Armando Martinez
Project Manager

Chevron Environmental Management Company
354 State Highway 38
Questa, NM 87556-0469
Work: 575.586.7639
Cell: 575.586.0811
amarti@chevron.com

February 14, 2022

New Mexico Oil Conservation Division, District II
811 S. First Ct
Artesia, NM 88210

Re: Onsurez 2
2019/2020 Historical Excavation Backfill & Subsequent Site Assessment Report
2RP-4255
Eddy County, New Mexico

Dear whom it concerns,

Please find enclosed for your filed, copies of the following:

- Onsurez 2 – February 14, 2022 Site Assessment Report

The Soil Assessment Report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC).

Please do not hesitate to call Scott Foord with Arcadis at 713.953.4853 or myself at 575.586.0811, should you have any questions.

Sincerely,

Armando Martinez

Encl. Onsurez 2, 2RP-4255 2019/2020 Historical Excavation Backfill & Subsequent Site Assessment Report

cc. Amy Barnhill, Chevron/MCBU

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	NAB1717138268
District RP	2RP-4255
Facility ID	30-015-26472
Application ID	pAB1717138139

Release Notification

Responsible Party

Responsible Party: Chevron USA Inc.	OGRID
Contact Name: Armando Martinez	Contact Telephone: 575.586.7639
Contact email: amarti@chevron.com	Incident # *(assigned by OCD)*: NAB171738268
Contact mailing address: jmichelson@chevron.com	

Location of Release Source

Latitude 32.3219452 Longitude -104.0600967
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Onsurez 2	Site Type: Wellhead
Date Release Discovered: June 13, 2017	API# *(if applicable)*: 30-015-26472

Unit Letter	Section	Township	Range	County
F	11	23S	28E	Eddy

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): 1 bbl	Volume Recovered (bbls): 1 bbl
☒ Produced Water	Volume Released (bbls): 1 bbl	Volume Recovered (bbls): 1 bbl
	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: A leaking stuffing box released approximately 1 bbl of produced water and crude oil. The release occurred during a rain event and impacted the area surrounding the wellhead.		

State of New Mexico
Oil Conservation Division

Incident ID	NAB1717138268
District RP	2RP-4255
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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)?	

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?	15 (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.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1717138268
District RP	2RP-4255
Facility ID	30-015-26472
Application ID	pAB1717138139

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.

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: Armando Martinez Title: Project Manager

Signature:  Date: 2/21/22

email: amarti@chevron.com Telephone: 575.586.7639

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1717138268
District RP	2RP-4255
Facility ID	30-015-26472
Application ID	pAB1717138139

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Armando Martinez Title: Project Manager

Signature: Armando Martinez Date: 2/21/22

email: amarti@chevron.com Telephone: 575.586.7639

OCD Only

Received by: Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Bradford Billings Date: 10/25/2022

Printed Name: Bradford Billings Title: E.Spec.A

ARCADIS Design & Consultancy for natural and built assets

Chevron Environmental Management Company

2019/2020 HISTORICAL EXCAVATION BACKFILL AND SUBSEQUENT SITE ASSESSMENT REPORT

Onsurez 2, East Loving Field
Section 11, Township 23 South
Range 28 East
Eddy County, New Mexico
Case No. 2RP-4255

February 2022

Sarah Johnson
Scientist II

Scott Foord, PG
Certified Project Manager

2019/2020 Historical Excavation Backfill and Subsequent Site Assessment Report

Onsurez 2, East Loving Field

Prepared for:

Jason Michelson

Project Manager

Chevron Environmental Management Company

1500 Louisiana Street

Houston, Texas 77002

Prepared by:

Arcadis U.S., Inc.

1004 North Big Spring Street

Suite 121

Midland

Texas 79701

Tel 432 687 5400

Fax 432 687 5401

Our Ref:

30051441

Date:

February 2022

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APPENDICES

1 INTRODUCTION

Arcadis U.S., Inc. (Arcadis) submits herein, on behalf of Chevron Environmental Management Company (CEMC), the following report which summarizes activities associated with backfilling of a historical excavation and subsequent soil and groundwater assessment activities conducted in 2019 and 2020 at the Onsurez 2 (Site). The Site is located within the East Loving Field.

The Site is located off North Donaldson Farm Road, approximately 3.22 miles northeast of Loving, New Mexico, in the southeast quarter (SE/4) of the northwest quarter (NW/4), Section 11, Township 23 South, Range 28 East, Eddy County, New Mexico. The Site's coordinates are latitude N 32.321945° and longitude W -104.060096°.

The topography slopes gently east toward the Pecos River located approximately 0.17 miles east of the Site. A Site Location Map is presented as **Figure 1**. Additional Site background information is included in **Appendix A**.

2 SOIL ASSESSMENT ACTIVITIES

2.1 2019 Soil Assessment Activities – Historical Excavation

On June 6, 2019, Arcadis personnel collected four soil samples (OS1 through OS4) from the bottom of a historical open excavation that was performed by Rockcliff Operating New Mexico, LLC (Rockcliff) at the Site (additional details in regard to the historical excavation are presented in the *Site Investigation Report & Corrective Action Plan* submitted to the New Mexico Oil Conservation Division [NMOCD] in August 2017). The soil samples were collected with a stainless-steel trowel at 0-0.5' feet below the base of the open excavation at depths ranging from 2 feet to 9 feet below ground surface (bgs). The soil samples were collected in two- and four-ounce jars provided by Eurofins TestAmerica Laboratory and shipped overnight via FedEx. Upon receival by laboratory, the soil samples were analyzed for chloride; total petroleum hydrocarbons as gasoline (TPH-GRO), TPH as diesel (TPH-DRO), TPH as oil (TPH-ORO); and benzene, toluene, ethylbenzene and total xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Methods 300, 8015 and 8021B, respectively. The soil sample locations and analytical results are presented in **Figure 2**.

2.1.1 2019 Soil Analytical Results

The analytical results for each soil sample were compared to the New Mexico Administration Code (NMAC) screening levels for chloride, TPH, and BTEX for a site with a depth to groundwater less than 50 feet bgs. A cumulative summary of the soil analytical results is presented in **Table 1**. Copies of the 2019 certified analytical reports and chain-of-custody documentation from Eurofins TestAmerica are presented in **Appendix B**.

2.1.2 Chloride

- Chloride exceeded the NMAC screening standard of 600 milligrams per kilogram (mg/Kg) in 2 of the 4 soil samples collected from total depths greater than 4 feet bgs within the footprint of the historical excavation:
  - 1,630 mg/Kg at OS2 (0 – 0.5 feet bgs); and
  - 1,760 mg/Kg at OS4 (0 – 0.5 feet bgs)

2.1.3 Total TPH

- Total TPH concentrations were reported below the NMAC screening standard of 100 mg/Kg at all sample locations.

2.1.4 BTEX

- BTEX concentrations were reported below the NMAC screening standard of 50 mg/Kg at all sample locations.

2.1.5 2019 Excavation Backfill

On June 24 and 25, 2019, Diamondback Disposable Services, Inc. (Diamondback), installed a 10-mil polyethylene liner and backfilled the historical excavation with approximately 75 cubic yards (cy) of clean backfill. A photograph log documenting the historical excavation backfill activities is included as **Appendix C**.

2.2 2020 Soil Assessment Activities

On May 26, 2020, as requested by the NMOCD in the last email correspondence available to Arcadis dated October 29, 2017 (**Appendix D**), two soil borings (SB-1 and SB-2) were installed to further assess soil conditions within the footprint of the historical excavation. The borings were advanced utilizing direct push drilling methods (i.e., Geoprobe). Soil samples were collected at the surface and then at 2-foot intervals to approximately 10 feet bgs. The soil samples were collected in two- and four-ounce jars provided by Eurofins TestAmerica Laboratory and shipped overnight via FedEx. Upon receival by laboratory, the soil samples were analyzed for chloride, TPH, and BTEX by USEPA Methods 300, 8015 and 8021B, respectively. The soil sample locations and analytical results are presented in **Figure 2**.

2.2.1 2020 Soil Analytical Results

The analytical results for soil samples collected during this assessment were also compared to the NMAC screening levels for chloride, TPH, and BTEX for a site with a depth to groundwater less than 50 feet bgs. A cumulative summary of the soil analytical results is presented in **Table 1**. Copies of the 2020 certified analytical reports and chain-of-custody documentation from Eurofins TestAmerica are presented in **Appendix E**. The 2020 soil boring logs are presented in **Appendix F**.

2.2.2 Chloride

- Chloride exceeded the NMAC screening standard of 600 mg/Kg in 5 of the 12 soil samples collected, with concentrations ranging from 631 mg/Kg at SB-2 (5 to 6 feet bgs) to 891 mg/Kg at SB-2 (3 to 4 feet bgs).

2.2.3 Total TPH

- Total TPH exceeded the NMAC screening standard of 100 mg/Kg in 1 one of the 12 soil samples collected:
  - 314 mg/Kg at SB-1 (1 to 2 feet bgs)

2.2.4 BTEX

- BTEX concentrations were reported below the NMAC screening standard of 50 mg/Kg at all soil sample locations.

3 GROUNDWATER MONITORING ACTIVITIES

Groundwater at the Site is monitored from a network of 4 monitoring wells (POD1, POD2, POD3 and POD4) that were previously installed by Rockcliff. No data regarding well construction details are available to Arcadis. Historical soil and groundwater analytical data and sampling frequencies are also not available. Arcadis performed groundwater monitoring events utilizing the 4 monitoring wells on May 7 and September 5, 2019 and completed one additional subsequent groundwater monitoring event in May 2020.

3.1 Groundwater Gauging Activities

3.1.1 2019 Groundwater Gauging Data

Groundwater measurements collected during the May and September 2019 monitoring events indicate:

- Groundwater elevations ranged from 2,977.27 feet above mean sea level (ft amsl) (POD4) to 2,977.89 ft amsl (POD1) during the May 2019 monitoring event.
- Groundwater elevations ranged from 2,980.14 ft amsl (POD4) to 2,980.66 ft amsl (POD1) during the September 2019 monitoring event.
- Potentiometric elevation data for the monitoring events are presented in **Table 2**. Groundwater potentiometric surface maps for May and September 2019 are presented in **Figure 3**.
- The calculated gradient was 0.00759 feet/foot (ft/ft) for the May 2019 monitoring event and 0.00637 ft/ft for the September 2019 monitoring event, both to the southeast.

3.1.2 2020 Groundwater Gauging Data

Groundwater measurements collected during the May 2020 monitoring events indicate:

- Groundwater elevations ranged from 2,979.03 ft amsl (POD4) to 2,979.20 ft amsl (POD2) during the May 2020 monitoring event.
- Potentiometric elevation data for the monitoring events are presented in **Table 2**. The groundwater potentiometric surface map for May 2020 is presented in **Figure 4**.
- The calculated gradient was 0.00092 ft/ft to the southeast for the May 2020 monitoring event.

3.2 Groundwater Analytical Results

3.2.1 2019 Groundwater Analytical Results

The four monitoring wells (POD1 through POD4) were sampled during the May and September 2019 monitoring events. Groundwater analytical results for chloride, total dissolved solids (TDS), and BTEX were compared to the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards. The groundwater samples were additionally analyzed for TPH, which does not currently have a NMWQCC screening standard. No TPH detections were reported within any groundwater samples collected.

A summary of the groundwater sample analytical results for the May and September 2019 sampling events are presented in **Table 3**. Copies of the 2019 certified analytical reports and chain-of-custody documentation from Eurofins TestAmerica Laboratory are provided in **Appendix G**. The monitoring well locations and analytical results are presented in **Figure 5**.

3.2.2 Chloride

- Chloride concentrations exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) in all monitoring wells at concentrations ranging from 1,390 mg/L (POD3) to 5,090 mg/L (POD2) during the May 2019 monitoring event.
- Chloride concentrations exceeded the NMWQCC standard of 250 mg/L in all monitoring wells at concentrations ranging from 1,220 mg/L (POD3) to 2,160 mg/L (POD2) during the September 2019 monitoring event.

3.2.3 TDS

- TDS concentrations exceeded the NMWQCC standard of 1,000 mg/L in all monitoring wells at concentrations ranging from 4,790 mg/L (POD4-W) to 6,270 mg/L (POD2-W) during the May 2019 monitoring event.
- TDS concentrations exceeded the NMWQCC standard of 1,000 mg/L in all monitoring wells at concentrations ranging from 4,960 mg/L (POD3-W) to 7,010 mg/L (POD2-W) during the September 2019 monitoring event.

3.2.4 BTEX

- BTEX concentrations were reported below the NMWQCC standards of 0.01 mg/L for benzene, 0.75 mg/L toluene, 0.75 mg/L for ethylbenzene, and 0.62 mg/L for xylenes in all monitoring wells during the May and September 2019 monitoring events.

3.2.5 2020 Groundwater Analytical Results

The four monitoring wells (POD1 through POD4) were subsequently sampled during the May 2020 monitoring event. Groundwater analytical results for chloride and BTEX were compared to the NMWQCC Groundwater Standards. The groundwater samples were additionally analyzed for TPH. No TPH detections were reported for any groundwater samples collected.

A summary of the groundwater sample analytical results for the May 2020 sampling event is presented in **Table 3**. Copies of the 2020 certified analytical reports and chain-of-custody documentation from Eurofins TestAmerica Laboratory are provided in **Appendix H**. The monitoring well locations and analytical results are presented in **Figure 5**.

3.2.6 Chloride

- Chloride concentrations exceeded the NMWQCC standard of 250 mg/L in all monitoring wells at concentrations ranging from 922 mg/L (POD1 and POD 2) to 1,180 mg/L (POD3) during the May 2020 monitoring event.

3.2.7 BTEX

- BTEX concentrations were reported below the NMWQCC standards of 0.01 mg/L for benzene, 0.75 mg/L toluene, 0.75 mg/L for ethylbenzene, and 0.62 mg/L for xylenes in all monitoring wells during the May 2020 monitoring event.

4 SUMMARY

In summary, the 2019 and 2020 soil and groundwater activities indicate the following:

- Chloride has not been delineated in soil at the Site below the NMAC screening criteria of 600 mg/Kg;
- Total TPH was detected in soil at the Site at one shallow sampling location above the NMAC screening criteria of 100 mg/Kg;
- Chloride has not been delineated in groundwater at the Site below the NMWQCC screening standard of 250 mg/L; and
- TDS has not been delineated in groundwater at the Site below the NMWQCC screening standard of 1,000 mg/L.

5 REGIONAL IRRIGATION PRACTICES

Irrigation practices in the Loving, New Mexico area consist of pumping and distributing surface water from the Pecos River in conjunction with groundwater. According to the New Mexico Office of the State Engineer (NMOSE) database, there is a surface pump (SP-01955) located along the edge of the Pecos River, approximately 0.15 miles southeast of the Site, along with several intertwined irrigation ditches leading out and across the site from the Pecos River. Per the NMOSE database, the surface pump was approved to begin pumping for irrigation in 1932 and is believed to continue to be a source of irrigation water to date.

According to the Unites States Geological Society (USGS) database, the salinity of the Pecos River exceeds 3,000 mg/L in many reaches of the study area within relative proximity to the Site. Due to the naturally high levels of chloride in the Pecos River, and its use as an irrigation water source over a duration of nearly 90 years, the chloride concentrations in groundwater and soil in the surrounding irrigated agricultural areas are anticipated to contain elevated concentrations of chloride and other TDS constituents well above naturally occurring conditions.

The NMOSE surface pump well file is included as **Appendix I**. The location of the surface pump and irrigation ditches are presented on **Figure 6**.

6 RECOMMENDATION

6.1 Chloride and TDS in Soil and Groundwater

Analytical results associated with recent assessment activities conducted in 2019 and 2020 indicate that the horizontal and vertical extent of chloride in soil and groundwater, and TDS in the groundwater, has not been fully delineated below applicable NMAC and NMWQCC screening levels. Historical agricultural irrigation practices utilizing surface water from the adjacent Pecos River (documented with naturally occurring elevated chloride and TDS concentrations) have been conducted at and around the Site for approximately 90 years (**Appendix I**). Accumulation of chloride and other TDS constituents within the irrigated soils from these regional irrigation practices will continue to migrate to shallow groundwater and are expected to be at concentrations above applicable NMAC soil and NMWCQCC groundwater screening levels across the region. Additionally, the majority of the mass of constituents of concern from the release are believed to have been remediated at the site during the historical excavation activities conducted by Rockcliff. As such, Arcadis requests closure of 2RP-4255 associated with elevated chloride (soil and groundwater) and TDS (groundwater) concentrations above applicable screening levels at the Site.

6.2 Total TPH in Soil

Total TPH exceeded the NMAC screening standard of 100 mg/Kg in 1 one of the 12 soil samples collected during the 2020 soil assessment at a concentration of 314 mg/Kg at SB-1 (1 to 2 feet bgs). TPH concentrations in soil were confirmed below the NMAC screening standard vertically to a depth of 10 feet bgs, and no TPH or BTEX constituents were detected in groundwater during any groundwater sampling events conducted by Arcadis in 2019 or 2020. Additionally, the majority of the mass of constituents of

concern from the release are believed to have been remediated at the site during the historical excavation activities conducted by Rockcliff in August 2017. As such, no additional soil assessment activities will be evaluated, and closure of 2RP-4255 is additionally requested associated with the minor TPH detection in shallow soil.

TABLES

Table 1
Soil Analytical Summary
Chevron Environmental Management Company
Onsurez #2
Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Sample I.D. No.	Sample Depth (feet bgs)	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	Gasoline Range Organics	Diesel Range Organics	Oil Range Organics	Total TPH	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards			**10**	**--**	**--**	**--**	**50**	**--**	**--**	**--**	**100**	**600**
OS1	0-0.5*	6/6/2019	<0.591	<1.29	<0.957	<1.06	<3.89	<3.80	<4.06	<4.06	4	97
OS2	0-0.5*	6/6/2019	<0.698	<1.53	<1.13	<1.25	<4.60	<3.80	<4.06	<4.06	4	**1,630**
OS3	0-0.5*	6/6/2019	<0.673	<1.47	<1.09	<1.21	<4.44	<3.80	<4.06	<4.06	4	223
OS4	0-0.5*	6/6/2019	<0.583	<1.28	<0.944	<1.05	<3.85	<3.79	<4.05	<4.05	4	**1,760**
SB-1	0-6'	05/26/20	<0.000670	<0.00147	<0.00109	<0.00120	<0.00443	<0.728	<2.08	26.1	29	**767 F1**
	1'-2'	05/26/20	<0.000635	<0.00139	<0.00103	<0.00114	<0.004195	<0.569	42.2	271	**314**	**819**
	3'-4'	05/26/20	<0.000625	<0.00137	<0.00101	<0.00112	<0.004125	<0.608	<1.90	55.0	58	429
	5'-6'	05/26/20	<0.000625	<0.00137	<0.00101	<0.00112	<0.004125	<0.719	<2.11	36.7	40	195
	7'-8'	05/26/20	<0.000626	<0.00137	<0.00101	<0.00112	<0.004126	<0.683	<1.96	27.3	30	296
	9'-10'	05/26/20	<0.000615	<0.00135	<0.000996	<0.00110	<0.004061	<0.732	<2.04	24.6	27	519
SB-2	0-6'	05/26/20	<0.000608	<0.00133	<0.000985	<0.00109	<0.004013	<0.685	<2.02	25.7	28	177
	1'-2'	05/26/20	<0.000601	<0.00132	<0.000973	<0.00108	<0.003974	<0.670	<1.91	23.6	26	319
	3'-4'	05/26/20	<0.000636	<0.00139	<0.00103	<0.00114	<0.004196	<0.751	<2.14	26.6	29	**891**
	5'-6'	05/26/20	<0.000633	<0.00139	<0.00102	<0.00113	<0.004173	<0.771	<2.09	24.7	28	**631**
	7'-8'	05/26/20	<0.000633	<0.00139	<0.00102	<0.00113	<0.004173	<0.696	<3.11	16.9	21	**734 F1**
	9'-10'	05/26/20	<0.000630	<0.00138	<0.00102	<0.00113	<0.00416	<0.675	36.9	52.7	90	556

Legend:
Any flags reported are indicated in **bold**
Bold values indicate concentrations above NMAC Standards
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/kg: Milligram per Kilogram
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroluem Hydrocarbons Motor Oil Range Organics
TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
' : Indicates one foot
*: Soil sample was collected below the botton of the excavation
USEPA = United States Environmental Protection Agency

Notes:
1. Chloride analyzed by USEPA Method 300.0
2. TPH analyzed by USEPA Method 8015D
3. BTEX analyzed by USEPA Method 8260C
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Table 2
2020 Potentiometric Elevation Data
Chevron Environmental Management Company
Onsurez 2
Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
POD1	2990.58	4	5 - 20	5/2/2019	23.34	12.69	2977.89
				9/5/2019	23.34	9.92	2980.66
				5/29/2020	23.14	11.48	2979.10
POD2	2992.48	4	5 - 20	5/2/2019	24.95	15.05	2977.43
				9/5/2019	24.80	12.25	2980.23
				5/29/2020	24.64	13.28	2979.20
POD3	2989.93	4	5 - 20	5/2/2019	23.21	12.30	2977.63
				9/5/2019	23.26	9.75	2980.18
				5/29/2020	23.13	10.85	2979.08
POD4	2989.59	4	5 - 20	5/3/2019	23.13	12.32	2977.27
				9/5/2019	23.04	9.45	2980.14
				5/29/2020	23.09	10.56	2979.03

Notes:
[1] TOC - Top of Casing
[2] MSL - Mean Sea Level
[3] bgs - below ground surface

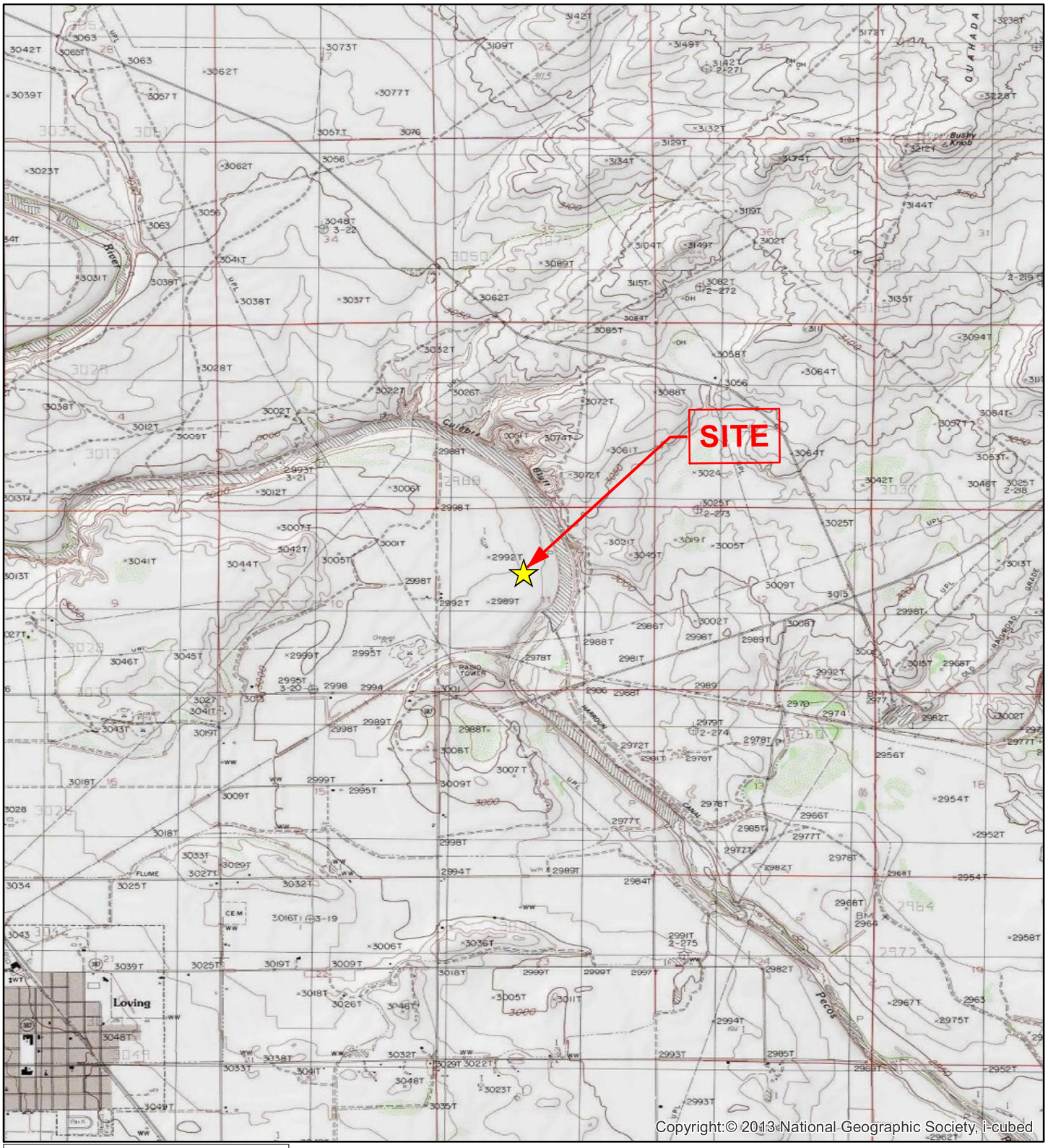
Table 3
Groundwater Analytical Summary
Chevron Environmental Management Company
Onsurez #2
Lea County, New Mexico

