

Delineation Report and Remediation Plan

Central Drinkard Unit New Mexico Oil Conservation Division (NMOCD) Incident ID #NTO1428147597

Prepared For:
Chevron Mid-Continent Business Unit (MCBU)

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July 2021

Delineation Report and Remediation Plan

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Central Drinkard Unit
Produced Water Spill Site
Lea County, New Mexico
NMOCD Incident ID #NTO1428147597

Chevron Mid-Continent Business Unit (MCBU)

July 2021



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1. Introduction

On behalf of Chevron Mid-Continent Business Unit (MCBU), AECOM Technical Services, Inc. (AECOM) has prepared this *Delineation Report and Remediation Plan* to describe soil sampling results and proposed remediation activities to address soil impacts resulting from a produced water release that occurred at the Central Drinkard Unit site in Lea County, New Mexico ("the Site").

2. Background

The Site is located at Latitude 32.446791° North, Longitude 103.174051 West in Lea County, New Mexico (**Figure 1**).

On September 8, 2014, approximately 17 barrels (bbls) of produced water were reported to have been released to an unlined area due to a cracked fiberglass collar associated with a valve box. The volume of recovered produced water was reported to be unknown due to the occurrence of heavy rainfall at the time of the release.

As required by the New Mexico Oil Conservation Division (NMOCD) under 19.15.29 New Mexico Administrative Code (NMAC), Chevron's initial response to the release included:

- Stopping the release at the source;
- Securing the impacted soil area to protect human health and the environment;
- Containing the released produced water; and
- Recovering an unknown volume of produced water.

A Release Notification C-141 Form dated October 7, 2014 was submitted to the NMOCD. The Form C-141 documents the responsible party, location of the release source, nature, and volume of the release, and initial response to the release. The NMOCD assigned Incident ID #NTO1428147597 to the release. An updated C-141 Form for the release is provided in **Appendix A**.

3. Initial Site Assessment/Characterization

The findings from an initial desktop assessment/characterization of the Site are summarized below:

- Based on an online Water Column/Average Depth to Water Report from the New Mexico Water Rights Reporting System (NMWRRS) for water wells located within 1,000 meters (about 3,281 feet) of the Site, the shallowest potential depth to groundwater near the Site is 35 feet below ground surface (ft bgs) and the average depth to groundwater is 71 ft. This data does not include the depth to water of 4,374 ft bgs reported for a water flood well located approximately 120 meters from the Site. A copy of the *Water Column/Average Depth to Water Report* is provided in **Appendix B**.
- Based on a review of the New Mexico Office of the State Engineer (OSE) Point of Diversion (POD) Online Mapping Tool, the closest water well is well CP 00322, which is approximately 1,080 ft southeast of the Site. The reported depth to groundwater for this well is 73 ft bgs. Water well CP 01302 POD1, which is located approximately 1,693 ft southwest of the Site, was drilled in 2014, completed at a depth of 162 ft bgs, and reported a groundwater depth of 100 ft bgs. The groundwater level data from this well are less than 25 years old and well construction details are included in the well report. This information meets NMOCD criteria for establishing depth to groundwater greater than 51 ft beneath the Site.

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- The underlying soils at the Site are comprised of fine sandy loam and sandy clay loam.
- There are no continuously flowing watercourses or other significant watercourses within 300 ft of the Site.
- The Site is not located within 200 ft of any lakebed, known sinkhole, or playa lake.
- The nearest occupied permanent residence, school, hospital, institution, or church is more than 300 ft from the Site.
- There are no known springs or wells used for domestic or stock watering purposes within 1,000 ft of the Site.
- There are seven known water wells within ½ mile of the Site.
- The closest incorporated municipal boundaries or defined municipal fresh water well fields are located within 0.25 miles of the Site, which is the approximate distance from the Site to Eunice, NM, south-southeast of the Site.
- A review of the online U.S. Fish & Wildlife Wetlands Mapper tool indicates that no known wetlands are present within 300 ft of the Site.
- No subsurface mines are located beneath the Site.
- No karst geology features or other unstable areas are known to be located near the Site.
- A 100-year floodplain was not identified near the site.
- Operations near the Site are mainly for oil and gas exploration, development, production, or storage, and no impacts to areas that are not on an exploration, development, production, or storage site are expected.

Figure 1 shows the location of the Site and surrounding area on an aerial photograph. Based on information obtained during the initial desktop assessment/characterization and the volume of produced water released, no impact to groundwater, surface water, springs, or other sources of fresh water is currently suspected.

4. Soil Delineation

The following soil assessment/delineation activities have been conducted at the Site.

- From July 30 to August 1, 2019, 14 initial hand auger borings (CDU-01 through CDU-14) were drilled and sampled to depths of 2 – 5 ft bgs at the Site. The hand auger borings were terminated due to hand auger refusal in caliche. Laboratory analytical results indicated the presence of total petroleum hydrocarbon (TPH) and/or chloride concentrations in excess of applicable regulatory limits for soil samples collected from borings CDU-02, CDU-03, CDU-04, CDU-06, CDU-08 and CDU-09. None of the benzene and/or total BTEX (benzene, toluene, ethylbenzene and xylenes) concentrations reported by the laboratory exceeded regulatory limits. With the exception of one sample with minor detection concentrations in CDU-06, all other sample results were reported below the sample detection limits.
- In September 2019, eight hand auger soil borings (CDU-15 through CDU-18 and CDU-21 through CDU-24) were sampled to depths of 2 to 5 ft bgs for delineation of elevated chloride and TPH concentrations detected in soil during previous sampling activities.
- In January 2020, air rotary boring CDU-25 was drilled and soil samples were collected at 1-ft intervals from 0 to 5 ft bgs for horizontal delineation of elevated chloride concentrations reported for shallow borings CDU-08 and CDU-21. Boring CDU-25 was further advanced to a depth of 51 ft bgs to

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evaluate the potential presence of groundwater to that depth. No groundwater was observed to a depth of 51 ft bgs in boring CDU-25. The log for soil boring CDU-25 is provided in **Appendix C**

- From July 30, 2020 to August 6, 2020, borings CDU-26 through CDU-30 and CDU-Handauger #1 through CDU-Handauger #4 were drilled to depths of 2 to 5 ft bgs for horizontal delineation of chloride and TPH in shallow soils.
- In April 2021, hand auger borings CDU-33 through CDU-35 were drilled and sampled for additional horizontal delineation of TPH and chloride in shallow soils.

Soil boring locations are shown on **Figure 2**, and **Figure 3** presents the soil analytical results. Summaries of Field Sample Collection and Screening Activities are provided in **Appendix C**. Site photographs from April 2021 are provided in **Appendix D**.

The upper 5 to 7 ft of soil underlying the Site is generally comprised of silty sand and caliche. In boring CDU-25, the silty sand and caliche was underlain by a caliche seam from 7 to 9 ft bgs. The caliche seam was underlain by silty fine sand to the total depth of the boring at 51 ft bgs. No groundwater was encountered in boring CDU-25.

Soil samples were collected from each of the borings and field-screened using a photoionization detector (PID) to measure volatile organic vapor concentrations. Select soil samples from the borings were transferred into clean, laboratory-provided sample containers, labeled and placed on ice in laboratory-provided coolers. Chain of Custody forms were completed and the samples were shipped to TestAmerica in Houston, Texas (July – September 2019 samples), ALS Environmental laboratory in Houston, Texas (January - August 2020 samples), and the Eurofins Xenco laboratory in Midland, Texas (April 2021 samples). Select samples were analyzed for BTEX by EPA Methods 8260B, TPH by EPA Method 8015B and chloride by EPA Methods 9056A and 300.0. The laboratory results are summarized in **Table 1** and the laboratory analytical reports are provided in **Appendix E**.

At the conclusion of drilling and soil sampling activities, the soil cuttings were returned to the boreholes, which were then sealed near the surface with bentonite chips.

4.1 Soil Delineation Sampling Results

The soil analytical results were initially compared to *Table I, Closure Criteria for Soils Impacted by a Release* provided in 19.15.29.12 NMAC, which includes the following:

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/L TDS	Constituent	Limit
≤ 50 feet bgs	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
51 feet – 100 feet bgs	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg

The regulatory limits in Table I above are associated with protection of sensitive receptors, which are primarily water resources for the Site. The laboratory analytical results indicated benzene and BTEX concentrations below the regulatory limits in Table I (regardless of depth to groundwater).

Based on the information provided above in *Section 3* and *Section 4*, which indicates depth to groundwater greater than 51 ft bgs at the Site, the applicable regulatory limits for TPH and chloride in soil are 2,500 milligrams per kilogram (mg/kg) and 10,000 mg/kg, respectively. As shown in **Table 1** and on

Figure 3, the only reported TPH concentration in excess of 2,500 mg/kg was reported for the 0 – 1 ft bgs depth interval sample collected from CDU-Handauger #3 in August 2020. It should be noted that this elevated TPH concentration could not be reproduced in soil samples collected from the same area in April 2021 (CDU-33) and no staining or hydrocarbon odors were observed during sample collection. No chloride concentrations were reported above the regulatory limit of 10,000 mg/kg for sites where groundwater is present between 51 and 100 ft bgs.

The soil analytical results for the Site were also compared to the TPH regulatory limit of 100 mg/kg and the chloride regulatory limit of 600 mg/kg specified for the upper four feet of soil under 19.15.29.13.D.(1) NMAC for *RESTORATION, RECLAMATION AND RE-VEGETATION*. The reported TPH concentrations exceed the soil reclamation limit of 100 mg/kg for samples collected from borings CDU-03, CDU-06, CDU-08, CDU-09, CDU-31 and CDU-Handauger #3. The reported chloride concentrations exceed the reclamation limit of 600 mg/kg for samples collected from borings CDU-02, CDU-04, CDU-08, CDU-09 and CDU-21.

The horizontal extents of elevated TPH and chloride concentrations in soil have been delineated by the analytical results for numerous borings as shown on **Figure 3**. Vertical delineation requirements for impacted soil have been addressed since no TPH and/or chloride concentrations below a depth of 4 ft bgs have been reported above the regulatory limits provided in *Table I* for sites where groundwater is present between 51 and 100 ft bgs.

5. Site Assessment/Delineation Sampling Conclusions

The Site assessment and soil delineation results include the following:

- No sensitive environmental and/or ecological receptors were identified within the search distance criteria described in 19.15.29.12.C.(4) NMAC.
- Depth to groundwater is greater than 51 ft bgs at the Site.
- Benzene and BTEX concentrations were reported below regulatory limits for all soil samples collected and analyzed.
- The horizontal extents of elevated TPH and chloride concentrations in soil have been delineated by the analytical results for numerous borings as shown on **Figure 3**. Vertical delineation requirements for impacted soil have been addressed since no TPH and/or chloride concentrations below a depth of 4 ft bgs exceed the applicable regulatory limits provided in *Table I*.
- Surface cover growth in the area of the release does not appear to be adversely affected and is consistent with surrounding vegetative surface cover and no surface indicators of a release were apparent during the April 2021 Site visit.

6. Proposed Remediation Plan

Future Site remediation activities will be conducted to address the following regulatory requirements applicable to the site:

- Soil remediation requirements in *Table I, Closure Criteria for Soils Impacted by a Release* provided in 19.15.29.12 NMAC; and
- Soil reclamation requirements under 19.15.29.13.D.(1) NMAC.

6.1 Proposed Soil Remediation/Reclamation Approach

Previous soil assessment results indicate the presence of TPH and chloride regulatory exceedences in limited areas of the Site within the upper four feet. Due to the presence of numerous subsurface high-

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pressure pipelines, some areas of impacted soil are not currently accessible for soil remediation. As shown on **Figure 4**, Area 1 is currently proposed for remediation. In accordance with 19.15.29.12(C)(2) NMAC, Chevron MCBU is requesting NMOCD approval for deferral of remediation in Areas 2 through 4 due the presence of numerous subsurface lines in those areas, including several high-pressure pipelines owned by various operators. Depressurizing these lines would require a major facility shutdown for multiple operators.

The estimated volume of soil for Area 1 proposed for removal is approximately 500 cubic yards.

6.2 Soil Excavation and Confirmation Sampling associated with Site Remediation/Reclamation

Remediation/reclamation will be performed by excavation and off-site disposal of impacted soil. The extent of the soil excavation will be determined based on analytical results for confirmation soil samples collected from the walls and bottom of the excavation. The excavated soil will be characterized and transported off site for disposal at a Chevron approved waste disposal facility that accepts oil and gas exploration and production (E&P) exempt wastes.

Excavation activities will continue as necessary until confirmation sample results are within the required regulatory limits. A liner will then be placed within the area of the excavation footprint and clean fill will be used to backfill the excavated areas. Photos of the excavation will be taken prior to backfilling.

6.3 Site Closure Report

Upon completion of soil remediation/reclamation activities, a Site Closure Report will be submitted to the NMOCD describing the soil excavation and disposal activities, and the closure confirmation sampling results.

6.4 Schedule

Depending on receipt of approval from the NMOCD, the soil remediation activities for Area 1 (**Figure 4**) will be scheduled for the fourth quarter of 2021 or the first quarter of 2022. The schedule for future soil remediation/reclamation of the deferred setback areas will be determined once the production pipelines in those areas are no longer in service.

Delineation Report and Remediation Plan

7. References

New Mexico Water Rights Reporting System (NMWRRS), Water Column/Average Depth to Water Report.
<http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html>.

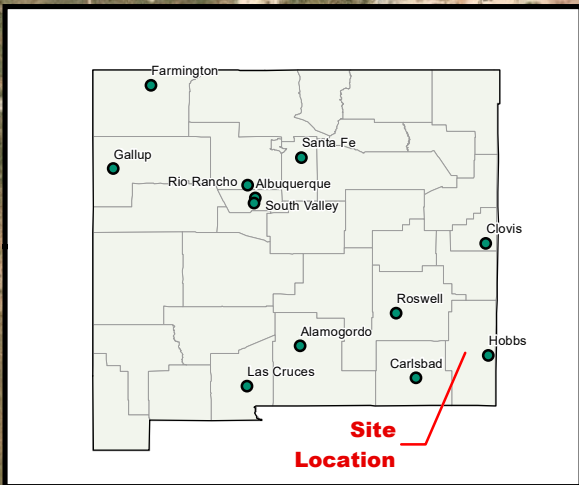
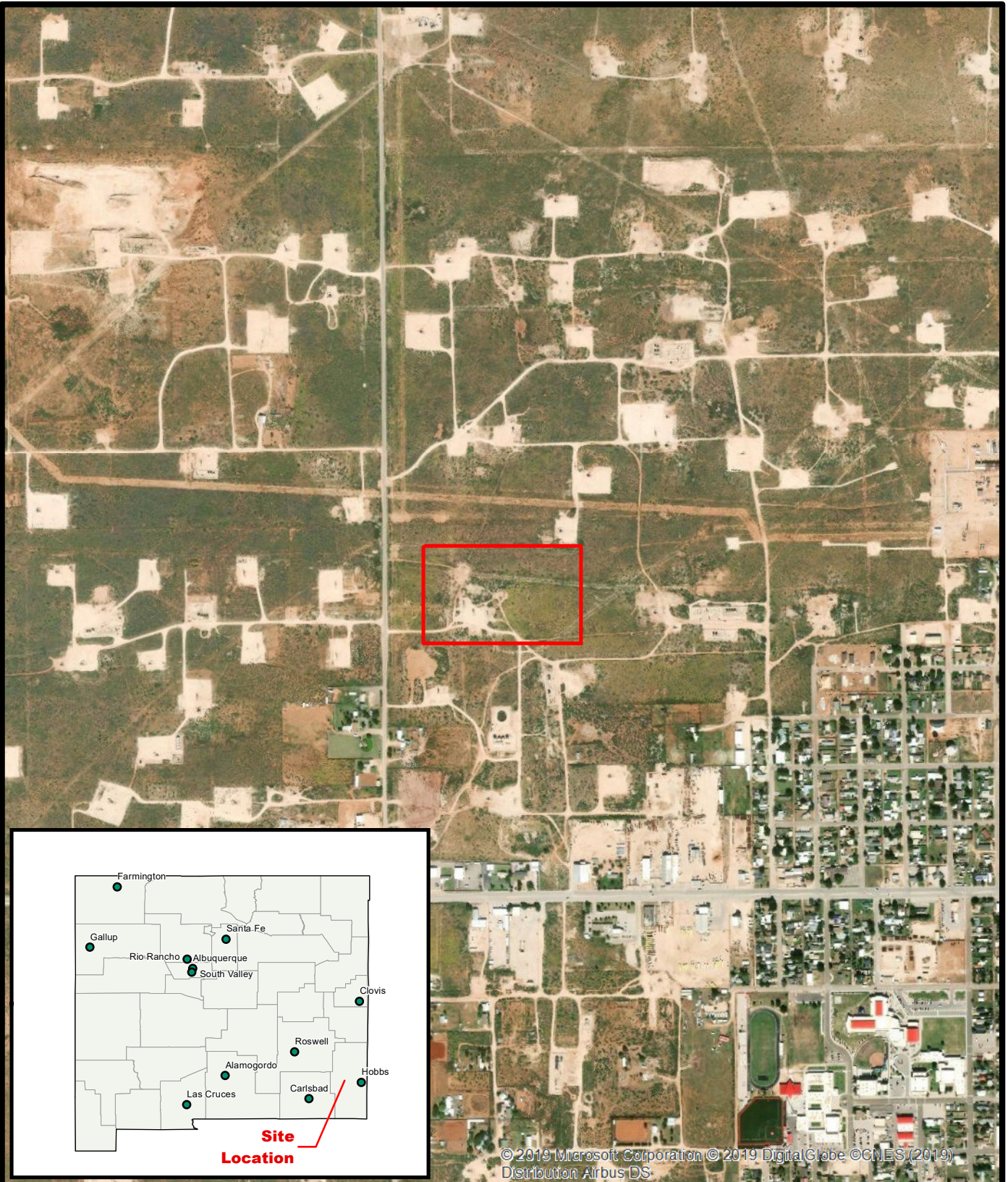
National Wetlands Inventory, surface waters and wetlands.
<https://www.fws.gov/wetlands/data/mapper.html>.

Google Earth Pro.

United States Department of Agriculture – Natural Resources Conservation Service. Web Soil Survey.
Available on line at <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.

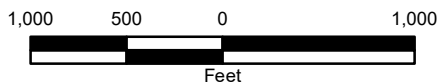
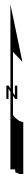
Figures

Path: C:\Houston\ushour\fs001\proj\Projects_ENVP2\JOBS2\Chevron\Chevron MCBU NM Spill Sites\60611388 TRP-3367 Central Drinkard Unit (CDU)\900-CAD, GIS\920-929 (GIS-Graphics)\MXD\Fig 1 Site Loc Map_CDU.mxd Date: 8/30/2019



Legend

 Site Area



Drawn by:
NH

Client:
Chevron MCBU
Lea County, New Mexico

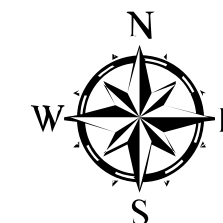
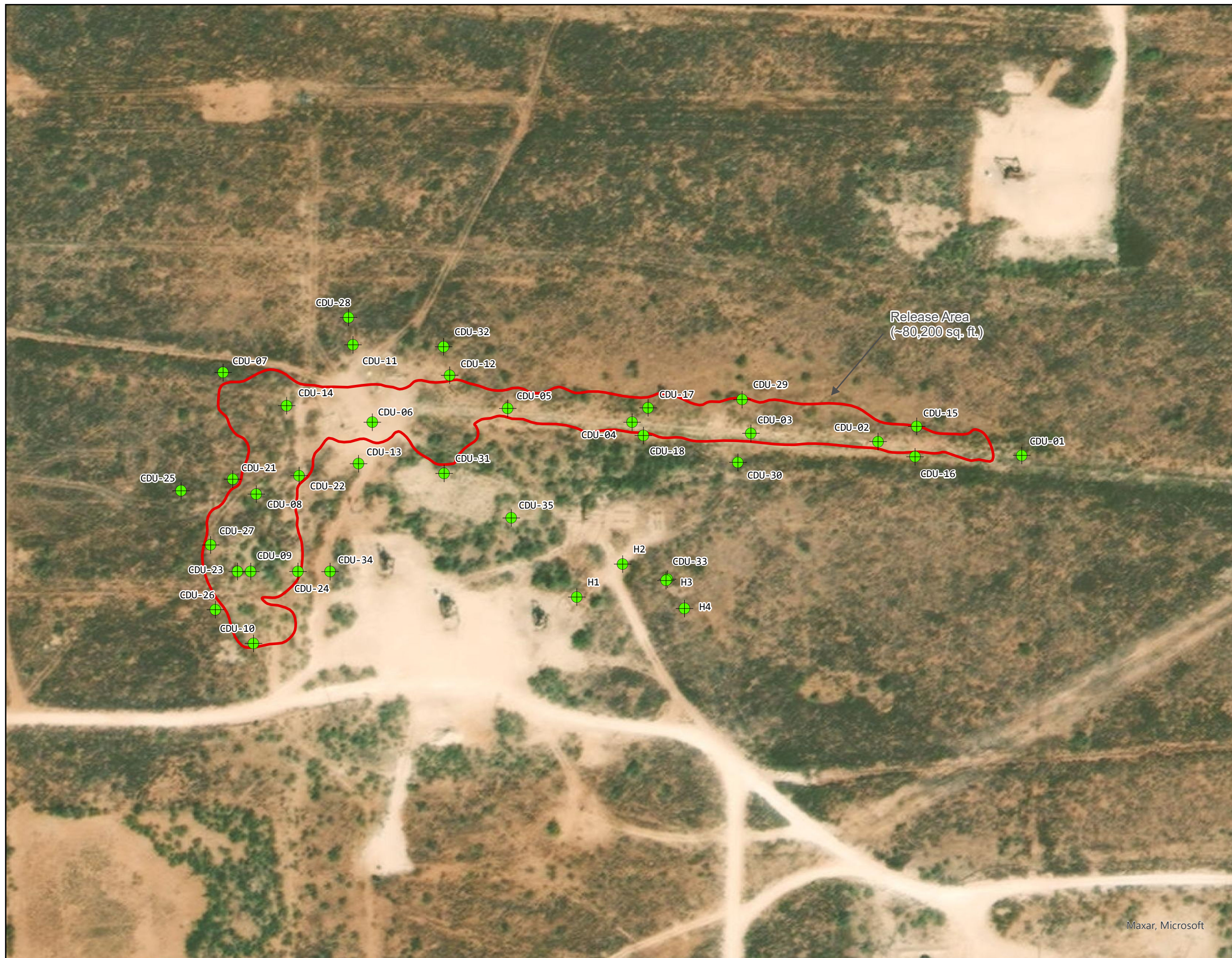
Report:
Central
Drinkard Unit

Site Location Map



Date:
8/30/2019

GIS File:
Fig 1 Site Loc Map_CDU.mxd

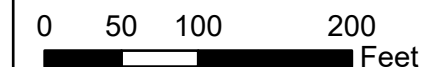
Figure:
1



Legend

-  Soil Boring Location
-  Approximate 2014 Release Area

Release Area
(~80,200 sq. ft.)



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13355 Noel Road, Suite 400
Dallas, TX 75240

Sample Location Map

**Chevron MCBU
Central Drinkard Unit
Lea County, New Mexico**

Date: 5/26/2021	Proj. No.: 60657229	Figure: 2
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Legend

- Soil Boring with no exceedances
- Soil Boring with chloride exceedance
- Soil Boring with TPH exceedance

Results is less than the Method Quantitation Limit (MQL) but greater than or equal to the SDL

Approximate 2014 Release Area

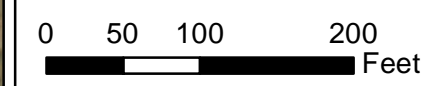
U Analyte not detected at or above the Laboratory Sample Detection Limit (SDL)

NA Not Analyzed

ND Not Detected

Regulatory Limits:
 TPH (0-4 ft bgs) = 100 mg/kg
 TPH (> 4 ft bgs) = 2,500 mg/kg
 Chloride (0-4 bgs) = 600 mg/kg
 Chloride (>4) ft bgs) = 10,000 mg/kg

Exceeds Regulatory Limit



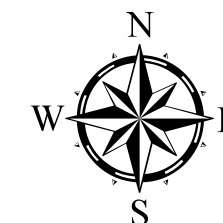
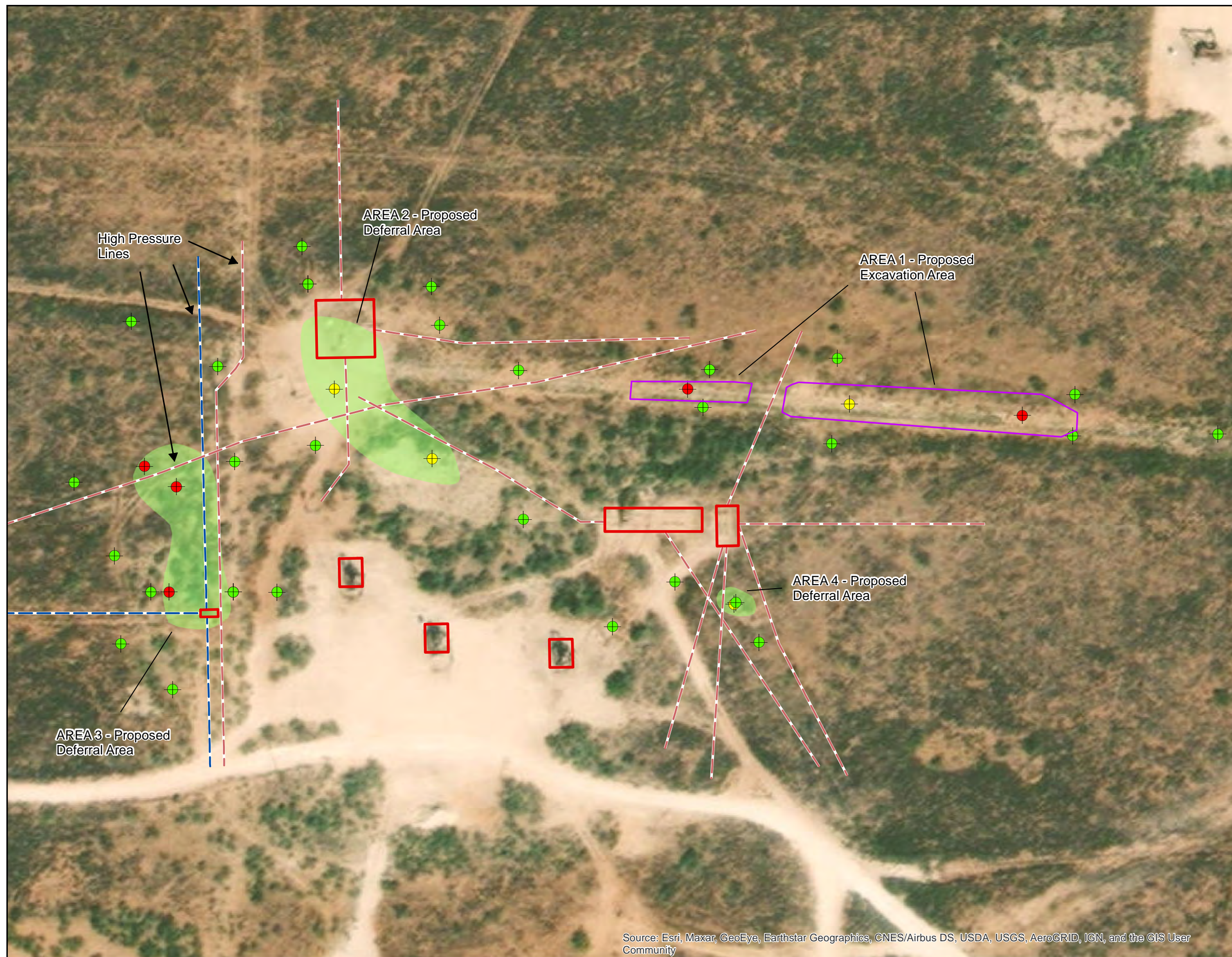
13355 Noel Road, Suite 400
 Dallas, TX 75240

Soil Analytical Results Map

**Chevron MCBU
 Central Drinkard Unit
 Lea County, New Mexico**

Date: 7/20/2021	Proj. No.: 60657208	Figure: 3
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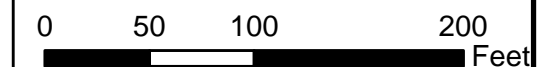
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- Soil Boring with no exceedances
- Soil Boring with chloride exceedance
- Soil Boring with TPH exceedance
- Chevron Lines
- Other Operators Lines
- Active O&G Features

Note
 All line locations approximate.
 Not all lines shown.



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 Dallas, TX 75240

**Proposed Remediation
 Plan Map**

**Chevron MCBU
 Central Drinkard Unit
 Lea County, New Mexico**

Date: 7/19/2021	Proj. No.: 60657229	Figure: 4
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Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Tables

Table 1
 Central Drinkard Unit - Soil Analytical Results
 Chevron MCBU
 Lea County, NM



Sample ID	Sample Date	Sample Depth (ft bgs)	Total Petroleum Hydrocarbons (EPA 8015B)				Volatile Organics (EPA 8260B)					Chloride (Methods 9056A, SW9250 and 300.0)
			GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	
Regulatory Limits - 0-4 ft (mg/kg)			--	--	--	100	10	--	--	--	50	600
Regulatory Limits - >4 (GW 51-100 ft) (mg/kg)			--	--	--	2,500	10	--	--	--	50	10,000
CDU-01	07/30/19	0-1'	0.0650 U	34.8 U	34.8 U	ND	0.000618 U	0.00135 U	0.00100 U	0.00111 U	0.00135 U	3.39 J
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.70 J
		2-3'	0.0636 U	33.6 U	33.6 U	ND	0.000724 U	0.00159 U	0.00117 U	0.00130 U	0.00159 U	5.41
CDU-02	07/30/19	0-1'	0.0639 U	35.9 U	35.9 U	ND	0.000621 U	0.00136 U	0.00101 U	0.00111 U	0.00136 U	4.64
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	95.1
		2-3'	0.0638 U	33.1 U	33.1 U	ND	0.000624 U	0.00137 U	0.00101 U	0.00112 U	0.00137 U	666
CDU-03	07/30/19	0-1'	0.0637 U	33.7 U	33.7 U	ND	0.000560 U	0.00123 U	0.000906 U	0.00100 U	0.00123 U	3.27 J
		1-2'	0.0637 U	76.0	78.7	154.7	0.000706 U	0.00155 U	0.00114 U	0.00127 U	0.00155 U	49.7
		0-1'	NA	34.3 U	34.3 U	ND	0.000601 U	0.00132 U	0.000973 U	0.00108 U	0.00132 U	2.72 J
CDU-04	07/30/19	1-2'	0.0639 U	NA	NA	ND	NA	NA	NA	NA	NA	6.67
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.0
		3-4'	NA	35.6 J	33.8 U	35.6	0.00139 U	0.00304 U	0.00225 U	0.00249 U	0.00304 U	950
		0-1'	0.0648 U	34.9 U	34.9 U	ND	0.000607 U	0.00133 U	0.000983 U	0.00109 U	0.00133 U	5.19
CDU-05	07/30/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	316
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	167
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	318
		4-5'	0.0638 U	35.5 U	35.5 U	ND	0.000721 U	0.00158 U	0.00117 U	0.00129 U	0.00158 U	303
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.7
CDU-06	07/30/19	1-2'	0.113	705	286	991.1	0.000768 J	0.00126 U	0.000931 U	0.00564	0.006408	117
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	110
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	116
		4-5'	0.0643 U	33.3 U	33.3 U	ND	0.000776 U	0.00170 U	0.00126 U	0.00139 U	0.00170 U	233
		0-1'	0.0642 U	35.1 U	35.1 U	ND	0.000663 U	0.00145 U	0.00107 U	0.00119 U	0.00145 U	2.47 J
CDU-07	07/30/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.11 J
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.22 J
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.82
		4-5'	0.0627 U	33.2 U	33.2 U	ND	0.00103 U	0.00225 U	0.00166 U	0.00184 U	0.00225 U	3.47 J
		0-1'	NA	79.0	43.6 J	122.6	0.000619 U	0.00100 U	0.00136 U	0.00111 U	0.00166 U	67
CDU-08	07/31/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,240
		2-3'	0.0637 U	33.8 U	33.8 U	ND	0.000774 U	0.00170 U	0.00125 U	0.00139 U	0.00170 U	1,800
		0-1'	0.0650 U	73.1	65.3	138.4	0.000782 U	0.00171 U	0.00127 U	0.00140 U	0.00171 U	28.6
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	347
		3-4'	NA	33.8 U	33.8 U	ND	0.000655 U	0.00143 U	0.00106 U	0.00117 U	0.00143 U	872
CDU-09	07/31/19	0-1'	NA	33.2 U	33.2 U	ND	0.000702 U	0.00154 U	0.00114 U	0.00126 U	0.00154 U	5.55
		1-2'	0.0651 U	35.8 U	35.8 U	ND	0.000610 U	0.00134 U	0.000988 U	0.00109 U	0.00134 U	389
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.1
CDU-10	07/31/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.8
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.3
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.5
		4-5'	0.0647 U	355	249	604	0.000761 U	0.00167 U	0.00123 U	0.00136 U	0.00167 U	4.69
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.2
CDU-11	08/01/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.8
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.6
		3-4'	0.0646 U	34.3 U	34.3 U	ND	0.000665 U	0.00146 U	0.00108 U	0.00119 U	0.00146 U	13.7
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.17
CDU-12	08/01/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.71
		2-3'	0.0634 U	35.0 U	35.0 U	ND	0.000774 U	0.00170 U	0.00125 U	0.00139 U	0.00170 U	11.1
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.4
CDU-13	08/01/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.4
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	34.6
		3-4'	0.0631 U	35.2 U	35.2 U	ND	0.000421 U	0.000921 U	0.000681 U	0.000754 U	0.000921 U	36.1
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.42 U
CDU-14	09/19/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.57 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.55 U
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.91 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.42 U
CDU-15	09/19/19	2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.30 U
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.50 U
		4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.63 U
		0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.52 J
CDU-16	09/19/19	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.45 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.43 J
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.78 J
		4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.7

Table 1
 Central Drinkard Unit - Soil Analytical Results
 Chevron MCBU
 Lea County, NM



Sample ID	Sample Date	Sample Depth (ft bgs)	Total Petroleum Hydrocarbons (EPA 8015B)				Volatile Organics (EPA 8260B)					Chloride (Methods 9056A, SW9250 and 300.0)
			GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	TPH (GRO+DRO+MRO)	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	
Regulatory Limits - 0-4 ft (mg/kg)			--	--	--	100	10	--	--	--	50	600
Regulatory Limits - >4 (GW 51-100 ft) (mg/kg)			--	--	--	2,500	10	--	--	--	50	10,000
CDU-18	09/19/19	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.65 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.85 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.84 U
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.84 J
CDU-21	09/19/19	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.60 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.46 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.2
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	911
CDU-22	09/19/19	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.93 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.02 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.86 U
CDU-23	09/19/19	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.80 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	571
CDU-24	09/19/19	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.74 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	52.5
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	591
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	364
		4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	914
CDU-25	01/08/20	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.85 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.83 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.81 U
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.79 U
		4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.78 U
CDU-26	07/30/20	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.71 U
		1-2'	0.011 U	1.1 J	17	18.1	NA	NA	NA	NA	NA	2.83 U
		2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	126
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.90 U
		4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	44.9
CDU-27	07/30/20	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.74 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	103 J
		2-3'	0.012 U	22	43	65	NA	NA	NA	NA	NA	208
		3-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	459
		4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	494
CDU-28	07/30/20	2-3'	0.010 U	22	26	48	NA	NA	NA	NA	NA	1.08
CDU-29	07/30/20	2-3'	0.011 U	9.1	28	37.1	NA	NA	NA	NA	NA	3.53
CDU-30	07/31/20	1-2'	0.011 U	3.1	14	17.1	NA	NA	NA	NA	NA	1.44
CDU-31	07/30/20	2-3'	0.0097 U	48	250	298	NA	NA	NA	NA	NA	2.02
		3-4'	0.010 U	40	180	220	NA	NA	NA	NA	NA	1.54
CDU-32	07/30/20	1-2'	0.012 U	8.1	17	25.1	NA	NA	NA	NA	NA	16.9
CDU-Handauger #1	08/06/20	0-1'	0.011 U	4.4	11	15.4	NA	NA	NA	NA	NA	2.78 U
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.74 J
CDU-Handauger #2	08/06/20	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.3
		1-2'	0.012 U	7.7	23	30.7	NA	NA	NA	NA	NA	3.69 J
CDU-Handauger #3	08/06/20	0-1'	0.011 U	4,400	6,300	10,700	NA	NA	NA	NA	NA	189
		1-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	218
CDU-Handauger #4	08/06/20	0-1'	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.69 J
		1-2'	0.014 U	59	33	92	NA	NA	NA	NA	NA	6.29 J
CDU-33	04/26/21	2-3'	49.9 U	49.9 U	49.9 U	49.9 U	NA	NA	NA	NA	NA	NA
		3-4'	50.0 U	50.0 U	50.0 U	50.0 U	NA	NA	NA	NA	NA	NA
CDU-34	04/26/21	4-5'	NA	NA	NA	NA	NA	NA	NA	NA	NA	273 F1
CDU-35	04/26/21	1-2'	50.0 U	50.0 U	50.0 U	50.0 U	NA	NA	NA	NA	NA	NA
		3-4'	50.0 U	50.0 U	50.0 U	50.0 U	NA	NA	NA	NA	NA	NA

Notes:

- Soil analyses performed by TestAmerica Laboratories, Inc. in Houston, TX (2019 samples), ALS Laboratories in Houston, TX (2020 samples), and Eurofins Xenco Laboratories, LLC in Midland, TX.
- Units for all analytical data provided are mg/kg (milligrams per kilogram).
- Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC).
- "ft bgs" - feet below ground surface.
- "NA" - Not Analyzed
- "ND" - Not Detected
- "GRO" - Gasoline Range Organic Compounds
- "DRO" - Diesel Range Organic Compounds
- "MRO" - Motor Oil/Lube Range Organic Compounds
- J - Indicates that the result is less than the Method Quantitation Limit (MQL) but greater than or equal to the Sample Detection Limit (SDL).
- U - Indicates that the analyte was analyzed but not detected at or above the laboratory SDL.
- F1 - Indicates that the associated matrix spike and/or matrix spike duplicate sample recovery exceeds control limits.
- Bold** - Detectable concentration that exceeds laboratory method reporting limits.
- Bold and Shaded** - Reported concentration exceeds Regulatory Limits.
- "--" Indicates that no applicable regulatory limit exists for that analyte.

Appendix A

Form C-141 – CDU

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
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

HOBBSOOD

OCT 08 2014

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Form C-141
Revised August 8, 2011

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Chevron USA	Contact	Stephen Gwin
Address	2401 Avenue O	Telephone No.	575-263-0427
Facility Name	Central Drinkard Unit	Facility Type	Injection Line

Surface Owner	John Coy	Mineral Owner	Turner Ranch	API No.
---------------	----------	---------------	--------------	---------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	28	21	37 East					

Latitude 32.446791 Longitude -103.174051

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	17 BBLs	Volume Recovered	Unknown due to rain
Source of Release	Fiberglass collar malfunction on injection line.	Date and Hour of Occurrence	9/8/2014	Date and Hour of Discovery	9/8/2014 9:00 AM
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Stephen Gwin	Date and Hour	9/8/2014 3:00 PM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*


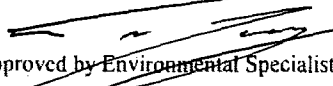
Describe Cause of Problem and Remedial Action Taken.*

Fiberglass collar for valve box cracked causing the leak. Vacuum trucks were onsite the day of the event and removed liquids from the impacted area which was also included rain water from the heavy rains experienced that day

Describe Area Affected and Cleanup Action Taken.*

Heavy rainfall impacted initial cleanup efforts. Primary areas impacted include a 310 X 25ft. and a 650 X 2ft area. Vacuum trucks were onsite the day of the event and removed liquids from the impacted area which was also included rain water from the heavy rains experienced that day. Additional heavy rains have impacted the ability to assess the site. Third party contractors scheduled to assess the area and remove and replace soil where necessary.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Stephen Gwin	Approved by Environmental Specialist: 	
Title: HE Specialist	Approval Date: 10-8-14	Expiration Date: 12-8-14
E-mail Address: Stephen.gwin@chevron.com	Conditions of Approval: <i>site specific</i> <i>regulate</i> <i>Rebate & related</i>	Attached <input type="checkbox"/>
Date: 10/7/2014 Phone: 575-408-0073	1RA 3367	

* Attach Additional Sheets If Necessary

and as per NMOCD guidelines
Submit final C-141 by 12-8-14
ogrid 4523
R701428197292
R701428197597
R70142819216

Incident ID	NTO1428147597
District RP	1RP-3367
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?	_ 73 _ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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.

Incident ID	NTO1428147597
District RP	1RP-3367
Facility ID	
Application ID	

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: Amy Barnhill Title: Water Specialist

Signature:  Date: 8-4-21

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: _____ Date: _____

Incident ID	NTO1428147597
District RP	1RP-3367
Facility ID	
Application ID	

Remediation Plan

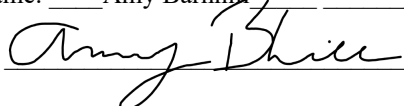
Remediation Plan Checklist: Each of the following items must be included in the plan.

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- 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)

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: Amy Barnhill Title: Water Specialist
 Signature:  Date: 8-4-21
 email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature:  Date: 1/23/2023

Remediation plan approved. Deferral denied. Areas requested for deferral will need to be remediated as they are located in areas off of pad. Excavation around pipelines can be achieved with hydro-excavation or other methods that would protect the integrity of the pipeline and ensure the safety of workers.

Appendix B

NMWRRS Water Column/Average Depth to Water Report



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 6	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00513 POD1		CP	LE	3	1	3	28	21S	37E	671508	3591467*	120	5000	4374	626
CP 00322		CP	LE			3	28	21S	37E	671818	3591366*	344	138	73	65
CP 01302 POD1		CP	LE	1	1	1	33	21S	37E	671454	3591072	516	162	100	62
CP 01301 POD1		CP	LE	3	4	3	28	21S	37E	671871	3591110	569	130	35	95
CP 01178 POD1		CP	LE	3	3	3	29	21S	37E	671403	3590979	618	145	85	60
CP 00749		CP	LE	2	4	3	28	21S	37E	672118	3591271*	648	123	75	48
CP 00965 POD2		CP	LE	1	3	4	28	21S	37E	672273	3591336	764	135		
CP 00966 POD1		CP	LE	1	3	4	28	21S	37E	672306	3591367	786	154		
CP 00965 POD1	R	CP	LE	1	3	4	28	21S	37E	672333	3591346	818	123	60	63

Average Depth to Water: **686 feet**
 Minimum Depth: **35 feet**
 Maximum Depth: **4374 feet**

Record Count: 9

UTM NAD83 Radius Search (in meters):

Easting (X): 671548.59

Northing (Y): 3591580.44

Radius: 1000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/13/19 4:15 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64 Q16 Q4 Sec Tws Rng	X	Y
CP 01302	POD1	1 1 1 33 21S 37E	671454	3591072

Driller License: 1682		Driller Company: HUNGRY HORSE, LLC.		
Driller Name: NORRIS, JOHN D.				
Drill Start Date: 05/01/2014	Drill Finish Date: 05/08/2014	Plug Date:		
Log File Date: 09/05/2014	PCW Rcv Date:	Source: Shallow		
Pump Type:	Pipe Discharge Size:	Estimated Yield:		
Casing Size:	Depth Well: 162 feet	Depth Water: 100 feet		

Water Bearing Stratifications:	Top	Bottom	Description
	0	5	Other/Unknown
	5	13	Other/Unknown
	13	54	Sandstone/Gravel/Conglomerate
	54	65	Sandstone/Gravel/Conglomerate
	65	106	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	0	162

Meter Number: 18291	Meter Make: TURBINES
Meter Serial Number: 1605222	Meter Multiplier: 1.0000
Number of Dials: 7	Meter Type: Diversion
Unit of Measure: Barrels 42 gal.	Return Flow Percent:
Usage Multiplier:	Reading Frequency: Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr Comment	Mtr Amount Online
10/01/2017	2017	22168	A	RPT Not an approved meter	0
11/01/2017	2017	22168	A	RPT	0
12/01/2017	2017	22799	A	RPT	0.081
02/01/2018	2018	28964	A	RPT	0.795
03/01/2018	2018	28964	A	RPT	0
04/02/2018	2018	28964	A	RPT	0
05/01/2018	2018	28964	A	RPT	0
06/01/2018	2018	29693	A	RPT	0.094
07/01/2018	2018	29693	A	RPT	0
09/01/2018	2018	29956	A	RPT	0.034
10/01/2018	2018	29956	A	RPT	0
11/01/2018	2018	30102	A	RPT	0.019
12/01/2018	2018	40236	A	RPT	1.306
12/30/2018	2018	46549	A	RPT	0.814
03/01/2019	2019	47625	A	RPT	0.139

04/01/2019	2019	50865	A	RPT	0.418
05/01/2019	2019	58834	A	RPT	1.027
06/01/2019	2019	66089	A	RPT	0.935
07/01/2019	2019	69610	A	RPT	0.454
08/01/2019	2019	71144	A	RPT	0.198
09/01/2019	2019	72707	A	RPT	0.201
10/01/2019	2019	74285	A	RPT	0.203
11/01/2019	2019	78885	A	RPT	0.593
12/03/2019	2019	80944	A	RPT	0.265
01/01/2020	2019	83965	A	RPT	0.389
02/02/2020	2020	90467	A	RPT	0.838
03/02/2020	2020	92128	A	RPT	0.214
04/01/2020	2020	92631	A	RPT	0.065
05/04/2020	2020	94140	A	RPT	0.194
06/02/2020	2020	94254	A	RPT	0.015
07/01/2020	2020	94336	A	RPT	0.011
08/03/2020	2020	94765	A	RPT	0.055
09/01/2020	2020	94822	A	RPT	0.007
10/03/2020	2020	95185	A	RPT	0.047
11/01/2020	2020	95185	A	RPT	0
12/01/2020	2020	95429	A	RPT	0.031
01/01/2021	2020	97017	A	RPT	0.205
02/01/2021	2021	99187	A	RPT	0.280
03/01/2021	2021	100542	A	RPT	0.175
06/02/2021	2021	105180	A	ad	0.598
07/02/2021	2021	107476	A	ad rpt	0.296

**YTD Meter	Year	Amount
Amounts:	2017	0.081
	2018	3.062
	2019	4.822
	2020	1.682
	2021	1.349

x

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/11/21 4:07 PM

POINT OF DIVERSION SUMMARY

Appendix C

Summary of Field Sample Collection and Screening Activities

**Sample Collection and Screening
Central Drinkard Unit**

Date	Boring ID	Depth (ft bgs)	Lithology	PID (ppm)	Conductivity Probe (mS/cm)	Chloride Test Strip (ppm Cl ⁻)	EC Meter (mS/cm)
7/30/2019	CDU-1	0-1	0-3 ft: Reddish brown silty sand	0.247	0.011	ND	0.066
		1-2		0.2	0.016	ND	0.034
		2-3		0.1	0.004	ND	0.095
7/30/2019	CDU-2	0-1	0-3 ft: Reddish brown silty sand with caliche inclusions	0.1	0.007	ND	0.040
		1-2		0.1	0.005	ND	0.063
		2-3		0.9	0.023	ND	0.107
7/30/2019	CDU-3	0-1	0-1 ft: Reddish brown silty sand	0.2	0.009	ND	0.053
		1-2	1-2 ft: Reddish brown silty sand with caliche inclusions	0.4	0.021	ND	0.091
7/30/2019	CDU-4	0-1	0-3 ft: Reddish brown silty sand	0.4	0.008	ND	0.042
		1-2		0.3	0.024	ND	0.086
		2-3	3-4 ft: Yellow-grey caliche	0.1	0.048	ND	0.042
		3-4		0.2	0.058	ND	0.077
7/30/2019	CDU-5	0-1	0-4 ft: Reddish brown silty sand	0.1	0.01	ND	0.051
		1-2		0.1	0.011	ND	0.064
		2-3		0.1	0.049	ND	0.07
		3-4	4-5 ft: Reddish brown silty sand with caliche inclusions	0.1	0.035	ND	0.101
		4-5		0.1	0.075	ND	
7/30/2019	CDU-6	0-1	0-4 ft: Black silty sand, light staining	0.1	0.015	ND	0.039
		1-2		85.2	0.163	ND	0.071
		2-3		55	0.11	ND	0.069
		3-4	4-5 ft: Reddish brown silty sand	0.9	0.158	ND	0.136
		4-5		1.1	0.067	ND	0.11
7/30/2019	CDU-7	0-1	0-4 ft: Reddish brown silty sand	0.0	0.017	ND	0.041
		1-2		0.0	0.006	ND	0.066
		2-3		0.0	0.011	ND	0.032
		3-4	4-5 ft: Reddish brown silty sand with caliche inclusions	0.0	0.17	ND	0.039
		4-5		0.0	0.34	ND	0.05
7/31/2019	CDU-8	0-1	0-2 ft: Reddish brown silty sand	0.0	0.085	ND	0.074
		1-2	2-3 ft: Yellow-grey caliche	0.0	0.444	ND	0.523
		2-3		0.0	0.484	ND	0.579
7/31/2019	CDU-9	0-1	0-3 ft: Reddish brown silty sand	0.0	0.037	ND	0.052
		1-2		0.0	0.119	ND	0.076
		2-3	3-4 ft: Yellow-grey caliche	0.0	0.245	ND	0.387
		3-4		0.0	0.221	ND	0.406
7/31/2019	CDU-10	0-1	0-1 ft: Reddish brown silty sand	0.0	0.035	ND	0.074
		1-2	1-2 ft: Yellow-grey caliche	0.0	0.196	ND	0.154
8/1/2019	CDU-11	0-1	0-4 ft: Reddish brown silty sand	0.1	0.006	ND	0.012
		1-2		0.1	0.011	ND	0.004
		2-3		0.1	0.020	ND	0.014
		3-4	4-5 ft: Yellow-grey caliche	0.1	0.091	ND	0.042
		4-5		1.7	0.024	ND	0.069
8/1/2019	CDU-12	0-1	0-5 ft: Reddish brown silty sand	0.0	0.011	ND	0.022
		1-2		0.0	0.009	ND	0.016
		2-3		0.0	0.014	ND	0.025
		3-4		0.0	0.026	ND	0.030
		4-5		0.0	0.009	ND	0.021
8/1/2019	CDU-13	0-1	0-1 ft: Reddish brown silty sand	0.1	0.065	ND	0.072
		1-2	2-3 ft: Yellow-grey caliche	0.1	0.096	ND	0.079
		2-3		1.9	0.079	ND	0.128
8/1/2019	CDU-14	0-1	0-4 ft: Reddish brown silty sand	0.1	0.006	ND	0.014
		1-2		0.1	0.044	ND	0.027
		2-3		0	0.116	ND	0.077
		3-4	4-5 ft: Yellow-grey caliche	3.7	0.192	ND	0.088
		4-5					

