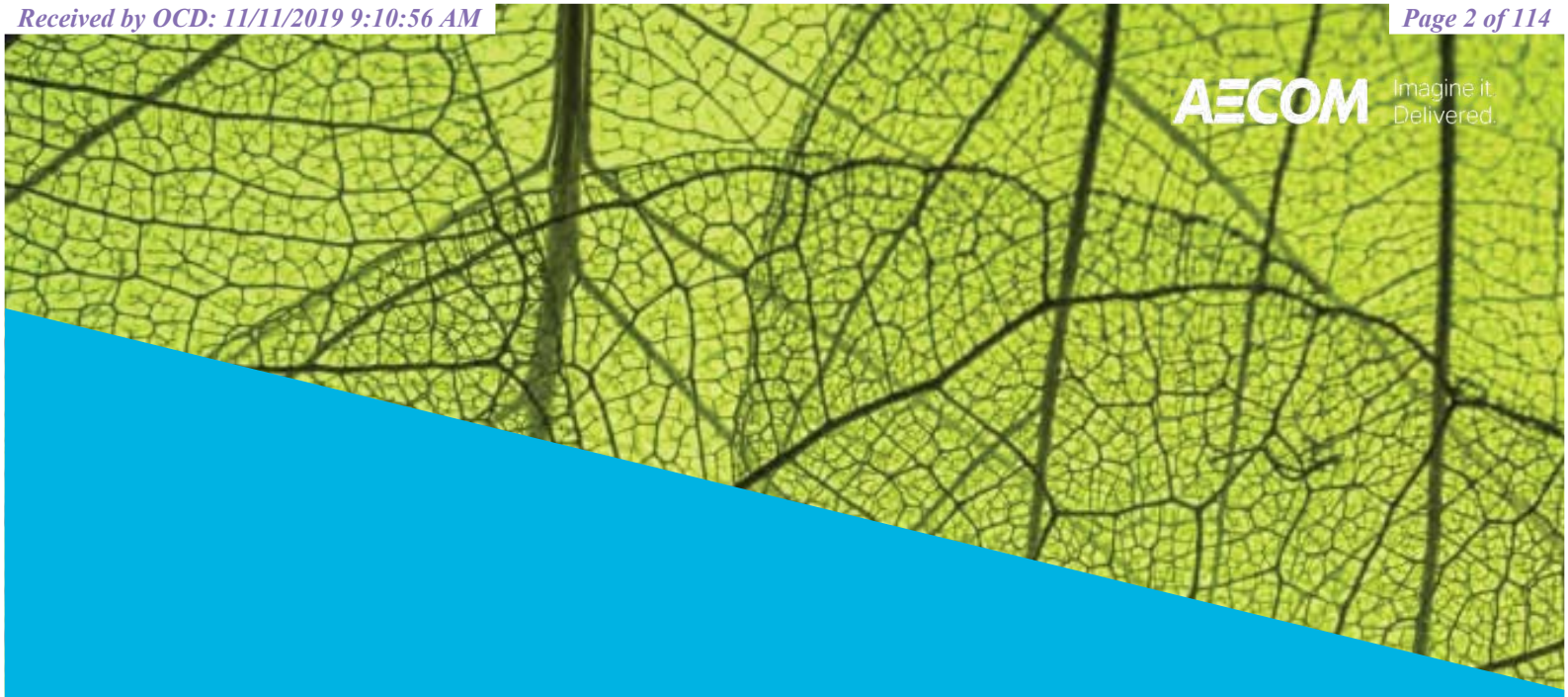

Initial Site Assessment/Characterization Report

Lost Tank 16 State #004 Producing Oil Well New Mexico Oil Conservation Division (NMOCD) District RP #1RP-5579

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

Prepared By:
AECOM
19219 Katy Freeway, Suite 100
Houston, Texas 77094

September 2019

Initial Site Assessment/Characterization Report

Lost Tank 16 State #004 Producing Oil Well Produced Water Spill Site
Lea County, New Mexico
NMOCD RP #1RP-5579

Chevron Mid-Continent Business Unit (MCBU)

September 2019
AECOM Project No. 60610222

Prepared by: Wally Gilmore, P.G.
Senior Project Manager

Reviewed by: Taylor Gragard, P.G.
Senior Geologist

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1. Introduction

On behalf of Chevron Mid-Continent Business Unit (MCBU), AECOM Technical Services, Inc. (AECOM) has prepared this Initial Assessment/Characterization Report to describe the initial assessment activities that have been conducted to characterize potential impacts to environmental media (soil and groundwater) resulting from a produced water spill that occurred at the Lost Tank 16 State #004 site in Lea County, New Mexico ("the Site").

2. Background

The Site is located at Latitude 32.485096° North, Longitude 103.6872253° West in Lea County, New Mexico (**Figure 1**).

On June 5, 2019, approximately 6.08 barrels (bbls) of produced water with a dissolved chloride concentration greater than 10,000 milligrams per liter (mg/L) and 0.9 bbls of crude oil were reported to have been released to an unlined well pad. The release was associated with a pumping unit packing failure. Approximately 6 bbls of produced water and 0.2 bbls of crude oil were reported to have been recovered. 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; and
- Containing the released produced water and crude oil; and
- Recovering approximately 6 bbls of produced water and 0.2 bbls of crude oil.

A Release Notification, Form C-141, dated June 18, 2019, 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. NMOCD assigned District RP #1RP-5579 to the release. An updated Form C-141 is provided as **Appendix A**.

3. Initial Site Assessment/Characterization

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

- The Site is situated along the northwestern flank of Hat Mesa, which is a topographic high point in the Site area. The elevation of the Site is about 3,710 feet above mean sea level (amsl) and the surface topography slopes to the west-southwest.
- Online *Water Column/Average Depth to Water* data from the New Mexico Water Rights Reporting System (NMWRRS) identified no water wells within ½ mile of the Site. An initial online search of NMWRRS data for the area within a 1,000 meter radius of the Site did not produce any water level data. Depth to groundwater is anticipated to be greater than 50 feet below ground surface (ft bgs) as indicated by the following:
  - An expanded radius search of the NMWRRS online data indicated the average depth to groundwater within 10,000 meters of the Site is 215 ft bgs (**Appendix B**).
    - The closest identified water well, Point of Diversion (POD) C 03151, was installed in 2005 to a reported depth of 1352 ft bgs, approximately 1.4 miles northwest of the Site. The initial use and current status of this well is unknown. No depth to water was reported by the NMWRRS for this well.

    - The closest well to the Site with reported water level data, POD water well CP 01701 POD1, was installed in October 2018 with a reported screened interval of 460 to 840 ft bgs, approximately 4 miles southeast of the Site. The reported depth to water for this well is 560 ft bgs. The initial use and current status of this well is unknown.
  - A desktop evaluation of surface topography relative to surface water features identified on Google Earth approximately 5.2 miles west of the Site indicates that the depth to groundwater at the Site may be greater than 500 ft bgs. This is consistent with the reported depth to groundwater of 560 ft bgs described above for POD water well CP 01701 POD1, which is situated along the western flank of Hat Mesa at a slightly lower elevation than the Site (Site elevation of about 3,710 ft amsl vs about 3,670 ft amsl for CP 01701 POD1).
- The underlying soils at the Site are comprised of fine sand associated with eolian sand dunes.
- There are no continuously flowing watercourses or other significant watercourses within ½ mile 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 greater than 10 miles from the Site.
- There are no known springs or wells used for domestic or stock watering purposes within ½ mile of the Site.
- There are no known water wells within ½ mile of the Site.
- No incorporated municipal boundaries or defined municipal fresh water well fields are located within 20 miles of the Site.
- No wetlands are present within 300 feet 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.
- The Site is not located within a 100-year floodplain.
- Operations near the Site are for oil and gas exploration, development, production, or storage only, and no impact to areas that are not on an exploration, development, production, or storage site are expected.

In summary, no sensitive environmental and/or ecological receptors were identified within the search criteria distances described in 19.15.29.11 and 19.15.29.12.C.(4) NMAC. **Figure 1** shows the location of the Site and surrounding area on a topographic map. Based on information obtained during the initial desktop assessment/characterization and the volume of produced water released and recovered, no impact to groundwater, surface water, springs, or other sources of fresh water is currently suspected.

4. Initial Soil Assessment

On July 29, 2019, initial soil assessment activities were conducted at the Site, which included collection of soil samples from five hand auger boring locations (LT16-01 through LT16-05) as shown on **Figure 2**. At the time of sampling, AECOM could not determine the extent of the spill based on visual observations of the well pad surface; therefore, professional judgement was used to select the boring locations. Hand auger boring LT 16-01 was drilled in the reported spill area (wellhead). Borings LT16-02 through LT16-05 were drilled at locations about 30 to 50 feet from the wellhead for horizontal delineation purposes. Site photographs are provided **in Appendix C**.

In each of the hand auger borings, caliche and silty sand (well pad material) were encountered from the ground surface to depths of one to two ft bgs. The well pad material was underlain by reddish brown silty sand to the total depth of the borings at five ft bgs. Soil samples were collected from each of the borings

and field-screened for petroleum hydrocarbons using a photoionization detector (PID) to measure volatile organic vapor concentrations. Samples were also field screened to identify elevated chloride concentrations using a Field Scout Direct Soil EC Meter to measure electrical conductivity (EC) and a procedure described in *A Guide for Remediation of Salt/Hydrocarbon Impacted Soil* developed by the North Dakota Industrial Commission Department of Mineral Resources. A copy of this procedure is provided in **Appendix D**. A Summary of Field Sample Collection and Screening Activities is provided as **Appendix E**.

Two soil samples were initially selected for petroleum hydrocarbon analysis from boring LT16-01, including the depth interval that exhibited the highest PID reading and the interval at the borehole terminus. The corresponding samples from borings LT16-02 through LT16-05 were initially put on hold for laboratory analysis of petroleum hydrocarbons pending results for boring LT16-01. Based on the results for boring LT16-01, total petroleum hydrocarbon (TPH) analysis was requested for the hold samples from borings LT16-02 through LT16-05. It should be noted that the TPH results for the samples from borings LT16-02 through LT16-05 have been flagged by the laboratory with an "H" data qualifier, which indicates, "*The samples were prepped or analyzed beyond the specified holding time.*" The TPH samples were analyzed within the required holding time, but were not frozen by the laboratory within 48 hours as specified by the analytical method requirements.

Each of the depth interval samples from hand auger borings LT16-01 through LT16-05 were selected for chloride analysis irrespective of the field screening results. Two samples LT16-02-2-3 and LT16-03-3-4 were not analyzed for chloride due to issues associated with transportation to the laboratory.

The soil samples 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 the TestAmerica laboratory in Houston, Texas for analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B, TPH by EPA Method 8015B and chloride by EPA Method 9056A. The BTEX and TPH samples were collected using laboratory-provided EnCore® sampling kits in accordance with United States Environmental Protection Agency (EPA) Method 5035/5035A. The laboratory results are summarized in **Table 1** and the laboratory analytical report is provided as **Appendix F**.

At the conclusion of drilling and soil sampling activities, the soil borings were backfilled with bentonite chips. Investigation derived waste (IDW); including soil cuttings, disposable sampling equipment and disposable personal protective equipment (PPE) such as nitrile gloves, was placed in a 55-gallon drum currently stored at the Chevron Baker B Battery site pending offsite disposal.

4.1 Initial Soil 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:

Table I
Closure Criteria for Soils Impacted by a Release

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 this Site. None of the constituent concentrations reported for the shallow soil samples exceed the regulatory limits shown above in Table I for sites where groundwater is deeper than 50 ft bgs. As described above in *Section 3*, it is currently anticipated that depth to groundwater is greater than 50 feet bgs at the Site.

The soil analytical results for the Site were also compared to the chloride regulatory limit of 600 milligrams per kilogram (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 chloride concentrations of 1,620 mg/kg reported for sample LT16-01 (0-1') and 913 mg/kg reported for sample LT16-01 (1-2') exceed the regulatory limit of 600 mg/kg for future Site reclamation. The extent of chloride concentrations above 600 mg/kg in soil is delineated vertically by the chloride concentration of 455 mg/kg reported for sample LT16-01 (2-3') and horizontally by the chloride concentrations reported for each of the depth interval samples collected from hand auger borings LT16-02 through LT16-05, which were below 600 mg/kg.

The laboratory analytical results for the initial soil assessment samples are summarized in **Table 1** and on **Figure 2**. The laboratory analytical report is provided in **Appendix F**.

5. Conclusions and Recommendations

The initial Site assessment/characterization results include the following:

- No sensitive environmental and/or ecological receptors were identified within the search criteria distances described in 19.15.29.11 and 19.15.29.12.C.(4) NMAC.
- Constituent concentrations in soil are below the applicable regulatory limits based on anticipated depth to groundwater greater than 50 ft bgs beneath the Site as described above in *Section 3*.
- The chloride concentrations of 1,620 mg/kg reported for sample LT16-01 (0-1') and 913 mg/kg reported for sample LT16-01 (1-2') exceed the regulatory limit of 600 mg/kg for future Site reclamation. Groundwater at the Site is anticipated to be deeper than 50 feet bgs and these reported chloride concentrations do not exceed the 10,000 mg/kg limit for protection of sensitive receptors associated with Table I.

No further action is recommended at this time to address the chloride concentrations that exceed the regulatory limit of 600 mg/kg for future soil reclamation at the Site. MCBU requests NMOCD concurrence that soil remediation related to future Site reclamation can be deferred until the Lost Tank 16 State #004 producing well is taken out of service based on the following:

- As described under 19.15.29.12.C.2, "*If contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first. The deferral may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water. Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations*."
  - The spill occurred at the wellhead. Complete removal of impacted soil is not practicable without causing disruption to ongoing operation of the producing oil well.
  - The chloride exceedance of regulatory limits was only reported for samples LT16-01 (0-1') and LT16-02 (1-2'), which were both comprised of well pad material, including caliche and silty sand. The extent of soil impacts has been fully delineated both vertically and horizontally, and no exceedences of regulatory limits were reported for native soil underlying the well pad.
  - There is currently no apparent benefit for conducting soil remediation activities to satisfy regulatory requirements associated with future Site reclamation. More thorough remediation of

impacted well pad material and shallow underlying soil can be accomplished once the producing oil well is taken out of service and reclamation activities are performed to re-vegetate the area of the current well pad.