Sample I.D. No.	Date	Organic Compounds				Total Petroleum Hydrocarbons			Groundwater Quality	
		Benzene	Ethylbenzene	Toluene	Xylenes	C6-C12	C-12-C28	C28-C35	Chloride	Total Dissolved Solids
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMWQCC Human Health Standards for Groundwater[1]										
		0.01	**0.75**	**0.75**	**0.62**	**--**	**--**	**--**	**250**	**1,000**
		mg/L	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
POD1	05/07/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000718	<0.00083	<0.00083	4,420	5,340
	09/05/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000728	<0.000842	<0.000842	**2,020**	**6,790**
	05/29/20	<0.000560	<0.000550	<0.00129	<0.00198	<0.0230	<0.0464	<0.155	**992 F1**	NA
POD2	05/07/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000711	<0.000823	<0.000823	**5,090**	**6,270**
	09/05/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000737	<0.000852	<0.000852	2,160	7,010
	05/29/20	<0.000560	<0.000550	<0.00129	<0.00198	<0.0230	<0.0464	<0.155	**992 F1**	NA
POD2(DUP)	05/29/20	<0.000560	<0.000550	<0.00129	<0.00198	<0.0230	<0.0459	<0.153	**1,440**	NA
POD3	05/07/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000718	<0.00083	<0.00083	1,390	5,090
	09/05/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000728	<0.000842	<0.000842	**1,220**	**4,960**
	05/29/20	<0.000560	<0.000550	<0.00129	<0.00198	<0.0230	<0.0459	<0.153	**1,180**	NA
POD4	05/07/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.00072	<0.000823	<0.000823	**3,690**	**4,790**
	09/05/19	<0.000176	<0.000212	<0.000198	<0.000366	<0.000737	<0.000852	<0.000852	1,530	5,560
	05/29/20	<0.000560	<0.000550	<0.00129	<0.00198	<0.0230	<0.0459	<0.153	**1,090**	NA

Legend:
Any flags reported are indicated in bold
Bold values indicate concentrations above NMWQCC Other Standards for Domestic Water Supply.
NMWQCC Human Health Standards Per NMAC 20.6.2.3103A.
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/L: Milligram per Litre
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroluem Hydrocarbons Motor Oil Range Organics
TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
' : Indicates one foot
USEPA = United States Environmental Protection Agency
NA = Not Analysed

Notes:
1. Chloride analyzed by USEPA Method 300.0
2. TPH analyzed by USEPA Method 8015D
3. BTEX analyzed by USEPA Method 8260C
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

FIGURES



Legend

★ Onsurez 2 Site Location

Notes:
1. Datum: D_WGS_1984
2. Source: United States Geological Survey 7.5 Minute Quadrangle Map

N

0 2,000 4,000 8,000 Feet

Chevron Environmental Management Company
Onsurez 2 East Loving Field
Eddy, New Mexico

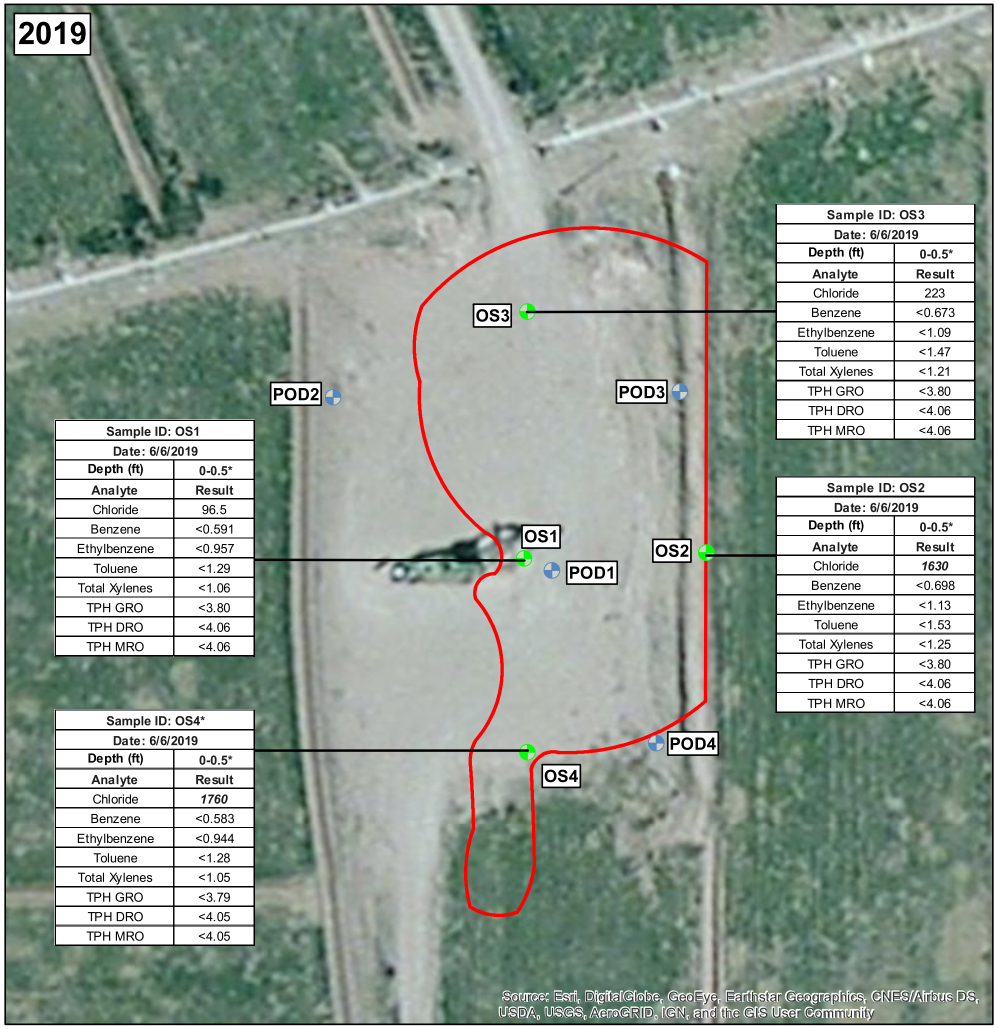
SITE LOCATION MAP

ARCADIS

FIGURE 1

Document Path: T:_ENV\Chevron\Onsurez 2\MXD\Figure1 - Site Location Map.mxd

2019



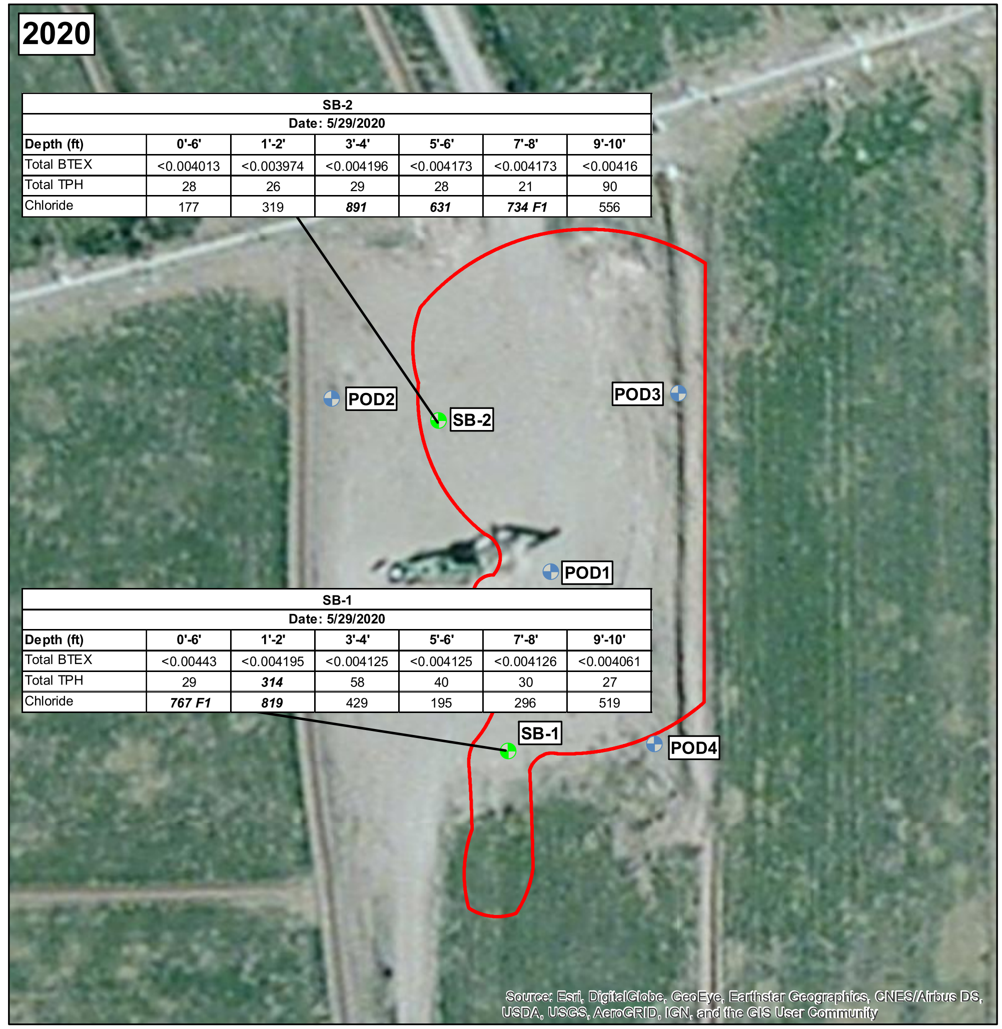
Sample ID: OS1	
Date: 6/6/2019	
Depth (ft)	**0-0.5***
Analyte	**Result**
Chloride	96.5
Benzene	<0.591
Ethylbenzene	<0.957
Toluene	<1.29
Total Xylenes	<1.06
TPH GRO	<3.80
TPH DRO	<4.06
TPH MRO	<4.06

Sample ID: OS4*	
Date: 6/6/2019	
Depth (ft)	**0-0.5***
Analyte	**Result**
Chloride	***1760***
Benzene	<0.583
Ethylbenzene	<0.944
Toluene	<1.28
Total Xylenes	<1.05
TPH GRO	<3.79
TPH DRO	<4.05
TPH MRO	<4.05

Sample ID: OS3	
Date: 6/6/2019	
Depth (ft)	**0-0.5***
Analyte	**Result**
Chloride	223
Benzene	<0.673
Ethylbenzene	<1.09
Toluene	<1.47
Total Xylenes	<1.21
TPH GRO	<3.80
TPH DRO	<4.06
TPH MRO	<4.06

Sample ID: OS2	
Date: 6/6/2019	
Depth (ft)	**0-0.5***
Analyte	**Result**
Chloride	***1630***
Benzene	<0.698
Ethylbenzene	<1.13
Toluene	<1.53
Total Xylenes	<1.25
TPH GRO	<3.80
TPH DRO	<4.06
TPH MRO	<4.06

2020



SB-2						
Date: 5/29/2020						
Depth (ft)	**0'-6'**	**1'-2'**	**3'-4'**	**5'-6'**	**7'-8'**	**9'-10'**
Total BTEX	<0.004013	<0.003974	<0.004196	<0.004173	<0.004173	<0.00416
Total TPH	28	26	29	28	21	90
Chloride	177	319	***891***	***631***	***734 F1***	556

SB-1						
Date: 5/29/2020						
Depth (ft)	**0'-6'**	**1'-2'**	**3'-4'**	**5'-6'**	**7'-8'**	**9'-10'**
Total BTEX	<0.00443	<0.004195	<0.004125	<0.004125	<0.004126	<0.004061
Total TPH	29	***314***	58	40	30	27
Chloride	***767 F1***	***819***	429	195	296	519

Legend

- Soil Sample Location
- Monitoring Well Location
- Approximate Extent of Release and Excavation Area

Notes:
1. Datum: D_WGS_1984.
2. **Bold** and *italicized* values indicate concentrations above NMAC Standards.
3. F1 Indicates MS and/or MSD recovery exceeds control limits.
4. < Indicates the analyte was not detected at or above the Method Detection Limit (MDL).
5. mg/kg = Milligram per Kilogram.
6. BTEX Indicates Benzene, Toluene, Ethylbenzene, and Total Xylenes.
7. NMAC Indicates New Mexico Administration Code.
8. TPH GRO Indicates Total Petroleum Hydrocarbons Gasoline Range Organics.
9. TPH MRO Indicates Total Petroluem Hydrocarbons Motor Oil Range Organics.
10. TPH DRO Indicates Total Petroleum Hydrocarbon Diesel Range Organics.
11. ' Indicates one foot.
12. " Indicated inches.
13. USEPA Indicates United States Environmental Protection Agency
14. Chloride analyzed by USEPA Method 300.
15. TPH analyzed by USEPA Method 8015D.
16. BTEX analyzed by USEPA Method 8260C.
17. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2).
18. *: Soil sample was collected below the bottom of the excavation

N

0 25 50 100 Feet

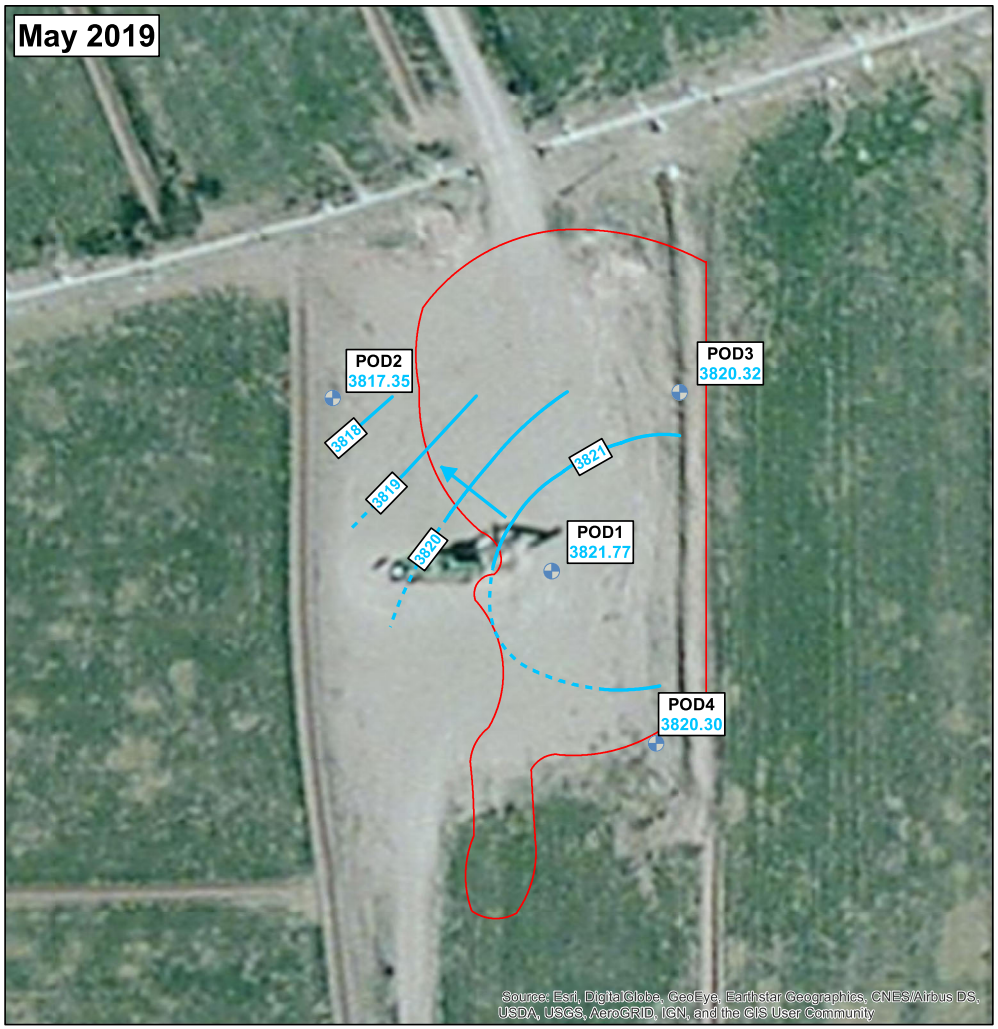
Chevron Environmental Management Company
Onsurez 2 East Loving Field
Eddy, New Mexico

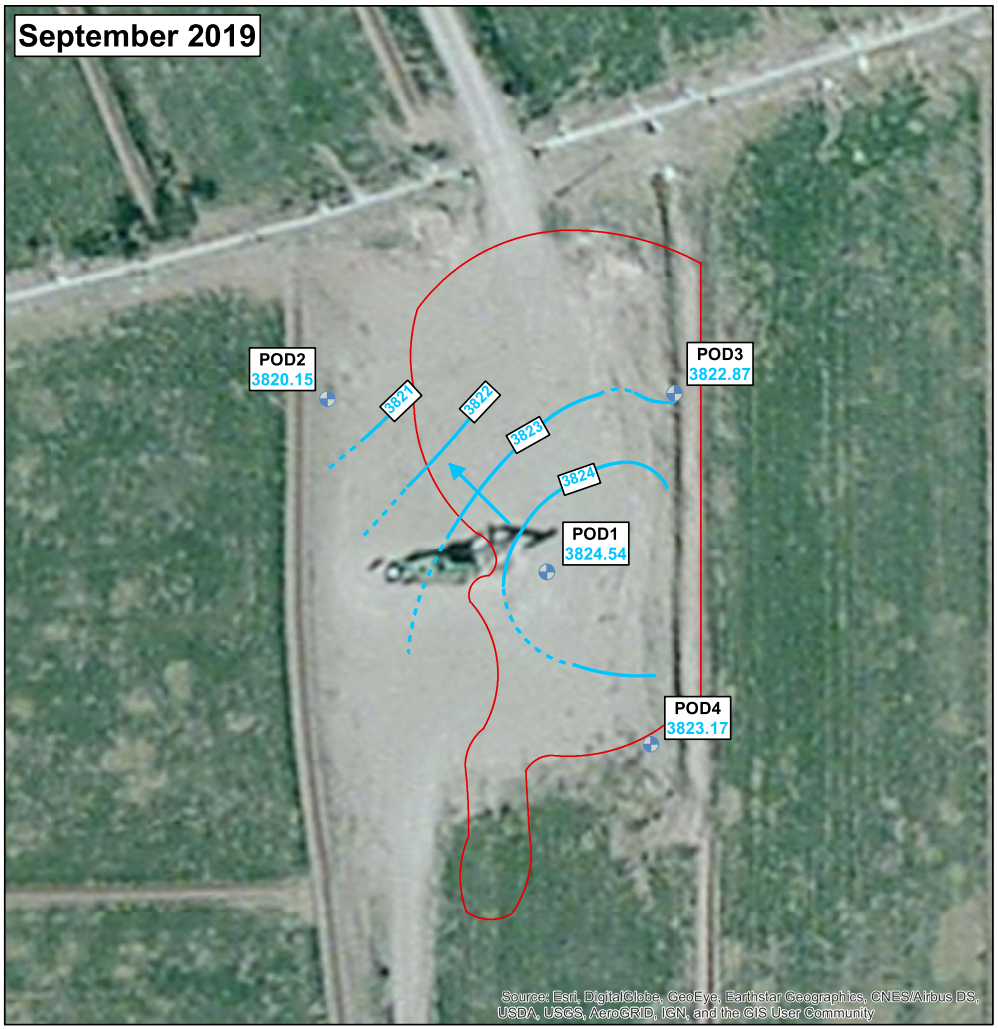
SOIL SAMPLE LOCATIONS & ANALYTICAL RESULTS

ARCADIS

FIGURE 2

Document Path: \\arcadis-us\officedata\Houston-TX\ENV\ChevronTexaco TX8\HES Transfer\01 Project Management\2019\2_SOW Proposal\Scope & Budget\ONS





Legend

- C04216POD Monitoring Well Location
- 3820 — Potentiometric Contour and Elevation
- Inferred Potentiometric Contour
- 3820.300 — Groundwater Elevation (ft above mean sea level)
- Approximate Groundwater Flow
- Approximate Extent of Release

Notes:
1. Datum: D_WGS_1984

N

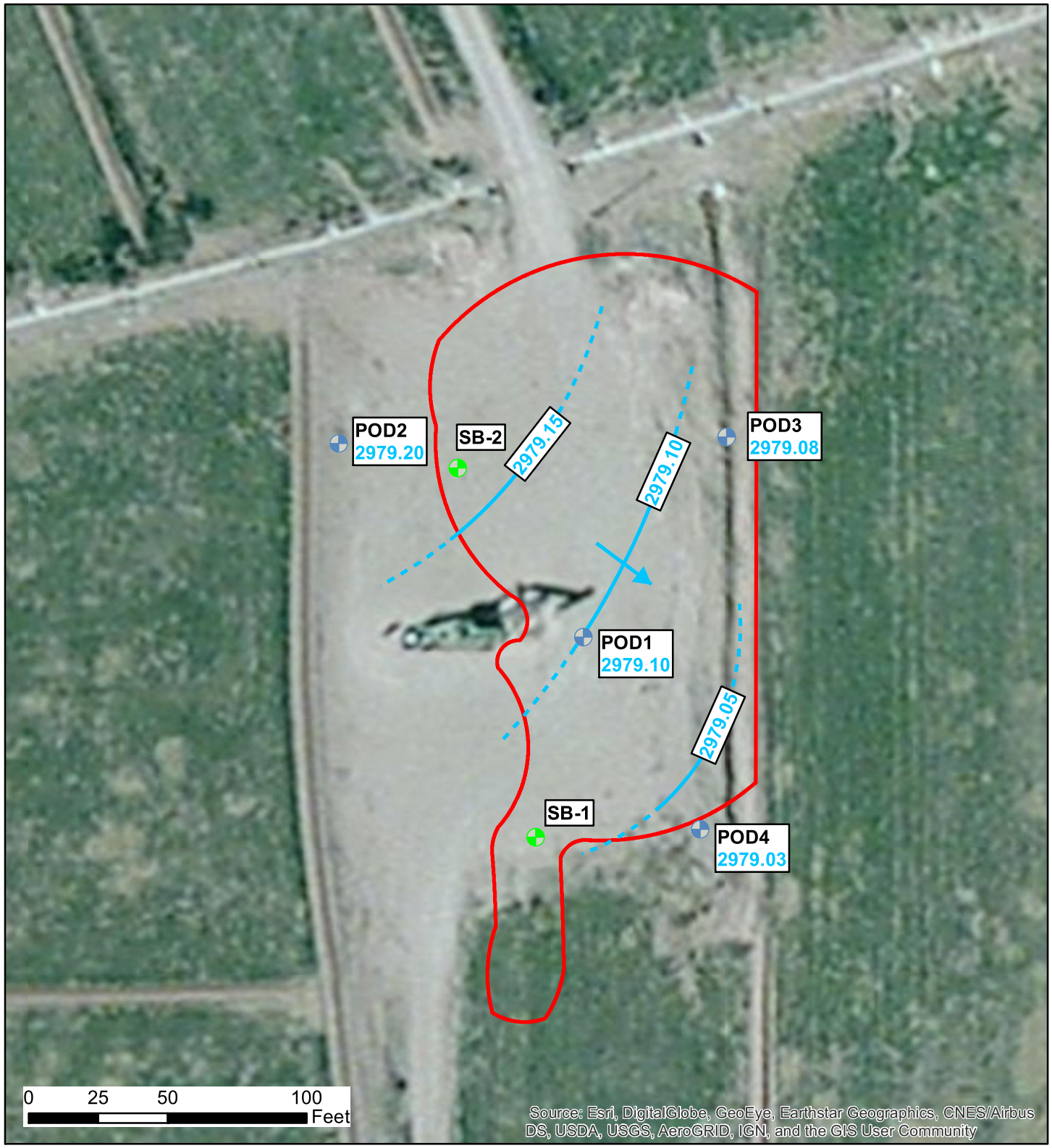
0 25 50 100 Feet

Chevron Environmental Management Company
Onsurez 2 East Loving Field
Eddy, New Mexico

POTENTIOMETRIC SURFACE MAP 2019

ARCADIS

FIGURE 3



Legend

- Soil Sample Location
- Monitoring Well Location
- Approximate Extent of Release and Excavation Area
- 2979.15 — Potentiometric Contour and Elevation (Dashed where inferred)
- 2979.20 — Groundwater Elevation (ft above mean sea level)
- Approximate Groundwater Flow

Note: Datum: D_WGS_1984

N

Chevron Environmental Management Company
Onsurez 2 East Loving Field
Eddy, New Mexico

POTENTIOMETRIC SURFACE MAP MAY - 2020

ARCADIS

FIGURE 4

Document Path: \\arcadis-us\officedata\Houston-TX\ENV\ChevronTexaco TX8\HES Transfer\01 Project Management\2019\2_SOW Proposal\Scope & Budget\ONSUREZ 2\GIS - Onsurez 2\Figure 1 Proposed Soil Sample Locations 3.4.2020.mxd

Well ID	POD2		
	Sample Date		
Analyte	5/7/2019	9/5/2019	5/29/2020
Benzene	<0.000176	<0.000176	<0.000560 [<0.000560]
Ethylbenzene	<0.000212	<0.000212	<0.00129 [<0.00129]
Toulene	<0.000198	<0.000198	<0.000550 [<0.000550]
Total Xylenes	<0.000366	<0.000366	<0.00198 [<0.00198]
TPH GRO	<0.000711	<0.000737	<0.0230 [<0.0230]
TPH DRO	<0.000823	<0.000852	<0.0464 [<0.0459]
TPH MRO	<0.000823	<0.000852	<0.155 [<0.153]
Chloride	***5,090***	***2,160***	***992 F1 [1,440]***
Total Dissolved Solids	***6,270***	***7,010***	NA [NA]

Well ID	POD3		
	Sample Date		
Analyte	5/7/2019	9/5/2019	5/29/2020
Benzene	<0.000176	<0.000176	<0.000560
Ethylbenzene	<0.000212	<0.000212	<0.00129
Toulene	<0.000198	<0.000198	<0.000550
Total Xylenes	<0.000366	<0.000366	<0.00198
TPH GRO	<0.000718	<0.000728	<0.0230
TPH DRO	<0.00083	<0.000842	<0.0459
TPH MRO	<0.00083	<0.000842	<0.153
Chloride	***1,390***	***1,220***	***1,180***
Total Dissolved Solids	***5,090***	***4,960***	NA

Well ID	POD1		
	Sample Date		
Analyte	5/7/2019	9/5/2019	5/29/2020
Benzene	<0.000176	<0.000176	<0.000560
Ethylbenzene	<0.000212	<0.000212	<0.00129
Toulene	<0.000198	<0.000198	<0.000550
Total Xylenes	<0.000366	<0.000366	<0.00198
TPH GRO	<0.000718	<0.000728	<0.0230
TPH DRO	<0.00083	<0.000842	<0.0469
TPH MRO	<0.00083	<0.000842	<0.156
Chloride	***4,420***	***2,020***	***1,190***
Total Dissolved Solids	***5,340***	***6,790***	NA

Well ID	POD4		
	Sample Date		
Analyte	5/7/2019	9/5/2019	5/29/2020
Benzene	<0.000176	<0.000176	<0.000560
Ethylbenzene	<0.000212	<0.000212	<0.00129
Toulene	<0.000198	<0.000198	<0.000550
Total Xylenes	<0.000366	<0.000366	<0.00198
TPH GRO	<0.00072	<0.000737	<0.0230
TPH DRO	<0.000823	<0.000852	<0.0459
TPH MRO	<0.000823	<0.000852	<0.153
Chloride	***3,690***	***1,530***	***1,090***
Total Dissolved Solids	***4,790***	***5,560***	NA

POD2
SB-2
POD3
POD1
SB-1
POD4

Notes:
1. **Bold** and *italicized* values indicate concentrations above NMAC Standards.
2. NMWQCC Human Health Standards Per NMAC 20.6.2.3103A.
3. F1 Indicates MS and/or MSD recovery exceeds control limits.
4. < Indicates the analyte was not detected at or above the Method Detection Limit (MDL).
5. All values are in mg/L (Milligram per Litre).
6. BTEX Indicates Benzene, Toluene, Ethylbenzene, and Total Xylenes.
7. NMAC Indicates New Mexico Administration Code.
8. TPH GRO Indicates Total Petroleum Hydrocarbons Gasoline Range Organics.
9. TPH MRO Indicates Total Petroluem Hydrocarbons Motor Oil Range Organics.
10. TPH DRO Indicates Total Petroleum Hydrocarbon Diesel Range Organics.
11. " ' " Indicates one foot.
12. USEPA Indicates United States Environmental Protection Agency
13. NA Indicates Not Analysed.
14. Chloride analyzed by USEPA Method 300.
15. TPH analyzed by USEPA Method 8015D.
16. BTEX analyzed by USEPA Method 8260C.
17. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2).