ND - Not Detected

Sample Collection and Screening
Central Drinkard Unit

Date	Boring ID	Depth (ft bgs)	Lithology	Time	PID (ppm)	Hydrocarbon Analysis (A,H7)	Conductivity Probe (µS/cm)	Chloride Test Strip (ppm Cl)	Chloride Test Strip (%NaCl)	Ec Meter (µS/cm)	Chloride Lab Result (mg/kg)
9/19/19	CDU-15	0-1	Silty Sand, Reddish-brown	0848	0.1		6.3	—	—	1,075	
		1-2	Silty Sand, Reddish Brown	0855	0.4		4.9	—	—	580	
		2-3	Silty Sand, Reddish Brown w/ calcine - white calcine gravel	0903	6.5	A	11.7	—	—	385	
		3-4	"								
		4-5	"								
9/19/19	CDU-16	0-1	Silty Sand, Reddish Brown	0910	0.3		7.5	—	—	510	
		1-2	"	0915	0.4		8.4	—	—	375	
		2-3	"	0919	0.6		5.7	—	—	315	
		3-4	"	0923	6.1		8.5	—	—	345	
		4-5	"	0929	0.1	A	11.0	—	—	310	
9/19/19	CDU-17	0-1	Silty Sand, Reddish Brown	0940	0.2		5.5	—	—	310	
		1-2	"	0948	0.3		7.1	—	—	700	
		2-3	"	0955	0.4		7.2	—	—	385	
		3-4	"	1003	0.2		9.7	—	—	550	
		4-5	"	1009	0.2	A	5.6	—	—	475	
9/19/19	CDU-18	0-1	Silty Sand, Reddish Brown	1022	0.4		3.6	—	—	515	
		1-2	"	1030	0.5		5.6	—	—	625	
		2-3	"	1040	0.6		6.9	—	—	515	
		3-4	Silty Sand / calcine Reddish Brown w/ white calcine	1048	0.3	A	6.8	—	—	495	
		4-5	"								
9/19/19	CDU-19	0-1	Silty Sand, Reddish Brown	1103	0.5		6.0	—	—	750	
		1-2	"	1108	0.8		5.7	—	—	1,150	
		2-3	"	1115	1.1		4.9	—	—	275	
		3-4	"	1122	0.6		7.1	—	—	210	
		4-5	Silty Sand, Brown	1130	0.1	A	5.5	—	—	300	

GPS

32.448785
-103.172690

32.448675
-103.172696

32.448852
-103.173662

32.448752
-103.173679

32.449101
-103.174850

Field Hours - James - 6
Raphael - 6

Sample Collection and Screening
Central Drinkard Unit

Date	Boring ID	Depth (ft bgs)	Lithology	Time	PID (ppm)	Hydrocarbon Analysis (A,H?)	Conductivity Probe (µS/cm)	Chloride Test Strip (ppm Cl)	Chloride Test Strip (%NaCl)	EC Meter (µS/cm)	Chloride Lab Result (mg/kg)
9/19/19	CDU-20	0-1	Reddish Brown, Silty Sand	1145	0.7		1.5	—	—	265	
		1-2	" "	1152	1.1		1.6	—	—	250	
		2-3	" "	1200	0.6		6.3	—	—	706	
		3-4	Silty Sand, Reddish Brown w/ calcine gravel	1208	0.3	A	3.6	—	—	300	
		4-5									
9/19/19	CDU-21	0-1	Silty Sand, Reddish Brown	1233	0.9		5.1	—	—	355	
		1-2	" "	1241	1.5		8.1	—	—	373	
		2-3	" "	1250	1.1		2.9	—	—	1,150	
		3-4	Silty Sand, Reddish Brown w/ calcine gravel.	1257	0.5	A	2.1	—	—	1,020	
		4-5									
9/19/19	CDU-22	0-1	Silty Sand, Reddish Brown	1313	1.9		5.5	—	—	360	
		1-2	" "	1318	2.2		6.3	—	—	460	
		2-3	Silty Sand, Reddish Brown w/ calcine gravel.	1325	1.7	A	9.8	—	—	560	
		3-4									
		4-5									
9/19/19	CDU-23	0-1	Silty Sand, Reddish Brown	1350	0.7		4.5	—	—	280	
		1-2	Silty Sand, Reddish Brown w/ calcine gravel	1358	1.1	A	8.5	—	—	1,175	
		2-3									
		3-4									
		4-5									
9/19/19	CDU-24	0-1	Silty Sand/calcine, Reddish-Brown	1415	0.7		1.9	—	—	705	
		1-2	" "	1422	1.9		2.6	—	—	2,060	
		2-3	" "	1430	2.0		17.4	—	—	2,940	
		3-4	Silty Sand, Reddish-Brown	1437	1.7		22.6	—	—	2,955	
		4-5	Silty Sand, Tan to Brown	1445	1.5	A	31.1	—	—	5,955	

Onsite labor hours

GPS

32.449166
-103.174608

32.448594
-103.175165

32.448607
-103.174925

32.448260
-103.175148

32.448260
-103.174929

AECOM		Client: <u>Chevron</u>					BORING ID: <u>CDU-25</u> <u>51 ft Boring</u>				
		Project Number: _____									
		Site Location: <u>Central Drinkend Unit</u>					Sheet: <u>1 of 3</u>				
		Coordinates: <u>32.448773, -103.174679</u> Elevation: <u>3,379 ft</u>									
Drilling Method: <u>Air-Rotary</u>					Monitoring Well Installed: <u>NO</u>						
Sample Type(s): _____					Boring Diameter: <u>6 in</u>		Screened Interval: <u>N/A</u>				
Weather: <u>Sunny, Temps in 60's</u>			Logged By: <u>J. Lovely</u>		Date/Time Started: <u>1/8/20</u>		Depth of Boring: <u>51 ft bgs</u>				
Drilling Contractor: <u>HCI</u>			Ground Elevation: _____		Date/Time Finished: <u>1/8/20</u>		Water Level: <u>None</u>				
Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (ft)		
1						SM	Silty Sand, Dark Brown, Dry, 0-2 ft bgs				
2							changes to Light Brown/Tan, Dry, 2-7 ft bgs				
3											
4											
5											
6											
7							Caliche, 7-9 ft bgs				
8											
9							silty Sand, Light Brown, Dry 9-15 ft bgs				
10											
11											
12											
13											
14											
15											
16							changes to Reddish-Brown, Dry, 15-20 ft bgs				
17											
18											
19											
20							changes to Tan, 20-35 ft				
NOTES:						Date		Time		Depth to groundwater while drilling	
Checked by _____						Date _____					

AECOM		Client:			BORING ID: CDU-25 51 ft Boring						
		Project Number:									
		Site Location:									
		Coordinates:		Elevation:		Sheet: 2 of 3					
		Drilling Method:		Boring Diameter:		Monitoring Well Installed:					
Sample Type(s):		Boring Diameter:		Screened Interval:							
Weather:			Logged By:		Date/Time Started:		Depth of Boring:				
Drilling Contractor:			Ground Elevation:		Date/Time Finished:		Water Level:				
Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (ft.)		
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36							Changes back to Reddish-Brown, dry, 35-51 ft bgs				
37											
38											
39											
40											
NOTES:						Date		Time		Depth to groundwater while drilling	
Checked by						Date					

AECOM		Client:			BORING ID: CDU-25 51 ft Boring				
		Project Number:							
		Site Location:							
		Coordinates:		Elevation:		Sheet: 3 of 3			
		Drilling Method:		Boring Diameter:		Monitoring Well Installed:			
Sample Type(s):		Boring Diameter:		Screened Interval:					
Weather:				Logged By:		Date/Time Started:		Depth of Boring:	
Drilling Contractor:				Ground Elevation:		Date/Time Finished:		Water Level:	
Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51							End of boring at 51 ft bgs, Dry		
52									
53									
54									
55									
56									
57									
58									
59									
60									
NOTES:							Date	Time	Depth to groundwater while drilling
Checked by _____							Date _____		

2020 Sample Collection and Screening
Central Drinkard Unit

Date	Boring ID	Depth (ft bgs)	Lithology	Time	PID (ppm)	Conductivity Probe (mS/cm)	EC Meter (mS/cm)	Latitude	Longitude
7/30/2020	CDU-26	0-1	Reddish-brown silty sand	15:20	5.7	2.1	--	32.448122°N	103.175228°W
		1-2	SAA	15:25	8.3	4.9	--		
		2-3	SAA	15:30	6.1	13.1	--		
		3-4	SAA	15:35	5.5	5.3	--		
		4-5	SAA	15:40	1.1	8.7	--		
7/30/2020	CDU-27	0-1	Reddish-brown silty sand	12:10	3.6	0.1	--	32.448356°N	103.175245°W
		1-2	SAA	12:15	7.5	7.3	--		
		2-3	SAA	12:20	8.0	17.8	--		
		3-4	SAA	12:25	7.0	14.5	--		
		4-5	SAA	12:30	4.7	25.8	--		
7/30/2020	CDU-28	0-1	Reddish-brown silty sand	13:15	3.0	0.3	--	32.449179°N	103.174746°W
		1-2	SAA	13:20	1.8	0.8	--		
		2-3	SAA	13:25	4.6	1.8	--		
		3-4	SAA	13:30	4.5	4.5	--		
		4-5	Not Collected	--	--	--	--	--	--
7/30/2020	CDU-29	0-1	Reddish-brown silty sand	14:15	1.7	0.5	--	32.448882°N	103.173322°W
		1-2	SAA	14:20	2.0	0.7	--		
		2-3	SAA	14:25	3.3	2.3	--		
		3-4	SAA	14:30	3.5	4.9	--		
		4-5	Not Collected	--	--	--	--	--	--

**2020 Sample Collection and Screening
Central Drinkard Unit**

Date	Boring ID	Depth (ft bgs)	Lithology	Time	PID (ppm)	Conductivity Probe (mS/cm)	EC Meter (mS/cm)	Latitude	Longitude
7/30/2020	CDU-30	0-1	Reddish-brown silty sand	14:40	0.5	0.4	--	32.448655°N	103.173337°W
		1-2	SAA	14:45	4.2	3.0	--		
		2-3	Caliche	14:50	2.4	0.8	--		
		3-4	SAA	14:55	1.5	0.5	--		
		4-5	Not Collected	--	--	--	--	--	--
7/30/2020	CDU-31	0-1	Brown silty sand mix with caliche nodules	13:45	0.2	3.1	--	32.448615°N	103.17440°W
		1-2	SAA	13:50	0.3	2.8	--		
		2-3	Reddish-brown silty sand	13:55	1.5	5.5	--		
		3-4	SAA	14:00	1.7	6.0	--		
		4-5	Not Collected	--	--	--	--	--	--
7/30/2020	CDU-32	0-1	Brown silty sand	12:45	4.7	0.2	--	32.449073°N	103.174402°W
		1-2	Reddish-brown silty sand	12:50	8.3	0.7	--		
		2-3	SAA	12:55	6.1	0.8	--		
		3-4	SAA	13:00	2.2	0.9	--		
		4-5	Not Collected	--	--	--	--	--	--

Total Field Hours


April 2021 Sample Collection and Screening
CDU

Date	Boring ID	Depth (ft bgs)	Latitude	Longitude	Lithology	Time	PID (ppm)	Analysis
4/26/2021	CDU-33	0-1	32.4482396	-103.1735925	Fine to medium SAND, loose, dry, reddish brown, no hydrocarbon odors or staining	10:25	2.6	
		1-2			SAA	10:30	4.0	
		2-3			Moist below 2 ft	10:40	6.0	TPH
		3-4			SAA	10:45	7.4	TPH
		4-5			Refusal @ 4 ft bgs - Caliche	-	-	
4/26/2021	CDU-34	0-1	32.4485108	-103.174138	Fine to medium SAND, loose, dry, reddish brown, no hydrocarbon odors or staining	12:05	2.8	
		1-2			SAA	12:08	3.5	
		2-3			SAA	12:12	6.4	
		3-4			Changes to light brown below 3 ft	12:15	5.0	
		4-5			Refusal @ 4.5 ft - Caliche	12:20	5.2	Chloride
4/26/2021	CDU-35	0-1	32.4482506	-103.1748354	Fine to medium SAND, loose, dry, no hydrocarbon odors or staining	11:15	3.0	
		1-2			SAA	11:22	5.1	TPH
		2-3			Sandstone below 2 ft	11:30	4.7	
		3-4			SAA	11:38	4.2	TPH
		4-5			Refusal @ 4'	-	-	

Appendix D

Photographic Documentation

Client: Chevron MCBU	Project Number: 60657229
Project Name: Central Drinkard Unit	Site Location: Lea County, New Mexico

RELEASE AREA	
Photograph No. 1	
Photographer: B. Wynne	
Date: 4/26/2021	
Comments: Looking south standing near CDU-08 towards original release location.	

RELEASE AREA	
Photograph No. 2	
Photographer: B. Wynne	
Date: 4/26/2021	
Comments: Looking north at location of CDU-33.	

Client: Chevron MCBU	Project Number: 60657229
Project Name: Central Drinkard Unit	Site Location: Lea County, New Mexico

RELEASE AREA

Photograph No.
3

Photographer:
AECOM

Date:
7/30/2019

Comments:
Looking southeast with CDU-07 location in foreground.



RELEASE AREA

Photograph No.
4

Photographer:
AECOM

Date:
7/30/2019

Comments:
Looking south with CDU-03 location in the foreground.



Appendix E

Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-1690-1
Laboratory Sample Delivery Group: Eunice, NM
Client Project/Site: AECOM NM Sites

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by:
5/6/2021 4:35:29 PM

John Builes, Project Manager
(281)240-4200
john.builes@eurofinset.com



LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
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- 12
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- 14

Client: AECOM
Project/Site: AECOM NM Sites

Laboratory Job ID: 880-1690-1
SDG: Eunice, NM

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Definitions/Glossary

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
♠	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Job ID: 880-1690-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative
880-1690-1

Receipt

The samples were received on 4/28/2021 1:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Client Sample ID: CDU-33 (2-3')

Date Collected: 04/26/21 10:40

Date Received: 04/28/21 13:24

Sample Depth: 2 - 3'

Lab Sample ID: 880-1690-1

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/29/21 09:10	05/01/21 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/29/21 09:10	05/01/21 02:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/29/21 09:10	05/01/21 02:21	1
Total TPH	<49.9	U	49.9	mg/Kg		04/29/21 09:10	05/01/21 02:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	04/29/21 09:10	05/01/21 02:21	1
o-Terphenyl	98		70 - 130	04/29/21 09:10	05/01/21 02:21	1

Client Sample ID: CDU-33 (3-4')

Date Collected: 04/26/21 10:45

Date Received: 04/28/21 13:24

Sample Depth: 3 - 4'

Lab Sample ID: 880-1690-2

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 02:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 02:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 02:43	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 02:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/29/21 09:10	05/01/21 02:43	1
o-Terphenyl	90		70 - 130	04/29/21 09:10	05/01/21 02:43	1

Client Sample ID: CDU-34 (4-5')

Date Collected: 04/26/21 12:20

Date Received: 04/28/21 13:24

Sample Depth: 4 - 5'

Lab Sample ID: 880-1690-5

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	273	F1	5.00	mg/Kg			05/06/21 09:07	1

Client Sample ID: CDU-35 (1-2')

Date Collected: 04/26/21 11:22

Date Received: 04/28/21 13:24

Sample Depth: 1 - 2'

Lab Sample ID: 880-1690-6

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:25	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:25	1

Eurofins Xenco, Midland

Client Sample Results

Client: AECOM
 Project/Site: AECOM NM Sites

Job ID: 880-1690-1
 SDG: Eunice, NM

Client Sample ID: CDU-35 (1-2')

Lab Sample ID: 880-1690-6

Date Collected: 04/26/21 11:22

Matrix: Solid

Date Received: 04/28/21 13:24

Sample Depth: 1 - 2'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66	S1-	70 - 130	04/29/21 09:10	05/01/21 03:25	1
o-Terphenyl	59	S1-	70 - 130	04/29/21 09:10	05/01/21 03:25	1

Client Sample ID: CDU-35 (3-4')

Lab Sample ID: 880-1690-8

Date Collected: 04/26/21 11:38

Matrix: Solid

Date Received: 04/28/21 13:24

Sample Depth: 3 - 4'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:47	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 09:10	05/01/21 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	04/29/21 09:10	05/01/21 03:47	1
o-Terphenyl	76		70 - 130	04/29/21 09:10	05/01/21 03:47	1

Surrogate Summary

Client: AECOM
 Project/Site: AECOM NM Sites

Job ID: 880-1690-1
 SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-1690-1	CDU-33 (2-3')	104	98
880-1690-2	CDU-33 (3-4')	100	90
880-1690-6	CDU-35 (1-2')	66 S1-	59 S1-
880-1690-8	CDU-35 (3-4')	80	76
LCS 880-2473/2-A	Lab Control Sample	115	113
LCSD 880-2473/3-A	Lab Control Sample Dup	116	113
MB 880-2473/1-A	Method Blank	115	125

Surrogate Legend

1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: AECOM
 Project/Site: AECOM NM Sites

Job ID: 880-1690-1
 SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-2473/1-A
 Matrix: Solid
 Analysis Batch: 2527

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 2473

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/29/21 09:10	04/30/21 21:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	04/30/21 21:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 09:10	04/30/21 21:47	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 09:10	04/30/21 21:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	04/29/21 09:10	04/30/21 21:47	1
o-Terphenyl	125		70 - 130	04/29/21 09:10	04/30/21 21:47	1

Lab Sample ID: LCS 880-2473/2-A
 Matrix: Solid
 Analysis Batch: 2527

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 2473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1227		mg/Kg		123	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1189		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-2473/3-A
 Matrix: Solid
 Analysis Batch: 2527

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 2473

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1273		mg/Kg		127	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1201		mg/Kg		120	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	113		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2742/1-A
 Matrix: Solid
 Analysis Batch: 2759

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			05/06/21 08:51	1

Eurofins Xenco, Midland

QC Sample Results

Client: AECOM
 Project/Site: AECOM NM Sites

Job ID: 880-1690-1
 SDG: Eunice, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-2742/2-A
Matrix: Solid
Analysis Batch: 2759

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	234.2		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-2742/3-A
Matrix: Solid
Analysis Batch: 2759

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	225.9		mg/Kg		90	90 - 110	4	20

Lab Sample ID: 880-1690-5 MS
Matrix: Solid
Analysis Batch: 2759

Client Sample ID: CDU-34 (4-5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	273	F1	250	481.1	F1	mg/Kg		83	90 - 110

Lab Sample ID: 880-1690-5 MSD
Matrix: Solid
Analysis Batch: 2759

Client Sample ID: CDU-34 (4-5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	273	F1	250	473.5	F1	mg/Kg		80	90 - 110	2	20

QC Association Summary

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

GC Semi VOA

Prep Batch: 2473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-1690-1	CDU-33 (2-3')	Total/NA	Solid	8015NM Prep	
880-1690-2	CDU-33 (3-4')	Total/NA	Solid	8015NM Prep	
880-1690-6	CDU-35 (1-2')	Total/NA	Solid	8015NM Prep	
880-1690-8	CDU-35 (3-4')	Total/NA	Solid	8015NM Prep	
MB 880-2473/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2473/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2473/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-1690-1	CDU-33 (2-3')	Total/NA	Solid	8015B NM	2473
880-1690-2	CDU-33 (3-4')	Total/NA	Solid	8015B NM	2473
880-1690-6	CDU-35 (1-2')	Total/NA	Solid	8015B NM	2473
880-1690-8	CDU-35 (3-4')	Total/NA	Solid	8015B NM	2473
MB 880-2473/1-A	Method Blank	Total/NA	Solid	8015B NM	2473
LCS 880-2473/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2473
LCSD 880-2473/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2473

HPLC/IC

Leach Batch: 2742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-1690-5	CDU-34 (4-5')	Soluble	Solid	DI Leach	
MB 880-2742/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2742/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2742/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-1690-5 MS	CDU-34 (4-5')	Soluble	Solid	DI Leach	
880-1690-5 MSD	CDU-34 (4-5')	Soluble	Solid	DI Leach	

Analysis Batch: 2759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-1690-5	CDU-34 (4-5')	Soluble	Solid	300.0	2742
MB 880-2742/1-A	Method Blank	Soluble	Solid	300.0	2742
LCS 880-2742/2-A	Lab Control Sample	Soluble	Solid	300.0	2742
LCSD 880-2742/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2742
880-1690-5 MS	CDU-34 (4-5')	Soluble	Solid	300.0	2742
880-1690-5 MSD	CDU-34 (4-5')	Soluble	Solid	300.0	2742

Eurofins Xenco, Midland

Lab Chronicle

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Client Sample ID: CDU-33 (2-3')

Lab Sample ID: 880-1690-1

Date Collected: 04/26/21 10:40

Matrix: Solid

Date Received: 04/28/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			2473	04/29/21 09:10	DM	XM
Total/NA	Analysis	8015B NM		1	2527	05/01/21 02:21	AJ	XM

Client Sample ID: CDU-33 (3-4')

Lab Sample ID: 880-1690-2

Date Collected: 04/26/21 10:45

Matrix: Solid

Date Received: 04/28/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			2473	04/29/21 09:10	DM	XM
Total/NA	Analysis	8015B NM		1	2527	05/01/21 02:43	AJ	XM

Client Sample ID: CDU-34 (4-5')

Lab Sample ID: 880-1690-5

Date Collected: 04/26/21 12:20

Matrix: Solid

Date Received: 04/28/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2742	05/05/21 15:23	CH	XM
Soluble	Analysis	300.0		1	2759	05/06/21 09:07	CH	XM

Client Sample ID: CDU-35 (1-2')

Lab Sample ID: 880-1690-6

Date Collected: 04/26/21 11:22

Matrix: Solid

Date Received: 04/28/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			2473	04/29/21 09:10	DM	XM
Total/NA	Analysis	8015B NM		1	2527	05/01/21 03:25	AJ	XM

Client Sample ID: CDU-35 (3-4')

Lab Sample ID: 880-1690-8

Date Collected: 04/26/21 11:38

Matrix: Solid

Date Received: 04/28/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			2473	04/29/21 09:10	DM	XM
Total/NA	Analysis	8015B NM		1	2527	05/01/21 03:47	AJ	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Laboratory: Eurofins Xenco, Midland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

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Method Summary

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Sample Summary

Client: AECOM
Project/Site: AECOM NM Sites

Job ID: 880-1690-1
SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-1690-1	CDU-33 (2-3')	Solid	04/26/21 10:40	04/28/21 13:24	2 - 3'
880-1690-2	CDU-33 (3-4')	Solid	04/26/21 10:45	04/28/21 13:24	3 - 4'
880-1690-5	CDU-34 (4-5')	Solid	04/26/21 12:20	04/28/21 13:24	4 - 5'
880-1690-6	CDU-35 (1-2')	Solid	04/26/21 11:22	04/28/21 13:24	1 - 2'
880-1690-8	CDU-35 (3-4')	Solid	04/26/21 11:38	04/28/21 13:24	3 - 4'

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Environment Testing
Xenco

Houston, TX
Midland, TX
El Paso, TX
Hobbs, NM (575) 392-7550, Carlsbad, NM (505) 755-1111
880-1690 Chain of Custody



Work Order No: 60657229

1690

www.xenco.com Page 1 of 1

Project Manager	BRAD WYNN	Bill to (if different)	SAME
Company Name	AEGON	Company Name	
Address	13355 NOBEL RD SUITE 300	Address	
City State ZIP	DAWKS, TX 75220	City State ZIP	
Phone	214-931-1829	Email	bradley.wynn@aecon.com

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	NEW MEXICO
Reporting Level II <input checked="" type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other

Project Name	CDU	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres Code	
Project Number	60657229	Due Date			
Project Location	EVING, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name	BRAD WYNN	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
PO #	60657229	Thermometer ID		Correction Factor	18.8
SAMPLE RECEIPT		Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading	70.5
Samples Received Intact:		Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading	1.0
Total Containers		Corrected Temperature:			1.5

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
CDU-33 (2-3')	Soil	4/26/21	10:40	2-3'	G	1	TPH - 8015M	None NO Cool Cool HCL, HC H ₂ SO ₄ , H ₂ H ₃ PO ₄ , HP NaHSO ₄ , NABIS Na ₂ S ₂ O ₃ , NaSO ₃ Zn Acetate+NaOH Zn NaOH+Ascorbic Acid SARC	
CDU-33 (3-4')			10:45	3-4'	G	1	CHLORIDE-EPA 300	DI Water- H ₂ O MeOH Me HNO ₃ HN NaOH Na	
CDU-34 (2-3')			12:12	2-3'	G	1			
CDU-34 (3-4')			12:15	3-4'	G	1			
CDU-34 (4-5')			12:20	4-5'	G	1			
CDU-35 (1-2')			11:22	1-2'	G	1			
CDU-35 (2-3')			11:30	2-3'	G	1			
CDU-35 (3-4')			11:38	3-4'	G	1			

Total 200.7 / 6010 200.8 / 6020. 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Hg 1631 / 245 1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4/28/21 1315			

Login Sample Receipt Checklist

Client: AECOM

Job Number: 880-1690-1

SDG Number: Eunice, NM

Login Number: 1690

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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

January 20, 2020

Wallace Gilmore
AECOM
19219 Katy Freeway
Suite 100
Houston, TX 77094

Work Order: **HS20010333**

Laboratory Results for: **Central Drinkard Unit**

Dear Wallace,

ALS Environmental received 5 sample(s) on Jan 09, 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,

A handwritten signature in black ink, appearing to read 'Dane J. Wacasey'.

Generated By: DAYNA.FISHER
Dane J. Wacasey

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
Project: Central Drinkard Unit
Work Order: HS20010333

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20010333-01	CDU-25-0-1	Soil		08-Jan-2020 14:41	09-Jan-2020 08:50	<input type="checkbox"/>
HS20010333-02	CDU-25-1-2	Soil		08-Jan-2020 14:44	09-Jan-2020 08:50	<input type="checkbox"/>
HS20010333-03	CDU-25-2-3	Soil		08-Jan-2020 14:48	09-Jan-2020 08:50	<input type="checkbox"/>
HS20010333-04	CDU-25-3-4	Soil		08-Jan-2020 14:51	09-Jan-2020 08:50	<input type="checkbox"/>
HS20010333-05	CDU-25-4-5	Soil		08-Jan-2020 14:55	09-Jan-2020 08:50	<input type="checkbox"/>

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
Project: Central Drinkard Unit
Work Order: HS20010333

CASE NARRATIVE

WetChemistry by Method ASTM D2216

Batch ID: R354678

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

WetChemistry by Method SW9250

Batch ID: 149566

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

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
 Project: Central Drinkard Unit
 Sample ID: CDU-25-0-1
 Collection Date: 08-Jan-2020 14:41

ANALYTICAL REPORT

WorkOrder:HS20010333
 Lab ID:HS20010333-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	4.29		0.0100	0.0100	wt%	1	20-Jan-2020 09:19
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 15-Jan-2020 Analyst: KVL
Chloride	< 2.85		2.85	10.4	mg/Kg-dry	1	15-Jan-2020 14:54

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

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
 Project: Central Drinkard Unit
 Sample ID: CDU-25-1-2
 Collection Date: 08-Jan-2020 14:44

ANALYTICAL REPORT

WorkOrder:HS20010333
 Lab ID:HS20010333-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	4.07		0.0100	0.0100	wt%	1	20-Jan-2020 09:19
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 15-Jan-2020 Analyst: KVL
Chloride	< 2.83		2.83	10.3	mg/Kg-dry	1	15-Jan-2020 14:54

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

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
 Project: Central Drinkard Unit
 Sample ID: CDU-25-2-3
 Collection Date: 08-Jan-2020 14:48

ANALYTICAL REPORT

WorkOrder:HS20010333
 Lab ID:HS20010333-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	2.83		0.0100	0.0100	wt%	1	20-Jan-2020 09:19
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 15-Jan-2020 Analyst: KVL
Chloride	< 2.81		2.81	10.2	mg/Kg-dry	1	15-Jan-2020 14:54

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

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
 Project: Central Drinkard Unit
 Sample ID: CDU-25-3-4
 Collection Date: 08-Jan-2020 14:51

ANALYTICAL REPORT

WorkOrder:HS20010333
 Lab ID:HS20010333-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	2.76		0.0100	0.0100	wt%	1	20-Jan-2020 09:19
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 15-Jan-2020 Analyst: KVL
Chloride	< 2.79		2.79	10.2	mg/Kg-dry	1	15-Jan-2020 14:55

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

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
 Project: Central Drinkard Unit
 Sample ID: CDU-25-4-5
 Collection Date: 08-Jan-2020 14:55

ANALYTICAL REPORT

WorkOrder:HS20010333
 Lab ID:HS20010333-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216			Analyst: DFF		
Percent Moisture	3.01		0.0100	0.0100	wt%	1	20-Jan-2020 09:19
CHLORIDE BY SW-846 9250		Method:SW9250			Prep:ASTM Leachate / 15-Jan-2020 Analyst: KVL		
Chloride	< 2.78		2.78	10.1	mg/Kg-dry	1	15-Jan-2020 14:55

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

ALS Houston, US

Date: 20-Jan-20

Weight / Prep Log

Client: AECOM
Project: Central Drinkard Unit
WorkOrder: HS20010333

Batch ID: 149566	Start Date: 15 Jan 2020 10:00	End Date: 15 Jan 2020 13:30
Method: SOLID CHLORIDE PREP	Prep Code: CHLORIDE LEACH	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20010333-01		5.0271 (grams)	50 (mL)	9.946
HS20010333-02		5.0419 (grams)	50 (mL)	9.917
HS20010333-03		5.0204 (grams)	50 (mL)	9.959
HS20010333-04		5.0518 (grams)	50 (mL)	9.897
HS20010333-05		5.0813 (grams)	50 (mL)	9.84

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
Project: Central Drinkard Unit
WorkOrder: HS20010333

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 149566 (0)		Test Name : CHLORIDE BY SW-846 9250			Matrix: Soil	
HS20010333-01	CDU-25-0-1	08 Jan 2020 14:41		15 Jan 2020 10:00	15 Jan 2020 14:54	1
HS20010333-02	CDU-25-1-2	08 Jan 2020 14:44		15 Jan 2020 10:00	15 Jan 2020 14:54	1
HS20010333-03	CDU-25-2-3	08 Jan 2020 14:48		15 Jan 2020 10:00	15 Jan 2020 14:54	1
HS20010333-04	CDU-25-3-4	08 Jan 2020 14:51		15 Jan 2020 10:00	15 Jan 2020 14:55	1
HS20010333-05	CDU-25-4-5	08 Jan 2020 14:55		15 Jan 2020 10:00	15 Jan 2020 14:55	1
Batch ID: R354678 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20010333-01	CDU-25-0-1	08 Jan 2020 14:41			20 Jan 2020 09:19	1
HS20010333-02	CDU-25-1-2	08 Jan 2020 14:44			20 Jan 2020 09:19	1
HS20010333-03	CDU-25-2-3	08 Jan 2020 14:48			20 Jan 2020 09:19	1
HS20010333-04	CDU-25-3-4	08 Jan 2020 14:51			20 Jan 2020 09:19	1
HS20010333-05	CDU-25-4-5	08 Jan 2020 14:55			20 Jan 2020 09:19	1

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
Project: Central Drinkard Unit
WorkOrder: HS20010333

QC BATCH REPORT

Batch ID: 149566 (0)	Instrument: Gall01	Method: CHLORIDE BY SW-846 9250
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MBLK	Sample ID: MBLK-149566	Units: mg/Kg	Analysis Date: 15-Jan-2020 14:53							
Client ID:	Run ID: Gall01_354488	SeqNo: 5437032	PrepDate: 15-Jan-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride < 2.74 10.0

LCS	Sample ID: LCS-149566	Units: mg/Kg	Analysis Date: 15-Jan-2020 14:53							
Client ID:	Run ID: Gall01_354488	SeqNo: 5437031	PrepDate: 15-Jan-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 206.5 10.0 200 0 103 80 - 120

MS	Sample ID: HS20010403-08MS	Units: mg/Kg	Analysis Date: 15-Jan-2020 15:01							
Client ID:	Run ID: Gall01_354488	SeqNo: 5437057	PrepDate: 15-Jan-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 270.8 9.96 199.2 78.21 96.7 80 - 120

MSD	Sample ID: HS20010403-08MSD	Units: mg/Kg	Analysis Date: 15-Jan-2020 15:01							
Client ID:	Run ID: Gall01_354488	SeqNo: 5437058	PrepDate: 15-Jan-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 270.1 9.96 199.1 78.21 96.4 80 - 120 270.8 0.24 30

The following samples were analyzed in this batch: HS20010333-01 HS20010333-02 HS20010333-03 HS20010333-04
 HS20010333-05

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
Project: Central Drinkard Unit
WorkOrder: HS20010333

QC BATCH REPORT

Batch ID: R354678 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20010333-05DUP	Units: wt%		Analysis Date: 20-Jan-2020 09:19					
Client ID: CDU-25-4-5	Run ID: Balance1_354678	SeqNo: 5440832		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	3.01	0.0100					3.01	0	20
------------------	------	--------	--	--	--	--	------	---	----

The following samples were analyzed in this batch:

HS20010333-01	HS20010333-02	HS20010333-03	HS20010333-04
HS20010333-05			

ALS Houston, US

Date: 20-Jan-20

Client: AECOM
Project: Central Drinkard Unit
WorkOrder: HS20010333

**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
Date	
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

ALS Houston, US

Date: 20-Jan-20

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	19-028-0	27-Mar-2020
California	2919, 2019-2020	30-Apr-2020
Dept of Defense	ANAB L2231	20-Dec-2021
Florida	E87611-28	30-Jun-2020
Illinois	2000322019-2	09-May-2020
Kansas	E-10352 2019-2020	31-Jul-2020
Kentucky	123043, 2019-2020	30-Apr-2020
Louisiana	03087, 2019-2020	30-Jun-2020
Maryland	343, 2019-2020	30-Jun-2020
North Dakota	R-193 2019-2020	30-Apr-2020
Oklahoma	2019-067	31-Aug-2020
Texas	T104704231-19-25	30-Apr-2020

ALS Houston, US

Date: 20-Jan-20

Sample Receipt Checklist

Client Name: AECOM-Houston
Work Order: HS20010333

Date/Time Received: 09-Jan-2020 08:50
Received by: PMG

Checklist completed by: Paris Frazier 9-Jan-2020
Reviewed by: Dane J. Wacasey 15-Jan-2020

Matrices: SOIL Carrier name: FedEx Priority Overnight

- Shipping container/cooler in good condition? Yes [checked] No [] Not Present []
Custody seals intact on shipping container/cooler? Yes [checked] No [] Not Present []
Custody seals intact on sample bottles? Yes [] No [] Not Present [checked]
VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes [] No [] Not Present [checked]
Chain of custody present? Yes [checked] No []
Chain of custody signed when relinquished and received? Yes [checked] No []
Samplers name present on COC? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [] No [checked]
Samples in proper container/bottle? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []
All samples received within holding time? Yes [checked] No []
Container/Temp Blank temperature in compliance? Yes [checked] No []

Temperature(s)/Thermometer(s): 0.8°C UC/C IR25
Cooler(s)/Kit(s): 45672
Date/Time sample(s) sent to storage: 01.09.2020 08:50
Water - VOA vials have zero headspace? Yes [] No [] No VOA vials submitted [checked]
Water - pH acceptable upon receipt? Yes [] No [] N/A [checked]
pH adjusted? Yes [] No [] N/A [checked]
pH adjusted by:

Login Notes: Sample Collection year differ COC=2019 Labels =2020 Logged in per labels

Client Contacted: Date Contacted: Person Contacted:
Contacted By: Regarding:
Comments:
Corrective Action:

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

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070



Chain of Custody Form

HS20010333

AECOM
Central Drinkard Unit

Page 1 of 1

COC ID: 216023



Customer Information		Project Information		ALS Project Manager:	
Purchase Order		Project Name	Baker B Battery Central Drinkard Unit	A	8260_S (8260 BTEX)
Work Order		Project Number		B	8015_GRO_S (8015 TPH-GRO)
Company Name	AECOM	Bill To Company	AECOM	C	8015M_S_LL (8015 TPH-DRO/ORO)
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P	D	CL_S_9250 AutoUV (SW9250 Chloride (UV))
Address	19219 Katy Freeway Suite 100	Address	PO Box 203970	E	MOIST_ASTM (D2216 Moisture %)
				F	
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720	G	
Phone	(281) 64-6-24	Phone	(512) 419-6825	H	
Fax	(713) 780-0838	Fax		I	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com	J	


No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	CDU-25-0-1	1/8/19	1441	Soil	None	1				X									
2	CDU-25-1-2	}	1444	}	}	1				X									
3	CDU-25-2-3		1448			1			X										
4	CDU-25-3-4		1451			1			X										
5	CDU-25-4-5		1455			2			X										
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign <i>Seth Frederick</i>		Shipment Method		Required Turnaround Time: (Check Box)			Results Due Date:		
				<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour					
Relinquished by: <i>Seth Frederick</i>	Date: 1/8/20	Time: 1700	Received by: <i>[Signature]</i>	Notes: AECOM CEMC Hobbs NM					
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)			
			Checked by (Laboratory): <i>[Signature]</i> 1/9/2020 08:50	45672	6.80	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> TRRP Checklist		
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		#25	<input type="checkbox"/> Level III Std QC/PAW Date	<input type="checkbox"/> TRRP Level IV		
					C/Fa.0	<input type="checkbox"/> Level IV SW846/CLP	<input type="checkbox"/> 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. All information must be completed accurately.

Copyright 2011 by ALS Environmental.


 ALS 10450 Standiff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	Date: 1/8/21 Name: S Company: A	Seal Broken By: Date: 1/22/21
	SEAL Time: 1:00 TIA F COM	

FedEx
 TRK# 1251 0293 2995
 [0221]

THU - 09 JAN 10:30
PRIORITY OVERNIGHT

AR SGRA

77099

 ALS 10450 Standiff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CU 1/8/21 Seta F AFD
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10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

August 17, 2020

Wallace Gilmore
AECOM
19219 Katy Freeway
Suite 100
Houston, TX 77094

Work Order: **HS20071456**

Laboratory Results for: **60611388 Central Drinkard Unit**

Dear Wallace Gilmore,

ALS Environmental received 20 sample(s) on Jul 31, 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,

A handwritten signature in black ink, appearing to read 'Dane J. Wacasey'.

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS20071456

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20071456-01	CDU-27 0-1	Soil		30-Jul-2020 12:10	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-02	CDU-27 1-2	Soil		30-Jul-2020 12:15	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-03	CDU-27 2-3	Soil		30-Jul-2020 12:20	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-04	CDU-27 3-4	Soil		30-Jul-2020 12:25	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-05	CDU-27 4-5	Soil		30-Jul-2020 12:30	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-06	CDU-32 1-2	Soil		30-Jul-2020 12:50	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-07	CDU-32 3-4	Soil		30-Jul-2020 13:00	31-Jul-2020 08:50	<input checked="" type="checkbox"/>
HS20071456-08	CDU-28 2-3	Soil		30-Jul-2020 13:25	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-09	CDU-28 3-4	Soil		30-Jul-2020 13:30	31-Jul-2020 08:50	<input checked="" type="checkbox"/>
HS20071456-10	CDU-31 2-3	Soil		30-Jul-2020 13:55	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-11	CDU-31 3-4	Soil		30-Jul-2020 14:00	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-12	CDU-29 2-3	Soil		30-Jul-2020 14:25	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-13	CDU-29 3-4	Soil		30-Jul-2020 14:30	31-Jul-2020 08:50	<input checked="" type="checkbox"/>
HS20071456-14	CDU-30 1-2	Soil		30-Jul-2020 14:45	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-15	CDU-30 3-4	Soil		30-Jul-2020 14:55	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-16	CDU-26 0-1	Soil		30-Jul-2020 15:20	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-17	CDU-26 1-2	Soil		30-Jul-2020 15:25	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-18	CDU-26 2-3	Soil		30-Jul-2020 15:30	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-19	CDU-26 3-4	Soil		30-Jul-2020 15:35	31-Jul-2020 08:50	<input type="checkbox"/>
HS20071456-20	CDU-26 4-5	Soil		30-Jul-2020 15:40	31-Jul-2020 08:50	<input type="checkbox"/>

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS20071456

CASE NARRATIVE

GC Semivolatiles by Method SW8015M

Batch ID: 155989

Sample ID: CDU-27 2-3 (HS20071456-03)

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

Sample ID: CDU-27 2-3 (HS20071456-03MS)

- 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: CDU-27 2-3 (HS20071456-03MSD)

- 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.