Proposed future Site activities include the following:

- Upon termination of production operations at the Site, the well pad material will be removed and replaced with clean soil suitable for re-vegetation. Future reclamation activities will also include:
  - Remediation of impacted native soil underlying the well pad (if present), and
  - Confirmation sampling and associated documentation to verify that remaining constituent concentrations in soil do not exceed regulatory limits in accordance with 19.15.29 NMAC and NMOCD requirements.

6. References

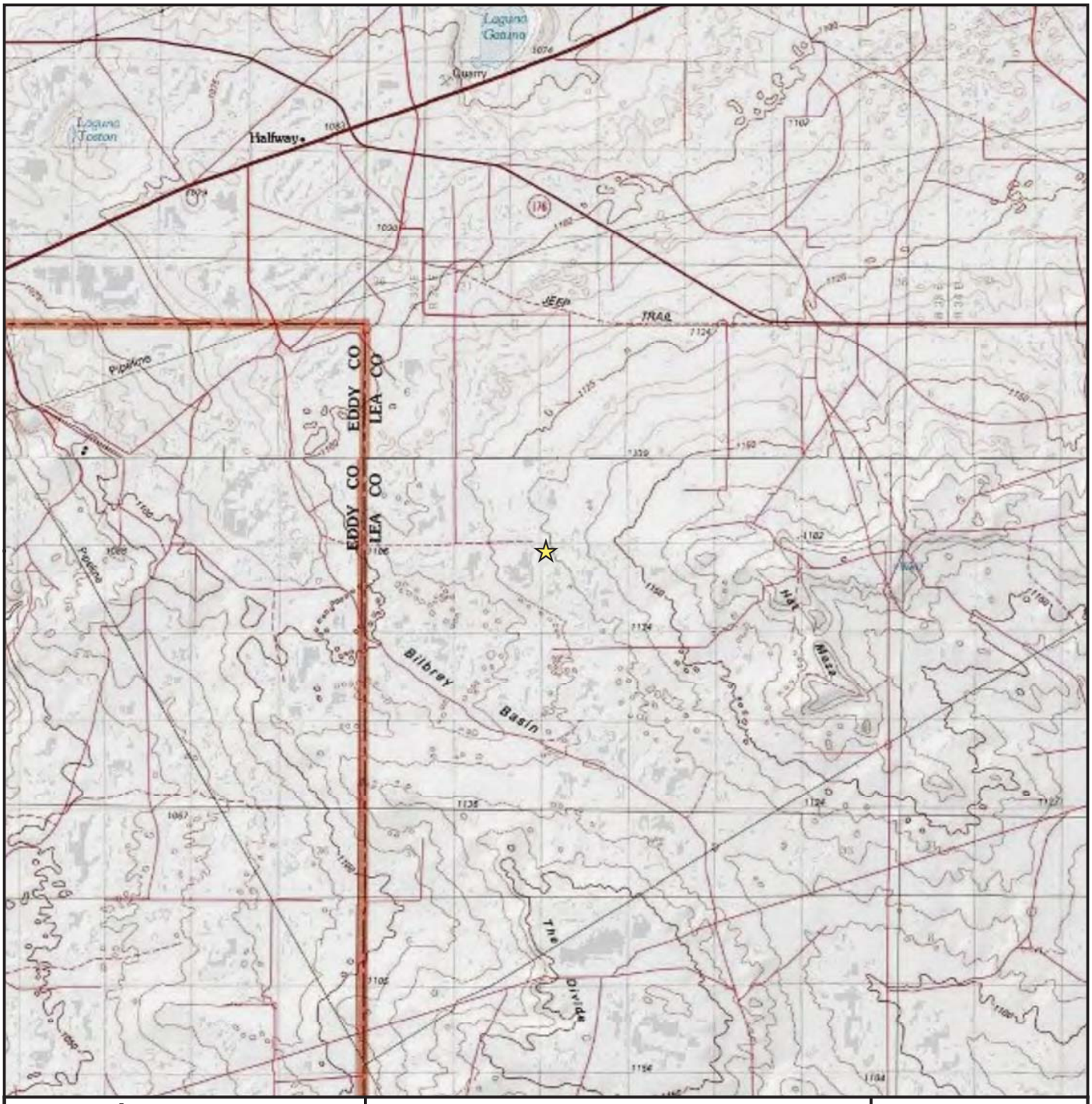
New Mexico Water Rights Reporting System (NMWRRS), Water Column/Average Depth to Water Report. http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html .

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



Legend

☆ Lost Tank Site Location

Map Location

Site Location Map

Lost Tank 16 State #004
Lea County, New Mexico
Chevron MCBU

N

0 1 2 3 4 Miles

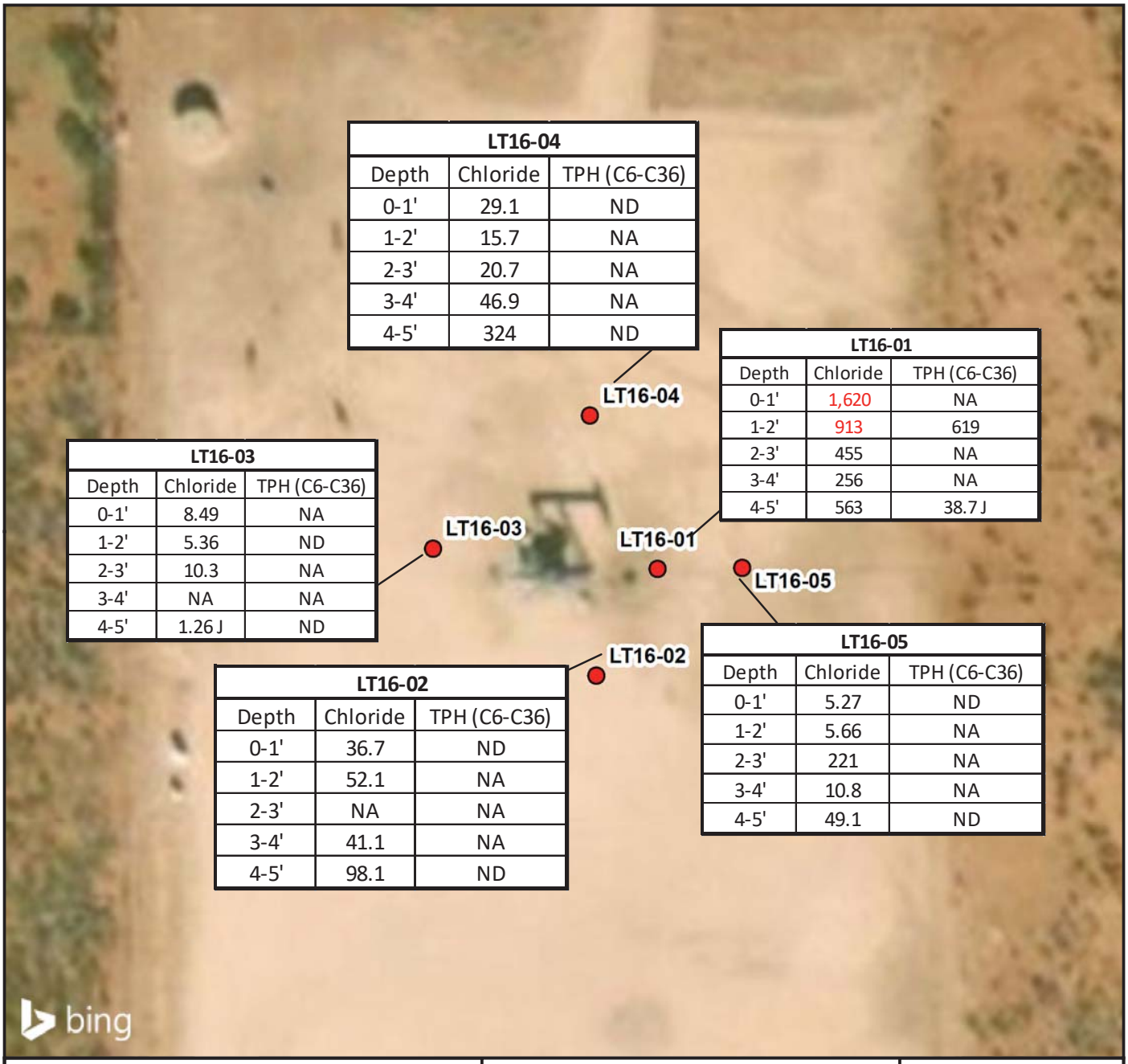
Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Projection: Mercator Auxiliary Sphere

AECOM

Figure 1

Date: August 2019

Project #: 60610222



LT16-04

Depth	Chloride	TPH (C6-C36)
0-1'	29.1	ND
1-2'	15.7	NA
2-3'	20.7	NA
3-4'	46.9	NA
4-5'	324	ND

LT16-01

Depth	Chloride	TPH (C6-C36)
0-1'	1,620	NA
1-2'	913	619
2-3'	455	NA
3-4'	256	NA
4-5'	563	38.7 J

LT16-03

Depth	Chloride	TPH (C6-C36)
0-1'	8.49	NA
1-2'	5.36	ND
2-3'	10.3	NA
3-4'	NA	NA
4-5'	1.26 J	ND

LT16-05

Depth	Chloride	TPH (C6-C36)
0-1'	5.27	ND
1-2'	5.66	NA
2-3'	221	NA
3-4'	10.8	NA
4-5'	49.1	ND

LT16-02

Depth	Chloride	TPH (C6-C36)
0-1'	36.7	ND
1-2'	52.1	NA
2-3'	NA	NA
3-4'	41.1	NA
4-5'	98.1	ND

Legend

- Soil Boring Locations

Samples Collected July 29, 2019

Soil analytical results reported in milligrams per kilogram (mg/kg)

Regulatory Limits:
TPH - 2,500 mg/kg (Based on depth to groundwater greater than 50 feet)
Chloride - 600 mg/kg (Soil Reclamation Limit)
NA - Not Analyzed
ND - Not detected above laboratory method reporting limits
J - Result is less than the Method Quantitation Limit but greater than or equal to the Sample Detection Limit.

Red Font - Exceeds Regulatory Limit

Sample Location Map

Lost Tank 16 State #004
Lea County, New Mexico
Chevron MCBU

AECOM

Figure 2

N

0 25 50 75 100 Feet

Date: August 2019

Project #: 60610222

Tables

Table 1
Soil Analytical Results
Lost Tank 16 State #004
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Total Petroleum Hydrocarbons (EPA 8015B)				Volatile Organics (EPA 8260B)				Chloride (Method 9056A)
			GRO C6-C10	DRO C10-C28	MRO C28-C36	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Regulatory Limits			--	--	--	2500*	10	--	--	--	600**
LT16-01-0-1	07/29/19	0-1	NA	NA	NA	NA	NA	NA	NA	NA	**1,620**
LT16-01-1-2	07/29/19	1-2	**0.690 J**	**513**	**105**	**619**	0.000631 U	0.00138 U	0.00102 U	0.00113 U	**913**
LT16-01-2-3	07/29/19	2-3	NA	NA	NA	NA	NA	NA	NA	NA	**455**
LT16-01-3-4	07/29/19	3-4	NA	NA	NA	NA	NA	NA	NA	NA	**256**
LT16-01-4-5	07/29/19	4-5	0.0631 U	**38.7 J**	34.8 U	**38.7 J**	0.000713 U	0.00156 U	0.00115 U	0.00128 U	**563** b
LT16-02-0-1	07/29/19	0-1	0.0636 UH	34.2 UH	34.2 UH	ND	NA	NA	NA	NA	**36.7**
LT16-02-1-2	07/29/19	1-2	NA	NA	NA	NA	NA	NA	NA	NA	**52.1** b
LT16-02-2-3	07/29/19	2-3	NA	NA	NA	NA	NA	NA	NA	NA	NA
LT16-02-3-4	07/29/19	3-4	NA	NA	NA	NA	NA	NA	NA	NA	**41.1**
LT16-02-4-5	07/29/19	4-5	0.0642 UH	35.6 UH	35.6 UH	ND	NA	NA	NA	NA	**98.1** b
LT16-03-0-1	07/29/19	0-1	NA	NA	NA	NA	NA	NA	NA	NA	**8.49**
LT16-03-1-2	07/29/19	1-2	0.0632 UH	33.9 UH	33.9 UH	ND	NA	NA	NA	NA	**5.36**
LT16-03-2-3	07/29/19	2-3	NA	NA	NA	NA	NA	NA	NA	NA	**10.3**
LT16-03-3-4	07/29/19	3-4	NA	NA	NA	NA	NA	NA	NA	NA	NA
LT16-03-4-5	07/29/19	4-5	0.0633 UH	33.6 UH	33.6 UH	ND	NA	NA	NA	NA	**1.26** J
LT16-04-0-1	07/29/19	0-1	0.0631 UH	35.4	35.4 UH	ND	NA	NA	NA	NA	**29.1**
LT16-04-1-2	07/29/19	1-2	NA	NA	NA	NA	NA	NA	NA	NA	**15.7**
LT16-04-2-3	07/29/19	2-3	NA	NA	NA	NA	NA	NA	NA	NA	**20.7**
LT16-04-3-4	07/29/19	3-4	NA	NA	NA	NA	NA	NA	NA	NA	**46.9** b
LT16-04-4-5	07/29/19	4-5	0.0642 UH	34.5 UH	34.5 UH	ND	NA	NA	NA	NA	**324** b
LT16-05-0-1	07/29/19	0-1	0.0633 UH	34.1	34.1 UH	ND	NA	NA	NA	NA	**5.27** b
LT16-05-1-2	07/29/19	1-2	NA	NA	NA	NA	NA	NA	NA	NA	**5.66** b
LT16-05-2-3	07/29/19	2-3	NA	NA	NA	NA	NA	NA	NA	NA	**221** b
LT16-05-3-4	07/29/19	3-4	NA	NA	NA	NA	NA	NA	NA	NA	**10.8** b
LT16-05-4-5	07/29/19	4-5	0.0660 UH	34.7 UH	34.7 UH	ND	NA	NA	NA	NA	**49.1** b

Notes:

1. Soil analyses performed by TestAmerica Laboratories, Inc. in Houston, Texas.
2. Units for all analytical data provided are mg/Kg (milligrams per kilogram).
3. GRO - Gasoline Range Organic Compounds
4. DRO - Diesel Range Organic Compounds
5. MRO - Motor Oil/Lube Range Organic Compounds
6. Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC).
7. NA - Not Analyzed
8. ND - Not detected above laboratory method reporting limits.
9. J - Indicates that the result is less than the Method Quantitation Limit (MQL) but greater than or equal to the Sample Detection Limit (SDL).
10. U - Indicates that the analyte was analyzed but not detected at or above the laboratory SDL.
11. H - Sample was prepped or analyzed beyond the specified holding time.
12. b - The compound was found in the blank and the sample.
13. **Bold** - Detectable concentration that exceeds laboratory method reporting limits.
14. **Bold and Shaded** - Reported concentration exceeds Regulatory Limits.
15. ft bgs - feet below ground surface.
16. -- Indicates that no applicable regulatory limit exists for that analyte.