Legend

- Soil Sample Location
- Monitoring Well Location
- Approximate Extent of Release and Excavation Area

Note: Datum: D_WGS_1984

0 25 50 100 Feet

N

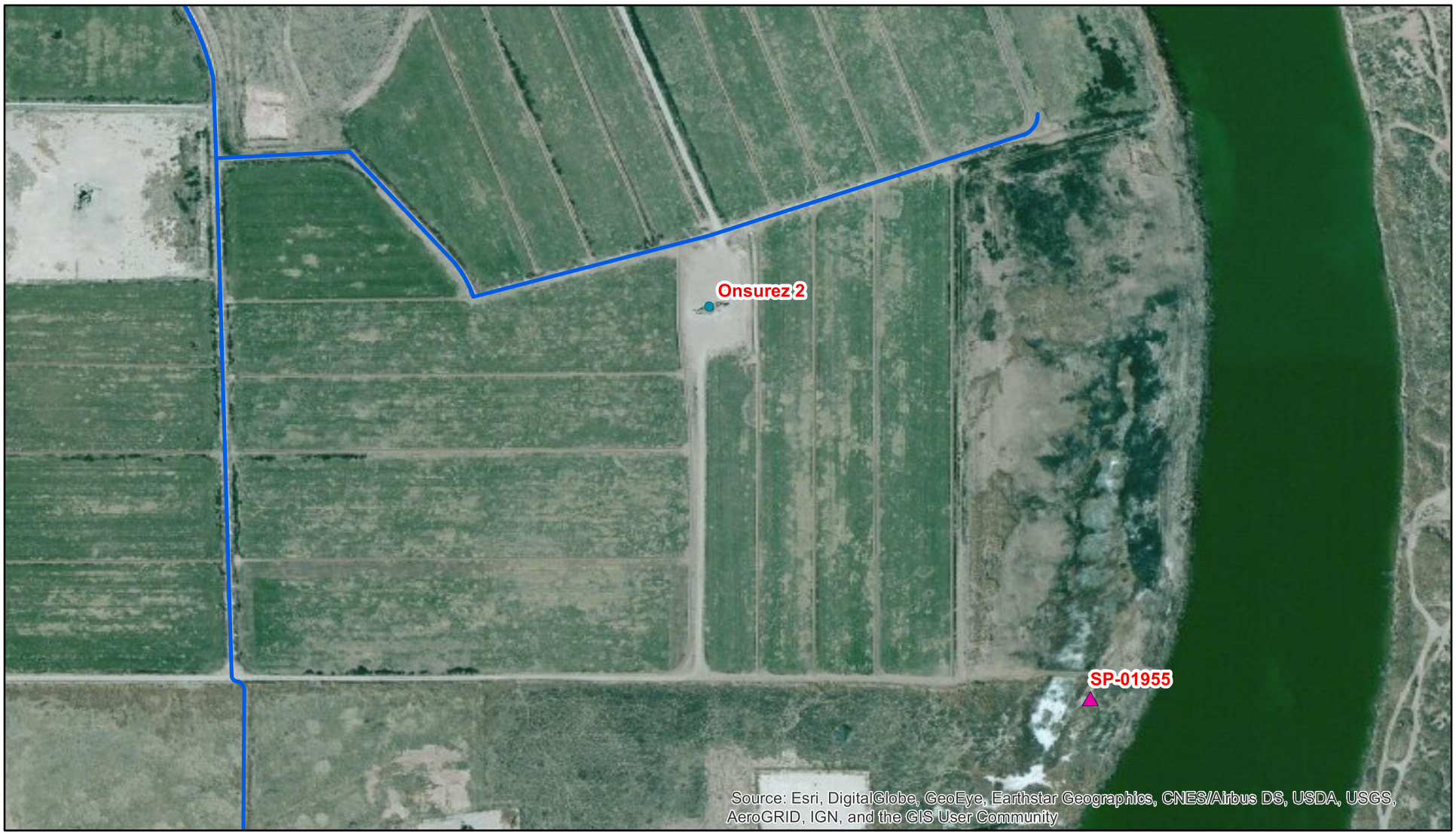
Chevron Environmental Management Company
Onsurez 2 East Loving Field
Eddy, New Mexico

MONITORING WELL LOCATIONS & ANALYTICAL RESULTS

ARCADIS

FIGURE 5

Document Path: T:_ENV\Chevron\Onsurez 2\MXD\Figure4 MW Locations & Results Map.mxd



Legend

- Well Head
- Surface Pump
- Irrigation Ditch

N

0 150 300 600 Feet

Chevron Environmental Management Company
Onsurez 2 East Loving Field
Eddy County, New Mexico

SURFACE PUMP & IRRIGATION DITCH LOCATION MAP

ARCADIS

FIGURE 6

APPENDIX A

Site Background

ARCADIS Design & Consultancy for natural and built assets

BACKGROUND

On June 3, 2017 approximately 1 barrel (bbl) of crude oil and produced water were release as a result of a leaking stuffing box at the Onsurez #2 (Site). The release occurred during a rain event and impacted the area surrounding the well. Approximately 1 bbl was recovered. The impacted area was estimated to be about 17,955 square feet. The Site is located in rural Eddy County, near Loving New Mexico. Groundwater based on information provided the New Mexico Office of the State Engineer is likely to be encountered at a depth of approximately 28 ft below ground surface (bgs). The distance to the nearest surface water (Pecos River) is approximately 792 feet, east of the facility.

REGULATORY FRAMEWORK

The OCD has regulatory jurisdiction over corrective actions conducted at the Site. The OCD, in accordance with guidance outlined by the Guidelines for Remediation of Leaks, Spills, and Releases (August 13, 1993), require remediation of chlorides in groundwater to below the New Mexico Water Quality Control Commission (NMWQCC) human health standards or background. In addition to chloride, total dissolved solids (TDS), sulfate, and total alkalinity are analyzed for in each groundwater sample collected on-Site. The human health standards for the four constituents of concern (COCs) set forth in the New Mexico Administrative Code 20.6.2.3103B are shown in the NMWQCC table below.

Analyte	NMWQCC Standard for Groundwater (mg/L)
Chloride	250
Sulfate (SO4)	600
Total Dissolved Solids (TDS)	1,000
Alkalinity	No NMWQCC Standard

HYDROGEOLOGY ASSESSMENT

Monitoring Well Installation

According to the New Mexico Office of the State Engineer (NMOSE) database, monitoring wells POD1-W, POD2-W, POD3-W, and POD4-W were installed by Atkins Engineering Associates Inc. on April 4, 2018. The wells were drilled to a depth of 20 feet bgs (POD1-W, POD2-W, and POD4-W) and 23 feet bgs (POD3-W). Depth to water at the Site is approximately 10 feet bgs.

GEOLOGY/HYDROGEOLOGY ASSESSMENT

Geology

The underlying geologic unit in this area is the Older Alluvium deposits of upland plains and piedmont areas. The formation is composed of unconsolidated calcic soils and eolian cover sediments of the High Plains region.

Hydrogeology

The major underlying aquifer in this area is the Capitan Reef aquifer. The depth to groundwater at the Site is approximately 10 feet bgs. Fresh water is only present in the aquifer in the immediate vicinity of its recharge area in the Guadalupe Mountains. The majority of the water in the aquifer is most accurately described as brine. The majority of the water from this aquifer is resourced for industrial applications, predominately oil and gas, in this region.

SOIL ASSESSMENT

On June 29, 2017, Kane Environmental (Kane), on behalf of Rockcliff Operating New Mexico, LLC (Rockcliff), the operator at the time of the release, collected soil samples from five locations (OS1 through OS5) from the spill area. The soil samples were placed in sealable plastic bags, allowed to reach temperature equilibrium and then screened for hydrocarbons using a MiniRae 2000 photoionization detector (PID). The samples were also screened for chlorides using a Spectrum Field Scout electrical conductivity (EC) meter. A composite background sample was also collected from the surface to a depth of 3 ft (bgs) from an area that based on historical aerial photographs has not been impacted. After screening, each sample was then placed in appropriate containers, properly labeled, then on ice in a cooler and delivered to the Cardinal Laboratory located in Hobbs, New Mexico for analysis. All samples were analyzed for benzene, toluene, ethylbenzene and mixed isomer xylenes (BTEX) by EPA Method 8021, total petroleum hydrocarbons, including gasoline range organics, diesel range organics, and oil range organics by EPA Method 8105 and chloride by EPA Method 300 or equivalent. The soil sample analytical data can be found in the *June 2017 Site Investigation Report & Corrective Action Plan*.

On and unknown date, Rockcliff excavated the spill area to depths ranging from 2 to 9 feet bgs. A total of more than 2,850 cubic yards of soil was removed from the location. On August 7, 2017, Kane collected soil samples at 14 locations (ES 1 through ES 14) within the excavated area with a hand auger. Soil samples were collected at various depths as well as from each sidewall. The soil samples were placed in sealable plastic bags, allowed to reach temperature equilibrium and then screened for hydrocarbons using a MiniRae 2000 photoionization detector (PID). The samples were also screened for chlorides using a Spectrum Field Scout electrical conductivity (EC) meter. A composite background soil sample was also collected during a previous visit, from the surface to a depth of 3 ft bgs from an area that based on historical aerial photographs has not been impacted. This soil was also screened using the PID and EC meter. After screening, each sample was then placed in appropriate containers, properly labeled, then on ice in a cooler and delivered to the Cardinal Laboratory located in Hobbs, New Mexico for analysis. All samples were analyzed for BTEX by EPA Method 8021, total petroleum hydrocarbons, including gasoline range organics, diesel range organics, and oil range organics by EPA Method 8105 and chloride by EPA Method 300 or equivalent. The soil sample analytical data can be found in the *August 2017 Site Investigation Report & Corrective Action Plan*.

On September 2017, Kane collected additional soil samples from ES 4 and ES 13 (ES 4A and ES 13A) with a hand auger at depths of 3 feet, 8 feet and 13 feet bgs. The soil samples were placed in sealable plastic bags, allowed to reach temperature equilibrium and then screened for hydrocarbons using a MiniRae 2000 photoionization detector (PID). The samples were also screened for chlorides using a Spectrum Field Scout electrical conductivity (EC) meter. After screening, each sample was then placed in

appropriate containers, properly labeled, then on ice in a cooler and delivered to the Cardinal Laboratory located in Hobbs, New Mexico for analysis. All samples were analyzed for BTEX by EPA Method 8021, total petroleum hydrocarbons, including gasoline range organics, diesel range organics, and oil range organics by EPA Method 8105 and chloride by EPA Method 300 or equivalent. Kane proposed removing an additional 3 feet of soil from ES 4A and ES 13A, installing a liner and backfilling the excavation. The New Mexico Oil Conservation Division (NMOCD) denied backfill due to the confusion of the progressive reports. The soil sample analytical data can be found in the *October 2017 Site Investigation Report & Corrective Action Plan*.

On November 3, 2017 C&S Consulting (C&S) submitted a *Release Characterization Work Plan* to the NMOCD, which was approved on December 29, 2017 with conditions. No further documentation was located during the desktop review.

APPENDIX B

2019 Soil Analytical Reports

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 600-186688-1
Client Project/Site: E Loving Field/ Onsurez # 2

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Mr. Brett Krehbiel

Authorized for release by:
6/20/2019 2:45:22 PM
Tiffany Fleming, Project Management Assistant I
(361)289-2673
tiffany.fleming@testamericainc.com

Designee for

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

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Laboratory Job ID: 600-186688-1

Table of Contents

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015_M	Total Petroleum Hydrocarbon (GC)	SW846	TAL HOU
9056A	Anions, Ion Chromatography	SW846	TAL HOU
5030B	Purge and Trap for Solids	SW846	TAL HOU
DI Leach	Deionized Water Leaching Procedure (Routine)	ASTM	TAL HOU
Frozen Preserve	Freezing Samples	None	TAL HOU
TX_1005_S_Prep	Extraction - Texas Total petroleum Hyrdocarbons	TCEQ	TAL HOU

Protocol References:

ASTM = ASTM International
None = None
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TCEQ = Texas Commission of Environmental Quality

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Solid	06/06/19 15:48	06/07/19 08:28	
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Solid	06/06/19 15:50	06/07/19 08:28	
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Solid	06/06/19 15:56	06/07/19 08:28	
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Solid	06/06/19 16:00	06/07/19 08:28	

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

Client Sample ID: Onsurez#2-1-S-0'-0.5'-190606 Lab Sample ID: 600-186688-1

Date Collected: 06/06/19 15:48 **Matrix: Solid**
Date Received: 06/07/19 08:28

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.591	U	4.69	0.591	ug/Kg		06/07/19 10:23	06/07/19 15:34	1
Ethylbenzene	0.957	U	4.69	0.957	ug/Kg		06/07/19 10:23	06/07/19 15:34	1
Toluene	1.29	U	4.69	1.29	ug/Kg		06/07/19 10:23	06/07/19 15:34	1
Xylenes, Total	1.06	U	4.69	1.06	ug/Kg		06/07/19 10:23	06/07/19 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*61 - 130*	*06/07/19 10:23*	*06/07/19 15:34*	*1*
Dibromofluoromethane	*98*		*68 - 140*	*06/07/19 10:23*	*06/07/19 15:34*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*	*06/07/19 10:23*	*06/07/19 15:34*	*1*
4-Bromofluorobenzene	*102*		*57 - 140*	*06/07/19 10:23*	*06/07/19 15:34*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		06/11/19 10:07	06/11/19 17:32	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		06/11/19 10:07	06/11/19 17:32	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		06/11/19 10:07	06/11/19 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77*		*70 - 130*	*06/11/19 10:07*	*06/11/19 17:32*	*1*

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.5		3.94	0.527	mg/Kg			06/11/19 13:25	1

Client Sample ID: Onsurez#2-2-S-0'-0.5'-190606 Lab Sample ID: 600-186688-2

Date Collected: 06/06/19 15:50 **Matrix: Solid**
Date Received: 06/07/19 08:28

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.698	U	5.54	0.698	ug/Kg		06/07/19 10:23	06/07/19 15:58	1
Ethylbenzene	1.13	U	5.54	1.13	ug/Kg		06/07/19 10:23	06/07/19 15:58	1
Toluene	1.53	U	5.54	1.53	ug/Kg		06/07/19 10:23	06/07/19 15:58	1
Xylenes, Total	1.25	U	5.54	1.25	ug/Kg		06/07/19 10:23	06/07/19 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*61 - 130*	*06/07/19 10:23*	*06/07/19 15:58*	*1*
Dibromofluoromethane	*95*		*68 - 140*	*06/07/19 10:23*	*06/07/19 15:58*	*1*
Toluene-d8 (Surr)	*100*		*50 - 130*	*06/07/19 10:23*	*06/07/19 15:58*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*06/07/19 10:23*	*06/07/19 15:58*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		06/11/19 10:07	06/12/19 07:58	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		06/11/19 10:07	06/12/19 07:58	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		06/11/19 10:07	06/12/19 07:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*70 - 130*	*06/11/19 10:07*	*06/12/19 07:58*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

Client Sample ID: Onsurez#2-2-S-0'-0.5'-190606 Lab Sample ID: 600-186688-2

Date Collected: 06/06/19 15:50 **Matrix: Solid**
Date Received: 06/07/19 08:28

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1630		80.3	10.7	mg/Kg			06/11/19 12:25	20

Client Sample ID: Onsurez#2-3-S-0'-0.5'-190606 Lab Sample ID: 600-186688-3

Date Collected: 06/06/19 15:56 **Matrix: Solid**
Date Received: 06/07/19 08:28

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.673	U	5.34	0.673	ug/Kg		06/07/19 10:23	06/07/19 16:22	1
Ethylbenzene	1.09	U	5.34	1.09	ug/Kg		06/07/19 10:23	06/07/19 16:22	1
Toluene	1.47	U	5.34	1.47	ug/Kg		06/07/19 10:23	06/07/19 16:22	1
Xylenes, Total	1.21	U	5.34	1.21	ug/Kg		06/07/19 10:23	06/07/19 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*61 - 130*	*06/07/19 10:23*	*06/07/19 16:22*	*1*
Dibromofluoromethane	*97*		*68 - 140*	*06/07/19 10:23*	*06/07/19 16:22*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*	*06/07/19 10:23*	*06/07/19 16:22*	*1*
4-Bromofluorobenzene	*102*		*57 - 140*	*06/07/19 10:23*	*06/07/19 16:22*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	9.99	3.80	mg/Kg		06/11/19 10:07	06/11/19 18:41	1
>C12-C28	4.06	U	9.99	4.06	mg/Kg		06/11/19 10:07	06/11/19 18:41	1
>C28-C35	4.06	U	9.99	4.06	mg/Kg		06/11/19 10:07	06/11/19 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*70 - 130*	*06/11/19 10:07*	*06/11/19 18:41*	*1*

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	223		3.99	0.533	mg/Kg			06/11/19 13:45	1

Client Sample ID: Onsurez#2-4-S-0'-0.5'-190606 Lab Sample ID: 600-186688-4

Date Collected: 06/06/19 16:00 **Matrix: Solid**
Date Received: 06/07/19 08:28

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.583	U	4.63	0.583	ug/Kg		06/07/19 10:23	06/07/19 16:46	1
Ethylbenzene	0.944	U	4.63	0.944	ug/Kg		06/07/19 10:23	06/07/19 16:46	1
Toluene	1.28	U	4.63	1.28	ug/Kg		06/07/19 10:23	06/07/19 16:46	1
Xylenes, Total	1.05	U	4.63	1.05	ug/Kg		06/07/19 10:23	06/07/19 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*61 - 130*	*06/07/19 10:23*	*06/07/19 16:46*	*1*
Dibromofluoromethane	*101*		*68 - 140*	*06/07/19 10:23*	*06/07/19 16:46*	*1*
Toluene-d8 (Surr)	*117*		*50 - 130*	*06/07/19 10:23*	*06/07/19 16:46*	*1*
4-Bromofluorobenzene	*84*		*57 - 140*	*06/07/19 10:23*	*06/07/19 16:46*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.79	U	9.98	3.79	mg/Kg		06/11/19 10:07	06/11/19 19:50	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

Client Sample ID: Onsurez#2-4-S-0'-0.5'-190606
Lab Sample ID: 600-186688-4

Date Collected: 06/06/19 16:00
Matrix: Solid
Date Received: 06/07/19 08:28

Method: 8015_M - Total Petroleum Hydrocarbon (GC) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C28	4.05	U	9.98	4.05	mg/Kg		06/11/19 10:07	06/11/19 19:50	1
>C28-C35	4.05	U	9.98	4.05	mg/Kg		06/11/19 10:07	06/11/19 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*70 - 130*	*06/11/19 10:07*	*06/11/19 19:50*	*1*

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1760		100	13.4	mg/Kg			06/11/19 14:05	25

Definitions/Glossary

Client: ARCADIS U.S., Inc. Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

Qualifiers

GC/MS VOA

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

GC Semi VOA

Qualifier	Qualifier Description
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

HPLC/IC

Qualifier	Qualifier Description
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

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)
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	87	98	98	102
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	82	95	100	103
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	84	97	98	102
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	86	101	117	84
LCS 600-266732/3	Lab Control Sample	91	106	104	115
LCSD 600-266732/4	Lab Control Sample Dup	91	104	102	105
MB 600-266732/6	Method Blank	98	104	93	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH (70-130)
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	77
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	99
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	92
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	90
600-186721-C-1-C MS	Matrix Spike	96
600-186721-C-1-D MSD	Matrix Spike Duplicate	97
LCS 600-266909/2-A	Lab Control Sample	109
LCSD 600-266909/3-A	Lab Control Sample Dup	106
MB 600-266909/1-A	Method Blank	97

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

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

Lab Sample ID: MB 600-266732/6
Matrix: Solid
Analysis Batch: 266732

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			06/07/19 11:26	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			06/07/19 11:26	1
Toluene	1.38	U	5.00	1.38	ug/Kg			06/07/19 11:26	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			06/07/19 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*61 - 130*		*06/07/19 11:26*	*1*
Dibromofluoromethane	*104*		*68 - 140*		*06/07/19 11:26*	*1*
Toluene-d8 (Surr)	*93*		*50 - 130*		*06/07/19 11:26*	*1*
4-Bromofluorobenzene	*94*		*57 - 140*		*06/07/19 11:26*	*1*

Lab Sample ID: LCS 600-266732/3
Matrix: Solid
Analysis Batch: 266732

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	62.58		ug/Kg		125	70 - 131
Ethylbenzene	50.0	47.59		ug/Kg		95	66 - 130
Toluene	50.0	50.03		ug/Kg		100	67 - 130
Xylenes, Total	100	94.48		ug/Kg		94	63 - 130
m-Xylene & p-Xylene	50.0	47.95		ug/Kg		96	64 - 130
o-Xylene	50.0	46.53		ug/Kg		93	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*61 - 130*
Dibromofluoromethane	*106*		*68 - 140*
Toluene-d8 (Surr)	*104*		*50 - 130*
4-Bromofluorobenzene	*115*		*57 - 140*

Lab Sample ID: LCSD 600-266732/4
Matrix: Solid
Analysis Batch: 266732

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	50.0	55.06		ug/Kg		110	70 - 131	13	30
Ethylbenzene	50.0	43.20		ug/Kg		86	66 - 130	10	30
Toluene	50.0	45.02		ug/Kg		90	67 - 130	11	30
Xylenes, Total	100	86.50		ug/Kg		87	63 - 130	9	30
m-Xylene & p-Xylene	50.0	44.18		ug/Kg		88	64 - 130	8	30
o-Xylene	50.0	42.32		ug/Kg		85	62 - 130	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*61 - 130*
Dibromofluoromethane	*104*		*68 - 140*
Toluene-d8 (Surr)	*102*		*50 - 130*
4-Bromofluorobenzene	*105*		*57 - 140*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-266909/1-A
Matrix: Solid
Analysis Batch: 266911

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266909

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		06/11/19 07:01	06/11/19 08:33	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		06/11/19 07:01	06/11/19 08:33	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		06/11/19 07:01	06/11/19 08:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*70 - 130*	*06/11/19 07:01*	*06/11/19 08:33*	*1*

Lab Sample ID: LCS 600-266909/2-A
Matrix: Solid
Analysis Batch: 266911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	252	253.4		mg/Kg		101	75 - 125
>C12-C28	250	277.6		mg/Kg		111	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*109*		*70 - 130*

Lab Sample ID: LCSD 600-266909/3-A
Matrix: Solid
Analysis Batch: 266911

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 266909

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	252	241.1		mg/Kg		96	75 - 125	5	20
>C12-C28	250	281.5		mg/Kg		113	75 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: 600-186721-C-1-C MS
Matrix: Solid
Analysis Batch: 266911

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 266909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	3.79	U	251	232.3		mg/Kg		93	75 - 125
>C12-C28	82.1		249	235.1	N1	mg/Kg		61	75 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: 600-186721-C-1-D MSD
Matrix: Solid
Analysis Batch: 266911

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 266909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	3.79	U	252	222.3		mg/Kg		88	75 - 125	4	20
>C12-C28	82.1		250	228.2	N1	mg/Kg		58	75 - 125	3	20

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

Method: 8015_M - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: 600-186721-C-1-D MSD
Matrix: Solid
Analysis Batch: 266911

