: 159619 (0)		Test Name : TCLP METALS BY SW6020A			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35	10 Nov 2020 17:00	13 Nov 2020 12:30	13 Nov 2020 23:43	1
Batch ID: R372456 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Water	
HS20110463-01	MW-01	07 Nov 2020 16:50			11 Nov 2020 14:58	1
HS20110463-02	MW-02	07 Nov 2020 14:50			11 Nov 2020 15:14	1
HS20110463-03	MW-03	07 Nov 2020 10:45			11 Nov 2020 15:30	1
HS20110463-04	MW-04	07 Nov 2020 12:55			11 Nov 2020 15:46	1
HS20110463-05	Duplicate - 03	07 Nov 2020 00:00			11 Nov 2020 16:03	1
Batch ID: R372687 (0)		Test Name : REACTIVE SULFIDE			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30			16 Nov 2020 13:10	1
Batch ID: R372692 (0)		Test Name : PH SOIL BY SW9045D			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30			16 Nov 2020 13:56	1
Batch ID: R372694 (0)		Test Name : REACTIVE SULFIDE			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35			16 Nov 2020 13:10	1
Batch ID: R372698 (0)		Test Name : PH BY SM4500H+ B			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35			16 Nov 2020 14:00	1

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Client: TRC Corporation
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DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R372703 (0)		Test Name : FLASH POINT BY PENSKEY-MARTENS SW1010A			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35			16 Nov 2020 08:00	1
Batch ID: R372719 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C			Matrix: Water	
HS20110463-01	MW-01	07 Nov 2020 16:50			13 Nov 2020 16:30	1
HS20110463-02	MW-02	07 Nov 2020 14:50			13 Nov 2020 16:30	1
HS20110463-03	MW-03	07 Nov 2020 10:45			13 Nov 2020 16:30	1
HS20110463-04	MW-04	07 Nov 2020 12:55			13 Nov 2020 16:30	1
HS20110463-05	Duplicate - 03	07 Nov 2020 00:00			13 Nov 2020 16:30	1
Batch ID: R372762 (0)		Test Name : FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30			17 Nov 2020 08:00	1
Batch ID: R372789 (0)		Test Name : REACTIVE CYANIDE			Matrix: Solid	
HS20110463-07	WC-03	07 Nov 2020 17:30			17 Nov 2020 15:00	1
Batch ID: R372790 (0)		Test Name : REACTIVE CYANIDE			Matrix: Water	
HS20110463-06	WC-02	07 Nov 2020 17:35			16 Nov 2020 15:00	1
Batch ID: R372931 (0)		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS20110463-01	MW-01	07 Nov 2020 16:50			18 Nov 2020 20:41	1
HS20110463-02	MW-02	07 Nov 2020 14:50			18 Nov 2020 21:02	1
HS20110463-03	MW-03	07 Nov 2020 10:45			18 Nov 2020 21:23	1
HS20110463-04	MW-04	07 Nov 2020 12:55			18 Nov 2020 21:45	1
Batch ID: R372943 (0)		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS20110463-05	Duplicate - 03	07 Nov 2020 00:00			19 Nov 2020 01:17	1
HS20110463-08	TB-11-09-20-3	09 Nov 2020 14:00			19 Nov 2020 00:34	1
HS20110463-09	TB-11-09-20-4	09 Nov 2020 14:00			19 Nov 2020 00:55	1
Batch ID: R373320 (0)		Test Name : ANIONS BY E300.0			Matrix: Water	
HS20110463-01	MW-01	07 Nov 2020 16:50			24 Nov 2020 02:09	100
HS20110463-02	MW-02	07 Nov 2020 14:50			24 Nov 2020 02:27	100
HS20110463-03	MW-03	07 Nov 2020 10:45			24 Nov 2020 02:45	100
HS20110463-04	MW-04	07 Nov 2020 12:55			24 Nov 2020 03:04	100
HS20110463-05	Duplicate - 03	07 Nov 2020 00:00			24 Nov 2020 03:58	100

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Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
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QC BATCH REPORT

Batch ID: 159576 (0)		Instrument: FID-7		Method: TPH DRO/ORO BY SW8015C					
MBLK	Sample ID: MBLK-159576	Units: mg/L		Analysis Date: 13-Nov-2020 10:53					
Client ID:	Run ID: FID-7_372674		SeqNo: 5833763		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	< 0.050	0.050							
TPH (Motor Oil Range)	< 0.10	0.10							
Surr: 2-Fluorobiphenyl	0.09032	0.0050	0.1	0	90.3	60 - 135			

LCS	Sample ID: LCS-159576	Units: mg/L		Analysis Date: 13-Nov-2020 12:58					
Client ID:	Run ID: FID-7_372674		SeqNo: 5833764		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	0.9096	0.050	1	0	91.0	70 - 130			
TPH (Motor Oil Range)	0.7207	0.10	1	0	72.1	70 - 130			
Surr: 2-Fluorobiphenyl	0.07205	0.0050	0.1	0	72.1	60 - 135			

LCSD	Sample ID: LCSD-159576	Units: mg/L		Analysis Date: 13-Nov-2020 13:22					
Client ID:	Run ID: FID-7_372674		SeqNo: 5833765		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	0.894	0.050	1	0	89.4	70 - 122	0.9096	1.73	20
TPH (Motor Oil Range)	0.7479	0.10	1	0	74.8	70 - 130	0.7207	3.7	20
Surr: 2-Fluorobiphenyl	0.07675	0.0050	0.1	0	76.8	60 - 135	0.07205	6.32	20

The following samples were analyzed in this batch:

HS20110463-01	HS20110463-02	HS20110463-03	HS20110463-04
HS20110463-05			

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QC BATCH REPORT

Batch ID: R372456 (0)		Instrument: FID-20		Method: GASOLINE RANGE ORGANICS BY SW8015C					
MBLK	Sample ID: MBLK-111120	Units: mg/L		Analysis Date: 11-Nov-2020 14:42					
Client ID:	Run ID: FID-20_372456		SeqNo: 5828315		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics < 0.0500 0.0500

Surr: 4-Bromofluorobenzene 0.1063 0.00500 0.1 0 106 70 - 121

LCS	Sample ID: LCS-111120	Units: mg/L		Analysis Date: 11-Nov-2020 14:11					
Client ID:	Run ID: FID-20_372456		SeqNo: 5828313		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.057 0.0500 1 0 106 76 - 124