* Based on anticipated depth to groundwater > 50 ft bgs.

** Regulatory limit for final soil reclamation. The regulatory limit for protection of sensitive receptors may be 10,000 mg/kg based on anticipated depth to groundwater > 50 ft bgs.

Appendix A

Form C-141 – Lost Tank 16 State #004

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NDHR1917851938
District RP	1RP-5579
Facility ID	
Application ID	pDHR1917851117

Release Notification

Responsible Party

Responsible Party: Chevron USA Inc.	OGRID: 4323
Contact Name: Josepha DeLeon	Contact Telephone: 575-263-0424
Contact email: jdxd@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 1616 E. Bender Blvd., Hobbs, NM 88240	

Location of Release Source

Latitude 32.485096 Longitude -103.6872253
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Lost Tank 16 State #004	Site Type: Oil
Date Release Discovered: 06/05/2019	API# *(if applicable): 30-025-38907*

Unit Letter	Section	Township	Range	County
D	16	21S	32E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls): 0.9 barrels	Volume Recovered (bbls): 0.2 barrels
☒ Produced Water	Volume Released (bbls): 6.08 barrels	Volume Recovered (bbls): 6 barrels
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Stuffing box leak around wellhead, pumping unit and location.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1917851938
District RP	1RP-5579
Facility ID	
Application ID	pDHR1917851117

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

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Signature: JdeLeon Date: June 18, 2019

Printed Name: Josepha DeLeon Title: Environmental Compliance Specialist

email: jdxd@chevron.com Telephone: 432-425-1528

OCD Only

Received by: Dylan Rose-Coss Date: 06/27/2019

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1917851938
District RP	1RP-5579
Facility ID	
Application ID	pDHR1917851117

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?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ 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.

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1917851938
District RP	1RP-5579
Facility ID	
Application ID	pDHR1917851117

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: Waste & Water Specialist

Signature: Date: 9-23-2019

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

OCD Only

Received by: Date:

Appendix B

NMWRRS Water Column/Average Depth to Water

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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03151		CUB	ED	4	1	4	07	21S	32E	621119	3595526*	2296	1352		
CP 00793 POD1		CP	LE	1	1	2	01	21S	32E	628932	3598270*	6490	1000		
CP 01701 POD1		CP	LE		1	3	35	21S	32E	626652	3589283	6574	840	560	280
CP 00794 POD1		CP	LE	4	1	1	18	21S	33E	629976	3594865*	6630	160		
CP 00795 POD1		CP	LE	4	1	1	18	21S	33E	629976	3594865*	6630	170		
CP 01151 POD1		CP	LE				32	22S	36E	627037	3601186	7232	823		
C 03717 POD1		C	LE	4	4	1	09	22S	32E	624094	3586365	8632	650		
C 02949 EXPL		CUB	ED	1	1	4	34	21S	31E	616140	3589231*	9209	970		
C 04144 POD1		CUB	LE	3	1	3	07	22S	32E	620240	3585844	9636	58	49	9
C 04144 POD3		CUB	LE	3	1	3	07	22S	32E	620240	3585842	9637			
C 04144 POD4		CUB	LE	3	1	3	07	22S	32E	620200	3585808	9683			
C 02953 EXPL		CUB	ED	1	3	1	16	21S	31E	613662	3594434*	9698		630	
C 04144 POD2		CUB	LE	3	1	3	07	22S	32E	620147	3585768	9737	60	55	5
C 04144 POD10		CUB	LE	2	4	4	12	22S	31E	620089	3585741	9782	67	0	67
C 04144 POD9		CUB	LE	1	3	3	07	22S	32E	620126	3585667	9840	63	0	63

Average Depth to Water: **215 feet**
Minimum Depth: **0 feet**
Maximum Depth: **630 feet**

Record Count: 15

UTMNAD83 Radius Search (in meters):

Easting (X): 623345.95 **Northing (Y):** 3594965.98 **Radius:** 10000

***UTM location was derived from PLSS - see Help**

8/17/19 8:40 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Appendix C

Photographic Documentation

Client: Chevron MCBU	**Project Number: 60610222**
Project Name: Lost Hills 16 State #004 Producing Oil Well	**Site Location: Lea County, New Mexico**

Photograph No. 1	
Photographer: J. Lovely	
Date: 7/29/2019	
Comments: Overview of well pad.	

Appendix D

Field Screening Procedure for Chloride

A GUIDE FOR REMEDIATION

OF

SALT/HYDROCARBON

IMPACTED SOIL

Distributed by:
North Dakota Industrial Commission
Department of Mineral Resources
Bismarck, ND 58505-0840

Funded by the Oil and Gas Research Council

Technical Author
Len J. Gawel, Ph.D.
BioRem Environmental Consultants
1601 Meadowbrook Dr.
Ponca City, OK 74606
(580) 762-3805

V. Soil Analytical Tests

A. Analytical Procedure to Determine the Electrical Conductivity (EC) of Soil:

- Soil sample preparation

  a) Mix soil sample from 0-6 inch analysis.
  b) If soil is "wet," reduce soil moisture content by air drying.
  c) If soil is "damp," proceed with analysis.

- Measure a level tablespoon of soil into 60 m l of distilled water. This will result in a 1 to 5 dilution of soil, one part soil into f our parts distilled water. The volum e of one level tablespoon is 15 ml.

- Shake mixture for 2 minutes. After m ixing, allow sample to stand for additional 2 minutes.

- Prepare the syringe with the millipore filter adaptor and draw the fluid sample (0.5 to 1 ml) into syringe.

- Place the fluid sam ple onto the ins trument sensor and d iscard the first sam ple load. Repeat this "flushing" procedure, then test and record the third load. **AECOM to also use chloride test strips.**

- Calculate the EC by multiplying the EC reading on the meter by five.
  Instrument EC reading x 5 = soil EC

- Wash the instrument sensor using a dedicated "wash syringe" and distilled water.

- Record results of the test and other information and disable and discard the syringe.

- Repeat procedure for additional depths, if necessary.

Note: Use the same fluid sample to measure the pH. No additional calculations are needed; pH is measured directly by the meter.

Note: Most EC units read as microsiemens per centimeter (uS/cm). In addition, high EC readings may read as millisiemens per centimeter (mS/cm). It should be noted one millisiemen (mS/cm) is equal to 1,000 microsiemens (uS/cm). Either unit may be used, but to compare data, choose one unit for all analyses, and convert all readings to the chosen unit. This remediation guide uses uS/cm.

A siemen is an inverse ohm (conductance = 1/resistance). The original siemen was measured though a distance of one meter. Most of the field equipment measure one centimeter unit (cm). Although not precise, one millimhos/cm is equal to one millisiemen/cm. For remediation purposes the field guide uses mS/cm or uS/cm.

Appendix E

Summary of Field Sample Collection and Screening Activities

Sample Collection and Screening
Lost Tank 16 State #004

Date	Boring ID	Depth (ft bgs)	Lithology	PID (ppm)	Conductivity Probe (mS/cm)	ChlorideTest Strip (ppm Cl^-)	EC Meter (mS/cm)
7/29/2019	LT16-01	0-1	0-2 ft: Caliche and reddish brown silty sand (pad material)	74.3	0.164	440	4.835
		1-2		125.1	0.122	ND	2.06
		2-3	2-5 ft: Reddish brown silty sand	11.8	0.114	ND	0.875
		3-4		47.6	0.092	ND	0.68
		4-5		17.8	0.082	ND	0.76
7/29/2019	LT16-02	0-1	0-1 ft: Caliche and grayish brown sand (pad material)	0	0.022	ND	0.147
		1-2	1-5 ft: Reddish brown silty sand	0	0.0315	ND	0.50
		2-3		0	0.032	ND	0.57
		3-4		0	0.027	ND	0.46
		4-5		0	0.03	ND	0.55
7/29/2019	LT16-03	0-1	0-1 ft: Caliche and grayish brown sand (pad material)	0	0.015	ND	0.405
		1-2	1-5 ft: Reddish brown silty sand	0	0.014	ND	0.505
		2-3		0	0.018	ND	0.445
		3-4		0	0.021	ND	0.385
		4-5		0	0.015	ND	0.565
7/29/2019	LT16-04	0-1	0-1 ft: Caliche and grayish brown sand (pad material)	0	0.002	ND	0.48
		1-2	1-5 ft: Reddish brown silty sand	0	0.011	ND	0.44
		2-3		0	0.005	ND	0.565
		3-4		0	0.02	ND	0.585
		4-5		0	0.004	ND	0.495
7/29/2019	LT16-05	0-1	0-1 ft: Caliche and grayish tan sand (pad material)	0	0.021	ND	0.355
		1-2	1-5 ft: Reddish brown silty sand	0	0.013	ND	0.415
		2-3		0	0.015	ND	0.46
		3-4		0	0.022	ND	0.355
		4-5		0	0.017	ND	0.33

ND - Not Detected

Appendix F

Laboratory Analytical Report

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 600-189372-1
Client Project/Site: Chevron Lost Tank 16 #004

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

Attn: Mr. Wallace Gilmore

Authorized for release by:
8/21/2019 10:36:37 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

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

This data package is for Eurofins TestAmerica, Houston job number 600-189372-1 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		8/13/2019
Name (printed)	Signature	Date

Senior Project Manager
Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	8/13/2019
Project Name:	Chevron Lost Tank 16 #004	Laboratory Job Number:	600-189372-1
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				
		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			R08C
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				

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: Supporting Data - Page 3 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	8/13/2019
Project Name:	Chevron Lost Tank 16 #004	Laboratory Job Number:	600-189372-1
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: Exceptions Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	8/13/2019
Project Name:	Chevron Lost Tank 16 #004	Laboratory Job Number:	600-189372-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER #[1]	Description
R05D	Method 9056A: The method blank for preparation batch 600-271212 and analytical batch 600-271194 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.
R08C	Method 2540B: 600-189372-24 DU recovered above QC limits for RPD for the following analyte: Percent Moisture.
Misc	Sample containers were not received for samples 3 & 6. 2oz soil jar for sample 8 was also not received. Both Plastic 100mL container for Sample 27 and 2oz soil jar for Sample 16 was received empty.

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).

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								
MDL	RL	Ver MDL	Spike amount	Units	Spike / MDL	Mean	Std Dev	Reps	Edit Limts?	
64.2	100	64.2	100.0	ug/Kg	1.6	82.9006	12.068924	4	N	

MDLV used - 377126-7 All values recovere
MDLV: Pass

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 recovere
MDL	RL	Ver MDL	Spike amount	Units	Spike / MDL	Mean	Std Dev	Reps	Edit Limts?		MDLV: Pass
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

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

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

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

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: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Job ID: 600-189372-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative
600-189372-1

Comments
No additional comments.

Receipt
The samples were received on 7/30/2019 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4º C.