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 266909

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*97*		*70 - 130*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 600-266947/1-A
Matrix: Solid
Analysis Batch: 266949

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			06/11/19 11:45	1

Lab Sample ID: LCS 600-266947/2-A
Matrix: Solid
Analysis Batch: 266949

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	190.7		mg/Kg		95	90 - 110		

Lab Sample ID: 600-186688-2 MS
Matrix: Solid
Analysis Batch: 266949

Client Sample ID: Onsurez#2-2-S-0'-0.5'-190606
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1630		2010	3194	N1	mg/Kg		78	80 - 120		

Lab Sample ID: 600-186688-2 MSD
Matrix: Solid
Analysis Batch: 266949

Client Sample ID: Onsurez#2-2-S-0'-0.5'-190606
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1630		2010	3218	N1	mg/Kg		79	80 - 120	1	20

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc. Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

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

Prep: 5030B

Analyte	MQL	MDL	Units
Benzene	5.00	0.630	ug/Kg
Ethylbenzene	5.00	1.02	ug/Kg
Toluene	5.00	1.38	ug/Kg
Xylenes, Total	5.00	1.13	ug/Kg

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Prep: TX_1005_S_Prep

Analyte	MQL	MDL	Units
>C12-C28	10.0	4.06	mg/Kg
>C28-C35	10.0	4.06	mg/Kg
C6-C12	10.0	3.80	mg/Kg

Method: 9056A - Anions, Ion Chromatography - Soluble

Leach: DI Leach

Analyte	MQL	MDL	Units
Chloride	4.00	0.534	mg/Kg

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

GC/MS VOA

Analysis Batch: 266732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Total/NA	Solid	8260B	266749
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Total/NA	Solid	8260B	266749
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Total/NA	Solid	8260B	266749
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Total/NA	Solid	8260B	266749
MB 600-266732/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-266732/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-266732/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 266749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Total/NA	Solid	5030B	
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Total/NA	Solid	5030B	
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Total/NA	Solid	5030B	
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Total/NA	Solid	5030B	

GC Semi VOA

Pre Prep Batch: 266908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Total/NA	Solid	Frozen Preserve	
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Total/NA	Solid	Frozen Preserve	
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Total/NA	Solid	Frozen Preserve	
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Total/NA	Solid	Frozen Preserve	
600-186721-C-1-C MS	Matrix Spike	Total/NA	Solid	Frozen Preserve	
600-186721-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	Frozen Preserve	

Prep Batch: 266909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Total/NA	Solid	TX_1005_S_Prep	266908
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Total/NA	Solid	TX_1005_S_Prep	266908
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Total/NA	Solid	TX_1005_S_Prep	266908
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Total/NA	Solid	TX_1005_S_Prep	266908
MB 600-266909/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Prep	
LCS 600-266909/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Prep	
LCSD 600-266909/3-A	Lab Control Sample Dup	Total/NA	Solid	TX_1005_S_Prep	
600-186721-C-1-C MS	Matrix Spike	Total/NA	Solid	TX_1005_S_Prep	266908
600-186721-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	TX_1005_S_Prep	266908

QC Association Summary

Client: ARCADIS U.S., Inc.
Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

GC Semi VOA

Analysis Batch: 266911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Total/NA	Solid	8015_M	266909
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Total/NA	Solid	8015_M	266909
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Total/NA	Solid	8015_M	266909
MB 600-266909/1-A	Method Blank	Total/NA	Solid	8015_M	266909
LCS 600-266909/2-A	Lab Control Sample	Total/NA	Solid	8015_M	266909
LCSD 600-266909/3-A	Lab Control Sample Dup	Total/NA	Solid	8015_M	266909
600-186721-C-1-C MS	Matrix Spike	Total/NA	Solid	8015_M	266909
600-186721-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015_M	266909

Analysis Batch: 266922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Total/NA	Solid	8015_M	266909

HPLC/IC

Leach Batch: 266947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Soluble	Solid	DI Leach	
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Soluble	Solid	DI Leach	
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Soluble	Solid	DI Leach	
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Soluble	Solid	DI Leach	
MB 600-266947/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-266947/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-186688-2 MS	Onsurez#2-2-S-0'-0.5'-190606	Soluble	Solid	DI Leach	
600-186688-2 MSD	Onsurez#2-2-S-0'-0.5'-190606	Soluble	Solid	DI Leach	

Analysis Batch: 266949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-186688-1	Onsurez#2-1-S-0'-0.5'-190606	Soluble	Solid	9056A	266947
600-186688-2	Onsurez#2-2-S-0'-0.5'-190606	Soluble	Solid	9056A	266947
600-186688-3	Onsurez#2-3-S-0'-0.5'-190606	Soluble	Solid	9056A	266947
600-186688-4	Onsurez#2-4-S-0'-0.5'-190606	Soluble	Solid	9056A	266947
MB 600-266947/1-A	Method Blank	Soluble	Solid	9056A	266947
LCS 600-266947/2-A	Lab Control Sample	Soluble	Solid	9056A	266947
600-186688-2 MS	Onsurez#2-2-S-0'-0.5'-190606	Soluble	Solid	9056A	266947
600-186688-2 MSD	Onsurez#2-2-S-0'-0.5'-190606	Soluble	Solid	9056A	266947

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

Client Sample ID: Onsurez#2-1-S-0'-0.5'-190606 Lab Sample ID: 600-186688-1

Date Collected: 06/06/19 15:48 **Matrix: Solid**
Date Received: 06/07/19 08:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			266749	06/07/19 10:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	266732	06/07/19 15:34	WS1	TAL HOU
Total/NA	Pre Prep	Frozen Preserve			266908	06/07/19 18:00	RJV	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			266909	06/11/19 10:07	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	266911	06/11/19 17:32	RJV	TAL HOU
Soluble	Leach	DI Leach			266947	06/11/19 09:55	DAW	TAL HOU
Soluble	Analysis	9056A		1	266949	06/11/19 13:25	DAW	TAL HOU

Client Sample ID: Onsurez#2-2-S-0'-0.5'-190606 Lab Sample ID: 600-186688-2

Date Collected: 06/06/19 15:50 **Matrix: Solid**
Date Received: 06/07/19 08:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			266749	06/07/19 10:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	266732	06/07/19 15:58	WS1	TAL HOU
Total/NA	Pre Prep	Frozen Preserve			266908	06/07/19 18:00	RJV	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			266909	06/11/19 10:07	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	266922	06/12/19 07:58	PXS	TAL HOU
Soluble	Leach	DI Leach			266947	06/11/19 09:55	DAW	TAL HOU
Soluble	Analysis	9056A		20	266949	06/11/19 12:25	DAW	TAL HOU

Client Sample ID: Onsurez#2-3-S-0'-0.5'-190606 Lab Sample ID: 600-186688-3

Date Collected: 06/06/19 15:56 **Matrix: Solid**
Date Received: 06/07/19 08:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			266749	06/07/19 10:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	266732	06/07/19 16:22	WS1	TAL HOU
Total/NA	Pre Prep	Frozen Preserve			266908	06/07/19 18:00	RJV	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			266909	06/11/19 10:07	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	266911	06/11/19 18:41	RJV	TAL HOU
Soluble	Leach	DI Leach			266947	06/11/19 09:55	DAW	TAL HOU
Soluble	Analysis	9056A		1	266949	06/11/19 13:45	DAW	TAL HOU

Client Sample ID: Onsurez#2-4-S-0'-0.5'-190606 Lab Sample ID: 600-186688-4

Date Collected: 06/06/19 16:00 **Matrix: Solid**
Date Received: 06/07/19 08:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			266749	06/07/19 10:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	266732	06/07/19 16:46	WS1	TAL HOU
Total/NA	Pre Prep	Frozen Preserve			266908	06/07/19 18:00	RJV	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			266909	06/11/19 10:07	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	266911	06/11/19 19:50	RJV	TAL HOU
Soluble	Leach	DI Leach			266947	06/11/19 09:55	DAW	TAL HOU
Soluble	Analysis	9056A		25	266949	06/11/19 14:05	DAW	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field/ Onsurez # 2

Job ID: 600-186688-1

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc. Job ID: 600-186688-1
Project/Site: E Loving Field/ Onsurez # 2

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Louisiana	NELAP	6	01967	06-30-19
Oklahoma	State Program	6	2018-052	08-31-19
Texas	NELAP	6	T104704223-18-23	10-31-19
USDA	Federal		P330-18-00130	04-30-21

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: Ryan Nanay	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-68901-18784.1
Client Contact: Brett Krehbiel	Phone: 806-543-1945	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: 1004 North Big Spring Suite 121	Due Date Requested: NA			
City: Midland	TAT Requested (days): 5-day TAT			
State, Zip: TX, 79701				
Phone: 916-786-5382(Tel)	PO #: B049810.BFLL			
Email: Brett.Krehbiel@arcadis.com	WO #:			
Project Name: E Loving Field	Project #: 60010841			
Site: Onsurez #2 / Loving, NM	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)	9056_ORGFM_28D - Chloride	8260B - BTEX Only	TPH- GRO	TPH-DRO	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
Onsurez#2-1-S-0'-0.5'-190606	6-6-19	1548	G	Solid			X	X	X	X		
Onsurez#2-2-S-0'-0.5'-190606	6-6-19	1550	G	Solid			X	X	X	X		
Onsurez#2-3-S-0'-0.5'-190606	6-6-19	1556	G	Solid			X	X	X	X		
Onsurez#2-4-S-0'-0.5'-190606	6-6-19	1600	G	Solid			X	X	X	X		
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

600-186688 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
	6-6-19/2019	Arcadis		6-7-19 820	
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

14

Loc: 600
186688

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

'19 JUN 7 8:28

Date/Time Received:

JOB NUMBER: 186688

CLIENT: Arcadis FB

UNPACKED BY: RD

CARRIER/DRIVER:

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	2.9	676	-.2	2.7
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☒ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	☐

COMMENTS:

RD 6/7/19

600-186688 Waybill

ORIGIN ID:LBBA (806) 543-1945
RYAN MANNY
3013 108 ST
LUBBOCK, TX 79423
UNITED STATES US

SHIP DATE: 06JUN1[illegible]
ACTWGT: 56.00 LB
CAD: 006994406/SSFE2[illegible]
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO EUROFINS TESTAMERICA, HOUSTON
6310 ROTHWAY ST
HOUSTON TX 77040
(713) 690-4444
INV:
PO:
REF:
DEPT:

FedEx Express

FRI - 07 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7877 3264 2020

AB LKSA

77040
TX-US IAH

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-186688-1

Login Number: 186688 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Daley, Phoenix 1

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	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.

APPENDIX C

Historical Excavation Backfill Photograph Log

PHOTOGRAPH LOG

Chevron Environmental Management Company
Onsurez 2
Loving, New Mexico

Photograph: 1

Description: Southern portion of the historical excavation

Location: Onsurez 2

Photograph: 2

Description: Backfilling the lined historical excavation

Location: Onsurez 2

PHOTOGRAPH LOG

ARCADIS Design & Consultancy for natural and built assets

Chevron Environmental Management Company
Onsurez 2
Loving, New Mexico

Photograph: 3

Description: Additional view of backfilling the lined historical excavation

Location: Onsurez 2

Photograph: 4

Description: Additional view of the backfilling activities for the lined historical excavation

Location: Onsurez 2

PHOTOGRAPH LOG

Chevron Environmental Management Company
Onsurez 2
Loving, New Mexico

Photograph: 5

Description: Additional view of backfilling the lined historical excavation

Location: Onsurez 2

Photograph: 6

Description: Backfilled historical excavation

Location: Onsurez 2

APPENDIX D

NMOCD Correspondence

From: Weaver, Crystal, EMNRD
To: "John Turner"; Bratcher, Mike, EMNRD; Billings, Bradford, EMNRD
Cc: Dusty Henderson (dhenderson@cslease.com); Nick Koch; Jamie Robinson; Mike Martin
Subject: RE: Onsurez #2 Remediation Case #2RP-4255
Date: Friday, December 29, 2017 1:12:00 PM

Rockcliff * Onsurez #2 * 30-015-26472 * 2RP-4255

Greetings,

OCD approves the most current work plan submitted on 11/3/17 with the following notes and conditions:

- Locational placement of a background temporary water monitoring well will have to be placed a good deal further from the impact/spill zone. Please contact Bradford Billings for further direction if unable to conclude upon a better location for placement.

- If ground water is found to be impacted Rockcliff will need to contact OCD before any further work is done so that definitive placement of monitoring wells etc. can be discussed and agreed upon and an action plan can be put into place to move forward on.

- All materials of waste nature (solids and liquids) generated by placement of wells/borings and ground water sampling shall be disposed of at a OCD approved facility.

- Delineation sample point locations need to be brought in closer to the spill site and be in areas where inconclusive sampling results were left off from previous contractors work, i.e. please move the proposed placement marked on your map as South Excavated Area to be closer to the ES5 and OS5 marked points, also your location titled Southeast Delineation needs to be brought in closer to ES6, your location titled East Delineation needs to be brought in closer to ES10, your location titled North Excavated Area needs to be brought closer to ES3.

- Delineations will need to be conclusive for both vertical and horizontal assessments that show lab conclusive data that is at or below the levels mentioned in the current work plan i.e.
    - Benzene – 10 ppm (mg/kg)
    - BTEX – 50 ppm (mg/kg)
    - TPH – 100 ppm (mg/kg)
    - Chlorides – 600 ppm (mg/kg)

- Please notify OCD of when remedial activities are scheduled to commence.

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

If you have any questions or concerns, and for notification, please contact Mike Bratcher and/or myself in the District II Office.

Crystal Weaver
Environmental Specialist
OCD – Artesia District II
811 S. 1st Street
Artesia, NM 88210
Office: 575-748-1283 ext. 101
Cell: 575-840-5963
Fax: 575-748-9720

From: John Turner [mailto:John.Turner@Rockcliffenergy.com]
Sent: Friday, November 3, 2017 11:52 AM
To: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Cc: Dusty Henderson (dhenderson@cslease.com) <dhenderson@cslease.com>; Nick Koch <nkoch@rockcliffenergy.com>; Jamie Robinson <Jamie.Robinson@Rockcliffenergy.com>; Mike Martin <mike.martin@rockcliffenergy.com>
Subject: Onsurez #2 Remediation Case #2RP-4255

Please find attached the Release Characterization Work Plan (the Work Plan) for the release that occurred at the Onsurez #2 on 6/3/17. The Work Plan will address the horizontal and vertical delineation that the NMOCD has requested. In addition, the report that will be submitted after delineation is complete will address any outstanding questions that have been asked by NMOCD. I would like to briefly discuss the Work Plan with you, Mr. Bratcher and Dusty Henderson, who is the C&S project manager for this Work Plan to make sure you are in agreement prior to beginning work. Please let me know when you are available to discuss, after you have had a chance to review.

Thank you,

John Turner
Rockcliff Energy, LLC
Sr. Environmental Specialist
342 Johnny Clark Rd
Longview, TX 75603
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APPENDIX E

2020 Soil Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 600-205741-1
Client Project/Site: Chevron Onsurez #2

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Sarah Johnson

Authorized for release by:
6/18/2020 1:31:59 PM

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

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Laboratory Job ID: 600-205741-1

Table of Contents

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL HOU
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL HOU
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
3546	Microwave Extraction	SW846	TAL HOU
5030C	Purge and Trap for Solids	SW846	TAL HOU
5030C	Purge and Trap Methanol Dilution	SW846	TAL HOU
DI Leach	Deionized Water Leaching Procedure (Routine)	ASTM	TAL HOU

Protocol References:

ASTM = ASTM International

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

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-205741-1	SB-1-S-0-6"-20200526	Solid	05/26/20 11:31	05/27/20 09:47	
600-205741-2	SB-1-S-1-2'-20200526	Solid	05/26/20 11:40	05/27/20 09:47	
600-205741-3	SB-1-S-3-4'-20200526	Solid	05/26/20 11:45	05/27/20 09:47	
600-205741-4	SB-1-S-5-6'-20200526	Solid	05/26/20 11:50	05/27/20 09:47	
600-205741-5	SB-1-S-7-8'-20200526	Solid	05/26/20 11:55	05/27/20 09:47	
600-205741-6	SB-1-S-9-10'-20200526	Solid	05/26/20 12:00	05/27/20 09:47	
600-205741-7	SB-2-S-0-6"-20200526	Solid	05/26/20 12:20	05/27/20 09:47	
600-205741-8	SB-2-S-1-2'-20200526	Solid	05/26/20 12:25	05/27/20 09:47	
600-205741-9	SB-2-S-3-4'-20200526	Solid	05/26/20 12:30	05/27/20 09:47	
600-205741-10	SB-2-S-5-6'-20200526	Solid	05/26/20 12:35	05/27/20 09:47	
600-205741-11	SB-2-S-7-8'-20200526	Solid	05/26/20 12:40	05/27/20 09:47	
600-205741-12	SB-2-S-9-10'-20200526	Solid	05/26/20 12:45	05/27/20 09:47	

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-0-6"-20200526
Lab Sample ID: 600-205741-1
Date Collected: 05/26/20 11:31
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000670	U	0.00532	0.000670	mg/Kg		06/02/20 09:58	06/02/20 10:39	1
Ethylbenzene	0.00109	U	0.00532	0.00109	mg/Kg		06/02/20 09:58	06/02/20 10:39	1
Toluene	0.00147	U	0.00532	0.00147	mg/Kg		06/02/20 09:58	06/02/20 10:39	1
Xylenes, Total	0.00120	U	0.00532	0.00120	mg/Kg		06/02/20 09:58	06/02/20 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*61 - 130*	*06/02/20 09:58*	*06/02/20 10:39*	*1*
4-Bromofluorobenzene	*108*		*57 - 140*	*06/02/20 09:58*	*06/02/20 10:39*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*06/02/20 09:58*	*06/02/20 10:39*	*1*
Toluene-d8 (Surr)	*85*		*50 - 130*	*06/02/20 09:58*	*06/02/20 10:39*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**18.4**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**81.6**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-0-6"-20200526
Lab Sample ID: 600-205741-1
Date Collected: 05/26/20 11:31
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.6

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.728	U	1.24	0.728	mg/Kg	☼	05/28/20 10:22	05/29/20 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*70 - 130*	*05/28/20 10:22*	*05/29/20 14:42*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.08	U	10.1	2.08	mg/Kg	☼	06/03/20 15:12	06/04/20 13:50	1
C28-C36	**26.1**		10.1	6.09	mg/Kg	☼	06/03/20 15:12	06/12/20 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*114*		*60 - 140*	*06/03/20 15:12*	*06/04/20 13:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**767**	**F1**	24.5	3.27	mg/Kg	☼		06/10/20 17:06	5

Client Sample ID: SB-1-S-1-2'-20200526
Lab Sample ID: 600-205741-2
Date Collected: 05/26/20 11:40
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000635	U	0.00504	0.000635	mg/Kg		05/27/20 16:00	06/01/20 18:01	1
Ethylbenzene	0.00103	U	0.00504	0.00103	mg/Kg		05/27/20 16:00	06/01/20 18:01	1
Toluene	0.00139	U	0.00504	0.00139	mg/Kg		05/27/20 16:00	06/01/20 18:01	1
Xylenes, Total	0.00114	U	0.00504	0.00114	mg/Kg		05/27/20 16:00	06/01/20 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*61 - 130*	*05/27/20 16:00*	*06/01/20 18:01*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-1-2'-20200526
Lab Sample ID: 600-205741-2
Date Collected: 05/26/20 11:40
Matrix: Solid
Date Received: 05/27/20 09:47

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		57 - 140	05/27/20 16:00	06/01/20 18:01	1
Dibromofluoromethane	82		68 - 140	05/27/20 16:00	06/01/20 18:01	1
Toluene-d8 (Surr)	86		50 - 130	05/27/20 16:00	06/01/20 18:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.9		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	97.1		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-1-2'-20200526
Lab Sample ID: 600-205741-2
Date Collected: 05/26/20 11:40
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 97.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.569	U	0.970	0.569	mg/Kg	☼	05/28/20 10:22	05/29/20 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		70 - 130	05/28/20 10:22	05/29/20 15:07	1

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C28-C36	271		17.1	10.3	mg/Kg	☼	06/03/20 15:12	06/12/20 13:56	2

Method: 8015D - Diesel Range Organics (DRO) (GC) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	42.2		17.1	3.52	mg/Kg	☼	06/03/20 15:12	06/04/20 20:15	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	116		60 - 140	06/03/20 15:12	06/04/20 20:15	2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	819		20.6	2.75	mg/Kg	☼		06/10/20 18:07	5

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000625	U	0.00496	0.000625	mg/Kg		05/27/20 16:00	06/01/20 18:24	1
Ethylbenzene	0.00101	U	0.00496	0.00101	mg/Kg		05/27/20 16:00	06/01/20 18:24	1
Toluene	0.00137	U	0.00496	0.00137	mg/Kg		05/27/20 16:00	06/01/20 18:24	1
Xylenes, Total	0.00112	U	0.00496	0.00112	mg/Kg		05/27/20 16:00	06/01/20 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	05/27/20 16:00	06/01/20 18:24	1
4-Bromofluorobenzene	106		57 - 140	05/27/20 16:00	06/01/20 18:24	1
Dibromofluoromethane	84		68 - 140	05/27/20 16:00	06/01/20 18:24	1
Toluene-d8 (Surr)	86		50 - 130	05/27/20 16:00	06/01/20 18:24	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Job ID: 600-205741-1
Project/Site: Chevron Onsurez #2

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.5		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	89.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 89.5

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.608	U	1.04	0.608	mg/Kg	☼	05/28/20 10:22	05/29/20 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*109*		*70 - 130*	*05/28/20 10:22*	*05/29/20 15:57*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.90	U	9.22	1.90	mg/Kg	☼	06/03/20 15:12	06/04/20 15:00	1
C28-C36	55.0		9.22	5.55	mg/Kg	☼	06/03/20 15:12	06/12/20 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*115*		*60 - 140*	*06/03/20 15:12*	*06/04/20 15:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	429		22.3	2.98	mg/Kg	☼		06/10/20 18:27	5

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000625	U	0.00496	0.000625	mg/Kg		06/02/20 09:58	06/02/20 11:02	1
Ethylbenzene	0.00101	U	0.00496	0.00101	mg/Kg		06/02/20 09:58	06/02/20 11:02	1
Toluene	0.00137	U	0.00496	0.00137	mg/Kg		06/02/20 09:58	06/02/20 11:02	1
Xylenes, Total	0.00112	U	0.00496	0.00112	mg/Kg		06/02/20 09:58	06/02/20 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*61 - 130*	*06/02/20 09:58*	*06/02/20 11:02*	*1*
4-Bromofluorobenzene	*107*		*57 - 140*	*06/02/20 09:58*	*06/02/20 11:02*	*1*
Dibromofluoromethane	*85*		*68 - 140*	*06/02/20 09:58*	*06/02/20 11:02*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*	*06/02/20 09:58*	*06/02/20 11:02*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.0		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	81.0		1.0	1.0	%			06/01/20 09:21	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-5-6'-20200526

Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.0

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.719	U	1.23	0.719	mg/Kg	☼	05/28/20 10:22	05/29/20 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*05/28/20 10:22*	*05/29/20 16:21*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.11	U	10.2	2.11	mg/Kg	☼	06/03/20 15:12	06/04/20 15:35	1
C28-C36	**36.7**		10.2	6.16	mg/Kg	☼	06/03/20 15:12	06/12/20 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*60 - 140*	*06/03/20 15:12*	*06/04/20 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**195**		24.7	3.29	mg/Kg	☼		06/10/20 18:48	5

Client Sample ID: SB-1-S-7-8'-20200526

Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000626	U	0.00497	0.000626	mg/Kg		05/27/20 16:00	06/01/20 19:10	1
Ethylbenzene	0.00101	U	0.00497	0.00101	mg/Kg		05/27/20 16:00	06/01/20 19:10	1
Toluene	0.00137	U	0.00497	0.00137	mg/Kg		05/27/20 16:00	06/01/20 19:10	1
Xylenes, Total	0.00112	U	0.00497	0.00112	mg/Kg		05/27/20 16:00	06/01/20 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*05/27/20 16:00*	*06/01/20 19:10*	*1*
4-Bromofluorobenzene	*109*		*57 - 140*	*05/27/20 16:00*	*06/01/20 19:10*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*05/27/20 16:00*	*06/01/20 19:10*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*	*05/27/20 16:00*	*06/01/20 19:10*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.3**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**86.7**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-7-8'-20200526

Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 86.7

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.683	U	1.17	0.683	mg/Kg	☼	05/28/20 10:22	05/29/20 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*70 - 130*	*05/28/20 10:22*	*05/29/20 16:46*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-7-8'-20200526

Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 86.7

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.96	U	9.52	1.96	mg/Kg	☼	06/03/20 15:12	06/04/20 16:10	1
C28-C36	27.3		9.52	5.74	mg/Kg	☼	06/03/20 15:12	06/12/20 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*123*		*60 - 140*	*06/03/20 15:12*	*06/04/20 16:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	296		92.3	12.3	mg/Kg	☼		06/10/20 19:08	20

Client Sample ID: SB-1-S-9-10'-20200526

Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000615	U	0.00488	0.000615	mg/Kg		05/27/20 16:00	06/01/20 19:32	1
Ethylbenzene	0.000996	U	0.00488	0.000996	mg/Kg		05/27/20 16:00	06/01/20 19:32	1
Toluene	0.00135	U	0.00488	0.00135	mg/Kg		05/27/20 16:00	06/01/20 19:32	1
Xylenes, Total	0.00110	U	0.00488	0.00110	mg/Kg		05/27/20 16:00	06/01/20 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*05/27/20 16:00*	*06/01/20 19:32*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*05/27/20 16:00*	*06/01/20 19:32*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*05/27/20 16:00*	*06/01/20 19:32*	*1*
Toluene-d8 (Surr)	*89*		*50 - 130*	*05/27/20 16:00*	*06/01/20 19:32*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.3		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	83.7		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-9-10'-20200526

Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 83.7

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.732	U	1.25	0.732	mg/Kg	☼	05/28/20 10:22	05/29/20 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*107*		*70 - 130*	*05/28/20 10:22*	*05/29/20 17:10*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.04	U	9.89	2.04	mg/Kg	☼	06/03/20 15:12	06/04/20 12:06	1
C28-C36	24.6		9.89	5.96	mg/Kg	☼	06/03/20 15:12	06/12/20 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*108*		*60 - 140*	*06/03/20 15:12*	*06/04/20 12:06*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-9-10'-20200526

Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 83.7

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	519		95.5	12.8	mg/Kg	☼		06/10/20 19:28	20

Client Sample ID: SB-2-S-0-6"-20200526

Lab Sample ID: 600-205741-7
Date Collected: 05/26/20 12:20
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000608	U	0.00483	0.000608	mg/Kg		05/27/20 16:00	06/01/20 19:55	1
Ethylbenzene	0.000985	U	0.00483	0.000985	mg/Kg		05/27/20 16:00	06/01/20 19:55	1
Toluene	0.00133	U	0.00483	0.00133	mg/Kg		05/27/20 16:00	06/01/20 19:55	1
Xylenes, Total	0.00109	U	0.00483	0.00109	mg/Kg		05/27/20 16:00	06/01/20 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*05/27/20 16:00*	*06/01/20 19:55*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*05/27/20 16:00*	*06/01/20 19:55*	*1*
Dibromofluoromethane	*83*		*68 - 140*	*05/27/20 16:00*	*06/01/20 19:55*	*1*
Toluene-d8 (Surr)	*85*		*50 - 130*	*05/27/20 16:00*	*06/01/20 19:55*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.6		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	84.4		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-0-6"-20200526

Lab Sample ID: 600-205741-7
Date Collected: 05/26/20 12:20
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 84.4

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.685	U	1.17	0.685	mg/Kg	☼	05/28/20 10:22	05/29/20 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*05/28/20 10:22*	*05/29/20 17:35*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.02	U	9.82	2.02	mg/Kg	☼	06/03/20 15:12	06/04/20 17:21	1
C28-C36	25.7		9.82	5.92	mg/Kg	☼	06/03/20 15:12	06/12/20 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*60 - 140*	*06/03/20 15:12*	*06/04/20 17:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	177		23.7	3.16	mg/Kg	☼		06/10/20 20:30	5

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-1-2'-20200526
Lab Sample ID: 600-205741-8
Date Collected: 05/26/20 12:25
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000601	U	0.00477	0.000601	mg/Kg		05/27/20 16:00	06/01/20 20:18	1
Ethylbenzene	0.000973	U	0.00477	0.000973	mg/Kg		05/27/20 16:00	06/01/20 20:18	1
Toluene	0.00132	U	0.00477	0.00132	mg/Kg		05/27/20 16:00	06/01/20 20:18	1
Xylenes, Total	0.00108	U	0.00477	0.00108	mg/Kg		05/27/20 16:00	06/01/20 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*61 - 130*	*05/27/20 16:00*	*06/01/20 20:18*	*1*
4-Bromofluorobenzene	*110*		*57 - 140*	*05/27/20 16:00*	*06/01/20 20:18*	*1*
Dibromofluoromethane	*85*		*68 - 140*	*05/27/20 16:00*	*06/01/20 20:18*	*1*
Toluene-d8 (Surr)	*91*		*50 - 130*	*05/27/20 16:00*	*06/01/20 20:18*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.9**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**89.1**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-1-2'-20200526
Lab Sample ID: 600-205741-8
Date Collected: 05/26/20 12:25
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 89.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.670	U	1.14	0.670	mg/Kg	☼	05/28/20 10:22	05/29/20 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*05/28/20 10:22*	*05/29/20 17:59*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.91	U	9.26	1.91	mg/Kg	☼	06/03/20 15:12	06/04/20 17:56	1
C28-C36	**23.6**		9.26	5.58	mg/Kg	☼	06/03/20 15:12	06/12/20 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*120*		*60 - 140*	*06/03/20 15:12*	*06/04/20 17:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**319**		22.4	3.00	mg/Kg	☼		06/10/20 20:50	5

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000636	U	0.00505	0.000636	mg/Kg		05/27/20 16:00	06/01/20 20:40	1
Ethylbenzene	0.00103	U	0.00505	0.00103	mg/Kg		05/27/20 16:00	06/01/20 20:40	1
Toluene	0.00139	U	0.00505	0.00139	mg/Kg		05/27/20 16:00	06/01/20 20:40	1
Xylenes, Total	0.00114	U	0.00505	0.00114	mg/Kg		05/27/20 16:00	06/01/20 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*05/27/20 16:00*	*06/01/20 20:40*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	*106*		*57 - 140*	*05/27/20 16:00*	*06/01/20 20:40*	*1*
Dibromofluoromethane	*83*		*68 - 140*	*05/27/20 16:00*	*06/01/20 20:40*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*	*05/27/20 16:00*	*06/01/20 20:40*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**20.3**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**79.7**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 79.7

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.751	U	1.28	0.751	mg/Kg	☼	05/28/20 10:22	05/30/20 08:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	*106*		*70 - 130*	*05/28/20 10:22*	*05/30/20 08:13*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.14	U	10.4	2.14	mg/Kg	☼	06/03/20 15:12	06/04/20 18:30	1
C28-C36	**26.6**		10.4	6.26	mg/Kg	☼	06/03/20 15:12	06/12/20 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*116*		*60 - 140*	*06/03/20 15:12*	*06/04/20 18:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**891**		100	13.4	mg/Kg	☼		06/10/20 21:10	20

Client Sample ID: SB-2-S-5-6'-20200526
Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000633	U	0.00502	0.000633	mg/Kg		05/27/20 16:00	06/01/20 21:03	1
Ethylbenzene	0.00102	U	0.00502	0.00102	mg/Kg		05/27/20 16:00	06/01/20 21:03	1
Toluene	0.00139	U	0.00502	0.00139	mg/Kg		05/27/20 16:00	06/01/20 21:03	1
Xylenes, Total	0.00113	U	0.00502	0.00113	mg/Kg		05/27/20 16:00	06/01/20 21:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*87*		*61 - 130*	*05/27/20 16:00*	*06/01/20 21:03*	*1*
4-Bromofluorobenzene	*106*		*57 - 140*	*05/27/20 16:00*	*06/01/20 21:03*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*05/27/20 16:00*	*06/01/20 21:03*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*	*05/27/20 16:00*	*06/01/20 21:03*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**18.5**		1.0	1.0	%			06/01/20 09:21	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-205741-1
Project/Site: Chevron Onsurez #2

Client Sample ID: SB-2-S-5-6'-20200526 Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35 **Matrix: Solid**
Date Received: 05/27/20 09:47

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-5-6'-20200526 Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35 **Matrix: Solid**
Date Received: 05/27/20 09:47 **Percent Solids: 81.5**

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.771	U	1.32	0.771	mg/Kg	☼	05/29/20 11:16	05/30/20 08:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*70 - 130*	*05/29/20 11:16*	*05/30/20 08:37*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.09	U	10.2	2.09	mg/Kg	☼	06/03/20 15:12	06/04/20 19:06	1
C28-C36	24.7		10.2	6.12	mg/Kg	☼	06/03/20 15:12	06/12/20 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*110*		*60 - 140*	*06/03/20 15:12*	*06/04/20 19:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	631		98.1	13.1	mg/Kg	☼		06/10/20 21:31	20

Client Sample ID: SB-2-S-7-8'-20200526 Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40 **Matrix: Solid**
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000633	U	0.00502	0.000633	mg/Kg		05/27/20 16:00	06/01/20 21:26	1
Ethylbenzene	0.00102	U	0.00502	0.00102	mg/Kg		05/27/20 16:00	06/01/20 21:26	1
Toluene	0.00139	U	0.00502	0.00139	mg/Kg		05/27/20 16:00	06/01/20 21:26	1
Xylenes, Total	0.00113	U	0.00502	0.00113	mg/Kg		05/27/20 16:00	06/01/20 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*05/27/20 16:00*	*06/01/20 21:26*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*05/27/20 16:00*	*06/01/20 21:26*	*1*
Dibromofluoromethane	*82*		*68 - 140*	*05/27/20 16:00*	*06/01/20 21:26*	*1*
Toluene-d8 (Surr)	*85*		*50 - 130*	*05/27/20 16:00*	*06/01/20 21:26*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.5		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	82.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-7-8'-20200526

Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.5

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.696	U	1.19	0.696	mg/Kg	☼	05/29/20 11:16	05/30/20 09:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*70 - 130*	*05/29/20 11:16*	*05/30/20 09:01*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3.11	U	15.1	3.11	mg/Kg	☼	06/08/20 12:04	06/09/20 15:15	1
C28-C36	**16.9**		10.0	6.03	mg/Kg	☼	06/03/20 15:12	06/12/20 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*60 - 140*	*06/08/20 12:04*	*06/09/20 15:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**734**	**F1**	96.9	12.9	mg/Kg	☼		06/10/20 21:51	20

Client Sample ID: SB-2-S-9-10'-20200526

Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg		05/27/20 16:00	06/01/20 21:48	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg		05/27/20 16:00	06/01/20 21:48	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg		05/27/20 16:00	06/01/20 21:48	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg		05/27/20 16:00	06/01/20 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*05/27/20 16:00*	*06/01/20 21:48*	*1*
4-Bromofluorobenzene	*108*		*57 - 140*	*05/27/20 16:00*	*06/01/20 21:48*	*1*
Dibromofluoromethane	*87*		*68 - 140*	*05/27/20 16:00*	*06/01/20 21:48*	*1*
Toluene-d8 (Surr)	*89*		*50 - 130*	*05/27/20 16:00*	*06/01/20 21:48*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.9**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**82.1**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-9-10'-20200526

Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.675	U	1.15	0.675	mg/Kg	☼	05/29/20 11:16	05/30/20 09:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*05/29/20 11:16*	*05/30/20 09:26*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-9-10'-20200526

Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.1

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	36.9		30.3	6.25	mg/Kg	☼	06/08/20 12:04	06/09/20 15:51	1
C28-C36	52.7		30.3	18.3	mg/Kg	☼	06/08/20 12:04	06/12/20 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*60 - 140*	*06/08/20 12:04*	*06/09/20 15:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	556		48.7	6.50	mg/Kg	☼		06/10/20 22:52	10

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (61-130)	BFB (57-140)	DBFM (68-140)	TOL (50-130)
600-205741-1	SB-1-S-0-6"-20200526	90	108	84	85
600-205741-2	SB-1-S-1-2'-20200526	87	106	82	86
600-205741-3	SB-1-S-3-4'-20200526	85	106	84	86
600-205741-4	SB-1-S-5-6'-20200526	88	107	85	87
600-205741-5	SB-1-S-7-8'-20200526	83	109	84	87
600-205741-6	SB-1-S-9-10'-20200526	83	103	84	89
600-205741-7	SB-2-S-0-6"-20200526	85	103	83	85
600-205741-8	SB-2-S-1-2'-20200526	86	110	85	91
600-205741-9	SB-2-S-3-4'-20200526	85	106	83	87
600-205741-10	SB-2-S-5-6'-20200526	87	106	84	87
600-205741-11	SB-2-S-7-8'-20200526	83	103	82	85
600-205741-12	SB-2-S-9-10'-20200526	85	108	87	89
LCS 600-295568/3	Lab Control Sample	85	111	88	92
LCS 600-295613/3	Lab Control Sample	90	110	88	90
LCSD 600-295568/4	Lab Control Sample Dup	80	101	84	90
LCSD 600-295613/4	Lab Control Sample Dup	93	110	89	90
MB 600-295568/6	Method Blank	85	108	83	89
MB 600-295613/6	Method Blank	103	107	88	87

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TFT1 (70-130)
600-205741-1	SB-1-S-0-6"-20200526	93
600-205741-2	SB-1-S-1-2'-20200526	105
600-205741-3	SB-1-S-3-4'-20200526	109
600-205741-4	SB-1-S-5-6'-20200526	99
600-205741-5	SB-1-S-7-8'-20200526	108
600-205741-6	SB-1-S-9-10'-20200526	107
600-205741-7	SB-2-S-0-6"-20200526	98
600-205741-8	SB-2-S-1-2'-20200526	99
600-205741-9	SB-2-S-3-4'-20200526	106
600-205741-10	SB-2-S-5-6'-20200526	103
600-205741-11	SB-2-S-7-8'-20200526	100
600-205741-12	SB-2-S-9-10'-20200526	99
LCS 600-295090/1-A	Lab Control Sample	95
LCSD 600-295090/2-A	Lab Control Sample Dup	94
MB 600-295090/3-A	Method Blank	93

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Surrogate Summary

Client: ARCADIS U.S., Inc. Job ID: 600-205741-1
Project/Site: Chevron Onsurez #2

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

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	OTPH (60-140)						
600-205741-1	SB-1-S-0-6"-20200526	114						
600-205741-2 - DL	SB-1-S-1-2'-20200526	116						
600-205741-3	SB-1-S-3-4'-20200526	115						
600-205741-4	SB-1-S-5-6'-20200526	100						
600-205741-5	SB-1-S-7-8'-20200526	123						
600-205741-6	SB-1-S-9-10'-20200526	108						
600-205741-6 MS	SB-1-S-9-10'-20200526	127						
600-205741-6 MS	SB-1-S-9-10'-20200526	130						
600-205741-6 MS	SB-1-S-9-10'-20200526	125						
600-205741-6 MSD	SB-1-S-9-10'-20200526	121						
600-205741-6 MSD	SB-1-S-9-10'-20200526	127						
600-205741-6 MSD	SB-1-S-9-10'-20200526	117						
600-205741-7	SB-2-S-0-6"-20200526	102						
600-205741-8	SB-2-S-1-2'-20200526	120						
600-205741-9	SB-2-S-3-4'-20200526	116						
600-205741-10	SB-2-S-5-6'-20200526	110						
600-205741-11	SB-2-S-7-8'-20200526	84						
600-205741-12	SB-2-S-9-10'-20200526	86						
LCS 600-295786/2-A	Lab Control Sample	73						
LCS 600-295786/2-A	Lab Control Sample	132						
LCS 600-295786/2-A	Lab Control Sample	98						
LCS 600-296079/2-A	Lab Control Sample	101						
LCS 600-296079/2-A	Lab Control Sample	114						
LCSD 600-296079/3-A	Lab Control Sample Dup	107						
LCSD 600-296079/3-A	Lab Control Sample Dup	111						
MB 600-295786/1-A	Method Blank	138						
MB 600-295786/1-A	Method Blank	123						
MB 600-295786/1-A	Method Blank	91						
MB 600-296079/1-A	Method Blank	98						
MB 600-296079/1-A	Method Blank	95						

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 600-295568/6
Matrix: Solid
Analysis Batch: 295568

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			06/01/20 14:59	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			06/01/20 14:59	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			06/01/20 14:59	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			06/01/20 14:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*		*06/01/20 14:59*	*1*
4-Bromofluorobenzene	*108*		*57 - 140*		*06/01/20 14:59*	*1*
Dibromofluoromethane	*83*		*68 - 140*		*06/01/20 14:59*	*1*
Toluene-d8 (Surr)	*89*		*50 - 130*		*06/01/20 14:59*	*1*

Lab Sample ID: LCS 600-295568/3
Matrix: Solid
Analysis Batch: 295568

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	0.04508		mg/Kg		90	70 - 131
Ethylbenzene	0.0500	0.04410		mg/Kg		88	66 - 130
Toluene	0.0500	0.04345		mg/Kg		87	67 - 130
Xylenes, Total	0.100	0.08787		mg/Kg		88	63 - 130
m-Xylene & p-Xylene	0.0500	0.04359		mg/Kg		87	64 - 130
o-Xylene	0.0500	0.04428		mg/Kg		89	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*
4-Bromofluorobenzene	*111*		*57 - 140*
Dibromofluoromethane	*88*		*68 - 140*
Toluene-d8 (Surr)	*92*		*50 - 130*

Lab Sample ID: LCSD 600-295568/4
Matrix: Solid
Analysis Batch: 295568

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	0.04399		mg/Kg		88	70 - 131	2	30
Ethylbenzene	0.0500	0.04094		mg/Kg		82	66 - 130	7	30
Toluene	0.0500	0.04170		mg/Kg		83	67 - 130	4	30
Xylenes, Total	0.100	0.08524		mg/Kg		85	63 - 130	3	30
m-Xylene & p-Xylene	0.0500	0.04258		mg/Kg		85	64 - 130	2	30
o-Xylene	0.0500	0.04266		mg/Kg		85	62 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*61 - 130*
4-Bromofluorobenzene	*101*		*57 - 140*
Dibromofluoromethane	*84*		*68 - 140*
Toluene-d8 (Surr)	*90*		*50 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: MB 600-295613/6
Matrix: Solid
Analysis Batch: 295613

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			06/02/20 09:54	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			06/02/20 09:54	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			06/02/20 09:54	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			06/02/20 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*61 - 130*		*06/02/20 09:54*	*1*
4-Bromofluorobenzene	*107*		*57 - 140*		*06/02/20 09:54*	*1*
Dibromofluoromethane	*88*		*68 - 140*		*06/02/20 09:54*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*		*06/02/20 09:54*	*1*

Lab Sample ID: LCS 600-295613/3
Matrix: Solid
Analysis Batch: 295613

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	0.04956		mg/Kg		99	70 - 131
Ethylbenzene	0.0500	0.04526		mg/Kg		91	66 - 130
Toluene	0.0500	0.04524		mg/Kg		90	67 - 130
Xylenes, Total	0.100	0.09186		mg/Kg		92	63 - 130
m-Xylene & p-Xylene	0.0500	0.04628		mg/Kg		93	64 - 130
o-Xylene	0.0500	0.04558		mg/Kg		91	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*61 - 130*
4-Bromofluorobenzene	*110*		*57 - 140*
Dibromofluoromethane	*88*		*68 - 140*
Toluene-d8 (Surr)	*90*		*50 - 130*

Lab Sample ID: LCSD 600-295613/4
Matrix: Solid
Analysis Batch: 295613

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	0.04647		mg/Kg		93	70 - 131	6	30
Ethylbenzene	0.0500	0.04234		mg/Kg		85	66 - 130	7	30
Toluene	0.0500	0.04181		mg/Kg		84	67 - 130	8	30
Xylenes, Total	0.100	0.08456		mg/Kg		85	63 - 130	8	30
m-Xylene & p-Xylene	0.0500	0.04263		mg/Kg		85	64 - 130	8	30
o-Xylene	0.0500	0.04193		mg/Kg		84	62 - 130	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 130*
4-Bromofluorobenzene	*110*		*57 - 140*
Dibromofluoromethane	*89*		*68 - 140*
Toluene-d8 (Surr)	*90*		*50 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 600-295090/3-A
Matrix: Solid
Analysis Batch: 295416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295090

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.586	U	1.00	0.586	mg/Kg		05/28/20 10:22	05/29/20 09:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*70 - 130*	*05/28/20 10:22*	*05/29/20 09:01*	*1*

Lab Sample ID: LCS 600-295090/1-A
Matrix: Solid
Analysis Batch: 295416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	5.04	5.822		mg/Kg		116	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*95*		*70 - 130*

Lab Sample ID: LCSD 600-295090/2-A
Matrix: Solid
Analysis Batch: 295416

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 295090

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	5.04	6.059		mg/Kg		120	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*94*		*70 - 130*

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

Lab Sample ID: MB 600-295786/1-A
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295786

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.25	1.70	mg/Kg		06/03/20 15:12	06/04/20 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*138*		*60 - 140*	*06/03/20 15:12*	*06/04/20 10:46*	*1*

Lab Sample ID: MB 600-295786/1-A
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295786

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.25	1.70	mg/Kg		06/03/20 15:12	06/04/20 17:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*123*		*60 - 140*	*06/03/20 15:12*	*06/04/20 17:21*	*1*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: MB 600-295786/1-A
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295786

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.25	1.70	mg/Kg		06/03/20 15:12	06/12/20 12:10	1
C28-C36	4.97	U	8.25	4.97	mg/Kg		06/03/20 15:12	06/12/20 12:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*60 - 140*	*06/03/20 15:12*	*06/12/20 12:10*	*1*

Lab Sample ID: LCS 600-295786/2-A
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.5	71.32		mg/Kg		107	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*73*		*60 - 140*

Lab Sample ID: LCS 600-295786/2-A
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.5	55.34		mg/Kg		83	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*132*		*60 - 140*

Lab Sample ID: LCS 600-295786/2-A
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.5	51.49		mg/Kg		77	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*98*		*60 - 140*

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.04	U	79.4	95.25		mg/Kg	☼	120	66 - 134

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	127		60 - 140

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.04	U	79.4	67.78		mg/Kg	☼	85	66 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	130		60 - 140

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	4.95	J	79.4	73.37		mg/Kg	☼	86	66 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	125		60 - 140

Lab Sample ID: 600-205741-6 MSD
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2.04	U	79.3	91.09		mg/Kg	☼	115	66 - 134	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	121		60 - 140

Lab Sample ID: 600-205741-6 MSD
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2.04	U	79.3	70.62		mg/Kg	☼	89	66 - 134	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	127		60 - 140

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: 600-205741-6 MSD — **Client Sample ID: SB-1-S-9-10'-20200526**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296478 — **Prep Batch: 295786**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	4.95	J	79.3	70.01		mg/Kg	☼	82	66 - 134	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*117*		*60 - 140*

Lab Sample ID: MB 600-296079/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296178 — **Prep Batch: 296079**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.71	U	8.30	1.71	mg/Kg		06/08/20 12:04	06/09/20 13:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*60 - 140*	*06/08/20 12:04*	*06/09/20 13:30*	*1*

Lab Sample ID: MB 600-296079/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296478 — **Prep Batch: 296079**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.71	U	8.30	1.71	mg/Kg		06/08/20 12:04	06/12/20 20:53	1
C28-C36	5.00	U	8.30	5.00	mg/Kg		06/08/20 12:04	06/12/20 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*60 - 140*	*06/08/20 12:04*	*06/12/20 20:53*	*1*

Lab Sample ID: LCS 600-296079/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296178 — **Prep Batch: 296079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.8	71.58		mg/Kg		107	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*101*		*60 - 140*

Lab Sample ID: LCS 600-296079/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296478 — **Prep Batch: 296079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.8	59.49		mg/Kg		89	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*114*		*60 - 140*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: LCSD 600-296079/3-A
Matrix: Solid
Analysis Batch: 296178

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 296079

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			66.7	76.29		mg/Kg		114	66 - 134	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*107*		*60 - 140*

Lab Sample ID: LCSD 600-296079/3-A
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 296079

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			66.7	59.92		mg/Kg		90	66 - 134	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*111*		*60 - 140*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-296298/1-A
Matrix: Solid
Analysis Batch: 296246

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			06/10/20 09:17	1

Lab Sample ID: LCS 600-296298/2-A
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	181.7		mg/Kg		91	90 - 110		

Lab Sample ID: 600-205741-1 MS
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-1-S-0-6"-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	767	F1	613	1517	F1	mg/Kg	☼	122	80 - 120		

Lab Sample ID: 600-205741-1 MSD
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-1-S-0-6"-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	767	F1	613	1565	F1	mg/Kg	☼	130	80 - 120	3	20

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 600-205741-11 MS
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-2-S-7-8'-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	734	F1	2420	2316	F1	mg/Kg	☼	65	80 - 120

Lab Sample ID: 600-205741-11 MSD
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-2-S-7-8'-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	734	F1	2420	2401	F1	mg/Kg	☼	69	80 - 120	4	20

Method: 2540B - Percent Moisture

Lab Sample ID: 600-205741-8 DU
Matrix: Solid
Analysis Batch: 295535

Client Sample ID: SB-2-S-1-2'-20200526
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	10.9		10.5		%		4	20
Percent Solids	89.1		89.5		%		0.4	20

Lab Sample ID: 600-205741-11 DU
Matrix: Solid
Analysis Batch: 295535

Client Sample ID: SB-2-S-7-8'-20200526
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	17.5		16.9		%		4	20
Percent Solids	82.5		83.1		%		0.7	20

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Prep: 5030C

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: 8015D - Gasoline Range Organics (GRO) (GC)

Prep: 5030C

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	1.00	0.586	mg/Kg

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

Prep: 3546

Analyte	MQL	MDL	Units
C28-C36	8.30	5.00	mg/Kg
Diesel Range Organics [C10-C28]	8.30	1.71	mg/Kg

Method: 300.0 - 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: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC/MS VOA

Prep Batch: 295295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	5030C	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	5030C	
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	5030C	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	5030C	

Analysis Batch: 295568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	8260C	295295
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8260C	295295
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8260C	295295
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8260C	295295
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8260C	295295
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8260C	295295
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8260C	295295
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8260C	295295
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8260C	295295
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8260C	295295
MB 600-295568/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-295568/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-295568/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 295613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8260C	295651
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8260C	295651
MB 600-295613/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-295613/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-295613/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Prep Batch: 295651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	5030C	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	5030C	

GC VOA

Prep Batch: 295090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	5030C	
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	5030C	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	5030C	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	5030C	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC VOA (Continued)

Prep Batch: 295090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	5030C	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	5030C	
MB 600-295090/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 600-295090/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 600-295090/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 295416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8015D	295090
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	8015D	295090
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8015D	295090
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8015D	295090
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8015D	295090
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295090
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8015D	295090
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8015D	295090
MB 600-295090/3-A	Method Blank	Total/NA	Solid	8015D	295090
LCS 600-295090/1-A	Lab Control Sample	Total/NA	Solid	8015D	295090
LCSD 600-295090/2-A	Lab Control Sample Dup	Total/NA	Solid	8015D	295090