Surr: 4-Bromofluorobenzene 0.1024 0.00500 0.1 0 102 52 - 138

LCSD	Sample ID: LCSD-111120	Units: mg/L		Analysis Date: 11-Nov-2020 14:26					
Client ID:	Run ID: FID-20_372456		SeqNo: 5828314		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.141 0.0500 1 0 114 76 - 124 1.057 7.64 20

Surr: 4-Bromofluorobenzene 0.1121 0.00500 0.1 0 112 52 - 138 0.1024 9.09 20

The following samples were analyzed in this batch: HS20110463-01 HS20110463-02 HS20110463-03 HS20110463-04
 HS20110463-05

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Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159560 (0)		Instrument: HG03		Method: TCLP MERCURY BY SW7470A					
MBLK	Sample ID: MBLKT2-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:09					
Client ID:	Run ID: HG03_372445		SeqNo: 5830024		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT4-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:12					
Client ID:	Run ID: HG03_372445		SeqNo: 5830026		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT6-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:16					
Client ID:	Run ID: HG03_372445		SeqNo: 5830028		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT7-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:17					
Client ID:	Run ID: HG03_372445		SeqNo: 5830029		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT5-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:14					
Client ID:	Run ID: HG03_372445		SeqNo: 5830027		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							
MBLK	Sample ID: MBLKT3-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:10					
Client ID:	Run ID: HG03_372445		SeqNo: 5830025		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	< 0.000200	0.000200							

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QC BATCH REPORT

Batch ID: 159560 (0)		Instrument: HG03		Method: TCLP MERCURY BY SW7470A						
MBLK	Sample ID: MBLKT1-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:07						
Client ID:	Run ID: HG03_372445		SeqNo: 5830023		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	< 0.000200	0.000200								
MBLK	Sample ID: MBLK-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:05						
Client ID:	Run ID: HG03_372445		SeqNo: 5830022		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	< 0.000200	0.000200								
LCS	Sample ID: LCS-159560	Units: mg/L		Analysis Date: 12-Nov-2020 17:31						
Client ID:	Run ID: HG03_372445		SeqNo: 5830032		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	0.00506	0.000200	0.005	0	101	80 - 120				
MS	Sample ID: HS20110420-01MS	Units: mg/L		Analysis Date: 12-Nov-2020 17:34						
Client ID:	Run ID: HG03_372445		SeqNo: 5830034		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	0.00564	0.000200	0.005	0	113	75 - 125				
MSD	Sample ID: HS20110420-01MSD	Units: mg/L		Analysis Date: 12-Nov-2020 17:36						
Client ID:	Run ID: HG03_372445		SeqNo: 5830035		PrepDate: 12-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Mercury	0.00563	0.000200	0.005	0	113	75 - 125	0.00564	0.177	20	
The following samples were analyzed in this batch:										
HS20110463-06 HS20110463-07										

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Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
MBLK	Sample ID: MBLKT2-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:10					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833039		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLKT4-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:14					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833041		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLKT5-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:16					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833042		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

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Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
MBLK	Sample ID: MBLKT3-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:12					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833040		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLKT1-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:08					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833038		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.0500	0.0500							
Barium	< 0.200	0.200							
Cadmium	< 0.0500	0.0500							
Chromium	< 0.0500	0.0500							
Lead	< 0.0500	0.0500							
Selenium	< 0.0500	0.0500							
Silver	< 0.0500	0.0500							

MBLK	Sample ID: MBLK-159619	Units: mg/L		Analysis Date: 13-Nov-2020 23:06					
Client ID:	Run ID: ICPMS06_372564	SeqNo: 5833037		PrepDate: 13-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	< 0.00500	0.00500							
Barium	< 0.0200	0.0200							
Cadmium	< 0.00500	0.00500							
Chromium	< 0.00500	0.00500							
Lead	< 0.00500	0.00500							
Selenium	< 0.00500	0.00500							
Silver	< 0.00500	0.00500							

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A						
LCS		Sample ID: LCS-159619		Units: mg/L		Analysis Date: 13-Nov-2020 23:18				
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833043		PrepDate: 13-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04736	0.00500	0.05	0	94.7	80 - 120				
Barium	0.04624	0.0200	0.05	0	92.5	80 - 120				
Cadmium	0.05	0.00500	0.05	0	100	80 - 120				
Chromium	0.04681	0.00500	0.05	0	93.6	80 - 120				
Lead	0.04801	0.00500	0.05	0	96.0	80 - 120				
Selenium	0.04924	0.00500	0.05	0	98.5	80 - 120				
Silver	0.04963	0.00500	0.05	0	99.3	80 - 120				

MS		Sample ID: HS20110420-01MS		Units: mg/L		Analysis Date: 13-Nov-2020 23:27				
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833048		PrepDate: 13-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5751	0.0500	0.5	0.00322	114	80 - 120				
Barium	1.728	0.200	0.5	1.203	105	80 - 120				
Cadmium	0.5447	0.0500	0.5	0.00027	109	80 - 120				
Chromium	0.5666	0.0500	0.5	-0.00087	113	80 - 120				
Lead	0.5617	0.0500	0.5	0.00764	111	80 - 120				
Selenium	0.579	0.0500	0.5	-0.00408	117	80 - 120				
Silver	0.5384	0.0500	0.5	0.00007	108	80 - 120				

MSD		Sample ID: HS20110420-01MSD		Units: mg/L		Analysis Date: 13-Nov-2020 23:29				
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833049		PrepDate: 13-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5576	0.0500	0.5	0.00322	111	80 - 120	0.5751	3.09	20	
Barium	1.817	0.200	0.5	1.203	123	80 - 120	1.728	5	20	S
Cadmium	0.556	0.0500	0.5	0.00027	111	80 - 120	0.5447	2.05	20	
Chromium	0.543	0.0500	0.5	-0.00087	109	80 - 120	0.5666	4.26	20	
Lead	0.5458	0.0500	0.5	0.00764	108	80 - 120	0.5617	2.88	20	
Selenium	0.5708	0.0500	0.5	-0.00408	115	80 - 120	0.579	1.43	20	
Silver	0.5373	0.0500	0.5	0.00007	107	80 - 120	0.5384	0.203	20	