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

Method Summary

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

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
2540B	Percent Moisture	SM20	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

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

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: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-189372-1	LT16-01-0-1	Solid	07/29/19 12:05	07/30/19 09:55	
600-189372-2	LT16-01-1-2	Solid	07/29/19 12:10	07/30/19 09:55	
600-189372-4	LT16-01-2-3	Solid	07/29/19 12:15	07/30/19 09:55	
600-189372-5	LT16-01-3-4	Solid	07/29/19 12:20	07/30/19 09:55	
600-189372-7	LT16-01-4-5	Solid	07/29/19 12:25	07/30/19 09:55	
600-189372-8	LT16-02-0-1	Solid	07/29/19 13:05	07/30/19 09:55	
600-189372-9	LT16-02-1-2	Solid	07/29/19 13:10	07/30/19 09:55	
600-189372-10	LT16-02-2-3	Solid	07/29/19 13:15	07/30/19 09:55	
600-189372-11	LT16-02-3-4	Solid	07/29/19 13:20	07/30/19 09:55	
600-189372-12	LT16-02-4-5	Solid	07/29/19 13:25	07/30/19 09:55	
600-189372-13	LT16-03-0-1	Solid	07/29/19 13:45	07/30/19 09:55	
600-189372-14	LT16-03-1-2	Solid	07/29/19 13:50	07/30/19 09:55	
600-189372-15	LT16-03-2-3	Solid	07/29/19 13:55	07/30/19 09:55	
600-189372-17	LT16-03-4-5	Solid	07/29/19 14:05	07/30/19 09:55	
600-189372-18	LT16-04-0-1	Solid	07/29/19 14:20	07/30/19 09:55	
600-189372-19	LT16-04-1-2	Solid	07/29/19 14:25	07/30/19 09:55	
600-189372-20	LT16-04-2-3	Solid	07/29/19 14:30	07/30/19 09:55	
600-189372-21	LT16-04-3-4	Solid	07/29/19 14:35	07/30/19 09:55	
600-189372-22	LT16-04-4-5	Solid	07/29/19 14:40	07/30/19 09:55	
600-189372-23	LT16-05-0-1	Solid	07/29/19 14:55	07/30/19 09:55	
600-189372-24	LT16-05-1-2	Solid	07/29/19 15:00	07/30/19 09:55	
600-189372-25	LT16-05-2-3	Solid	07/29/19 15:05	07/30/19 09:55	
600-189372-26	LT16-05-3-4	Solid	07/29/19 15:10	07/30/19 09:55	
600-189372-27	LT16-05-4-5	Solid	07/29/19 15:15	07/30/19 09:55	

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-01-0-1

Date Collected: 07/29/19 12:05
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-1
Matrix: Solid

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1620		40.1	5.35	mg/Kg			08/03/19 13:57	10

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.9		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	84.1		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-01-1-2

Date Collected: 07/29/19 12:10
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-2
Matrix: Solid

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000631	U	0.00501	0.000631	mg/Kg		07/30/19 11:45	07/30/19 16:48	1
Ethylbenzene	0.00102	U	0.00501	0.00102	mg/Kg		07/30/19 11:45	07/30/19 16:48	1
Toluene	0.00138	U	0.00501	0.00138	mg/Kg		07/30/19 11:45	07/30/19 16:48	1
Xylenes, Total	0.00113	U	0.00501	0.00113	mg/Kg		07/30/19 11:45	07/30/19 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*07/30/19 11:45*	*07/30/19 16:48*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*07/30/19 11:45*	*07/30/19 16:48*	*1*
Toluene-d8 (Surr)	*94*		*50 - 130*	*07/30/19 11:45*	*07/30/19 16:48*	*1*
4-Bromofluorobenzene	*109*		*57 - 140*	*07/30/19 11:45*	*07/30/19 16:48*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	690	J	1000	642	ug/Kg		08/08/19 08:39	08/08/19 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*87*		*20 - 140*	*08/08/19 08:39*	*08/08/19 14:18*	*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]	513		47.9	33.1	mg/Kg		08/09/19 09:11	08/12/19 15:44	1
C28-C36	105		47.9	33.1	mg/Kg		08/09/19 09:11	08/12/19 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*82*		*26 - 125*	*08/09/19 09:11*	*08/12/19 15:44*	*1*

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	913		40.1	5.35	mg/Kg			08/05/19 20:34	10

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.4		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	86.6		1.0	1.0	%			07/31/19 16:57	1

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-01-2-3

Lab Sample ID: 600-189372-4
Matrix: Solid
Date Collected: 07/29/19 12:15
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	455		7.95	1.06	mg/Kg			08/03/19 21:07	2

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.1		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	88.9		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-01-3-4

Lab Sample ID: 600-189372-5
Matrix: Solid
Date Collected: 07/29/19 12:20
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	256		3.99	0.533	mg/Kg			08/03/19 18:25	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.3		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	96.7		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-01-4-5

Lab Sample ID: 600-189372-7
Matrix: Solid
Date Collected: 07/29/19 12:25
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000713	U	0.00566	0.000713	mg/Kg		07/30/19 11:45	07/30/19 17:14	1
Ethylbenzene	0.00115	U	0.00566	0.00115	mg/Kg		07/30/19 11:45	07/30/19 17:14	1
Toluene	0.00156	U	0.00566	0.00156	mg/Kg		07/30/19 11:45	07/30/19 17:14	1
Xylenes, Total	0.00128	U	0.00566	0.00128	mg/Kg		07/30/19 11:45	07/30/19 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*07/30/19 11:45*	*07/30/19 17:14*	*1*
Dibromofluoromethane	*86*		*68 - 140*	*07/30/19 11:45*	*07/30/19 17:14*	*1*
Toluene-d8 (Surr)	*92*		*50 - 130*	*07/30/19 11:45*	*07/30/19 17:14*	*1*
4-Bromofluorobenzene	*110*		*57 - 140*	*07/30/19 11:45*	*07/30/19 17:14*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.1	U	98.2	63.1	ug/Kg		08/08/19 08:39	08/08/19 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*91*		*20 - 140*	*08/08/19 08:39*	*08/08/19 15:03*	*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]	38.7	J	50.4	34.8	mg/Kg		08/09/19 09:11	08/12/19 16:12	1
C28-C36	34.8	U	50.4	34.8	mg/Kg		08/09/19 09:11	08/12/19 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*81*		*26 - 125*	*08/09/19 09:11*	*08/12/19 16:12*	*1*

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-01-4-5
Lab Sample ID: 600-189372-7
Date Collected: 07/29/19 12:25
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	563	b	7.98	1.07	mg/Kg			08/19/19 14:29	2

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	90.6		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-02-0-1
Lab Sample ID: 600-189372-8
Date Collected: 07/29/19 13:05
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.7		4.01	0.535	mg/Kg			08/03/19 21:25	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.2		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	89.8		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-02-1-2
Lab Sample ID: 600-189372-9
Date Collected: 07/29/19 13:10
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.1	b	3.98	0.532	mg/Kg			08/05/19 15:34	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.8		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	94.2		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-02-2-3
Lab Sample ID: 600-189372-10
Date Collected: 07/29/19 13:15
Matrix: Solid
Date Received: 07/30/19 09:55

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.3		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	89.7		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-02-3-4
Lab Sample ID: 600-189372-11
Date Collected: 07/29/19 13:20
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.1		3.98	0.531	mg/Kg			08/03/19 18:07	1

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-02-3-4
Lab Sample ID: 600-189372-11
Date Collected: 07/29/19 13:20
Matrix: Solid
Date Received: 07/30/19 09:55

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.4		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	93.6		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-02-4-5
Lab Sample ID: 600-189372-12
Date Collected: 07/29/19 13:25
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98.1	b	3.97	0.530	mg/Kg			08/05/19 19:54	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.8		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	93.2		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-03-0-1
Lab Sample ID: 600-189372-13
Date Collected: 07/29/19 13:45
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.49		3.99	0.533	mg/Kg			08/03/19 19:37	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.3		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	90.7		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-03-1-2
Lab Sample ID: 600-189372-14
Date Collected: 07/29/19 13:50
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.36		3.97	0.530	mg/Kg			08/03/19 20:31	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.9		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	98.1		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-03-2-3
Lab Sample ID: 600-189372-15
Date Collected: 07/29/19 13:55
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.3		3.96	0.529	mg/Kg			08/03/19 17:50	1

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-03-2-3
Lab Sample ID: 600-189372-15
Date Collected: 07/29/19 13:55
Matrix: Solid
Date Received: 07/30/19 09:55

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.8		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	98.2		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-03-4-5
Lab Sample ID: 600-189372-17
Date Collected: 07/29/19 14:05
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.26	J	3.98	0.531	mg/Kg			08/03/19 19:19	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.2		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	88.8		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-04-0-1
Lab Sample ID: 600-189372-18
Date Collected: 07/29/19 14:20
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.1		3.98	0.532	mg/Kg			08/03/19 20:49	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.9		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	92.1		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-04-1-2
Lab Sample ID: 600-189372-19
Date Collected: 07/29/19 14:25
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.7		3.97	0.530	mg/Kg			08/03/19 17:32	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.1		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	95.9		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-04-2-3
Lab Sample ID: 600-189372-20
Date Collected: 07/29/19 14:30
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.7		3.98	0.531	mg/Kg			08/03/19 17:14	1

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-04-2-3
Lab Sample ID: 600-189372-20
Date Collected: 07/29/19 14:30
Matrix: Solid
Date Received: 07/30/19 09:55

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.6		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	97.4		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-04-3-4
Lab Sample ID: 600-189372-21
Date Collected: 07/29/19 14:35
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.9	b	3.98	0.532	mg/Kg			08/05/19 18:54	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.6		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	97.4		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-04-4-5
Lab Sample ID: 600-189372-22
Date Collected: 07/29/19 14:40
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	324	b	3.99	0.533	mg/Kg			08/05/19 18:14	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.7		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	90.3		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-05-0-1
Lab Sample ID: 600-189372-23
Date Collected: 07/29/19 14:55
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.27	b	3.97	0.530	mg/Kg			08/05/19 17:14	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.2		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	95.8		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-05-1-2
Lab Sample ID: 600-189372-24
Date Collected: 07/29/19 15:00
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.66	b	3.96	0.529	mg/Kg			08/05/19 16:54	1

Client Sample Results

Client: AECOM
Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-05-1-2
Lab Sample ID: 600-189372-24
Date Collected: 07/29/19 15:00
Matrix: Solid
Date Received: 07/30/19 09:55

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.3		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	92.7		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-05-2-3
Lab Sample ID: 600-189372-25
Date Collected: 07/29/19 15:05
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	221	b	3.99	0.533	mg/Kg			08/05/19 16:34	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.7		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	94.3		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-05-3-4
Lab Sample ID: 600-189372-26
Date Collected: 07/29/19 15:10
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.8	b	3.98	0.532	mg/Kg			08/05/19 20:14	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.7		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	83.3		1.0	1.0	%			07/31/19 16:57	1

Client Sample ID: LT16-05-4-5
Lab Sample ID: 600-189372-27
Date Collected: 07/29/19 15:15
Matrix: Solid
Date Received: 07/30/19 09:55

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.1	b	3.98	0.531	mg/Kg			08/05/19 18:34	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.9		1.0	1.0	%			07/31/19 16:57	1
Percent Solids	81.1		1.0	1.0	%			07/31/19 16:57	1

Definitions/Glossary

Client: AECOM Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

Qualifiers

GC/MS VOA

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

GC VOA

Qualifier	Qualifier Description
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.

GC Semi VOA

Qualifier	Qualifier Description
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.

HPLC/IC

Qualifier	Qualifier Description
b	The compound was found in the blank and sample
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.

General Chemistry

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit

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
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: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-189372-2	LT16-01-1-2	85	84	94	109
600-189372-7	LT16-01-4-5	83	86	92	110
LCS 600-270680/3	Lab Control Sample	92	94	100	119
LCSD 600-270680/4	Lab Control Sample Dup	90	92	97	115
MB 600-270680/6	Method Blank	93	87	91	108

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	Matrix Spike	87
180-93437-C-2-G MSD	Matrix Spike Duplicate	89
600-189372-2	LT16-01-1-2	87
600-189372-7	LT16-01-4-5	91
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)
600-189372-2	LT16-01-1-2	82
600-189372-7	LT16-01-4-5	81
600-189564-A-41-D MS	Matrix Spike	64
600-189564-A-41-E MSD	Matrix Spike Duplicate	74
LCS 240-395221/13-A	Lab Control Sample	87
MB 240-395221/12-A	Method Blank	71

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

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

Lab Sample ID: MB 600-270680/6
Matrix: Solid
Analysis Batch: 270680

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			07/30/19 10:28	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			07/30/19 10:28	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			07/30/19 10:28	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			07/30/19 10:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 153*		*30/53718 13/29*	*1*
Di: rob orhuorob ethane	*90*		*69 - 143*		*30/53718 13/29*	*1*
f oluene-d9 (Surr)	*81*		*T3 - 153*		*30/53718 13/29*	*1*
4-Brob orhuoro: enzene	*139*		*T0 - 143*		*30/53718 13/29*	*1*

Lab Sample ID: LCS 600-270680/3
Matrix: Solid
Analysis Batch: 270680

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	0.04960		mg/Kg		99	70 - 131
Ethylbenzene	0.0500	0.04770		mg/Kg		95	66 - 130
Toluene	0.0500	0.04754		mg/Kg		95	67 - 130
Xylenes, Total	0.100	0.09539		mg/Kg		95	63 - 130
m-Xylene & p-Xylene	0.0500	0.04751		mg/Kg		95	64 - 130
o-Xylene	0.0500	0.04788		mg/Kg		96	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*61 - 153*
Di: rob orhuorob ethane	*84*		*69 - 143*
f oluene-d9 (Surr)	*133*		*T3 - 153*
4-Brob orhuoro: enzene	*118*		*T0 - 143*

Lab Sample ID: LCSD 600-270680/4
Matrix: Solid
Analysis Batch: 270680

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	0.04909		mg/Kg		98	70 - 131	1	30
Ethylbenzene	0.0500	0.04644		mg/Kg		93	66 - 130	3	30
Toluene	0.0500	0.04712		mg/Kg		94	67 - 130	1	30
Xylenes, Total	0.100	0.09252		mg/Kg		93	63 - 130	3	30
m-Xylene & p-Xylene	0.0500	0.04569		mg/Kg		91	64 - 130	4	30
o-Xylene	0.0500	0.04683		mg/Kg		94	62 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 153*
Di: rob orhuorob ethane	*82*		*69 - 143*
f oluene-d9 (Surr)	*80*		*T3 - 153*
4-Brob orhuoro: enzene	*11T*		*T0 - 143*

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

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*
f rifluorotoluene (Surr)	*99*		*23 - 143*	*08/08/19 39/58*	*08/08/19 13/41*	*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*
f rifluorotoluene (Surr)	*85*		*23 - 143*

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*
f rifluorotoluene (Surr)	*90*		*23 - 143*

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	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*
f rifluorotoluene (Surr)	*98*		*23 - 143*

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

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

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-f erphenyl (Surr)	01		26 - 12T	3973871838 38/11	3971271838 14/48	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	%Rec. Limits		
Diesel Range Organics [C10 - C28]			250	208.7		mg/Kg		83	45 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-f erphenyl (Surr)	90		26 - 12T