Analysis Batch: 295498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8015D	295090
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8015D	295090
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8015D	295090
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8015D	295090

GC Semi VOA

Analysis Batch: 293250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-2 - DL	SB-1-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8015D	295786
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8015D	295786
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8015D	295786
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8015D	295786
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8015D	295786
MB 600-295786/1-A	Method Blank	Total/NA	Solid	8015D	295786
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	8015D	295786
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC Semi VOA

Prep Batch: 295786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	3546	
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	3546	
600-205741-2 - DL	SB-1-S-1-2'-20200526	Total/NA	Solid	3546	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	3546	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	3546	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	3546	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	3546	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	3546	
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	3546	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	3546	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	3546	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	3546	
MB 600-295786/1-A	Method Blank	Total/NA	Solid	3546	
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	3546	
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	3546	
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	3546	

Analysis Batch: 295826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-295786/1-A	Method Blank	Total/NA	Solid	8015D	295786
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	8015D	295786
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786

Prep Batch: 296079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	3546	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	3546	
MB 600-296079/1-A	Method Blank	Total/NA	Solid	3546	
LCS 600-296079/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 600-296079/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 296178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8015D	296079
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8015D	296079
MB 600-296079/1-A	Method Blank	Total/NA	Solid	8015D	296079
LCS 600-296079/2-A	Lab Control Sample	Total/NA	Solid	8015D	296079
LCSD 600-296079/3-A	Lab Control Sample Dup	Total/NA	Solid	8015D	296079

Analysis Batch: 296478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8015D	295786
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8015D	295786
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8015D	295786
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8015D	295786

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC Semi VOA (Continued)

Analysis Batch: 296478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8015D	295786
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8015D	295786
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8015D	296079
MB 600-295786/1-A	Method Blank	Total/NA	Solid	8015D	295786
MB 600-296079/1-A	Method Blank	Total/NA	Solid	8015D	296079
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	8015D	295786
LCS 600-296079/2-A	Lab Control Sample	Total/NA	Solid	8015D	296079
LCSD 600-296079/3-A	Lab Control Sample Dup	Total/NA	Solid	8015D	296079
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786

HPLC/IC

Analysis Batch: 296246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-2	SB-1-S-1-2'-20200526	Soluble	Solid	300.0	296298
600-205741-3	SB-1-S-3-4'-20200526	Soluble	Solid	300.0	296298
600-205741-4	SB-1-S-5-6'-20200526	Soluble	Solid	300.0	296298
600-205741-5	SB-1-S-7-8'-20200526	Soluble	Solid	300.0	296298
600-205741-6	SB-1-S-9-10'-20200526	Soluble	Solid	300.0	296298
600-205741-7	SB-2-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-8	SB-2-S-1-2'-20200526	Soluble	Solid	300.0	296298
600-205741-9	SB-2-S-3-4'-20200526	Soluble	Solid	300.0	296298
600-205741-10	SB-2-S-5-6'-20200526	Soluble	Solid	300.0	296298
600-205741-11	SB-2-S-7-8'-20200526	Soluble	Solid	300.0	296298
600-205741-12	SB-2-S-9-10'-20200526	Soluble	Solid	300.0	296298
MB 600-296298/1-A	Method Blank	Soluble	Solid	300.0	296298
LCS 600-296298/2-A	Lab Control Sample	Soluble	Solid	300.0	296298
600-205741-1 MS	SB-1-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-1 MSD	SB-1-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-11 MS	SB-2-S-7-8'-20200526	Soluble	Solid	300.0	296298
600-205741-11 MSD	SB-2-S-7-8'-20200526	Soluble	Solid	300.0	296298

Leach Batch: 296298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Soluble	Solid	DI Leach	
600-205741-2	SB-1-S-1-2'-20200526	Soluble	Solid	DI Leach	
600-205741-3	SB-1-S-3-4'-20200526	Soluble	Solid	DI Leach	
600-205741-4	SB-1-S-5-6'-20200526	Soluble	Solid	DI Leach	
600-205741-5	SB-1-S-7-8'-20200526	Soluble	Solid	DI Leach	
600-205741-6	SB-1-S-9-10'-20200526	Soluble	Solid	DI Leach	
600-205741-7	SB-2-S-0-6"-20200526	Soluble	Solid	DI Leach	
600-205741-8	SB-2-S-1-2'-20200526	Soluble	Solid	DI Leach	
600-205741-9	SB-2-S-3-4'-20200526	Soluble	Solid	DI Leach	
600-205741-10	SB-2-S-5-6'-20200526	Soluble	Solid	DI Leach	
600-205741-11	SB-2-S-7-8'-20200526	Soluble	Solid	DI Leach	
600-205741-12	SB-2-S-9-10'-20200526	Soluble	Solid	DI Leach	
MB 600-296298/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-296298/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-205741-1 MS	SB-1-S-0-6"-20200526	Soluble	Solid	DI Leach	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

HPLC/IC (Continued)

Leach Batch: 296298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1 MSD	SB-1-S-0-6"-20200526	Soluble	Solid	DI Leach	
600-205741-11 MS	SB-2-S-7-8'-20200526	Soluble	Solid	DI Leach	
600-205741-11 MSD	SB-2-S-7-8'-20200526	Soluble	Solid	DI Leach	

General Chemistry

Analysis Batch: 295535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	2540B	
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	2540B	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	2540B	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	2540B	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	2540B	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	2540B	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	2540B	
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	2540B	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	2540B	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	2540B	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	2540B	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	2540B	
600-205741-8 DU	SB-2-S-1-2'-20200526	Total/NA	Solid	2540B	
600-205741-11 DU	SB-2-S-7-8'-20200526	Total/NA	Solid	2540B	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-0-6"-20200526 — Lab Sample ID: 600-205741-1

Date Collected: 05/26/20 11:31 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295651	06/02/20 09:58	WS1	TAL HOU
Total/NA	Analysis	8260C		1	295613	06/02/20 10:39	WS1	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-0-6"-20200526 — Lab Sample ID: 600-205741-1

Date Collected: 05/26/20 11:31 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 81.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 14:42	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 13:50	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 13:22	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 17:06	W1N	TAL HOU

Client Sample ID: SB-1-S-1-2'-20200526 — Lab Sample ID: 600-205741-2

Date Collected: 05/26/20 11:40 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 18:01	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-1-2'-20200526 — Lab Sample ID: 600-205741-2

Date Collected: 05/26/20 11:40 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 97.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 15:07	WS1	TAL HOU
Total/NA	Prep	3546	DL		295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D	DL	2	293250	06/04/20 20:15	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		2	296478	06/12/20 13:56	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 18:07	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 18:24	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 15:57	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 15:00	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 14:30	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 18:27	W1N	TAL HOU

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295651	06/02/20 09:58	WS1	TAL HOU
Total/NA	Analysis	8260C		1	295613	06/02/20 11:02	WS1	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 16:21	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 15:35	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 15:37	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 18:48	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-7-8'-20200526 — Lab Sample ID: 600-205741-5

Date Collected: 05/26/20 11:55 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 19:10	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-7-8'-20200526 — Lab Sample ID: 600-205741-5

Date Collected: 05/26/20 11:55 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 86.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 16:46	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 16:10	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 16:12	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 19:08	W1N	TAL HOU

Client Sample ID: SB-1-S-9-10'-20200526 — Lab Sample ID: 600-205741-6

Date Collected: 05/26/20 12:00 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 19:32	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-9-10'-20200526 — Lab Sample ID: 600-205741-6

Date Collected: 05/26/20 12:00 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 83.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 17:10	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 12:06	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 16:47	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 19:28	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-0-6"-20200526 — Lab Sample ID: 600-205741-7

Date Collected: 05/26/20 12:20 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 19:55	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-0-6"-20200526 — Lab Sample ID: 600-205741-7

Date Collected: 05/26/20 12:20 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 84.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 17:35	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 17:21	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 18:33	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 20:30	W1N	TAL HOU

Client Sample ID: SB-2-S-1-2'-20200526 — Lab Sample ID: 600-205741-8

Date Collected: 05/26/20 12:25 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 20:18	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-1-2'-20200526 — Lab Sample ID: 600-205741-8

Date Collected: 05/26/20 12:25 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 89.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 17:59	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 17:56	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 19:08	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 20:50	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 20:40	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 08:13	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 18:30	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 19:43	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 21:10	W1N	TAL HOU

Client Sample ID: SB-2-S-5-6'-20200526
Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 21:03	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-5-6'-20200526
Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/29/20 11:16	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 08:37	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 19:06	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 20:18	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 21:31	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-7-8'-20200526
Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 21:26	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-7-8'-20200526
Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/29/20 11:16	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 09:01	WS1	TAL HOU
Total/NA	Prep	3546			296079	06/08/20 12:04	EAT	TAL HOU
Total/NA	Analysis	8015D		1	296178	06/09/20 15:15	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 23:10	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 21:51	W1N	TAL HOU

Client Sample ID: SB-2-S-9-10'-20200526
Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 21:48	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-9-10'-20200526
Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/29/20 11:16	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 09:26	WS1	TAL HOU
Total/NA	Prep	3546			296079	06/08/20 12:04	EAT	TAL HOU
Total/NA	Analysis	8015D		1	296178	06/09/20 15:51	RJV	TAL HOU
Total/NA	Prep	3546			296079	06/08/20 12:04	EAT	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 23:44	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		10	296246	06/10/20 22:52	W1N	TAL HOU

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-19-25	10-31-20

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
8015D	3546	Solid	C28-C36

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

Chain of Custody Record

Midland #264

eurofins Environment Testing America

Client Information	Sampler: Justin Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-77164-20710 1
Client Contact: Sarah Johnson	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 2
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:
Address: 1004 North Big Spring Suite 121	Due Date 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)
City: Midland	TAT Requested (days): Standard			
State, Zip: TX, 79701				
Phone: 432-227-0266(Tel)	PO #:			
Email: sarah.johnson@arcadis.com	WO #:			
Project Name: Chevron Onsurez #2	Project #: 60012357			
Site: Onsurez #2	SSOW#:			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)	8015D_DRO /- ORO	8015D_GRO	8260C - BETX Only	300- Chloride	2540C_moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code		X	X						X	
SB-1-S-0-6" -20200526	5/26/20	1131	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-1-2' -20200526	5/26/20	1140	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-3-4'-20200526	5/26/20	1145	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-5-6' -20200526	5/26/20	1150	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-7-8' -20200526	5/26/20	1155	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-9-10' -20200526	5/26/20	1200	G	S			✓	✓	✓	✓	✓	2	
SB-~~2~~-S-0-6" -20200526	5/26/20	1220	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-1-2' -20200526	5/26/20	1225	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-3-4'-20200526	5/26/20	1230	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-5-6'-20200526	5/26/20	1235	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-7-8' -20200526	5/26/20	1240	G	S			✓	✓	✓	✓	✓	2	

600-205741 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: SB-#-"S"-#-#'-20200526 In quotations: Letter S, all other are numbers

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5/26/20 1600	Company: Arcadis	Received by: [signature]	Date/Time: 5/27/20 947	Company: ETA
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

Midland #264

eurofins | Environment Testing America

Client Information	Sampler: Justin Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-77164-20710.1
Client Contact: Sarah Johnson	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:

Address: 1004 North Big Spring Suite 121	Due Date Requested:
City: Midland	TAT Requested (days): Std
State, Zip: TX, 79701	
Phone: 432-227-0266(Tel)	PO #:
Email: sarah.johnson@arcadis.com	WO #:
Project Name: Chevron Onsurez #2	Project #: 60012357
Site: Onsurez #2	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)	8015D_DRO / ORO	8015D_GRO	8260C - BETX Only	300- Chloride	2540C_moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SB-2-S-9-10'-20200526	5/26/20	1245	G	S			1	1	1	1	1	2	

gs 5/26/20

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		5/26/20 1600	Arcadis		5/27/20 947	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

Loc: 600
205741

eurofins | Environment Testing TestAmerica

Eurofins TestAmerica Houston

Sample Receipt Checklist

'20 MAY 27 5:47

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: Arcadis

UNPACKED BY: YP CARRIER/DRIVER: Fedex

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

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
8726	Y / N	Y / N	1.9	678	-0.1	1.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				5/27/20
	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

TX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____

pH paper Lot #_____ VOA headspace acceptable (5-6mm): ☐YES ☐NO ☑NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☑YES	☐ NO

COMMENTS:

5/27/20

CS# 1001743

HS-SA-WI-013 Rev. 4A; 08/26/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-205741-1

Login Number: 205741 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Rubio, Yuri

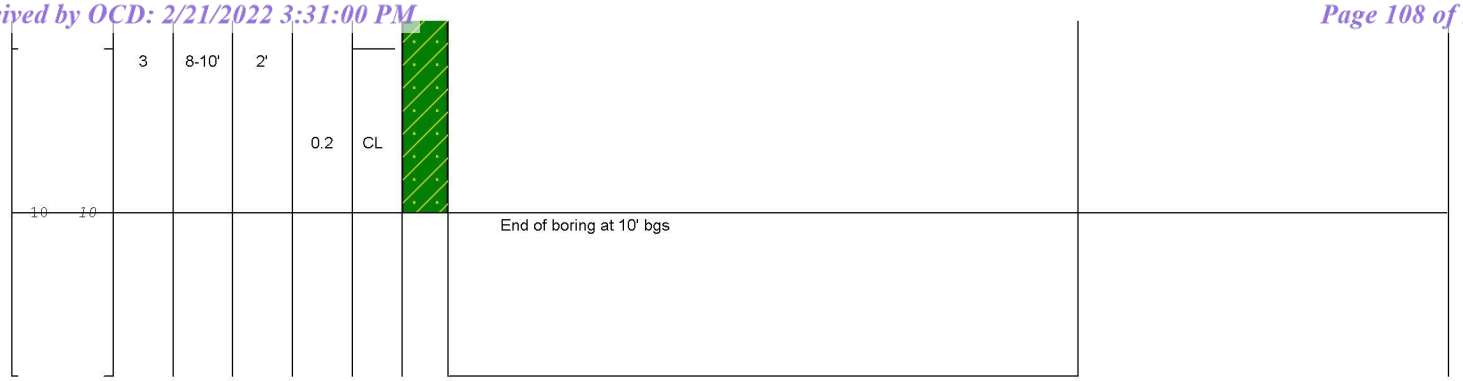
Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
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.

APPENDIX F

2020 Soil Boring Logs

Date Start/Finish: 5/26/2020 **Drilling Company:** HCl **Driller's Name:** Sam Baron **Drilling Method:** Direct Push **Sampling Method:** core sleeve **Rig Type:** Geoprobe	**Northing:** - **Easting:** - **Casing Elevation:** - **Borehole Depth:** 10' **Surface Elevation:** - **Descriptions By:** JS	**Well/Boring ID:** SB-1 **Client:** CEMC **Location:** Onsurez No. 2

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0				0.3			Silty sand, 10 yr 7/4 very pale brown, 80% sand, fine to medium grained, moderately sorted, 20% silt, consolidated-loose, round to sub-rounded, dry, trace roots/organics, no odor	
				0.2			Silty sand 6/4 light yellowish brown, 70% sand, fine to medium grained, moderately sorted, sub to well rounded, some (30%) silt, loose, dry, massive, trace pebbles, white 1-2cm, hard, trace roots, no odor	
	1	0-4'	3'		SM		silty sand, 7.5 yr 5/6 strong brown, 60% sand, moderately sorted, sub to well rounded, with some (40%) silt, loose, slightly moist, trace clay, trace roots, no stain, slight organic odor	
				0.2				
5							Clayey sand 5/6 strong brown, sand (60%) fine grained, poorly to moderately sorted, loose, with some (20%) silt and some (20%) clay throughout, slightly pliable, slightly moist, no odor, no stain	
				0.2				
	2	4-8'	4'				clayey sand 7.5 yr 6/4 light brown, 60% sand, fine grained, poorly to moderately sorted, subrounded to rounded, with some (30-40%) clay, little silt, loose, dry to slightly moist, slightly pliable, no odor, no stain	
					SC		gyp clayey sand 7.5 yr 6/4 light brown clayey sand as above with gypsifferous sand throughout, crumbly, dry, no odor, no stain	
				0.2			sandy clay 7.5 yr 6/4 light brown, clay with some to abundant sand, moderately sorted, fine grained, with beds (2.5" thick) of crumbly gysiffereous sand, white, dry, loose-crumbly, no odor, no stain	



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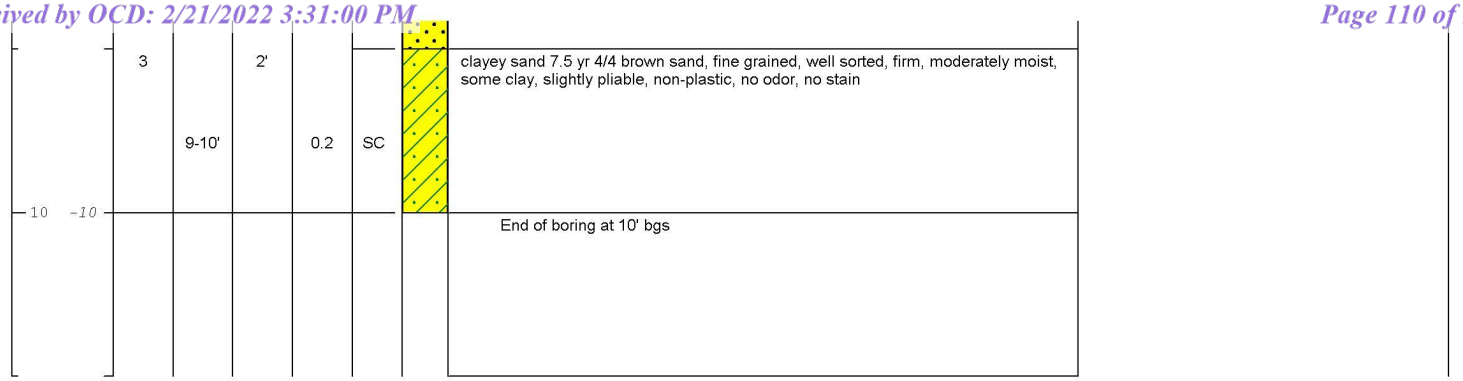
Remarks: Total Depth: 10' Below Ground Surface (bgs)

Project: 30051441 Template: LPTEMPLATE3.ldfx Page: 2 of 2
Data File: SB-1 Date: 7/1/2020 Created/Edited by: AD

Date Start/Finish: 5/26/2020 **Drilling Company:** HCl **Driller's Name:** Sam Baron **Drilling Method:** direct push **Sampling Method:** core barrel **Rig Type:** Geoprobe	**Northing:** - **Easting:** - **Casing Elevation:** - **Borehole Depth:** 10 **Surface Elevation:** - **Descriptions By:** JS	**Well/Boring ID:** SB-2 **Client:** Chevron **Location:** Onsurez #2

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0		0-0.5'		1.4	SM		silty sand 7.5 yr 6/4 light brown, sand, very fine to medium grained, poorly sorted, loose, sub-rounded to rounded, with some silt, trace granules to pebbles, hard, pink, loose throughout, no stain, no odor	
		1-2'		0.4	SC		clayey silty sand 7.5 yr 5/4 brown sand, poorly to moderately sorted, sub-rounded, loose to firm, some silt, trace - some clay increasing to some clay at 3', firm, non pliable, dry, no odor, no stain	
	1		3'					
		3-4'		0.3				
5					SP		gravelly silty sand 7.5 yr 7/4 pink sand, poorly sorted, sub-rounded, fine to medium grained, silty, loose, dry, with trace to little pebbles, hard, loose throughout, distinct bed, no odor, no stain	
		5-6'		0.2	CL		sandy clay 7.5 yr 6/4 light brown mottled with 7/4 pink clay with some fine to medium grained sand, well sorted, firm, non pliable, dry, non-plastic, trace discrete beds gypsum sand 1-3" thick, no odor, no stain	
	2		4'					
		7-8'		0.2				
					SW		sand 7.5 yr 5/4 brown sand, fine to medium grained, well sorted, unconsolidated, saturated at 8.5-8.75', some clay, moist, 8.75-9' saturated sand	



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Remarks: Below Ground Surface (bgs)

Project: 30051441 Template: LPTEMPLATE3.ldfx
Data File: SB-2 Date: 7/1/2020 Created/Edited by: AD

APPENDIX G

2019 Groundwater Analytical Reports

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ANALYTICAL REPORT

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

Laboratory Job ID: 600-185227-1
Client Project/Site: E Loving Field

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Mr. Brett Krehbiel

Authorized for release by:
5/22/2019 2:47:05 PM

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

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Laboratory Job ID: 600-185227-1

Table of Contents

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015_M	Total Petroleum Hydrocarbon (GC)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
TX_1005_W_Prep	Extraction - Texas Total petroleum Hyrdocarbons	TCEQ	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TCEQ = Texas Commission of Environmental Quality

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Assest ID
600-185227-1	C04216-POD-2	Water	05/07/19 10:05	05/10/19 09:33	
600-185227-2	C04216-POD-3	Water	05/07/19 10:56	05/10/19 09:33	
600-185227-3	C04216-POD-1	Water	05/07/19 11:47	05/10/19 09:33	
600-185227-4	C04216-POD-4	Water	05/07/19 12:57	05/10/19 09:33	
600-185227-5	FB-1	Water	05/07/19 13:00	05/10/19 09:33	
600-185227-6	DUP-1	Water	05/07/19 00:00	05/10/19 09:33	

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Client Sample ID: C04216-POD-2

Lab Sample ID: 600-185227-1
Date Collected: 05/07/19 10:05
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 14:42	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 14:42	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 14:42	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*50 - 134*		*05/14/19 14:42*	*1*
Dibromofluoromethane	*99*		*62 - 130*		*05/14/19 14:42*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*05/14/19 14:42*	*1*
4-Bromofluorobenzene	*110*		*67 - 139*		*05/14/19 14:42*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.711	U	1.71	0.711	mg/L		05/17/19 10:37	05/17/19 15:08	1
Over C12-C28	0.823	U	1.71	0.823	mg/L		05/17/19 10:37	05/17/19 15:08	1
Over C28-C35	0.823	U	1.71	0.823	mg/L		05/17/19 10:37	05/17/19 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*70 - 130*	*05/17/19 10:37*	*05/17/19 15:08*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5090**		80.0	10.7	mg/L			05/21/19 20:09	200

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6270**		100	100	mg/L			05/14/19 11:48	1

Client Sample ID: C04216-POD-3

Lab Sample ID: 600-185227-2
Date Collected: 05/07/19 10:56
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 15:06	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 15:06	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 15:06	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*50 - 134*		*05/14/19 15:06*	*1*
Dibromofluoromethane	*102*		*62 - 130*		*05/14/19 15:06*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*05/14/19 15:06*	*1*
4-Bromofluorobenzene	*110*		*67 - 139*		*05/14/19 15:06*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.718	U	1.73	0.718	mg/L		05/17/19 10:37	05/17/19 15:43	1
Over C12-C28	0.830	U	1.73	0.830	mg/L		05/17/19 10:37	05/17/19 15:43	1
Over C28-C35	0.830	U	1.73	0.830	mg/L		05/17/19 10:37	05/17/19 15:43	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Client Sample ID: C04216-POD-3
Lab Sample ID: 600-185227-2
Date Collected: 05/07/19 10:56
Matrix: Water
Date Received: 05/10/19 09:33

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	100		70 - 130	05/17/19 10:37	05/17/19 15:43	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1390		40.0	5.34	mg/L			05/21/19 20:27	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5090		40.0	40.0	mg/L			05/14/19 11:48	1

Client Sample ID: C04216-POD-1
Lab Sample ID: 600-185227-3
Date Collected: 05/07/19 11:47
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 15:31	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 15:31	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 15:31	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		50 - 134		05/14/19 15:31	1
Dibromofluoromethane	103		62 - 130		05/14/19 15:31	1
Toluene-d8 (Surr)	110		70 - 130		05/14/19 15:31	1
4-Bromofluorobenzene	111		67 - 139		05/14/19 15:31	1

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.718	U	1.73	0.718	mg/L		05/17/19 10:37	05/17/19 16:18	1
Over C12-C28	0.830	U	1.73	0.830	mg/L		05/17/19 10:37	05/17/19 16:18	1
Over C28-C35	0.830	U	1.73	0.830	mg/L		05/17/19 10:37	05/17/19 16:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		70 - 130	05/17/19 10:37	05/17/19 16:18	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4420		80.0	10.7	mg/L			05/21/19 20:45	200

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5340		100	100	mg/L			05/14/19 11:48	1

Client Sample ID: C04216-POD-4
Lab Sample ID: 600-185227-4
Date Collected: 05/07/19 12:57
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 15:57	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 15:57	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 15:57	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Client Sample ID: C04216-POD-4

Lab Sample ID: 600-185227-4
Date Collected: 05/07/19 12:57
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*50 - 134*		*05/14/19 15:57*	*1*
Dibromofluoromethane	*100*		*62 - 130*		*05/14/19 15:57*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*05/14/19 15:57*	*1*
4-Bromofluorobenzene	*112*		*67 - 139*		*05/14/19 15:57*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.720	U	1.73	0.720	mg/L		05/17/19 10:37	05/17/19 16:53	1
Over C12-C28	0.832	U	1.73	0.832	mg/L		05/17/19 10:37	05/17/19 16:53	1
Over C28-C35	0.832	U	1.73	0.832	mg/L		05/17/19 10:37	05/17/19 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*70 - 130*	*05/17/19 10:37*	*05/17/19 16:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3690**		40.0	5.34	mg/L			05/21/19 21:03	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4790**		100	100	mg/L			05/14/19 11:48	1