Batch ID: 156200

Sample ID: HS20071460-02MS

- MS and MSD are for an unrelated sample

GC Volatiles by Method SW8015

Batch ID: R366092,R366374

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

WetChemistry by Method ASTM D2216

Batch ID: R366126,R366127,R366602

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

WetChemistry by Method SW9250

Batch ID: 155990

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-27 0-1
 Collection Date: 30-Jul-2020 12:10

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	0.534		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	< 2.74		2.74	9.98	mg/Kg-dry	1	04-Aug-2020 14:54

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-27 1-2
 Collection Date: 30-Jul-2020 12:15

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	21.6		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	103	J	34.3	125	mg/Kg-dry	10	04-Aug-2020 16:37

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-27 2-3
 Collection Date: 30-Jul-2020 12:20

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.012		0.012	0.060	mg/Kg-dry	1	03-Aug-2020 13:49
Surr: 4-Bromofluorobenzene	100			70-123	%REC	1	03-Aug-2020 13:49
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	22		0.58	2.0	mg/Kg-dry	1	03-Aug-2020 15:43
TPH (Motor Oil Range)	43		0.58	3.9	mg/Kg-dry	1	03-Aug-2020 15:43
Surr: 2-Fluorobiphenyl	55.3	S		60-129	%REC	1	03-Aug-2020 15:43
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	14.5		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250				Prep:ASTM Leachate / 03-Aug-2020	Analyst: KVL
Chloride	208		31.6	115	mg/Kg-dry	10	04-Aug-2020 15:41

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-27 3-4
 Collection Date: 30-Jul-2020 12:25

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	6.44		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	459		28.9	106	mg/Kg-dry	10	04-Aug-2020 15:41

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-27 4-5
 Collection Date: 30-Jul-2020 12:30

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	28.8		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	494		37.9	138	mg/Kg-dry	10	04-Aug-2020 16:37

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-32 1-2
 Collection Date: 30-Jul-2020 12:50

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.012		0.012	0.058	mg/Kg-dry	1	03-Aug-2020 14:05
Surr: 4-Bromofluorobenzene	105			70-123	%REC	1	03-Aug-2020 14:05
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	8.1		0.59	2.0	mg/Kg-dry	1	03-Aug-2020 16:56
TPH (Motor Oil Range)	17		0.59	4.0	mg/Kg-dry	1	03-Aug-2020 16:56
Surr: 2-Fluorobiphenyl	64.0			60-129	%REC	1	03-Aug-2020 16:56
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	16.9		0.0100	0.0100	wt%	1	03-Aug-2020 11:16

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-28 2-3
 Collection Date: 30-Jul-2020 13:25

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.010		0.010	0.051	mg/Kg-dry	1	03-Aug-2020 14:21
Surr: 4-Bromofluorobenzene	102			70-123	%REC	1	03-Aug-2020 14:21
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	22		0.50	1.7	mg/Kg-dry	1	03-Aug-2020 17:20
TPH (Motor Oil Range)	26		0.50	3.4	mg/Kg-dry	1	03-Aug-2020 17:20
Surr: 2-Fluorobiphenyl	63.4			60-129	%REC	1	03-Aug-2020 17:20
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	1.08		0.0100	0.0100	wt%	1	03-Aug-2020 11:16

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-31 2-3
 Collection Date: 30-Jul-2020 13:55

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-10
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.0097		0.0097	0.048	mg/Kg-dry	1	03-Aug-2020 14:37
Surr: 4-Bromofluorobenzene	105			70-123	%REC	1	03-Aug-2020 14:37
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	48		5.1	17	mg/Kg-dry	10	03-Aug-2020 17:20
TPH (Motor Oil Range)	250		5.1	35	mg/Kg-dry	10	03-Aug-2020 17:20
Surr: 2-Fluorobiphenyl	64.5			60-129	%REC	10	03-Aug-2020 17:20
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	2.02		0.0100	0.0100	wt%	1	03-Aug-2020 11:16

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-31 3-4
 Collection Date: 30-Jul-2020 14:00

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-11
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.010		0.010	0.050	mg/Kg-dry	1	06-Aug-2020 11:57
Surr: 4-Bromofluorobenzene	104			70-123	%REC	1	06-Aug-2020 11:57
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 10-Aug-2020	Analyst: PVL
TPH (Diesel Range)	40		5.0	17	mg/Kg-dry	10	11-Aug-2020 16:59
TPH (Motor Oil Range)	180		5.0	34	mg/Kg-dry	10	11-Aug-2020 16:59
Surr: 2-Fluorobiphenyl	67.0			60-129	%REC	10	11-Aug-2020 16:59
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	1.54		0.0100	0.0100	wt%	1	11-Aug-2020 17:38

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-29 2-3
 Collection Date: 30-Jul-2020 14:25

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.011		0.011	0.054	mg/Kg-dry	1	03-Aug-2020 14:53
Surr: 4-Bromofluorobenzene	105			70-123	%REC	1	03-Aug-2020 14:53
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	9.1		0.52	1.8	mg/Kg-dry	1	04-Aug-2020 10:38
TPH (Motor Oil Range)	28		0.52	3.5	mg/Kg-dry	1	04-Aug-2020 10:38
Surr: 2-Fluorobiphenyl	60.1			60-129	%REC	1	04-Aug-2020 10:38
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	3.53		0.0100	0.0100	wt%	1	03-Aug-2020 11:16

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-30 1-2
 Collection Date: 30-Jul-2020 14:45

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.011		0.011	0.053	mg/Kg-dry	1	03-Aug-2020 15:09
Surr: 4-Bromofluorobenzene	103			70-123	%REC	1	03-Aug-2020 15:09
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	3.1		0.50	1.7	mg/Kg-dry	1	03-Aug-2020 16:31
TPH (Motor Oil Range)	14		0.50	3.4	mg/Kg-dry	1	03-Aug-2020 16:31
Surr: 2-Fluorobiphenyl	66.3			60-129	%REC	1	03-Aug-2020 16:31
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	1.44		0.0100	0.0100	wt%	1	03-Aug-2020 11:16

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-26 0-1
 Collection Date: 30-Jul-2020 15:20

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-16
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	0.496		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	< 2.71		2.71	9.89	mg/Kg-dry	1	04-Aug-2020 14:54

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-26 1-2
 Collection Date: 30-Jul-2020 15:25

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-17
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.011		0.011	0.054	mg/Kg-dry	1	03-Aug-2020 16:46
Surr: 4-Bromofluorobenzene	105			70-123	%REC	1	03-Aug-2020 16:46
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Aug-2020	Analyst: PVL
TPH (Diesel Range)	1.1	J	0.52	1.8	mg/Kg-dry	1	03-Aug-2020 16:56
TPH (Motor Oil Range)	17		0.52	3.5	mg/Kg-dry	1	03-Aug-2020 16:56
Surr: 2-Fluorobiphenyl	60.2			60-129	%REC	1	03-Aug-2020 16:56
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	3.98		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250				Prep:ASTM Leachate / 03-Aug-2020	Analyst: KVL
Chloride	< 2.83		2.83	10.3	mg/Kg-dry	1	04-Aug-2020 14:55

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-26 2-3
 Collection Date: 30-Jul-2020 15:30

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-18
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	6.10		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	126		2.88	10.5	mg/Kg-dry	1	04-Aug-2020 14:55

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-26 3-4
 Collection Date: 30-Jul-2020 15:35

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-19
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	5.92		0.0100	0.0100	wt%	1	03-Aug-2020 11:16
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	< 2.90		2.90	10.6	mg/Kg-dry	1	04-Aug-2020 14:55

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

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-26 4-5
 Collection Date: 30-Jul-2020 15:40

ANALYTICAL REPORT

WorkOrder:HS20071456
 Lab ID:HS20071456-20
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	8.53		0.0100	0.0100	wt%	1	03-Aug-2020 13:37
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 03-Aug-2020 Analyst: KVL
Chloride	44.9		2.97	10.8	mg/Kg-dry	1	04-Aug-2020 14:55

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

ALS Houston, US

Date: 17-Aug-20

Weight / Prep Log

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

Batch ID: 3842 **Start Date:** 03 Aug 2020 12:56 **End Date:** 03 Aug 2020 12:56
Method: GASOLINE RANGE ORGANICS BY SW8015C **Prep Code:**

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20071456-03	1	4.885 (g)	5 (mL)	1.02	Bulk (5030B)
HS20071456-06	1	5.175 (g)	5 (mL)	0.97	Bulk (5030B)
HS20071456-08	1	4.941 (g)	5 (mL)	1.01	Bulk (5030B)
HS20071456-10	1	5.253 (g)	5 (mL)	0.95	Bulk (5030B)
HS20071456-12	1	4.822 (g)	5 (mL)	1.04	Bulk (5030B)
HS20071456-14	1	5.071 (g)	5 (mL)	0.99	Bulk (5030B)
HS20071456-17	1	4.857 (g)	5 (mL)	1.03	Bulk (5030B)

Batch ID: 3847 **Start Date:** 06 Aug 2020 09:56 **End Date:** 06 Aug 2020 09:56
Method: GASOLINE RANGE ORGANICS BY SW8015C **Prep Code:**

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20071456-11	1	5.104 (g)	5 (mL)	0.98	Bulk (5030B)

Batch ID: 155989 **Start Date:** 03 Aug 2020 11:58 **End Date:** 03 Aug 2020 15:10
Method: SOPREP: 3541 TPH **Prep Code:** 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20071456-03	1	30.44 (g)	1 (mL)	0.03285	
HS20071456-06	1	30.42 (g)	1 (mL)	0.03287	
HS20071456-08	1	30.25 (g)	1 (mL)	0.03306	
HS20071456-10	1	30.11 (g)	1 (mL)	0.03321	
HS20071456-12	1	30.09 (g)	1 (mL)	0.03323	
HS20071456-14	1	30.46 (g)	1 (mL)	0.03283	
HS20071456-17	1	30.27 (g)	1 (mL)	0.03304	

Batch ID: 155990 **Start Date:** 03 Aug 2020 13:12 **End Date:** 03 Aug 2020 16:00
Method: SOLID CHLORIDE PREP **Prep Code:** CHLORIDE LEACH

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20071456-01		5.0354 (grams)	50 (mL)	9.93	
HS20071456-02		5.0988 (grams)	50 (mL)	9.806	
HS20071456-03		5.0726 (grams)	50 (mL)	9.857	
HS20071456-04		5.0601 (grams)	50 (mL)	9.881	
HS20071456-05		5.0718 (grams)	50 (mL)	9.858	
HS20071456-16		5.0792 (grams)	50 (mL)	9.844	
HS20071456-17		5.0364 (grams)	50 (mL)	9.928	
HS20071456-18		5.0728 (grams)	50 (mL)	9.856	
HS20071456-19		5.0216 (grams)	50 (mL)	9.957	
HS20071456-20		5.0428 (grams)	50 (mL)	9.915	

ALS Houston, US

Date: 17-Aug-20

Weight / Prep Log

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

Batch ID: 156200 **Start Date:** 10 Aug 2020 10:00 **End Date:** 10 Aug 2020 16:30
Method: SOPREP: 3541 TPH **Prep Code:** 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20071456-11		30.21 (g)	1 (mL)	0.0331

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 155989 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20071456-03	CDU-27 2-3	30 Jul 2020 12:20		03 Aug 2020 12:58	03 Aug 2020 15:43	1
HS20071456-06	CDU-32 1-2	30 Jul 2020 12:50		03 Aug 2020 12:58	03 Aug 2020 16:56	1
HS20071456-08	CDU-28 2-3	30 Jul 2020 13:25		03 Aug 2020 12:58	03 Aug 2020 17:20	1
HS20071456-10	CDU-31 2-3	30 Jul 2020 13:55		03 Aug 2020 12:58	03 Aug 2020 17:20	10
HS20071456-12	CDU-29 2-3	30 Jul 2020 14:25		03 Aug 2020 12:58	04 Aug 2020 10:38	1
HS20071456-14	CDU-30 1-2	30 Jul 2020 14:45		03 Aug 2020 12:58	03 Aug 2020 16:31	1
HS20071456-17	CDU-26 1-2	30 Jul 2020 15:25		03 Aug 2020 12:58	03 Aug 2020 16:56	1
Batch ID: 155990 (0)		Test Name : CHLORIDE BY SW-846 9250			Matrix: Soil	
HS20071456-01	CDU-27 0-1	30 Jul 2020 12:10		03 Aug 2020 13:12	04 Aug 2020 14:54	1
HS20071456-02	CDU-27 1-2	30 Jul 2020 12:15		03 Aug 2020 13:12	04 Aug 2020 16:37	10
HS20071456-03	CDU-27 2-3	30 Jul 2020 12:20		03 Aug 2020 13:12	04 Aug 2020 15:41	10
HS20071456-04	CDU-27 3-4	30 Jul 2020 12:25		03 Aug 2020 13:12	04 Aug 2020 15:41	10
HS20071456-05	CDU-27 4-5	30 Jul 2020 12:30		03 Aug 2020 13:12	04 Aug 2020 16:37	10
HS20071456-16	CDU-26 0-1	30 Jul 2020 15:20		03 Aug 2020 13:12	04 Aug 2020 14:54	1
HS20071456-17	CDU-26 1-2	30 Jul 2020 15:25		03 Aug 2020 13:12	04 Aug 2020 14:55	1
HS20071456-18	CDU-26 2-3	30 Jul 2020 15:30		03 Aug 2020 13:12	04 Aug 2020 14:55	1
HS20071456-19	CDU-26 3-4	30 Jul 2020 15:35		03 Aug 2020 13:12	04 Aug 2020 14:55	1
HS20071456-20	CDU-26 4-5	30 Jul 2020 15:40		03 Aug 2020 13:12	04 Aug 2020 14:55	1
Batch ID: 156200 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20071456-11	CDU-31 3-4	30 Jul 2020 14:00		10 Aug 2020 10:00	11 Aug 2020 16:59	10
Batch ID: R366092 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20071456-03	CDU-27 2-3	30 Jul 2020 12:20			03 Aug 2020 13:49	1
HS20071456-06	CDU-32 1-2	30 Jul 2020 12:50			03 Aug 2020 14:05	1
HS20071456-08	CDU-28 2-3	30 Jul 2020 13:25			03 Aug 2020 14:21	1
HS20071456-10	CDU-31 2-3	30 Jul 2020 13:55			03 Aug 2020 14:37	1
HS20071456-12	CDU-29 2-3	30 Jul 2020 14:25			03 Aug 2020 14:53	1
HS20071456-14	CDU-30 1-2	30 Jul 2020 14:45			03 Aug 2020 15:09	1
HS20071456-17	CDU-26 1-2	30 Jul 2020 15:25			03 Aug 2020 16:46	1

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R366126 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20071456-01	CDU-27 0-1	30 Jul 2020 12:10			03 Aug 2020 11:16	1
HS20071456-02	CDU-27 1-2	30 Jul 2020 12:15			03 Aug 2020 11:16	1
HS20071456-03	CDU-27 2-3	30 Jul 2020 12:20			03 Aug 2020 11:16	1
HS20071456-04	CDU-27 3-4	30 Jul 2020 12:25			03 Aug 2020 11:16	1
HS20071456-05	CDU-27 4-5	30 Jul 2020 12:30			03 Aug 2020 11:16	1
HS20071456-06	CDU-32 1-2	30 Jul 2020 12:50			03 Aug 2020 11:16	1
HS20071456-08	CDU-28 2-3	30 Jul 2020 13:25			03 Aug 2020 11:16	1
HS20071456-10	CDU-31 2-3	30 Jul 2020 13:55			03 Aug 2020 11:16	1
HS20071456-12	CDU-29 2-3	30 Jul 2020 14:25			03 Aug 2020 11:16	1
HS20071456-14	CDU-30 1-2	30 Jul 2020 14:45			03 Aug 2020 11:16	1
HS20071456-16	CDU-26 0-1	30 Jul 2020 15:20			03 Aug 2020 11:16	1
HS20071456-17	CDU-26 1-2	30 Jul 2020 15:25			03 Aug 2020 11:16	1
HS20071456-18	CDU-26 2-3	30 Jul 2020 15:30			03 Aug 2020 11:16	1
HS20071456-19	CDU-26 3-4	30 Jul 2020 15:35			03 Aug 2020 11:16	1
Batch ID: R366127 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20071456-20	CDU-26 4-5	30 Jul 2020 15:40			03 Aug 2020 13:37	1
Batch ID: R366374 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20071456-11	CDU-31 3-4	30 Jul 2020 14:00			06 Aug 2020 11:57	1
Batch ID: R366602 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20071456-11	CDU-31 3-4	30 Jul 2020 14:00			11 Aug 2020 17:38	1

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: 155989 (0)	Instrument: FID-7	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-155989	Units: mg/Kg	Analysis Date: 03-Aug-2020 14:54							
Client ID:	Run ID: FID-7_366091	SeqNo: 5683527	PrepDate: 03-Aug-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)	< 0.50	1.7								
TPH (Motor Oil Range)	< 0.50	3.4								
Surr: 2-Fluorobiphenyl	2.341	0.10	3.33	0	70.3	70 - 130				

LCS	Sample ID: LCS-155989	Units: mg/Kg	Analysis Date: 03-Aug-2020 15:18							
Client ID:	Run ID: FID-7_366091	SeqNo: 5683528	PrepDate: 03-Aug-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)	26.26	1.7	33.33	0	78.8	70 - 130				
TPH (Motor Oil Range)	24.54	3.4	33.33	0	73.6	70 - 130				
Surr: 2-Fluorobiphenyl	2.335	0.10	3.33	0	70.1	70 - 130				

MS	Sample ID: HS20071456-03MS	Units: mg/Kg	Analysis Date: 03-Aug-2020 16:07							
Client ID: CDU-27 2-3	Run ID: FID-7_366091	SeqNo: 5683529	PrepDate: 03-Aug-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)	38.08	1.7	33.15	19.04	57.4	70 - 130				S
TPH (Motor Oil Range)	52.88	3.4	33.15	37.07	47.7	70 - 130				S
Surr: 2-Fluorobiphenyl	2.145	0.099	3.312	0	64.8	60 - 129				

MSD	Sample ID: HS20071456-03MSD	Units: mg/Kg	Analysis Date: 03-Aug-2020 16:31							
Client ID: CDU-27 2-3	Run ID: FID-7_366091	SeqNo: 5683530	PrepDate: 03-Aug-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)	36.87	1.7	32.7	19.04	54.5	70 - 130	38.08	3.24	30	S
TPH (Motor Oil Range)	49.42	3.3	32.7	37.07	37.8	70 - 130	52.88	6.77	30	S
Surr: 2-Fluorobiphenyl	2.221	0.098	3.267	0	68.0	60 - 129	2.145	3.47	30	

The following samples were analyzed in this batch:	HS20071456-03	HS20071456-06	HS20071456-08	HS20071456-10
	HS20071456-12	HS20071456-14	HS20071456-17	

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: 156200 (0)	Instrument: FID-8	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-156200	Units: mg/Kg	Analysis Date: 11-Aug-2020 15:46							
Client ID:	Run ID: FID-8_366615	SeqNo: 5697585	PrepDate: 10-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	< 0.50	1.7								
TPH (Motor Oil Range)	< 0.50	3.4								
Surr: 2-Fluorobiphenyl	2.609	0.10	3.33	0	78.3	70 - 130				

LCS	Sample ID: LCS-156200	Units: mg/Kg	Analysis Date: 11-Aug-2020 16:10							
Client ID:	Run ID: FID-8_366615	SeqNo: 5697586	PrepDate: 10-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	31.39	1.7	33.33	0	94.2	70 - 130				
TPH (Motor Oil Range)	23.73	3.4	33.33	0	71.2	70 - 130				
Surr: 2-Fluorobiphenyl	2.857	0.10	3.33	0	85.8	70 - 130				

MS	Sample ID: HS20071460-02MS	Units: mg/Kg	Analysis Date: 11-Aug-2020 17:48							
Client ID:	Run ID: FID-8_366615	SeqNo: 5697590	PrepDate: 10-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	57.11	1.7	32.95	0.6881	171	70 - 130				S
TPH (Motor Oil Range)	55.07	3.4	32.95	4.133	155	70 - 130				S
Surr: 2-Fluorobiphenyl	2.699	0.099	3.292	0	82.0	60 - 129				

MSD	Sample ID: HS20071460-02MSD	Units: mg/Kg	Analysis Date: 11-Aug-2020 18:13							
Client ID:	Run ID: FID-8_366615	SeqNo: 5697591	PrepDate: 10-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	19.68	1.7	33.21	0.6881	57.2	70 - 130	57.11	97.5	30	SR
TPH (Motor Oil Range)	20.03	3.4	33.21	4.133	47.9	70 - 130	55.07	93.3	30	SR
Surr: 2-Fluorobiphenyl	1.885	0.10	3.318	0	56.8	60 - 129	2.699	35.5	30	SR

The following samples were analyzed in this batch: HS20071456-11

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: R366092 (0)		Instrument: FID-14		Method: GASOLINE RANGE ORGANICS BY SW8015C					
MBLK	Sample ID: MBLK-080320	Units: mg/Kg		Analysis Date: 03-Aug-2020 13:33					
Client ID:	Run ID: FID-14_366092	SeqNo: 5683542		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	< 0.010	0.050							
Surr: 4-Bromofluorobenzene	0.09854	0.0050	0.1	0	98.5	75 - 121			

LCS	Sample ID: LCS-080320	Units: mg/Kg		Analysis Date: 03-Aug-2020 13:17					
Client ID:	Run ID: FID-14_366092	SeqNo: 5683541		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	1.126	0.050	1	0	113	72 - 121			
Surr: 4-Bromofluorobenzene	0.09823	0.0050	0.1	0	98.2	75 - 121			

MS	Sample ID: HS20071456-10MS	Units: mg/Kg		Analysis Date: 03-Aug-2020 15:25					
Client ID: CDU-31 2-3	Run ID: FID-14_366092	SeqNo: 5683549		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	0.8971	0.048	0.96	0	93.4	70 - 130			
Surr: 4-Bromofluorobenzene	0.0789	0.0048	0.096	0	82.2	70 - 123			

MSD	Sample ID: HS20071456-10MSD	Units: mg/Kg		Analysis Date: 03-Aug-2020 15:41					
Client ID: CDU-31 2-3	Run ID: FID-14_366092	SeqNo: 5683550		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	0.9061	0.050	0.99	0	91.5	70 - 130	0.8971	0.999	30
Surr: 4-Bromofluorobenzene	0.07967	0.0050	0.099	0	80.5	70 - 123	0.0789	0.978	30

The following samples were analyzed in this batch:

HS20071456-03	HS20071456-06	HS20071456-08	HS20071456-10
HS20071456-12	HS20071456-14	HS20071456-17	

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: R366374 (0)	Instrument: FID-14	Method: GASOLINE RANGE ORGANICS BY SW8015C
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MBLK	Sample ID: MBLK-200806	Units: mg/Kg	Analysis Date: 06-Aug-2020 11:41							
Client ID:	Run ID: FID-14_366374	SeqNo: 5688621	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	< 0.010	0.050								
Surr: 4-Bromofluorobenzene	0.09755	0.0050	0.1	0	97.6	75 - 121				

LCS	Sample ID: LCS-200806	Units: mg/Kg	Analysis Date: 06-Aug-2020 11:25							
Client ID:	Run ID: FID-14_366374	SeqNo: 5688620	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	1.179	0.050	1	0	118	72 - 121				
Surr: 4-Bromofluorobenzene	0.09894	0.0050	0.1	0	98.9	75 - 121				

MS	Sample ID: HS20071456-11MS	Units: mg/Kg	Analysis Date: 06-Aug-2020 12:13							
Client ID: CDU-31 3-4	Run ID: FID-14_366374	SeqNo: 5688623	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.9916	0.048	0.96	0	103	70 - 130				
Surr: 4-Bromofluorobenzene	0.08632	0.0048	0.096	0	89.9	70 - 123				

MSD	Sample ID: HS20071456-11MSD	Units: mg/Kg	Analysis Date: 06-Aug-2020 12:29							
Client ID: CDU-31 3-4	Run ID: FID-14_366374	SeqNo: 5688624	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.9288	0.049	0.98	0	94.8	70 - 130	0.9916	6.55	30	
Surr: 4-Bromofluorobenzene	0.0779	0.0049	0.098	0	79.5	70 - 123	0.08632	10.3	30	

The following samples were analyzed in this batch: HS20071456-11

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: 155990 (0)	Instrument: Gall01	Method: CHLORIDE BY SW-846 9250
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MBLK	Sample ID: MBLK-155990	Units: mg/Kg	Analysis Date: 04-Aug-2020 14:53							
Client ID:	Run ID: Gall01_366152	SeqNo: 5684546	PrepDate: 03-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride < 2.74 10.0

LCS	Sample ID: LCS-155990	Units: mg/Kg	Analysis Date: 04-Aug-2020 14:53							
Client ID:	Run ID: Gall01_366152	SeqNo: 5684547	PrepDate: 03-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 203.9 10.0 200 0 102 80 - 120

MS	Sample ID: HS20071456-20MS	Units: mg/Kg	Analysis Date: 04-Aug-2020 14:55							
Client ID: CDU-26 4-5	Run ID: Gall01_366152	SeqNo: 5684561	PrepDate: 03-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 237.8 9.84 196.7 41.02 100 80 - 120

MSD	Sample ID: HS20071456-20MSD	Units: mg/Kg	Analysis Date: 04-Aug-2020 14:56							
Client ID: CDU-26 4-5	Run ID: Gall01_366152	SeqNo: 5684562	PrepDate: 03-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 235.7 9.90 198 41.02 98.3 80 - 120 237.8 0.898 30

The following samples were analyzed in this batch:	HS20071456-01	HS20071456-02	HS20071456-03	HS20071456-04
	HS20071456-05	HS20071456-16	HS20071456-17	HS20071456-18
	HS20071456-19	HS20071456-20		

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: R366126 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20071456-16DUP	Units: wt%		Analysis Date: 03-Aug-2020 11:16					
Client ID: CDU-26 0-1	Run ID: Balance1_366126	SeqNo: 5684151		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Percent Moisture	0.481	0.0100					0.496	3.07	20
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The following samples were analyzed in this batch:

HS20071456-01	HS20071456-02	HS20071456-03	HS20071456-04
HS20071456-05	HS20071456-06	HS20071456-08	HS20071456-10
HS20071456-12	HS20071456-14	HS20071456-16	HS20071456-17
HS20071456-18	HS20071456-19		

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: R366127 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20071482-03DUP	Units: wt%		Analysis Date: 03-Aug-2020 13:37					
Client ID:	Run ID: Balance1_366127	SeqNo: 5684166		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Percent Moisture	18.5	0.0100					17.6	4.99	20
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The following samples were analyzed in this batch: HS20071456-20

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

QC BATCH REPORT

Batch ID: R366602 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20080409-01DUP	Units: wt%		Analysis Date: 11-Aug-2020 17:38					
Client ID:	Run ID: Balance1_366602	SeqNo: 5697400		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Percent Moisture	18.4	0.0100					18.7	1.62	20
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The following samples were analyzed in this batch: HS20071456-11

ALS Houston, US

Date: 17-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20071456

**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
Date	
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

ALS Houston, US

Date: 17-Aug-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	ANAB L2231 V009	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322020-4	09-May-2021
Kentucky	123043, 2020-2021	30-Apr-2021
Louisiana	03087, 2020-2021	30-Jun-2021
Maryland	343, 2019-2020	30-Sep-2020
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2020-2021	30-Apr-2021
Oklahoma	2019-141	31-Aug-2020
Texas	T104704231-20-26	30-Apr-2021

ALS Houston, US

Date: 17-Aug-20

Sample Receipt Checklist

Work Order ID: HS20071456

Date/Time Received: 31-Jul-2020 08:50

Client Name: AECOM-Houston

Received by: Paresh M. Giga

Completed By: /S/ Nilesh D. Ranchod	31-Jul-2020 13:23	Reviewed by: /S/ Dane J. Wacasey	31-Jul-2020 17:28
eSignature	Date/Time	eSignature	Date/Time

Matrices: Soil

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:226727/226726
- 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):	0.9°C UC/C	IR # 31
Cooler(s)/Kit(s):	43427	
Date/Time sample(s) sent to storage:	07/31/2020 14:00	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/> No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments: [Empty text box]

Corrective Action: [Empty text box]



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+1 513 733 5336

Fort Collins, CO
+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody Form

HS20071456

Page 1 of 2

COC ID: 226727

AECOM

60611388 Central Drinkard Unit



ALS Project Manager:

Customer Information		Project Information		
Purchase Order	60611388 Vendor ID 35146	Project Name	60611388 Central Drinkard Unit	A
Work Order		Project Number	60611388	B
Company Name	AECOM	Bill To Company	AECOM	C
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P	D
Address	19219 Katy Freeway Suite 100	Address	PO Box 203970	E
				F
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720	G
Phone	(281)-64-6-24	Phone	(512) 419-6825	H
Fax	(713) 780-0838	Fax		I
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com	J

- CL_S_9250 AutoUV (SW9250 Chloride (UV))
- MOIST_ASTM (D2216 Moisture %)
- 8260_S (8260 BTEX)
- 8015_GRO_S (8015 TPH-GRO)
- 8015M_S_LL (8015 TPH-DRO/ORO)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold				
1	CDU-27 0-1	7/30/20	1210	Soil	None	1	X	X													
2	CDU-27 1-2	↓	1215	↓	↓	1	X	X													
3	CDU-27 2-3		1220			2	X	X		X	X										
4	CDU-27 3-4		1225			2	X	X		X	X									D, E	
5	CDU-27 4-5		1230			1	X	X													
6	CDU-32 1-2		1250			1		X		X	X										
7	CDU-32 3-4		1300			1		X		X	X										
8	CDU-28 2-3		1325			1		X		X	X										B, D, E
9	CDU-28 3-4		1330			1		X		X	X										
10	CDU-31 2-3		1355			1		X		X	X										B, D, E

Sampler(s) Please Print & Sign James Lovey <i>[Signature]</i>		Shipment Method FedEx		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Other 3 Days				Results Due Date:							
Relinquished by: <i>[Signature]</i>		Date: 7/30/20 Time: 1630		Received by: Received by (Laboratory): 7/31/2020 08:50		Notes: AECOM CEMC Hobbs NM									
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):		Cooler ID: 43427		Cooler Temp.: 090		QC Package: (Check One Box Below)			
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								<input checked="" type="checkbox"/> Level II Std QC		<input type="checkbox"/> TRRP Checklist		<input type="checkbox"/> Level III Std QC/Raw Date		<input type="checkbox"/> TRRP Level IV	
								<input type="checkbox"/> Level IV SW846/CLP				<input type="checkbox"/> Other			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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+1 616 399 6070

Chain of Custody Form

Page 2 of 2

COC ID: 226726

HS20071456

AECOM

60611388 Central Drinkard Unit

ALS Project Manager:



Customer Information		Project Information	
Purchase Order	60611388 Vendor ID 35146	Project Name	60611388 Central Drinkard Unit
Work Order		Project Number	60611388
Company Name	AECOM	Bill To Company	AECOM
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P
Address	19219 Katy Freeway	Address	PO Box 203970
	Suite 100		
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720
Phone	(281) -64-6-24	Phone	(512) 419-6825
Fax	(713) 780-0338	Fax	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	CDU-31 3-4	7/30/20	1400	Soil	None	1		X		X	X							B,D,E
2	CDU-29 2-3		1425			1		X		X	X							B,D,E
3	CDU-29 3-4		1430			1		X		X	X							B,D,E
4	CDU-30 1-2		1445			1		X		X	X							B,D,E
5	CDU-30 3-4		1455			1		X		X	X							B,D,E
6	CDU-26 0-1		1520			1	X	X		X								B,D,E
7	CDU-26 1-2		1525			2	X	X		X	X							
8	CDU-26 2-3		1530			1	X	X										
9	CDU-26 3-4		1535			2	X	X		X	X							D,E
10	CDU-26 4-5		1540			1	X	X										

Sampler(s) Please Print & Sign: James Lovey

Shipment Method: FedEx

Required Turnaround Time: (Check Box) Other 3 Days

Results Due Date: _____

Relinquished by: [Signature] Date: 7/30/20 Time: 1630

Received by: [Signature] Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____

Received by (Laboratory): [Signature] Date: 7/31/2020 Time: 08:50

Checked by (Laboratory): _____ Date: _____ Time: _____

Logged by (Laboratory): _____ Date: _____ Time: _____

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

Notes: AECOM CEMC Hobbs NM

QC Package: (Check One Box Below)

Level II Std QC TRRP Checklist

Level III Std QC/Raw Date TRRP Level IV

Level IV SW846/CLP

Other

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Chain of Custody Form

HS20071456



Page 1 of 2

COC ID: 226727

AECOM

60611388 Central Drinkard Unit



Customer Information		Project Information		ALS Project Manager:	
Purchase Order	60611388 Vendor ID 35146	Project Name	60611388 Central Drinkard Unit	A	CL_S_9250 AutoUV (SW9250 Chloride (UV))
Work Order		Project Number	60611388	B	MOIST_ASTM (D2216 Moisture %)
Company Name	AECOM	Bill To Company	AECOM	C	8260_S (8260 BTEX)
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P	D	8015_GRO_S (8015 TPH-GRO)
Address	19219 Katy Freeway Suite 100	Address	PO Box 203970	E	8015M_S_LL (8015 TPH-DRO/ORO)
				F	
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720	G	
Phone	(281)-64-6-24	Phone	(512) 419-6825	H	
Fax	(713) 780-0838	Fax		I	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	CDU-27 0-1	7/30/20	1210	Soil	None	1	X	X												
2	CDU-27 1-2		1215				X	X												
3	CDU-27 2-3		1220				X	X	X	X										
4	CDU-27 3-4		1225				X	X	X	X										D, E
5	CDU-27 4-5		1230				X	X												
6	CDU-32 1-2		1250								X		X	X						
7	CDU-32 3-4		1300								X		X	X						B, D, E
8	CDU-28 2-3		1325								X		X	X						
9	CDU-28 3-4		1330								X		X	X						
10	CDU-31 2-3		1355								X		X	X						

Sampler(s) Please Print & Sign James Lovey <i>[Signature]</i>		Shipment Method FedEx		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Other 3 Days <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour			Results Due Date:	
Relinquished by: <i>[Signature]</i>		Date: 7/30/20 Time: 1630		Received by: <i>[Signature]</i>			Notes: AECOM CEMC Hobbs NM	
Relinquished by: _____		Date: _____		Received by (Laboratory): 7/31/2020 08:50			QC Package: (Check One Box Below) <input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW/8/CLP <input type="checkbox"/> Other	
Logged by (Laboratory): _____		Date: _____		Checked by (Laboratory): _____			Cooler ID: 43427 Cooler Temp: 0.90 431	
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								

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Chain of Custody Form

HS20071456



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COC ID: 226726

AECOM

60611388 Central Drinkard Unit




Customer Information		Project Information		ALS Project Manager:	
Purchase Order	60611388 Vendor ID 35146	Project Name	60611388 Central Drinkard Unit	A	CL_S_9250 AutoUV (SW9250 Chloride (UV))
Work Order		Project Number	60611388	B	MOIST_ASTM (D2216 Moisture %)
Company Name	AECOM	Bill To Company	AECOM	C	8260_S (8260 BTEX)
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P	D	8015_GRO_S (8015 TPH-GRO)
Address	19219 Katy Freeway	Address	PO Box 203970	E	8015M_S_LL (8015 TPH-DRO/ORO)
	Suite 100				
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720	F	
Phone	(281)-64-6-24	Phone	(512) 419-6825	G	
Fax	(713) 780-0338	Fax		H	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com	I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CDU-31 3-4	7/30/20	1400	Soil	None	1		X		X	X						B, D, E
2	CDU-29 2-3		1425			1		X		X	X						
3	CDU-29 3-4		1430			1		X		X	X						B, D, E
4	CDU-30 1-2		1445			1		X		X	X						
5	CDU-30 3-4		1455			1		X		X	X						B, D, E
6	CDU-26 0-1		1520			1	X	X		X							
7	CDU-26 1-2		1525			2	X	X		X	X						
8	CDU-26 2-3		1530			1	X	X									
9	CDU-26 3-4		1535			2	X	X		X	X						D, E
10	CDU-26 4-5		1540			1	X	X									

Sampler(s) Please Print & Sign <i>James Lovey</i>		Shipment Method <i>FedEx</i>		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Other <i>3 Days</i>				Results Due Date:					
Relinquished by: <i>[Signature]</i>		Date: <i>7/30/20</i>	Time: <i>1630</i>	Received by: <i>[Signature]</i>		Notes: AECOM CEMC Hobbs NM							
Relinquished by: <i>[Signature]</i>		Date: <i>7/30/20</i>	Time: <i>1630</i>	Received by (Laboratory): <i>[Signature]</i>		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):						<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other			
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													

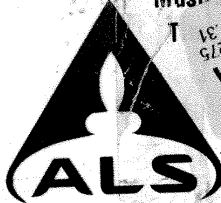
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 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>7/30/20</i>	Time: <i>1630</i>	Date: <i>07/31/20</i>
	Name: <i>James Lovely</i>		Company: <i>AECOM</i>

43427

JUL 31 2020



Must Deliver by
 10:30 AM
 07/31

RT 917
 FZ B03
 Day
 live!


43427

ORIGIN ID: SGRA (575) 391-8777
 GUEST: JAMES LOVELY
 HOLIDAY 1PM EXPRESS C/O RECOM
 4000 N. LOVINGTON HWY
 HOBBS, NM 88240
 UNITED STATES US

SHIP DATE: 22JUL20
 ACTWGT: 1.00 LB MAN
 CAD#: 300130/CAFE3211
 DIMS: 26x14x14 IN

TO **CLIENT SERVICES**
ALS LABORATORY GROUP
 10450 STANCLIFF ROAD
 SUITE 210
 HOUSTON TX 77099
 (281) 530-5656
 REF: CENTRAL DRINKARD/BAKER/B/CV-BO 72914-DW

RMA: ||| ||| |||


FedEx Express


FedEx
 TRK# 1891 8878 6275
 0221

AB SGRA

FRI - 31 JUL 10:30A
 PRIORITY OVERNIGHT

77099
 TX-US IAH





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

August 21, 2020

Wallace Gilmore
AECOM
19219 Katy Freeway
Suite 100
Houston, TX 77094

Work Order: **HS20080380**

Laboratory Results for: **60611388 Central Drinkard Unit**

Dear Wallace Gilmore,

ALS Environmental received 8 sample(s) on Aug 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,

A handwritten signature in black ink, appearing to read 'Dane J. Wacasey'.

Generated By: DAYNA.FISHER
Dane J. Wacasey

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS20080380

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20080380-01	CDU-Handauger #1,0'-1'	Soil		06-Aug-2020 16:00	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-02	CDU-Handauger #1,1'-2'	Soil		06-Aug-2020 16:05	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-03	CDU-Handauger #2,0'-1'	Soil		06-Aug-2020 16:10	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-04	CDU-Handauger #2,1'-2'	Soil		06-Aug-2020 16:15	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-05	CDU-Handauger #3,0'-1'	Soil		06-Aug-2020 16:20	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-06	CDU-Handauger #3,1'-2'	Soil		06-Aug-2020 16:23	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-07	CDU-Handauger #4,0'-1'	Soil		06-Aug-2020 16:30	10-Aug-2020 10:15	<input type="checkbox"/>
HS20080380-08	CDU-Handauger #4,1'-2'	Soil		06-Aug-2020 16:35	10-Aug-2020 10:15	<input type="checkbox"/>

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS20080380

CASE NARRATIVE

GC Semivolatiles by Method SW8015M

Batch ID: 156320

Sample ID: CDU-Handauger #3,0'-1' (HS20080380-05)

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

GC Volatiles by Method SW8015

Batch ID: R366515

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

WetChemistry by Method ASTM D2216

Batch ID: R367134,R367137

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

WetChemistry by Method SW9250

Batch ID: 156564

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #1,0'-1'
 Collection Date: 06-Aug-2020 16:00

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.011		0.011	0.053	mg/Kg-dry	1	10-Aug-2020 19:44
Surr: 4-Bromofluorobenzene	100			70-123	%REC	1	10-Aug-2020 19:44
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 13-Aug-2020	Analyst: PVL
TPH (Diesel Range)	4.4		0.51	1.7	mg/Kg-dry	1	17-Aug-2020 19:49
TPH (Motor Oil Range)	11		0.51	3.5	mg/Kg-dry	1	17-Aug-2020 19:49
Surr: 2-Fluorobiphenyl	83.4			60-129	%REC	1	17-Aug-2020 19:49
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	2.01		0.0100	0.0100	wt%	1	19-Aug-2020 13:51
CHLORIDE BY SW-846 9250		Method:SW9250				Prep:ASTM Leachate / 20-Aug-2020	Analyst: MZD
Chloride	< 2.78		2.78	10.1	mg/Kg-dry	1	21-Aug-2020 11:49

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #1,1'-2'
 Collection Date: 06-Aug-2020 16:05

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216			Analyst: JAC		
Percent Moisture	3.99		0.0100	0.0100	wt%	1	19-Aug-2020 13:51
CHLORIDE BY SW-846 9250		Method:SW9250			Prep:ASTM Leachate / 20-Aug-2020 Analyst: MZD		
Chloride	3.74	J	2.82	10.3	mg/Kg-dry	1	21-Aug-2020 11:50

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #2,0'-1'
 Collection Date: 06-Aug-2020 16:10

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216			Analyst: JAC		
Percent Moisture	15.0		0.0100	0.0100	wt%	1	19-Aug-2020 13:51
CHLORIDE BY SW-846 9250		Method:SW9250			Prep:ASTM Leachate / 20-Aug-2020 Analyst: MZD		
Chloride	17.3		3.20	11.7	mg/Kg-dry	1	21-Aug-2020 11:50

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #2,1'-2'
 Collection Date: 06-Aug-2020 16:15

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.012		0.012	0.061	mg/Kg-dry	1	10-Aug-2020 20:00
Surr: 4-Bromofluorobenzene	99.7			70-123	%REC	1	10-Aug-2020 20:00
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 13-Aug-2020	Analyst: PVL
TPH (Diesel Range)	7.7		0.59	2.0	mg/Kg-dry	1	17-Aug-2020 21:02
TPH (Motor Oil Range)	23		0.59	4.0	mg/Kg-dry	1	17-Aug-2020 21:02
Surr: 2-Fluorobiphenyl	77.4			60-129	%REC	1	17-Aug-2020 21:02
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	17.6		0.0100	0.0100	wt%	1	19-Aug-2020 13:51
CHLORIDE BY SW-846 9250		Method:SW9250				Prep:ASTM Leachate / 20-Aug-2020	Analyst: MZD
Chloride	3.69	J	3.33	12.1	mg/Kg-dry	1	21-Aug-2020 11:50

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #3,0'-1'
 Collection Date: 06-Aug-2020 16:20

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.011		0.011	0.054	mg/Kg-dry	1	10-Aug-2020 20:16
Surr: 4-Bromofluorobenzene	84.4			70-123	%REC	1	10-Aug-2020 20:16
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 13-Aug-2020	Analyst: PVL
TPH (Diesel Range)	4,400		100	340	mg/Kg-dry	200	18-Aug-2020 11:23
TPH (Motor Oil Range)	6,300		100	680	mg/Kg-dry	200	18-Aug-2020 11:23
Surr: 2-Fluorobiphenyl	0	JS		60-129	%REC	200	18-Aug-2020 11:23
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	0.839		0.0100	0.0100	wt%	1	19-Aug-2020 14:20
CHLORIDE BY SW-846 9250		Method:SW9250				Prep:ASTM Leachate / 20-Aug-2020	Analyst: MZD
Chloride	189		2.72	9.93	mg/Kg-dry	1	21-Aug-2020 11:50

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #3,1'-2'
 Collection Date: 06-Aug-2020 16:23

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	1.21		0.0100	0.0100	wt%	1	19-Aug-2020 14:20
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 20-Aug-2020 Analyst: MZD
Chloride	218		2.77	10.1	mg/Kg-dry	1	21-Aug-2020 11:50

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #4,0'-1'
 Collection Date: 06-Aug-2020 16:30

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	30.2		0.0100	0.0100	wt%	1	19-Aug-2020 14:20
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 20-Aug-2020 Analyst: MZD
Chloride	5.69	J	3.90	14.2	mg/Kg-dry	1	21-Aug-2020 11:51

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

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-Handauger #4,1'-2'
 Collection Date: 06-Aug-2020 16:35

ANALYTICAL REPORT

WorkOrder:HS20080380
 Lab ID:HS20080380-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015					Analyst: QX
Gasoline Range Organics	< 0.014		0.014	0.068	mg/Kg-dry	1	10-Aug-2020 20:32
Surr: 4-Bromofluorobenzene	104			70-123	%REC	1	10-Aug-2020 20:32
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 13-Aug-2020	Analyst: PVL
TPH (Diesel Range)	59		0.64	2.2	mg/Kg-dry	1	17-Aug-2020 21:50
TPH (Motor Oil Range)	33		0.64	4.4	mg/Kg-dry	1	17-Aug-2020 21:50
Surr: 2-Fluorobiphenyl	68.4			60-129	%REC	1	17-Aug-2020 21:50
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: JAC
Percent Moisture	23.2		0.0100	0.0100	wt%	1	19-Aug-2020 14:20
CHLORIDE BY SW-846 9250		Method:SW9250				Prep:ASTM Leachate / 20-Aug-2020	Analyst: MZD
Chloride	6.29	J	3.53	12.9	mg/Kg-dry	1	21-Aug-2020 11:55

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

ALS Houston, US

Date: 21-Aug-20

Weight / Prep Log

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

Batch ID: 3853 **Start Date:** 10 Aug 2020 12:12 **End Date:** 10 Aug 2020 12:12
Method: GASOLINE RANGE ORGANICS BY SW8015C **Prep Code:**

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20080380-01	1	4.791 (g)	5 (mL)	1.04	Bulk (5030B)
HS20080380-04	1	4.981 (g)	5 (mL)	1	Bulk (5030B)
HS20080380-05	1	4.624 (g)	5 (mL)	1.08	Bulk (5030B)
HS20080380-08	1	4.805 (g)	5 (mL)	1.04	Bulk (5030B)

Batch ID: 156320 **Start Date:** 13 Aug 2020 08:07 **End Date:** 13 Aug 2020 11:00
Method: SOPREP: 3541 TPH **Prep Code:** 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20080380-01	1	30.12 (g)	1 (mL)	0.0332	
HS20080380-04	1	30.6 (g)	1 (mL)	0.03268	
HS20080380-05	1	30.28 (g)	1 (mL)	0.03303	
HS20080380-08	1	30.45 (g)	1 (mL)	0.03284	

Batch ID: 156564 **Start Date:** 20 Aug 2020 11:53 **End Date:** 20 Aug 2020 14:00
Method: SOLID CHLORIDE PREP **Prep Code:** CHLORIDE LEACH

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20080380-01		5.0365 (grams)	50 (mL)	9.928	
HS20080380-02		5.0565 (grams)	50 (mL)	9.888	
HS20080380-03		5.0386 (grams)	50 (mL)	9.923	
HS20080380-04		4.9948 (grams)	50 (mL)	10.01	
HS20080380-05		5.0791 (grams)	50 (mL)	9.844	
HS20080380-06		5.0039 (grams)	50 (mL)	9.992	
HS20080380-07		5.0381 (grams)	50 (mL)	9.924	
HS20080380-08		5.0503 (grams)	50 (mL)	9.9	

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 156320 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS20080380-01	CDU-Handauger #1,0'-1'	06 Aug 2020 16:00		13 Aug 2020 08:07	17 Aug 2020 19:49	1
HS20080380-04	CDU-Handauger #2,1'-2'	06 Aug 2020 16:15		13 Aug 2020 08:07	17 Aug 2020 21:02	1
HS20080380-05	CDU-Handauger #3,0'-1'	06 Aug 2020 16:20		13 Aug 2020 08:07	18 Aug 2020 11:23	200
HS20080380-08	CDU-Handauger #4,1'-2'	06 Aug 2020 16:35		13 Aug 2020 08:07	17 Aug 2020 21:50	1
Batch ID: 156564 (0)		Test Name : CHLORIDE BY SW-846 9250			Matrix: Soil	
HS20080380-01	CDU-Handauger #1,0'-1'	06 Aug 2020 16:00		20 Aug 2020 11:53	21 Aug 2020 11:49	1
HS20080380-02	CDU-Handauger #1,1'-2'	06 Aug 2020 16:05		20 Aug 2020 11:53	21 Aug 2020 11:50	1
HS20080380-03	CDU-Handauger #2,0'-1'	06 Aug 2020 16:10		20 Aug 2020 11:53	21 Aug 2020 11:50	1
HS20080380-04	CDU-Handauger #2,1'-2'	06 Aug 2020 16:15		20 Aug 2020 11:53	21 Aug 2020 11:50	1
HS20080380-05	CDU-Handauger #3,0'-1'	06 Aug 2020 16:20		20 Aug 2020 11:53	21 Aug 2020 11:50	1
HS20080380-06	CDU-Handauger #3,1'-2'	06 Aug 2020 16:23		20 Aug 2020 11:53	21 Aug 2020 11:50	1
HS20080380-07	CDU-Handauger #4,0'-1'	06 Aug 2020 16:30		20 Aug 2020 11:53	21 Aug 2020 11:51	1
HS20080380-08	CDU-Handauger #4,1'-2'	06 Aug 2020 16:35		20 Aug 2020 11:53	21 Aug 2020 11:55	1
Batch ID: R366515 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS20080380-01	CDU-Handauger #1,0'-1'	06 Aug 2020 16:00			10 Aug 2020 19:44	1
HS20080380-04	CDU-Handauger #2,1'-2'	06 Aug 2020 16:15			10 Aug 2020 20:00	1
HS20080380-05	CDU-Handauger #3,0'-1'	06 Aug 2020 16:20			10 Aug 2020 20:16	1
HS20080380-08	CDU-Handauger #4,1'-2'	06 Aug 2020 16:35			10 Aug 2020 20:32	1
Batch ID: R367134 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20080380-01	CDU-Handauger #1,0'-1'	06 Aug 2020 16:00			19 Aug 2020 13:51	1
HS20080380-02	CDU-Handauger #1,1'-2'	06 Aug 2020 16:05			19 Aug 2020 13:51	1
HS20080380-03	CDU-Handauger #2,0'-1'	06 Aug 2020 16:10			19 Aug 2020 13:51	1
HS20080380-04	CDU-Handauger #2,1'-2'	06 Aug 2020 16:15			19 Aug 2020 13:51	1
Batch ID: R367137 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS20080380-05	CDU-Handauger #3,0'-1'	06 Aug 2020 16:20			19 Aug 2020 14:20	1
HS20080380-06	CDU-Handauger #3,1'-2'	06 Aug 2020 16:23			19 Aug 2020 14:20	1
HS20080380-07	CDU-Handauger #4,0'-1'	06 Aug 2020 16:30			19 Aug 2020 14:20	1
HS20080380-08	CDU-Handauger #4,1'-2'	06 Aug 2020 16:35			19 Aug 2020 14:20	1

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

QC BATCH REPORT

Batch ID: 156320 (0)	Instrument: FID-7	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-156320	Units: mg/Kg	Analysis Date: 17-Aug-2020 19:00							
Client ID:	Run ID: FID-7_366913	SeqNo: 5703661	PrepDate: 13-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
TPH (Diesel Range)	< 0.50	1.7								
TPH (Motor Oil Range)	< 0.50	3.4								
Surr: 2-Fluorobiphenyl	3.004	0.10	3.33	0	90.2	70 - 130				

LCS	Sample ID: LCS-156320	Units: mg/Kg	Analysis Date: 17-Aug-2020 19:24							
Client ID:	Run ID: FID-7_366913	SeqNo: 5703662	PrepDate: 13-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
TPH (Diesel Range)	38.76	1.7	33.33	0	116	70 - 130				
TPH (Motor Oil Range)	26.98	3.4	33.33	0	80.9	70 - 130				
Surr: 2-Fluorobiphenyl	3.337	0.10	3.33	0	100	70 - 130				

MS	Sample ID: HS20080380-01MS	Units: mg/Kg	Analysis Date: 17-Aug-2020 20:13							
Client ID: CDU-Handauger #1,0'-1'	Run ID: FID-7_366913	SeqNo: 5703664	PrepDate: 13-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
TPH (Diesel Range)	44.89	1.7	33.05	4.336	123	70 - 130				
TPH (Motor Oil Range)	40.62	3.4	33.05	11.17	89.1	70 - 130				
Surr: 2-Fluorobiphenyl	3.232	0.099	3.302	0	97.9	60 - 129				

MSD	Sample ID: HS20080380-01MSD	Units: mg/Kg	Analysis Date: 17-Aug-2020 20:37							
Client ID: CDU-Handauger #1,0'-1'	Run ID: FID-7_366913	SeqNo: 5703665	PrepDate: 13-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
TPH (Diesel Range)	43.29	1.7	32.97	4.336	118	70 - 130	44.89	3.63	30	
TPH (Motor Oil Range)	38.63	3.4	32.97	11.17	83.3	70 - 130	40.62	5.01	30	
Surr: 2-Fluorobiphenyl	3.049	0.099	3.294	0	92.6	60 - 129	3.232	5.82	30	

The following samples were analyzed in this batch: HS20080380-01 HS20080380-04 HS20080380-05 HS20080380-08

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

QC BATCH REPORT

Batch ID: R366515 (0) **Instrument:** FID-14 **Method:** GASOLINE RANGE ORGANICS BY SW8015C

MBLK		Sample ID: MBLK-0810201		Units: mg/Kg		Analysis Date: 10-Aug-2020 19:28			
Client ID:		Run ID: FID-14_366515		SeqNo: 5695476		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	< 0.010	0.050							
Surr: 4-Bromofluorobenzene	0.09832	0.0050	0.1	0	98.3	75 - 121			

LCS		Sample ID: LCS-0810201		Units: mg/Kg		Analysis Date: 10-Aug-2020 18:56			
Client ID:		Run ID: FID-14_366515		SeqNo: 5695474		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	1.054	0.050	1	0	105	72 - 121			
Surr: 4-Bromofluorobenzene	0.09117	0.0050	0.1	0	91.2	75 - 121			

LCSD		Sample ID: LCSD-0810201		Units: mg/Kg		Analysis Date: 10-Aug-2020 19:12			
Client ID:		Run ID: FID-14_366515		SeqNo: 5695475		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	1.023	0.050	1	0	102	72 - 121	1.054	2.94	30
Surr: 4-Bromofluorobenzene	0.08964	0.0050	0.1	0	89.6	75 - 121	0.09117	1.69	30

MS		Sample ID: HS20080380-04MS		Units: mg/Kg		Analysis Date: 10-Aug-2020 20:48			
Client ID: CDU-Handauger #2,1'-2'		Run ID: FID-14_366515		SeqNo: 5695481		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	0.8938	0.050	0.99	0	90.3	70 - 130			
Surr: 4-Bromofluorobenzene	0.07247	0.0050	0.099	0	73.2	70 - 123			

MSD		Sample ID: HS20080380-04MSD		Units: mg/Kg		Analysis Date: 10-Aug-2020 21:04			
Client ID: CDU-Handauger #2,1'-2'		Run ID: FID-14_366515		SeqNo: 5695482		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	0.9211	0.048	0.97	0	95.0	70 - 130	0.8938	3.01	30
Surr: 4-Bromofluorobenzene	0.07549	0.0048	0.097	0	77.8	70 - 123	0.07247	4.09	30

The following samples were analyzed in this batch: HS20080380-01 HS20080380-04 HS20080380-05 HS20080380-08

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

QC BATCH REPORT

Batch ID: 156564 (0)	Instrument: Gall01	Method: CHLORIDE BY SW-846 9250
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MBLK	Sample ID: MBLK-156564	Units: mg/Kg	Analysis Date: 21-Aug-2020 11:47							
Client ID:	Run ID: Gall01_367212	SeqNo: 5709878	PrepDate: 20-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride < 2.74 10.0

LCS	Sample ID: LCS-156564	Units: mg/Kg	Analysis Date: 21-Aug-2020 11:47							
Client ID:	Run ID: Gall01_367212	SeqNo: 5709879	PrepDate: 20-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 200.5 10.0 200 0 100 80 - 120

MS	Sample ID: HS20080379-25MS	Units: mg/Kg	Analysis Date: 21-Aug-2020 11:48							
Client ID:	Run ID: Gall01_367212	SeqNo: 5709886	PrepDate: 20-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 209 10.0 200.8 14.73 96.7 80 - 120

MSD	Sample ID: HS20080379-25MSD	Units: mg/Kg	Analysis Date: 21-Aug-2020 11:48							
Client ID:	Run ID: Gall01_367212	SeqNo: 5709887	PrepDate: 20-Aug-2020 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 206.7 10.0 200.8 14.73 95.6 80 - 120 209 1.07 30

The following samples were analyzed in this batch:	HS20080380-01	HS20080380-02	HS20080380-03	HS20080380-04
	HS20080380-05	HS20080380-06	HS20080380-07	HS20080380-08

ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

QC BATCH REPORT

Batch ID: R367134 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20080380-04DUP	Units: wt%		Analysis Date: 19-Aug-2020 13:51					
Client ID: CDU-Handauger #2,1'-2'	Run ID: Balance1_367134	SeqNo: 5708283		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Percent Moisture	18.5	0.0100					17.6	4.99	20
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The following samples were analyzed in this batch:

HS20080380-01	HS20080380-02	HS20080380-03	HS20080380-04
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ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

QC BATCH REPORT

Batch ID: R367137 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS20080380-06DUP	Units: wt%		Analysis Date: 19-Aug-2020 14:20					
Client ID: CDU-Handauger #3,1'-2'	Run ID: Balance1_367137	SeqNo: 5708368		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	1.21	0.0100					1.21	0	20
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The following samples were analyzed in this batch:

HS20080380-05	HS20080380-06	HS20080380-07	HS20080380-08
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ALS Houston, US

Date: 21-Aug-20

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS20080380

**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
Date	
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

ALS Houston, US

Date: 21-Aug-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	ANAB L2231 V010	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322020-4	09-May-2021
Kentucky	123043, 2020-2021	30-Apr-2021
Louisiana	03087, 2020-2021	30-Jun-2021
Maryland	343, 2019-2020	30-Sep-2020
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2020-2021	30-Apr-2021
Oklahoma	2019-141	31-Aug-2020
Texas	T104704231-20-26	30-Apr-2021

ALS Houston, US

Date: 21-Aug-20

Sample Receipt Checklist

Work Order ID: HS20080380

Date/Time Received: 10-Aug-2020 10:15

Client Name: AECOM-Houston

Received by: Nelson D. Dusara

Completed By: /S/ Paresh M. Giga	10-Aug-2020 15:45	Reviewed by: /S/ Dane J. Wacasey	14-Aug-2020 16:32
eSignature	Date/Time	eSignature	Date/Time

Matrices: Soil

Carrier name: Client

- 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:225308/225309
- 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):	2.2°C; 2.4°C uc/c	IR25
Cooler(s)/Kit(s):	46104/45415	
Date/Time sample(s) sent to storage:	8/10/2020 16:00	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/> No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:		

Login Notes: Times Differ : CDU-Handauger#3,1'-2': COC = 16:23, Labels = 16:25; logged per COC

Client Contacted:	Date Contacted:	Person Contacted:
Contacted By:	Regarding:	
Comments:		
Corrective Action:		



Environment Testing
TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-189491-2
Client Project/Site: Central Drinkard Unit

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by:
8/22/2019 4:36:14 PM
Jasmine Turner, Project Management Assistant I
(713)690-4444
jasmine.turner@testamericainc.com

Designee for
Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM
Project/Site: Central Drinkard Unit

Laboratory Job ID: 600-189491-2

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Eurofins TestAmerica, Houston job number 600-189491-2 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jasmine Turner, for Sachin Kudchadkar

Name (printed)



Signature

8/22/2019

Date

Senior Project Manager

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	8/22/2019
Project Name:	Central Drinkard Unit	Laboratory Job Number:	600-189491-2
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			R03A
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	8/22/2019
Project Name:	Central Drinkard Unit	Laboratory Job Number:	600-189491-2
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
		1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).					