Lab Sample ID: 600-189564-A-41-D MS
Matrix: Solid
Analysis Batch: 395565

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 395221

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%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-f erphenyl (Surr)	64		26 - 12T

Lab Sample ID: 600-189564-A-41-E MSD
Matrix: Solid
Analysis Batch: 395565

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 395221

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%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-f erphenyl (Surr)	04		26 - 12T

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 600-271100/1-A
Matrix: Solid
Analysis Batch: 271096

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			08/03/19 12:10	1

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 600-271100/2-A
Matrix: Solid
Analysis Batch: 271096

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	191.0		mg/Kg		95	90 - 110		

Lab Sample ID: 600-189372-13 MS
Matrix: Solid
Analysis Batch: 271096

Client Sample ID: LT16-03-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	8.49		99.8	104.2		mg/Kg		96	80 - 120		

Lab Sample ID: 600-189372-13 MSD
Matrix: Solid
Analysis Batch: 271096

Client Sample ID: LT16-03-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.49		99.8	103.0		mg/Kg		95	80 - 120	1	20

Lab Sample ID: MB 600-271212/1-A
Matrix: Solid
Analysis Batch: 271194

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.729	J	4.00	0.534	mg/Kg			08/05/19 14:54	1

Lab Sample ID: LCS 600-271212/2-A
Matrix: Solid
Analysis Batch: 271194

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	202.9		mg/Kg		101	90 - 110		

Lab Sample ID: 600-189372-9 MS
Matrix: Solid
Analysis Batch: 271194

Client Sample ID: LT16-02-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	52.1	b	99.6	164.7		mg/Kg		113	80 - 120		

Lab Sample ID: 600-189372-9 MSD
Matrix: Solid
Analysis Batch: 271194

Client Sample ID: LT16-02-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	52.1	b	99.6	164.9		mg/Kg		113	80 - 120	0	20

Lab Sample ID: 600-189372-21 MS
Matrix: Solid
Analysis Batch: 271194

Client Sample ID: LT16-04-3-4
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	46.9	b	99.6	152.0		mg/Kg		106	80 - 120		

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 600-189372-21 MSD
Matrix: Solid
Analysis Batch: 271194

Client Sample ID: LT16-04-3-4
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	46.9	b	99.6	153.4		mg/Kg		107	80 - 120	1	20

Lab Sample ID: MB 600-272312/1-A
Matrix: Solid
Analysis Batch: 272306

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.456	J	4.00	0.534	mg/Kg			08/19/19 12:49	1

Lab Sample ID: LCS 600-272312/2-A
Matrix: Solid
Analysis Batch: 272306

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	197.1		mg/Kg		99	90 - 110		

Lab Sample ID: 600-189986-A-3-B MS
Matrix: Solid
Analysis Batch: 272306

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	14.1	b	99.4	120.9		mg/Kg		107	80 - 120		

Lab Sample ID: 600-189986-A-3-C MSD
Matrix: Solid
Analysis Batch: 272306

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	14.1	b	99.4	124.9		mg/Kg		111	80 - 120	3	20

Method: 2540B - Percent Moisture

Lab Sample ID: 600-189372-13 DU
Matrix: Solid
Analysis Batch: 270876

Client Sample ID: LT16-03-0-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	9.3			8.9		%				4	20
Percent Solids	90.7			91.1		%				0.4	20

Lab Sample ID: 600-189372-24 DU
Matrix: Solid
Analysis Batch: 270876

Client Sample ID: LT16-05-1-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	7.3			7.8	F	%				80	20
Percent Solids	92.7			92.2		%				12	20

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Method: 2540B - Percent Moisture (Continued)

Lab Sample ID: 600-189372-A-1 DU
Matrix: Solid
Analysis Batch: 270876

Client Sample ID: 600-189372-A-1 DU
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture				20.5		%					20
Percent Solids				79.5		%					20

Unadjusted Detection Limits

Client: AECOM
Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

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

General Chemistry

Analyte	MQL	MDL	Units
Percent Moisture	1.0	1.0	%
Percent Solids	1.0	1.0	%

QC Association Summary

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

GC/MS VOA

Analysis Batch: 270680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-2	LT16-01-1-2	Total/NA	Solid	8260B	270737
600-189372-7	LT16-01-4-5	Total/NA	Solid	8260B	270737
MB 600-270680/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-270680/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-270680/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 270737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-2	LT16-01-1-2	Total/NA	Solid	5035	
600-189372-7	LT16-01-4-5	Total/NA	Solid	5035	

GC VOA

Analysis Batch: 394975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-2	LT16-01-1-2	Total/NA	Solid	8015B	394979
600-189372-7	LT16-01-4-5	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
600-189372-2	LT16-01-1-2	Total/NA	Solid	5030A	
600-189372-7	LT16-01-4-5	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
600-189372-2	LT16-01-1-2	Total/NA	Solid	3546	
600-189372-7	LT16-01-4-5	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-A-41-D MS	Matrix Spike	Total/NA	Solid	3546	
600-189564-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 395565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-2	LT16-01-1-2	Total/NA	Solid	8015B	395221
600-189372-7	LT16-01-4-5	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-A-41-D MS	Matrix Spike	Total/NA	Solid	8015B	395221
600-189564-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	395221

QC Association Summary

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

HPLC/IC

Analysis Batch: 271096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-1	LT16-01-0-1	Soluble	Solid	9056A	271100
600-189372-4	LT16-01-2-3	Soluble	Solid	9056A	271100
600-189372-5	LT16-01-3-4	Soluble	Solid	9056A	271100
600-189372-8	LT16-02-0-1	Soluble	Solid	9056A	271100
600-189372-11	LT16-02-3-4	Soluble	Solid	9056A	271100
600-189372-13	LT16-03-0-1	Soluble	Solid	9056A	271100
600-189372-14	LT16-03-1-2	Soluble	Solid	9056A	271100
600-189372-15	LT16-03-2-3	Soluble	Solid	9056A	271100
600-189372-17	LT16-03-4-5	Soluble	Solid	9056A	271100
600-189372-18	LT16-04-0-1	Soluble	Solid	9056A	271100
600-189372-19	LT16-04-1-2	Soluble	Solid	9056A	271100
600-189372-20	LT16-04-2-3	Soluble	Solid	9056A	271100
MB 600-271100/1-A	Method Blank	Soluble	Solid	9056A	271100
LCS 600-271100/2-A	Lab Control Sample	Soluble	Solid	9056A	271100
600-189372-13 MS	LT16-03-0-1	Soluble	Solid	9056A	271100
600-189372-13 MSD	LT16-03-0-1	Soluble	Solid	9056A	271100

Leach Batch: 271100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-1	LT16-01-0-1	Soluble	Solid	DI Leach	
600-189372-2	LT16-01-1-2	Soluble	Solid	DI Leach	
600-189372-4	LT16-01-2-3	Soluble	Solid	DI Leach	
600-189372-5	LT16-01-3-4	Soluble	Solid	DI Leach	
600-189372-8	LT16-02-0-1	Soluble	Solid	DI Leach	
600-189372-11	LT16-02-3-4	Soluble	Solid	DI Leach	
600-189372-13	LT16-03-0-1	Soluble	Solid	DI Leach	
600-189372-14	LT16-03-1-2	Soluble	Solid	DI Leach	
600-189372-15	LT16-03-2-3	Soluble	Solid	DI Leach	
600-189372-17	LT16-03-4-5	Soluble	Solid	DI Leach	
600-189372-18	LT16-04-0-1	Soluble	Solid	DI Leach	
600-189372-19	LT16-04-1-2	Soluble	Solid	DI Leach	
600-189372-20	LT16-04-2-3	Soluble	Solid	DI Leach	
MB 600-271100/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-271100/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-189372-13 MS	LT16-03-0-1	Soluble	Solid	DI Leach	
600-189372-13 MSD	LT16-03-0-1	Soluble	Solid	DI Leach	

Analysis Batch: 271194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-2	LT16-01-1-2	Soluble	Solid	9056A	271100
600-189372-9	LT16-02-1-2	Soluble	Solid	9056A	271212
600-189372-12	LT16-02-4-5	Soluble	Solid	9056A	271212
600-189372-21	LT16-04-3-4	Soluble	Solid	9056A	271212
600-189372-22	LT16-04-4-5	Soluble	Solid	9056A	271212
600-189372-23	LT16-05-0-1	Soluble	Solid	9056A	271212
600-189372-24	LT16-05-1-2	Soluble	Solid	9056A	271212
600-189372-25	LT16-05-2-3	Soluble	Solid	9056A	271212
600-189372-26	LT16-05-3-4	Soluble	Solid	9056A	271212
600-189372-27	LT16-05-4-5	Soluble	Solid	9056A	271212
MB 600-271212/1-A	Method Blank	Soluble	Solid	9056A	271212
LCS 600-271212/2-A	Lab Control Sample	Soluble	Solid	9056A	271212

QC Association Summary

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

HPLC/IC (Continued)

Analysis Batch: 271194 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-9 MS	LT16-02-1-2	Soluble	Solid	9056A	271212
600-189372-9 MSD	LT16-02-1-2	Soluble	Solid	9056A	271212
600-189372-21 MS	LT16-04-3-4	Soluble	Solid	9056A	271212
600-189372-21 MSD	LT16-04-3-4	Soluble	Solid	9056A	271212

Leach Batch: 271212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-9	LT16-02-1-2	Soluble	Solid	DI Leach	
600-189372-12	LT16-02-4-5	Soluble	Solid	DI Leach	
600-189372-21	LT16-04-3-4	Soluble	Solid	DI Leach	
600-189372-22	LT16-04-4-5	Soluble	Solid	DI Leach	
600-189372-23	LT16-05-0-1	Soluble	Solid	DI Leach	
600-189372-24	LT16-05-1-2	Soluble	Solid	DI Leach	
600-189372-25	LT16-05-2-3	Soluble	Solid	DI Leach	
600-189372-26	LT16-05-3-4	Soluble	Solid	DI Leach	
600-189372-27	LT16-05-4-5	Soluble	Solid	DI Leach	
MB 600-271212/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-271212/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-189372-9 MS	LT16-02-1-2	Soluble	Solid	DI Leach	
600-189372-9 MSD	LT16-02-1-2	Soluble	Solid	DI Leach	
600-189372-21 MS	LT16-04-3-4	Soluble	Solid	DI Leach	
600-189372-21 MSD	LT16-04-3-4	Soluble	Solid	DI Leach	

Analysis Batch: 272306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-7	LT16-01-4-5	Soluble	Solid	9056A	272312
MB 600-272312/1-A	Method Blank	Soluble	Solid	9056A	272312
LCS 600-272312/2-A	Lab Control Sample	Soluble	Solid	9056A	272312
600-189986-A-3-B MS	Matrix Spike	Soluble	Solid	9056A	272312
600-189986-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	9056A	272312

Leach Batch: 272312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-7	LT16-01-4-5	Soluble	Solid	DI Leach	
MB 600-272312/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-272312/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-189986-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
600-189986-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

General Chemistry

Analysis Batch: 270876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-1	LT16-01-0-1	Total/NA	Solid	2540B	
600-189372-2	LT16-01-1-2	Total/NA	Solid	2540B	
600-189372-4	LT16-01-2-3	Total/NA	Solid	2540B	
600-189372-5	LT16-01-3-4	Total/NA	Solid	2540B	
600-189372-7	LT16-01-4-5	Total/NA	Solid	2540B	
600-189372-8	LT16-02-0-1	Total/NA	Solid	2540B	
600-189372-9	LT16-02-1-2	Total/NA	Solid	2540B	
600-189372-10	LT16-02-2-3	Total/NA	Solid	2540B	

QC Association Summary

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

General Chemistry (Continued)

Analysis Batch: 270876 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-11	LT16-02-3-4	Total/NA	Solid	2540B	
600-189372-12	LT16-02-4-5	Total/NA	Solid	2540B	
600-189372-13	LT16-03-0-1	Total/NA	Solid	2540B	
600-189372-14	LT16-03-1-2	Total/NA	Solid	2540B	
600-189372-15	LT16-03-2-3	Total/NA	Solid	2540B	
600-189372-17	LT16-03-4-5	Total/NA	Solid	2540B	
600-189372-18	LT16-04-0-1	Total/NA	Solid	2540B	
600-189372-19	LT16-04-1-2	Total/NA	Solid	2540B	
600-189372-20	LT16-04-2-3	Total/NA	Solid	2540B	
600-189372-21	LT16-04-3-4	Total/NA	Solid	2540B	
600-189372-22	LT16-04-4-5	Total/NA	Solid	2540B	
600-189372-23	LT16-05-0-1	Total/NA	Solid	2540B	
600-189372-24	LT16-05-1-2	Total/NA	Solid	2540B	
600-189372-25	LT16-05-2-3	Total/NA	Solid	2540B	
600-189372-26	LT16-05-3-4	Total/NA	Solid	2540B	
600-189372-27	LT16-05-4-5	Total/NA	Solid	2540B	
600-189372-13 DU	LT16-03-0-1	Total/NA	Solid	2540B	
600-189372-24 DU	LT16-05-1-2	Total/NA	Solid	2540B	
600-189372-A-1 DU	600-189372-A-1 DU	Total/NA	Solid	2540B	

Lab Chronicle

Client: AECOM
Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-01-0-1
Lab Sample ID: 600-189372-1
Date Collected: 07/29/19 12:05
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		10	271096	08/03/19 13:57	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-01-1-2
Lab Sample ID: 600-189372-2
Date Collected: 07/29/19 12:10
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270737	07/30/19 11:45	WS1	TAL HOU
Total/NA	Analysis	8260B		1	270680	07/30/19 16:48	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 14:18	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 15:44	LKG	TAL CAN
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		10	271194	08/05/19 20:34	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-01-2-3
Lab Sample ID: 600-189372-4
Date Collected: 07/29/19 12:15
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 12:54	SKR	TAL HOU
Soluble	Analysis	9056A		2	271096	08/03/19 21:07	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-01-3-4
Lab Sample ID: 600-189372-5
Date Collected: 07/29/19 12:20
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 18:25	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-01-4-5
Lab Sample ID: 600-189372-7
Date Collected: 07/29/19 12:25
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			270737	07/30/19 11:45	WS1	TAL HOU
Total/NA	Analysis	8260B		1	270680	07/30/19 17:14	WS1	TAL HOU