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159619 (0)		Instrument: ICPMS06		Method: TCLP METALS BY SW6020A					
PDS		Sample ID: HS20110420-01PDS		Units: mg/L		Analysis Date: 13-Nov-2020 23:31			
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833050		PrepDate: 13-Nov-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.9394	0.0500	1	0.00322	93.6	75 - 125			
Barium	1.977	0.200	1	1.203	77.4	75 - 125			
Cadmium	0.9482	0.0500	1	0.00027	94.8	75 - 125			
Chromium	0.9231	0.0500	1	-0.00087	92.4	75 - 125			
Lead	0.9322	0.0500	1	0.00764	92.5	75 - 125			
Selenium	0.9781	0.0500	1	-0.00408	98.2	75 - 125			
Silver	0.9058	0.0500	1	0.00007	90.6	75 - 125			
SD		Sample ID: HS20110420-01SD		Units: mg/L		Analysis Date: 13-Nov-2020 23:25			
Client ID:		Run ID: ICPMS06_372564		SeqNo: 5833047		PrepDate: 13-Nov-2020		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Arsenic	< 0.250	0.250					0.00322	0	10
Cadmium	< 0.250	0.250					0.00027	0	10
Chromium	< 0.250	0.250					-0.00087	0	10
Lead	< 0.250	0.250					0.00764	0	10
Selenium	< 0.250	0.250					-0.00408	0	10
Silver	< 0.250	0.250					0.00007	0	10
The following samples were analyzed in this batch: HS20110463-06 HS20110463-07									

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Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159482 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
MBLK	Sample ID: MBLK-159482	Units: ug/L		Analysis Date: 11-Nov-2020 16:38						
Client ID:	Run ID: SV-4_372422		SeqNo: 5829821		PrepDate: 11-Nov-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	< 5.0	5.0								
2,4,6-Trichlorophenol	< 5.0	5.0								
2,4-Dinitrotoluene	< 5.0	5.0								
Cresols, Total	< 15	15								
Hexachlorobenzene	< 5.0	5.0								
Hexachlorobutadiene	< 5.0	5.0								
Hexachloroethane	< 5.0	5.0								
Nitrobenzene	< 5.0	5.0								
Pentachlorophenol	< 5.0	5.0								
Pyridine	< 5.0	5.0								
Surr: 2,4,6-Tribromophenol	60.16	5.0	100	0	60.2	39 - 153				
Surr: 2-Fluorobiphenyl	62.99	5.0	100	0	63.0	40 - 147				
Surr: 2-Fluorophenol	65.7	5.0	100	0	65.7	21 - 110				
Surr: 4-Terphenyl-d14	87.48	5.0	100	0	87.5	39 - 141				
Surr: Nitrobenzene-d5	66.84	5.0	100	0	66.8	37 - 140				
Surr: Phenol-d6	61.24	5.0	100	0	61.2	11 - 110				

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159482 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
LCS		Sample ID: LCS-159482		Units: ug/L		Analysis Date: 11-Nov-2020 16:59				
Client ID:		Run ID: SV-4_372422		SeqNo: 5829822		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	80.41	5.0	100	0	80.4	55 - 120				
2,4,6-Trichlorophenol	79.19	5.0	100	0	79.2	55 - 120				
2,4-Dinitrotoluene	35.59	5.0	50	0	71.2	55 - 125				
Cresols, Total	209.5	15	250	0	83.8	48 - 115				
Hexachlorobenzene	35.04	5.0	50	0	70.1	55 - 120				
Hexachlorobutadiene	32.3	5.0	50	0	64.6	55 - 120				
Hexachloroethane	35.88	5.0	50	0	71.8	55 - 120				
Nitrobenzene	39.84	5.0	50	0	79.7	55 - 120				
Pentachlorophenol	81.2	5.0	100	0	81.2	50 - 135				
Pyridine	33.07	5.0	50	0	66.1	30 - 120				
Surr: 2,4,6-Tribromophenol	80.14	5.0	100	0	80.1	39 - 153				
Surr: 2-Fluorobiphenyl	90.45	5.0	100	0	90.4	40 - 147				
Surr: 2-Fluorophenol	100	5.0	100	0	100	21 - 110				
Surr: 4-Terphenyl-d14	101.5	5.0	100	0	102	39 - 141				
Surr: Nitrobenzene-d5	100.4	5.0	100	0	100	37 - 140				
Surr: Phenol-d6	98.82	5.0	100	0	98.8	11 - 110				

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159482 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
LCSD		Sample ID: LCSD-159482		Units: ug/L		Analysis Date: 11-Nov-2020 17:21				
Client ID:		Run ID: SV-4_372422		SeqNo: 5829823		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	77.91	5.0	100	0	77.9	55 - 120	80.41	3.15	20	
2,4,6-Trichlorophenol	76.97	5.0	100	0	77.0	55 - 120	79.19	2.84	20	
2,4-Dinitrotoluene	36.3	5.0	50	0	72.6	55 - 125	35.59	1.98	20	
Cresols, Total	223.1	15	250	0	89.3	48 - 115	209.5	6.3	20	
Hexachlorobenzene	33.75	5.0	50	0	67.5	55 - 120	35.04	3.75	20	
Hexachlorobutadiene	31.46	5.0	50	0	62.9	55 - 120	32.3	2.63	20	
Hexachloroethane	38.04	5.0	50	0	76.1	55 - 120	35.88	5.86	20	
Nitrobenzene	39.87	5.0	50	0	79.7	55 - 120	39.84	0.0789	20	
Pentachlorophenol	79.54	5.0	100	0	79.5	50 - 135	81.2	2.06	20	
Pyridine	33.65	5.0	50	0	67.3	30 - 120	33.07	1.73	20	
Surr: 2,4,6-Tribromophenol	79.41	5.0	100	0	79.4	39 - 153	80.14	0.914	20	
Surr: 2-Fluorobiphenyl	86.85	5.0	100	0	86.8	40 - 147	90.45	4.06	20	
Surr: 2-Fluorophenol	103.6	5.0	100	0	104	21 - 110	100	3.51	20	
Surr: 4-Terphenyl-d14	97.02	5.0	100	0	97.0	39 - 141	101.5	4.54	20	
Surr: Nitrobenzene-d5	100	5.0	100	0	100.0	37 - 140	100.4	0.41	20	
Surr: Phenol-d6	103.7	5.0	100	0	104	11 - 110	98.82	4.82	20	