Client Sample ID: FB-1

Lab Sample ID: 600-185227-5
Date Collected: 05/07/19 13:00
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 16:22	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 16:22	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 16:22	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*50 - 134*		*05/14/19 16:22*	*1*
Dibromofluoromethane	*99*		*62 - 130*		*05/14/19 16:22*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*05/14/19 16:22*	*1*
4-Bromofluorobenzene	*107*		*67 - 139*		*05/14/19 16:22*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.718	U	1.73	0.718	mg/L		05/17/19 10:37	05/17/19 17:28	1
Over C12-C28	0.830	U	1.73	0.830	mg/L		05/17/19 10:37	05/17/19 17:28	1
Over C28-C35	0.830	U	1.73	0.830	mg/L		05/17/19 10:37	05/17/19 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*70 - 130*	*05/17/19 10:37*	*05/17/19 17:28*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Client Sample ID: FB-1

Lab Sample ID: 600-185227-5
Date Collected: 05/07/19 13:00
Matrix: Water
Date Received: 05/10/19 09:33

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.28		0.400	0.0534	mg/L			05/21/19 21:21	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	119		10.0	10.0	mg/L			05/14/19 11:48	1

Client Sample ID: DUP-1

Lab Sample ID: 600-185227-6
Date Collected: 05/07/19 00:00
Matrix: Water
Date Received: 05/10/19 09:33

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 16:47	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 16:47	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 16:47	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*50 - 134*		*05/14/19 16:47*	*1*
Dibromofluoromethane	*105*		*62 - 130*		*05/14/19 16:47*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*05/14/19 16:47*	*1*
4-Bromofluorobenzene	*110*		*67 - 139*		*05/14/19 16:47*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.713	U	1.72	0.713	mg/L		05/17/19 10:37	05/17/19 18:04	1
Over C12-C28	0.825	U	1.72	0.825	mg/L		05/17/19 10:37	05/17/19 18:04	1
Over C28-C35	0.825	U	1.72	0.825	mg/L		05/17/19 10:37	05/17/19 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*70 - 130*	*05/17/19 10:37*	*05/17/19 18:04*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2750		80.0	10.7	mg/L			05/21/19 21:39	200

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5960		100	100	mg/L			05/14/19 11:48	1

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Qualifiers

GC/MS VOA

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

GC Semi VOA

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

HPLC/IC

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

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-185227-1	C04216-POD-2	92	99	108	110
600-185227-2	C04216-POD-3	93	102	108	110
600-185227-3	C04216-POD-1	89	103	110	111
600-185227-4	C04216-POD-4	92	100	111	112
600-185227-5	FB-1	91	99	109	107
600-185227-6	DUP-1	94	105	109	110
LCS 600-264954/1010	Lab Control Sample	89	105	115	113
LCSD 600-264954/11	Lab Control Sample Dup	89	106	113	115
MB 600-264954/13	Method Blank	84	97	111	113

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH (70-130)
600-185227-1	C04216-POD-2	88
600-185227-2	C04216-POD-3	100
600-185227-3	C04216-POD-1	94
600-185227-4	C04216-POD-4	98
600-185227-5	FB-1	98
600-185227-6	DUP-1	99
LCS 600-265328/2-A	Lab Control Sample	96
LCSD 600-265328/3-A	Lab Control Sample Dup	93
MB 600-265328/1-A	Method Blank	93

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

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

Lab Sample ID: MB 600-264954/13
Matrix: Water
Analysis Batch: 264954

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			05/14/19 13:03	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			05/14/19 13:03	1
Toluene	0.198	U	1.00	0.198	ug/L			05/14/19 13:03	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			05/14/19 13:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*50 - 134*		*05/14/19 13:03*	*1*
Dibromofluoromethane	*97*		*62 - 130*		*05/14/19 13:03*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*05/14/19 13:03*	*1*
4-Bromofluorobenzene	*113*		*67 - 139*		*05/14/19 13:03*	*1*

Lab Sample ID: LCS 600-264954/1010
Matrix: Water
Analysis Batch: 264954

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.06		ug/L		101	70 - 130
Ethylbenzene	10.0	10.19		ug/L		102	70 - 130
Toluene	10.0	10.16		ug/L		102	70 - 130
Xylenes, Total	20.0	20.14		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*50 - 134*
Dibromofluoromethane	*105*		*62 - 130*
Toluene-d8 (Surr)	*115*		*70 - 130*
4-Bromofluorobenzene	*113*		*67 - 139*

Lab Sample ID: LCSD 600-264954/11
Matrix: Water
Analysis Batch: 264954

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	10.0	9.568		ug/L		96	70 - 130	5	20
Ethylbenzene	10.0	9.585		ug/L		96	70 - 130	6	20
Toluene	10.0	9.580		ug/L		96	70 - 130	6	20
Xylenes, Total	20.0	19.08		ug/L		95	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*50 - 134*
Dibromofluoromethane	*106*		*62 - 130*
Toluene-d8 (Surr)	*113*		*70 - 130*
4-Bromofluorobenzene	*115*		*67 - 139*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-265328/1-A
Matrix: Water
Analysis Batch: 265287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265328

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.830	U	2.00	0.830	mg/L		05/17/19 10:37	05/17/19 16:18	1
Over C12-C28	0.960	U	2.00	0.960	mg/L		05/17/19 10:37	05/17/19 16:18	1
Over C28-C35	0.960	U	2.00	0.960	mg/L		05/17/19 10:37	05/17/19 16:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*70 - 130*	*05/17/19 10:37*	*05/17/19 16:18*	*1*

Lab Sample ID: LCS 600-265328/2-A
Matrix: Water
Analysis Batch: 265287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	33.6	26.92		mg/L		80	75 - 125
Over C12-C28	33.3	31.83		mg/L		95	75 - 125
C6-C35	66.9	58.75		mg/L		88	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: LCSD 600-265328/3-A
Matrix: Water
Analysis Batch: 265287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265328

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	33.6	26.57		mg/L		79	75 - 125	1	20
Over C12-C28	33.3	32.59		mg/L		98	75 - 125	2	20
C6-C35	66.9	59.16		mg/L		88	75 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*93*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-265564/4
Matrix: Water
Analysis Batch: 265564

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			05/21/19 12:45	1

Lab Sample ID: LCS 600-265564/5
Matrix: Water
Analysis Batch: 265564

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.98		mg/L		100	90 - 110

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 600-264999/1
Matrix: Water
Analysis Batch: 264999

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			05/14/19 11:48	1

Lab Sample ID: LCS 600-264999/2
Matrix: Water
Analysis Batch: 264999

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1800	1738		mg/L		97	90 - 110		

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

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

Analyte	MQL	MDL	Units
Benzene	1.00	0.176	ug/L
Ethylbenzene	1.00	0.212	ug/L
Toluene	1.00	0.198	ug/L
Xylenes, Total	2.00	0.366	ug/L

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Prep: TX_1005_W_Prep

Analyte	MQL	MDL	Units
C6-C12	2.00	0.830	mg/L
Over C12-C28	2.00	0.960	mg/L
Over C28-C35	2.00	0.960	mg/L

Method: 300.0 - Anions, Ion Chromatography

Analyte	MQL	MDL	Units
Chloride	0.400	0.0534	mg/L

General Chemistry

Analyte	MQL	MDL	Units
Total Dissolved Solids	10.0	10.0	mg/L

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

GC/MS VOA

Analysis Batch: 264954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185227-1	C04216-POD-2	Total/NA	Water	8260B	
600-185227-2	C04216-POD-3	Total/NA	Water	8260B	
600-185227-3	C04216-POD-1	Total/NA	Water	8260B	
600-185227-4	C04216-POD-4	Total/NA	Water	8260B	
600-185227-5	FB-1	Total/NA	Water	8260B	
600-185227-6	DUP-1	Total/NA	Water	8260B	
MB 600-264954/13	Method Blank	Total/NA	Water	8260B	
LCS 600-264954/1010	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-264954/11	Lab Control Sample Dup	Total/NA	Water	8260B	

GC Semi VOA

Analysis Batch: 265286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185227-1	C04216-POD-2	Total/NA	Water	8015_M	265328
600-185227-2	C04216-POD-3	Total/NA	Water	8015_M	265328
600-185227-3	C04216-POD-1	Total/NA	Water	8015_M	265328
600-185227-4	C04216-POD-4	Total/NA	Water	8015_M	265328
600-185227-5	FB-1	Total/NA	Water	8015_M	265328
600-185227-6	DUP-1	Total/NA	Water	8015_M	265328

Analysis Batch: 265287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-265328/1-A	Method Blank	Total/NA	Water	8015_M	265328
LCS 600-265328/2-A	Lab Control Sample	Total/NA	Water	8015_M	265328
LCSD 600-265328/3-A	Lab Control Sample Dup	Total/NA	Water	8015_M	265328

Prep Batch: 265328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185227-1	C04216-POD-2	Total/NA	Water	TX_1005_W_Prep	
600-185227-2	C04216-POD-3	Total/NA	Water	TX_1005_W_Prep	
600-185227-3	C04216-POD-1	Total/NA	Water	TX_1005_W_Prep	
600-185227-4	C04216-POD-4	Total/NA	Water	TX_1005_W_Prep	
600-185227-5	FB-1	Total/NA	Water	TX_1005_W_Prep	
600-185227-6	DUP-1	Total/NA	Water	TX_1005_W_Prep	
MB 600-265328/1-A	Method Blank	Total/NA	Water	TX_1005_W_Prep	
LCS 600-265328/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Prep	
LCSD 600-265328/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Prep	

HPLC/IC

Analysis Batch: 265564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185227-1	C04216-POD-2	Total/NA	Water	300.0	
600-185227-2	C04216-POD-3	Total/NA	Water	300.0	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

HPLC/IC (Continued)

Analysis Batch: 265564 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185227-3	C04216-POD-1	Total/NA	Water	300.0	
600-185227-4	C04216-POD-4	Total/NA	Water	300.0	
600-185227-5	FB-1	Total/NA	Water	300.0	
600-185227-6	DUP-1	Total/NA	Water	300.0	
MB 600-265564/4	Method Blank	Total/NA	Water	300.0	
LCS 600-265564/5	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 264999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185227-1	C04216-POD-2	Total/NA	Water	SM 2540C	
600-185227-2	C04216-POD-3	Total/NA	Water	SM 2540C	
600-185227-3	C04216-POD-1	Total/NA	Water	SM 2540C	
600-185227-4	C04216-POD-4	Total/NA	Water	SM 2540C	
600-185227-5	FB-1	Total/NA	Water	SM 2540C	
600-185227-6	DUP-1	Total/NA	Water	SM 2540C	
MB 600-264999/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-264999/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Client Sample ID: C04216-POD-2
Date Collected: 05/07/19 10:05
Date Received: 05/10/19 09:33

Lab Sample ID: 600-185227-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264954	05/14/19 14:42	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			265328	05/17/19 10:37	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	265286	05/17/19 15:08	PXS	TAL HOU
Total/NA	Analysis	300.0		200	265564	05/21/19 20:09	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	264999	05/14/19 11:48	DTN	TAL HOU

Client Sample ID: C04216-POD-3
Date Collected: 05/07/19 10:56
Date Received: 05/10/19 09:33

Lab Sample ID: 600-185227-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264954	05/14/19 15:06	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			265328	05/17/19 10:37	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	265286	05/17/19 15:43	PXS	TAL HOU
Total/NA	Analysis	300.0		100	265564	05/21/19 20:27	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	264999	05/14/19 11:48	DTN	TAL HOU

Client Sample ID: C04216-POD-1
Date Collected: 05/07/19 11:47
Date Received: 05/10/19 09:33

Lab Sample ID: 600-185227-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264954	05/14/19 15:31	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			265328	05/17/19 10:37	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	265286	05/17/19 16:18	PXS	TAL HOU
Total/NA	Analysis	300.0		200	265564	05/21/19 20:45	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	264999	05/14/19 11:48	DTN	TAL HOU

Client Sample ID: C04216-POD-4
Date Collected: 05/07/19 12:57
Date Received: 05/10/19 09:33

Lab Sample ID: 600-185227-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264954	05/14/19 15:57	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			265328	05/17/19 10:37	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	265286	05/17/19 16:53	PXS	TAL HOU
Total/NA	Analysis	300.0		100	265564	05/21/19 21:03	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	264999	05/14/19 11:48	DTN	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Client Sample ID: FB-1

Lab Sample ID: 600-185227-5
Matrix: Water
Date Collected: 05/07/19 13:00
Date Received: 05/10/19 09:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264954	05/14/19 16:22	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			265328	05/17/19 10:37	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	265286	05/17/19 17:28	PXS	TAL HOU
Total/NA	Analysis	300.0		1	265564	05/21/19 21:21	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	264999	05/14/19 11:48	DTN	TAL HOU

Client Sample ID: DUP-1

Lab Sample ID: 600-185227-6
Matrix: Water
Date Collected: 05/07/19 00:00
Date Received: 05/10/19 09:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264954	05/14/19 16:47	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			265328	05/17/19 10:37	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	265286	05/17/19 18:04	PXS	TAL HOU
Total/NA	Analysis	300.0		200	265564	05/21/19 21:39	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	264999	05/14/19 11:48	DTN	TAL HOU

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field

Job ID: 600-185227-1

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	18-061-0	08-04-19
Louisiana	NELAP	6	01967	06-30-19
Oklahoma	State Program	6	2018-052	08-31-19
Texas	NELAP	6	T104704223-18-23	10-31-19
USDA	Federal		P330-18-00130	04-30-21

Eurofins TestAmerica, Houston
6310 Rothwell Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

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Client Information	Sampler: Jerry S. Longwell	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-68253-18650.1
Client Contact: Mr. Brett Krehbiel	Phone:	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: 1004 North Big Spring Suite 121	Due Date Requested:			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 916-786-5382(Tel)	PO #: B0049810.0000			
Email: brett.krehbiel@arcadis.com	WO #:			
Project Name: E Loving Field: Onsurez 2	Project #: 60010841			
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:

600-185227 Chain of Custody

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)	2540C- TDS	8260B_LL - BTEX Only	300_ORGFM_28D- Chloride	TPH-G- 8015 mod	TPH-DRO- 8015 mod	Total Number of containers
			Preservation Code:				N	A	N	A	A	
C04216-POD2	050713	1005	6	Water			✓	✓	✓	✓	✓	
C04216-POD-3	050713	1056	6	Water			✓	✓	✓	✓	✓	
C04216-POD-1	050713	1147	6	Water			✓	✓	✓	✓	✓	
C04216-POD-4	050713	1257	6	Water			✓	✓	✓	✓	✓	
FB-1	050713	1300	6	Water			✓	✓	✓	✓	✓	
DUP-1	050713	—	6	Water			✓	✓	✓	✓	✓	
				Water								
				Water								
			05C	Water								
				Water								
				Water								

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
Jerry S. Longwell	05/08/13 / 1400	ARCADIS		5-10-13 933	TN
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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Recei Loc: 600 **t**
185227

Time Received: '19 MAY 10 9:3

JOB NUMBER: 27 **CLIENT:** Arcadis

UNPACKED BY: YR **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)
WG	Y / N	Y / N	1.6	696	-0.2	1.4
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N			YR 5/10/19	
	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:

YR 5/10/19

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

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-185227-1

Login Number: 185227 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Crafton, Tommie S

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.

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ANALYTICAL REPORT

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

Laboratory Job ID: 600-191578-1
Client Project/Site: E Loving Field Onsurez #2

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Mr. Brett Krehbiel

Authorized for release by:
9/20/2019 11:47:56 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

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Laboratory Job ID: 600-191578-1

Table of Contents

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

This data package is for Eurofins TestAmerica, Houston job number 600-191578-1 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		9/20/2019
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:	9/20/2019
Project Name:	E Loving Field Onsurez #2	Laboratory Job Number:	600-191578-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				R05D
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

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:	9/20/2019
Project Name:	E Loving Field Onsurez #2	Laboratory Job Number:	600-191578-1
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.
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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	9/20/2019
Project Name:	E Loving Field Onsurez #2	Laboratory Job Number:	600-191578-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER #[1]	Description
R05D	Method 300.0: The method blank for analytical batch 600-274458 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.
R07C	Method 300.0: 600-191578-1 MS and 600-191578-1 MSD recovered below QC limits for the following analyte: Chloride. Matrix interference is suspected.

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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).

Detection Check Standard EuroFins TestAmerica, Houston

Matrix: Water
Method: TX_1005
Prep Method: X_1005_W_Prep
Date Analyzed: 4/19/2019
Job #: 600-183721
TALS Batch: 263117
Units: mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
C6-C12	CHFID07	0.830	1.007	0.989	2
C6-C35	CHFID07	0.830	2.007	1.990	2
Over C12-C28	CHFID07	0.960	1.000	1.044	2

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Water
Method: EPA 300 / SW-846 9056
Date Analyzed: 5/16/2019
Job #: 600-183719
TALS Batch: 265145
Units: mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bromide	CHWC11	0.101	0.200	0.385	0.4
Chloride	CHWC11	0.053	0.200	0.126	0.4
Fluoride	CHWC11	0.060	0.200	0.139	0.2
Nitrate as N	CHWC11	0.025	0.100	0.236	0.2
Nitrite as N	CHWC11	0.030	0.400	0.016	0.2
Sulfate	CHWC11	0.096	0.400	0.473	0.5

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Detection Check Standard TestAmerica Houston

Matrix: Water
Method: 8260B_LL
Prep Method: 5030C
Date Analyzed: 4/17/2019
Job #: 600-183722
TALS Batch: 262989
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	CHVOAMS07	0.178	0.500	0.244	1
1,1,1-Trichloroethane	CHVOAMS07	0.209	0.500	0.311	1
1,1,2,2-Tetrachloroethane	CHVOAMS07	0.197	0.500	0.743	1
1,1,2-Trichloro-1,2,2-trifluoroethane	CHVOAMS01	0.210	0.500	0.370	1
1,1,2-Trichloroethane	CHVOAMS01	0.209	0.500	0.400	1
1,1-Dichloroethane	CHVOAMS07	0.168	0.500	0.317	1
1,1-Dichloroethene	CHVOAMS07	0.192	0.500	0.341	1
1,1-Dichloropropene	CHVOAMS07	0.191	0.500	0.313	1
1,2,3-Trichlorobenzene	CHVOAMS07	0.570	0.500	0.481	1
1,2,3-Trichloropropane	CHVOAMS07	0.290	1.000	0.508	1
1,2,3-Trimethylbenzene	CHVOAMS07	0.170	0.500	0.322	1
1,2,4-Trichlorobenzene	CHVOAMS01	0.177	0.500	0.432	1
1,2,4-Trimethylbenzene	CHVOAMS07	0.215	0.500	0.289	1
1,2-Dibromo-3-Chloropropane	CHVOAMS01	0.810	0.500	0.635	1
1,2-Dichlorobenzene	CHVOAMS07	0.153	0.500	0.278	1
1,2-Dichloroethane	CHVOAMS07	0.116	0.500	0.348	1
1,2-Dichloroethene, Total	CHVOAMS07	0.355	1.000	0.580	2
1,2-Dichloropropane	CHVOAMS07	0.136	0.500	0.305	1
1,3,5-Trichlorobenzene	CHVOAMS01	0.187	0.500	0.410	1
1,3,5-Trimethylbenzene	CHVOAMS07	0.210	0.500	0.626	1
1,3-Dichlorobenzene	CHVOAMS07	0.210	0.500	0.285	1
1,3-Dichloropropane	CHVOAMS07	0.220	0.500	0.263	1
1,3-Dichloropropene, Total	CHVOAMS07	0.273	1.000	0.610	1
1,4-Dichlorobenzene	CHVOAMS07	0.176	0.500	0.286	1
1,4-Dioxane	CHVOAMS07	5.390	10.000	8.869	50
1-Chlorohexane	CHVOAMS07	0.205	0.500	0.324	1
2,2-Dichloropropane	CHVOAMS07	0.258	0.500	0.336	1
2,3-dichlorobutane	CHVOAMS07	0.730	1.000	0.790	2
2-Butanone (MEK)	CHVOAMS07	0.760	1.000	1.216	2
2-Chloro-1,3-butadiene	CHVOAMS07	0.330	1.000	0.843	1
2-Chloroethyl vinyl ether	CHVOAMS07	0.500	1.000	1.173	2
2-Chlorotoluene	CHVOAMS07	0.226	0.500	0.543	1
2-Ethyl-1-Hexanol	CHVOAMS07	9.090	20.000	35.706	50
2-Ethyl-2-hexenal	CHVOAMS07	0.350	1.000	1.549	2
2-Hexanone	CHVOAMS07	0.265	1.000	0.829	2
2-Methyl-2-propanol	CHVOAMS07	1.820	5.000	3.492	20
2-Methyltetrahydrofuran	CHVOAMS07	1.560	2.500	3.038	5
2-Methyltetrahydropyran	CHVOAMS07	1.230	2.500	2.324	5
2-Nitropropane	CHVOAMS07	0.367	1.000	1.024	2
3-Chloro-1-propene	CHVOAMS07	0.231	0.500	0.282	2
4-Chlorotoluene	CHVOAMS01	0.210	0.500	0.420	1
4-Isopropyltoluene	CHVOAMS07	0.228	0.500	0.306	1
4-Methyl-2-pentanone (MIBK)	CHVOAMS07	0.348	1.000	0.921	2
Acetone	CHVOAMS07	0.447	1.000	0.509	5
Acetonitrile	CHVOAMS07	1.760	5.000	12.610	10
Acrolein	CHVOAMS01	0.980	2.500	2.399	5
Acrylonitrile	CHVOAMS07	0.957	5.000	2.296	10
Benzene	CHVOAMS07	0.176	0.500	0.300	1
Benzyl chloride	CHVOAMS07	0.306	0.500	0.316	1

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Detection Check Standard TestAmerica Houston

Matrix: Water
Method: 8260B_LL
Prep Method: 5030C
Date Analyzed: 4/17/2019
Job #: 600-183722
TALS Batch: 262989
Units: ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bromobenzene	CHVOAMS07	0.195	0.500	0.271	1
Bromoform	CHVOAMS01	0.151	0.500	0.549	1
Bromomethane	CHVOAMS07	0.250	0.500	1.585	2
Butadiene	CHVOAMS07	0.282	1.000	0.885	1
Carbon disulfide	CHVOAMS07	0.216	0.500	0.350	2
Carbon tetrachloride	CHVOAMS07	0.183	0.500	0.314	1
Chlorobenzene	CHVOAMS07	0.185	0.500	0.298	1
Chlorobromomethane	CHVOAMS07	0.162	0.500	0.321	1
Chlorodibromomethane	CHVOAMS07	0.119	0.500	0.294	1
Chloroethane	CHVOAMS07	0.240	0.500	0.210	2
Chloroform	CHVOAMS07	0.151	0.500	0.333	1
Chloromethane	CHVOAMS07	0.209	0.500	0.368	2
cis 2,3-dichlorobutane	CHVOAMS07	0.093	0.500	0.340	1
cis-1,2-Dichloroethene	CHVOAMS07	0.157	0.500	0.277	1
cis-1,3-Dichloropropene	CHVOAMS07	0.160	0.500	0.315	1
Cyclohexane	CHVOAMS07	0.221	0.500	0.354	1
Cyclohexanone	CHVOAMS07	8.640	25.000	26.874	50
Dibromomethane	CHVOAMS07	0.520	0.500	0.336	1
Dichlorobromomethane	CHVOAMS07	0.153	0.500	0.305	1
Dichlorodifluoromethane	CHVOAMS07	0.859	0.500	0.951	1
Dichlorofluoromethane	CHVOAMS07	0.244	0.500	0.306	1
Ethyl acetate	CHVOAMS07	0.378	1.000	0.862	2
Ethyl acrylate	CHVOAMS07	0.232	0.500	0.211	2
Ethyl ether	CHVOAMS07	0.103	0.500	0.293	1
Ethyl methacrylate	CHVOAMS07	0.260	0.500	0.430	2
Ethylbenzene	CHVOAMS07	0.212	0.500	0.283	1
Ethylene Dibromide	CHVOAMS07	0.111	0.500	0.301	1
Ethylene oxide	CHVOAMS07	2.490	5.000	4.545	10
Hexachlorobutadiene	CHVOAMS01	0.215	0.500	0.449	1
Hexane	CHVOAMS07	0.256	1.000	0.126	1
Iodomethane	CHVOAMS07	0.158	0.500	1.995	2
Isobutyl alcohol	CHVOAMS07	2.190	12.500	18.338	50
Isooctane	CHVOAMS07	0.257	0.500	0.367	1
Isopropyl alcohol	CHVOAMS07	3.720	5.000	3.448	10
Isopropyl ether	CHVOAMS07	0.141	0.500	0.236	1
Isopropylbenzene	CHVOAMS07	0.241	0.500	0.422	1
Methacrylonitrile	CHVOAMS07	1.160	5.000	2.500	10
Methyl acetate	CHVOAMS07	0.550	1.000	0.520	5
Methyl methacrylate	CHVOAMS07	0.220	1.000	0.795	2
Methyl tert-butyl ether	CHVOAMS07	0.105	0.500	0.299	1
Methylcyclohexane	CHVOAMS01	0.206	0.500	0.360	1
Methylene Chloride	CHVOAMS07	0.176	0.500	0.371	5
m-Xylene & p-Xylene	CHVOAMS07	0.205	0.500	0.296	1
Naphthalene	CHVOAMS07	0.129	0.500	0.740	2
n-Butyl acetate	CHVOAMS07	0.286	0.500	0.643	1
n-Butylbenzene	CHVOAMS07	0.212	0.500	0.296	1
n-Heptane	CHVOAMS07	0.265	0.500	0.327	1
N-Propylbenzene	CHVOAMS07	0.230	0.500	0.268	1
o-Xylene	CHVOAMS01	0.192	0.500	0.371	1

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Detection Check Standard

TestAmerica Houston

Matrix:	Water
Method:	8260B_LL
Prep Method:	5030C
Date Analyzed:	4/17/2019
Job #:	600-183722
TALS Batch:	262989
Units:	ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Propionitrile	CHVOAMS07	0.751	5.000	3.390	10
sec-Butylbenzene	CHVOAMS07	0.224	0.500	0.337	1
Styrene	CHVOAMS07	0.175	0.500	0.239	1
Tert-amyl methyl ether	CHVOAMS07	0.108	0.500	0.251	1
Tert-butyl ethyl ether	CHVOAMS07	0.125	0.500	0.248	1
tert-Butylbenzene	CHVOAMS01	0.216	0.500	0.389	1
Tetrachloroethene	CHVOAMS07	0.333	0.500	0.263	1
Tetrahydrofuran	CHVOAMS07	0.690	1.000	0.654	5
Tetrahydropyran	CHVOAMS07	1.560	2.500	3.072	5
Toluene	CHVOAMS07	0.198	0.500	0.318	1
trans 2,3-dichlorobutane	CHVOAMS07	0.103	0.500	0.446	1
trans-1,2-Dichloroethene	CHVOAMS07	0.192	0.500	0.302	1
trans-1,3-Dichloropropene	CHVOAMS07	0.137	0.500	0.299	1
trans-1,4-Dichloro-2-butene	CHVOAMS07	0.640	0.500	0.095	2
Trichloroethene	CHVOAMS07	0.138	0.500	0.355	1
Trichlorofluoromethane	CHVOAMS07	0.244	1.000	0.221	1
Trihalomethanes, Total	CHVOAMS07	0.566	2.000	0.930	5
Vinyl acetate	CHVOAMS07	0.854	1.000	0.484	2
Vinyl chloride	CHVOAMS07	0.248	0.500	0.322	2
Xylenes, Total	CHVOAMS07	0.366	1.000	0.300	2

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix:	Water
Method:	SM 2540C
Date Analyzed:	5/30/2019
Job #:	600-183719
TALS Batch:	266184
Units:	mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Total Dissolved Solids	MDLV Fail	MDLV Fail	MDLV Fail	MDLV Fail	MDLV Fail

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Job ID: 600-191578-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative
600-191578-1

Comments
No additional comments.