Lab Chronicle

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-1

Client Sample ID: LT16-01-4-5
Date Collected: 07/29/19 12:25
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			394979	08/08/19 08:39	MBB	TAL CAN
Total/NA	Analysis	8015B		1	394975	08/08/19 15:03	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 16:12	LKG	TAL CAN
Soluble	Leach	DI Leach			272312	08/19/19 12:20	SKR	TAL HOU
Soluble	Analysis	9056A		2	272306	08/19/19 14:29	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-02-0-1
Date Collected: 07/29/19 13:05
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 12:54	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 21:25	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-02-1-2
Date Collected: 07/29/19 13:10
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 15:34	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-02-2-3
Date Collected: 07/29/19 13:15
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-02-3-4
Date Collected: 07/29/19 13:20
Date Received: 07/30/19 09:55

Lab Sample ID: 600-189372-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 18:07	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Lab Chronicle

Client: AECOM
Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-02-4-5
Lab Sample ID: 600-189372-12
Date Collected: 07/29/19 13:25
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 19:54	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-03-0-1
Lab Sample ID: 600-189372-13
Date Collected: 07/29/19 13:45
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 12:54	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 19:37	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-03-1-2
Lab Sample ID: 600-189372-14
Date Collected: 07/29/19 13:50
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 12:54	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 20:31	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-03-2-3
Lab Sample ID: 600-189372-15
Date Collected: 07/29/19 13:55
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 17:50	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-03-4-5
Lab Sample ID: 600-189372-17
Date Collected: 07/29/19 14:05
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 19:19	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Lab Chronicle

Client: AECOM
Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-04-0-1
Lab Sample ID: 600-189372-18
Date Collected: 07/29/19 14:20
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 12:54	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 20:49	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-04-1-2
Lab Sample ID: 600-189372-19
Date Collected: 07/29/19 14:25
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 17:32	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-04-2-3
Lab Sample ID: 600-189372-20
Date Collected: 07/29/19 14:30
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271100	08/03/19 11:00	SKR	TAL HOU
Soluble	Analysis	9056A		1	271096	08/03/19 17:14	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-04-3-4
Lab Sample ID: 600-189372-21
Date Collected: 07/29/19 14:35
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 18:54	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-04-4-5
Lab Sample ID: 600-189372-22
Date Collected: 07/29/19 14:40
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 18:14	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Lab Chronicle

Client: AECOM
Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-05-0-1
Lab Sample ID: 600-189372-23
Date Collected: 07/29/19 14:55
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 17:14	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-05-1-2
Lab Sample ID: 600-189372-24
Date Collected: 07/29/19 15:00
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 16:54	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-05-2-3
Lab Sample ID: 600-189372-25
Date Collected: 07/29/19 15:05
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 16:34	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-05-3-4
Lab Sample ID: 600-189372-26
Date Collected: 07/29/19 15:10
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 20:14	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	TAL HOU

Client Sample ID: LT16-05-4-5
Lab Sample ID: 600-189372-27
Date Collected: 07/29/19 15:15
Matrix: Solid
Date Received: 07/30/19 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			271212	08/05/19 14:41	SKR	TAL HOU
Soluble	Analysis	9056A		1	271194	08/05/19 18:34	SKR	TAL HOU
Total/NA	Analysis	2540B		1	270876	07/31/19 16:57	AP	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

Accreditation/Certification Summary

Client: AECOM Job ID: 600-189372-1
Project/Site: Chevron Lost Tank 16 #004

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
2540B		Solid	Percent Moisture
2540B		Solid	Percent Solids

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
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: James Lovely	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-69310-18903.1
Client Contact: Mr. Wallace Gilmore	Phone: 432-352-3662	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 3
Company: AECOM				Job #:
Address: 19219 Katy Freeway Suite 100	Due Date Requested:			
City: Houston	TAT Requested (days):			
State, Zip: TX, 77094				
Phone: 713-520-990(Tel) 713-520-680(Fax)	PO #:			
Email: wallace.gilmore@aecom.com	WO #:			
Project Name: Chevron	Project #: 60008660			
Site: Lost Tank 16 #004	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1005 - (TPH)	8260B - BTEX Only	9056_ORGFM_28D - Chloride	1311/ 6010B, 7470A- TCLP metals	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
LT16-01-0-1	7/29/19	1205	G	Solid					X				
LT16-01-1-2		1210		Solid			X	X		X	X		
LT16-01-1-2		1210		Solid					X				
LT16-01-2-3		1215		Solid					X				
LT16-01-3-4		1220		Solid					X				
LT16-01-4-5		1225		Solid					X				
LT16-01-4-5		1225		Solid			X	X		X	X		
LT16-02-0-1		1305		Solid			X	X	X	X	X		Hold all but chloride
LT16-02-1-2		1310		Solid					X				
LT16-02-2-3		1315		Solid					X				
LT16-02-3-4		1320		Solid					X				

600-189372 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Seth Frederick	7/29/19 @ 1700	AECOM		7/30/19 955	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-69310-18903.1
Client Contact: Mr. Wallace Gilmore	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2
Company: AECOM				Job #:
Address: 19219 Katy Freeway Suite 100	Due Date Requested:			
City: Houston	TAT Requested (days):			
State, Zip: TX, 77094				
Phone: 713-520-990(Tel) 713-520-680(Fax)	PO #:			
Email: wallace.gilmore@aecom.com	WO #:			
Project Name: Chevron	Project #: 60008660			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1005 - (TPH	8260B - BTEX Only	9056_ORGFM_28D - Chloride	1311/ 6010B, 7470A- TCLP metals	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
LT16-02-4-5	7/29/19	1325	G	Solid			X	X	X		X		Hold all but chloride
LT16-03-0-1	~~7/25~~	1345	|	Solid			~~X~~	~~X~~	X		~~X~~		
LT16-03-1-2	|	1350	|	Solid			X	X	X		X		Hold all but chloride
LT16-03-2-3	|	1355	|	Solid					X				
LT16-03-3-4	|	1400	|	Solid					X				
LT16-03-4-5	|	1405	|	Solid			X	X	X		X		Hold all but chloride
LT16-04-0-1	|	1420	|	Solid			X	X	X		X		Hold all but chloride
LT16-04-1-2	|	1425	|	Solid					X				
LT16-04-2-3	|	1430	|	Solid					X				
LT16-04-3-4	|	1435	|	Solid					X				
LT16-04-4-5	↓	1440	↓	Solid			X	X	X		X		Hold all but chloride

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Sean Frederick	Date/Time: 7/29/19 @ 1700	Company: AECOM	Received by: [signature]	Date/Time: 7/30/19 955	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-69310-18903.1
Client Contact: Mr. Wallace Gilmore	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 3
Company: AECOM				Job #:

Address: 19219 Katy Freeway Suite 100	Due Date Requested:
City: Houston	TAT Requested (days):
State, Zip: TX, 77094	
Phone: 713-520-990(Tel) 713-520-680(Fax)	PO #:
Email: wallace.gilmore@aecom.com	WO #:
Project Name: Chevron	Project #: 60008660
Site:	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, 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)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1005 - (TPH	8260B - BTEX Only	9056_ORGFM_28D - Chloride	1311/ 6010B, 7470A- TCLP metals	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
LT16-05-0-1	7/29/19	1455	G	Solid			X	X	X		X		Hold all but chloride
LT16-05-1-2	↓	1500	↓	Solid					X				
LT16-05-2-3		1505		Solid					X				
LT16-05-3-4		1510		Solid					X				
LT16-05-4-5	↓	1515	↓	Solid			X	X			X		Hold all but chloride
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: Seth Frederick	Date/Time: 7/29/19 @ 1700	Company: AECOM	Received by: [signature]	Date/Time: 7/30/19 955	Company: TA	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

TestAmerica Houston

Loc: 600
189372

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

'19 JUL 30 9:55

Date/Time Received:

JOB NUMBER: CLIENT: AECOM

UNPACKED BY: 47 CARRIER/DRIVER: Fedex

Custody Seal Present: ☑ YES ☐ NO Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
BW	(Y) / N	Y / (N)	1.3	678	+0.1	1.4
	Y / N	Y / N				
~~	~~Y / N~~	~~Y / N~~				
	Y / N	Y / N				
	Y / N	~~Y / N~~				
	Y / N	Y / N				7/30/19 ST
	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?	✓	

COMMENTS:

Sample 27-B container empty; No-A empty

7/30/19

HS-SA-WI-013 Rev. 3; 07/01/2014

600-189372 Waybill

FedEx
TRK# 0221 4840 2906 6419

TUE – 30 JUL 10:30A
PRIORITY OVERNIGHT

AB LKSA

77040
TX – US IAH

#20265 07/29 567J3/E9E7/05A2

1.0/1.1

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 (Sub Contract Lab)	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-41146.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-189372-1
Address: 4101 Shuffel Street NW,	Due Date Requested: 8/6/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Chevron Lost Tank 16 #004	Project #: 60008660			
Site:	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, 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)

Other:

GC, C45

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	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 Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
LT16-01-1-2 (600-189372-2)	7/29/19	12:10 Central		Solid			X	X	3	
LT16-01-4-5 (600-189372-7)	7/29/19	12:25 Central		Solid			X	X	3	

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/tests/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 complicance 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 ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/5/19 1000			8/6/19 930	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

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 # 16 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: _____

WI-NC-099

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

4.0/4.1

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-41265.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-189372-2
Address: 4101 Shuffel Street NW, .	Due Date Requested: 8/6/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Chevron Lost Tank 16 #004	Project #: 60008660			
Site:	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, 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)

Other:

8090 + GC

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	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 Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
LT16-02-0-1 (600-189372-8)	7/29/19	13:05 Central		Solid			X	X	6	
LT16-02-4-5 (600-189372-12)	7/29/19	13:25 Central		Solid			X	X	7	
LT16-03-1-2 (600-189372-14)	7/29/19	13:50 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-17)	7/29/19	14:05 Central		Solid			X	X	7	
LT16-04-0-1 (600-189372-18)	7/29/19	14:20 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-22)	7/29/19	14:40 Central		Solid			X	X	7	
LT16-05-0-1 (600-189372-23)	7/29/19	14:55 Central		Solid			X	X	7	
LT16-05-4-5 (600-189372-27)	7/29/19	15:15 Central		Solid			X	X	6	

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/tests/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* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/12/19 1600	ETA	[signature]	8-13-19 930	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	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 8-13-19 Opened on 8-13-19
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. 4.0 °C Corrected Cooler Temp. 4.1 °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: Ryan Cribley
Received two extra samples not on CoC: 189372 F2 + G2 (7-29-19 @ 1210 PM) and 189372 F7 + G7 (7-29-19 @ 1225 PM).

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

4.0/4.1

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-41265.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-189372-2
Address: 4101 Shuffel Street NW,	Due Date Requested: 8/6/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Chevron Lost Tank 16 #004	Project #: 60008660			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

C090 + GC

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	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 Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
LT16-02-0-1 (600-189372-8)	7/29/19	13:05 Central		Solid			X	X	6	
LT16-02-4-5 (600-189372-12)	7/29/19	13:25 Central		Solid			X	X	7	
LT16-03-1-2 (600-189372-14)	7/29/19	13:50 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-17)	7/29/19	14:05 Central		Solid			X	X	7	
LT16-04-0-1 (600-189372-18)	7/29/19	14:20 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-22)	7/29/19	14:40 Central		Solid			X	X	7	
LT16-05-0-1 (600-189372-23)	7/29/19	14:55 Central		Solid			X	X	7	
LT16-05-4-5 (600-189372-27)	7/29/19	15:15 Central		Solid			X	X	6	

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/tests/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 complicance 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 ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	8/12/19 1600	ETA	[signature]	8-13-19 930	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	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 8-13-19 Opened on 8-13-19

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. 4.0 °C Corrected Cooler Temp. 4.1 °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: Ryan Cribley

Received two extra samples not on CoC: 189372 F2 + G2 (7-29-19 @ 1210 PM) and 189372 F7 + G7 (7-29-19 @ 1225 pm).

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: _____

WI-NC-099

Login Sample Receipt Checklist

Client: AECOM Job Number: 600-189372-1

Login Number: 189372 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Taylor, Jacquelyn R

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	1.4
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.

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 600-189372-2
Client Project/Site: Chevron Lost Tank 16 #004

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

Attn: Mr. Wallace Gilmore

Authorized for release by:
9/10/2019 9:15:22 AM

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

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Laboratory Job ID: 600-189372-2

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Case Narrative

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

Job ID: 600-189372-2

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative
600-189372-2

Comments
No additional comments.

Receipt
The samples were received on 7/30/2019 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4º C.

Receipt Exceptions

Sample 27's plastic 100mL container was received empty, Sample 16's 2oz soil jar received empty.

Did not receive containers for samples 3 & 6. Did not receive 2oz soil jar for sample 8.

GC VOA
Method(s) 8015B: The following samples were received outside of holding time: LT16-02-0-1 (600-189372-8), LT16-02-4-5 (600-189372-12), LT16-03-1-2 (600-189372-14), LT16-03-4-5 (600-189372-17), LT16-04-0-1 (600-189372-18), LT16-04-4-5 (600-189372-22) and LT16-05-0-1 (600-189372-23).

Method(s) 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: LT16-05-4-5 (600-189372-27).

Method(s) 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)

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

GC Semi VOA
Method(s) 8015B: The following samples were prepared outside of preparation holding time due to lab oversight : LT16-02-4-5 (600-189372-12), LT16-03-1-2 (600-189372-14), LT16-03-4-5 (600-189372-17), LT16-04-0-1 (600-189372-18), LT16-04-4-5 (600-189372-22), LT16-05-0-1 (600-189372-23) and LT16-05-4-5 (600-189372-27).