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	8/22/2019
Project Name:	Central Drinkard Unit	Laboratory Job Number:	600-189491-2
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER # ¹	Description
R03A	<p>Method 8015B: The following samples were prepared outside of preparation holding time due to lab oversight : CDU-01-0-1 (600-189491-1), CDU-02-0-1 (600-189491-4), CDU-03-0-1 (600-189491-7), CDU-04-3-4 (600-189491-12), CDU-05-4-5 (600-189491-17) and CDU-07-4-5 (600-189491-27). □</p> <p>Method 8015B: The following samples were received with less than 2 days remaining on the holding time. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: CDU-01-0-1 (600-189491-1), CDU-02-0-1 (600-189491-4), CDU-03-0-1 (600-189491-7), CDU-05-4-5 (600-189491-17) and CDU-07-4-5 (600-189491-27).</p>
Misc	<p>Method 8015B: The surrogate in the continuing calibration verification (CCV) failed criteria low at 21.1%. The GRO ranges in the CCV passed criteria and all the samples passed surrogate. After careful evaluation the data is reported.(CCV 240-396273/3)</p>
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Method 8015B GRO Detection Limit Validation

Laboratory Eurofins TestAmerica, Canton

Preparation Method: 5030B_SolidNAC MDLV

Limit Group GCVOA 8015B GRO Sol P&T/Enc RL/MDL

Analysis Dates: 4/18/2019 to 4/24/2019

Analyte

C6-C10

Current		Calculations								*MDLV used - 377126-7* All values recovered	
<u>MDL</u>	<u>RL</u>	<u>Ver</u>	<u>Spike</u>	<u>Spike</u>	<u>Std</u>	<u>Edit</u>	<u>MDLV</u>	<u>MDLV</u>	<u>Pass</u>	<u>MDLV</u>	<u>Pass</u>
		<u>MDL</u>	<u>amount</u>	<u>Units</u>	<u>/MDL</u>	<u>Mean</u>	<u>Dev</u>	<u>Reps</u>	<u>Limits?</u>		
64.2	100	64.2	100.0	ug/Kg	1.6	82.9006	12.068924	4	N		

<u>Lab ID</u>	<u>Anal Date</u>	<u>Batch</u>	<u>Samp</u>	<u>Analyst</u>	<u>Method</u>	<u>Prep Method</u>	<u>Equipment</u>	<u>Result</u>	<u>Units</u>	<u>Detected?</u>
240-110308-A-3-A MD	04/18/2019	377126	7	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	AFID	77.2098004	ug/Kg	Pass
240-110308-A-4-A MD	04/18/2019	377126	8	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	AFID	74.6646849	ug/Kg	Pass
240-110306-A-3-A MD	04/24/2019	378036	6	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	YPID	78.9146744	ug/Kg	Pass
240-110306-A-4-A MD	04/24/2019	378036	7	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	YPID	100.813548	ug/Kg	Pass

Detected? Pass = result was detected ; Fail = result <= 0 . If MDLV is < MDL , verify Detection or S/N ratio
 MDLV: Pass = meets Spike/MDL ratio , Spike High =Spike/MDL > ratio , Spike Low = Spike < MDL
 Spike/MDL ratio = 3.00

Method 8015B DRO Detection Limit Validation

Laboratory Eurofins TestAmerica, Canton

Preparation Method: 3546

MDLV

Limit Group GCS 8015B_C DRO 3546 Solid RL/MDL

Analysis Dates: 4/1/2019 to 7/22/2019

Analyte _____

Diesel

Current		Calculations							*MDLV used - 386836-9* All values recovered MDLV: Pass
MDL	RL	Ver MDL	Spike amount	Units	Spike /MDL	Mean	Std Dev	Reps	
34.58	50	34.58	50.0	mg/Kg	1.4	44.6510	5.1007347	8	N

Lab ID	Anal Date	Batch	Samp	Analyst	Method	Prep Method	Equipment	Result	Units	Detected?
240-110302-A-7-A MD	06/18/2019	386836	9	Bolgrin, Deborah	8015B_DRO	3546	A2HP5F	54.7914449	mg/Kg	Pass
240-110302-A-8-A MD	06/18/2019	386836	10	Bolgrin, Deborah	8015B_DRO	3546	A2HP5F	49.4051637	mg/Kg	Pass
240-110302-A-20-A MI	06/18/2019	386887	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP5R	41.8150117	mg/Kg	Pass
240-110302-A-21-A MI	06/18/2019	386887	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP5R	38.6871397	mg/Kg	Pass
240-110302-A-9-A MD	06/18/2019	386849	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP6F	44.5286106	mg/Kg	Pass
240-110302-A-22-A MI	06/18/2019	386859	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP6R	42.2728391	mg/Kg	Pass
240-110302-A-24-A MI	06/18/2019	386849	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP6F	42.1637227	mg/Kg	Pass
240-110302-A-23-A MI	06/18/2019	386859	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP6R	43.5445928	mg/Kg	Pass

Detected? Pass = result was detected ; Fail = result <= 0 . If MDLV is < MDL , verify Detection or S/N ratio
 MDLV: Pass = meets Spike/MDL ratio , Spike High =Spike/MDL > ratio , Spike Low = Spike < MDL
 Spike/MDL ratio = 3.00

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	CHVOAMS09	1.400	5.000	2.973	5
1,1,1-Trichloroethane	CHVOAMS09	0.740	2.500	2.291	5
1,1,2,2-Tetrachloroethane	CHVOAMS09	0.870	2.500	4.436	5
1,1,2-Trichloro-1,2,2-trifluoroethane	CHVOAMS09	1.440	5.000	1.787	5
1,1,2-Trichloroethane	CHVOAMS09	0.730	2.500	2.507	40
1,1-Dichloroethane	CHVOAMS09	0.870	2.500	2.114	5
1,1-Dichloroethene	CHVOAMS09	1.220	5.000	2.697	5
1,1-Dichloropropene	CHVOAMS09	0.650	2.500	2.328	5
1,2,3-Trichlorobenzene	CHVOAMS09	0.620	2.500	4.993	5
1,2,3-Trichloropropane	CHVOAMS09	1.310	2.500	5.837	5
1,2,3-Trimethylbenzene	CHVOAMS09	1.820	2.500	0.131	5
1,2,4-Trichlorobenzene	CHVOAMS09	1.970	2.500	0.414	5
1,2,4-Trimethylbenzene	CHVOAMS09	0.920	2.500	2.310	5
1,2-Dibromo-3-Chloropropane	CHVOAMS09	2.440	2.500	1.563	5
1,2-Dichlorobenzene	CHVOAMS09	0.800	2.500	0.320	5
1,2-Dichloroethane	CHVOAMS09	0.900	2.500	2.248	5
1,2-Dichloroethene, Total	CHVOAMS09	1.900	5.000	5.000	10
1,2-Dichloropropane	CHVOAMS09	0.710	2.500	2.125	5
1,3,5-Trichlorobenzene	CHVOAMS09	2.500	5.000	2.414	5
1,3,5-Trimethylbenzene	CHVOAMS09	1.600	2.500	2.173	5
1,3-Dichlorobenzene	CHVOAMS09	0.710	2.500	2.239	5
1,3-Dichloropropane	CHVOAMS09	0.630	2.500	2.265	5
1,4-Dichlorobenzene	CHVOAMS09	0.660	2.500	2.063	5
1,4-Dioxane	CHVOAMS09	62.070	50.000	21.646	500
2,2-Dichloropropane	CHVOAMS04	1.820	2.500	2.214	5
2-Butanone (MEK)	CHVOAMS09	1.900	5.000	3.640	10
2-Chloro-1,3-butadiene	CHVOAMS09	2.710	2.500	1.799	5
2-Chloroethyl vinyl ether	CHVOAMS09	0.980	5.000	4.606	10
2-Chlorotoluene	CHVOAMS09	0.680	2.500	2.155	5
2-Hexanone	CHVOAMS09	1.010	10.000	3.867	10
2-Methyl-2-propanol	CHVOAMS09	10.000	25.000	0.029	50
2-Methyltetrahydrofuran	CHVOAMS09	5.430	12.500	14.242	50
2-Methyltetrahydropyran	CHVOAMS09	4.820	12.500	15.854	50
2-Nitropropane	CHVOAMS09	24.290	5.000	4.186	50
3-Chloro-1-propene	CHVOAMS09	1.390	2.500	2.192	5
4-Chlorotoluene	CHVOAMS09	0.830	2.500	2.305	5
4-Isopropyltoluene	CHVOAMS09	1.020	2.500	0.124	5
4-Methyl-2-pentanone (MIBK)	CHVOAMS09	1.470	5.000	0.216	10
Acetone	CHVOAMS04	1.660	5.000	4.014	10
Acetonitrile	CHVOAMS09	1.390	25.000	10.912	50
Acrolein	CHVOAMS09	6.230	12.500	2.141	25
Acrylonitrile	CHVOAMS09	5.820	25.000	3.681	50
Benzene	CHVOAMS09	0.630	2.500	2.420	5
Benzyl chloride	CHVOAMS09	2.140	2.500	0.377	5
Bromobenzene	CHVOAMS09	0.990	2.500	2.602	5
Bromoform	CHVOAMS09	1.370	2.500	1.878	5
Bromomethane	CHVOAMS09	0.830	2.500	1.965	10
Butadiene	CHVOAMS09	1.250	2.500	1.845	5
Carbon disulfide	CHVOAMS04	0.550	2.500	1.935	10

DCS = Detection Check Standard

MQL = Method Quantitation Limit

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Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Carbon tetrachloride	CHVOAMS09	1.130	2.500	2.146	5
Chlorobenzene	CHVOAMS09	0.960	2.500	2.539	5
Chlorobromomethane	CHVOAMS09	1.780	2.500	2.263	5
Chlorodibromomethane	CHVOAMS09	0.940	2.500	2.383	5
Chloroethane	CHVOAMS09	1.400	5.000	2.362	10
Chloroform	CHVOAMS09	0.660	2.500	2.440	10
Chloromethane	CHVOAMS09	1.660	5.000	1.375	10
cis-1,2-Dichloroethene	CHVOAMS09	0.830	2.500	2.473	5
cis-1,3-Dichloropropene	CHVOAMS09	0.540	2.500	2.335	5
Cyclohexane	CHVOAMS09	1.920	5.000	2.952	5
Dibromomethane	CHVOAMS09	0.750	2.500	2.411	5
Dichlorobromomethane	CHVOAMS09	0.660	2.500	2.590	5
Dichlorodifluoromethane	CHVOAMS09	1.540	5.000	1.951	5
Dichlorofluoromethane	CHVOAMS09	1.000	2.500	1.932	5
Ethyl acetate	CHVOAMS09	2.810	5.000	3.504	5
Ethyl acrylate	CHVOAMS09	10.660	2.500	1.638	20
Ethyl ether	CHVOAMS09	1.950	2.500	1.822	5
Ethyl methacrylate	CHVOAMS09	1.660	2.500	0.603	5
Ethylbenzene	CHVOAMS09	1.020	2.500	2.624	5
Ethylene Dibromide	CHVOAMS09	1.020	2.500	2.413	5
Hexachlorobutadiene	CHVOAMS09	1.130	2.500	2.306	5
Hexane	CHVOAMS09	1.230	2.500	1.859	5
Iodomethane	CHVOAMS09	2.500	5.000	3.118	5
Isobutyl alcohol	CHVOAMS04	17.160	62.500	76.211	125
Isooctane	CHVOAMS09	10.000	5.000	1.018	10
Isopropyl alcohol	CHVOAMS09	27.470	50.000	34.005	100
Isopropyl ether	CHVOAMS09	1.760	2.500	1.676	5
Isopropylbenzene	CHVOAMS09	0.920	2.500	2.104	5
Methacrylonitrile	CHVOAMS09	5.000	25.000	23.410	50
Methyl acetate	CHVOAMS09	2.910	5.000	2.835	5
Methyl methacrylate	CHVOAMS09	2.860	5.000	3.621	10
Methyl tert-butyl ether	CHVOAMS09	1.830	2.500	2.421	5
Methylcyclohexane	CHVOAMS09	1.460	2.500	2.552	5
Methylene Chloride	CHVOAMS09	2.190	5.000	2.227	10
m-Xylene & p-Xylene	CHVOAMS09	1.520	2.500	2.525	5
Naphthalene	CHVOAMS09	2.370	2.500	6.777	10
n-Butyl acetate	CHVOAMS09	2.370	5.000	2.147	5
n-Butylbenzene	CHVOAMS04	0.580	2.500	1.992	5
n-Heptane	CHVOAMS09	10.000	2.500	1.474	20
N-Propylbenzene	CHVOAMS09	0.950	2.500	2.016	5
o-Xylene	CHVOAMS09	1.130	5.000	2.960	5
Propionitrile	CHVOAMS09	2.360	50.000	18.349	5
sec-Butylbenzene	CHVOAMS09	0.700	2.500	0.193	5
Styrene	CHVOAMS09	0.710	2.500	2.925	5
tert-Butylbenzene	CHVOAMS09	0.950	2.500	2.237	5
Tetrachloroethene	CHVOAMS09	0.710	2.500	2.350	5
Tetrahydrofuran	CHVOAMS09	5.390	10.000	4.590	50
Tetrahydropyran	CHVOAMS09	5.220	12.500	13.469	50
Toluene	CHVOAMS09	1.380	2.500	2.561	5

DCS = Detection Check Standard

MQL = Method Quantitation Limit

Page 2 of 3

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
trans-1,2-Dichloroethene	CHVOAMS09	1.140	2.500	2.470	5
trans-1,3-Dichloropropene	CHVOAMS09	0.580	2.500	2.304	5
trans-1,4-Dichloro-2-butene	CHVOAMS09	1.900	2.500	4.958	5
Trichloroethene	CHVOAMS09	1.400	2.500	2.306	5
Trichlorofluoromethane	CHVOAMS09	0.660	2.500	1.842	10
Vinyl acetate	CHVOAMS09	0.930	5.000	3.262	10
Vinyl chloride	CHVOAMS04	0.900	2.500	1.917	10
Xylenes, Total	CHVOAMS09	1.130	5.000	2.500	5

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

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Case Narrative

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Job ID: 600-189491-2

Laboratory: Eurofins TestAmerica, Houston

Narrative

**Job Narrative
600-189491-2**

Comments

No additional comments.

Receipt

The samples were received on 7/31/2019 9:51 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.7° C.

All applicable analytical narratives can be found in the TRRP Checklist section of this report.

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Method Summary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
3546	Microwave Extraction	SW846	TAL CAN
5030A	Purge and Trap	SW846	TAL CAN
5035	Closed System Purge & Trap/Laboratory Preservation	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-189491-1	CDU-01-0-1	Solid	07/30/19 11:55	07/31/19 09:51	
600-189491-4	CDU-02-0-1	Solid	07/30/19 12:25	07/31/19 09:51	
600-189491-7	CDU-03-0-1	Solid	07/30/19 13:00	07/31/19 09:51	
600-189491-12	CDU-04-3-4	Solid	07/30/19 13:40	07/31/19 09:51	
600-189491-17	CDU-05-4-5	Solid	07/30/19 14:20	07/31/19 09:51	
600-189491-27	CDU-07-4-5	Solid	07/30/19 15:40	07/31/19 09:51	

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Client Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Client Sample ID: CDU-01-0-1

Lab Sample ID: 600-189491-1

Date Collected: 07/30/19 11:55

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000618	U	0.00490	0.000618	mg/Kg		07/31/19 21:00	08/13/19 17:18	1
Ethylbenzene	0.00100	U	0.00490	0.00100	mg/Kg		07/31/19 21:00	08/13/19 17:18	1
Toluene	0.00135	U	0.00490	0.00135	mg/Kg		07/31/19 21:00	08/13/19 17:18	1
Xylenes, Total	0.00111	U	0.00490	0.00111	mg/Kg		07/31/19 21:00	08/13/19 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130				07/31/19 21:00	08/13/19 17:18	1
Dibromofluoromethane	82		68 - 140				07/31/19 21:00	08/13/19 17:18	1
Toluene-d8 (Surr)	97		50 - 130				07/31/19 21:00	08/13/19 17:18	1
4-Bromofluorobenzene	124		57 - 140				07/31/19 21:00	08/13/19 17:18	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	65.0	U H	101	65.0	ug/Kg		08/15/19 08:28	08/16/19 01:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	79		20 - 140				08/15/19 08:28	08/16/19 01:20	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.8	U H	50.3	34.8	mg/Kg		08/14/19 12:05	08/15/19 16:20	1
C28-C36	34.8	U H	50.3	34.8	mg/Kg		08/14/19 12:05	08/15/19 16:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	69		26 - 125				08/14/19 12:05	08/15/19 16:20	1

Client Sample ID: CDU-02-0-1

Lab Sample ID: 600-189491-4

Date Collected: 07/30/19 12:25

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000621	U	0.00493	0.000621	mg/Kg		07/31/19 21:00	08/13/19 17:46	1
Ethylbenzene	0.00101	U	0.00493	0.00101	mg/Kg		07/31/19 21:00	08/13/19 17:46	1
Toluene	0.00136	U	0.00493	0.00136	mg/Kg		07/31/19 21:00	08/13/19 17:46	1
Xylenes, Total	0.00111	U	0.00493	0.00111	mg/Kg		07/31/19 21:00	08/13/19 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	72		61 - 130				07/31/19 21:00	08/13/19 17:46	1
Dibromofluoromethane	82		68 - 140				07/31/19 21:00	08/13/19 17:46	1
Toluene-d8 (Surr)	95		50 - 130				07/31/19 21:00	08/13/19 17:46	1
4-Bromofluorobenzene	121		57 - 140				07/31/19 21:00	08/13/19 17:46	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.9	U H	99.6	63.9	ug/Kg		08/15/19 08:28	08/15/19 22:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	87		20 - 140				08/15/19 08:28	08/15/19 22:34	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Client Sample ID: CDU-02-0-1

Lab Sample ID: 600-189491-4

Date Collected: 07/30/19 12:25

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	35.9	U H	52.0	35.9	mg/Kg		08/14/19 12:05	08/15/19 16:49	1
C28-C36	35.9	U H	52.0	35.9	mg/Kg		08/14/19 12:05	08/15/19 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	76		26 - 125				08/14/19 12:05	08/15/19 16:49	1

Client Sample ID: CDU-03-0-1

Lab Sample ID: 600-189491-7

Date Collected: 07/30/19 13:00

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00444	0.000560	mg/Kg		07/31/19 21:00	08/13/19 18:14	1
Ethylbenzene	0.000906	U	0.00444	0.000906	mg/Kg		07/31/19 21:00	08/13/19 18:14	1
Toluene	0.00123	U	0.00444	0.00123	mg/Kg		07/31/19 21:00	08/13/19 18:14	1
Xylenes, Total	0.00100	U	0.00444	0.00100	mg/Kg		07/31/19 21:00	08/13/19 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>1,2</i> -Dichloroethane- <i>d4</i> (Surr)	75		61 - 130				07/31/19 21:00	08/13/19 18:14	1
<i>Dibromofluoromethane</i>	83		68 - 140				07/31/19 21:00	08/13/19 18:14	1
<i>Toluene-d8</i> (Surr)	95		50 - 130				07/31/19 21:00	08/13/19 18:14	1
<i>4</i> -Bromofluorobenzene	122		57 - 140				07/31/19 21:00	08/13/19 18:14	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.7	U H	99.2	63.7	ug/Kg		08/15/19 08:28	08/15/19 23:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Trifluorotoluene</i> (Surr)	90		20 - 140				08/15/19 08:28	08/15/19 23:16	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.7	U H	48.7	33.7	mg/Kg		08/14/19 12:05	08/15/19 17:18	1
C28-C36	33.7	U H	48.7	33.7	mg/Kg		08/14/19 12:05	08/15/19 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	72		26 - 125				08/14/19 12:05	08/15/19 17:18	1

Client Sample ID: CDU-04-3-4

Lab Sample ID: 600-189491-12

Date Collected: 07/30/19 13:40

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00139	U	0.0110	0.00139	mg/Kg		07/31/19 21:00	08/13/19 18:43	1
Ethylbenzene	0.00225	U	0.0110	0.00225	mg/Kg		07/31/19 21:00	08/13/19 18:43	1
Toluene	0.00304	U	0.0110	0.00304	mg/Kg		07/31/19 21:00	08/13/19 18:43	1
Xylenes, Total	0.00249	U	0.0110	0.00249	mg/Kg		07/31/19 21:00	08/13/19 18:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>1,2</i> -Dichloroethane- <i>d4</i> (Surr)	77		61 - 130				07/31/19 21:00	08/13/19 18:43	1
<i>Dibromofluoromethane</i>	82		68 - 140				07/31/19 21:00	08/13/19 18:43	1

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Client Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Client Sample ID: CDU-04-3-4

Lab Sample ID: 600-189491-12

Date Collected: 07/30/19 13:40

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		50 - 130	07/31/19 21:00	08/13/19 18:43	1
4-Bromofluorobenzene	121		57 - 140	07/31/19 21:00	08/13/19 18:43	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	35.6	J H	48.9	33.8	mg/Kg		08/20/19 09:29	08/21/19 15:17	1
C28-C36	33.8	U H	48.9	33.8	mg/Kg		08/20/19 09:29	08/21/19 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		26 - 125	08/20/19 09:29	08/21/19 15:17	1

Client Sample ID: CDU-05-4-5

Lab Sample ID: 600-189491-17

Date Collected: 07/30/19 14:20

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000721	U	0.00572	0.000721	mg/Kg		07/31/19 21:00	08/13/19 19:12	1
Ethylbenzene	0.00117	U	0.00572	0.00117	mg/Kg		07/31/19 21:00	08/13/19 19:12	1
Toluene	0.00158	U	0.00572	0.00158	mg/Kg		07/31/19 21:00	08/13/19 19:12	1
Xylenes, Total	0.00129	U	0.00572	0.00129	mg/Kg		07/31/19 21:00	08/13/19 19:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		61 - 130	07/31/19 21:00	08/13/19 19:12	1
Dibromofluoromethane	83		68 - 140	07/31/19 21:00	08/13/19 19:12	1
Toluene-d8 (Surr)	95		50 - 130	07/31/19 21:00	08/13/19 19:12	1
4-Bromofluorobenzene	120		57 - 140	07/31/19 21:00	08/13/19 19:12	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.8	U H	99.4	63.8	ug/Kg		08/15/19 08:28	08/15/19 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	82		20 - 140	08/15/19 08:28	08/15/19 23:58	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	35.5	U H	51.4	35.5	mg/Kg		08/14/19 12:05	08/15/19 18:45	1
C28-C36	35.5	U H	51.4	35.5	mg/Kg		08/14/19 12:05	08/15/19 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	77		26 - 125	08/14/19 12:05	08/15/19 18:45	1

Client Sample ID: CDU-07-4-5

Lab Sample ID: 600-189491-27

Date Collected: 07/30/19 15:40

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00103	U	0.00814	0.00103	mg/Kg		07/31/19 21:00	08/13/19 19:39	1
Ethylbenzene	0.00166	U	0.00814	0.00166	mg/Kg		07/31/19 21:00	08/13/19 19:39	1
Toluene	0.00225	U	0.00814	0.00225	mg/Kg		07/31/19 21:00	08/13/19 19:39	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Client Sample ID: CDU-07-4-5

Lab Sample ID: 600-189491-27

Date Collected: 07/30/19 15:40

Matrix: Solid

Date Received: 07/31/19 09:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.00184	U	0.00814	0.00184	mg/Kg		07/31/19 21:00	08/13/19 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130	07/31/19 21:00	08/13/19 19:39	1
Dibromofluoromethane	84		68 - 140	07/31/19 21:00	08/13/19 19:39	1
Toluene-d8 (Surr)	95		50 - 130	07/31/19 21:00	08/13/19 19:39	1
4-Bromofluorobenzene	124		57 - 140	07/31/19 21:00	08/13/19 19:39	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	62.7	U H	97.7	62.7	ug/Kg		08/15/19 08:28	08/16/19 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	86		20 - 140	08/15/19 08:28	08/16/19 00:39	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.2	U H	47.9	33.2	mg/Kg		08/14/19 12:05	08/15/19 19:13	1
C28-C36	33.2	U H	47.9	33.2	mg/Kg		08/14/19 12:05	08/15/19 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		26 - 125	08/14/19 12:05	08/15/19 19:13	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Analyte was not detected at or above the SDL.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-189491-1	CDU-01-0-1	73	82	97	124
600-189491-4	CDU-02-0-1	72	82	95	121
600-189491-7	CDU-03-0-1	75	83	95	122
600-189491-12	CDU-04-3-4	77	82	98	121
600-189491-17	CDU-05-4-5	77	83	95	120
600-189491-27	CDU-07-4-5	79	84	95	124
LCS 600-271800/3	Lab Control Sample	75	87	101	124
LCS 600-271800/4	Lab Control Sample Dup	70	85	101	129
MB 600-271800/6	Method Blank	83	86	95	116

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT2
		(20-140)
600-189372-A-27-D MS	Matrix Spike	89
600-189372-A-27-E MSD	Matrix Spike Duplicate	90
600-189491-1	CDU-01-0-1	79
600-189491-4	CDU-02-0-1	87
600-189491-7	CDU-03-0-1	90
600-189491-17	CDU-05-4-5	82
600-189491-27	CDU-07-4-5	86
LCS 240-396150/2-B	Lab Control Sample	88
MB 240-396150/1-B	Method Blank	85

Surrogate Legend

TFT = Trifluorotoluene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1
		(26-125)
600-189491-1	CDU-01-0-1	69
600-189491-4	CDU-02-0-1	76
600-189491-7	CDU-03-0-1	72
600-189491-7 MS	CDU-03-0-1	82
600-189491-7 MSD	CDU-03-0-1	66
600-189491-12	CDU-04-3-4	71
600-189491-17	CDU-05-4-5	77
600-189491-27	CDU-07-4-5	76
LCS 240-396000/16-A	Lab Control Sample	80
LCS 240-396759/2-A	Lab Control Sample	72

Eurofins TestAmerica, Houston

Surrogate Summary

Client: AECOM

Job ID: 600-189491-2

Project/Site: Central Drinkard Unit

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (26-125)
MB 240-396000/15-A	Method Blank	69
MB 240-396759/1-A	Method Blank	82

Surrogate Legend

OTPH = o-Terphenyl (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

QC Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-271800/6
Matrix: Solid
Analysis Batch: 271800

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/13/19 16:50	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/13/19 16:50	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/13/19 16:50	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/13/19 16:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130		08/13/19 16:50	1
Dibromofluoromethane	86		68 - 140		08/13/19 16:50	1
Toluene-d8 (Surr)	95		50 - 130		08/13/19 16:50	1
4-Bromofluorobenzene	116		57 - 140		08/13/19 16:50	1

Lab Sample ID: LCS 600-271800/3
Matrix: Solid
Analysis Batch: 271800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04722		mg/Kg		94	70 - 131
Ethylbenzene	0.0500	0.04716		mg/Kg		94	66 - 130
Toluene	0.0500	0.04980		mg/Kg		100	67 - 130
Xylenes, Total	0.100	0.09130		mg/Kg		91	63 - 130
m-Xylene & p-Xylene	0.0500	0.04569		mg/Kg		91	64 - 130
o-Xylene	0.0500	0.04561		mg/Kg		91	62 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	87		68 - 140
Toluene-d8 (Surr)	101		50 - 130
4-Bromofluorobenzene	124		57 - 140

Lab Sample ID: LCSD 600-271800/4
Matrix: Solid
Analysis Batch: 271800

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04739		mg/Kg		95	70 - 131	0	30
Ethylbenzene	0.0500	0.04754		mg/Kg		95	66 - 130	1	30
Toluene	0.0500	0.05063		mg/Kg		101	67 - 130	2	30
Xylenes, Total	0.100	0.09190		mg/Kg		92	63 - 130	1	30
m-Xylene & p-Xylene	0.0500	0.04564		mg/Kg		91	64 - 130	0	30
o-Xylene	0.0500	0.04626		mg/Kg		93	62 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	101		50 - 130
4-Bromofluorobenzene	129		57 - 140

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QC Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 240-396150/1-B
Matrix: Solid
Analysis Batch: 396273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396150

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.2	U	100	64.2	ug/Kg		08/15/19 08:28	08/15/19 18:42	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	85		20 - 140				08/15/19 08:28	08/15/19 18:42	1

Lab Sample ID: LCS 240-396150/2-B
Matrix: Solid
Analysis Batch: 396273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics [C6 - C10]	800	802.5		ug/Kg		100	75 - 126
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Trifluorotoluene (Surr)	88		20 - 140				

Lab Sample ID: 600-189372-A-27-D MS
Matrix: Solid
Analysis Batch: 396273

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 396150

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics [C6 - C10]	66.0	U	803	689.0		ug/Kg		86	10 - 134
Surrogate	MS %Recovery	MS Qualifier	Limits						
Trifluorotoluene (Surr)	89		20 - 140						

Lab Sample ID: 600-189372-A-27-E MSD
Matrix: Solid
Analysis Batch: 396273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 396150

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics [C6 - C10]	66.0	U	777	621.1		ug/Kg		80	10 - 134	10	40
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Trifluorotoluene (Surr)	90		20 - 140								

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 240-396000/15-A
Matrix: Solid
Analysis Batch: 396215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396000

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.6	U	50.0	34.6	mg/Kg		08/14/19 12:05	08/15/19 15:23	1
C28-C36	34.6	U	50.0	34.6	mg/Kg		08/14/19 12:05	08/15/19 15:23	1

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QC Sample Results

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 240-396000/15-A
Matrix: Solid
Analysis Batch: 396215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396000

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	69		26 - 125	08/14/19 12:05	08/15/19 15:23	1

Lab Sample ID: LCS 240-396000/16-A
Matrix: Solid
Analysis Batch: 396215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10 - C28]	250	192.7		mg/Kg		77	45 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl (Surr)	80		26 - 125

Lab Sample ID: 600-189491-7 MS
Matrix: Solid
Analysis Batch: 396215

Client Sample ID: CDU-03-0-1
Prep Type: Total/NA
Prep Batch: 396000

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10 - C28]	33.7	U H	260	201.7		mg/Kg		78	27 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl (Surr)	82		26 - 125

Lab Sample ID: 600-189491-7 MSD
Matrix: Solid
Analysis Batch: 396215

Client Sample ID: CDU-03-0-1
Prep Type: Total/NA
Prep Batch: 396000

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Diesel Range Organics [C10 - C28]	33.7	U H	239	141.1		mg/Kg		59	27 - 120	35	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl (Surr)	66		26 - 125

Lab Sample ID: MB 240-396759/1-A
Matrix: Solid
Analysis Batch: 396965

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396759

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.6	U	50.0	34.6	mg/Kg		08/20/19 09:29	08/21/19 15:45	1
C28-C36	34.6	U	50.0	34.6	mg/Kg		08/20/19 09:29	08/21/19 15:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	82		26 - 125	08/20/19 09:29	08/21/19 15:45	1

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QC Sample Results

Client: AECOM
 Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 240-396759/2-A
Matrix: Solid
Analysis Batch: 396965

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10 - C28]	250	181.4		mg/Kg		73	45 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl (Surr)	72		26 - 125				

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- 14
- 15
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Unadjusted Detection Limits

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Method: 8260B - Volatile Organic Compounds (GC/MS)**Prep: 5035**

Analyte	MQL	MDL	Units
Benzene	0.00500	0.000630	mg/Kg
Ethylbenzene	0.00500	0.00102	mg/Kg
Toluene	0.00500	0.00138	mg/Kg
Xylenes, Total	0.00500	0.00113	mg/Kg

Method: 8015B - Gasoline Range Organics - (GC)**Prep: 5030A**

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	100	64.2	ug/Kg

Method: 8015B - Diesel Range Organics (DRO) (GC)**Prep: 3546**

Analyte	MQL	MDL	Units
C28-C36	50.0	34.6	mg/Kg
Diesel Range Organics [C10 - C28]	50.0	34.6	mg/Kg

QC Association Summary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

GC/MS VOA

Prep Batch: 270944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-1	CDU-01-0-1	Total/NA	Solid	5035	
600-189491-4	CDU-02-0-1	Total/NA	Solid	5035	
600-189491-7	CDU-03-0-1	Total/NA	Solid	5035	
600-189491-12	CDU-04-3-4	Total/NA	Solid	5035	
600-189491-17	CDU-05-4-5	Total/NA	Solid	5035	
600-189491-27	CDU-07-4-5	Total/NA	Solid	5035	

Analysis Batch: 271800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-1	CDU-01-0-1	Total/NA	Solid	8260B	270944
600-189491-4	CDU-02-0-1	Total/NA	Solid	8260B	270944
600-189491-7	CDU-03-0-1	Total/NA	Solid	8260B	270944
600-189491-12	CDU-04-3-4	Total/NA	Solid	8260B	270944
600-189491-17	CDU-05-4-5	Total/NA	Solid	8260B	270944
600-189491-27	CDU-07-4-5	Total/NA	Solid	8260B	270944
MB 600-271800/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-271800/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-271800/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 396150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-1	CDU-01-0-1	Total/NA	Solid	5030A	
600-189491-4	CDU-02-0-1	Total/NA	Solid	5030A	
600-189491-7	CDU-03-0-1	Total/NA	Solid	5030A	
600-189491-17	CDU-05-4-5	Total/NA	Solid	5030A	
600-189491-27	CDU-07-4-5	Total/NA	Solid	5030A	
MB 240-396150/1-B	Method Blank	Total/NA	Solid	5030A	
LCS 240-396150/2-B	Lab Control Sample	Total/NA	Solid	5030A	
600-189372-A-27-D MS	Matrix Spike	Total/NA	Solid	5030A	
600-189372-A-27-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5030A	

Analysis Batch: 396273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-1	CDU-01-0-1	Total/NA	Solid	8015B	396150
600-189491-4	CDU-02-0-1	Total/NA	Solid	8015B	396150
600-189491-7	CDU-03-0-1	Total/NA	Solid	8015B	396150
600-189491-17	CDU-05-4-5	Total/NA	Solid	8015B	396150
600-189491-27	CDU-07-4-5	Total/NA	Solid	8015B	396150
MB 240-396150/1-B	Method Blank	Total/NA	Solid	8015B	396150
LCS 240-396150/2-B	Lab Control Sample	Total/NA	Solid	8015B	396150
600-189372-A-27-D MS	Matrix Spike	Total/NA	Solid	8015B	396150
600-189372-A-27-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	396150

GC Semi VOA

Prep Batch: 396000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-1	CDU-01-0-1	Total/NA	Solid	3546	
600-189491-4	CDU-02-0-1	Total/NA	Solid	3546	
600-189491-7	CDU-03-0-1	Total/NA	Solid	3546	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

GC Semi VOA (Continued)

Prep Batch: 396000 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-17	CDU-05-4-5	Total/NA	Solid	3546	
600-189491-27	CDU-07-4-5	Total/NA	Solid	3546	
MB 240-396000/15-A	Method Blank	Total/NA	Solid	3546	
LCS 240-396000/16-A	Lab Control Sample	Total/NA	Solid	3546	
600-189491-7 MS	CDU-03-0-1	Total/NA	Solid	3546	
600-189491-7 MSD	CDU-03-0-1	Total/NA	Solid	3546	

Analysis Batch: 396215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-1	CDU-01-0-1	Total/NA	Solid	8015B	396000
600-189491-4	CDU-02-0-1	Total/NA	Solid	8015B	396000
600-189491-7	CDU-03-0-1	Total/NA	Solid	8015B	396000
600-189491-17	CDU-05-4-5	Total/NA	Solid	8015B	396000
600-189491-27	CDU-07-4-5	Total/NA	Solid	8015B	396000
MB 240-396000/15-A	Method Blank	Total/NA	Solid	8015B	396000
LCS 240-396000/16-A	Lab Control Sample	Total/NA	Solid	8015B	396000
600-189491-7 MS	CDU-03-0-1	Total/NA	Solid	8015B	396000
600-189491-7 MSD	CDU-03-0-1	Total/NA	Solid	8015B	396000

Prep Batch: 396759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-12	CDU-04-3-4	Total/NA	Solid	3546	
MB 240-396759/1-A	Method Blank	Total/NA	Solid	3546	
LCS 240-396759/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 396965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-12	CDU-04-3-4	Total/NA	Solid	8015B	396759
MB 240-396759/1-A	Method Blank	Total/NA	Solid	8015B	396759
LCS 240-396759/2-A	Lab Control Sample	Total/NA	Solid	8015B	396759

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Client Sample ID: CDU-01-0-1**Lab Sample ID: 600-189491-1****Date Collected: 07/30/19 11:55****Matrix: Solid****Date Received: 07/31/19 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270944	07/31/19 21:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 17:18	WS1	TAL HOU
Total/NA	Prep	5030A			396150	08/15/19 08:28	KMG	TAL CAN
Total/NA	Analysis	8015B		1	396273	08/16/19 01:20	LKG	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 16:20	LKG	TAL CAN

Client Sample ID: CDU-02-0-1**Lab Sample ID: 600-189491-4****Date Collected: 07/30/19 12:25****Matrix: Solid****Date Received: 07/31/19 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270944	07/31/19 21:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 17:46	WS1	TAL HOU
Total/NA	Prep	5030A			396150	08/15/19 08:28	KMG	TAL CAN
Total/NA	Analysis	8015B		1	396273	08/15/19 22:34	LKG	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 16:49	LKG	TAL CAN

Client Sample ID: CDU-03-0-1**Lab Sample ID: 600-189491-7****Date Collected: 07/30/19 13:00****Matrix: Solid****Date Received: 07/31/19 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270944	07/31/19 21:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 18:14	WS1	TAL HOU
Total/NA	Prep	5030A			396150	08/15/19 08:28	KMG	TAL CAN
Total/NA	Analysis	8015B		1	396273	08/15/19 23:16	LKG	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 17:18	LKG	TAL CAN

Client Sample ID: CDU-04-3-4**Lab Sample ID: 600-189491-12****Date Collected: 07/30/19 13:40****Matrix: Solid****Date Received: 07/31/19 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270944	07/31/19 21:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 18:43	WS1	TAL HOU
Total/NA	Prep	3546			396759	08/20/19 09:29	SLD	TAL CAN
Total/NA	Analysis	8015B		1	396965	08/21/19 15:17	DEB	TAL CAN

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM
 Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Client Sample ID: CDU-05-4-5

Lab Sample ID: 600-189491-17

Date Collected: 07/30/19 14:20

Matrix: Solid

Date Received: 07/31/19 09:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270944	07/31/19 21:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 19:12	WS1	TAL HOU
Total/NA	Prep	5030A			396150	08/15/19 08:28	KMG	TAL CAN
Total/NA	Analysis	8015B		1	396273	08/15/19 23:58	LKG	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 18:45	LKG	TAL CAN

Client Sample ID: CDU-07-4-5

Lab Sample ID: 600-189491-27

Date Collected: 07/30/19 15:40

Matrix: Solid

Date Received: 07/31/19 09:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270944	07/31/19 21:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 19:39	WS1	TAL HOU
Total/NA	Prep	5030A			396150	08/15/19 08:28	KMG	TAL CAN
Total/NA	Analysis	8015B		1	396273	08/16/19 00:39	LKG	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 19:13	LKG	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: AECOM
Project/Site: Central Drinkard Unit

Job ID: 600-189491-2

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
California	State Program	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Connecticut	State Program	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Georgia	State Program	N/A	02-23-20
Illinois	NELAP	200004	07-31-20
Iowa	State Program	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State Program	58	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Kentucky (WW)	State Program	98016	12-31-19
Minnesota	NELAP	039-999-348	12-31-19 *
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Ohio VAP	State Program	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-19 *
Pennsylvania	NELAP	68-00340	08-31-19
Texas	NELAP	T104704517-19-11	08-31-20
Texas	NELAP	T104704517-18-10	08-31-19
USDA	Federal	P330-16-00404	12-28-19
Virginia	NELAP	460175	09-14-19 *
Virginia	NELAP	010101	09-14-19
Washington	State	C971	01-12-20
Washington	State Program	C971	01-12-20 *
West Virginia DEP	State	210	12-31-19
West Virginia DEP	State Program	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Houston

eurofins TestAmerica, Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone: 713-690-4444 Fax: 713-690-5646



Chain of Custody Record

Environment Testing
 TestAmerica



Client Information (Sub Contract Lab)		Sampler:	Lab PM:		Carrier Tracking No(s):	COC No:
Client Contact		Phone:	Kudchadkar, Sachin G		State of Origin:	600-41072.1
Shipping/Receiving		E-Mail:		Texas		Page 1 of 1
Company		TestAmerica Laboratories, Inc.		sachin.kudchadkar@testamericainc.com		Job #
Address		4101 Shuffel Street NW,		Accreditations Required (See note):		600-189491-1
City		North Canton		NELAP - Texas		Preservation Codes:
State, Zip		OH, 44720		Field Filtered Sample (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Phone:		330-497-9396(Tel) 330-497-0772(Fax)		Perform MS/MSD (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify)
Email:				8015B_DRO/3546 (MOD) Diesel Range Organics (C10-C28)		Special Instructions/Note:
Project Name:		Central Drinkard Unit		8015B_GRO/5035A_FM (MOD) Copy Analyses		GTC CO2G
Site:				Total Number of Containers		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=organic, BT=Blood, AA=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO/3546 (MOD) Diesel Range Organics (C10-C28)	8015B_GRO/5035A_FM (MOD) Copy Analyses	Analysis Requested	Total Number of Containers
CDU-01-2-3 (600-189491-3)	7/30/19	12:05 Central	Solid	Solid	X	X					5
CDU-02-2-3 (600-189491-6)	7/30/19	12:35 Central	Solid	Solid	X	X					5
CDU-03-1-2 (600-189491-8)	7/30/19	13:05 Central	Solid	Solid	X	X					5
CDU-04-0-1 (600-189491-9)	7/30/19	13:25 Central	Solid	Solid	X	X					7
CDU-05-0-1 (600-189491-13)	7/30/19	14:00 Central	Solid	Solid	X	X					7
CDU-06-1-2 (600-189491-19)	7/30/19	14:55 Central	Solid	Solid	X	X					7
CDU-06-4-5 (600-189491-22)	7/30/19	15:10 Central	Solid	Solid	X	X					7
CDU-07-0-1 (600-189491-23)	7/30/19	15:20 Central	Solid	Solid	X	X					7

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Primary Deliverable Rank: 2		Method of Shipment:	
Empty Kit Relinquished by		Date:	
Relinquished by		Date/Time:	
Relinquished by		Date/Time:	
Relinquished by		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____

Canton Facility

Client LTA Houston Site Name _____ Cooler unpacked by: [Signature]

Cooler Received on 8-2-19 Opened on 8-2-19

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ **Storage Location** _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 4.2 °C Corrected Cooler Temp. 4.3 °C
 IR GUN #36 (CF +0.6°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No


10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738

13. Were VOAs on the COC? Yes No

14. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.