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Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159482 (0)		Instrument: SV-4		Method: TCLP SEMIVOLATILES						
MS		Sample ID: HS20110420-01MS		Units: ug/L		Analysis Date: 11-Nov-2020 19:51				
Client ID:		Run ID: SV-4_372422		SeqNo: 5829830		PrepDate: 11-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	76.07	5.0	100	0	76.1	55 - 120				
2,4,6-Trichlorophenol	73.83	5.0	100	0	73.8	55 - 120				
2,4-Dinitrotoluene	34.15	5.0	50	0	68.3	55 - 125				
Cresols, Total	202	15	250	0	80.8	48 - 115				
Hexachlorobenzene	33.17	5.0	50	0	66.3	55 - 120				
Hexachlorobutadiene	28	5.0	50	0	56.0	55 - 120				
Hexachloroethane	34.96	5.0	50	0	69.9	55 - 120				
Nitrobenzene	37.83	5.0	50	0	75.7	55 - 120				
Pentachlorophenol	82.37	5.0	100	0	82.4	50 - 135				
Pyridine	36.96	5.0	50	0	73.9	30 - 120				
Surr: 2,4,6-Tribromophenol	76.22	5.0	100	0	76.2	39 - 153				
Surr: 2-Fluorobiphenyl	82.46	5.0	100	0	82.5	40 - 147				
Surr: 2-Fluorophenol	93.8	5.0	100	0	93.8	21 - 110				
Surr: 4-Terphenyl-d14	98.77	5.0	100	0	98.8	39 - 141				
Surr: Nitrobenzene-d5	93.86	5.0	100	0	93.9	37 - 140				
Surr: Phenol-d6	94.83	5.0	100	0	94.8	11 - 110				

The following samples were analyzed in this batch: HS20110463-07

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159574 (1)		Instrument: SV-4		Method: SEMIVOLATILES - 8270D						
MBLK	Sample ID: MBLK-159574	Units: ug/L		Analysis Date: 13-Nov-2020 15:08						
Client ID:	Run ID: SV-4_372598	SeqNo: 5836600		PrepDate: 12-Nov-2020		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	< 5.0	5.0								
2,4,6-Trichlorophenol	< 5.0	5.0								
2,4-Dinitrotoluene	< 5.0	5.0								
Cresols, Total	< 5.0	5.0								
Hexachlorobenzene	< 5.0	5.0								
Hexachlorobutadiene	< 5.0	5.0								
Hexachloroethane	< 5.0	5.0								
Nitrobenzene	< 5.0	5.0								
Pentachlorophenol	< 5.0	5.0								
Pyridine	< 5.0	5.0								
Surr: 2,4,6-Tribromophenol	65.91	5.0	100	0	65.9	42 - 124				
Surr: 2-Fluorobiphenyl	84.52	5.0	100	0	84.5	48 - 120				
Surr: 2-Fluorophenol	81.46	5.0	100	0	81.5	20 - 120				
Surr: 4-Terphenyl-d14	88.26	5.0	100	0	88.3	51 - 135				
Surr: Nitrobenzene-d5	98.91	5.0	100	0	98.9	41 - 120				
Surr: Phenol-d6	75.97	5.0	100	0	76.0	20 - 120				

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159574 (1)		Instrument: SV-4		Method: SEMIVOLATILES - 8270D						
LCS		Sample ID: LCS-159574		Units: ug/L		Analysis Date: 13-Nov-2020 15:30				
Client ID:		Run ID: SV-4_372598		SeqNo: 5836601		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	74.28	5.0	100	0	74.3	55 - 120				
2,4,6-Trichlorophenol	74.7	5.0	100	0	74.7	55 - 120				
2,4-Dinitrotoluene	31.61	5.0	50	0	63.2	55 - 125				
Cresols, Total	161.1	5.0	250	0	64.4	55 - 120				
Hexachlorobenzene	32.54	5.0	50	0	65.1	55 - 120				
Hexachlorobutadiene	32.88	5.0	50	0	65.8	55 - 120				
Hexachloroethane	37.32	5.0	50	0	74.6	55 - 120				
Nitrobenzene	41.28	5.0	50	0	82.6	55 - 120				
Pentachlorophenol	79.66	5.0	100	0	79.7	50 - 135				
Pyridine	36.82	5.0	50	0	73.6	30 - 120				
Surr: 2,4,6-Tribromophenol	69.35	5.0	100	0	69.4	42 - 124				
Surr: 2-Fluorobiphenyl	87.65	5.0	100	0	87.6	48 - 120				
Surr: 2-Fluorophenol	91.63	5.0	100	0	91.6	20 - 120				
Surr: 4-Terphenyl-d14	88.94	5.0	100	0	88.9	51 - 135				
Surr: Nitrobenzene-d5	100.9	5.0	100	0	101	41 - 120				
Surr: Phenol-d6	82.9	5.0	100	0	82.9	20 - 120				

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159574 (1)		Instrument: SV-4		Method: SEMIVOLATILES - 8270D						
LCSD		Sample ID: LCSD-159574		Units: ug/L		Analysis Date: 13-Nov-2020 15:51				
Client ID:		Run ID: SV-4_372598		SeqNo: 5836602		PrepDate: 12-Nov-2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	74.58	5.0	100	0	74.6	55 - 120	74.28	0.407	20	
2,4,6-Trichlorophenol	74.57	5.0	100	0	74.6	55 - 120	74.7	0.178	20	
2,4-Dinitrotoluene	32.09	5.0	50	0	64.2	55 - 125	31.61	1.5	20	
Cresols, Total	168.5	5.0	250	0	67.4	55 - 120	161.1	4.53	20	
Hexachlorobenzene	33.03	5.0	50	0	66.1	55 - 120	32.54	1.48	20	
Hexachlorobutadiene	32.4	5.0	50	0	64.8	55 - 120	32.88	1.47	20	
Hexachloroethane	37.76	5.0	50	0	75.5	55 - 120	37.32	1.16	20	
Nitrobenzene	41.22	5.0	50	0	82.4	55 - 120	41.28	0.14	20	
Pentachlorophenol	78.49	5.0	100	0	78.5	50 - 135	79.66	1.49	20	
Pyridine	35.86	5.0	50	0	71.7	30 - 120	36.82	2.64	20	
Surr: 2,4,6-Tribromophenol	68.54	5.0	100	0	68.5	42 - 124	69.35	1.18	20	
Surr: 2-Fluorobiphenyl	87.22	5.0	100	0	87.2	48 - 120	87.65	0.484	20	
Surr: 2-Fluorophenol	95.43	5.0	100	0	95.4	20 - 120	91.63	4.06	20	
Surr: 4-Terphenyl-d14	91.24	5.0	100	0	91.2	51 - 135	88.94	2.56	20	
Surr: Nitrobenzene-d5	100.9	5.0	100	0	101	41 - 120	100.9	0.0658	20	
Surr: Phenol-d6	85.85	5.0	100	0	85.8	20 - 120	82.9	3.49	20	