Method(s) 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: LT16-02-0-1 (600-189372-8).

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

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

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

Method Summary

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

Method	Method Description	Protocol	Laboratory
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

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

Sample Summary

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-189372-8	LT16-02-0-1	Solid	07/29/19 13:05	07/30/19 09:55	
600-189372-12	LT16-02-4-5	Solid	07/29/19 13:25	07/30/19 09:55	
600-189372-14	LT16-03-1-2	Solid	07/29/19 13:50	07/30/19 09:55	
600-189372-17	LT16-03-4-5	Solid	07/29/19 14:05	07/30/19 09:55	
600-189372-18	LT16-04-0-1	Solid	07/29/19 14:20	07/30/19 09:55	
600-189372-22	LT16-04-4-5	Solid	07/29/19 14:40	07/30/19 09:55	
600-189372-23	LT16-05-0-1	Solid	07/29/19 14:55	07/30/19 09:55	
600-189372-27	LT16-05-4-5	Solid	07/29/19 15:15	07/30/19 09:55	

Client Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

Client Sample ID: LT16-02-0-1

Lab Sample ID: 600-189372-8
Date Collected: 07/29/19 13:05
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.6	U H	99.0	63.6	ug/Kg		08/13/19 10:26	08/13/19 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*86*		*20 - 140*	*08/13/19 10:26*	*08/13/19 20:27*	*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]	34.2	U H	49.4	34.2	mg/Kg		08/15/19 12:00	08/16/19 15:54	1
C28-C36	34.2	U H	49.4	34.2	mg/Kg		08/15/19 12:00	08/16/19 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*77*		*26 - 125*	*08/15/19 12:00*	*08/16/19 15:54*	*1*

Client Sample ID: LT16-02-4-5

Lab Sample ID: 600-189372-12
Date Collected: 07/29/19 13:25
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.2	U H	100	64.2	ug/Kg		08/13/19 10:26	08/13/19 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*89*		*20 - 140*	*08/13/19 10:26*	*08/13/19 21:13*	*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	U H	51.4	35.6	mg/Kg		08/14/19 12:05	08/15/19 19:42	1
C28-C36	35.6	U H	51.4	35.6	mg/Kg		08/14/19 12:05	08/15/19 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*80*		*26 - 125*	*08/14/19 12:05*	*08/15/19 19:42*	*1*

Client Sample ID: LT16-03-1-2

Lab Sample ID: 600-189372-14
Date Collected: 07/29/19 13:50
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.2	U H	98.4	63.2	ug/Kg		08/13/19 10:26	08/13/19 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*90*		*20 - 140*	*08/13/19 10:26*	*08/13/19 23:27*	*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 H	49.0	33.9	mg/Kg		08/14/19 12:05	08/15/19 20:39	1
C28-C36	33.9	U H	49.0	33.9	mg/Kg		08/14/19 12:05	08/15/19 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*73*		*26 - 125*	*08/14/19 12:05*	*08/15/19 20:39*	*1*

Client Sample Results

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-03-4-5
Lab Sample ID: 600-189372-17
Date Collected: 07/29/19 14:05
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.3	U H	98.6	63.3	ug/Kg		08/13/19 10:26	08/14/19 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*89*		*20 - 140*	*08/13/19 10:26*	*08/14/19 00:11*	*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	48.5	33.6	mg/Kg		08/14/19 12:05	08/15/19 21:07	1
C28-C36	33.6	U H	48.5	33.6	mg/Kg		08/14/19 12:05	08/15/19 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*71*		*26 - 125*	*08/14/19 12:05*	*08/15/19 21:07*	*1*

Client Sample ID: LT16-04-0-1
Lab Sample ID: 600-189372-18
Date Collected: 07/29/19 14:20
Matrix: Solid
Date Received: 07/30/19 09:55

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 H	98.2	63.1	ug/Kg		08/13/19 10:26	08/14/19 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*80*		*20 - 140*	*08/13/19 10:26*	*08/14/19 00:54*	*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]	35.4	U H	51.2	35.4	mg/Kg		08/14/19 12:05	08/15/19 21:35	1
C28-C36	35.4	U H	51.2	35.4	mg/Kg		08/14/19 12:05	08/15/19 21:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*74*		*26 - 125*	*08/14/19 12:05*	*08/15/19 21:35*	*1*

Client Sample ID: LT16-04-4-5
Lab Sample ID: 600-189372-22
Date Collected: 07/29/19 14:40
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64.2	U H	100	64.2	ug/Kg		08/13/19 10:26	08/14/19 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*91*		*20 - 140*	*08/13/19 10:26*	*08/14/19 01:36*	*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]	34.5	U H	49.9	34.5	mg/Kg		08/14/19 12:05	08/15/19 22:03	1
C28-C36	34.5	U H	49.9	34.5	mg/Kg		08/14/19 12:05	08/15/19 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*66*		*26 - 125*	*08/14/19 12:05*	*08/15/19 22:03*	*1*

Client Sample Results

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-05-0-1
Lab Sample ID: 600-189372-23
Date Collected: 07/29/19 14:55
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	63.3	U H	98.6	63.3	ug/Kg		08/13/19 10:26	08/14/19 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*88*		*20 - 140*	*08/13/19 10:26*	*08/14/19 02:19*	*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]	34.1	U H	49.3	34.1	mg/Kg		08/14/19 12:05	08/15/19 22:30	1
C28-C36	34.1	U H	49.3	34.1	mg/Kg		08/14/19 12:05	08/15/19 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*70*		*26 - 125*	*08/14/19 12:05*	*08/15/19 22:30*	*1*

Client Sample ID: LT16-05-4-5
Lab Sample ID: 600-189372-27
Date Collected: 07/29/19 15:15
Matrix: Solid
Date Received: 07/30/19 09:55

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	66.0	U H	103	66.0	ug/Kg		08/15/19 08:28	08/15/19 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*90*		*20 - 140*	*08/15/19 08:28*	*08/15/19 20:21*	*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]	34.7	U H	50.2	34.7	mg/Kg		08/14/19 12:05	08/15/19 22:58	1
C28-C36	34.7	U H	50.2	34.7	mg/Kg		08/14/19 12:05	08/15/19 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*81*		*26 - 125*	*08/14/19 12:05*	*08/15/19 22:58*	*1*

Definitions/Glossary

Client: AECOM Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Say wle d as wrewwe. or analRue. beRon. the sweciQe. hol. ing tiy e
q	AnalRte d as not . etecte. at or above the SDLm

GC Semi VOA

Qualifier	Qualifier Description
U	Say wle d as wrewwe. or analRue. beRon. the sweciQe. hol. ing tiy e
q	AnalRte d as not . etecte. at or above the SDLm

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
p	Liste. f n. er the FDFcolf y n to . esignate that the resf lt is reworte. on a . rRd eight basis
x ¤	Percent ¤ ecoverR
C" L	Contains " ree Li%f i.
CN"	Contains No " ree Li%f i.
DE¤	Df wlicate Error ¤ atio (nory aliue. absolf te . iQerencez
Dil " ac	Dilf tion " actor
DL	Detection Liy it (DoD/DOEz
DL) ¤ A) ¤ E) IN	In. icates a Dilf tion) ¤ e-analRsis) ¤ e-e, traction) or a. . itional Initial y etals/anion analRsis oQhe say wle
DLC	Decision Level Concentration (¤ a. iochey istrRz
EDL	Estiy ate. Detection Liy it (Dio, inz
LOD	Liy it oQDetection (DoD/DOEz
LOH	Liy it oQHf antitation (DoD/DOEz
MDA	Miniy f y Detectable ActivitR(¤ a. iochey istrRz
MDC	Miniy f y Detectable Concentration (¤ a. iochey istrRz
MDL	Metho. Detection Liy it
ML	Miniy f y Level (Dio, inz
NC	Not Calcf late.
ND	Not Detecte. at the reworting liy it (or MDL or EDL iQshod nz
PHL	Practical Hf antitation Liy it
HC	Hf alitRControl
¤ E¤	¤ elative Error ¤ atio (¤ a. iochey istrRz
¤ L	¤ eworting Liy it or ¤ e%f este. Liy it (¤ a. iochey istrRz
¤ PD	¤ elative Percent DiQerence) a y easf re oQhe relative . iQerence betd een td o woints
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Surrogate Summary

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

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

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) TFT2 (20-140)
600-189372-8	LT16-02-0-1	86
600-189372-12	LT16-02-4-5	89
600-189372-14	LT16-03-1-2	90
600-189372-17	LT16-03-4-5	89
600-189372-18	LT16-04-0-1	80
600-189372-22	LT16-04-4-5	91
600-189372-23	LT16-05-0-1	88
600-189372-27	LT16-05-4-5	90
600-189372-27 MS	LT16-05-4-5	89
600-189372-27 MSD	LT16-05-4-5	90
LCS 240-395759/2-A	Lab Control Sample	90
LCS 240-396150/2-B	Lab Control Sample	88
MB 240-395759/1-A	Method Blank	82
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**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) OTPH1 (26-125)
600-189372-8	LT16-02-0-1	77
600-189372-8 MS	LT16-02-0-1	79
600-189372-8 MSD	LT16-02-0-1	77
600-189372-12	LT16-02-4-5	80
600-189372-14	LT16-03-1-2	73
600-189372-17	LT16-03-4-5	71
600-189372-18	LT16-04-0-1	74
600-189372-22	LT16-04-4-5	66
600-189372-23	LT16-05-0-1	70
600-189372-27	LT16-05-4-5	81
600-189491-G-7-B MS	Matrix Spike	82
600-189491-G-7-C MSD	Matrix Spike Duplicate	66
LCS 240-396000/16-A	Lab Control Sample	80
LCS 240-396217/2-A	Lab Control Sample	78
MB 240-396000/15-A	Method Blank	69
MB 240-396217/1-A	Method Blank	65

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

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

Lab Sample ID: MB 240-395759/1-A
Matrix: Solid
Analysis Batch: 395776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 395759

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		08/13/19 10:26	08/13/19 12:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*86*		*62 0- 12*	*284 / 4 3 - 2957*	*284 / 4 3 - 692:*	*-*

Lab Sample ID: LCS 240-395759/2-A
Matrix: Solid
Analysis Batch: 395776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395759

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics [C6 - C10]			800	744.1		ug/Kg		93	75 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*32*		*62 0- 12*

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)	*8:*		*62 0- 12*	*284 : 4 3 28968*	*284 : 4 3 - 8916*	*-*

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	%Rec. Limits		
Gasoline Range Organics [C6 - C10]			800	802.5		ug/Kg		100	75 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*88*		*62 0- 12*

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

Client Sample ID: LT16-05-4-5
Prep Type: Total/NA
Prep Batch: 396150

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics [C6 - C10]	66.0	U H	803	689.0		ug/Kg		86	10 - 134		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*83*		*62 0- 12*

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

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

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

Client Sample ID: LT16-05-4-5
Prep Type: Total/NA
Prep Batch: 396150

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	66.0	U H	777	621.1		ug/Kg		80	10 - 134	10	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*32*		*62 0- 12*

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

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o0Terphenyl (Surr)	*73*		*67 0- 6:*	*284 14 3 - 692:*	*284 : 4 3 - : 96/*	*-*

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	%Rec. Limits
Diesel Range Organics [C10 - C28]	250	192.7		mg/Kg		77	45 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o0Terphenyl (Surr)	*82*		*67 0- 6:*

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

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 396000

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o0Terphenyl (Surr)	*86*		*67 0- 6:*

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

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 396000

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

QC Sample Results

Client: AECOM
Project/Site: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

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

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

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 396000

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o0Terphenyl (Surr)	77		67 0- 6:

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 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		08/15/19 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 %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o0Terphenyl (Surr)	7:		67 0- 6:	284 : 4 3 - 6922	284 74 3 - 19 8	-

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 Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10 - C28]	250	192.5		mg/Kg		77	45 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o0Terphenyl (Surr)	58		67 0- 6:

Lab Sample ID: 600-189372-8 MS
Matrix: Solid
Analysis Batch: 396355

Client Sample ID: LT16-02-0-1
Prep Type: Total/NA
Prep Batch: 396217

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10 - C28]	34.2	U H	245	190.4		mg/Kg		78	27 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
o0Terphenyl (Surr)	53		67 0- 6:

Lab Sample ID: 600-189372-8 MSD
Matrix: Solid
Analysis Batch: 396355

Client Sample ID: LT16-02-0-1
Prep Type: Total/NA
Prep Batch: 396217

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10 - C28]	34.2	U H	242	185.4		mg/Kg		77	27 - 120	3	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o0Terphenyl (Surr)	55		67 0- 6:

Unadjusted Detection Limits

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

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: Chevron Lost Tank 16 #004

Job ID: 600-189372-2

GC VOA

Prep Batch: 395759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-8	LT16-02-0-1	Total/NA	Solid	5030A	
600-189372-12	LT16-02-4-5	Total/NA	Solid	5030A	
600-189372-14	LT16-03-1-2	Total/NA	Solid	5030A	
600-189372-17	LT16-03-4-5	Total/NA	Solid	5030A	
600-189372-18	LT16-04-0-1	Total/NA	Solid	5030A	
600-189372-22	LT16-04-4-5	Total/NA	Solid	5030A	
600-189372-23	LT16-05-0-1	Total/NA	Solid	5030A	
MB 240-395759/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 240-395759/2-A	Lab Control Sample	Total/NA	Solid	5030A	

Analysis Batch: 395776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-8	LT16-02-0-1	Total/NA	Solid	8015B	395759
600-189372-12	LT16-02-4-5	Total/NA	Solid	8015B	395759
600-189372-14	LT16-03-1-2	Total/NA	Solid	8015B	395759
600-189372-17	LT16-03-4-5	Total/NA	Solid	8015B	395759
600-189372-18	LT16-04-0-1	Total/NA	Solid	8015B	395759
600-189372-22	LT16-04-4-5	Total/NA	Solid	8015B	395759
600-189372-23	LT16-05-0-1	Total/NA	Solid	8015B	395759
MB 240-395759/1-A	Method Blank	Total/NA	Solid	8015B	395759
LCS 240-395759/2-A	Lab Control Sample	Total/NA	Solid	8015B	395759