15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

16. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation → Date/Time VOAs Frozen: 4600

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____

Canton Facility _____

Client ETA Houston Site Name _____ Cooler unpacked by: [Signature]

Cooler Received on 8-2-19 Opened on 8-2-19

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 70 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

- Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 4.2 °C Corrected Cooler Temp. 4.3 °C
 IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Are these work share samples? Yes No
 If yes, Questions 12-16 have been checked at the originating laboratory.
- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
- Were VOAs on the COC? Yes No
- Were air bubbles >6 mm in any VOA vials? Yes No NA ● ← Larger than this.
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

<u>189491</u>	<u># 1 G</u>	<u>202</u>	<u>Did not receive COC for these samples</u>
<u>189491</u>	<u># 4 G</u>	<u>202</u>	<u>E, F 2 40ml vials</u>
	<u># 7 G</u>	<u>202</u>	<u>F, F 2 40ml vials</u>
	<u># 17 G</u>	<u>202</u>	<u>F, F, G, 3 40ml vials</u>
	<u># 27 H</u>	<u>202</u>	<u>E, F, G 3 40ml vials</u>
	<u># 12</u>	<u>E, F, G</u>	<u>3 40ml vials</u>

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation → Date/Time VOAs Frozen: 1600

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

2.8/2.9

Chain of Custody Record



Environment Testing
TestAmerica



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving TestAmerica Laboratories, Inc. Address: 4101 Shuffel Street NW City: North Canton State, Zip: OH, 44720 Phone: 330-497-9396(Tel) 330-497-0772(Fax) Email:		Phone:	Kudchadkar, Sachin G	Texas	600-41217-1
Project Name: Central Drinkard Unit Site:		Due Date Requested: 8/7/2019 TAT Requested (days): PO #: W/O #: Project #: 60008660 SSOW#:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Sample Identification - Client ID (Lab ID) CDU-04-1-2 (600-189491-10)		Sample Date: 7/30/19 Sample Time: 13:30 Central Sample Type (C=Comp, G=grab): Matrix (W=water, S=solid, O=wastewater, B=TRIUM, AS=AL): Solid	Accreditation Required (See note): NELAP - Texas	Analysis Requested Organics (C6-C10) 8015B_GRO/50308_SolidNAC Gasoline Range	Job #: 600-189491-1 Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:
Sample Identification - Client ID (Lab ID) CDU-04-1-2 (600-189491-10)		Field Filtered Sample (Yes or No) X Form MS/MSD (Yes or No) X Total Number of Containers 1	Special Instructions/Note: GC		
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: <i>grape</i> Date: <i>8/19/19</i> 1000 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No					

Ver: 01/16/2019



Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client ETA Site Name _____ Cooler unpacked by: Ryan Cribley
Cooler Received on 8-9-19 Opened on 8-9-19 1045
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 2.8 °C Corrected Cooler Temp. 2.9 °C
IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
13. Were VOAs on the COC? Yes No NA
14. Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
16. Was a LL Hg or Me Hg trip blank present? Yes No NA

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofin TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Client Information (Sub Contract Lab)		Sampler: Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		GOC No: 600-41239-1	
Client Contact: Shipping/Receiving		Phone: E-Mail: sachin.kudchadkar@testamericainc.com		State of Origin: Texas		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		Address: 4101 Shuffel Street NW, North Canton, OH, 44720		Accreditations Required (See note): NELAP - Texas		Job #: 600-189491-1	
Phone: 330-497-9396(Tel) 330-497-0772(Fax)		PO #: WO #:		Analysis Requested		Preservation Codes:	
Email: Project #: 60008660		SSOW#:		Due Date Requested: 8/7/2019		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
City: North Canton		TAT Requested (days):		Field Filtered Sample (Yes or No)		Other:	
State, Zip: OH, 44720		Sample Date		Perform MS/MSD (Yes or No)		Total Number of Containers	
Phone: 330-497-9396(Tel) 330-497-0772(Fax)		Sample Time		8015B_DRO/346 (MOD) Diesel Range Organics (C10- C28)		8015B_GRO/50308 Solid/Range Organics (C6-C10)	
Email: Project Name: Central Drinkard Unit		Sample Date		8015B_DRO/346 (MOD) Diesel Range Organics (C10- C28)		8015B_GRO/50308 Solid/Range Organics (C6-C10)	
Site: Sample Identification - Client ID (Lab ID)		Sample Date		8015B_DRO/346 (MOD) Diesel Range Organics (C10- C28)		8015B_GRO/50308 Solid/Range Organics (C6-C10)	
CDU-01-2-3 (600-189491-3)		7/30/19		X		X	
CDU-02-2-3 (600-189491-6)		7/30/19		X		X	
CDU-03-1-2 (600-189491-8)		7/30/19		X		X	
Matrix (W=water, S=solid, O=oil, A=air)		Sample Type (C=Comp, G=grab)		Preservation Code:		Special Instructions/Note: C82	
Solid		Central		12:05		1	
Solid		Central		12:35		1	
Solid		Central		13:05		1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed
 Return To Client
 Disposal By Lab
 Archive For Months

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: [Signature] Date: [Blank]
 Relinquished by: [Signature] Date: 8/10/19 945
 Relinquished by: [Signature] Date: [Blank]
 Relinquished by: [Signature] Date: [Blank]

Custody Seals Intact: Yes No
 Custody Seal No.: [Blank]
 Cooler Temperature(s) °C and Other Remarks: [Blank]



Ver: 01/16/2019

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client JA Houston Site Name _____ Cooler unpacked by: _____
Cooler Received on 8/10/19 Opened on 8/10/19
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____
Receipt After-hours: Drop-off Date/Time _____ **Storage Location** _____

TestAmerica Cooler # 74 Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 1.2 °C Corrected Cooler Temp. 1.3 °C
IR GUN #36 (CF +0.6°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Environics TestAmerica, Cedar Falls
Cedar Falls, IA 51413
Phone: 319-277-2431 Fax: 319-277-2425

1.4/C1.5 Chain of Custody Record



Client Information (Sub Contract Lab) Company: TestAmerica Laboratories, Inc. Address: 4101 Shuffel Street NW, North Canton, OH, 44720 Phone: 330-497-9396(Tel) 330-497-0772(Fax) Email: [Redacted] Project Name: 463361-463365 Site: [Redacted]		Contact: Perfect Zach T Email: zach.tbindert@testamericainc.com State of Origin: Minnesota Job #: 310-162070-1 Accreditations Required (See note): NELAP - Minnesota	
Due Date Requested: 8/19/2019 TAT Requested (days): [Redacted]		Analysis Requested A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: [Redacted]	
Sample Identification - Client ID (Lab ID) 463362 (310-162070-1)		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	
Sample Date 8/7/19		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
Sample Time 10:50 Central		3310C (MOD) TOC <input checked="" type="checkbox"/>	
Sample Type (C=Comp, G=grab) Preservation Code: Water		Total Number of containers 3	
Matrix (W=Water, S=solid, O=soil, D=dredge, B=biogenic, A=acid) [Redacted]		Special Instructions/Note: WISO	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/est/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (Specify) Primary Deliverable Rank: 2

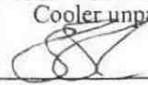

Empty Kit Relinquished by Relinquished by: [Signature] Relinquished by: [Redacted] Relinquished by: [Redacted]		Time: Date/Time: 8/9/19 1535 Date/Time: [Redacted] Date/Time: [Redacted]	
Custody Seals Intact A Yes Δ No Custody Seal No: [Redacted]		Method of Shipment: Received by: [Signature] Received by: [Redacted] Received by: [Redacted]	

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: [Redacted]

Ver: 01/16/2019



Eurofins TestAmerica Canton Sample Receipt Form/Narrative		Login # : _____
Canton Facility		
Client <u>TA Cedar Falls</u>	Site Name _____	Cooler unpacked by: 
Cooler Received on <u>8/10/19</u>	Opened on <u>8/10/19</u>	
FedEx: 1 st Grd (Exp) <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FAS <input type="checkbox"/> Clipper <input type="checkbox"/> Client Drop Off <input type="checkbox"/> TestAmerica Courier <input type="checkbox"/> Other <input type="checkbox"/>		
Receipt After-hours: Drop-off Date/Time		Storage Location
TestAmerica Cooler # <u>2</u>	Foam Box <input type="checkbox"/>	Client Cooler <input type="checkbox"/>
	Box <input type="checkbox"/>	Other <input type="checkbox"/>
Packing material used: <u>Bubble Wrap</u> <input checked="" type="checkbox"/> Foam <input type="checkbox"/> <u>Plastic Bag</u> <input checked="" type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/>		
COOLANT: <u>Wet Ice</u> <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> Water <input type="checkbox"/> None <input type="checkbox"/>		
1. Cooler temperature upon receipt <input type="checkbox"/> See Multiple Cooler Form		
IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. <u>1.4</u> °C Corrected Cooler Temp. <u>1.5</u> °C		
IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C		
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u> Yes No		
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA		
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA		
-Were tamper/custody seals intact and uncompromised? Yes No NA		
3. Shippers' packing slip attached to the cooler(s)? Yes No		
4. Did custody papers accompany the sample(s)? Yes No		
5. Were the custody papers relinquished & signed in the appropriate place? Yes No		
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No		
7. Did all bottles arrive in good condition (Unbroken)? Yes No		
8. Could all bottle labels be reconciled with the COC? Yes No		
9. Were correct bottle(s) used for the test(s) indicated? Yes No		
10. Sufficient quantity received to perform indicated analyses? Yes No		
11. Are these work share samples? Yes No		
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# <u>HC984738</u>		
13. Were VOAs on the COC? Yes No		
14. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA		
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No		
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No		
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other		
Concerning _____		

Tests that are not checked for pH by Receiving:

 VOAs
 Oil and Grease
 TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	Samples processed by: _____
_____ _____ _____ _____	

18. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins TestAmerica, Houston
6310 Routhway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646



Environment Testing
TestAmerica



Chain of Custody Record

Client Information (Sub Contract Lab) Shipping/Receiving TestAmerica Laboratories, Inc. Address: 4101 Shuffel Street NW, City: North Canton State, Zip: OH, 44720 Phone: 330-497-9398(Tel) 330-497-0772(Fax) Email: Project #: 60008660 Central Drinkard Unit Site:		Lab PM: Kuchhadkar, Sachin G E-Mail: sachin.kuchhadkar@testamericainc.com Carrier Tracking Note(s): State of Origin: Texas Page: Page 1 of 1 Job #: 600-189491-2 Job #: 600-189491-2		COC No: 600-41334-1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - NCA W - pH 4-5 Z - other (specify)	
Sample Identification - Client ID (Lab ID) CDU-04-3-4 (600-189491-12)		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X 8015B_DR03546 (MOD) Diesel Range Organics (C10-C28) <input checked="" type="checkbox"/> X 8015B_GRO/5035A_FM (MOD) Copy Analytes <input checked="" type="checkbox"/> X Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: 1		Preservation Code: Solid	
Sample Date 7/30/19		Sample Time 13:40 Central		Matrix (W=water, S=solid, O=waste/oil, BT=bitumen, A=air)	
Sample Date 7/30/19		Sample Time 13:40 Central		Matrix (W=water, S=solid, O=waste/oil, BT=bitumen, A=air)	
Due Date Requested: 8/7/2019		TAT Requested (days):		Special Instructions/Note: CO99	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					
Relinquished by [Signature] Date/Time: 8-15-19 (8:00 AM) Company: [Signature] Company		Relinquished by [Signature] Date/Time: 8-16-19 9:15 Company: FTA Company		Relinquished by [Signature] Date/Time: _____ Company: _____	
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooler Temperature(s) °C and Other Remarks:		Ver: 01/16/2019	

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client ETA Site Name _____ Cooler unpacked by: Ryan Cribley
Cooler Received on 8-16-19 Opened on 8-16-19 9:15
FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

- Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 0.7 °C
IR GUN #36 (CF +0.6°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Are these work share samples? Yes No
- If yes, Questions 12-16 have been checked at the originating laboratory.
- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
- Were VOAs on the COC? Yes No
- Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: Ryan Cribley

18. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-189491-2

Login Number: 189491**List Source: Eurofins TestAmerica, Houston****List Number: 1****Creator: Crafton, Tommie S**

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4, 2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing
TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-189554-2
Client Project/Site: CDU & BB

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Note: Samples which begin with BB in this lab report are for another site.

Attn: Mr. Wallace Gilmore

Authorized for release by:
9/23/2019 10:47:50 AM
Jasmine Turner, Project Management Assistant I
(713)690-4444
jasmine.turner@testamericainc.com

Designee for
Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

LINKS

Review your project results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM
Project/Site: CDU & BB

Laboratory Job ID: 600-189554-2

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Eurofins TestAmerica, Houston job number 600-189554-2 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jasmine Turner, for Sachin Kudchadkar

Name (printed)



Signature

9/23/2019

Date

Senior Project Manager

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/23/2019
Project Name:	CDU & BB	Laboratory Job Number:	600-189554-2
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			R03A
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/23/2019
Project Name:	CDU & BB	Laboratory Job Number:	600-189554-2
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/23/2019
Project Name:	CDU & BB	Laboratory Job Number:	600-189554-2
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER # ¹	Description
R03A	Method 8015B: The following samples were received with less than 2 days remaining on the holding time. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: CDU - 08 -0-1 (600-189554-1), CDU - 09-3-4 (600-189554-7), CDU -10-0-1 (600-189554-8), BB - 01-0-1 (600-189554-10), BB - 02-0-1 (600-189554-12), BB - 04-0-1 (600-189554-20), BB - 05-3-4 (600-189554-26), BB - 06-2-3 (600-189554-29) and BB - 08-0-1 (600-189554-33).
	<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Method 8015B DRO Detection Limit Validation

Laboratory Eurofins TestAmerica, Canton

Preparation Method: 3546

MDLV

Limit Group GCS 8015B_C DRO 3546 Solid RL/MDL

Analysis Dates: 4/1/2019 to 7/22/2019

Analyte

Diesel

Current		Calculations							*MDLV used - 386836-9* All values recovered MDLV: Pass
MDL	RL	Ver	Spike	Spike	Std	Std	Edit		
34.58	50	MDL	amount	Units	/MDL	Mean	Dev	Reps	
		34.58	50.0	mg/Kg	1.4	44.6510	5.1007347	8	N

Lab ID	Anal Date	Batch	Samp	Analyst	Method	Prep Method	Equipment	Result	Units	Detected?
240-110302-A-7-A MD	06/18/2019	386836	9	Bolgrin, Deborah	8015B_DRO	3546	A2HP5F	54.7914449	mg/Kg	Pass
240-110302-A-8-A MD	06/18/2019	386836	10	Bolgrin, Deborah	8015B_DRO	3546	A2HP5F	49.4051637	mg/Kg	Pass
240-110302-A-20-A MI	06/18/2019	386887	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP5R	41.8150117	mg/Kg	Pass
240-110302-A-21-A MI	06/18/2019	386887	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP5R	38.6871397	mg/Kg	Pass
240-110302-A-9-A MD	06/18/2019	386849	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP6F	44.5286106	mg/Kg	Pass
240-110302-A-22-A MI	06/18/2019	386859	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP6R	42.2728391	mg/Kg	Pass
240-110302-A-24-A MI	06/18/2019	386849	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP6F	42.1637227	mg/Kg	Pass
240-110302-A-23-A MI	06/18/2019	386859	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP6R	43.5445928	mg/Kg	Pass

Detected? Pass = result was detected ; Fail = result <= 0 . If MDLV is < MDL , verify Detection or S/N ratio
 MDLV: Pass = meets Spike/MDL ratio , Spike High =Spike/MDL > ratio , Spike Low = Spike < MDL
 Spike/MDL ratio = 3.00

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	CHVOAMS09	1.400	5.000	2.973	5
1,1,1-Trichloroethane	CHVOAMS09	0.740	2.500	2.291	5
1,1,2,2-Tetrachloroethane	CHVOAMS09	0.870	2.500	4.436	5
1,1,2-Trichloro-1,2,2-trifluoroethane	CHVOAMS09	1.440	5.000	1.787	5
1,1,2-Trichloroethane	CHVOAMS09	0.730	2.500	2.507	40
1,1-Dichloroethane	CHVOAMS09	0.870	2.500	2.114	5
1,1-Dichloroethene	CHVOAMS09	1.220	5.000	2.697	5
1,1-Dichloropropene	CHVOAMS09	0.650	2.500	2.328	5
1,2,3-Trichlorobenzene	CHVOAMS09	0.620	2.500	4.993	5
1,2,3-Trichloropropane	CHVOAMS09	1.310	2.500	5.837	5
1,2,3-Trimethylbenzene	CHVOAMS09	1.820	2.500	0.131	5
1,2,4-Trichlorobenzene	CHVOAMS09	1.970	2.500	0.414	5
1,2,4-Trimethylbenzene	CHVOAMS09	0.920	2.500	2.310	5
1,2-Dibromo-3-Chloropropane	CHVOAMS09	2.440	2.500	1.563	5
1,2-Dichlorobenzene	CHVOAMS09	0.800	2.500	0.320	5
1,2-Dichloroethane	CHVOAMS09	0.900	2.500	2.248	5
1,2-Dichloroethene, Total	CHVOAMS09	1.900	5.000	5.000	10
1,2-Dichloropropane	CHVOAMS09	0.710	2.500	2.125	5
1,3,5-Trichlorobenzene	CHVOAMS09	2.500	5.000	2.414	5
1,3,5-Trimethylbenzene	CHVOAMS09	1.600	2.500	2.173	5
1,3-Dichlorobenzene	CHVOAMS09	0.710	2.500	2.239	5
1,3-Dichloropropane	CHVOAMS09	0.630	2.500	2.265	5
1,4-Dichlorobenzene	CHVOAMS09	0.660	2.500	2.063	5
1,4-Dioxane	CHVOAMS09	62.070	50.000	21.646	500
2,2-Dichloropropane	CHVOAMS04	1.820	2.500	2.214	5
2-Butanone (MEK)	CHVOAMS09	1.900	5.000	3.640	10
2-Chloro-1,3-butadiene	CHVOAMS09	2.710	2.500	1.799	5
2-Chloroethyl vinyl ether	CHVOAMS09	0.980	5.000	4.606	10
2-Chlorotoluene	CHVOAMS09	0.680	2.500	2.155	5
2-Hexanone	CHVOAMS09	1.010	10.000	3.867	10
2-Methyl-2-propanol	CHVOAMS09	10.000	25.000	0.029	50
2-Methyltetrahydrofuran	CHVOAMS09	5.430	12.500	14.242	50
2-Methyltetrahydropyran	CHVOAMS09	4.820	12.500	15.854	50
2-Nitropropane	CHVOAMS09	24.290	5.000	4.186	50
3-Chloro-1-propene	CHVOAMS09	1.390	2.500	2.192	5
4-Chlorotoluene	CHVOAMS09	0.830	2.500	2.305	5
4-Isopropyltoluene	CHVOAMS09	1.020	2.500	0.124	5
4-Methyl-2-pentanone (MIBK)	CHVOAMS09	1.470	5.000	0.216	10
Acetone	CHVOAMS04	1.660	5.000	4.014	10
Acetonitrile	CHVOAMS09	1.390	25.000	10.912	50
Acrolein	CHVOAMS09	6.230	12.500	2.141	25
Acrylonitrile	CHVOAMS09	5.820	25.000	3.681	50
Benzene	CHVOAMS09	0.630	2.500	2.420	5
Benzyl chloride	CHVOAMS09	2.140	2.500	0.377	5
Bromobenzene	CHVOAMS09	0.990	2.500	2.602	5
Bromoform	CHVOAMS09	1.370	2.500	1.878	5
Bromomethane	CHVOAMS09	0.830	2.500	1.965	10
Butadiene	CHVOAMS09	1.250	2.500	1.845	5
Carbon disulfide	CHVOAMS04	0.550	2.500	1.935	10

DCS = Detection Check Standard

MQL = Method Quantitation Limit

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Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Carbon tetrachloride	CHVOAMS09	1.130	2.500	2.146	5
Chlorobenzene	CHVOAMS09	0.960	2.500	2.539	5
Chlorobromomethane	CHVOAMS09	1.780	2.500	2.263	5
Chlorodibromomethane	CHVOAMS09	0.940	2.500	2.383	5
Chloroethane	CHVOAMS09	1.400	5.000	2.362	10
Chloroform	CHVOAMS09	0.660	2.500	2.440	10
Chloromethane	CHVOAMS09	1.660	5.000	1.375	10
cis-1,2-Dichloroethene	CHVOAMS09	0.830	2.500	2.473	5
cis-1,3-Dichloropropene	CHVOAMS09	0.540	2.500	2.335	5
Cyclohexane	CHVOAMS09	1.920	5.000	2.952	5
Dibromomethane	CHVOAMS09	0.750	2.500	2.411	5
Dichlorobromomethane	CHVOAMS09	0.660	2.500	2.590	5
Dichlorodifluoromethane	CHVOAMS09	1.540	5.000	1.951	5
Dichlorofluoromethane	CHVOAMS09	1.000	2.500	1.932	5
Ethyl acetate	CHVOAMS09	2.810	5.000	3.504	5
Ethyl acrylate	CHVOAMS09	10.660	2.500	1.638	20
Ethyl ether	CHVOAMS09	1.950	2.500	1.822	5
Ethyl methacrylate	CHVOAMS09	1.660	2.500	0.603	5
Ethylbenzene	CHVOAMS09	1.020	2.500	2.624	5
Ethylene Dibromide	CHVOAMS09	1.020	2.500	2.413	5
Hexachlorobutadiene	CHVOAMS09	1.130	2.500	2.306	5
Hexane	CHVOAMS09	1.230	2.500	1.859	5
Iodomethane	CHVOAMS09	2.500	5.000	3.118	5
Isobutyl alcohol	CHVOAMS04	17.160	62.500	76.211	125
Isooctane	CHVOAMS09	10.000	5.000	1.018	10
Isopropyl alcohol	CHVOAMS09	27.470	50.000	34.005	100
Isopropyl ether	CHVOAMS09	1.760	2.500	1.676	5
Isopropylbenzene	CHVOAMS09	0.920	2.500	2.104	5
Methacrylonitrile	CHVOAMS09	5.000	25.000	23.410	50
Methyl acetate	CHVOAMS09	2.910	5.000	2.835	5
Methyl methacrylate	CHVOAMS09	2.860	5.000	3.621	10
Methyl tert-butyl ether	CHVOAMS09	1.830	2.500	2.421	5
Methylcyclohexane	CHVOAMS09	1.460	2.500	2.552	5
Methylene Chloride	CHVOAMS09	2.190	5.000	2.227	10
m-Xylene & p-Xylene	CHVOAMS09	1.520	2.500	2.525	5
Naphthalene	CHVOAMS09	2.370	2.500	6.777	10
n-Butyl acetate	CHVOAMS09	2.370	5.000	2.147	5
n-Butylbenzene	CHVOAMS04	0.580	2.500	1.992	5
n-Heptane	CHVOAMS09	10.000	2.500	1.474	20
N-Propylbenzene	CHVOAMS09	0.950	2.500	2.016	5
o-Xylene	CHVOAMS09	1.130	5.000	2.960	5
Propionitrile	CHVOAMS09	2.360	50.000	18.349	5
sec-Butylbenzene	CHVOAMS09	0.700	2.500	0.193	5
Styrene	CHVOAMS09	0.710	2.500	2.925	5
tert-Butylbenzene	CHVOAMS09	0.950	2.500	2.237	5
Tetrachloroethene	CHVOAMS09	0.710	2.500	2.350	5
Tetrahydrofuran	CHVOAMS09	5.390	10.000	4.590	50
Tetrahydropyran	CHVOAMS09	5.220	12.500	13.469	50
Toluene	CHVOAMS09	1.380	2.500	2.561	5

DCS = Detection Check Standard

MQL = Method Quantitation Limit

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Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
trans-1,2-Dichloroethene	CHVOAMS09	1.140	2.500	2.470	5
trans-1,3-Dichloropropene	CHVOAMS09	0.580	2.500	2.304	5
trans-1,4-Dichloro-2-butene	CHVOAMS09	1.900	2.500	4.958	5
Trichloroethene	CHVOAMS09	1.400	2.500	2.306	5
Trichlorofluoromethane	CHVOAMS09	0.660	2.500	1.842	10
Vinyl acetate	CHVOAMS09	0.930	5.000	3.262	10
Vinyl chloride	CHVOAMS04	0.900	2.500	1.917	10
Xylenes, Total	CHVOAMS09	1.130	5.000	2.500	5

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

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Case Narrative

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Job ID: 600-189554-2

Laboratory: Eurofins TestAmerica, Houston

Narrative

**Job Narrative
600-189554-2**

Comments

No additional comments.

Receipt

The samples were received on 8/1/2019 10:32 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.9° C, 2.9° C and 3.0° C.

All applicable analytical narratives can be found in the TRRP Checklist section of this report.

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Method Summary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
3546	Microwave Extraction	SW846	TAL CAN
5035	Closed System Purge & Trap/Laboratory Preservation	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-189554-1	CDU - 08 -0-1	Solid	07/31/19 07:55	08/01/19 10:32	
600-189554-7	CDU - 09-3-4	Solid	07/31/19 08:30	08/01/19 10:32	
600-189554-8	CDU -10-0-1	Solid	07/31/19 08:45	08/01/19 10:32	
600-189554-10	BB - 01-0-1	Solid	07/31/19 10:40	08/01/19 10:32	
600-189554-12	BB - 02-0-1	Solid	07/31/19 11:05	08/01/19 10:32	
600-189554-20	BB - 04-0-1	Solid	07/31/19 12:05	08/01/19 10:32	
600-189554-26	BB - 05-3-4	Solid	07/31/19 12:35	08/01/19 10:32	
600-189554-29	BB - 06-2-3	Solid	07/31/19 13:05	08/01/19 10:32	
600-189554-33	BB - 08-0-1	Solid	07/31/19 13:40	08/01/19 10:32	

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Client Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Client Sample ID: CDU - 08 -0-1

Lab Sample ID: 600-189554-1

Date Collected: 07/31/19 07:55

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000619	U H	0.00491	0.000619	mg/Kg	-	08/02/19 12:25	08/02/19 18:48	1
Ethylbenzene	0.00100	U H	0.00491	0.00100	mg/Kg	-	08/02/19 12:25	08/02/19 18:48	1
Toluene	0.00136	U H	0.00491	0.00136	mg/Kg	-	08/02/19 12:25	08/02/19 18:48	1
Xylenes, Total	0.00111	U H	0.00491	0.00111	mg/Kg	-	08/02/19 12:25	08/02/19 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130	08/02/19 12:25	08/02/19 18:48	1
Dibromofluoromethane	92		68 - 140	08/02/19 12:25	08/02/19 18:48	1
Toluene-d8 (Surr)	95		50 - 130	08/02/19 12:25	08/02/19 18:48	1
4-Bromofluorobenzene	103		57 - 140	08/02/19 12:25	08/02/19 18:48	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	79.0	H	48.4	33.4	mg/Kg	-	08/15/19 12:00	08/16/19 20:58	1
C28-C36	43.6	J H	48.4	33.4	mg/Kg	-	08/15/19 12:00	08/16/19 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		26 - 125	08/15/19 12:00	08/16/19 20:58	1

Client Sample ID: CDU - 09-3-4

Lab Sample ID: 600-189554-7

Date Collected: 07/31/19 08:30

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000655	U H	0.00520	0.000655	mg/Kg	-	08/02/19 12:25	08/13/19 20:06	1
Ethylbenzene	0.00106	U H	0.00520	0.00106	mg/Kg	-	08/02/19 12:25	08/13/19 20:06	1
Toluene	0.00143	U H	0.00520	0.00143	mg/Kg	-	08/02/19 12:25	08/13/19 20:06	1
Xylenes, Total	0.00117	U H	0.00520	0.00117	mg/Kg	-	08/02/19 12:25	08/13/19 20:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130	08/02/19 12:25	08/13/19 20:06	1
Dibromofluoromethane	83		68 - 140	08/02/19 12:25	08/13/19 20:06	1
Toluene-d8 (Surr)	93		50 - 130	08/02/19 12:25	08/13/19 20:06	1
4-Bromofluorobenzene	115		57 - 140	08/02/19 12:25	08/13/19 20:06	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.8	U H	48.9	33.8	mg/Kg	-	08/15/19 12:00	08/16/19 21:25	1
C28-C36	33.8	U H	48.9	33.8	mg/Kg	-	08/15/19 12:00	08/16/19 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	79		26 - 125	08/15/19 12:00	08/16/19 21:25	1

Client Sample ID: CDU -10-0-1

Lab Sample ID: 600-189554-8

Date Collected: 07/31/19 08:45

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000702	U H	0.00557	0.000702	mg/Kg	-	08/02/19 12:25	08/13/19 20:33	1
Ethylbenzene	0.00114	U H	0.00557	0.00114	mg/Kg	-	08/02/19 12:25	08/13/19 20:33	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Client Sample ID: CDU -10-0-1

Lab Sample ID: 600-189554-8

Date Collected: 07/31/19 08:45

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.00154	U H	0.00557	0.00154	mg/Kg		08/02/19 12:25	08/13/19 20:33	1
Xylenes, Total	0.00126	U H	0.00557	0.00126	mg/Kg		08/02/19 12:25	08/13/19 20:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130				08/02/19 12:25	08/13/19 20:33	1
Dibromofluoromethane	84		68 - 140				08/02/19 12:25	08/13/19 20:33	1
Toluene-d8 (Surr)	93		50 - 130				08/02/19 12:25	08/13/19 20:33	1
4-Bromofluorobenzene	118		57 - 140				08/02/19 12:25	08/13/19 20:33	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.2	U H	47.9	33.2	mg/Kg		08/15/19 12:00	08/16/19 21:52	1
C28-C36	33.2	U H	47.9	33.2	mg/Kg		08/15/19 12:00	08/16/19 21:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		26 - 125				08/15/19 12:00	08/16/19 21:52	1

Client Sample ID: BB - 01-0-1

Lab Sample ID: 600-189554-10

Date Collected: 07/31/19 10:40

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000587	U H	0.00466	0.000587	mg/Kg		08/02/19 12:25	08/13/19 20:59	1
Ethylbenzene	0.000950	U H	0.00466	0.000950	mg/Kg		08/02/19 12:25	08/13/19 20:59	1
Toluene	0.00128	U H	0.00466	0.00128	mg/Kg		08/02/19 12:25	08/13/19 20:59	1
Xylenes, Total	0.00105	U H	0.00466	0.00105	mg/Kg		08/02/19 12:25	08/13/19 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130				08/02/19 12:25	08/13/19 20:59	1
Dibromofluoromethane	85		68 - 140				08/02/19 12:25	08/13/19 20:59	1
Toluene-d8 (Surr)	92		50 - 130				08/02/19 12:25	08/13/19 20:59	1
4-Bromofluorobenzene	122		57 - 140				08/02/19 12:25	08/13/19 20:59	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	258	H	48.3	33.4	mg/Kg		08/15/19 12:00	08/16/19 22:20	1
C28-C36	212	H	48.3	33.4	mg/Kg		08/15/19 12:00	08/16/19 22:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	80		26 - 125				08/15/19 12:00	08/16/19 22:20	1

Client Sample ID: BB - 02-0-1

Lab Sample ID: 600-189554-12

Date Collected: 07/31/19 11:05

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000589	U H	0.00467	0.000589	mg/Kg		08/02/19 12:25	08/13/19 21:25	1
Ethylbenzene	0.000953	U H	0.00467	0.000953	mg/Kg		08/02/19 12:25	08/13/19 21:25	1
Toluene	0.00129	U H	0.00467	0.00129	mg/Kg		08/02/19 12:25	08/13/19 21:25	1
Xylenes, Total	0.00106	U H	0.00467	0.00106	mg/Kg		08/02/19 12:25	08/13/19 21:25	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Client Sample ID: BB - 02-0-1

Lab Sample ID: 600-189554-12

Date Collected: 07/31/19 11:05

Matrix: Solid

Date Received: 08/01/19 10:32

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	08/02/19 12:25	08/13/19 21:25	1
Dibromofluoromethane	85		68 - 140	08/02/19 12:25	08/13/19 21:25	1
Toluene-d8 (Surr)	91		50 - 130	08/02/19 12:25	08/13/19 21:25	1
4-Bromofluorobenzene	122		57 - 140	08/02/19 12:25	08/13/19 21:25	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	136	H	49.8	34.4	mg/Kg		08/15/19 12:00	08/16/19 22:47	1
C28-C36	116	H	49.8	34.4	mg/Kg		08/15/19 12:00	08/16/19 22:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	82		26 - 125	08/15/19 12:00	08/16/19 22:47	1

Client Sample ID: BB - 04-0-1

Lab Sample ID: 600-189554-20

Date Collected: 07/31/19 12:05

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000607	U H	0.00482	0.000607	mg/Kg		08/02/19 12:25	08/13/19 21:51	1
Ethylbenzene	0.000983	U H	0.00482	0.000983	mg/Kg		08/02/19 12:25	08/13/19 21:51	1
Toluene	0.00133	U H	0.00482	0.00133	mg/Kg		08/02/19 12:25	08/13/19 21:51	1
Xylenes, Total	0.00109	U H	0.00482	0.00109	mg/Kg		08/02/19 12:25	08/13/19 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130	08/02/19 12:25	08/13/19 21:51	1
Dibromofluoromethane	83		68 - 140	08/02/19 12:25	08/13/19 21:51	1
Toluene-d8 (Surr)	92		50 - 130	08/02/19 12:25	08/13/19 21:51	1
4-Bromofluorobenzene	129		57 - 140	08/02/19 12:25	08/13/19 21:51	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	773	H	49.0	33.9	mg/Kg		08/15/19 12:00	08/16/19 23:14	1
C28-C36	431	H	49.0	33.9	mg/Kg		08/15/19 12:00	08/16/19 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	78		26 - 125	08/15/19 12:00	08/16/19 23:14	1

Client Sample ID: BB - 05-3-4

Lab Sample ID: 600-189554-26

Date Collected: 07/31/19 12:35

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000786	U	0.00623	0.000786	mg/Kg		08/02/19 12:25	08/02/19 16:42	1
Ethylbenzene	0.00127	U	0.00623	0.00127	mg/Kg		08/02/19 12:25	08/02/19 16:42	1
Toluene	0.00172	U	0.00623	0.00172	mg/Kg		08/02/19 12:25	08/02/19 16:42	1
Xylenes, Total	0.00141	U	0.00623	0.00141	mg/Kg		08/02/19 12:25	08/02/19 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130	08/02/19 12:25	08/02/19 16:42	1
Dibromofluoromethane	89		68 - 140	08/02/19 12:25	08/02/19 16:42	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Client Sample ID: BB - 05-3-4

Lab Sample ID: 600-189554-26

Date Collected: 07/31/19 12:35

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		50 - 130	08/02/19 12:25	08/02/19 16:42	1
4-Bromofluorobenzene	105		57 - 140	08/02/19 12:25	08/02/19 16:42	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.5	U H	48.5	33.5	mg/Kg		08/15/19 12:00	08/16/19 23:41	1
C28-C36	33.5	U H	48.5	33.5	mg/Kg		08/15/19 12:00	08/16/19 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	81		26 - 125	08/15/19 12:00	08/16/19 23:41	1

Client Sample ID: BB - 06-2-3

Lab Sample ID: 600-189554-29

Date Collected: 07/31/19 13:05

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.1	U H	49.3	34.1	mg/Kg		08/15/19 12:00	08/17/19 00:36	1
C28-C36	34.1	U H	49.3	34.1	mg/Kg		08/15/19 12:00	08/17/19 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	79		26 - 125	08/15/19 12:00	08/17/19 00:36	1

Client Sample ID: BB - 08-0-1

Lab Sample ID: 600-189554-33

Date Collected: 07/31/19 13:40

Matrix: Solid

Date Received: 08/01/19 10:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000548	U	0.00435	0.000548	mg/Kg		08/02/19 12:25	08/02/19 15:51	1
Ethylbenzene	0.000887	U	0.00435	0.000887	mg/Kg		08/02/19 12:25	08/02/19 15:51	1
Toluene	0.00120	U	0.00435	0.00120	mg/Kg		08/02/19 12:25	08/02/19 15:51	1
Xylenes, Total	0.000983	U	0.00435	0.000983	mg/Kg		08/02/19 12:25	08/02/19 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		61 - 130	08/02/19 12:25	08/02/19 15:51	1
Dibromofluoromethane	91		68 - 140	08/02/19 12:25	08/02/19 15:51	1
Toluene-d8 (Surr)	94		50 - 130	08/02/19 12:25	08/02/19 15:51	1
4-Bromofluorobenzene	103		57 - 140	08/02/19 12:25	08/02/19 15:51	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.6	U H	48.6	33.6	mg/Kg		08/15/19 12:00	08/17/19 01:03	1
C28-C36	33.6	U H	48.6	33.6	mg/Kg		08/15/19 12:00	08/17/19 01:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	78		26 - 125	08/15/19 12:00	08/17/19 01:03	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Analyte was not detected at or above the SDL.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-189554-1	CDU - 08 -0-1	92	92	95	103
600-189554-7	CDU - 09-3-4	80	83	93	115
600-189554-8	CDU -10-0-1	82	84	93	118
600-189554-10	BB - 01-0-1	81	85	92	122
600-189554-12	BB - 02-0-1	84	85	91	122
600-189554-20	BB - 04-0-1	82	83	92	129
600-189554-26	BB - 05-3-4	87	89	94	105
600-189554-33	BB - 08-0-1	90	91	94	103
LCS 600-271006/3	Lab Control Sample	84	90	97	108
LCS 600-271800/3	Lab Control Sample	75	87	101	124
LCSD 600-271006/4	Lab Control Sample Dup	77	88	95	105
LCSD 600-271800/4	Lab Control Sample Dup	70	85	101	129
MB 600-271006/6	Method Blank	96	92	94	103
MB 600-271800/6	Method Blank	83	86	95	116

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1
		(26-125)
600-189372-A-8-D MS	Matrix Spike	79
600-189372-A-8-E MSD	Matrix Spike Duplicate	77
600-189554-1	CDU - 08 -0-1	76
600-189554-7	CDU - 09-3-4	79
600-189554-8	CDU -10-0-1	75
600-189554-10	BB - 01-0-1	80
600-189554-12	BB - 02-0-1	82
600-189554-20	BB - 04-0-1	78
600-189554-26	BB - 05-3-4	81
600-189554-29	BB - 06-2-3	79
600-189554-33	BB - 08-0-1	78
LCS 240-396217/2-A	Lab Control Sample	78
MB 240-396217/1-A	Method Blank	65

Surrogate Legend

OTPH = o-Terphenyl (Surr)

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QC Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-271006/6

Matrix: Solid

Analysis Batch: 271006

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/02/19 10:49	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/02/19 10:49	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/02/19 10:49	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/02/19 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130		08/02/19 10:49	1
Dibromofluoromethane	92		68 - 140		08/02/19 10:49	1
Toluene-d8 (Surr)	94		50 - 130		08/02/19 10:49	1
4-Bromofluorobenzene	103		57 - 140		08/02/19 10:49	1

Lab Sample ID: LCS 600-271006/3

Matrix: Solid

Analysis Batch: 271006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04425		mg/Kg		89	70 - 131
Ethylbenzene	0.0500	0.04624		mg/Kg		92	66 - 130
Toluene	0.0500	0.04626		mg/Kg		93	67 - 130
Xylenes, Total	0.100	0.09140		mg/Kg		91	63 - 130
m-Xylene & p-Xylene	0.0500	0.04497		mg/Kg		90	64 - 130
o-Xylene	0.0500	0.04643		mg/Kg		93	62 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		61 - 130
Dibromofluoromethane	90		68 - 140
Toluene-d8 (Surr)	97		50 - 130
4-Bromofluorobenzene	108		57 - 140

Lab Sample ID: LCSD 600-271006/4

Matrix: Solid

Analysis Batch: 271006

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04164		mg/Kg		83	70 - 131	6	30
Ethylbenzene	0.0500	0.04330		mg/Kg		87	66 - 130	7	30
Toluene	0.0500	0.04346		mg/Kg		87	67 - 130	6	30
Xylenes, Total	0.100	0.08511		mg/Kg		85	63 - 130	7	30
m-Xylene & p-Xylene	0.0500	0.04221		mg/Kg		84	64 - 130	6	30
o-Xylene	0.0500	0.04290		mg/Kg		86	62 - 130	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	88		68 - 140
Toluene-d8 (Surr)	95		50 - 130
4-Bromofluorobenzene	105		57 - 140

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QC Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-271800/6

Matrix: Solid

Analysis Batch: 271800

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/13/19 16:50	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/13/19 16:50	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/13/19 16:50	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/13/19 16:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130		08/13/19 16:50	1
Dibromofluoromethane	86		68 - 140		08/13/19 16:50	1
Toluene-d8 (Surr)	95		50 - 130		08/13/19 16:50	1
4-Bromofluorobenzene	116		57 - 140		08/13/19 16:50	1

Lab Sample ID: LCS 600-271800/3

Matrix: Solid

Analysis Batch: 271800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04722		mg/Kg		94	70 - 131
Ethylbenzene	0.0500	0.04716		mg/Kg		94	66 - 130
Toluene	0.0500	0.04980		mg/Kg		100	67 - 130
Xylenes, Total	0.100	0.09130		mg/Kg		91	63 - 130
m-Xylene & p-Xylene	0.0500	0.04569		mg/Kg		91	64 - 130
o-Xylene	0.0500	0.04561		mg/Kg		91	62 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	87		68 - 140
Toluene-d8 (Surr)	101		50 - 130
4-Bromofluorobenzene	124		57 - 140

Lab Sample ID: LCSD 600-271800/4

Matrix: Solid

Analysis Batch: 271800

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04739		mg/Kg		95	70 - 131	0	30
Ethylbenzene	0.0500	0.04754		mg/Kg		95	66 - 130	1	30
Toluene	0.0500	0.05063		mg/Kg		101	67 - 130	2	30
Xylenes, Total	0.100	0.09190		mg/Kg		92	63 - 130	1	30
m-Xylene & p-Xylene	0.0500	0.04564		mg/Kg		91	64 - 130	0	30
o-Xylene	0.0500	0.04626		mg/Kg		93	62 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	101		50 - 130
4-Bromofluorobenzene	129		57 - 140

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QC Sample Results

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 240-396217/1-A
Matrix: Solid
Analysis Batch: 396355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396217

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10 - C28]	34.6	U	50.0	34.6	mg/Kg	-	08/15/19 12:00	08/16/19 14:58	1
C28-C36	34.6	U	50.0	34.6	mg/Kg	-	08/15/19 12:00	08/16/19 14:58	1
Surrogate	MB MB		Limits			D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
o-Terphenyl (Surr)	65		26 - 125			-	08/15/19 12:00	08/16/19 14:58	1

Lab Sample ID: LCS 240-396217/2-A
Matrix: Solid
Analysis Batch: 396355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396217

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Diesel Range Organics [C10 - C28]	250	192.5		mg/Kg	-	77	45 - 120
Surrogate	LCS LCS		Limits			D	%Rec
	%Recovery	Qualifier					
o-Terphenyl (Surr)	78		26 - 125			-	

Lab Sample ID: 600-189372-A-8-D MS
Matrix: Solid
Analysis Batch: 396355

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 396217

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Diesel Range Organics [C10 - C28]	34.2	U	245	190.4		mg/Kg	-	78	27 - 120
Surrogate	MS MS		Limits			D	%Rec		
	%Recovery	Qualifier							
o-Terphenyl (Surr)	79		26 - 125			-			

Lab Sample ID: 600-189372-A-8-E MSD
Matrix: Solid
Analysis Batch: 396355

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 396217

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Diesel Range Organics [C10 - C28]	34.2	U	242	185.4		mg/Kg	-	77	27 - 120	3	40
Surrogate	MSD MSD		Limits			D	%Rec				
	%Recovery	Qualifier									
o-Terphenyl (Surr)	77		26 - 125			-					

Eurofins TestAmerica, Houston

Unadjusted Detection Limits

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Prep: 5035

Analyte	MQL	MDL	Units
Benzene	0.00500	0.000630	mg/Kg
Ethylbenzene	0.00500	0.00102	mg/Kg
Toluene	0.00500	0.00138	mg/Kg
Xylenes, Total	0.00500	0.00113	mg/Kg

Method: 8015B - Diesel Range Organics (DRO) (GC)

Prep: 3546

Analyte	MQL	MDL	Units
C28-C36	50.0	34.6	mg/Kg
Diesel Range Organics [C10 - C28]	50.0	34.6	mg/Kg

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QC Association Summary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

GC/MS VOA

Analysis Batch: 271006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189554-1	CDU - 08 -0-1	Total/NA	Solid	8260B	271071
600-189554-26	BB - 05-3-4	Total/NA	Solid	8260B	271071
600-189554-33	BB - 08-0-1	Total/NA	Solid	8260B	271072
MB 600-271006/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-271006/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-271006/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 271071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189554-1	CDU - 08 -0-1	Total/NA	Solid	5035	
600-189554-7	CDU - 09-3-4	Total/NA	Solid	5035	
600-189554-8	CDU -10-0-1	Total/NA	Solid	5035	
600-189554-10	BB - 01-0-1	Total/NA	Solid	5035	
600-189554-12	BB - 02-0-1	Total/NA	Solid	5035	
600-189554-20	BB - 04-0-1	Total/NA	Solid	5035	
600-189554-26	BB - 05-3-4	Total/NA	Solid	5035	

Prep Batch: 271072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189554-33	BB - 08-0-1	Total/NA	Solid	5035	

Analysis Batch: 271800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189554-7	CDU - 09-3-4	Total/NA	Solid	8260B	271071
600-189554-8	CDU -10-0-1	Total/NA	Solid	8260B	271071
600-189554-10	BB - 01-0-1	Total/NA	Solid	8260B	271071
600-189554-12	BB - 02-0-1	Total/NA	Solid	8260B	271071
600-189554-20	BB - 04-0-1	Total/NA	Solid	8260B	271071
MB 600-271800/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-271800/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-271800/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC Semi VOA

Prep Batch: 396217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189554-1	CDU - 08 -0-1	Total/NA	Solid	3546	
600-189554-7	CDU - 09-3-4	Total/NA	Solid	3546	
600-189554-8	CDU -10-0-1	Total/NA	Solid	3546	
600-189554-10	BB - 01-0-1	Total/NA	Solid	3546	
600-189554-12	BB - 02-0-1	Total/NA	Solid	3546	
600-189554-20	BB - 04-0-1	Total/NA	Solid	3546	
600-189554-26	BB - 05-3-4	Total/NA	Solid	3546	
600-189554-29	BB - 06-2-3	Total/NA	Solid	3546	
600-189554-33	BB - 08-0-1	Total/NA	Solid	3546	
MB 240-396217/1-A	Method Blank	Total/NA	Solid	3546	
LCS 240-396217/2-A	Lab Control Sample	Total/NA	Solid	3546	
600-189372-A-8-D MS	Matrix Spike	Total/NA	Solid	3546	
600-189372-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

GC Semi VOA

Analysis Batch: 396355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189554-1	CDU - 08 -0-1	Total/NA	Solid	8015B	396217
600-189554-7	CDU - 09-3-4	Total/NA	Solid	8015B	396217
600-189554-8	CDU -10-0-1	Total/NA	Solid	8015B	396217
600-189554-10	BB - 01-0-1	Total/NA	Solid	8015B	396217
600-189554-12	BB - 02-0-1	Total/NA	Solid	8015B	396217
600-189554-20	BB - 04-0-1	Total/NA	Solid	8015B	396217
600-189554-26	BB - 05-3-4	Total/NA	Solid	8015B	396217
600-189554-29	BB - 06-2-3	Total/NA	Solid	8015B	396217
600-189554-33	BB - 08-0-1	Total/NA	Solid	8015B	396217
MB 240-396217/1-A	Method Blank	Total/NA	Solid	8015B	396217
LCS 240-396217/2-A	Lab Control Sample	Total/NA	Solid	8015B	396217
600-189372-A-8-D MS	Matrix Spike	Total/NA	Solid	8015B	396217
600-189372-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	396217

Lab Chronicle

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Client Sample ID: CDU - 08 -0-1**Lab Sample ID: 600-189554-1****Date Collected: 07/31/19 07:55****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271006	08/02/19 18:48	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 20:58	LKG	TAL CAN

Client Sample ID: CDU - 09-3-4**Lab Sample ID: 600-189554-7****Date Collected: 07/31/19 08:30****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 20:06	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 21:25	LKG	TAL CAN

Client Sample ID: CDU -10-0-1**Lab Sample ID: 600-189554-8****Date Collected: 07/31/19 08:45****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 20:33	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 21:52	LKG	TAL CAN

Client Sample ID: BB - 01-0-1**Lab Sample ID: 600-189554-10****Date Collected: 07/31/19 10:40****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 20:59	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 22:20	LKG	TAL CAN

Client Sample ID: BB - 02-0-1**Lab Sample ID: 600-189554-12****Date Collected: 07/31/19 11:05****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 21:25	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 22:47	LKG	TAL CAN

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Client Sample ID: BB - 04-0-1**Lab Sample ID: 600-189554-20****Date Collected: 07/31/19 12:05****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271800	08/13/19 21:51	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 23:14	LKG	TAL CAN

Client Sample ID: BB - 05-3-4**Lab Sample ID: 600-189554-26****Date Collected: 07/31/19 12:35****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271071	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271006	08/02/19 16:42	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 23:41	LKG	TAL CAN

Client Sample ID: BB - 06-2-3**Lab Sample ID: 600-189554-29****Date Collected: 07/31/19 13:05****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/17/19 00:36	LKG	TAL CAN

Client Sample ID: BB - 08-0-1**Lab Sample ID: 600-189554-33****Date Collected: 07/31/19 13:40****Matrix: Solid****Date Received: 08/01/19 10:32**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271072	08/02/19 12:25	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271006	08/02/19 15:51	WS1	TAL HOU
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/17/19 01:03	LKG	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: AECOM
Project/Site: CDU & BB

Job ID: 600-189554-2

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
California	State Program	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Connecticut	State Program	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Georgia	State Program	N/A	02-23-20
Illinois	NELAP	200004	07-31-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-20
Iowa	State Program	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (UST)	State Program	58	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Kentucky (WW)	State Program	98016	12-31-19
Minnesota	NELAP	039-999-348	12-31-19 *
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Ohio VAP	State Program	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-19-11	08-31-20
USDA	Federal	P330-16-00404	12-28-19
USDA	US Federal Programs	P330-16-00404	12-28-19
Virginia	NELAP	460175	09-14-20
Washington	State	C971	01-12-20
Washington	State Program	C971	01-12-20 *
West Virginia DEP	State	210	12-31-19
West Virginia DEP	State Program	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Houston

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

eurofins Environment Testing
TestAmerica

Client Information Client Contact: Mr. Wallace Gilmore Company: AECOM Address: 19219 Katy Freeway Suite 100 City: Houston State, Zip: TX, 77094 Phone: 713-520-9900 (Tel) 713-520-680 (Fax) Email: wallace.gilmore@aecom.com Project Name: Chevron S/N: CDU + BB		Sampler Name: James Lacy Lab PM: Kuchhadkar, Sachin G E-Mail: sachin.kuchhadkar@testamericainc.com		Carrier Tracking No(s) COC No: 600-70018-19143 1 Page: 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: Purchase Order Requested WO #:		Analysis Requested Perform MS/MSD (Yes or No): Field Filtered Sample (Yes or No): 9056_ORGM_280 - Chloride 8260B - BTEX Only 8015B_GRO - 8015B_ORO - (MOD) Diesel Range Organics [C10-C28]		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - ASNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecaldehyde U - Acetone V - MCAA W - pH 4.5 X - other (specify)	
Sample Identification CDU-08-0-1 CDU-08-0-2 CDU-08-2-3 CDU-09-0-1 CDU-09-1-2 CDU-09-2-3 CDU-09-3-4 CDU-10-0-1 CDU-10-1-2 BR-01-0-1 BR-01-1-2		Sample Date 7/31/19 8/1/19 8/2/19 8/5/19 8/26/19 8/25/19 8/30/19 8/4/19 8/30/19 10/4/19 10/4/19		Sample Time 0755 0800 0805 0815 0820 0825 0830 0845 0850 1040 1045	
Sample Type (C=Comp, G=grab) G Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid		Matrix (W=water, S=solid, O=wastewater, BT=biological, A=air) Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid		Preservation Code: N N N N N N N N N N N N	
Special Instructions/Note: Hold all but chloride Hold all but chloride Hold all but chloride		Special Instructions/Note: Hold all but chloride Hold all but chloride Hold all but chloride		Special Instructions/Note: Hold all but chloride Hold all but chloride Hold all but chloride	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		Special Instructions/QC Requirements: Total Number of containers:	
Empty Kit Relinquished by: Relinquished by: Seth Fredrick Relinquished by: Relinquished by:		Received by: Received by: JARS Received by: Received by:		Method of Shipment: Date/Time: 8/1/19 1032 Date/Time: Date/Time:	
Custody Seal No.: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:		Company: Company: AECOM Company: Company:	