The following samples were analyzed in this batch: HS20110463-06

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Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159446 (0)		Instrument: VOA6		Method: TCLP VOLATILES						
MBLK	Sample ID: MBLK-159446	Units: ug/L		Analysis Date: 18-Nov-2020 06:15						
Client ID:	Run ID: VOA6_372827	SeqNo: 5837557		PrepDate: 11-Nov-2020		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	< 100	100								
1,2-Dichloroethane	< 100	100								
1,4-Dichlorobenzene	< 100	100								
2-Butanone	< 200	200								
Benzene	< 100	100								
Carbon tetrachloride	< 100	100								
Chlorobenzene	< 100	100								
Chloroform	< 100	100								
Tetrachloroethene	< 100	100								
Trichloroethene	< 100	100								
Vinyl chloride	< 40	40								
Surr: 1,2-Dichloroethane-d4	874.8	100	1000	0	87.5	70 - 130				
Surr: 4-Bromofluorobenzene	916.4	100	1000	0	91.6	82 - 115				
Surr: Dibromofluoromethane	826.9	100	1000	0	82.7	73 - 126				
Surr: Toluene-d8	1014	100	1000	0	101	81 - 120				

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159446 (0)		Instrument: VOA6		Method: TCLP VOLATILES						
LCS		Sample ID: VLCSW-159446		Units: ug/L		Analysis Date: 17-Nov-2020 22:52				
Client ID:		Run ID: VOA6_372827		SeqNo: 5837553		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.64	5.0	20	0	103	70 - 130				
1,2-Dichloroethane	20.24	5.0	20	0	101	70 - 124				
1,4-Dichlorobenzene	17.53	5.0	20	0	87.7	79 - 113				
2-Butanone	36.35	10	40	0	90.9	70 - 130				
Benzene	21.11	5.0	20	0	106	74 - 120				
Carbon tetrachloride	21.84	5.0	20	0	109	71 - 125				
Chlorobenzene	18.41	5.0	20	0	92.0	76 - 113				
Chloroform	20.91	5.0	20	0	105	71 - 121				
Tetrachloroethene	22.36	5.0	20	0	112	76 - 119				
Trichloroethene	20.91	5.0	20	0	105	77 - 121				
Vinyl chloride	24.35	2.0	20	0	122	70 - 130				
Surr: 1,2-Dichloroethane-d4	55.15	5.0	50	0	110	70 - 130				
Surr: 4-Bromofluorobenzene	54.18	5.0	50	0	108	82 - 115				
Surr: Dibromofluoromethane	52.88	5.0	50	0	106	73 - 126				
Surr: Toluene-d8	55.67	5.0	50	0	111	81 - 120				

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
 Project: AFE Investigation
 WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: 159446 (0)		Instrument: VOA6		Method: TCLP VOLATILES						
MS		Sample ID: HS20110707-03MS		Units: ug/L		Analysis Date: 18-Nov-2020 00:59				
Client ID:		Run ID: VOA6_372827		SeqNo: 5837600		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	13.69	5.0	20	0	68.5	70 - 130				S
1,2-Dichloroethane	14.42	5.0	20	1.084	66.7	70 - 127				S
1,4-Dichlorobenzene	13.35	5.0	20	0	66.7	70 - 114				S
2-Butanone	27.74	10	40	0	69.4	70 - 130				S
Benzene	15.54	5.0	20	0	77.7	70 - 127				
Carbon tetrachloride	15.59	5.0	20	0	77.9	70 - 130				
Chlorobenzene	12.83	5.0	20	0	64.1	70 - 114				S
Chloroform	13.86	5.0	20	0	69.3	70 - 125				S
Tetrachloroethene	15.32	5.0	20	0	76.6	70 - 130				
Trichloroethene	17.59	5.0	20	4.23	66.8	70 - 129				S
Vinyl chloride	16.54	2.0	20	0	82.7	70 - 130				
Surr: 1,2-Dichloroethane-d4	44.29	5.0	50	0	88.6	70 - 126				
Surr: 4-Bromofluorobenzene	48.78	5.0	50	0	97.6	82 - 124				
Surr: Dibromofluoromethane	41.39	5.0	50	0	82.8	77 - 123				
Surr: Toluene-d8	51.14	5.0	50	0	102	82 - 127				
The following samples were analyzed in this batch: HS20110463-06 HS20110463-07										

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372931 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-201118	Units: ug/L		Analysis Date: 18-Nov-2020 13:15					
Client ID:	Run ID: VOA9_372931	SeqNo: 5840005		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
m,p-Xylene	< 10	10							
o-Xylene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	50.29	0	50	0	101	70 - 130			
Surr: 4-Bromofluorobenzene	49.19	0	50	0	98.4	82 - 115			
Surr: Dibromofluoromethane	48.44	0	50	0	96.9	73 - 126			
Surr: Toluene-d8	50.68	0	50	0	101	81 - 120			

LCS	Sample ID: VLCSW-201118	Units: ug/L		Analysis Date: 18-Nov-2020 12:33					
Client ID:	Run ID: VOA9_372931	SeqNo: 5840004		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	17.72	5.0	20	0	88.6	74 - 120			
Ethylbenzene	17.53	5.0	20	0	87.7	77 - 117			
m,p-Xylene	35.45	10	40	0	88.6	77 - 122			
o-Xylene	18.92	5.0	20	0	94.6	75 - 119			
Toluene	17.36	5.0	20	0	86.8	77 - 118			
Xylenes, Total	54.37	5.0	60	0	90.6	75 - 122			
Surr: 1,2-Dichloroethane-d4	49.7	0	50	0	99.4	70 - 130			
Surr: 4-Bromofluorobenzene	50.56	0	50	0	101	82 - 115			
Surr: Dibromofluoromethane	49.64	0	50	0	99.3	73 - 126			
Surr: Toluene-d8	50.39	0	50	0	101	81 - 120			

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372931 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MS		Sample ID: HS20110552-03MS		Units: ug/L		Analysis Date: 18-Nov-2020 16:05			
Client ID:		Run ID: VOA9_372931		SeqNo: 5840011		PrepDate:		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	433.8	100	400	0	108	70 - 127			
Ethylbenzene	478.7	100	400	0	120	70 - 124			
m,p-Xylene	981.2	200	800	20.6	120	70 - 130			
o-Xylene	501.4	100	400	23.25	120	70 - 124			
Toluene	470.3	100	400	25.44	111	70 - 123			
Xylenes, Total	1483	100	1200	43.85	120	70 - 130			
Surr: 1,2-Dichloroethane-d4	1026	0	1000	0	103	70 - 126			
Surr: 4-Bromofluorobenzene	1007	0	1000	0	101	82 - 124			
Surr: Dibromofluoromethane	990	0	1000	0	99.0	77 - 123			
Surr: Toluene-d8	1003	0	1000	0	100	82 - 127			