Prep Batch: 396150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-27	LT16-05-4-5	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	
600-189372-27 MS	LT16-05-4-5	Total/NA	Solid	5030A	
600-189372-27 MSD	LT16-05-4-5	Total/NA	Solid	5030A	

Analysis Batch: 396273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-27	LT16-05-4-5	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
600-189372-27 MS	LT16-05-4-5	Total/NA	Solid	8015B	396150
600-189372-27 MSD	LT16-05-4-5	Total/NA	Solid	8015B	396150

GC Semi VOA

Prep Batch: 396000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-12	LT16-02-4-5	Total/NA	Solid	3546	
600-189372-14	LT16-03-1-2	Total/NA	Solid	3546	
600-189372-17	LT16-03-4-5	Total/NA	Solid	3546	
600-189372-18	LT16-04-0-1	Total/NA	Solid	3546	
600-189372-22	LT16-04-4-5	Total/NA	Solid	3546	
600-189372-23	LT16-05-0-1	Total/NA	Solid	3546	
600-189372-27	LT16-05-4-5	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	

QC Association Summary

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

GC Semi VOA (Continued)

Prep Batch: 396000 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189491-G-7-B MS	Matrix Spike	Total/NA	Solid	3546	
600-189491-G-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 396215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-12	LT16-02-4-5	Total/NA	Solid	8015B	396000
600-189372-14	LT16-03-1-2	Total/NA	Solid	8015B	396000
600-189372-17	LT16-03-4-5	Total/NA	Solid	8015B	396000
600-189372-18	LT16-04-0-1	Total/NA	Solid	8015B	396000
600-189372-22	LT16-04-4-5	Total/NA	Solid	8015B	396000
600-189372-23	LT16-05-0-1	Total/NA	Solid	8015B	396000
600-189372-27	LT16-05-4-5	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-G-7-B MS	Matrix Spike	Total/NA	Solid	8015B	396000
600-189491-G-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	396000

Prep Batch: 396217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-8	LT16-02-0-1	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	
600-189372-8 MS	LT16-02-0-1	Total/NA	Solid	3546	
600-189372-8 MSD	LT16-02-0-1	Total/NA	Solid	3546	

Analysis Batch: 396355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-189372-8	LT16-02-0-1	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
600-189372-8 MS	LT16-02-0-1	Total/NA	Solid	8015B	396217
600-189372-8 MSD	LT16-02-0-1	Total/NA	Solid	8015B	396217

Lab Chronicle

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-08-0-1
Lab Sample ID: 600-193728-9
Date Collected: 02/83/13 17:05
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/13/19 20:27	MBB	TAL CAN
Total/NA	Prep	3546			396217	08/15/19 12:00	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396355	08/16/19 15:54	LKG	TAL CAN

Client Sample ID: LT16-08-4-5
Lab Sample ID: 600-193728-18
Date Collected: 02/83/13 17:85
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/13/19 21:13	MBB	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 19:42	LKG	TAL CAN

Client Sample ID: LT16-07-1-8
Lab Sample ID: 600-193728-14
Date Collected: 02/83/13 17:50
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/13/19 23:27	MBB	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 20:39	LKG	TAL CAN

Client Sample ID: LT16-07-4-5
Lab Sample ID: 600-193728-12
Date Collected: 02/83/13 14:05
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/14/19 00:11	MBB	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 21:07	LKG	TAL CAN

Client Sample ID: LT16-04-0-1
Lab Sample ID: 600-193728-19
Date Collected: 02/83/13 14:80
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/14/19 00:54	MBB	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 21:35	LKG	TAL CAN

Lab Chronicle

Client: AECOM
Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Client Sample ID: LT16-04-4-5
Lab Sample ID: 600-193728-88
Date Collected: 02/83/13 14:40
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/14/19 01:36	MBB	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 22:03	LKG	TAL CAN

Client Sample ID: LT16-05-0-1
Lab Sample ID: 600-193728-87
Date Collected: 02/83/13 14:55
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			395759	08/13/19 10:26	MBB	TAL CAN
Total/NA	Analysis	8015B		1	395776	08/14/19 02:19	MBB	TAL CAN
Total/NA	Prep	3546			396000	08/14/19 12:05	ZMF	TAL CAN
Total/NA	Analysis	8015B		1	396215	08/15/19 22:30	LKG	TAL CAN

Client Sample ID: LT16-05-4-5
Lab Sample ID: 600-193728-82
Date Collected: 02/83/13 15:15
Matrix: Solid
Date Received: 02/70/13 03:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			396150	08/15/19 08:28	KMG	TAL CAN
Total/NA	Analysis	8015B		1	396273	08/15/19 20:21	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 22:58	LKG	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM Job ID: 600-189372-2
Project/Site: Chevron Lost Tank 16 #004

Laboratory: Eurofins TestAmerica, Houston

The accreditations/certifications listed below are applicable to this report.

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

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 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	08-31-20
Texas	NELAP	T104704517-19-11	08-31-20
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
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: James Lovely	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-69310-18903.1
Client Contact: Mr. Wallace Gilmore	Phone: 432-352-3662	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 3 → 1
Company: AECOM				Job #:
Address: 19219 Katy Freeway Suite 100	Due Date Requested:			
City: Houston	TAT Requested (days):			
State, Zip: TX, 77094				
Phone: 713-520-990(Tel) 713-520-680(Fax)	PO #:			
Email: wallace.gilmore@aecom.com	WO #:			
Project Name: Chevron	Project #: 60008660			
Site: Lost Tank 16 #004	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1005 - (TPH)	8260B - BTEX Only	9056_ORGFM_28D - Chloride	1311/ 6010B, 7470A- TCLP metals	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
LT16-01-0-1	7/29/19	1205	G	Solid					X				
LT16-01-1-2		1210		Solid			X	X		X	X		
LT16-01-1-2		1210		Solid					X				
LT16-01-2-3		1215		Solid					X				
LT16-01-3-4		1220		Solid					X				
LT16-01-4-5		1225		Solid					X				
LT16-01-4-5		1225		Solid			X	X		X	X		
LT16-02-0-1		1305		Solid			X	X	X	X	X		Hold all but chloride
LT16-02-1-2		1310		Solid					X				
LT16-02-2-3		1315		Solid					X				
LT16-02-3-4		1320		Solid					X				

600-189372 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Seth Frederick	7/29/19 @ 1700	AECOM		7/30/19 955	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-69310-18903.1
Client Contact: Mr. Wallace Gilmore	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2
Company: AECOM				Job #:
Address: 19219 Katy Freeway Suite 100	Due Date Requested:			
City: Houston	TAT Requested (days):			
State, Zip: TX, 77094				
Phone: 713-520-990(Tel) 713-520-680(Fax)	PO #:			
Email: wallace.gilmore@aecom.com	WO #:			
Project Name: Chevron	Project #: 60008660			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1005 - (TPH	8260B - BTEX Only	9056_ORGFM_28D - Chloride	1311/ 6010B, 7470A- TCLP metals	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
LT16-02-4-5	7/29/19	1325	G	Solid			X	X	X		X		Hold all but chloride
LT16-03-0-1	~~7/25~~	1345	|	Solid			~~X~~	~~X~~	X		~~X~~		
LT16-03-1-2	|	1350	|	Solid			X	X	X		X		Hold all but chloride
LT16-03-2-3	|	1355	|	Solid					X				
LT16-03-3-4	|	1400	|	Solid					X				
LT16-03-4-5	|	1405	|	Solid			X	X	X		X		Hold all but chloride
LT16-04-0-1	|	1420	|	Solid			X	X	X		X		Hold all but chloride
LT16-04-1-2	|	1425	|	Solid					X				
LT16-04-2-3	|	1430	|	Solid					X				
LT16-04-3-4	|	1435	|	Solid					X				
LT16-04-4-5	↓	1440	↓	Solid			X	X	X		X		Hold all but chloride

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Sean Frederick	Date/Time: 7/29/19 @ 1700	Company: AECOM	Received by: [signature]	Date/Time: 7/30/19 955	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-69310-18903.1
Client Contact: Mr. Wallace Gilmore	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 3
Company: AECOM		Analysis Requested		Job #:
Address: 19219 Katy Freeway Suite 100	Due Date Requested:			Preservation Codes:
City: Houston	TAT Requested (days):			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)
State, Zip: TX, 77094				
Phone: 713-520-990(Tel) 713-520-680(Fax)	PO #:			Other:
Email: wallace.gilmore@aecom.com	WO #:			
Project Name: Chevron	Project #: 60008660			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1005 - (TPH	8260B - BTEX Only	9056_ORGFM_28D - Chloride	1311/ 6010B, 7470A- TCLP metals	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
LT16-05-0-1	7/29/19	1455	G	Solid			X	X	X		X		Hold all but chloride
LT16-05-1-2	↓	1500	↓	Solid					X				
LT16-05-2-3		1505		Solid					X				
LT16-05-3-4		1510		Solid					X				
LT16-05-4-5	↓	1515	↓	Solid			X	X			X		Hold all but chloride
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: Seth Frederick	Date/Time: 7/29/19 @ 1700	Company: AECOM	Received by: [signature]	Date/Time: 7/30/19 955	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

TestAmerica Houston

Loc: 600
189372

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

'19 JUL 30 9:55

Date/Time Received:

JOB NUMBER: CLIENT: AECOM

UNPACKED BY: CARRIER/DRIVER: Fedex

Custody Seal Present: ☑ YES ☐ NO Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
BW	Y / N	Y / N	1.3	678	+0.1	1.4
	Y / N	Y / N				
	~~Y / N~~	~~Y / N~~				
	Y / N	Y / N				
	Y / N	~~Y / N~~				
	Y / N	Y / N				7/30/19 ST
	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?	✓	

COMMENTS:

Sample 27-B container empty; No-A empty

7/30/19

HS-SA-WI-013 Rev. 3; 07/01/2014

600-189372 Waybill

FedEx
TRK# 0221 4840 2906 6419

TUE – 30 JUL 10:30A
PRIORITY OVERNIGHT

AB LKSA

77040
TX–US IAH

#20265 07/29 567J3/E9E7/05A2

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

1.0/1.1

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-41146.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-189372-1
Address: 4101 Shuffel Street NW,	Due Date Requested: 8/6/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Chevron Lost Tank 16 #004	Project #: 60008660			
Site:	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, 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)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	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 Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:							GC, C45
LT16-01-1-2 (600-189372-2)	7/29/19	12:10 Central		Solid			X	X	3	
LT16-01-4-5 (600-189372-7)	7/29/19	12:25 Central		Solid			X	X	3	

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/tests/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 complicance 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 ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/5/19 1600			8/6/19 930	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

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 # 16 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: _____

WI-NC-099

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

4.0/4.1

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-41265.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-189372-2
Address: 4101 Shuffel Street NW, .	Due Date Requested: 8/6/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Chevron Lost Tank 16 #004	Project #: 60008660			
Site:	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, 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)

Other:

8090 + GC

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	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 Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
LT16-02-0-1 (600-189372-8)	7/29/19	13:05 Central		Solid			X	X	6	
LT16-02-4-5 (600-189372-12)	7/29/19	13:25 Central		Solid			X	X	7	
LT16-03-1-2 (600-189372-14)	7/29/19	13:50 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-17)	7/29/19	14:05 Central		Solid			X	X	7	
LT16-04-0-1 (600-189372-18)	7/29/19	14:20 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-22)	7/29/19	14:40 Central		Solid			X	X	7	
LT16-05-0-1 (600-189372-23)	7/29/19	14:55 Central		Solid			X	X	7	
LT16-05-4-5 (600-189372-27)	7/29/19	15:15 Central		Solid			X	X	6	

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/tests/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 complicance 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 ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	8/12/19 1600	ETA	[signature]	8-13-19 930	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	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 8-13-19 Opened on 8-13-19
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____
Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # T4 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. 4.0 °C Corrected Cooler Temp. 4.1 °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: Ryan Cribley

Received two extra samples not on CoC: 189372 F2 + G2 (7-29-19 @ 1210 PM) and 189372 F7 + G7 (7-29-19 @ 1225 PM).

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: _____

WI-NC-099

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

4.0/4.1

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-41265.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-189372-2
Address: 4101 Shuffel Street NW,	Due Date Requested: 8/6/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Chevron Lost Tank 16 #004	Project #: 60008660			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	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 Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:							C090 + GC
LT16-02-0-1 (600-189372-8)	7/29/19	13:05 Central		Solid			X	X	6	
LT16-02-4-5 (600-189372-12)	7/29/19	13:25 Central		Solid			X	X	7	
LT16-03-1-2 (600-189372-14)	7/29/19	13:50 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-17)	7/29/19	14:05 Central		Solid			X	X	7	
LT16-04-0-1 (600-189372-18)	7/29/19	14:20 Central		Solid			X	X	7	
LT16-04-4-5 (600-189372-22)	7/29/19	14:40 Central		Solid			X	X	7	
LT16-05-0-1 (600-189372-23)	7/29/19	14:55 Central		Solid			X	X	7	
LT16-05-4-5 (600-189372-27)	7/29/19	15:15 Central		Solid			X	X	6	

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/tests/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 complicance 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 ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	8/12/19 1600	ETA	[signature]	8-13-19 930	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	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 8-13-19 Opened on 8-13-19

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. 4.0 °C Corrected Cooler Temp. 4.1 °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~~
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

pH Strip Lot# HC984738

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

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

Concerning _____

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login Sample Receipt Checklist

Client: AECOM Job Number: 600-189372-2

Login Number: 189372 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Taylor, Jacquelyn R

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	1.4
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.