Ver: 01/16/2019





Chain of Custody Record

Eurolifins TestAmerica, Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Client Information Mr. Wallace Gilmore AECOM 19219 Katy Freeway Suite 100 Houston TX, 77094 Phone: 713-520-9900(Tel) 713-520-6600(Fax) Email: wallace.gilmore@aecom.com Project Name: Chevron Site:			Lab PM: Kuchhadkar, Sachin G E-Mail: sachin.kuchhadkar@testamericainc.com			Carmer Tracking No(s): COC No: 600-70018-19143.1 Page: Z Page #: 2 Job #:						
Due Date Requested: TAT Requested (days):		Analysis Requested 8015B_DRO - (MOD) Diesel Range Organics [C10-C28] 8015B_GRO - 8260B - BTEX Only 9056_ORGFM_280 - Chloride Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)			Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		Special Instructions/Note: Hold all but chloride Hold all but chloride					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-water, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056_ORGFM_280 - Chloride	8260B - BTEX Only	8015B_GRO -	8015B_DRO - (MOD) Diesel Range Organics [C10-C28]	Total Number of containers
BB-02-0-1	7/31/19	1105	H-G	Solid			X	X	X	X	X	
BB-02-1-2		1110		Solid			X					
BB-02-2-3		1115		Solid			X	X	X			
BB-02-3-4		1120		Solid			X	X	X			
BB-03-0-1		1130		Solid			X	X	X			
BB-03-1-2		1135		Solid			X	X	X			
BB-03-2-3		1140		Solid			X	X	X			
BB-03-3-4		1145		Solid			X	X	X			
BB-04-0-1		1205		Solid			X	X	X			
BB-04-1-2		1210		Solid			X	X	X			
BB-04-2-3		1215		Solid			X	X	X			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)												
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months												
Special Instructions/QC Requirements:												
Empty Kit Relinquished by: Relinquished by: Seth Fradette Relinquished by: Relinquished by: Relinquished by: Custody Seal No.: Custody Seal Intact: Yes No												
Method of Shipment:												
Received by: ygrs Date/Time: 8/1/19 1032 Company: FAH Received by: Date/Time: Company: Received by: Date/Time: Company: Cooler Temperature(s) °C and Other Remarks:												

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Eurofins TestAmerica, Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

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 TestAmerica

Client Information		Lab PM		Carrier Tracking Net(s)		COC No						
19219 Katy Freeway Suite 100 Houston, TX 77094		Kudchadkar, Sachin G				600-70018-19143.1						
Mr. Wallace Gilmore		E-Mail: sachin.kudchadkar@testamerica.com		Page 3		Job #						
Address: 19219 Katy Freeway Suite 100 City: Houston State, Zip: TX, 77094 Phone: 713-520-990(Tel) 713-520-680(Fax) Email: wallace.gilmore@aecom.com Project Name: Chevron Site:		Due Date Requested: TAT Requested (days): PO #: Purchase Order Requested WO #: Project #: 60009660 SSOW#:		Analysis Requested		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2SO4 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)						
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056 ORGM_28D - Chloride	8260B - BTEX Only	8015B GRO -	8015B DRO - (MOD) Diesel Range Organics [C10-C28]	Total Number of Containers	Special Instructions/Note:
BB-05-0-1	7/31/19	1720	G	Solid	X	X	X	X	X	X		
BB-05-1-2		1225		Solid	X	X	X	X	X	X		
BB-05-2-3		1221		Solid	X	X	X	X	X	X		
BB-05-3-4		1235		Solid	X	X	X	X	X	X		Hold all but chloride
BB-06-0-1		1255		Solid	X	X	X	X	X	X		
BB-06-1-2		1300		Solid	X	X	X	X	X	X		
BB-06-2-3		1305		Solid	X	X	X	X	X	X		
BB-07-0-1		1315		Solid	X	X	X	X	X	X		
BB-07-1-2		1320		Solid	X	X	X	X	X	X		
BB-07-2-3		1325		Solid	X	X	X	X	X	X		
BB-08-0-1		1340		Solid	X	X	X	X	X	X		Hold all but chloride
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)												
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months												
Empty Kit Relinquished by: Relinquished by: <i>Seth Frederick</i> Relinquished by: Relinquished by:												
Custody Seals Intact: Δ Yes Δ No												
Date/Time: 7/31/19 @ 1630 Date/Time: Date/Time:												
Received by: <i>YGRS</i> Received by: Received by:												
Company: AECOM Company: Company:												
Date/Time: 8/1/19 1032 Date/Time: Date/Time:												
Cooler Temperature(s) °C and Other Remarks:												

Ver: 01/16/2019

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Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Client Information		Lab P/N: Kuchhadkar, Sachin G		Garment Tracking No(s):		E-MAIL: sachin.kuchhadkar@testamericainc.com		COC No: 600-70018-19143.1	
Mr. Wallace Gilmore		Phone:		Sachin.kuchhadkar@testamericainc.com		Page: 7		Job #:	
Address: 19219 Katy Freeway Suite 100		City: Houston		State, Zip: TX, 77094		Phone: 713-520-990(Tel) 713-520-680(Fax)		Email: wallace.gilmore@aecom.com	
Project Name: Chevron		Project #: 60008660		SSOW#:		Purchase Order Requested		WO #:	
Due Date Requested:		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		9056_ORGM_28D - Chloride	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Preservation Code	
BB-08-1-2		7/31/19		1345		G		Solid	
BB-08-2-3		↙		1350		S		Solid	
BB-08-3-4		↘		1355		S		Solid	
Possible Hazard Identification		Non-Hazard <input type="checkbox"/>		Flammable <input type="checkbox"/>		Skin Irritant <input type="checkbox"/>		Poison B <input type="checkbox"/>	
Deliverable Requested: I, II, III, IV, Other (specify)		Unknown <input type="checkbox"/>		Radiological <input type="checkbox"/>		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
Empty Kit Relinquished by:		Date:		Time:		Special Instructions/QC Requirements:		Archive For Months	
Relinquished by: Setha Fredericks		Date/Time: 7/31/19 @ 630		Company: AECOM		Received by: ygrs		Date/Time: 8/1/19 1032	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Received by:		Date/Time:	
Δ Yes Δ No						Received by:		Date/Time:	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Preservation Code	
8015B_GRO -		N		N		N		N	
8015B_DRO - (MOD) Diesel Range Organics [C10-C28]		N		N		N		N	
Total Number of Containers		X		X		X		X	
Special Instructions/Note:									
Preservation Codes:		A - HCL		B - NaOH		C - Zn Acetate		D - Nitric Acid	
		E - NaHSO4		F - MeOH		G - Amchlor		H - Ascorbic Acid	
		I - Ice		J - DI Water		K - EDTA		L - EDA	
		M - Hexane		N - None		O - AsNaO2		P - Na2OAS	
		Q - Na2SO3		R - Na2S2O3		S - H2SO4		T - TSP Dodecahydrate	
		U - Acetone		V - MCAA		W - pH 4-5		Z - other (specify)	
		Other:							

Ver: 01/16/2019



TestAmerica Houston

Loc: 600
189554



Sample Receipt Checklist

19 AUG 1 10:31

JOB NUMBER: _____ Date/Time Received: _____
 UNPACKED BY: YR CLIENT: AECOM
 Custody Seal Present: YES NO CARRIER/DRIVER: FedEx
 Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
BW	X / N	Y / N	2.9	678	+0.1	3.0
W/B	X / N	Y / N	1.8			1.9
W/B	X / N	Y / N	2.8			2.9
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

YR 8/1/19

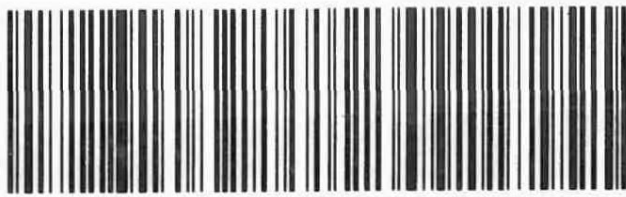


600-189554 Waybill

3 of 3
 MPS# 7888 2425 3944
 0263
 Mstr# 7888 2425 3922 0201
AB LKSA
 THU - 01 AUG 10:30A
 PRIORITY OVERNIGHT
 77040
 TX-US IAH



1 of 3
 TRK# 7888 2425 3922
 0201
 ## MASTER ##
AB LKSA
 THU - 01 AUG 10:30A
 PRIORITY OVERNIGHT
 77040
 TX-US IAH



2 of 3
 MPS# 7888 2425 3933
 0263
 Mstr# 7888 2425 3922 0201
AB LKSA
 THU - 01 AUG 10:30A
 PRIORITY OVERNIGHT
 77040
 TX-US IAH



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Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
TestAmerica



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking Net(s):	COG No:
Client Contact: 4101 Shuffel Street NW, North Canton, OH, 44720		Phone: 330-497-9396(Tel) 330-497-0772(Fax)	Kudchadkar, Sachin G	State of Origin: Texas	600-41147.1
Company: TestAmerica Laboratories, Inc.		Project #: 60008660	E-Mail: sachin.kudchadkar@testamericainc.com	Page: Page 1 of 2	Job #: 600-189554-1
Address: 4101 Shuffel Street NW, North Canton, OH, 44720		SSOW#:	Accreditations Required (See note): NELAP - Texas		
Due Date Requested: 8/8/2019		Analysis Requested			
TAT Requested (days):		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (specify)			
PO #:		Preservation Codes:			
WO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Z - other (specify)			
Project Name: CDU & BB		Other:			
Site:		GC, CYS			
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:			
CDU - 08-2-3 (600-189554-3)	Sample Date: 7/31/19	Sample Time: 08:05	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
CDU - 09-0-1 (600-189554-4)	Sample Date: 7/31/19	Sample Time: 08:15	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
CDU - 10-1-2 (600-189554-9)	Sample Date: 7/31/19	Sample Time: 08:50	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
BB - 01-1-2 (600-189554-11)	Sample Date: 7/31/19	Sample Time: 10:45	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
BB - 02-3-4 (600-189554-15)	Sample Date: 7/31/19	Sample Time: 11:20	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
BB - 03-2-3 (600-189554-18)	Sample Date: 7/31/19	Sample Time: 11:40	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
BB - 03-3-4 (600-189554-19)	Sample Date: 7/31/19	Sample Time: 11:45	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
BB - 04-2-3 (600-189554-22)	Sample Date: 7/31/19	Sample Time: 12:15	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
BB - 05-0-1 (600-189554-23)	Sample Date: 7/31/19	Sample Time: 12:20	Sample Type (C=Comp, G=grab): Central	Matrix (W=water, S=solid, O=waste/oil, BT=Trace, AsAb): Solid	Field Filtered Sample (Yes or No): X
Total Number of Containers		4			
Perform MS/MSD (Yes or No)		X			
8015B DRO/3546 (MOD) Diesel Range Organics (C10-C28)		X			
8015B GRO/5035A, FM (MOD) Copy Analyses		X			

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification

Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify) _____

Primary Deliverable Rank: 2
Date: _____

Relinquished by: _____
Date/Time: _____

Relinquished by: _____
Date/Time: _____

Relinquished by: _____
Date/Time: _____

Custody Seal No.: _____
A Yes Δ No

Received by: _____
Date/Time: 8/6/19 9:30
Company: _____

Received by: _____
Date/Time: _____
Company: _____

Received by: _____
Date/Time: _____
Company: _____

Cooler Temperature(s) °C and Other Remarks: _____

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646



Chain of Custody Record

Environment Testing
TestAmerica

Client Information (Sub Contract Lab)		Sampler: Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-41147.2	
Client Contact: Shipping/Receiving		Phone: E-Mail: sachin.kudchadkar@testamericainc.com		State of Origin: Texas		Page: Page 2 of 2	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #:		600-189554-1	
Address: 4101 Shuffell Street NW,		Due Date Requested: 8/8/2019		Analysis Requested:		Preservation Codes:	
City: North Canton		TAT Requested (days):		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AcNaO2 P - Na2O4S Q - Na2SO3 R - H2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: OH, 44720		FO #:		Perform MS/MSD (Yes or No)			
Phone: 330-497-9396(Tel) 330-497-0772(Fax)		WO #:		8015B DR03546 (MOD) Diesel Range Organics [C10- C28]			
Email:		Project #: 600086660		8015B GRO5035A_FM (MOD) Copy Analyses			
Project Name: CDU & BB		SSOW#:		Total Number of Containers		Special Instructions/Note:	
Site:							
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
BB - 06-0-1 (600-189554-27)		7/31/19		12:55 Central		Solid	
BB - 07-1-2 (600-189554-31)		7/31/19		13:20 Central		Solid	
BB - 07-2-3 (600-189554-32)		7/31/19		13:25 Central		Solid	
BB - 08-3-4 (600-189554-36)		7/31/19		13:55 Central		Solid	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: [Signature] Date: [Date]

Relinquished by: [Signature] Date/Time: [Date/Time] Company: [Company]

Relinquished by: [Signature] Date/Time: [Date/Time] Company: [Company]

Custody Seals Intact: Yes No Custody Seal No.: []

Special Instructions/QC Requirements: [] Return To Client [] Disposal By Lab [] Archive For [] Months

Received by: [Signature] Date/Time: [Date/Time] Company: [Company]

Received by: [Signature] Date/Time: [Date/Time] Company: [Company]

Received by: [Signature] Date/Time: [Date/Time] Company: [Company]

Cooler Temperature(s) °C and Other Remarks: []



Ver: 01/16/2019

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client TA Houston Site Name _____ Cooler-unpacked by: _____
Cooler Received on 8/6/19 Opened on 8/6/19
FedEx: 1st Grd. Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____


Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 1.0 °C Corrected Cooler Temp. 1.1 °C
IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
- Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

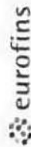
19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

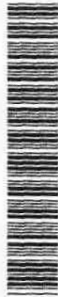
WT-NC-099

Eurofins TestAmerica, Houston
63110 Routhway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
TestAmerica



Client Information (Sub Contract Lab)		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):	
Client Contact: Shipping/Receiving		E-Mail: sachin.kudchadkar@testamericainc.com		State of Origin: Texas	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		COC No: 600-41314-1	
Address: 4101 Shuffel Street NW, North Canton, OH, 44720		Due Date Requested: 8/14/2019		Page: Page 1 of 1	
Phone: 330-497-9396(Tel) 330-497-0772(Fax)		TAT Requested (days):		Job #: 600-189554-2	
Email:		PO #:		Preservation Codes:	
WO #:		Project #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Project Name: CDU & BB		SSOW#:		Other:	
Site:		Sample Date		Sample Instructions/Note:	
Sample Identification - Client ID (Lab ID)		Sample Time		Total Number of Containers	
CDU - 08-0-1 (600-189554-1)	07:55 Central	7/31/19	X	X	1
CDU - 09-3-4 (600-189554-7)	08:30 Central	7/31/19	X	X	1
CDU - 10-0-1 (600-189554-8)	08:45 Central	7/31/19	X	X	1
BB - 01-0-1 (600-189554-10)	10:40 Central	7/31/19	X	X	1
BB - 02-0-1 (600-189554-12)	11:05 Central	7/31/19	X	X	1
BB - 04-0-1 (600-189554-20)	12:05 Central	7/31/19	X	X	1
BB - 05-3-4 (600-189554-26)	12:35 Central	7/31/19	X	X	1
BB - 06-2-3 (600-189554-29)	13:05 Central	7/31/19	X	X	1
BB - 08-0-1 (600-189554-33)	13:40 Central	7/31/19	X	X	1
<p>Sample Identification - Client ID (Lab ID)</p> <p>CDU - 08-0-1 (600-189554-1) 07:55 Central 7/31/19 X X 1</p> <p>CDU - 09-3-4 (600-189554-7) 08:30 Central 7/31/19 X X 1</p> <p>CDU - 10-0-1 (600-189554-8) 08:45 Central 7/31/19 X X 1</p> <p>BB - 01-0-1 (600-189554-10) 10:40 Central 7/31/19 X X 1</p> <p>BB - 02-0-1 (600-189554-12) 11:05 Central 7/31/19 X X 1</p> <p>BB - 04-0-1 (600-189554-20) 12:05 Central 7/31/19 X X 1</p> <p>BB - 05-3-4 (600-189554-26) 12:35 Central 7/31/19 X X 1</p> <p>BB - 06-2-3 (600-189554-29) 13:05 Central 7/31/19 X X 1</p> <p>BB - 08-0-1 (600-189554-33) 13:40 Central 7/31/19 X X 1</p>					
<p>Possible Hazard Identification</p> <p>Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Primary Deliverable Rank: 2</p>					
<p>Empty Kit Relinquished by: [Signature]</p> <p>Relinquished by: [Signature] Date: 8/15/19</p> <p>Relinquished by: [Signature] Date: 8/15/19</p> <p>Relinquished by: [Signature] Date: 8/15/19</p>					
<p>Custody Seals Intact: Δ Yes Δ No</p> <p>Custody Seal No.:</p>					

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____

Canton Facility

Client ETA Site Name _____ Cooler unpacked by: Ryan Cribler

Cooler Received on 8-15-19 Opened on 8-15-19 915

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time Storage Location _____

TestAmerica Cooler # 74 Foam Box Client Cooler Box Other _____

Packing material used Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.5 °C
 IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No


10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738

13. Were VOAs on the COC? Yes No

14. Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.

15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

16. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-189554-2

Login Number: 189554
List Number: 1
Creator: Rubio, Yuri

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0,1.9,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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Environment Testing
TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-189564-1
Client Project/Site: Langley Getty & central Dinkard Unit

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Note: Samples which begin with LG in this lab report are for another site.

Attn: Mr. Wallace Gilmore

Authorized for release by:
9/23/2019 11:18:05 AM
Jasmine Turner, Project Management Assistant I
(713)690-4444
jasmine.turner@testamericainc.com

Designee for
Sachin Kudchadkar, Senior Project Manager
(713)690-4444
sachin.kudchadkar@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM
Project/Site: Langley Getty & central Dinkard Unit

Laboratory Job ID: 600-189564-1

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Eurofins TestAmerica, Houston job number 600-189564-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jasmine Turner, for Sachin Kudchadkar

Name (printed)



Signature

9/23/2019

Date

Senior Project Manager

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/23/2019
Project Name:	Langley Getty & central Dinkard Unit	Laboratory Job Number:	600-189564-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				R05D
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?				X	
		Were analytical duplicates analyzed at the appropriate frequency?				X	
		Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/23/2019
Project Name:	Langley Getty & central Dinkard Unit	Laboratory Job Number:	600-189564-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
		1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).					

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/23/2019
Project Name:	Langley Getty & central Dinkard Unit	Laboratory Job Number:	600-189564-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER # ¹	Description
R05D	<p>Method 9056A: The method blank for analytical batch 600-271834 contained chloride below the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. <input type="checkbox"/></p> <p>Method 9056A: The method blank for preparation batch 600-271758 and analytical batch 600-271834 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. <input type="checkbox"/></p> <p>Method 9056A: The method blank for preparation batch 600-271884 and analytical batch 600-271990 contained chloride below the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p>
R07C	<p>Method 9056A: 600-189564-1 MS and 600-189564-1 MSD recovered below QC limits for the following analyte: Chloride. Matrix interference is suspected. <input type="checkbox"/></p> <p>Method 9056A: 600-189564-27 MS and 600-189564-27 MSD recovered above QC limits for the following analyte: Chloride. Matrix interference is suspected. <input type="checkbox"/></p> <p>Method 9056A: 600-189564-35 MS and 600-189564-35 MSD recovered above QC limits for the following analyte: Chloride. Matrix interference is suspected. <input type="checkbox"/></p> <p>Method 9056A: 600-189564-41 MSD recovered above QC limits for the following analyte: Chloride. Matrix interference is suspected. <input type="checkbox"/></p> <p>Method 9056A: 600-189564-B-21-B MS and 600-189564-B-21-C MSD recovered below QC limits for the following analyte: Chloride. Matrix interference is suspected. <input type="checkbox"/></p>
<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked). 	



Method 8015B GRO Detection Limit Validation

Laboratory Eurofins TestAmerica, Canton

Preparation Method: 5030B_SolidNAC MDLV

Limit Group GCVOA 8015B GRO Sol P&T/Enc RL/MDL

Analysis Dates: 4/18/2019 to 4/24/2019

Analyte

C6-C10

Current		Calculations								*MDLV used - 377126-7* All values recovered	
MDL	RL	Ver	Spike	Spike	Std	Std	Std	Std	Std	MDLV:	Pass
		MDL	amount	Units	/MDL	Mean	Dev	Reps	Limits?		
64.2	100	64.2	100.0	ug/Kg	1.6	82.9006	12.068924	4	N		

Lab ID	Anal Date	Batch	Samp	Analyst	Method	Prep Method	Equipment	Result	Units	Detected?
240-110308-A-3-A MD	04/18/2019	377126	7	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	AFID	77.2098004	ug/Kg	Pass
240-110308-A-4-A MD	04/18/2019	377126	8	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	AFID	74.6646849	ug/Kg	Pass
240-110306-A-3-A MD	04/24/2019	378036	6	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	YPID	78.9146744	ug/Kg	Pass
240-110306-A-4-A MD	04/24/2019	378036	7	Grossman, Lucas	8015B_GRO	5030B_SolidNAC	YPID	100.813548	ug/Kg	Pass

Detected? Pass = result was detected ; Fail = result <= 0 . If MDLV is < MDL , verify Detection or S/N ratio
 MDLV: Pass = meets Spike/MDL ratio , Spike High =Spike/MDL > ratio , Spike Low = Spike < MDL
 Spike/MDL ratio = 3.00

Method 8015B DRO Detection Limit Validation

Laboratory Eurofins TestAmerica, Canton

Preparation Method: 3546

MDLV

Limit Group GCS 8015B_C DRO 3546 Solid RL/MDL

Analysis Dates: 4/1/2019 to 7/22/2019

Analyte

Diesel

Current		Calculations							*MDLV used - 386836-9* All values recovered MDLV: Pass
MDL	RL	Ver MDL	Spike amount	Units	Spike /MDL	Mean	Std Dev	Reps	
34.58	50	34.58	50.0	mg/Kg	1.4	44.6510	5.1007347	8	N

Lab ID	Anal Date	Batch	Samp	Analyst	Method	Prep Method	Equipment	Result	Units	Detected?
240-110302-A-7-A MD	06/18/2019	386836	9	Bolgrin, Deborah	8015B_DRO	3546	A2HP5F	54.7914449	mg/Kg	Pass
240-110302-A-8-A MD	06/18/2019	386836	10	Bolgrin, Deborah	8015B_DRO	3546	A2HP5F	49.4051637	mg/Kg	Pass
240-110302-A-20-A MI	06/18/2019	386887	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP5R	41.8150117	mg/Kg	Pass
240-110302-A-21-A MI	06/18/2019	386887	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP5R	38.6871397	mg/Kg	Pass
240-110302-A-9-A MD	06/18/2019	386849	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP6F	44.5286106	mg/Kg	Pass
240-110302-A-22-A MI	06/18/2019	386859	11	Bolgrin, Deborah	8015B_DRO	3546	A2HP6R	42.2728391	mg/Kg	Pass
240-110302-A-24-A MI	06/18/2019	386849	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP6F	42.1637227	mg/Kg	Pass
240-110302-A-23-A MI	06/18/2019	386859	12	Bolgrin, Deborah	8015B_DRO	3546	A2HP6R	43.5445928	mg/Kg	Pass

Detected? Pass = result was detected ; Fail = result <= 0 . If MDLV is < MDL , verify Detection or S/N ratio
 MDLV: Pass = meets Spike/MDL ratio , Spike High =Spike/MDL > ratio , Spike Low = Spike < MDL
 Spike/MDL ratio = 3.00

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: SW-846 9056 / EPA 300
Prep Method: DI Leach
Date Analyzed: 9/19/2018
Job #: 600-168589
TALS Batch: 247740
Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bromide	CHWC11	1.005	2.000	2.980	4
Chloride	CHWC11	0.534	4.000	5.990	4
Fluoride	CHWC11	0.601	2.000	1.797	2
Nitrate as N	CHWC11	0.251	2.000	2.891	2
Nitrite as N	CHWC11	0.297	2.000	0.547	2
Sulfate	CHWC11	0.957	4.000	8.820	5

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

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Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	CHVOAMS09	1.400	5.000	2.973	5
1,1,1-Trichloroethane	CHVOAMS09	0.740	2.500	2.291	5
1,1,2,2-Tetrachloroethane	CHVOAMS09	0.870	2.500	4.436	5
1,1,2-Trichloro-1,2,2-trifluoroethane	CHVOAMS09	1.440	5.000	1.787	5
1,1,2-Trichloroethane	CHVOAMS09	0.730	2.500	2.507	40
1,1-Dichloroethane	CHVOAMS09	0.870	2.500	2.114	5
1,1-Dichloroethene	CHVOAMS09	1.220	5.000	2.697	5
1,1-Dichloropropene	CHVOAMS09	0.650	2.500	2.328	5
1,2,3-Trichlorobenzene	CHVOAMS09	0.620	2.500	4.993	5
1,2,3-Trichloropropane	CHVOAMS09	1.310	2.500	5.837	5
1,2,3-Trimethylbenzene	CHVOAMS09	1.820	2.500	0.131	5
1,2,4-Trichlorobenzene	CHVOAMS09	1.970	2.500	0.414	5
1,2,4-Trimethylbenzene	CHVOAMS09	0.920	2.500	2.310	5
1,2-Dibromo-3-Chloropropane	CHVOAMS09	2.440	2.500	1.563	5
1,2-Dichlorobenzene	CHVOAMS09	0.800	2.500	0.320	5
1,2-Dichloroethane	CHVOAMS09	0.900	2.500	2.248	5
1,2-Dichloroethene, Total	CHVOAMS09	1.900	5.000	5.000	10
1,2-Dichloropropane	CHVOAMS09	0.710	2.500	2.125	5
1,3,5-Trichlorobenzene	CHVOAMS09	2.500	5.000	2.414	5
1,3,5-Trimethylbenzene	CHVOAMS09	1.600	2.500	2.173	5
1,3-Dichlorobenzene	CHVOAMS09	0.710	2.500	2.239	5
1,3-Dichloropropane	CHVOAMS09	0.630	2.500	2.265	5
1,4-Dichlorobenzene	CHVOAMS09	0.660	2.500	2.063	5
1,4-Dioxane	CHVOAMS09	62.070	50.000	21.646	500
2,2-Dichloropropane	CHVOAMS04	1.820	2.500	2.214	5
2-Butanone (MEK)	CHVOAMS09	1.900	5.000	3.640	10
2-Chloro-1,3-butadiene	CHVOAMS09	2.710	2.500	1.799	5
2-Chloroethyl vinyl ether	CHVOAMS09	0.980	5.000	4.606	10
2-Chlorotoluene	CHVOAMS09	0.680	2.500	2.155	5
2-Hexanone	CHVOAMS09	1.010	10.000	3.867	10
2-Methyl-2-propanol	CHVOAMS09	10.000	25.000	0.029	50
2-Methyltetrahydrofuran	CHVOAMS09	5.430	12.500	14.242	50
2-Methyltetrahydropyran	CHVOAMS09	4.820	12.500	15.854	50
2-Nitropropane	CHVOAMS09	24.290	5.000	4.186	50
3-Chloro-1-propene	CHVOAMS09	1.390	2.500	2.192	5
4-Chlorotoluene	CHVOAMS09	0.830	2.500	2.305	5
4-Isopropyltoluene	CHVOAMS09	1.020	2.500	0.124	5
4-Methyl-2-pentanone (MIBK)	CHVOAMS09	1.470	5.000	0.216	10
Acetone	CHVOAMS04	1.660	5.000	4.014	10
Acetonitrile	CHVOAMS09	1.390	25.000	10.912	50
Acrolein	CHVOAMS09	6.230	12.500	2.141	25
Acrylonitrile	CHVOAMS09	5.820	25.000	3.681	50
Benzene	CHVOAMS09	0.630	2.500	2.420	5
Benzyl chloride	CHVOAMS09	2.140	2.500	0.377	5
Bromobenzene	CHVOAMS09	0.990	2.500	2.602	5
Bromoform	CHVOAMS09	1.370	2.500	1.878	5
Bromomethane	CHVOAMS09	0.830	2.500	1.965	10
Butadiene	CHVOAMS09	1.250	2.500	1.845	5
Carbon disulfide	CHVOAMS04	0.550	2.500	1.935	10

DCS = Detection Check Standard

MQL = Method Quantitation Limit

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Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Carbon tetrachloride	CHVOAMS09	1.130	2.500	2.146	5
Chlorobenzene	CHVOAMS09	0.960	2.500	2.539	5
Chlorobromomethane	CHVOAMS09	1.780	2.500	2.263	5
Chlorodibromomethane	CHVOAMS09	0.940	2.500	2.383	5
Chloroethane	CHVOAMS09	1.400	5.000	2.362	10
Chloroform	CHVOAMS09	0.660	2.500	2.440	10
Chloromethane	CHVOAMS09	1.660	5.000	1.375	10
cis-1,2-Dichloroethene	CHVOAMS09	0.830	2.500	2.473	5
cis-1,3-Dichloropropene	CHVOAMS09	0.540	2.500	2.335	5
Cyclohexane	CHVOAMS09	1.920	5.000	2.952	5
Dibromomethane	CHVOAMS09	0.750	2.500	2.411	5
Dichlorobromomethane	CHVOAMS09	0.660	2.500	2.590	5
Dichlorodifluoromethane	CHVOAMS09	1.540	5.000	1.951	5
Dichlorofluoromethane	CHVOAMS09	1.000	2.500	1.932	5
Ethyl acetate	CHVOAMS09	2.810	5.000	3.504	5
Ethyl acrylate	CHVOAMS09	10.660	2.500	1.638	20
Ethyl ether	CHVOAMS09	1.950	2.500	1.822	5
Ethyl methacrylate	CHVOAMS09	1.660	2.500	0.603	5
Ethylbenzene	CHVOAMS09	1.020	2.500	2.624	5
Ethylene Dibromide	CHVOAMS09	1.020	2.500	2.413	5
Hexachlorobutadiene	CHVOAMS09	1.130	2.500	2.306	5
Hexane	CHVOAMS09	1.230	2.500	1.859	5
Iodomethane	CHVOAMS09	2.500	5.000	3.118	5
Isobutyl alcohol	CHVOAMS04	17.160	62.500	76.211	125
Isooctane	CHVOAMS09	10.000	5.000	1.018	10
Isopropyl alcohol	CHVOAMS09	27.470	50.000	34.005	100
Isopropyl ether	CHVOAMS09	1.760	2.500	1.676	5
Isopropylbenzene	CHVOAMS09	0.920	2.500	2.104	5
Methacrylonitrile	CHVOAMS09	5.000	25.000	23.410	50
Methyl acetate	CHVOAMS09	2.910	5.000	2.835	5
Methyl methacrylate	CHVOAMS09	2.860	5.000	3.621	10
Methyl tert-butyl ether	CHVOAMS09	1.830	2.500	2.421	5
Methylcyclohexane	CHVOAMS09	1.460	2.500	2.552	5
Methylene Chloride	CHVOAMS09	2.190	5.000	2.227	10
m-Xylene & p-Xylene	CHVOAMS09	1.520	2.500	2.525	5
Naphthalene	CHVOAMS09	2.370	2.500	6.777	10
n-Butyl acetate	CHVOAMS09	2.370	5.000	2.147	5
n-Butylbenzene	CHVOAMS04	0.580	2.500	1.992	5
n-Heptane	CHVOAMS09	10.000	2.500	1.474	20
N-Propylbenzene	CHVOAMS09	0.950	2.500	2.016	5
o-Xylene	CHVOAMS09	1.130	5.000	2.960	5
Propionitrile	CHVOAMS09	2.360	50.000	18.349	5
sec-Butylbenzene	CHVOAMS09	0.700	2.500	0.193	5
Styrene	CHVOAMS09	0.710	2.500	2.925	5
tert-Butylbenzene	CHVOAMS09	0.950	2.500	2.237	5
Tetrachloroethene	CHVOAMS09	0.710	2.500	2.350	5
Tetrahydrofuran	CHVOAMS09	5.390	10.000	4.590	50
Tetrahydropyran	CHVOAMS09	5.220	12.500	13.469	50
Toluene	CHVOAMS09	1.380	2.500	2.561	5

DCS = Detection Check Standard

MQL = Method Quantitation Limit

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9/23/2019

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Solid
Method: 8260B
Prep Method: 5030B_SolidNAC
Date Analyzed: 4/16/2019
Job #: 600-183722
TALS Batch: 262887
Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
trans-1,2-Dichloroethene	CHVOAMS09	1.140	2.500	2.470	5
trans-1,3-Dichloropropene	CHVOAMS09	0.580	2.500	2.304	5
trans-1,4-Dichloro-2-butene	CHVOAMS09	1.900	2.500	4.958	5
Trichloroethene	CHVOAMS09	1.400	2.500	2.306	5
Trichlorofluoromethane	CHVOAMS09	0.660	2.500	1.842	10
Vinyl acetate	CHVOAMS09	0.930	5.000	3.262	10
Vinyl chloride	CHVOAMS04	0.900	2.500	1.917	10
Xylenes, Total	CHVOAMS09	1.130	5.000	2.500	5

DCS = Detection Check Standard
 MQL = Method Quantitation Limit

Case Narrative

Client: AECOM
Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Job ID: 600-189564-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

**Job Narrative
600-189564-1**

Comments

No additional comments.

Receipt

The samples were received on 8/2/2019 9:52 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.2° C, 2.4° C and 2.9° C.

All applicable analytical narratives can be found in the TRRP Checklist section of this report.

- 1
- 2
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Method Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL HOU
3546	Microwave Extraction	SW846	TAL CAN
5030A	Purge and Trap	SW846	TAL CAN
5035	Closed System Purge & Trap/Laboratory Preservation	SW846	TAL HOU
DI Leach	Deionized Water Leaching Procedure (Routine)	ASTM	TAL HOU

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-189564-1	LG - 01-0-1	Solid	08/01/19 10:00	08/02/19 09:52	
600-189564-2	LG - 01-1-2	Solid	08/01/19 10:05	08/02/19 09:52	
600-189564-3	LG - 01-2-3	Solid	08/01/19 10:10	08/02/19 09:52	
600-189564-4	LG - 01-3-4	Solid	08/01/19 10:15	08/02/19 09:52	
600-189564-5	LG - 01-4-5	Solid	08/01/19 10:20	08/02/19 09:52	
600-189564-6	LG - 02-0-1	Solid	08/01/19 10:25	08/02/19 09:52	
600-189564-7	LG - 02-1-2	Solid	08/01/19 10:30	08/02/19 09:52	
600-189564-8	LG - 02-2-3	Solid	08/01/19 10:35	08/02/19 09:52	
600-189564-9	LG - 02-3-4	Solid	08/01/19 10:40	08/02/19 09:52	
600-189564-10	LG - 02-4-5	Solid	08/01/19 10:45	08/02/19 09:52	
600-189564-11	LG - 03-0-1	Solid	08/01/19 10:50	08/02/19 09:52	
600-189564-12	LG - 03-1-2	Solid	08/01/19 10:55	08/02/19 09:52	
600-189564-13	LG - 03-2-3	Solid	08/01/19 11:00	08/02/19 09:52	
600-189564-14	LG - 03-3-4	Solid	08/01/19 11:05	08/02/19 09:52	
600-189564-15	LG - 03-4-5	Solid	08/01/19 11:10	08/02/19 09:52	
600-189564-16	LG - 04-0-1	Solid	08/01/19 11:15	08/02/19 09:52	
600-189564-17	LG - 04-1-2	Solid	08/01/19 11:20	08/02/19 09:52	
600-189564-18	LG - 04-2-3	Solid	08/01/19 11:25	08/02/19 09:52	
600-189564-19	LG - 04-3-4	Solid	08/01/19 11:30	08/02/19 09:52	
600-189564-20	LG - 04-4-5	Solid	08/01/19 11:35	08/02/19 09:52	
600-189564-21	LG - 05-0-1	Solid	08/01/19 11:40	08/02/19 09:52	
600-189564-22	LG - 05-1-2	Solid	08/01/19 11:45	08/02/19 09:52	
600-189564-23	LG -05-2-3	Solid	08/01/19 11:50	08/02/19 09:52	
600-189564-24	LG - 05-3-4	Solid	08/01/19 11:55	08/02/19 09:52	
600-189564-25	LG - 05-4-5	Solid	08/01/19 12:00	08/02/19 09:52	
600-189564-26	CDU - 11-0-1	Solid	08/01/19 13:20	08/02/19 09:52	
600-189564-27	CDU - 11-1-2	Solid	08/01/19 13:25	08/02/19 09:52	
600-189564-28	CDU - 11-2-3	Solid	08/01/19 13:30	08/02/19 09:52	
600-189564-29	CDU - 11-3-4	Solid	08/01/19 13:35	08/02/19 09:52	
600-189564-30	CDU - 11-4-5	Solid	08/01/19 13:40	08/02/19 09:52	
600-189564-31	CDU - 12-0-1	Solid	08/01/19 13:45	08/02/19 09:52	
600-189564-32	CDU - 12-1-2	Solid	08/01/19 13:50	08/02/19 09:52	
600-189564-33	CDU - 12-3-4	Solid	08/01/19 13:55	08/02/19 09:52	
600-189564-34	CDU - 12-4-5	Solid	08/01/19 14:05	08/02/19 09:52	
600-189564-35	CDU - 13-0-1	Solid	08/01/19 14:10	08/02/19 09:52	
600-189564-36	CDU - 13-1-2	Solid	08/01/19 14:15	08/02/19 09:52	
600-189564-37	CDU - 13-2-3	Solid	08/01/19 14:20	08/02/19 09:52	
600-189564-38	CDU - 14-0-1	Solid	08/01/19 14:30	08/02/19 09:52	
600-189564-39	CDU - 14-1-2	Solid	08/01/19 14:35	08/02/19 09:52	
600-189564-40	CDU - 14-2-3	Solid	08/01/19 14:40	08/02/19 09:52	
600-189564-41	CDU - 14-3-4	Solid	08/01/19 14:45	08/02/19 09:52	

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 01-0-1

Lab Sample ID: 600-189564-1

Date Collected: 08/01/19 10:00

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	429	b	20.0	2.66	mg/Kg	-		08/15/19 08:18	5

Client Sample ID: LG - 01-1-2

Lab Sample ID: 600-189564-2

Date Collected: 08/01/19 10:05

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.4	b	4.01	0.535	mg/Kg	-		08/14/19 09:17	1

Client Sample ID: LG - 01-2-3

Lab Sample ID: 600-189564-3

Date Collected: 08/01/19 10:10

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.1	b	20.0	2.66	mg/Kg	-		08/14/19 09:37	5

Client Sample ID: LG - 01-3-4

Lab Sample ID: 600-189564-4

Date Collected: 08/01/19 10:15

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.4	J b	20.0	2.66	mg/Kg	-		08/14/19 09:58	5

Client Sample ID: LG - 01-4-5

Lab Sample ID: 600-189564-5

Date Collected: 08/01/19 10:20

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.5	b	3.98	0.532	mg/Kg	-		08/14/19 10:58	1

Client Sample ID: LG - 02-0-1

Lab Sample ID: 600-189564-6

Date Collected: 08/01/19 10:25

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.5	b	3.98	0.531	mg/Kg	-		08/14/19 11:18	1

Client Sample ID: LG - 02-1-2

Lab Sample ID: 600-189564-7

Date Collected: 08/01/19 10:30

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.2	b	3.98	0.532	mg/Kg	-		08/14/19 11:38	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 02-2-3

Lab Sample ID: 600-189564-8

Date Collected: 08/01/19 10:35

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.6	b	3.98	0.531	mg/Kg	-		08/14/19 12:38	1

Client Sample ID: LG - 02-3-4

Lab Sample ID: 600-189564-9

Date Collected: 08/01/19 10:40

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110	b	3.98	0.531	mg/Kg	-		08/14/19 12:58	1

Client Sample ID: LG - 02-4-5

Lab Sample ID: 600-189564-10

Date Collected: 08/01/19 10:45

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.1	b	3.97	0.530	mg/Kg	-		08/14/19 13:18	1

Client Sample ID: LG - 03-0-1

Lab Sample ID: 600-189564-11

Date Collected: 08/01/19 10:50

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.41	J b	3.98	0.532	mg/Kg	-		08/14/19 13:38	1

Client Sample ID: LG - 03-1-2

Lab Sample ID: 600-189564-12

Date Collected: 08/01/19 10:55

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.1	b	3.96	0.529	mg/Kg	-		08/14/19 13:58	1

Client Sample ID: LG - 03-2-3

Lab Sample ID: 600-189564-13

Date Collected: 08/01/19 11:00

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.88	b	3.97	0.530	mg/Kg	-		08/14/19 14:58	1

Client Sample ID: LG - 03-3-4

Lab Sample ID: 600-189564-14

Date Collected: 08/01/19 11:05

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.4	b	3.96	0.529	mg/Kg	-		08/14/19 15:18	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 03-4-5

Lab Sample ID: 600-189564-15

Date Collected: 08/01/19 11:10

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.7	b	4.00	0.534	mg/Kg			08/14/19 15:38	1

Client Sample ID: LG - 04-0-1

Lab Sample ID: 600-189564-16

Date Collected: 08/01/19 11:15

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000610	U	0.00484	0.000610	mg/Kg		08/02/19 15:40	08/05/19 18:36	1
Ethylbenzene	0.000988	U	0.00484	0.000988	mg/Kg		08/02/19 15:40	08/05/19 18:36	1
Toluene	0.00134	U	0.00484	0.00134	mg/Kg		08/02/19 15:40	08/05/19 18:36	1
Xylenes, Total	0.00109	U	0.00484	0.00109	mg/Kg		08/02/19 15:40	08/05/19 18:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130				08/02/19 15:40	08/05/19 18:36	1
Dibromofluoromethane	89		68 - 140				08/02/19 15:40	08/05/19 18:36	1
Toluene-d8 (Surr)	93		50 - 130				08/02/19 15:40	08/05/19 18:36	1
4-Bromofluorobenzene	101		57 - 140				08/02/19 15:40	08/05/19 18:36	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.3	U	100	64.3	ug/Kg		08/08/19 08:39	08/08/19 15:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		20 - 140				08/08/19 08:39	08/08/19 15:47	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	33.9	U	49.0	33.9	mg/Kg		08/09/19 09:11	08/12/19 16:39	1
C28-C36	33.9	U	49.0	33.9	mg/Kg		08/09/19 09:11	08/12/19 16:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	69		26 - 125				08/09/19 09:11	08/12/19 16:39	1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.47	J b	3.96	0.529	mg/Kg			08/14/19 16:38	1

Client Sample ID: LG - 04-1-2

Lab Sample ID: 600-189564-17

Date Collected: 08/01/19 11:20

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.46	J b	3.99	0.533	mg/Kg			08/14/19 16:58	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 04-2-3

Lab Sample ID: 600-189564-18

Date Collected: 08/01/19 11:25

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.05	b	3.98	0.532	mg/Kg			08/14/19 17:18	1

Client Sample ID: LG - 04-3-4

Lab Sample ID: 600-189564-19

Date Collected: 08/01/19 11:30

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.76	J b	4.00	0.534	mg/Kg			08/14/19 17:38	1

Client Sample ID: LG - 04-4-5

Lab Sample ID: 600-189564-20

Date Collected: 08/01/19 11:35

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.1	b	4.00	0.534	mg/Kg			08/14/19 17:58	1

Client Sample ID: LG - 05-0-1

Lab Sample ID: 600-189564-21

Date Collected: 08/01/19 11:40

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000605	U	0.00480	0.000605	mg/Kg		08/02/19 15:40	08/05/19 19:01	1
Ethylbenzene	0.000979	U	0.00480	0.000979	mg/Kg		08/02/19 15:40	08/05/19 19:01	1
Toluene	0.00132	U	0.00480	0.00132	mg/Kg		08/02/19 15:40	08/05/19 19:01	1
Xylenes, Total	0.00108	U	0.00480	0.00108	mg/Kg		08/02/19 15:40	08/05/19 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130	08/02/19 15:40	08/05/19 19:01	1
Dibromofluoromethane	91		68 - 140	08/02/19 15:40	08/05/19 19:01	1
Toluene-d8 (Surr)	92		50 - 130	08/02/19 15:40	08/05/19 19:01	1
4-Bromofluorobenzene	101		57 - 140	08/02/19 15:40	08/05/19 19:01	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.7	U	99.2	63.7	ug/Kg		08/08/19 08:39	08/08/19 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		20 - 140	08/08/19 08:39	08/08/19 16:31	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.0	U	49.2	34.0	mg/Kg		08/09/19 09:11	08/12/19 17:07	1
C28-C36	34.0	U	49.2	34.0	mg/Kg		08/09/19 09:11	08/12/19 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	81		26 - 125	08/09/19 09:11	08/12/19 17:07	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 05-0-1

Lab Sample ID: 600-189564-21

Date Collected: 08/01/19 11:40

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38700	b	396	52.9	mg/Kg	-		08/15/19 15:57	100

Client Sample ID: LG - 05-1-2

Lab Sample ID: 600-189564-22

Date Collected: 08/01/19 11:45

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6530	b	198	26.5	mg/Kg	-		08/14/19 21:03	50

Client Sample ID: LG -05-2-3

Lab Sample ID: 600-189564-23

Date Collected: 08/01/19 11:50

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3090	b	79.2	10.6	mg/Kg	-		08/14/19 21:21	20

Client Sample ID: LG - 05-3-4

Lab Sample ID: 600-189564-24

Date Collected: 08/01/19 11:55

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.6	b	3.96	0.529	mg/Kg	-		08/14/19 21:39	1

Client Sample ID: LG - 05-4-5

Lab Sample ID: 600-189564-25

Date Collected: 08/01/19 12:00

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000603	U	0.00479	0.000603	mg/Kg	-	08/02/19 15:40	08/06/19 18:23	1
Ethylbenzene	0.000977	U	0.00479	0.000977	mg/Kg	-	08/02/19 15:40	08/06/19 18:23	1
Toluene	0.00132	U	0.00479	0.00132	mg/Kg	-	08/02/19 15:40	08/06/19 18:23	1
Xylenes, Total	0.00108	U	0.00479	0.00108	mg/Kg	-	08/02/19 15:40	08/06/19 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130	08/02/19 15:40	08/06/19 18:23	1
Dibromofluoromethane	93		68 - 140	08/02/19 15:40	08/06/19 18:23	1
Toluene-d8 (Surr)	93		50 - 130	08/02/19 15:40	08/06/19 18:23	1
4-Bromofluorobenzene	107		57 - 140	08/02/19 15:40	08/06/19 18:23	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.9	U	99.6	63.9	ug/Kg	-	08/08/19 08:39	08/08/19 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		20 - 140	08/08/19 08:39	08/08/19 17:15	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 05-4-5

Lab Sample ID: 600-189564-25

Date Collected: 08/01/19 12:00

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.8	U	50.4	34.8	mg/Kg	-	08/09/19 09:11	08/12/19 17:35	1
C28-C36	34.8	U	50.4	34.8	mg/Kg	-	08/09/19 09:11	08/12/19 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	84		26 - 125	08/09/19 09:11	08/12/19 17:35	1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	249	b	3.96	0.529	mg/Kg	-		08/14/19 21:57	1

Client Sample ID: CDU - 11-0-1

Lab Sample ID: 600-189564-26

Date Collected: 08/01/19 13:20

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.1	b	3.97	0.530	mg/Kg	-		08/14/19 22:14	1

Client Sample ID: CDU - 11-1-2

Lab Sample ID: 600-189564-27

Date Collected: 08/01/19 13:25

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.8	b	4.00	0.534	mg/Kg	-		08/15/19 16:15	1

Client Sample ID: CDU - 11-2-3

Lab Sample ID: 600-189564-28

Date Collected: 08/01/19 13:30

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.3	b	3.98	0.531	mg/Kg	-		08/15/19 17:08	1

Client Sample ID: CDU - 11-3-4

Lab Sample ID: 600-189564-29

Date Collected: 08/01/19 13:35

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.5	b	3.98	0.532	mg/Kg	-		08/15/19 17:26	1

Client Sample ID: CDU - 11-4-5

Lab Sample ID: 600-189564-30

Date Collected: 08/01/19 13:40

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000761	U	0.00604	0.000761	mg/Kg	-	08/02/19 15:40	08/06/19 18:49	1
Ethylbenzene	0.00123	U	0.00604	0.00123	mg/Kg	-	08/02/19 15:40	08/06/19 18:49	1
Toluene	0.00167	U	0.00604	0.00167	mg/Kg	-	08/02/19 15:40	08/06/19 18:49	1
Xylenes, Total	0.00136	U	0.00604	0.00136	mg/Kg	-	08/02/19 15:40	08/06/19 18:49	1

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Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: CDU - 11-4-5

Lab Sample ID: 600-189564-30

Date Collected: 08/01/19 13:40

Matrix: Solid

Date Received: 08/02/19 09:52

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130	08/02/19 15:40	08/06/19 18:49	1
Dibromofluoromethane	90		68 - 140	08/02/19 15:40	08/06/19 18:49	1
Toluene-d8 (Surr)	92		50 - 130	08/02/19 15:40	08/06/19 18:49	1
4-Bromofluorobenzene	102		57 - 140	08/02/19 15:40	08/06/19 18:49	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.7	U	101	64.7	ug/Kg		08/08/19 08:39	08/08/19 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	84		20 - 140	08/08/19 08:39	08/08/19 17:58	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	355		47.7	33.0	mg/Kg		08/09/19 09:11	08/12/19 18:02	1
C28-C36	249		47.7	33.0	mg/Kg		08/09/19 09:11	08/12/19 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		26 - 125	08/09/19 09:11	08/12/19 18:02	1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.69	b	3.96	0.529	mg/Kg			08/15/19 17:44	1