MSD		Sample ID: HS20110552-03MSD		Units: ug/L		Analysis Date: 18-Nov-2020 16:26			
Client ID:		Run ID: VOA9_372931		SeqNo: 5840012		PrepDate:		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	405.1	100	400	0	101	70 - 127	433.8	6.85	20
Ethylbenzene	451.8	100	400	0	113	70 - 124	478.7	5.77	20
m,p-Xylene	919.9	200	800	20.6	112	70 - 130	981.2	6.45	20
o-Xylene	469.7	100	400	23.25	112	70 - 124	501.4	6.52	20
Toluene	437.2	100	400	25.44	103	70 - 123	470.3	7.27	20
Xylenes, Total	1390	100	1200	43.85	112	70 - 130	1483	6.47	20
Surr: 1,2-Dichloroethane-d4	982.8	0	1000	0	98.3	70 - 126	1026	4.26	20
Surr: 4-Bromofluorobenzene	999.8	0	1000	0	100.0	82 - 124	1007	0.683	20
Surr: Dibromofluoromethane	978.5	0	1000	0	97.8	77 - 123	990	1.17	20
Surr: Toluene-d8	1008	0	1000	0	101	82 - 127	1003	0.46	20

The following samples were analyzed in this batch:

HS20110463-01	HS20110463-02	HS20110463-03	HS20110463-04
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ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372943 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-201118	Units: ug/L		Analysis Date: 19-Nov-2020 00:13					
Client ID:	Run ID: VOA9_372943	SeqNo: 5840186		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	< 5.0	5.0							
Ethylbenzene	< 5.0	5.0							
m,p-Xylene	< 10	10							
o-Xylene	< 5.0	5.0							
Toluene	< 5.0	5.0							
Xylenes, Total	< 5.0	5.0							
Surr: 1,2-Dichloroethane-d4	50.19	0	50	0	100	70 - 130			
Surr: 4-Bromofluorobenzene	49.04	0	50	0	98.1	82 - 115			
Surr: Dibromofluoromethane	48.77	0	50	0	97.5	73 - 126			
Surr: Toluene-d8	51.18	0	50	0	102	81 - 120			

LCS	Sample ID: VLCSW-201118	Units: ug/L		Analysis Date: 18-Nov-2020 23:31					
Client ID:	Run ID: VOA9_372943	SeqNo: 5840185		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.02	5.0	20	0	90.1	74 - 120			
Ethylbenzene	17.32	5.0	20	0	86.6	77 - 117			
m,p-Xylene	35.87	10	40	0	89.7	77 - 122			
o-Xylene	18.63	5.0	20	0	93.2	75 - 119			
Toluene	17.53	5.0	20	0	87.6	77 - 118			
Xylenes, Total	54.5	5.0	60	0	90.8	75 - 122			
Surr: 1,2-Dichloroethane-d4	49.86	0	50	0	99.7	70 - 130			
Surr: 4-Bromofluorobenzene	50.66	0	50	0	101	82 - 115			
Surr: Dibromofluoromethane	49.7	0	50	0	99.4	73 - 126			
Surr: Toluene-d8	50.73	0	50	0	101	81 - 120			

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372943 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MS		Sample ID: HS20110463-05MS		Units: ug/L		Analysis Date: 19-Nov-2020 01:38			
Client ID: Duplicate - 03		Run ID: VOA9_372943		SeqNo: 5840190		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.64	5.0	20	0	103	70 - 127			
Ethylbenzene	22.64	5.0	20	0	113	70 - 124			
m,p-Xylene	43.84	10	40	0	110	70 - 130			
o-Xylene	22.4	5.0	20	0	112	70 - 124			
Toluene	21.25	5.0	20	0	106	70 - 123			
Xylenes, Total	66.24	5.0	60	0	110	70 - 130			
Surr: 1,2-Dichloroethane-d4	51	0	50	0	102	70 - 126			
Surr: 4-Bromofluorobenzene	49.93	0	50	0	99.9	82 - 124			
Surr: Dibromofluoromethane	50.27	0	50	0	101	77 - 123			
Surr: Toluene-d8	51.22	0	50	0	102	82 - 127			

MSD		Sample ID: HS20110463-05MSD		Units: ug/L		Analysis Date: 19-Nov-2020 01:59			
Client ID: Duplicate - 03		Run ID: VOA9_372943		SeqNo: 5840191		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	19.11	5.0	20	0	95.6	70 - 127	20.64	7.67	20
Ethylbenzene	21	5.0	20	0	105	70 - 124	22.64	7.51	20
m,p-Xylene	42.03	10	40	0	105	70 - 130	43.84	4.21	20
o-Xylene	21.26	5.0	20	0	106	70 - 124	22.4	5.24	20
Toluene	20.2	5.0	20	0	101	70 - 123	21.25	5.07	20
Xylenes, Total	63.29	5.0	60	0	105	70 - 130	66.24	4.56	20
Surr: 1,2-Dichloroethane-d4	49.68	0	50	0	99.4	70 - 126	51	2.62	20
Surr: 4-Bromofluorobenzene	51.1	0	50	0	102	82 - 124	49.93	2.32	20
Surr: Dibromofluoromethane	49.16	0	50	0	98.3	77 - 123	50.27	2.23	20
Surr: Toluene-d8	51.43	0	50	0	103	82 - 127	51.22	0.416	20

The following samples were analyzed in this batch: HS20110463-05 HS20110463-08 HS20110463-09

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372687 (0)		Instrument: WetChem_HS		Method: REACTIVE SULFIDE						
MBLK	Sample ID: MBLK-R372687	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372687		SeqNo: 5834014		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	< 100	100								
LCS	Sample ID: LCS-R372687	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372687		SeqNo: 5834013		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	60	100	100	0	60.0	20 - 120				J
MS	Sample ID: HS20110463-06MS	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID: WC-02	Run ID: WetChem_HS_372687		SeqNo: 5834063		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	56	100	100	0	56.0	20 - 120				J
The following samples were analyzed in this batch: HS20110463-07										