Client Sample ID: CDU - 12-0-1

Lab Sample ID: 600-189564-31

Date Collected: 08/01/19 13:45

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2	b	3.98	0.532	mg/Kg			08/15/19 18:02	1

Client Sample ID: CDU - 12-1-2

Lab Sample ID: 600-189564-32

Date Collected: 08/01/19 13:50

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.8	b	3.99	0.533	mg/Kg			08/15/19 18:56	1

Client Sample ID: CDU - 12-3-4

Lab Sample ID: 600-189564-33

Date Collected: 08/01/19 13:55

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.6	b	4.00	0.534	mg/Kg			08/15/19 19:14	1

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Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: CDU - 12-4-5

Lab Sample ID: 600-189564-34

Date Collected: 08/01/19 14:05

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000665	U	0.00527	0.000665	mg/Kg	-	08/02/19 15:40	08/06/19 19:15	1
Ethylbenzene	0.00108	U	0.00527	0.00108	mg/Kg	-	08/02/19 15:40	08/06/19 19:15	1
Toluene	0.00146	U	0.00527	0.00146	mg/Kg	-	08/02/19 15:40	08/06/19 19:15	1
Xylenes, Total	0.00119	U	0.00527	0.00119	mg/Kg	-	08/02/19 15:40	08/06/19 19:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130				08/02/19 15:40	08/06/19 19:15	1
Dibromofluoromethane	92		68 - 140				08/02/19 15:40	08/06/19 19:15	1
Toluene-d8 (Surr)	94		50 - 130				08/02/19 15:40	08/06/19 19:15	1
4-Bromofluorobenzene	104		57 - 140				08/02/19 15:40	08/06/19 19:15	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.6	U	101	64.6	ug/Kg	-	08/08/19 08:39	08/08/19 18:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	94		20 - 140				08/08/19 08:39	08/08/19 18:42	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.3	U	49.7	34.3	mg/Kg	-	08/09/19 09:11	08/12/19 18:58	1
C28-C36	34.3	U	49.7	34.3	mg/Kg	-	08/09/19 09:11	08/12/19 18:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		26 - 125				08/09/19 09:11	08/12/19 18:58	1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.7	b	3.99	0.533	mg/Kg	-		08/15/19 19:32	1

Client Sample ID: CDU - 13-0-1

Lab Sample ID: 600-189564-35

Date Collected: 08/01/19 14:10

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.17	b	3.98	0.532	mg/Kg	-		08/15/19 19:50	1

Client Sample ID: CDU - 13-1-2

Lab Sample ID: 600-189564-36

Date Collected: 08/01/19 14:15

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.71	b	4.00	0.534	mg/Kg	-		08/15/19 20:43	1

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Client Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: CDU - 13-2-3

Lab Sample ID: 600-189564-37

Date Collected: 08/01/19 14:20

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000774	U	0.00614	0.000774	mg/Kg		08/02/19 15:40	08/06/19 19:41	1
Ethylbenzene	0.00125	U	0.00614	0.00125	mg/Kg		08/02/19 15:40	08/06/19 19:41	1
Toluene	0.00170	U	0.00614	0.00170	mg/Kg		08/02/19 15:40	08/06/19 19:41	1
Xylenes, Total	0.00139	U	0.00614	0.00139	mg/Kg		08/02/19 15:40	08/06/19 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130				08/02/19 15:40	08/06/19 19:41	1
Dibromofluoromethane	90		68 - 140				08/02/19 15:40	08/06/19 19:41	1
Toluene-d8 (Surr)	92		50 - 130				08/02/19 15:40	08/06/19 19:41	1
4-Bromofluorobenzene	101		57 - 140				08/02/19 15:40	08/06/19 19:41	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.4	U	98.8	63.4	ug/Kg		08/08/19 08:39	08/08/19 19:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		20 - 140				08/08/19 08:39	08/08/19 19:25	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	35.0	U	50.7	35.0	mg/Kg		08/09/19 09:11	08/12/19 19:53	1
C28-C36	35.0	U	50.7	35.0	mg/Kg		08/09/19 09:11	08/12/19 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		26 - 125				08/09/19 09:11	08/12/19 19:53	1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1	b	3.96	0.529	mg/Kg			08/15/19 21:01	1

Client Sample ID: CDU - 14-0-1

Lab Sample ID: 600-189564-38

Date Collected: 08/01/19 14:30

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.4	b	3.98	0.532	mg/Kg			08/15/19 21:19	1

Client Sample ID: CDU - 14-1-2

Lab Sample ID: 600-189564-39

Date Collected: 08/01/19 14:35

Matrix: Solid

Date Received: 08/02/19 09:52

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.4	b	4.00	0.534	mg/Kg			08/15/19 21:37	1

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Client Sample Results

Client: AECOM
Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Client Sample ID: CDU - 14-2-3

Date Collected: 08/01/19 14:40

Date Received: 08/02/19 09:52

Lab Sample ID: 600-189564-40

Matrix: Solid

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.6	b	4.00	0.534	mg/Kg	-		08/15/19 22:31	1

Client Sample ID: CDU - 14-3-4

Date Collected: 08/01/19 14:45

Date Received: 08/02/19 09:52

Lab Sample ID: 600-189564-41

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000421	U	0.00334	0.000421	mg/Kg	-	08/02/19 15:40	08/05/19 14:16	1
Ethylbenzene	0.000681	U	0.00334	0.000681	mg/Kg	-	08/02/19 15:40	08/05/19 14:16	1
Toluene	0.000921	U	0.00334	0.000921	mg/Kg	-	08/02/19 15:40	08/05/19 14:16	1
Xylenes, Total	0.000754	U	0.00334	0.000754	mg/Kg	-	08/02/19 15:40	08/05/19 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130	08/02/19 15:40	08/05/19 14:16	1
Dibromofluoromethane	92		68 - 140	08/02/19 15:40	08/05/19 14:16	1
Toluene-d8 (Surr)	93		50 - 130	08/02/19 15:40	08/05/19 14:16	1
4-Bromofluorobenzene	106		57 - 140	08/02/19 15:40	08/05/19 14:16	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.1	U	98.2	63.1	ug/Kg	-	08/08/19 08:39	08/08/19 21:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	87		20 - 140	08/08/19 08:39	08/08/19 21:30	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	35.2	U	50.9	35.2	mg/Kg	-	08/09/19 09:11	08/12/19 20:21	1
C28-C36	35.2	U	50.9	35.2	mg/Kg	-	08/09/19 09:11	08/12/19 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	70		26 - 125	08/09/19 09:11	08/12/19 20:21	1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.1		4.00	0.534	mg/Kg	-		08/15/19 23:24	1

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Definitions/Glossary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

GC VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
b	The compound was found in the blank and sample
E	Result is greater than the UQL and the concentration is an estimated value.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: AECOM
Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-189564-16	LG - 04-0-1	85	89	93	101
600-189564-21	LG - 05-0-1	88	91	92	101
600-189564-25	LG - 05-4-5	88	93	93	107
600-189564-30	CDU - 11-4-5	86	90	92	102
600-189564-34	CDU - 12-4-5	87	92	94	104
600-189564-37	CDU - 13-2-3	87	90	92	101
600-189564-41	CDU - 14-3-4	89	92	93	106
LCS 600-271138/3	Lab Control Sample	79	91	101	113
LCS 600-271253/3	Lab Control Sample	88	94	97	109
LCSD 600-271138/4	Lab Control Sample Dup	80	92	100	116
LCSD 600-271253/4	Lab Control Sample Dup	86	91	94	107
MB 600-271138/6	Method Blank	97	93	95	106
MB 600-271253/6	Method Blank	101	94	94	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT2 (20-140)
		180-93437-C-2-F MS
180-93437-C-2-G MSD	Matrix Spike Duplicate	89
600-189564-16	LG - 04-0-1	88
600-189564-21	LG - 05-0-1	88
600-189564-25	LG - 05-4-5	88
600-189564-30	CDU - 11-4-5	84
600-189564-34	CDU - 12-4-5	94
600-189564-37	CDU - 13-2-3	88
600-189564-41	CDU - 14-3-4	87
LCS 240-394979/2-A	Lab Control Sample	93
MB 240-394979/1-A	Method Blank	88

Surrogate Legend

TFT = Trifluorotoluene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (26-125)
		600-189564-16
600-189564-21	LG - 05-0-1	81
600-189564-25	LG - 05-4-5	84
600-189564-30	CDU - 11-4-5	71

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Surrogate Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (26-125)
600-189564-34	CDU - 12-4-5	71
600-189564-37	CDU - 13-2-3	76
600-189564-41	CDU - 14-3-4	70
600-189564-41 MS	CDU - 14-3-4	64
600-189564-41 MSD	CDU - 14-3-4	74
LCS 240-395221/13-A	Lab Control Sample	87
MB 240-395221/12-A	Method Blank	71

Surrogate Legend

OTPH = o-Terphenyl (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

QC Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-271138/6

Matrix: Solid

Analysis Batch: 271138

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/05/19 10:32	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/05/19 10:32	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/05/19 10:32	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/05/19 10:32	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	97		61 - 130		08/05/19 10:32	1
Dibromofluoromethane	93		68 - 140		08/05/19 10:32	1
Toluene-d8 (Surr)	95		50 - 130		08/05/19 10:32	1
4-Bromofluorobenzene	106		57 - 140		08/05/19 10:32	1

Lab Sample ID: LCS 600-271138/3

Matrix: Solid

Analysis Batch: 271138

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.0500	0.04746		mg/Kg		95	70 - 131
Ethylbenzene	0.0500	0.05092		mg/Kg		102	66 - 130
Toluene	0.0500	0.05159		mg/Kg		103	67 - 130
Xylenes, Total	0.100	0.1018		mg/Kg		102	63 - 130
m-Xylene & p-Xylene	0.0500	0.05120		mg/Kg		102	64 - 130
o-Xylene	0.0500	0.05060		mg/Kg		101	62 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	79		61 - 130
Dibromofluoromethane	91		68 - 140
Toluene-d8 (Surr)	101		50 - 130
4-Bromofluorobenzene	113		57 - 140

Lab Sample ID: LCSD 600-271138/4

Matrix: Solid

Analysis Batch: 271138

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	0.0500	0.04808		mg/Kg		96	70 - 131	1	30
Ethylbenzene	0.0500	0.05156		mg/Kg		103	66 - 130	1	30
Toluene	0.0500	0.05147		mg/Kg		103	67 - 130	0	30
Xylenes, Total	0.100	0.1027		mg/Kg		103	63 - 130	1	30
m-Xylene & p-Xylene	0.0500	0.05111		mg/Kg		102	64 - 130	0	30
o-Xylene	0.0500	0.05156		mg/Kg		103	62 - 130	2	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	80		61 - 130
Dibromofluoromethane	92		68 - 140
Toluene-d8 (Surr)	100		50 - 130
4-Bromofluorobenzene	116		57 - 140

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QC Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-271253/6

Matrix: Solid

Analysis Batch: 271253

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/06/19 11:49	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/06/19 11:49	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/06/19 11:49	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/06/19 11:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130		08/06/19 11:49	1
Dibromofluoromethane	94		68 - 140		08/06/19 11:49	1
Toluene-d8 (Surr)	94		50 - 130		08/06/19 11:49	1
4-Bromofluorobenzene	102		57 - 140		08/06/19 11:49	1

Lab Sample ID: LCS 600-271253/3

Matrix: Solid

Analysis Batch: 271253

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04202		mg/Kg		84	70 - 131
Ethylbenzene	0.0500	0.04475		mg/Kg		90	66 - 130
Toluene	0.0500	0.04289		mg/Kg		86	67 - 130
Xylenes, Total	0.100	0.08943		mg/Kg		89	63 - 130
m-Xylene & p-Xylene	0.0500	0.04537		mg/Kg		91	64 - 130
o-Xylene	0.0500	0.04406		mg/Kg		88	62 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		61 - 130
Dibromofluoromethane	94		68 - 140
Toluene-d8 (Surr)	97		50 - 130
4-Bromofluorobenzene	109		57 - 140

Lab Sample ID: LCSD 600-271253/4

Matrix: Solid

Analysis Batch: 271253

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04141		mg/Kg		83	70 - 131	1	30
Ethylbenzene	0.0500	0.04453		mg/Kg		89	66 - 130	0	30
Toluene	0.0500	0.04322		mg/Kg		86	67 - 130	1	30
Xylenes, Total	0.100	0.08926		mg/Kg		89	63 - 130	0	30
m-Xylene & p-Xylene	0.0500	0.04525		mg/Kg		90	64 - 130	0	30
o-Xylene	0.0500	0.04401		mg/Kg		88	62 - 130	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		61 - 130
Dibromofluoromethane	91		68 - 140
Toluene-d8 (Surr)	94		50 - 130
4-Bromofluorobenzene	107		57 - 140

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QC Sample Results

Client: AECOM
 Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 240-394979/1-A
 Matrix: Solid
 Analysis Batch: 394975

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 394979

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.2	U	100	64.2	ug/Kg		08/08/19 08:39	08/08/19 10:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	88		20 - 140				08/08/19 08:39	08/08/19 10:41	1

Lab Sample ID: LCS 240-394979/2-A
 Matrix: Solid
 Analysis Batch: 394975

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 394979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	800	755.4		ug/Kg		94	75 - 126
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Trifluorotoluene (Surr)	93		20 - 140				

Lab Sample ID: 180-93437-C-2-F MS
 Matrix: Solid
 Analysis Batch: 394975

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 394979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	62.9	U	792	576.9		ug/Kg		73	10 - 134
Surrogate	MS %Recovery	MS Qualifier	Limits						
Trifluorotoluene (Surr)	87		20 - 140						

Lab Sample ID: 180-93437-C-2-G MSD
 Matrix: Solid
 Analysis Batch: 394975

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 394979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Organics [C6 - C10]	62.9	U	794	571.2		ug/Kg		72	10 - 134	1	40
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Trifluorotoluene (Surr)	89		20 - 140								

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 240-395221/12-A
 Matrix: Solid
 Analysis Batch: 395565

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 395221

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10 - C28]	34.6	U	50.0	34.6	mg/Kg		08/09/19 09:11	08/12/19 14:49	1
C28-C36	34.6	U	50.0	34.6	mg/Kg		08/09/19 09:11	08/12/19 14:49	1

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QC Sample Results

Client: AECOM
 Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 240-395221/12-A
 Matrix: Solid
 Analysis Batch: 395565

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 395221

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		26 - 125	08/09/19 09:11	08/12/19 14:49	1

Lab Sample ID: LCS 240-395221/13-A
 Matrix: Solid
 Analysis Batch: 395565

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 395221

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10 - C28]	250	208.7		mg/Kg		83	45 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl (Surr)	87		26 - 125

Lab Sample ID: 600-189564-41 MS
 Matrix: Solid
 Analysis Batch: 395565

Client Sample ID: CDU - 14-3-4
 Prep Type: Total/NA
 Prep Batch: 395221

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10 - C28]	35.2	U	241	149.6		mg/Kg		62	27 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl (Surr)	64		26 - 125

Lab Sample ID: 600-189564-41 MSD
 Matrix: Solid
 Analysis Batch: 395565

Client Sample ID: CDU - 14-3-4
 Prep Type: Total/NA
 Prep Batch: 395221

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Diesel Range Organics [C10 - C28]	35.2	U	241	174.1		mg/Kg		72	27 - 120	15	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl (Surr)	74		26 - 125

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 600-271758/1-A
 Matrix: Solid
 Analysis Batch: 271834

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.389	J	4.00	0.534	mg/Kg			08/14/19 07:37	1

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QC Sample Results

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 600-271758/2-A
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	200	201.9		mg/Kg		101	90 - 110

Lab Sample ID: 600-189564-1 MS
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: LG - 01-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	424	E b	99.8	494.0	E 4	mg/Kg		70	80 - 120

Lab Sample ID: 600-189564-1 MSD
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: LG - 01-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	424	E b	99.8	491.6	E 4	mg/Kg		68	80 - 120	0	20

Lab Sample ID: 600-189564-7 MS
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: LG - 02-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	22.2	b	99.6	129.2		mg/Kg		107	80 - 120

Lab Sample ID: 600-189564-7 MSD
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: LG - 02-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	22.2	b	99.6	129.4		mg/Kg		108	80 - 120	0	20

Lab Sample ID: 600-189564-15 MS
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: LG - 03-4-5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.7	b	100	135.9		mg/Kg		110	80 - 120

Lab Sample ID: 600-189564-15 MSD
Matrix: Solid
Analysis Batch: 271834

Client Sample ID: LG - 03-4-5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	25.7	b	100	134.9		mg/Kg		109	80 - 120	1	20

Lab Sample ID: MB 600-271884/1-A
Matrix: Solid
Analysis Batch: 271990

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.860	J	4.00	0.534	mg/Kg			08/14/19 19:33	1

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QC Sample Results

Client: AECOM
 Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 600-271884/2-A
Matrix: Solid
Analysis Batch: 271990

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	200	192.6		mg/Kg		96	90 - 110

Lab Sample ID: 600-189564-B-21-B MS
Matrix: Solid
Analysis Batch: 271990

Client Sample ID: 600-189564-B-21-B MS
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	18300	E	99.0	16750	E 4	mg/Kg		-1515	80 - 120

Lab Sample ID: 600-189564-B-21-C MSD
Matrix: Solid
Analysis Batch: 271990

Client Sample ID: 600-189564-B-21-C MSD
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18300	E	99.0	16860	E 4	mg/Kg		-1408	80 - 120	1	20

Lab Sample ID: MB 600-271884/1-A
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.781	J	4.00	0.534	mg/Kg			08/15/19 15:21	1

Lab Sample ID: MB 600-272123/1-A
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.534	U	4.00	0.534	mg/Kg			08/15/19 22:49	1

Lab Sample ID: LCS 600-271884/2-A
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	200	213.2		mg/Kg		107	90 - 110

Lab Sample ID: LCS 600-272123/2-A
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	200	217.2		mg/Kg		109	90 - 110

Lab Sample ID: 600-189564-27 MS
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: CDU - 11-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	18.8	b	100	200.2	N1	mg/Kg		181	80 - 120

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QC Sample Results

Client: AECOM
 Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 600-189564-27 MSD
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: CDU - 11-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18.8	b	100	164.3	N1	mg/Kg		145	80 - 120	20	20

Lab Sample ID: 600-189564-35 MS
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: CDU - 13-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.17	b	99.6	143.4	N1	mg/Kg		140	80 - 120		

Lab Sample ID: 600-189564-35 MSD
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: CDU - 13-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.17	b	99.6	131.1	N1	mg/Kg		127	80 - 120	9	20

Lab Sample ID: 600-189564-41 MS
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: CDU - 14-3-4
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	36.1		100	154.1		mg/Kg		118	80 - 120		

Lab Sample ID: 600-189564-41 MSD
Matrix: Solid
Analysis Batch: 272090

Client Sample ID: CDU - 14-3-4
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	36.1		100	186.6	N1	mg/Kg		150	80 - 120	19	20

Unadjusted Detection Limits

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Method: 8260B - Volatile Organic Compounds (GC/MS)**Prep: 5035**

Analyte	MQL	MDL	Units
Benzene	0.00500	0.000630	mg/Kg
Ethylbenzene	0.00500	0.00102	mg/Kg
Toluene	0.00500	0.00138	mg/Kg
Xylenes, Total	0.00500	0.00113	mg/Kg

Method: 8015B - Gasoline Range Organics - (GC)**Prep: 5030A**

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	100	64.2	ug/Kg

Method: 8015B - Diesel Range Organics (DRO) (GC)**Prep: 3546**

Analyte	MQL	MDL	Units
C28-C36	50.0	34.6	mg/Kg
Diesel Range Organics [C10 - C28]	50.0	34.6	mg/Kg

Method: 9056A - Anions, Ion Chromatography - Soluble**Leach: DI Leach**

Analyte	MQL	MDL	Units
Chloride	4.00	0.534	mg/Kg

QC Association Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

GC/MS VOA

Analysis Batch: 271138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-16	LG - 04-0-1	Total/NA	Solid	8260B	271171
600-189564-21	LG - 05-0-1	Total/NA	Solid	8260B	271171
600-189564-41	CDU - 14-3-4	Total/NA	Solid	8260B	271171
MB 600-271138/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-271138/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-271138/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 271171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-16	LG - 04-0-1	Total/NA	Solid	5035	
600-189564-21	LG - 05-0-1	Total/NA	Solid	5035	
600-189564-25	LG - 05-4-5	Total/NA	Solid	5035	
600-189564-30	CDU - 11-4-5	Total/NA	Solid	5035	
600-189564-34	CDU - 12-4-5	Total/NA	Solid	5035	
600-189564-37	CDU - 13-2-3	Total/NA	Solid	5035	
600-189564-41	CDU - 14-3-4	Total/NA	Solid	5035	

Analysis Batch: 271253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-25	LG - 05-4-5	Total/NA	Solid	8260B	271171
600-189564-30	CDU - 11-4-5	Total/NA	Solid	8260B	271171
600-189564-34	CDU - 12-4-5	Total/NA	Solid	8260B	271171
600-189564-37	CDU - 13-2-3	Total/NA	Solid	8260B	271171
MB 600-271253/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-271253/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-271253/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC VOA

Analysis Batch: 394975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-16	LG - 04-0-1	Total/NA	Solid	8015B	394979
600-189564-21	LG - 05-0-1	Total/NA	Solid	8015B	394979
600-189564-25	LG - 05-4-5	Total/NA	Solid	8015B	394979
600-189564-30	CDU - 11-4-5	Total/NA	Solid	8015B	394979
600-189564-34	CDU - 12-4-5	Total/NA	Solid	8015B	394979
600-189564-37	CDU - 13-2-3	Total/NA	Solid	8015B	394979
600-189564-41	CDU - 14-3-4	Total/NA	Solid	8015B	394979
MB 240-394979/1-A	Method Blank	Total/NA	Solid	8015B	394979
LCS 240-394979/2-A	Lab Control Sample	Total/NA	Solid	8015B	394979
180-93437-C-2-F MS	Matrix Spike	Total/NA	Solid	8015B	394979
180-93437-C-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	394979

Prep Batch: 394979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-16	LG - 04-0-1	Total/NA	Solid	5030A	
600-189564-21	LG - 05-0-1	Total/NA	Solid	5030A	
600-189564-25	LG - 05-4-5	Total/NA	Solid	5030A	
600-189564-30	CDU - 11-4-5	Total/NA	Solid	5030A	
600-189564-34	CDU - 12-4-5	Total/NA	Solid	5030A	
600-189564-37	CDU - 13-2-3	Total/NA	Solid	5030A	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

GC VOA (Continued)

Prep Batch: 394979 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-41	CDU - 14-3-4	Total/NA	Solid	5030A	
MB 240-394979/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 240-394979/2-A	Lab Control Sample	Total/NA	Solid	5030A	
180-93437-C-2-F MS	Matrix Spike	Total/NA	Solid	5030A	
180-93437-C-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5030A	

GC Semi VOA

Prep Batch: 395221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-16	LG - 04-0-1	Total/NA	Solid	3546	
600-189564-21	LG - 05-0-1	Total/NA	Solid	3546	
600-189564-25	LG - 05-4-5	Total/NA	Solid	3546	
600-189564-30	CDU - 11-4-5	Total/NA	Solid	3546	
600-189564-34	CDU - 12-4-5	Total/NA	Solid	3546	
600-189564-37	CDU - 13-2-3	Total/NA	Solid	3546	
600-189564-41	CDU - 14-3-4	Total/NA	Solid	3546	
MB 240-395221/12-A	Method Blank	Total/NA	Solid	3546	
LCS 240-395221/13-A	Lab Control Sample	Total/NA	Solid	3546	
600-189564-41 MS	CDU - 14-3-4	Total/NA	Solid	3546	
600-189564-41 MSD	CDU - 14-3-4	Total/NA	Solid	3546	

Analysis Batch: 395565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-16	LG - 04-0-1	Total/NA	Solid	8015B	395221
600-189564-21	LG - 05-0-1	Total/NA	Solid	8015B	395221
600-189564-25	LG - 05-4-5	Total/NA	Solid	8015B	395221
600-189564-30	CDU - 11-4-5	Total/NA	Solid	8015B	395221
600-189564-34	CDU - 12-4-5	Total/NA	Solid	8015B	395221
600-189564-37	CDU - 13-2-3	Total/NA	Solid	8015B	395221
600-189564-41	CDU - 14-3-4	Total/NA	Solid	8015B	395221
MB 240-395221/12-A	Method Blank	Total/NA	Solid	8015B	395221
LCS 240-395221/13-A	Lab Control Sample	Total/NA	Solid	8015B	395221
600-189564-41 MS	CDU - 14-3-4	Total/NA	Solid	8015B	395221
600-189564-41 MSD	CDU - 14-3-4	Total/NA	Solid	8015B	395221

HPLC/IC

Leach Batch: 271758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-1	LG - 01-0-1	Soluble	Solid	DI Leach	
600-189564-2	LG - 01-1-2	Soluble	Solid	DI Leach	
600-189564-3	LG - 01-2-3	Soluble	Solid	DI Leach	
600-189564-4	LG - 01-3-4	Soluble	Solid	DI Leach	
600-189564-5	LG - 01-4-5	Soluble	Solid	DI Leach	
600-189564-6	LG - 02-0-1	Soluble	Solid	DI Leach	
600-189564-7	LG - 02-1-2	Soluble	Solid	DI Leach	
600-189564-8	LG - 02-2-3	Soluble	Solid	DI Leach	
600-189564-9	LG - 02-3-4	Soluble	Solid	DI Leach	
600-189564-10	LG - 02-4-5	Soluble	Solid	DI Leach	
600-189564-11	LG - 03-0-1	Soluble	Solid	DI Leach	
600-189564-12	LG - 03-1-2	Soluble	Solid	DI Leach	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

HPLC/IC (Continued)

Leach Batch: 271758 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-13	LG - 03-2-3	Soluble	Solid	DI Leach	
600-189564-14	LG - 03-3-4	Soluble	Solid	DI Leach	
600-189564-15	LG - 03-4-5	Soluble	Solid	DI Leach	
600-189564-16	LG - 04-0-1	Soluble	Solid	DI Leach	
600-189564-17	LG - 04-1-2	Soluble	Solid	DI Leach	
600-189564-18	LG - 04-2-3	Soluble	Solid	DI Leach	
600-189564-19	LG - 04-3-4	Soluble	Solid	DI Leach	
600-189564-20	LG - 04-4-5	Soluble	Solid	DI Leach	
MB 600-271758/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-271758/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-189564-1 MS	LG - 01-0-1	Soluble	Solid	DI Leach	
600-189564-1 MSD	LG - 01-0-1	Soluble	Solid	DI Leach	
600-189564-7 MS	LG - 02-1-2	Soluble	Solid	DI Leach	
600-189564-7 MSD	LG - 02-1-2	Soluble	Solid	DI Leach	
600-189564-15 MS	LG - 03-4-5	Soluble	Solid	DI Leach	
600-189564-15 MSD	LG - 03-4-5	Soluble	Solid	DI Leach	

Analysis Batch: 271834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-1	LG - 01-0-1	Soluble	Solid	9056A	271758
600-189564-2	LG - 01-1-2	Soluble	Solid	9056A	271758
600-189564-3	LG - 01-2-3	Soluble	Solid	9056A	271758
600-189564-4	LG - 01-3-4	Soluble	Solid	9056A	271758
600-189564-5	LG - 01-4-5	Soluble	Solid	9056A	271758
600-189564-6	LG - 02-0-1	Soluble	Solid	9056A	271758
600-189564-7	LG - 02-1-2	Soluble	Solid	9056A	271758
600-189564-8	LG - 02-2-3	Soluble	Solid	9056A	271758
600-189564-9	LG - 02-3-4	Soluble	Solid	9056A	271758
600-189564-10	LG - 02-4-5	Soluble	Solid	9056A	271758
600-189564-11	LG - 03-0-1	Soluble	Solid	9056A	271758
600-189564-12	LG - 03-1-2	Soluble	Solid	9056A	271758
600-189564-13	LG - 03-2-3	Soluble	Solid	9056A	271758
600-189564-14	LG - 03-3-4	Soluble	Solid	9056A	271758
600-189564-15	LG - 03-4-5	Soluble	Solid	9056A	271758
600-189564-16	LG - 04-0-1	Soluble	Solid	9056A	271758
600-189564-17	LG - 04-1-2	Soluble	Solid	9056A	271758
600-189564-18	LG - 04-2-3	Soluble	Solid	9056A	271758
600-189564-19	LG - 04-3-4	Soluble	Solid	9056A	271758
600-189564-20	LG - 04-4-5	Soluble	Solid	9056A	271758
MB 600-271758/1-A	Method Blank	Soluble	Solid	9056A	271758
LCS 600-271758/2-A	Lab Control Sample	Soluble	Solid	9056A	271758
600-189564-1 MS	LG - 01-0-1	Soluble	Solid	9056A	271758
600-189564-1 MSD	LG - 01-0-1	Soluble	Solid	9056A	271758
600-189564-7 MS	LG - 02-1-2	Soluble	Solid	9056A	271758
600-189564-7 MSD	LG - 02-1-2	Soluble	Solid	9056A	271758
600-189564-15 MS	LG - 03-4-5	Soluble	Solid	9056A	271758
600-189564-15 MSD	LG - 03-4-5	Soluble	Solid	9056A	271758

Leach Batch: 271884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-21	LG - 05-0-1	Soluble	Solid	DI Leach	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

HPLC/IC (Continued)

Leach Batch: 271884 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-22	LG - 05-1-2	Soluble	Solid	DI Leach	
600-189564-23	LG -05-2-3	Soluble	Solid	DI Leach	
600-189564-24	LG - 05-3-4	Soluble	Solid	DI Leach	
600-189564-25	LG - 05-4-5	Soluble	Solid	DI Leach	
600-189564-26	CDU - 11-0-1	Soluble	Solid	DI Leach	
600-189564-27	CDU - 11-1-2	Soluble	Solid	DI Leach	
600-189564-28	CDU - 11-2-3	Soluble	Solid	DI Leach	
600-189564-29	CDU - 11-3-4	Soluble	Solid	DI Leach	
600-189564-30	CDU - 11-4-5	Soluble	Solid	DI Leach	
600-189564-31	CDU - 12-0-1	Soluble	Solid	DI Leach	
600-189564-32	CDU - 12-1-2	Soluble	Solid	DI Leach	
600-189564-33	CDU - 12-3-4	Soluble	Solid	DI Leach	
600-189564-34	CDU - 12-4-5	Soluble	Solid	DI Leach	
600-189564-35	CDU - 13-0-1	Soluble	Solid	DI Leach	
600-189564-36	CDU - 13-1-2	Soluble	Solid	DI Leach	
600-189564-37	CDU - 13-2-3	Soluble	Solid	DI Leach	
600-189564-38	CDU - 14-0-1	Soluble	Solid	DI Leach	
600-189564-39	CDU - 14-1-2	Soluble	Solid	DI Leach	
600-189564-40	CDU - 14-2-3	Soluble	Solid	DI Leach	
MB 600-271884/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-271884/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-189564-27 MS	CDU - 11-1-2	Soluble	Solid	DI Leach	
600-189564-27 MSD	CDU - 11-1-2	Soluble	Solid	DI Leach	
600-189564-35 MS	CDU - 13-0-1	Soluble	Solid	DI Leach	
600-189564-35 MSD	CDU - 13-0-1	Soluble	Solid	DI Leach	
600-189564-B-21-B MS	600-189564-B-21-B MS	Soluble	Solid	DI Leach	
600-189564-B-21-C MSD	600-189564-B-21-C MSD	Soluble	Solid	DI Leach	

Analysis Batch: 271990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-22	LG - 05-1-2	Soluble	Solid	9056A	271884
600-189564-23	LG -05-2-3	Soluble	Solid	9056A	271884
600-189564-24	LG - 05-3-4	Soluble	Solid	9056A	271884
600-189564-25	LG - 05-4-5	Soluble	Solid	9056A	271884
600-189564-26	CDU - 11-0-1	Soluble	Solid	9056A	271884
MB 600-271884/1-A	Method Blank	Soluble	Solid	9056A	271884
LCS 600-271884/2-A	Lab Control Sample	Soluble	Solid	9056A	271884
600-189564-B-21-B MS	600-189564-B-21-B MS	Soluble	Solid	9056A	271884
600-189564-B-21-C MSD	600-189564-B-21-C MSD	Soluble	Solid	9056A	271884

Analysis Batch: 272090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-21	LG - 05-0-1	Soluble	Solid	9056A	271884
600-189564-27	CDU - 11-1-2	Soluble	Solid	9056A	271884
600-189564-28	CDU - 11-2-3	Soluble	Solid	9056A	271884
600-189564-29	CDU - 11-3-4	Soluble	Solid	9056A	271884
600-189564-30	CDU - 11-4-5	Soluble	Solid	9056A	271884
600-189564-31	CDU - 12-0-1	Soluble	Solid	9056A	271884
600-189564-32	CDU - 12-1-2	Soluble	Solid	9056A	271884
600-189564-33	CDU - 12-3-4	Soluble	Solid	9056A	271884
600-189564-34	CDU - 12-4-5	Soluble	Solid	9056A	271884

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QC Association Summary

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

HPLC/IC (Continued)

Analysis Batch: 272090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-35	CDU - 13-0-1	Soluble	Solid	9056A	271884
600-189564-36	CDU - 13-1-2	Soluble	Solid	9056A	271884
600-189564-37	CDU - 13-2-3	Soluble	Solid	9056A	271884
600-189564-38	CDU - 14-0-1	Soluble	Solid	9056A	271884
600-189564-39	CDU - 14-1-2	Soluble	Solid	9056A	271884
600-189564-40	CDU - 14-2-3	Soluble	Solid	9056A	271884
600-189564-41	CDU - 14-3-4	Soluble	Solid	9056A	272123
MB 600-271884/1-A	Method Blank	Soluble	Solid	9056A	271884
MB 600-272123/1-A	Method Blank	Soluble	Solid	9056A	272123
LCS 600-271884/2-A	Lab Control Sample	Soluble	Solid	9056A	271884
LCS 600-272123/2-A	Lab Control Sample	Soluble	Solid	9056A	272123
600-189564-27 MS	CDU - 11-1-2	Soluble	Solid	9056A	271884
600-189564-27 MSD	CDU - 11-1-2	Soluble	Solid	9056A	271884
600-189564-35 MS	CDU - 13-0-1	Soluble	Solid	9056A	271884
600-189564-35 MSD	CDU - 13-0-1	Soluble	Solid	9056A	271884
600-189564-41 MS	CDU - 14-3-4	Soluble	Solid	9056A	272123
600-189564-41 MSD	CDU - 14-3-4	Soluble	Solid	9056A	272123

Leach Batch: 272123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189564-41	CDU - 14-3-4	Soluble	Solid	DI Leach	
MB 600-272123/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-272123/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-189564-41 MS	CDU - 14-3-4	Soluble	Solid	DI Leach	
600-189564-41 MSD	CDU - 14-3-4	Soluble	Solid	DI Leach	

Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 01-0-1**Lab Sample ID: 600-189564-1****Date Collected: 08/01/19 10:00****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		5	271834	08/15/19 08:18	SKR	TAL HOU

Client Sample ID: LG - 01-1-2**Lab Sample ID: 600-189564-2****Date Collected: 08/01/19 10:05****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 09:17	SKR	TAL HOU

Client Sample ID: LG - 01-2-3**Lab Sample ID: 600-189564-3****Date Collected: 08/01/19 10:10****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		5	271834	08/14/19 09:37	SKR	TAL HOU

Client Sample ID: LG - 01-3-4**Lab Sample ID: 600-189564-4****Date Collected: 08/01/19 10:15****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		5	271834	08/14/19 09:58	SKR	TAL HOU

Client Sample ID: LG - 01-4-5**Lab Sample ID: 600-189564-5****Date Collected: 08/01/19 10:20****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 10:58	SKR	TAL HOU

Client Sample ID: LG - 02-0-1**Lab Sample ID: 600-189564-6****Date Collected: 08/01/19 10:25****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 11:18	SKR	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 02-1-2**Lab Sample ID: 600-189564-7****Date Collected: 08/01/19 10:30****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 11:38	SKR	TAL HOU

Client Sample ID: LG - 02-2-3**Lab Sample ID: 600-189564-8****Date Collected: 08/01/19 10:35****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 12:38	SKR	TAL HOU

Client Sample ID: LG - 02-3-4**Lab Sample ID: 600-189564-9****Date Collected: 08/01/19 10:40****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 12:58	SKR	TAL HOU

Client Sample ID: LG - 02-4-5**Lab Sample ID: 600-189564-10****Date Collected: 08/01/19 10:45****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 13:18	SKR	TAL HOU

Client Sample ID: LG - 03-0-1**Lab Sample ID: 600-189564-11****Date Collected: 08/01/19 10:50****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 13:38	SKR	TAL HOU

Client Sample ID: LG - 03-1-2**Lab Sample ID: 600-189564-12****Date Collected: 08/01/19 10:55****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 13:58	SKR	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG - 03-2-3**Lab Sample ID: 600-189564-13****Date Collected: 08/01/19 11:00****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 14:58	SKR	TAL HOU

Client Sample ID: LG - 03-3-4**Lab Sample ID: 600-189564-14****Date Collected: 08/01/19 11:05****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 15:57	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 15:18	SKR	TAL HOU

Client Sample ID: LG - 03-4-5**Lab Sample ID: 600-189564-15****Date Collected: 08/01/19 11:10****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 17:03	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 15:38	SKR	TAL HOU

Client Sample ID: LG - 04-0-1**Lab Sample ID: 600-189564-16****Date Collected: 08/01/19 11:15****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271138	08/05/19 18:36	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 15:47	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 16:39	LKG	TAL CAN
Soluble	Leach	DI Leach			271758	08/12/19 17:03	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 16:38	SKR	TAL HOU

Client Sample ID: LG - 04-1-2**Lab Sample ID: 600-189564-17****Date Collected: 08/01/19 11:20****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 17:03	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 16:58	SKR	TAL HOU

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Lab Chronicle

Client: AECOM
Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Client Sample ID: LG - 04-2-3

Lab Sample ID: 600-189564-18

Date Collected: 08/01/19 11:25

Matrix: Solid

Date Received: 08/02/19 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 17:03	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 17:18	SKR	TAL HOU

Client Sample ID: LG - 04-3-4

Lab Sample ID: 600-189564-19

Date Collected: 08/01/19 11:30

Matrix: Solid

Date Received: 08/02/19 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 17:03	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 17:38	SKR	TAL HOU

Client Sample ID: LG - 04-4-5

Lab Sample ID: 600-189564-20

Date Collected: 08/01/19 11:35

Matrix: Solid

Date Received: 08/02/19 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271758	08/12/19 17:03	SKR	TAL HOU
Soluble	Analysis	9056A		1	271834	08/14/19 17:58	SKR	TAL HOU

Client Sample ID: LG - 05-0-1

Lab Sample ID: 600-189564-21

Date Collected: 08/01/19 11:40

Matrix: Solid

Date Received: 08/02/19 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271138	08/05/19 19:01	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 16:31	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 17:07	LKG	TAL CAN
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		100	272090	08/15/19 15:57	SKR	TAL HOU

Client Sample ID: LG - 05-1-2

Lab Sample ID: 600-189564-22

Date Collected: 08/01/19 11:45

Matrix: Solid

Date Received: 08/02/19 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		50	271990	08/14/19 21:03	SKR	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: LG -05-2-3**Lab Sample ID: 600-189564-23****Date Collected: 08/01/19 11:50****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		20	271990	08/14/19 21:21	SKR	TAL HOU

Client Sample ID: LG - 05-3-4**Lab Sample ID: 600-189564-24****Date Collected: 08/01/19 11:55****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	271990	08/14/19 21:39	SKR	TAL HOU

Client Sample ID: LG - 05-4-5**Lab Sample ID: 600-189564-25****Date Collected: 08/01/19 12:00****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271253	08/06/19 18:23	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 17:15	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 17:35	LKG	TAL CAN
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	271990	08/14/19 21:57	SKR	TAL HOU

Client Sample ID: CDU - 11-0-1**Lab Sample ID: 600-189564-26****Date Collected: 08/01/19 13:20****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	271990	08/14/19 22:14	SKR	TAL HOU

Client Sample ID: CDU - 11-1-2**Lab Sample ID: 600-189564-27****Date Collected: 08/01/19 13:25****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 16:15	SKR	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: CDU - 11-2-3**Lab Sample ID: 600-189564-28****Date Collected: 08/01/19 13:30****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 17:08	SKR	TAL HOU

Client Sample ID: CDU - 11-3-4**Lab Sample ID: 600-189564-29****Date Collected: 08/01/19 13:35****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 17:26	SKR	TAL HOU

Client Sample ID: CDU - 11-4-5**Lab Sample ID: 600-189564-30****Date Collected: 08/01/19 13:40****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271253	08/06/19 18:49	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 17:58	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 18:02	LKG	TAL CAN
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 17:44	SKR	TAL HOU

Client Sample ID: CDU - 12-0-1**Lab Sample ID: 600-189564-31****Date Collected: 08/01/19 13:45****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 18:02	SKR	TAL HOU

Client Sample ID: CDU - 12-1-2**Lab Sample ID: 600-189564-32****Date Collected: 08/01/19 13:50****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 18:56	SKR	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: CDU - 12-3-4**Lab Sample ID: 600-189564-33****Date Collected: 08/01/19 13:55****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 19:14	SKR	TAL HOU

Client Sample ID: CDU - 12-4-5**Lab Sample ID: 600-189564-34****Date Collected: 08/01/19 14:05****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271253	08/06/19 19:15	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 18:42	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 18:58	LKG	TAL CAN
Soluble	Leach	DI Leach			271884	08/13/19 17:26	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 19:32	SKR	TAL HOU

Client Sample ID: CDU - 13-0-1**Lab Sample ID: 600-189564-35****Date Collected: 08/01/19 14:10****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:32	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 19:50	SKR	TAL HOU

Client Sample ID: CDU - 13-1-2**Lab Sample ID: 600-189564-36****Date Collected: 08/01/19 14:15****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:32	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 20:43	SKR	TAL HOU

Client Sample ID: CDU - 13-2-3**Lab Sample ID: 600-189564-37****Date Collected: 08/01/19 14:20****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271253	08/06/19 19:41	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 19:25	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 19:53	LKG	TAL CAN
Soluble	Leach	DI Leach			271884	08/13/19 17:32	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 21:01	SKR	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-189564-1

Project/Site: Langley Getty & central Dinkard Unit

Client Sample ID: CDU - 14-0-1**Lab Sample ID: 600-189564-38****Date Collected: 08/01/19 14:30****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:32	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 21:19	SKR	TAL HOU

Client Sample ID: CDU - 14-1-2**Lab Sample ID: 600-189564-39****Date Collected: 08/01/19 14:35****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:36	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 21:37	SKR	TAL HOU

Client Sample ID: CDU - 14-2-3**Lab Sample ID: 600-189564-40****Date Collected: 08/01/19 14:40****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271884	08/13/19 17:36	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 22:31	SKR	TAL HOU

Client Sample ID: CDU - 14-3-4**Lab Sample ID: 600-189564-41****Date Collected: 08/01/19 14:45****Matrix: Solid****Date Received: 08/02/19 09:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			271171	08/02/19 15:40	WS1	TAL HOU
Total/NA	Analysis	8260B		1	271138	08/05/19 14:16	WS1	TAL HOU
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 21:30	MBB	TAL CAN
Total/NA	Prep	3546			395221	08/09/19 09:11	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	395565	08/12/19 20:21	LKG	TAL CAN
Soluble	Leach	DI Leach			272123	08/15/19 17:51	SKR	TAL HOU
Soluble	Analysis	9056A		1	272090	08/15/19 23:24	SKR	TAL HOU

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: AECOM
Project/Site: Langley Getty & central Dinkard Unit

Job ID: 600-189564-1

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
California	State Program	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Connecticut	State Program	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Georgia	State Program	N/A	02-23-20
Illinois	NELAP	200004	07-31-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-20
Iowa	State Program	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (UST)	State Program	58	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Kentucky (WW)	State Program	98016	12-31-19
Minnesota	NELAP	039-999-348	12-31-19 *
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Ohio VAP	State Program	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-19-11	08-31-20
USDA	Federal	P330-16-00404	12-28-19
USDA	US Federal Programs	P330-16-00404	12-28-19
Virginia	NELAP	460175	09-14-20
Washington	State	C971	01-12-20
Washington	State Program	C971	01-12-20 *
West Virginia DEP	State	210	12-31-19
West Virginia DEP	State Program	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Houston



Chain of Custody Record

Eurofins TestAmerica, Houston
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 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Client Information Client Contact: Mr. Wallace Gilmore Company: AECOM Address: 19219 Katy Freeway Suite 100 City: Houston State, Zip: TX, 77094 Phone: 713-520-9900 (Tel) 713-520-680 (Fax) Email: wallace.gilmore@aecom.com Project Name: Chevron Site: <i>Langley Getty & Central District Unit</i>		Lab PM: Kuchadkar, Sachin G E-Mail: sachin.kuchadkar@testamericainc.com Phone: <i>James Lovely</i>		Carrier Tracking No(s): 600-70018-19143.1 Page: Job # Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2O4S Q - NazSO3 R - NazS2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Due Date Requested: TAT Requested (days): PO #: Purchase Order Requested WO #: Project #: 60008660 SSOW#:		Analysis Requested 9056 ORGM_28D - Chloride 8260B - BTEX Only 8015B - GRO - 8015B - DRO - (MOD) Diesel Range Organics [C10-C28]		Total Number of containers: Special Instructions/Note: Hold all but chloride Hold all but chloride Hold all but chloride Hold all but chloride	
Sample Identification L6-01-0-1 L6-01-1-2 L6-01-2-3 L6-01-3-4 L6-01-4-5 L6-02-0-1 L6-02-1-2 L6-02-2-3 L6-02-3-4 L6-02-4-5 L6-03-0-1		Sample Date 8/1/19 Sample Time 1200 1005 1010 1015 1020 1025 1030 1035 1040 1045 1050		Matrix (Water, Soiled, On-water/Oil, AT-Tissue, A, Air) Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		Special Instructions/IOC Requirements: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Relinquished by: <i>Seth Frederick</i> Relinquished by: <i>Seth Frederick</i> Relinquished by:		Date/Time: <i>8/1/19 17:00</i> Date/Time: <i>8/2/19 09:52</i> Date/Time:		Company: <i>AECOM</i> Company: <i>FAH</i> Company:	
Empty Kit Relinquished by: Relinquished by: Relinquished by:		Date: Date: Date:		Method of Shipment: Cooler Temperature(s) °C and Other Remarks:	

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Eurofins TestAmerica, Houston
 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

eurofins Environment Testing
 TestAmerica's

Client Information		Lab PM: Kuchhadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-70018-19143.1	
Address: 19219 Katy Freeway Suite 100		E-Mail: sachin.kuchhadkar@testamericainc.com		Page: 2		Page: 2	
City: Houston		Phone: Mr. Wallace Gilmore		Job #:			
State, Zip: TX, 77094		Company: AECOM					
Phone: 713-520-990(Tel) 713-520-680(Fax)		Due Date Requested:					
Email: wallace.gilmore@aecom.com		TAT Requested (days):					
Project Name: Chevron		PO #: Purchase Order Requested					
Site:		WO #:					
		Project #: 60008660					
		SSOW#:					
		Field Filtered Sample (Yes or No)					
		Perform MS/MSD (Yes or No)					
		9056 ORGM_28D - Chloride		N		N	
		8260B - BTEX Only		N		N	
		8015B_GRO -		N		N	
		8015B_DRO - (MOD) Diesel Range Organics [C10-C28]		N		N	
		Total Number of Containers					
		Special Instructions/Note:					
		Hold all but chloride					
		Hold all but chloride					
		Preservation Codes:					
		A - HCL					
		M - Hexane					
		B - NaOH					
		N - None					
		C - Zn Acetate					
		O - AsNaO2					
		D - Nitric Acid					
		P - Na2OAS					
		E - NaHSO4					
		F - MeOH					
		R - Na2SO3					
		G - Amchlor					
		H - Ascorbic Acid					
		I - Ice					
		J - DI Water					
		K - EDTA					
		L - EDA					
		U - Acetone					
		V - MCAA					
		W - pH 4.5					
		Z - other (specify)					
		Other:					
		Sample Identification					
L6-03-1-2		Sample Date: 8/1/19		Sample Time: 1055		Sample Type (C=Comp, G=grab): G	
L6-03-2-3		Sample Date: [scribble]		Sample Time: 1100		Sample Type (C=Comp, G=grab): [scribble]	
L6-03-3-4		Sample Date: [scribble]		Sample Time: 1105		Sample Type (C=Comp, G=grab): [scribble]	
L6-03-4-5		Sample Date: [scribble]		Sample Time: 1110		Sample Type (C=Comp, G=grab): [scribble]	
L6-04-0-1		Sample Date: [scribble]		Sample Time: 1115		Sample Type (C=Comp, G=grab): [scribble]	
L6-04-1-2		Sample Date: [scribble]		Sample Time: 1120		Sample Type (C=Comp, G=grab): [scribble]	
L6-04-2-3		Sample Date: [scribble]		Sample Time: 1125		Sample Type (C=Comp, G=grab): [scribble]	
L6-04-3-4		Sample Date: [scribble]		Sample Time: 1130		Sample Type (C=Comp, G=grab): [scribble]	
L6-04-4-5		Sample Date: [scribble]		Sample Time: 1135		Sample Type (C=Comp, G=grab): [scribble]	
L6-05-0-1		Sample Date: [scribble]		Sample Time: 1140		Sample Type (C=Comp, G=grab): [scribble]	
L6-05-1-2		Sample Date: [scribble]		Sample Time: 1145		Sample Type (C=Comp, G=grab): [scribble]	
		Possible Hazard Identification					
		<input type="checkbox"/> Non-Hazard					
		<input type="checkbox"/> Flammable					
		<input type="checkbox"/> Skin Irritant					
		<input type="checkbox"/> Poison B					
		<input type="checkbox"/> Unknown					
		<input type="checkbox"/> Radiological					
		Deliverable Requested: I, II, III, IV, Other (specify)					
		Empty Kit Relinquished by:					
		Relinquished by: Setha Frederick					
		Date/Time: 8/1/19 @ 1700					
		Company: AECOM					
		Relinquished by:					
		Date/Time:					
		Company:					
		Relinquished by:					
		Date/Time:					
		Company:					
		Custody Seal No.:					
		Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					
		Cooler Temperature(s) °C and Other Remarks:					
		Received by: YARS					
		Date/Time: 8/2/19 952					
		Company: ZAH					
		Received by:					
		Date/Time:					
		Company:					
		Method of Shipment:					
		Return To Client <input type="checkbox"/>					
		Disposal By Lab <input type="checkbox"/>					
		Archive For: Months					
		Special Instructions/QC Requirements:					
		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					