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372692 (0)		Instrument: WetChem_HS		Method: PH SOIL BY SW9045D					
DUP	Sample ID: HS20110470-01DUP	Units: pH Units		Analysis Date: 16-Nov-2020 13:56					
Client ID:	Run ID: WetChem_HS_372692		SeqNo: 5834072		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
pH	7.38	0.100					7.41	0.406	10
Temp Deg C @pH	21.8	0					22	0.913	10

The following samples were analyzed in this batch: HS20110463-07

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372694 (0)		Instrument: WetChem_HS		Method: REACTIVE SULFIDE						
MBLK	Sample ID: MBLK-R372694	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372694		SeqNo: 5834116		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	< 100	100								
LCS	Sample ID: LCS-R372694	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID:	Run ID: WetChem_HS_372694		SeqNo: 5834115		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	60	100	100	0	60.0	20 - 120				J
MS	Sample ID: HS20110463-06MS	Units: mg/Kg		Analysis Date: 16-Nov-2020 13:10						
Client ID: WC-02	Run ID: WetChem_HS_372694		SeqNo: 5834117		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Reactive Sulfide	56	100	100	0	56.0	20 - 120				J
The following samples were analyzed in this batch: HS20110463-06										

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372698 (0)		Instrument: WetChem_HS		Method: PH BY SM4500H+ B					
DUP	Sample ID: HS20110070-01DUP	Units: pH Units		Analysis Date: 16-Nov-2020 14:00					
Client ID:	Run ID: WetChem_HS_372698		SeqNo: 5834137		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
pH	6.73	0.100					6.74	0.148	10
Temp Deg C @pH	20.5	0					20.5	0	10
The following samples were analyzed in this batch: HS20110463-06									

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372703 (0)		Instrument: WetChem_HS		Method: FLASH POINT BY PENSKY-MARTENS SW1010A						
LCS	Sample ID: LCS-R372703	Units: °F		Analysis Date: 16-Nov-2020 08:00						
Client ID:	Run ID: WetChem_HS_372703		SeqNo: 5834255		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability	79.99	70.0	81	0	98.8	95 - 105				
DUP	Sample ID: HS20110610-01DUP	Units: °F		Analysis Date: 16-Nov-2020 08:00						
Client ID:	Run ID: WetChem_HS_372703		SeqNo: 5834256		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability	> 212	70.0					0		0	20
The following samples were analyzed in this batch: HS20110463-06										

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372719 (0)		Instrument: Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C						
MBLK	Sample ID: WBLK-111320	Units: mg/L		Analysis Date: 13-Nov-2020 16:30						
Client ID:	Run ID: Balance1_372719	SeqNo: 5834432		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		< 10.0	10.0							
LCS	Sample ID: WLCS-111320	Units: mg/L		Analysis Date: 13-Nov-2020 16:30						
Client ID:	Run ID: Balance1_372719	SeqNo: 5834433		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		1048	10.0	1000	0	105	85 - 115			
DUP	Sample ID: HS20110693-19DUP	Units: mg/L		Analysis Date: 13-Nov-2020 16:30						
Client ID:	Run ID: Balance1_372719	SeqNo: 5834431		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		7824	10.0				7936	1.42	5	
DUP	Sample ID: HS20110463-01DUP	Units: mg/L		Analysis Date: 13-Nov-2020 16:30						
Client ID: MW-01	Run ID: Balance1_372719	SeqNo: 5834422		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		2940	10.0				2998	1.95	5	
The following samples were analyzed in this batch:				HS20110463-01	HS20110463-02	HS20110463-03	HS20110463-04			
				HS20110463-05						

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372762 (0)		Instrument: WetChem_HS		Method: FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B					
DUP	Sample ID: HS20110552-03DUP	Units: °F		Analysis Date: 17-Nov-2020 08:00					
Client ID:	Run ID: WetChem_HS_372762		SeqNo: 5835838		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Flash Point	> 212	50.0					0	0	30
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The following samples were analyzed in this batch: HS20110463-07

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372789 (0)		Instrument: UV-2450		Method: REACTIVE CYANIDE						
MBLK	Sample ID: MBLK-R372789	Units: mg/Kg		Analysis Date: 17-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372789	SeqNo: 5836274		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	< 100	100								
LCS	Sample ID: LCS-R372789	Units: mg/Kg		Analysis Date: 17-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372789	SeqNo: 5836273		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.6	100	10	0	6.00	5 - 100				J
MS	Sample ID: HS20110463-06MS	Units: mg/Kg		Analysis Date: 17-Nov-2020 15:00						
Client ID: WC-02	Run ID: UV-2450_372789	SeqNo: 5836277		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.65	100	10	-0.01	6.60	5 - 100				J
The following samples were analyzed in this batch: HS20110463-07										

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R372790 (0)		Instrument: UV-2450		Method: REACTIVE CYANIDE						
MBLK	Sample ID: MBLK-R372790	Units: mg/Kg		Analysis Date: 16-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372790		SeqNo: 5836292		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	< 100	100								
LCS	Sample ID: LCS-R372790	Units: mg/Kg		Analysis Date: 16-Nov-2020 15:00						
Client ID:	Run ID: UV-2450_372790		SeqNo: 5836291		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.6	100	10	0	6.00	5 - 100				J
MS	Sample ID: HS20110463-06MS	Units: mg/Kg		Analysis Date: 16-Nov-2020 15:00						
Client ID: WC-02	Run ID: UV-2450_372790		SeqNo: 5836293		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Reactive Cyanide	0.65	100	10	-0.01	6.60	5 - 100				J
The following samples were analyzed in this batch: HS20110463-06										

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

QC BATCH REPORT

Batch ID: R373320 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0						
MBLK	Sample ID: MBLK-112320	Units: mg/L			Analysis Date: 23-Nov-2020 17:42					
Client ID:	Run ID: ICS-Integrion_373320		SeqNo: 5849234		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.500	0.500								
LCS	Sample ID: LCS-112320	Units: mg/L			Analysis Date: 23-Nov-2020 18:00					
Client ID:	Run ID: ICS-Integrion_373320		SeqNo: 5849235		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.54	0.500	20	0	97.7	90 - 110				
MS	Sample ID: HS20110506-01MS	Units: mg/L			Analysis Date: 23-Nov-2020 22:50					
Client ID:	Run ID: ICS-Integrion_373320		SeqNo: 5849242		PrepDate:		DF: 100			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9061	50.0	1000	8380	68.1	80 - 120				SO
MS	Sample ID: HS20110444-01MS	Units: mg/L			Analysis Date: 24-Nov-2020 00:39					
Client ID:	Run ID: ICS-Integrion_373320		SeqNo: 5849247		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	35.76	0.500	10	26.8	89.7	80 - 120				
MSD	Sample ID: HS20110506-01MSD	Units: mg/L			Analysis Date: 23-Nov-2020 23:08					
Client ID:	Run ID: ICS-Integrion_373320		SeqNo: 5849243		PrepDate:		DF: 100			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9130	50.0	1000	8380	75.0	80 - 120	9061	0.764	20	SO
MSD	Sample ID: HS20110444-01MSD	Units: mg/L			Analysis Date: 24-Nov-2020 00:57					
Client ID:	Run ID: ICS-Integrion_373320		SeqNo: 5849248		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	35.61	0.500	10	26.8	88.2	80 - 120	35.76	0.42	20	
The following samples were analyzed in this batch:										
			HS20110463-01	HS20110463-02	HS20110463-03	HS20110463-04				
			HS20110463-05							

ALS Houston, US

Date: 24-Nov-20

Client: TRC Corporation
Project: AFE Investigation
WorkOrder: HS20110463

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
°F	Fahrenheit degrees
µg/L	Micrograms per Liter
Date	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
pH Units	

ALS Houston, US

Date: 24-Nov-20

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	20-030-0	26-Mar-2021
California	2919, 2020-2021	30-Apr-2021
Dept of Defense	PJLA L20-507	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322020-4	09-May-2021
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2020-2021	30-Apr-2021
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2020-2021	30-Apr-2021
Texas	T104704231-20-26	30-Apr-2021

ALS Houston, US

Date: 24-Nov-20

Sample Receipt Checklist

Work Order ID: HS20110463

Date/Time Received: 10-Nov-2020 10:55

Client Name: TRC-AUS

Received by: Jared R. Makan

Completed By: <u>/S/ Jared R. Makan</u>	10-Nov-2020 15:49	Reviewed by: <u>/S/ RJ Modashia</u>	10-Nov-2020 19:56
eSignature	Date/Time	eSignature	Date/Time

Matrices: **Water, Solid**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:233177
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	1.3°C/1.3°C, 0.9°C/0.9°C UC/C		
Cooler(s)/Kit(s):	46629, 46630		
Date/Time sample(s) sent to storage:	11/10/2020 15:50		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



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Holland, MI
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Chain of Custody Form

Page 1 of 1

HS20110463

TRC Corporation
Artesia Station West

COC ID: 233177

ALS Project Manager:

Project Information

Purchase Order	Project Name	AFE Investigation	A	8260 (BTEX)
Work Order	Project Number	Lea County, NM	B	8015 (DRO/ORO)
Company Name	Bill To Company	TRC Corporation	C	8015 (GRO)
Send Report To	Invoice Attn	TRC-AP	D	300 (Chloride)
Address	Address	505 East Huntland Drive Suite 250	E	TDS_W 2540C (TDS)
City/State/Zip	City/State/Zip	Austin, TX 78752	F	MOIST_SW3550 (Percent Moisture)
Phone	Phone	(512) 329-6080	G	Full TCLP (TCLP VOC, SVOC, RCRA 8 Metals)
Fax	Fax	(512) 329-8750	H	RCRA Characteristics (RCI Profile)
e-Mail Address	e-Mail Address	RVarnell@trccompanies.com	I	TX1005_S_REV3 (TPH)
		apinvoicereapproval@trcsolutions.com	J	VOC

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-01	11-7-20	1650	W	HCL/None	8	X	X	X	X	X						
2	MW-02		1450			8	X	X	X	X	X						
3	MW-03		1045			8	X	X	X	X	X						
4	MW-04		1255			8	X	X	X	X	X						
5	Duplicate-03					8	X	X	X	X	X						
6	WC-02		1735			8							X	X			
7	WC-03		1730	Solid	None	1							X	X			
8	TB-11-09-20-3	11-9-20	1400	W	HCL	2										X	
9	TB-11-09-20-4	11-9-20	1400	W	HCL	2										X	
10																	

Sampler(s) Please Print & Sign <i>Cody Guston</i>		Shipment Method <i>Fedex</i>		Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ Other _____		Results Due Date: _____	
Relinquished by: <i>Cody Guston</i>	Date: 11-09-20	Received by: <i>Fedex</i>	Date: 11-09-20	Notes: Artesia Station West			
Relinquished by: <i>Cody Guston</i>	Date: 11/10/20	Received by (Laboratory): <i>J. Varnell</i>	Date: 11-09-20	QC Package: (Check One Box Below)			
Logged by (Laboratory):	Date:	Checked by (Laboratory):	Date:	Cooler ID: 46629			
				Cooler Temp: 1.3°C			
				Cooler Temp: 0.9°C			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				QC Package: (Check One Box Below)			
				Level II Std QC ☒ TRRP Checklist			
				Level III Std QC/Row Date ☐ TRRP Level IV			
				Level IV SW/SG/CLP ☐ Other _____			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
The Chain of Custody is a legal document. All information must be completed accurately.

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12/31/2011 CFO
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Appendix F: References



REFERENCES

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- Lea County Central Appraisal District, 2020. Property ownership data available from Eddy County, New Mexico Central Appraisal District GIS system accessible at <https://www.leacounty.net/p/elected-officials/lea-county-assessor>.
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- Google and their Data Partners, 2020. Aerial photography of the Site accessible through the Google Earth Pro application (<https://www.google.com/earth/>).
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- NMOCD, 2020. Email correspondence from NMOCD to HEP, dated September 23, 2020.
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- USFWS, 2020. Wetlands information available from the United States Fish and Wildlife Service and accessible at <https://www.fws.gov/wetlands/data/mapper.html>.
- USGS, 1963 (reprinted 1985). *Ground-Water Conditions in Northern Lea County, New Mexico, Hydrologic Atlas 62*, by Sidney R. Ash, United States Geological Survey, dated 1963.
- USGS, 2017. *Monument South, New Mexico 7.5 Minute Series Quadrangle Topographic Map*, United States Geological Survey, Provisional Edition, 2017.

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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 12914

CONDITIONS OF APPROVAL

Operator:	HOLLY ENERGY PARTNERS	1602 W. Main St.	Artesia, NM88210	OGRID:	282505	Action Number:	12914	Action Type:	C-141
OCD Reviewer	Condition								
ceads	None								