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Ver: 01/16/2019

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 6310 Rothway Street
 Houston, TX 77040
 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

eurofins Environment Testing
 TestAmerica

Client Information		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s): 600-70018-19143.1	
Company: AECOM		E-Mail: sachin.kudchadkar@testamericainc.com		Page: 3	
Address: 19219 Katy Freeway Suite 100		Due Date Requested:		Job #:	
City: Houston		TAT Requested (days):		Preservation Codes:	
State, Zip: TX, 77094		PO #: 713-520-990(Tel) 713-520-690(Fax)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Phone: 713-520-990(Tel) 713-520-690(Fax)		Purchase Order Requested		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email: wallace.gillmore@aecom.com		WO #:		Total Number of containers	
Project Name: Chevron		Project #: 60008660		Special Instructions/Note:	
Site: SSOIW#:		SSOIW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056 ORGM_28D - Chloride	8260B - BTEX Only	8015B_GRO -	8015B_DRO - (MOD) Diesel Range Organics [C10-C28]	Analysis Requested
L6-05-2-3	8/11/19	1150	G	Solid	X	X	X	X	X	X	
L6-05-3-4		1155		Solid	X	X	X	X	X	X	
L6-05-4-5		1200		Solid	X	X	X	X	X	X	
CDU-11-0-1		1320		Solid	X	X	X	X	X	X	
CDU-11-1-2		1325		Solid	X	X	X	X	X	X	
CDU-11-2-3		1330		Solid	X	X	X	X	X	X	
CDU-11-3-4		1335		Solid	X	X	X	X	X	X	
CDU-11-4-5		1340		Solid	X	X	X	X	X	X	
CDU-12-0-1		1345		Solid	X	X	X	X	X	X	
CDU-12-1-2		1350		Solid	X	X	X	X	X	X	
CDU-12-3-4		1355		Solid	X	X	X	X	X	X	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: Setha Friederich Date/Time: 8/11/19 @ 1700 Company: AECOM
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 * A Yes Δ No

Received by: _____ Date/Time: 8/2/19 957 Company: TAAH
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Client Information		Lab P/I		Carrier Tracking No(s)		COC No:							
Address: 19219 Katy Freeway Suite 100 City: Houston State, Zip: TX, 77094		Kudchadkar, Sachin G E-Mail: sachin.kudchadkar@testamericainc.com				600-70018-19143.1							
Phone: 713-520-990(Tel) 713-520-680(Fax)		Purchase Order Requested											
Email: wallace.gilmore@aecom.com		WO #											
Project Name: Chevron		Project #											
Site:		SSOW#											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, D=diesel oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056_ORGFM_28D - Chloride	8260B - BTEX Only	8015B_GRO -	8015B_DRO - (MOD) Diesel Range Organics [C10-C28]	Total Number of Containers	Special Instructions/Note:
CDU-12-4-5	8/1/19	1405	G	Solid		X	X	X	X	X	X		
CDU-13-0-1		1410		Solid		X	X	X	X	X	X		
CDU-13-1-2		1415		Solid		X	X	X	X	X	X		
CDU-13-2-3		1420		Solid		X	X	X	X	X	X		
CDU-14-0-1		1430		Solid		X	X	X	X	X	X		
CDU-14-1-2		1435		Solid		X	X	X	X	X	X		
CDU-14-2-3		1440		Solid		X	X	X	X	X	X		
CDU-14-3-4		1445		Solid		X	X	X	X	X	X		

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: Seth Frederick	Date: 8/1/19 @ 1700	Received by: JGARS	Date/Time: 8/2/19 952
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	



TestAmerica Houston

Loc: 600
189564

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

19 AUG 2 9:52

JOB NUMBER: _____

Date/Time Received: _____

CLIENT: Accom

UNPACKED BY: YP

CARRIER/DRIVER: Fedex

Custody Seal Present: YES NO

Number of Coolers Received: 3

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
<u>WIB</u>	<u>Y / N</u>	<u>Y / N</u>	<u>2.1</u>	<u>678</u>	<u>+0.1</u>	<u>2.2</u>
<u>WIB</u>	<u>Y / N</u>	<u>Y / N</u>	<u>2.8</u>			<u>2.9</u>
<u>WIB</u>	<u>Y / N</u>	<u>Y / N</u>	<u>2.3</u>			<u>2.4</u>
	<u>Y / N</u>	<u>Y / N</u>				
	<u>Y / N</u>	<u>Y / N</u>				
	<u>Y / N</u>	<u>Y / N</u>				
	<u>Y / N</u>	<u>Y / N</u>				
	<u>Y / N</u>	<u>Y / N</u>				
	<u>Y / N</u>	<u>Y / N</u>				

CF = correction factor

Samples received on ice? YES NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO YES

Base samples are >pH 12: YES NO Acid preserved are <pH 2: YES NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): YES NO NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	YES	NO
	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

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1 of 3
 TRK# 7888 5084 3590
 0201
 ## MASTER ##

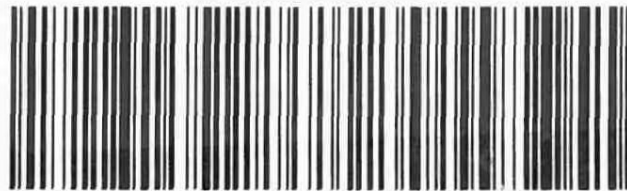
FRI - 02 AUG 10:30A
 PRIORITY OVERNIGHT

AB LKSA

77040
 TX-US IAH



600-189564 Waybill



2 of 3
 MPS# 7888 5084 3605
 0263
 Metr# 7888 5084 3590

FRI - 02 AUG 10:30A
 PRIORITY OVERNIGHT

AB LKSA

77040
 TX-US IAH

0201



3 of 3
 MPS# 7888 5084 3616
 0263
 Metr# 7888 5084 35f0

FRI - 02 AUG 10:30A
 PRIORITY OVERNIGHT

AB LKSA

77040
 TX-US IAH

0201



Eurofins TestAmerica, Houston
6310 Rohlway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
TestAmerica



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):		COC No:
6310 Rohlway Street Houston, TX 77040 Phone: 713-690-4444 Fax: 713-690-5646		Kudchadkar, Sachin G	Kudchadkar, Sachin G	600-41148-1		600-41148-1
Shipping/Receiving		Phone:	E-Mail:	State of Origin:		Page
TestAmerica Laboratories, Inc.		sachin.kudchadkar@testamericainc.com	sachin.kudchadkar@testamericainc.com	Texas		1 of 1
Address:		Accreditations Required (See note):		Job #:		Preservation Codes:
4101 Shuffel Street NW, North Canton State, Zip: OH, 44720 Phone: 330-497-9396(Tel) 330-497-0772(Fax) Email:		NELAP - Texas		600-189564-1		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDA Z - other (specify)
Project Name: Langley Getty & central Dinkard Unit Site:		Due Date Requested: 8/9/2019		Analysis Requested		Special Instructions/Note: GC, CUS
TAT Requested (days):		8/9/2019		Total Number of Containers		
PO #:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
330-497-9396(Tel) 330-497-0772(Fax)		X		X		
WO #:		Matrix		Sample Type (C=Comp, G=grab)		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		(W=water, S=solid, O=water, BT=Tissue, Ash)		C=Comp, G=grab		
SSOW#:		Sample Time		Sample Date		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		11:15 Central		8/1/19		
Project Name: Langley Getty & central Dinkard Unit Site:		Sample Date		Sample Time		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		8/1/19		11:40 Central		
Project Name: Langley Getty & central Dinkard Unit Site:		Sample Date		Sample Time		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		8/1/19		12:00 Central		
Project Name: Langley Getty & central Dinkard Unit Site:		Sample Date		Sample Time		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		8/1/19		13:40 Central		
Project Name: Langley Getty & central Dinkard Unit Site:		Sample Date		Sample Time		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		8/1/19		14:05 Central		
Project Name: Langley Getty & central Dinkard Unit Site:		Sample Date		Sample Time		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		8/1/19		14:20 Central		
Project Name: Langley Getty & central Dinkard Unit Site:		Sample Date		Sample Time		8015B_DR0/3546 (MOD) Diesel Range Organics (C10- C28) 8015B_GRO/5035A_FM (MOD) Copy Analytes
60008660		8/1/19		14:45 Central		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify)

Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Custody Seals Intact: _____

Yes Δ No

Date:

Time:

Received by:

Received by:

Received by:

Company

Company

Company

Company

Company

Company

Method of Shipment:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Company

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Company



Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____

Canton Facility

Client TA Houston Site Name _____ Cooler unpacked by: [Signature]

Cooler Received on 8/6/19 Opened on 8/6/19

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 1.0 °C Corrected Cooler Temp. 1.1 °C

IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1

Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No

10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738

13. Were VOAs on the COC? Yes No

14. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this. Yes No NA

15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record



Environment Testing
TestAmerica



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Kudchadkar, Sachin G	States of Origin:	600-41314-1
Company: TestAmerica Laboratories, Inc.		E-Mail:	sachin.kudchadkar@testamericainc.com	Page:	Page 1 of 1
Address: 4101 Shuffel Street NW, North Canton State, Zip: OH, 44720		Due Date Requested:	Accreditations Required (See note): NELAP - Texas		
Phone: 330-497-9396(Tel) 330-497-0772(Fax)		TAT Requested (days):	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Email:		PO #:	Analysis Requested:		
Project #: 60008660		WO #:	M - Hexane N - None O - AshNaO2 P - Naz2O4S Q - NazSO3 R - Naz2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify)		
Site: Langley Getly & central Dinkard Unit		SSOW#:	Total Number of containers		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=o/w, M=oil)
LG - 01-0-1 (600-189564-1)	8/1/19	10:00 Central	X	Solid	8015B_GRO/5035A_FM (MOD) Diesel Range Organics (C10-C20)
LG - 01-4-5 (600-189564-5)	8/1/19	10:20 Central	X	Solid	8015B_DRO/3546 (MOD) Diesel Range Organics (C10-C20)
LG - 02-0-1 (600-189564-6)	8/1/19	10:25 Central	X	Solid	8015B_GRO/5035A_FM (MOD) Diesel Range Organics (C10-C20)
LG - 02-4-5 (600-189564-10)	8/1/19	10:45 Central	X	Solid	8015B_GRO/5035A_FM (MOD) Diesel Range Organics (C10-C20)
LG - 03-0-1 (600-189564-11)	8/1/19	10:50 Central	X	Solid	8015B_GRO/5035A_FM (MOD) Diesel Range Organics (C10-C20)
LG - 03-4-5 (600-189564-15)	8/1/19	11:10 Central	X	Solid	8015B_GRO/5035A_FM (MOD) Diesel Range Organics (C10-C20)
LG - 04-4-5 (600-189564-20)	8/1/19	11:35 Central	X	Solid	8015B_GRO/5035A_FM (MOD) Diesel Range Organics (C10-C20)
Special Instructions/Note: C94					
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
Possible Hazard Identification					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Relinquished by: <i>Payton</i> Date: 8/1/19 10:00					
Relinquished by: <i>ETA</i> Date/Time: 8/15/19 9:15					
Relinquished by: <i>ETA</i> Date/Time: 8/15/19 9:15					
Custody Seals Intact: Custody Seal No.: <i>ETA</i>					
Cooler Temperature(s) °C and Other Remarks:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months					
Special Instructions/QC Requirements:					
Method of Shipment:					
Received by: <i>ETA</i> Date/Time: 8/15/19 9:15					
Received by: <i>ETA</i> Date/Time: 8/15/19 9:15					
Received by: <i>ETA</i> Date/Time: 8/15/19 9:15					
Cooler Temperature(s) °C and Other Remarks:					



Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____

Canton Facility

Client ETA Site Name _____ Cooler unpacked by: Ryan Cribler

Cooler Received on 8-15-19 Opened on 8-15-19 915

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 74 Foam Box Client Cooler Box Other _____


Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

See Multiple Cooler Form

- Cooler temperature upon receipt
 IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.5 °C
 IR GUN #36 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
- Were VOAs on the COC? Yes No
- Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-189564-1

Login Number: 189564
List Number: 1
Creator: Rubio, Yuri

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,2.9,2.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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

July 22, 2021

Wallace Gilmore
AECOM
19219 Katy Freeway
Suite 100
Houston, TX 77094

Work Order: **HS19091151**

Laboratory Results for: **60611388 Central Drinkard Unit**

Dear Wallace Gilmore,

ALS Environmental received 41 sample(s) on Sep 23, 2019 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

A handwritten signature in black ink, appearing to read "Dane Wacasey", written over a light blue horizontal line.

Generated By: DANE.WACASEY
Dane J. Wacasey

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS19091151

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19091151-01	CDU-15 0-1	Soil		19-Sep-2019 08:48	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-02	CDU-15 1-2	Soil		19-Sep-2019 08:55	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-03	CDU-15 2-3	Soil		19-Sep-2019 09:03	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-04	CDU-16 0-1	Soil		19-Sep-2019 09:10	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-05	CDU-16 1-2	Soil		19-Sep-2019 09:15	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-06	CDU-16 2-3	Soil		19-Sep-2019 09:19	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-07	CDU-16 3-4	Soil		19-Sep-2019 09:23	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-08	CDU-16 4-5	Soil		19-Sep-2019 09:29	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-09	CDU-17 0-1	Soil		19-Sep-2019 09:40	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-10	CDU-17 1-2	Soil		19-Sep-2019 09:48	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-11	CDU-17 2-3	Soil		19-Sep-2019 09:55	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-12	CDU-17 3-4	Soil		19-Sep-2019 10:03	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-13	CDU-17 4-5	Soil		19-Sep-2019 10:09	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-14	CDU-18 0-1	Soil		19-Sep-2019 10:22	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-15	CDU-18 1-2	Soil		19-Sep-2019 10:30	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-16	CDU-18 2-3	Soil		19-Sep-2019 10:40	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-17	CDU-18 3-4	Soil		19-Sep-2019 10:48	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-18	CDU-19 0-1	Soil		19-Sep-2019 11:03	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-19	CDU-19 1-2	Soil		19-Sep-2019 11:08	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-20	CDU-19 2-3	Soil		19-Sep-2019 11:15	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-21	CDU-19 3-4	Soil		19-Sep-2019 11:22	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-22	CDU-19 4-5	Soil		19-Sep-2019 11:30	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-23	CDU-20 0-1	Soil		19-Sep-2019 11:45	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-24	CDU-20 1-2	Soil		19-Sep-2019 11:52	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-25	CDU-20 2-3	Soil		19-Sep-2019 12:00	23-Sep-2019 08:40	<input checked="" type="checkbox"/>
HS19091151-26	CDU-20 3-4	Soil		19-Sep-2019 12:08	23-Sep-2019 08:40	<input checked="" type="checkbox"/>

Revision:1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS19091151

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19091151-27	CDU-21 0-1	Soil		19-Sep-2019 12:33	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-28	CDU-21 1-2	Soil		19-Sep-2019 12:41	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-29	CDU-21 2-3	Soil		19-Sep-2019 12:50	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-30	CDU-21 3-4	Soil		19-Sep-2019 12:57	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-31	CDU-22 0-1	Soil		19-Sep-2019 13:13	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-32	CDU-22 1-2	Soil		19-Sep-2019 13:18	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-33	CDU-22 2-3	Soil		19-Sep-2019 13:25	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-34	CDU-23 0-1	Soil		19-Sep-2019 13:50	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-35	CDU-23 1-2	Soil		19-Sep-2019 13:58	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-36	CDU-24 0-1	Soil		19-Sep-2019 14:15	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-37	CDU-24 1-2	Soil		19-Sep-2019 14:22	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-38	CDU-24 2-3	Soil		19-Sep-2019 14:30	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-39	CDU-24 3-4	Soil		19-Sep-2019 14:37	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-40	CDU-24 4-5	Soil		19-Sep-2019 14:45	23-Sep-2019 08:40	<input type="checkbox"/>
HS19091151-41	Trip Blank	Water	CG 080519 -600	19-Sep-2019 00:00	23-Sep-2019 08:40	<input checked="" type="checkbox"/>

Revision:1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
Work Order: HS19091151

CASE NARRATIVE

Work Order Comments

- This report was revised July 22, 2021 in order to adjust sample IDs per email request from Mr. Gilmore.

Work Order Comments

- The samples were received at 20.8 °C which is outside of the recommended temperature acceptance (0 to 6 °C). The client was notified via email on September 23, 2019.

WetChemistry by Method ASTM D2216

Batch ID: R347312,R347313

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

WetChemistry by Method SW9250

Batch ID: 145880

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

Batch ID: 145881

Sample ID: COU-21 3-4 (HS19091151-30MS)

- The MS and/or MSD recovery was outside of the controll limit due to suspect matrix effect
-

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-15 0-1
 Collection Date: 19-Sep-2019 08:48

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	21.9		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.42		3.42	12.5	mg/Kg-dry	1	02-Oct-2019 11:24

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-15 1-2
 Collection Date: 19-Sep-2019 08:55

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	23.5		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.57		3.57	13.0	mg/Kg-dry	1	02-Oct-2019 11:25

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-15 2-3
 Collection Date: 19-Sep-2019 09:03

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	22.3		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.55		3.55	12.9	mg/Kg-dry	1	02-Oct-2019 11:25

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-16 0-1
 Collection Date: 19-Sep-2019 09:10

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	10.3		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.91		2.91	10.6	mg/Kg-dry	1	02-Oct-2019 11:25

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-16 1-2
 Collection Date: 19-Sep-2019 09:15

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	22.7		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.42		3.42	12.5	mg/Kg-dry	1	02-Oct-2019 11:25

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-16 2-3
 Collection Date: 19-Sep-2019 09:19

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	17.6		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.30		3.30	12.0	mg/Kg-dry	1	02-Oct-2019 11:25

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-16 3-4
 Collection Date: 19-Sep-2019 09:23

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	24.4		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.50		3.50	12.8	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-16 4-5
 Collection Date: 19-Sep-2019 09:29

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	26.2		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.63		3.63	13.2	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-17 0-1
 Collection Date: 19-Sep-2019 09:40

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-09
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	10.5		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	5.52	J	3.05	11.1	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-17 1-2
 Collection Date: 19-Sep-2019 09:48

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-10
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	22.4		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.45		3.45	12.6	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-17 2-3
 Collection Date: 19-Sep-2019 09:55

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-11
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	24.6		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	8.43	J	3.66	13.4	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-17 3-4
 Collection Date: 19-Sep-2019 10:03

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	11.4		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	3.78	J	3.06	11.2	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-17 4-5
 Collection Date: 19-Sep-2019 10:09

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-13
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	13.1		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	23.7		3.15	11.5	mg/Kg-dry	1	02-Oct-2019 11:26

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-18 0-1
 Collection Date: 19-Sep-2019 10:22

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	1.35		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.65		2.65	9.68	mg/Kg-dry	1	02-Oct-2019 11:27

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-18 1-2
 Collection Date: 19-Sep-2019 10:30

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-15
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	2.57		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.85		2.85	10.4	mg/Kg-dry	1	02-Oct-2019 11:27

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-18 2-3
 Collection Date: 19-Sep-2019 10:40

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-16
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	4.25		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.84		2.84	10.4	mg/Kg-dry	1	02-Oct-2019 11:27

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-18 3-4
 Collection Date: 19-Sep-2019 10:48

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-17
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	2.58		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	2.84	J	2.79	10.2	mg/Kg-dry	1	02-Oct-2019 11:27

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-21 0-1
 Collection Date: 19-Sep-2019 12:33

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-27
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	25.6		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.60		3.60	13.1	mg/Kg-dry	1	02-Oct-2019 11:28

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-21 1-2
 Collection Date: 19-Sep-2019 12:41

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-28
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	23.4		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.46		3.46	12.6	mg/Kg-dry	1	02-Oct-2019 11:32

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-21 2-3
 Collection Date: 19-Sep-2019 12:50

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-29
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	27.2		0.0100	0.0100	wt%	1	30-Sep-2019 08:53
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	15.2		3.76	13.7	mg/Kg-dry	1	02-Oct-2019 11:32

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-21 3-4
 Collection Date: 19-Sep-2019 12:57

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-30
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	32.5		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	911		39.7	145	mg/Kg-dry	10	02-Oct-2019 16:10

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-22 0-1
 Collection Date: 19-Sep-2019 13:13

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-31
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	6.75		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.93		2.93	10.7	mg/Kg-dry	1	02-Oct-2019 14:55

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-22 1-2
 Collection Date: 19-Sep-2019 13:18

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-32
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	9.11		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 3.02		3.02	11.0	mg/Kg-dry	1	02-Oct-2019 14:55

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-22 2-3
 Collection Date: 19-Sep-2019 13:25

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-33
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	3.86		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.86		2.86	10.4	mg/Kg-dry	1	02-Oct-2019 14:55

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-23 0-1
 Collection Date: 19-Sep-2019 13:50

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-34
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	2.22		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.80		2.80	10.2	mg/Kg-dry	1	02-Oct-2019 14:55

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-23 1-2
 Collection Date: 19-Sep-2019 13:58

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-35
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	4.31		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	571		14.1	51.4	mg/Kg-dry	5	02-Oct-2019 16:10

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-24 0-1
 Collection Date: 19-Sep-2019 14:15

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-36
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	2.89		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	< 2.74		2.74	10.0	mg/Kg-dry	1	02-Oct-2019 14:56

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-24 1-2
 Collection Date: 19-Sep-2019 14:22

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-37
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	7.38		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	52.5		2.90	10.6	mg/Kg-dry	1	02-Oct-2019 14:56

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-24 2-3
 Collection Date: 19-Sep-2019 14:30

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-38
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	14.0		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	591		16.0	58.2	mg/Kg-dry	5	02-Oct-2019 16:10

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-24 3-4
 Collection Date: 19-Sep-2019 14:37

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-39
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	21.2		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	364		3.34	12.2	mg/Kg-dry	1	02-Oct-2019 14:57

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
 Project: 60611388 Central Drinkard Unit
 Sample ID: CDU-24 4-5
 Collection Date: 19-Sep-2019 14:45

ANALYTICAL REPORT

WorkOrder:HS19091151
 Lab ID:HS19091151-40
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
MOISTURE - ASTM D2216		Method:ASTM D2216					Analyst: DFF
Percent Moisture	8.10		0.0100	0.0100	wt%	1	30-Sep-2019 08:55
CHLORIDE BY SW-846 9250		Method:SW9250					Prep:ASTM Leachate / 01-Oct-2019 Analyst: KVL
Chloride	914		29.2	107	mg/Kg-dry	10	02-Oct-2019 16:11

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

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Weight / Prep Log

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

Batch ID: 145880 **Start Date:** 01 Oct 2019 12:38 **End Date:** 01 Oct 2019 18:30
Method: SOLID CHLORIDE PREP **Prep Code:** CHLORIDE LEACH

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS19091151-01		5.1275 (grams)	50 (mL)	9.751	4-oz glass, Neat
HS19091151-02		5.0171 (grams)	50 (mL)	9.966	4-oz glass, Neat
HS19091151-03		4.9705 (grams)	50 (mL)	10.06	4-oz glass, Neat
HS19091151-04		5.2567 (grams)	50 (mL)	9.512	4-oz glass, Neat
HS19091151-05		5.1814 (grams)	50 (mL)	9.65	4-oz glass, Neat
HS19091151-06		5.0437 (grams)	50 (mL)	9.913	4-oz glass, Neat
HS19091151-07		5.1832 (grams)	50 (mL)	9.647	4-oz glass, Neat
HS19091151-08		5.1181 (grams)	50 (mL)	9.769	4-oz glass, Neat
HS19091151-09		5.0119 (grams)	50 (mL)	9.976	4-oz glass, Neat
HS19091151-10		5.1151 (grams)	50 (mL)	9.775	4-oz glass, Neat
HS19091151-11		4.9627 (grams)	50 (mL)	10.08	4-oz glass, Neat
HS19091151-12		5.0548 (grams)	50 (mL)	9.892	4-oz glass, Neat
HS19091151-13		5.0048 (grams)	50 (mL)	9.99	4-oz glass, Neat
HS19091151-14		5.2364 (grams)	50 (mL)	9.549	4-oz glass, Neat
HS19091151-15		4.9272 (grams)	50 (mL)	10.15	4-oz glass, Neat
HS19091151-16		5.0396 (grams)	50 (mL)	9.921	4-oz glass, Neat
HS19091151-17		5.0407 (grams)	50 (mL)	9.919	4-oz glass, Neat
HS19091151-27		5.1127 (grams)	50 (mL)	9.78	4-oz glass, Neat
HS19091151-28		5.1638 (grams)	50 (mL)	9.683	4-oz glass, Neat
HS19091151-29		4.9994 (grams)	50 (mL)	10	4-oz glass, Neat

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Weight / Prep Log

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

Batch ID: 145881	Start Date: 01 Oct 2019 12:42	End Date: 01 Oct 2019 18:30
Method: SOLID CHLORIDE PREP	Prep Code: CHLORIDE LEACH	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS19091151-30		5.1178 (grams)	50 (mL)	9.77	4-oz glass, Neat
HS19091151-31		5.0214 (grams)	50 (mL)	9.957	4-oz glass, Neat
HS19091151-32		4.9886 (grams)	50 (mL)	10.02	4-oz glass, Neat
HS19091151-33		4.9805 (grams)	50 (mL)	10.04	4-oz glass, Neat
HS19091151-34		5.0056 (grams)	50 (mL)	9.989	4-oz glass, Neat
HS19091151-35		5.0871 (grams)	50 (mL)	9.829	4-oz glass, Neat
HS19091151-36		5.1441 (grams)	50 (mL)	9.72	4-oz glass, Neat
HS19091151-37		5.0936 (grams)	50 (mL)	9.816	4-oz glass, Neat
HS19091151-38		4.9935 (grams)	50 (mL)	10.01	4-oz glass, Neat
HS19091151-39		5.2127 (grams)	50 (mL)	9.592	4-oz glass, Neat
HS19091151-40		5.1035 (grams)	50 (mL)	9.797	4-oz glass, Neat

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 145880 (0)		Test Name : CHLORIDE BY SW-846 9250			Matrix: Soil	
HS19091151-01	CDU-15 0-1	19 Sep 2019 08:48		01 Oct 2019 12:38	02 Oct 2019 11:24	1
HS19091151-02	CDU-15 1-2	19 Sep 2019 08:55		01 Oct 2019 12:38	02 Oct 2019 11:25	1
HS19091151-03	CDU-15 2-3	19 Sep 2019 09:03		01 Oct 2019 12:38	02 Oct 2019 11:25	1
HS19091151-04	CDU-16 0-1	19 Sep 2019 09:10		01 Oct 2019 12:38	02 Oct 2019 11:25	1
HS19091151-05	CDU-16 1-2	19 Sep 2019 09:15		01 Oct 2019 12:38	02 Oct 2019 11:25	1
HS19091151-06	CDU-16 2-3	19 Sep 2019 09:19		01 Oct 2019 12:38	02 Oct 2019 11:25	1
HS19091151-07	CDU-16 3-4	19 Sep 2019 09:23		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-08	CDU-16 4-5	19 Sep 2019 09:29		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-09	CDU-17 0-1	19 Sep 2019 09:40		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-10	CDU-17 1-2	19 Sep 2019 09:48		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-11	CDU-17 2-3	19 Sep 2019 09:55		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-12	CDU-17 3-4	19 Sep 2019 10:03		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-13	CDU-17 4-5	19 Sep 2019 10:09		01 Oct 2019 12:38	02 Oct 2019 11:26	1
HS19091151-14	CDU-18 0-1	19 Sep 2019 10:22		01 Oct 2019 12:38	02 Oct 2019 11:27	1
HS19091151-15	CDU-18 1-2	19 Sep 2019 10:30		01 Oct 2019 12:38	02 Oct 2019 11:27	1
HS19091151-16	CDU-18 2-3	19 Sep 2019 10:40		01 Oct 2019 12:38	02 Oct 2019 11:27	1
HS19091151-17	CDU-18 3-4	19 Sep 2019 10:48		01 Oct 2019 12:38	02 Oct 2019 11:27	1
HS19091151-27	CDU-21 0-1	19 Sep 2019 12:33		01 Oct 2019 12:38	02 Oct 2019 11:28	1
HS19091151-28	CDU-21 1-2	19 Sep 2019 12:41		01 Oct 2019 12:38	02 Oct 2019 11:32	1
HS19091151-29	CDU-21 2-3	19 Sep 2019 12:50		01 Oct 2019 12:38	02 Oct 2019 11:32	1
Batch ID: 145881 (0)		Test Name : CHLORIDE BY SW-846 9250			Matrix: Soil	
HS19091151-30	CDU-21 3-4	19 Sep 2019 12:57		01 Oct 2019 12:42	02 Oct 2019 16:10	10
HS19091151-31	CDU-22 0-1	19 Sep 2019 13:13		01 Oct 2019 12:42	02 Oct 2019 14:55	1
HS19091151-32	CDU-22 1-2	19 Sep 2019 13:18		01 Oct 2019 12:42	02 Oct 2019 14:55	1
HS19091151-33	CDU-22 2-3	19 Sep 2019 13:25		01 Oct 2019 12:42	02 Oct 2019 14:55	1
HS19091151-34	CDU-23 0-1	19 Sep 2019 13:50		01 Oct 2019 12:42	02 Oct 2019 14:55	1
HS19091151-35	CDU-23 1-2	19 Sep 2019 13:58		01 Oct 2019 12:42	02 Oct 2019 16:10	5
HS19091151-36	CDU-24 0-1	19 Sep 2019 14:15		01 Oct 2019 12:42	02 Oct 2019 14:56	1
HS19091151-37	CDU-24 1-2	19 Sep 2019 14:22		01 Oct 2019 12:42	02 Oct 2019 14:56	1
HS19091151-38	CDU-24 2-3	19 Sep 2019 14:30		01 Oct 2019 12:42	02 Oct 2019 16:10	5
HS19091151-39	CDU-24 3-4	19 Sep 2019 14:37		01 Oct 2019 12:42	02 Oct 2019 14:57	1
HS19091151-40	CDU-24 4-5	19 Sep 2019 14:45		01 Oct 2019 12:42	02 Oct 2019 16:11	10

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R347312 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS19091151-01	CDU-15 0-1	19 Sep 2019 08:48			30 Sep 2019 08:53	1
HS19091151-02	CDU-15 1-2	19 Sep 2019 08:55			30 Sep 2019 08:53	1
HS19091151-03	CDU-15 2-3	19 Sep 2019 09:03			30 Sep 2019 08:53	1
HS19091151-04	CDU-16 0-1	19 Sep 2019 09:10			30 Sep 2019 08:53	1
HS19091151-05	CDU-16 1-2	19 Sep 2019 09:15			30 Sep 2019 08:53	1
HS19091151-06	CDU-16 2-3	19 Sep 2019 09:19			30 Sep 2019 08:53	1
HS19091151-07	CDU-16 3-4	19 Sep 2019 09:23			30 Sep 2019 08:53	1
HS19091151-08	CDU-16 4-5	19 Sep 2019 09:29			30 Sep 2019 08:53	1
HS19091151-09	CDU-17 0-1	19 Sep 2019 09:40			30 Sep 2019 08:53	1
HS19091151-10	CDU-17 1-2	19 Sep 2019 09:48			30 Sep 2019 08:53	1
HS19091151-11	CDU-17 2-3	19 Sep 2019 09:55			30 Sep 2019 08:53	1
HS19091151-12	CDU-17 3-4	19 Sep 2019 10:03			30 Sep 2019 08:53	1
HS19091151-13	CDU-17 4-5	19 Sep 2019 10:09			30 Sep 2019 08:53	1
HS19091151-14	CDU-18 0-1	19 Sep 2019 10:22			30 Sep 2019 08:53	1
HS19091151-15	CDU-18 1-2	19 Sep 2019 10:30			30 Sep 2019 08:53	1
HS19091151-16	CDU-18 2-3	19 Sep 2019 10:40			30 Sep 2019 08:53	1
HS19091151-17	CDU-18 3-4	19 Sep 2019 10:48			30 Sep 2019 08:53	1
HS19091151-27	CDU-21 0-1	19 Sep 2019 12:33			30 Sep 2019 08:53	1
HS19091151-28	CDU-21 1-2	19 Sep 2019 12:41			30 Sep 2019 08:53	1
HS19091151-29	CDU-21 2-3	19 Sep 2019 12:50			30 Sep 2019 08:53	1
Batch ID: R347313 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS19091151-30	CDU-21 3-4	19 Sep 2019 12:57			30 Sep 2019 08:55	1
HS19091151-31	CDU-22 0-1	19 Sep 2019 13:13			30 Sep 2019 08:55	1
HS19091151-32	CDU-22 1-2	19 Sep 2019 13:18			30 Sep 2019 08:55	1
HS19091151-33	CDU-22 2-3	19 Sep 2019 13:25			30 Sep 2019 08:55	1
HS19091151-34	CDU-23 0-1	19 Sep 2019 13:50			30 Sep 2019 08:55	1
HS19091151-35	CDU-23 1-2	19 Sep 2019 13:58			30 Sep 2019 08:55	1
HS19091151-36	CDU-24 0-1	19 Sep 2019 14:15			30 Sep 2019 08:55	1
HS19091151-37	CDU-24 1-2	19 Sep 2019 14:22			30 Sep 2019 08:55	1
HS19091151-38	CDU-24 2-3	19 Sep 2019 14:30			30 Sep 2019 08:55	1
HS19091151-39	CDU-24 3-4	19 Sep 2019 14:37			30 Sep 2019 08:55	1
HS19091151-40	CDU-24 4-5	19 Sep 2019 14:45			30 Sep 2019 08:55	1

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

QC BATCH REPORT

Batch ID: 145880 (0)	Instrument: Gall01	Method: CHLORIDE BY SW-846 9250
-------------------------------	---------------------------	--

MBLK	Sample ID: MBLK-145880	Units: mg/Kg	Analysis Date: 02-Oct-2019 11:24							
Client ID:	Run ID: Gall01_347436	SeqNo: 5278813	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride < 2.74 10.0

LCS	Sample ID: LCS-145880	Units: mg/Kg	Analysis Date: 02-Oct-2019 11:24							
Client ID:	Run ID: Gall01_347436	SeqNo: 5278814	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 199.2 10.0 200 0 99.6 80 - 120

MS	Sample ID: HS19091151-01MS	Units: mg/Kg	Analysis Date: 02-Oct-2019 11:24							
Client ID: CDU-15 0-1	Run ID: Gall01_347436	SeqNo: 5278816	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 113.9 9.90 98.96 -0.1642 115 80 - 120

MSD	Sample ID: HS19091151-01MSD	Units: mg/Kg	Analysis Date: 02-Oct-2019 11:24							
Client ID: CDU-15 0-1	Run ID: Gall01_347436	SeqNo: 5278817	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 108.5 9.75 97.54 -0.1642 111 80 - 120 113.9 4.87 30

The following samples were analyzed in this batch:

HS19091151-01	HS19091151-02	HS19091151-03	HS19091151-04
HS19091151-05	HS19091151-06	HS19091151-07	HS19091151-08
HS19091151-09	HS19091151-10	HS19091151-11	HS19091151-12
HS19091151-13	HS19091151-14	HS19091151-15	HS19091151-16
HS19091151-17	HS19091151-27	HS19091151-28	HS19091151-29

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

QC BATCH REPORT

Batch ID: 145881 (0)	Instrument: Gall01	Method: CHLORIDE BY SW-846 9250
-------------------------------	---------------------------	--

MBLK	Sample ID: MBLK-145881	Units: mg/Kg	Analysis Date: 02-Oct-2019 14:54							
Client ID:	Run ID: Gall01_347478	SeqNo: 5279508	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride < 2.74 10.0

LCS	Sample ID: LCS-145881	Units: mg/Kg	Analysis Date: 02-Oct-2019 14:54							
Client ID:	Run ID: Gall01_347478	SeqNo: 5279509	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 203.1 10.0 200 0 102 80 - 120

LCSD	Sample ID: LCSD-145881	Units: mg/Kg	Analysis Date: 02-Oct-2019 14:54							
Client ID:	Run ID: Gall01_347478	SeqNo: 5279510	PrepDate: 01-Oct-2019 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 210.5 10.0 200 0 105 80 - 120 203.1 3.58 30

MS	Sample ID: HS19091151-30MS	Units: mg/Kg	Analysis Date: 02-Oct-2019 16:10							
Client ID: CDU-21 3-4	Run ID: Gall01_347478	SeqNo: 5279521	PrepDate: 01-Oct-2019 DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 701.1 99.3 19860 615.2 0.432 80 - 120 S

MSD	Sample ID: HS19091151-30MSD	Units: mg/Kg	Analysis Date: 02-Oct-2019 16:10							
Client ID: CDU-21 3-4	Run ID: Gall01_347478	SeqNo: 5279522	PrepDate: 01-Oct-2019 DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 777.9 99.1 19820 615.2 0.821 80 - 120 701.1 10.4 30 S

The following samples were analyzed in this batch:	HS19091151-30	HS19091151-31	HS19091151-32	HS19091151-33
	HS19091151-34	HS19091151-35	HS19091151-36	HS19091151-37
	HS19091151-38	HS19091151-39	HS19091151-40	

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

QC BATCH REPORT

Batch ID: R347312 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS19091151-29DUP	Units: wt%		Analysis Date: 30-Sep-2019 08:53					
Client ID: CDU-21 2-3	Run ID: Balance1_347312	SeqNo: 5275971		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	28.5	0.0100					27.2	4.67	20
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The following samples were analyzed in this batch:

HS19091151-01	HS19091151-02	HS19091151-03	HS19091151-04
HS19091151-05	HS19091151-06	HS19091151-07	HS19091151-08
HS19091151-09	HS19091151-10	HS19091151-11	HS19091151-12
HS19091151-13	HS19091151-14	HS19091151-15	HS19091151-16
HS19091151-17	HS19091151-27	HS19091151-28	HS19091151-29

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

QC BATCH REPORT

Batch ID: R347313 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS19091157-06DUP	Units: wt%		Analysis Date: 30-Sep-2019 08:55					
Client ID:	Run ID: Balance1_347313	SeqNo: 5275989		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	12.1	0.0100					11.7	3.36	20
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The following samples were analyzed in this batch:

HS19091151-30	HS19091151-31	HS19091151-32	HS19091151-33
HS19091151-34	HS19091151-35	HS19091151-36	HS19091151-37
HS19091151-38	HS19091151-39	HS19091151-40	

Revision: 1

ALS Houston, US

Date: 22-Jul-21

Client: AECOM
Project: 60611388 Central Drinkard Unit
WorkOrder: HS19091151

**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
Date	
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

ALS Houston, US

Date: 22-Jul-21

CERTIFICATIONS, ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US

Date: 22-Jul-21

Sample Receipt Checklist

Work Order ID: HS19091151

Date/Time Received: 23-Sep-2019 08:40

Client Name: AECOM-Houston

Received by: Jared R. Makan

Completed By: /S/ Jared R. Makan	24-Sep-2019 14:55	Reviewed by: /S/ Dane J. Wacasey	25-Sep-2019 13:25
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 4 Page(s)
- Chain of custody signed when relinquished and received? Yes No COC IDs:190323, 190325, 190324, 190326
- 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):	20.8c/20.8c UC/C	IR25
Cooler(s)/Kit(s):	45158	
Date/Time sample(s) sent to storage:	09/24/2019 14:30	

- 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: Samples received out of temp due to a Fedex delay. BTEX & TPH analyses cancelled by client. Chloride analysis run on all samples from the following borings - CDU-15, 16, 17, 18, 21, 22, 23 & 24. Fedex shipping tag not present on cooler.

Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

Corrective Action:

Chain of Custody Form

HS19091151



Page 1 of 4

COC ID: 190323

AECOM
Central Drinkard Unit



ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	CENTRAL DRINKARD UNIT
Work Order		Project Number	60611388
Company Name	AECOM	Bill To Company	AECOM
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P
Address	19219 Katy Freeway	Address	PO Box 203970
	Suite 100		
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720
Phone	(281)-64-6-24	Phone	(512) 419-6825
Fax	(713) 780-0838	Fax	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CDU-15 0-1	9-19-19	0848	S	N/A	1			X								
2	CDU-15 1-2		0855			1			X								
3	CDU-15 2-3		0903			2	X	X	X								
4	CDU-16 0-1		0910			1			X								
5	CDU-16 1-2		0915			1			X								
6	CDU-16 2-3		0919			1			X								
7	CDU-16 3-4		0923			1			X								
8	CDU-16 4-5		0929			2	X	X	X								
9	CDU-17 0-1		0940			1			X								
10	CDU-17 1-2		0948			1			X								

Sampler(s) Please Print & Sign RAPHAEL FRANCO		Shipment Method FEDEX/GROUND		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour			Results Due Date:	
Relinquished by:	Date: 9-19-19	Time: 1600	Received by:	Notes: AECOM CEMC Hobbs NM				
Relinquished by:	Date: 9/23/19	Time: 08:40	Received by (Laboratory): S. W...	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)		
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	45158	20.8	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> RRP Checkdlet	
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				<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> RRP Level IV	<input type="checkbox"/> Level IV SW846/CLP	<input type="checkbox"/> 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.
- 3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

HS19091151

Page 2 of 4

COC ID: 190325

AECOM
Central Drinkard Unit



ALS Project Manager:

Customer Information		Project Information		ALS Project Manager:	
Purchase Order		Project Name	CENTRAL DRINKARD UNIT	A	8250_S (8260 BTEX)
Work Order		Project Number	60611388	B	8015_GRO_S (8015 TPH-GRO)
Company Name	AECOM	Bill To Company	AECOM	C	8015M_S_LL (8015 TPH-DRO/ORO)
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P	D	CL_S_9250 AutoUV (SW9250 Chloride (UV))
Address	19219 Katy Freeway	Address	PO Box 203970	E	MOIST_ASTM (D2216 Moisture %)
	Suite 100				F
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720	G	
Phone	(281) -64-6-24	Phone	(512) 419-6825	H	
Fax	(713) 780-0838	Fax		I	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CDU-17 2-3	9-19-19	0955	S	NA	1			X								
2	CDU-17 3-4		1003			1			X								
3	CDU-17 4-5		1009			2	X	X	X								
4	CDU-18 0-1		1022			1			X								
5	CDU-18 1-2		1030			1			X								
6	CDU-18 2-3		1040			1			X								
7	CDU-18 3-4		1048			2	X	X	X								
8	CDU-19 0-1		1103			1			X								
9	CDU-19 1-2		1108			1			X								
10	CDU-19 2-3		1115			1			X								

Sampler(s) Please Print & Sign: **RAPHAEL FRANCIS**

Relinquished by: *[Signature]* Date: **9-19-19** Time: **1600**

Relinquished by: *[Signature]* Date: **9/23/19** Time: **08:40**

Logged by (Laboratory): *[Signature]* Date: **9/23/19** Time: **08:40**

Received by (Laboratory): **J. J. J. J.**

Checked by (Laboratory): **J. J. J. J.**

Shipment Method: **FLOOR GROUND**

Required Turnaround Time: STD 10 Wk Days 5 Wk Days 2 Wk Days 24 hour

Results Due Date: _____

Notes: **AECOM CEMC Hobbs NM**

Cooler ID: **45158** Cooler Temp: **20.8**

QC Package: Level II Std QC RRP Checklist
 Level III Std QC/Raw Date RRP Level IV
 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

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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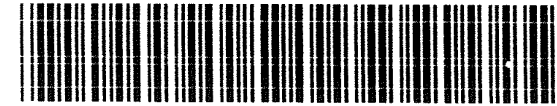
Chain of Custody Form

HS19091151



AECOM
Central Drinkard Unit

COC ID: **190324**



Customer Information		Project Information		ALS Project Manager:											
Purchase Order		Project Name	CENTRAL DRINKARD UNIT	A	8260_S (8260 BTEX)										
Work Order		Project Number	60611378	B	8015_GRO_S (8015 TPH-GRO)										
Company Name	AECOM	Bill To Company	AECOM	C	8015M_S_LL (8015 TPH-DRO/DRO)										
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - AVP	D	CL_S_9250 AutoUV (SW9250 Chloride (UV))										
Address	19219 Katy Freeway	Address	PO Box 203970	E	MOIST_ASTM (D2216 Moisture %)										
	Suite 100				F										
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720	G											
Phone	(281)-64-6-24	Phone	(512) 419-6825	H											
Fax	(713) 780-0838	Fax		I											
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com	J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	CDU-19 3-4	9-19-19	1122	S	NA	1			X										
2	CDU-19 4-5	}	1130	}	}	2	X	X	X										
3	CDU-20 6-1		1145			1					X								
4	CDU-20 1-2		1152			1					X								
5	CDU-20 2-3		1200			1					X								
6	CDU-20 3-4		1208			2	X	X	X										
7	CDU-21 0-1		1233			1						X							
8	CDU-21 1-2		1241			1						X							
9	CDU-21 2-3		1250			1						X							
10	CDU-21 3-4		1257			2	X	X	X										

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
RAPHAEL FRANCO		FRODO GROUND		<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 1 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24-hour					
Relinquished by:	Date: 9-19-19	Time: 1600	Received by:	Notes: AECOM CEMC Hobbs NM					
Relinquished by:	Date: 9/23/19	Time: 08:40	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	45158	20.8	<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other			
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									

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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Chain of Custody Form

HS19091151



COC ID: 190326

AECOM
Central Drinkard Unit



ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	CENTRAL DRINKARD UNIT
Work Order		Project Number	60611388
Company Name	AECOM	Bill To Company	AECOM
Send Report To	Wallace Gilmore	Invoice Attn	USAPImaging - A/P
Address	19219 Katy Freeway	Address	PO Box 203970
	Suite 100		
City/State/Zip	Houston, TX 77094	City/State/Zip	Austin TX 78720
Phone	(281) -64-6-24	Phone	(512) 419-6825
Fax	(713) 780-0838	Fax	
e-Mail Address	Wallace.Gilmore@aecom.com	e-Mail Address	USAPImaging@aecom.com

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CDU-22 0-1	9-19-19	1313	S	NA	1			X								
2	CDU-22 1-2		1318			1			X								
3	CDU-22 2-3		1325			2	X	X	X								
4	CDU-23 0-1		1350			1			X								
5	CDU-23 1-2		1358			2	X	X	X								
6	CDU-24 0-1		1415			1			X								
7	CDU-24 1-2		1422			1			X								
8	CDU-24 2-3		1430			1			X								
9	CDU-24 3-4		1437			1			X								
10	CDU-24 4-5		1445			2	X	X	X								

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
RAPHAEL FRANKO		FIELD GROUND		<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24-hour					
Relinquished by:	Date: 9-19-19	Time: 16:00	Received by:	Notes: AECOM CEMC Hobbs NM					
Relinquished by:	Date: 9/23/19	Time: 08:40	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)			
Relinquished by:	Date:	Time:	Checked by (Laboratory):	45158	20.8	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> RRP Checklist		
Logged by (Laboratory):	Date:	Time:				<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> RRP Level IV		
Logged by (Laboratory):	Date:	Time:				<input type="checkbox"/> Level IV SW846/CLP	<input type="checkbox"/> 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.
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- 3. The Chain of Custody is a legal document. All information must be completed accurately.

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	ALS
	10450 Stancliff Rd., Suite 210
	Houston, Texas 77099
	Tel. +1 281 530 5356 Fax. +1 281 530 5887
	45158
Date:	9/19
Name:	JM
Company:	AECOM

CUSTODY SEAL		Seal Broken By:
9/19	Time: 1500	JM
JM Love		Date:
AECOM		9/23/19

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

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

CONDITIONS
 Action 39837

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 39837
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation plan approved. Deferral denied. Areas requested for deferral will need to be remediated as they are located in areas off of pad. Excavation around pipelines can be achieved with hydro-excavation or other methods that would protect the integrity of the pipeline and ensure the safety of workers.	1/23/2023
bhall	1RP-3367 closed. Refer to incident #NTO1428147597 for all future communication.	1/23/2023
bhall	Please submit a complete report though the OCD permitting website by 4/21/2023.	1/23/2023