Receipt
The samples were received on 9/7/2019 10:49 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.7º C and 1.8º C.

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

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8015_M	Total Petroleum Hydrocarbon (GC)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
TX_1005_W_Prep	Extraction - Texas Total petroleum Hyrdocarbons	TCEQ	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TCEQ = Texas Commission of Environmental Quality

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-191578-1	POD1-W-190905	Water	09/05/19 17:34	09/07/19 10:49	
600-191578-2	POD2-W-190905	Water	09/05/19 15:49	09/07/19 10:49	
600-191578-3	POD3-W-190905	Water	09/05/19 16:45	09/07/19 10:49	
600-191578-4	POD4-W-190905	Water	09/05/19 14:24	09/07/19 10:49	
600-191578-5	EB1-W-190905	Water	09/05/19 14:50	09/07/19 10:49	
600-191578-6	DUP1-W-190905	Water	09/05/19 00:00	09/07/19 10:49	
600-191578-7	TB-1-W-190905	Water	09/05/19 00:00	09/07/19 10:49	

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Client Sample ID: POD1-W-190905 — Lab Sample ID: 600-191578-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2020		40.0	5.34	mg/L	100		300.0	Total/NA
Total Dissolved Solids	6790		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: POD2-W-190905 — Lab Sample ID: 600-191578-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2160		40.0	5.34	mg/L	100		300.0	Total/NA
Total Dissolved Solids	7010		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: POD3-W-190905 — Lab Sample ID: 600-191578-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1220		40.0	5.34	mg/L	100		300.0	Total/NA
Total Dissolved Solids	4960		40.0	40.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: POD4-W-190905 — Lab Sample ID: 600-191578-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1530		40.0	5.34	mg/L	100		300.0	Total/NA
Total Dissolved Solids	5560		40.0	40.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB1-W-190905 — Lab Sample ID: 600-191578-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.228	J	0.400	0.0534	mg/L	1		300.0	Total/NA
Total Dissolved Solids	21.0		10.0	10.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP1-W-190905 — Lab Sample ID: 600-191578-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1980	b	40.0	5.34	mg/L	100		300.0	Total/NA
Total Dissolved Solids	6620		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TB-1-W-190905 — Lab Sample ID: 600-191578-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Client Sample ID: POD1-W-190905 Lab Sample ID: 600-191578-1

Date Collected: 09/05/19 17:34 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 20:09	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 20:09	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 20:09	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*50 - 134*		*09/10/19 20:09*	*1*
Dibromofluoromethane	*100*		*62 - 130*		*09/10/19 20:09*	*1*
Toluene-d8 (Surr)	*75*		*70 - 130*		*09/10/19 20:09*	*1*
4-Bromofluorobenzene	*100*		*67 - 139*		*09/10/19 20:09*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.728	U	1.75	0.728	mg/L		09/18/19 07:53	09/18/19 12:53	1
Over C12-C28	0.842	U	1.75	0.842	mg/L		09/18/19 07:53	09/18/19 12:53	1
Over C28-C35	0.842	U	1.75	0.842	mg/L		09/18/19 07:53	09/18/19 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*70 - 130*	*09/18/19 07:53*	*09/18/19 12:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2020**		40.0	5.34	mg/L			09/12/19 16:21	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6790**		100	100	mg/L			09/10/19 13:48	1

Client Sample ID: POD2-W-190905 Lab Sample ID: 600-191578-2

Date Collected: 09/05/19 15:49 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 20:37	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 20:37	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 20:37	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 20:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*50 - 134*		*09/10/19 20:37*	*1*
Dibromofluoromethane	*110*		*62 - 130*		*09/10/19 20:37*	*1*
Toluene-d8 (Surr)	*80*		*70 - 130*		*09/10/19 20:37*	*1*
4-Bromofluorobenzene	*107*		*67 - 139*		*09/10/19 20:37*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.737	U	1.78	0.737	mg/L		09/18/19 07:53	09/18/19 14:11	1
Over C12-C28	0.852	U	1.78	0.852	mg/L		09/18/19 07:53	09/18/19 14:11	1
Over C28-C35	0.852	U	1.78	0.852	mg/L		09/18/19 07:53	09/18/19 14:11	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Client Sample ID: POD2-W-190905 Lab Sample ID: 600-191578-2

Date Collected: 09/05/19 15:49 **Matrix: Water**
Date Received: 09/07/19 10:49

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*94*		*70 - 130*	*09/18/19 07:53*	*09/18/19 14:11*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2160**		40.0	5.34	mg/L			09/11/19 11:13	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7010**		100	100	mg/L			09/10/19 13:48	1

Client Sample ID: POD3-W-190905 Lab Sample ID: 600-191578-3

Date Collected: 09/05/19 16:45 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 21:05	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 21:05	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 21:05	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 21:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*124*		*50 - 134*		*09/10/19 21:05*	*1*
Dibromofluoromethane	*108*		*62 - 130*		*09/10/19 21:05*	*1*
Toluene-d8 (Surr)	*79*		*70 - 130*		*09/10/19 21:05*	*1*
4-Bromofluorobenzene	*106*		*67 - 139*		*09/10/19 21:05*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.728	U	1.75	0.728	mg/L		09/18/19 07:53	09/18/19 14:51	1
Over C12-C28	0.842	U	1.75	0.842	mg/L		09/18/19 07:53	09/18/19 14:51	1
Over C28-C35	0.842	U	1.75	0.842	mg/L		09/18/19 07:53	09/18/19 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*105*		*70 - 130*	*09/18/19 07:53*	*09/18/19 14:51*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1220**		40.0	5.34	mg/L			09/11/19 11:33	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4960**		40.0	40.0	mg/L			09/10/19 13:48	1

Client Sample ID: POD4-W-190905 Lab Sample ID: 600-191578-4

Date Collected: 09/05/19 14:24 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 21:32	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 21:32	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 21:32	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Client Sample ID: POD4-W-190905 Lab Sample ID: 600-191578-4

Date Collected: 09/05/19 14:24 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*130*		*50 - 134*		*09/10/19 21:32*	*1*
Dibromofluoromethane	*114*		*62 - 130*		*09/10/19 21:32*	*1*
Toluene-d8 (Surr)	*88*		*70 - 130*		*09/10/19 21:32*	*1*
4-Bromofluorobenzene	*116*		*67 - 139*		*09/10/19 21:32*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.737	U	1.78	0.737	mg/L		09/18/19 07:53	09/18/19 15:31	1
Over C12-C28	0.852	U	1.78	0.852	mg/L		09/18/19 07:53	09/18/19 15:31	1
Over C28-C35	0.852	U	1.78	0.852	mg/L		09/18/19 07:53	09/18/19 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*70 - 130*	*09/18/19 07:53*	*09/18/19 15:31*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1530**		40.0	5.34	mg/L			09/11/19 11:53	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5560**		40.0	40.0	mg/L			09/10/19 13:48	1

Client Sample ID: EB1-W-190905 Lab Sample ID: 600-191578-5

Date Collected: 09/05/19 14:50 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 19:13	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 19:13	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 19:13	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*50 - 134*		*09/10/19 19:13*	*1*
Dibromofluoromethane	*107*		*62 - 130*		*09/10/19 19:13*	*1*
Toluene-d8 (Surr)	*77*		*70 - 130*		*09/10/19 19:13*	*1*
4-Bromofluorobenzene	*102*		*67 - 139*		*09/10/19 19:13*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.743	U	1.79	0.743	mg/L		09/18/19 07:53	09/18/19 16:11	1
Over C12-C28	0.860	U	1.79	0.860	mg/L		09/18/19 07:53	09/18/19 16:11	1
Over C28-C35	0.860	U	1.79	0.860	mg/L		09/18/19 07:53	09/18/19 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*70 - 130*	*09/18/19 07:53*	*09/18/19 16:11*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Client Sample ID: EB1-W-190905 Lab Sample ID: 600-191578-5

Date Collected: 09/05/19 14:50 **Matrix: Water**
Date Received: 09/07/19 10:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.228	J	0.400	0.0534	mg/L			09/11/19 12:13	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	21.0		10.0	10.0	mg/L			09/10/19 13:48	1

Client Sample ID: DUP1-W-190905 Lab Sample ID: 600-191578-6

Date Collected: 09/05/19 00:00 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 22:00	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 22:00	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 22:00	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*126*		*50 - 134*		*09/10/19 22:00*	*1*
Dibromofluoromethane	*114*		*62 - 130*		*09/10/19 22:00*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*09/10/19 22:00*	*1*
4-Bromofluorobenzene	*110*		*67 - 139*		*09/10/19 22:00*	*1*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.718	U	1.73	0.718	mg/L		09/18/19 07:53	09/18/19 16:52	1
Over C12-C28	0.830	U	1.73	0.830	mg/L		09/18/19 07:53	09/18/19 16:52	1
Over C28-C35	0.830	U	1.73	0.830	mg/L		09/18/19 07:53	09/18/19 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*70 - 130*	*09/18/19 07:53*	*09/18/19 16:52*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1980	b	40.0	5.34	mg/L			09/11/19 20:48	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6620		100	100	mg/L			09/11/19 14:20	1

Client Sample ID: TB-1-W-190905 Lab Sample ID: 600-191578-7

Date Collected: 09/05/19 00:00 **Matrix: Water**
Date Received: 09/07/19 10:49

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U *	1.00	0.176	ug/L			09/10/19 16:49	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 16:49	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 16:49	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 16:49	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Client Sample ID: TB-1-W-190905 **Lab Sample ID: 600-191578-7**
Date Collected: 09/05/19 00:00 **Matrix: Water**
Date Received: 09/07/19 10:49

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		50 - 134		09/10/19 16:49	1
Dibromofluoromethane	111		62 - 130		09/10/19 16:49	1
Toluene-d8 (Surr)	85		70 - 130		09/10/19 16:49	1
4-Bromofluorobenzene	98		67 - 139		09/10/19 16:49	1

Definitions/Glossary

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Analyte was not detected at or above the SDL.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-191578-1	POD1-W-190905	109	100	75	100
600-191578-2	POD2-W-190905	125	110	80	107
600-191578-3	POD3-W-190905	124	108	79	106
600-191578-4	POD4-W-190905	130	114	88	116
600-191578-5	EB1-W-190905	113	107	77	102
600-191578-6	DUP1-W-190905	126	114	84	110
600-191578-7	TB-1-W-190905	121	111	85	98
LCS 600-274325/4	Lab Control Sample	101	91	72	87
MB 600-274325/7	Method Blank	110	103	76	93

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH (70-130)
600-191578-1	POD1-W-190905	81
600-191578-2	POD2-W-190905	94
600-191578-3	POD3-W-190905	105
600-191578-4	POD4-W-190905	96
600-191578-5	EB1-W-190905	93
600-191578-6	DUP1-W-190905	83
LCS 600-275046/2-A	Lab Control Sample	94
LCSD 600-275046/3-A	Lab Control Sample Dup	88
MB 600-275046/1-A	Method Blank	99

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

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

Lab Sample ID: MB 600-274325/7
Matrix: Water
Analysis Batch: 274325

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.176	U	1.00	0.176	ug/L			09/10/19 15:21	1
Ethylbenzene	0.212	U	1.00	0.212	ug/L			09/10/19 15:21	1
Toluene	0.198	U	1.00	0.198	ug/L			09/10/19 15:21	1
Xylenes, Total	0.366	U	2.00	0.366	ug/L			09/10/19 15:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*50 - 134*		*09/10/19 15:21*	*1*
Dibromofluoromethane	*103*		*62 - 130*		*09/10/19 15:21*	*1*
Toluene-d8 (Surr)	*76*		*70 - 130*		*09/10/19 15:21*	*1*
4-Bromofluorobenzene	*93*		*67 - 139*		*09/10/19 15:21*	*1*

Lab Sample ID: LCS 600-274325/4
Matrix: Water
Analysis Batch: 274325

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	14.26	*	ug/L		143	70 - 130
Ethylbenzene	10.0	8.412		ug/L		84	70 - 130
Toluene	10.0	9.013		ug/L		90	70 - 130
Xylenes, Total	20.0	18.06		ug/L		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*50 - 134*
Dibromofluoromethane	*91*		*62 - 130*
Toluene-d8 (Surr)	*72*		*70 - 130*
4-Bromofluorobenzene	*87*		*67 - 139*

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-275046/1-A
Matrix: Water
Analysis Batch: 275099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275046

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.830	U	2.00	0.830	mg/L		09/18/19 07:53	09/18/19 14:51	1
Over C12-C28	0.960	U	2.00	0.960	mg/L		09/18/19 07:53	09/18/19 14:51	1
Over C28-C35	0.960	U	2.00	0.960	mg/L		09/18/19 07:53	09/18/19 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*70 - 130*	*09/18/19 07:53*	*09/18/19 14:51*	*1*

Lab Sample ID: LCS 600-275046/2-A
Matrix: Water
Analysis Batch: 275099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	33.6	28.85		mg/L		86	75 - 125
Over C12-C28	33.3	25.99		mg/L		78	75 - 125

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Method: 8015_M - Total Petroleum Hydrocarbon (GC) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	94		70 - 130

Lab Sample ID: LCSD 600-275046/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 275099 — **Prep Batch: 275046**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			33.6	25.22		mg/L		75	75 - 125	13	20
Over C12-C28			33.3	27.46		mg/L		82	75 - 125	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	88		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-274331/65 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 274331

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			09/11/19 09:33	1

Lab Sample ID: LCS 600-274331/66 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 274331

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			20.0	19.57		mg/L		98	90 - 110		

Lab Sample ID: 600-191578-1 MS — **Client Sample ID: POD1-W-190905**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 274331

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	22.2	J	1000	19.44	J N1	mg/L		-0.3	80 - 120		

Lab Sample ID: 600-191578-1 MSD — **Client Sample ID: POD1-W-190905**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 274331

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	22.2	J	1000	19.07	J N1	mg/L		-0.3	80 - 120	2	20

Lab Sample ID: MB 600-274458/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 274458

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.1894	J	0.400	0.0534	mg/L			09/11/19 16:28	1

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 600-274458/5
Matrix: Water
Analysis Batch: 274458

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.00		mg/L		100	90 - 110

Lab Sample ID: MB 600-274588/4
Matrix: Water
Analysis Batch: 274588

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			09/12/19 13:25	1

Lab Sample ID: LCS 600-274588/5
Matrix: Water
Analysis Batch: 274588

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.84		mg/L		99	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 600-274347/1
Matrix: Water
Analysis Batch: 274347

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			09/10/19 13:48	1

Lab Sample ID: LCS 600-274347/2
Matrix: Water
Analysis Batch: 274347

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1756		mg/L		98	90 - 110

Lab Sample ID: MB 600-274507/1
Matrix: Water
Analysis Batch: 274507

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			09/11/19 14:20	1

Lab Sample ID: LCS 600-274507/2
Matrix: Water
Analysis Batch: 274507

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1848		mg/L		103	90 - 110

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

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

Analyte	MQL	MDL	Units
Benzene	1.00	0.176	ug/L
Ethylbenzene	1.00	0.212	ug/L
Toluene	1.00	0.198	ug/L
Xylenes, Total	2.00	0.366	ug/L

Method: 8015_M - Total Petroleum Hydrocarbon (GC)

Prep: TX_1005_W_Prep

Analyte	MQL	MDL	Units
C6-C12	2.00	0.830	mg/L
Over C12-C28	2.00	0.960	mg/L
Over C28-C35	2.00	0.960	mg/L

Method: 300.0 - Anions, Ion Chromatography

Analyte	MQL	MDL	Units
Chloride	0.400	0.0534	mg/L

General Chemistry

Analyte	MQL	MDL	Units
Total Dissolved Solids	10.0	10.0	mg/L

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

GC/MS VOA

Analysis Batch: 274325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-1	POD1-W-190905	Total/NA	Water	8260B	
600-191578-2	POD2-W-190905	Total/NA	Water	8260B	
600-191578-3	POD3-W-190905	Total/NA	Water	8260B	
600-191578-4	POD4-W-190905	Total/NA	Water	8260B	
600-191578-5	EB1-W-190905	Total/NA	Water	8260B	
600-191578-6	DUP1-W-190905	Total/NA	Water	8260B	
600-191578-7	TB-1-W-190905	Total/NA	Water	8260B	
MB 600-274325/7	Method Blank	Total/NA	Water	8260B	
LCS 600-274325/4	Lab Control Sample	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 275046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-1	POD1-W-190905	Total/NA	Water	TX_1005_W_Prep	
600-191578-2	POD2-W-190905	Total/NA	Water	TX_1005_W_Prep	
600-191578-3	POD3-W-190905	Total/NA	Water	TX_1005_W_Prep	
600-191578-4	POD4-W-190905	Total/NA	Water	TX_1005_W_Prep	
600-191578-5	EB1-W-190905	Total/NA	Water	TX_1005_W_Prep	
600-191578-6	DUP1-W-190905	Total/NA	Water	TX_1005_W_Prep	
MB 600-275046/1-A	Method Blank	Total/NA	Water	TX_1005_W_Prep	
LCS 600-275046/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Prep	
LCSD 600-275046/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Prep	

Analysis Batch: 275084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-1	POD1-W-190905	Total/NA	Water	8015_M	275046
600-191578-2	POD2-W-190905	Total/NA	Water	8015_M	275046
600-191578-3	POD3-W-190905	Total/NA	Water	8015_M	275046
600-191578-4	POD4-W-190905	Total/NA	Water	8015_M	275046
600-191578-5	EB1-W-190905	Total/NA	Water	8015_M	275046
600-191578-6	DUP1-W-190905	Total/NA	Water	8015_M	275046

Analysis Batch: 275099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-275046/1-A	Method Blank	Total/NA	Water	8015_M	275046
LCS 600-275046/2-A	Lab Control Sample	Total/NA	Water	8015_M	275046
LCSD 600-275046/3-A	Lab Control Sample Dup	Total/NA	Water	8015_M	275046

HPLC/IC

Analysis Batch: 274331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-2	POD2-W-190905	Total/NA	Water	300.0	
600-191578-3	POD3-W-190905	Total/NA	Water	300.0	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

HPLC/IC (Continued)

Analysis Batch: 274331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-4	POD4-W-190905	Total/NA	Water	300.0	
600-191578-5	EB1-W-190905	Total/NA	Water	300.0	
MB 600-274331/65	Method Blank	Total/NA	Water	300.0	
LCS 600-274331/66	Lab Control Sample	Total/NA	Water	300.0	
600-191578-1 MS	POD1-W-190905	Total/NA	Water	300.0	
600-191578-1 MSD	POD1-W-190905	Total/NA	Water	300.0	

Analysis Batch: 274458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-6	DUP1-W-190905	Total/NA	Water	300.0	
MB 600-274458/4	Method Blank	Total/NA	Water	300.0	
LCS 600-274458/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 274588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-1	POD1-W-190905	Total/NA	Water	300.0	
MB 600-274588/4	Method Blank	Total/NA	Water	300.0	
LCS 600-274588/5	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 274347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-1	POD1-W-190905	Total/NA	Water	SM 2540C	
600-191578-2	POD2-W-190905	Total/NA	Water	SM 2540C	
600-191578-3	POD3-W-190905	Total/NA	Water	SM 2540C	
600-191578-4	POD4-W-190905	Total/NA	Water	SM 2540C	
600-191578-5	EB1-W-190905	Total/NA	Water	SM 2540C	
MB 600-274347/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-274347/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 274507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191578-6	DUP1-W-190905	Total/NA	Water	SM 2540C	
MB 600-274507/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-274507/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: E Loving Field Onsurez #2

Job ID: 600-191578-1

Client Sample ID: POD1-W-190905
Date Collected: 09/05/19 17:34
Date Received: 09/07/19 10:49

Lab Sample ID: 600-191578-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 20:09	KLV	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			275046	09/18/19 07:53	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	275084	09/18/19 12:53	W1N	TAL HOU
Total/NA	Analysis	300.0		100	274588	09/12/19 16:21	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	274347	09/10/19 13:48	TNL	TAL HOU

Client Sample ID: POD2-W-190905
Date Collected: 09/05/19 15:49
Date Received: 09/07/19 10:49

Lab Sample ID: 600-191578-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 20:37	KLV	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			275046	09/18/19 07:53	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	275084	09/18/19 14:11	W1N	TAL HOU
Total/NA	Analysis	300.0		100	274331	09/11/19 11:13	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	274347	09/10/19 13:48	TNL	TAL HOU

Client Sample ID: POD3-W-190905
Date Collected: 09/05/19 16:45
Date Received: 09/07/19 10:49

Lab Sample ID: 600-191578-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 21:05	KLV	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			275046	09/18/19 07:53	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	275084	09/18/19 14:51	W1N	TAL HOU
Total/NA	Analysis	300.0		100	274331	09/11/19 11:33	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	274347	09/10/19 13:48	TNL	TAL HOU

Client Sample ID: POD4-W-190905
Date Collected: 09/05/19 14:24
Date Received: 09/07/19 10:49

Lab Sample ID: 600-191578-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 21:32	KLV	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			275046	09/18/19 07:53	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	275084	09/18/19 15:31	W1N	TAL HOU
Total/NA	Analysis	300.0		100	274331	09/11/19 11:53	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	274347	09/10/19 13:48	TNL	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Client Sample ID: EB1-W-190905 Lab Sample ID: 600-191578-5

Date Collected: 09/05/19 14:50 **Matrix: Water**
Date Received: 09/07/19 10:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 19:13	KLV	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			275046	09/18/19 07:53	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	275084	09/18/19 16:11	W1N	TAL HOU
Total/NA	Analysis	300.0		1	274331	09/11/19 12:13	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	274347	09/10/19 13:48	TNL	TAL HOU

Client Sample ID: DUP1-W-190905 Lab Sample ID: 600-191578-6

Date Collected: 09/05/19 00:00 **Matrix: Water**
Date Received: 09/07/19 10:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 22:00	KLV	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			275046	09/18/19 07:53	RJV	TAL HOU
Total/NA	Analysis	8015_M		1	275084	09/18/19 16:52	W1N	TAL HOU
Total/NA	Analysis	300.0		100	274458	09/11/19 20:48	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	274507	09/11/19 14:20	TNL	TAL HOU

Client Sample ID: TB-1-W-190905 Lab Sample ID: 600-191578-7

Date Collected: 09/05/19 00:00 **Matrix: Water**
Date Received: 09/07/19 10:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274325	09/10/19 16:49	KLV	TAL HOU

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc. Job ID: 600-191578-1
Project/Site: E Loving Field Onsurez #2

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0759	08-04-20
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State	2019-073	09-01-20
Oklahoma	State Program	2018-052	08-31-20
Texas	NELAP	T104704223-18-23	10-31-19
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20
Utah	NELAP	TX000832019-5	07-31-20

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: Ryan Nunez / Charleston Shirley	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s): NA	COC No: 600-70833-19401.1
Client Contact: Mr. Brett Krehbiel	Phone: 806-543-1945	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #: 3006603
Address: 1004 North Big Spring Suite 121	Due Date Requested: NA			
City: Midland	TAT Requested (days): Standard TAT			
State, Zip: TX, 79701				
Phone: 916-786-5382(Tel)	PO #: Purchase Order not required			
Email: brett.krehbiel@arcadis.com	WO #: NA			
Project Name: E Loving Field	Project #: 60010841			
Site: Onsurez #2	SSOW#: NA			

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)	8260B_LL - BTEX Only	80150 TPH GRO	8015-TPH DRO	300- Chloride	2540C- TDS	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	A	N	A		
POD1-w-190905	9-5-19	1734	6	Water	N	N	X	X	X	X	X		
POD2-w-190905	9-5-19	1549	6	Water	N	N	X	X	X	X	X		
POD3-w-190905	9-5-19	1645	6	Water	N	N	X	X	X	X	X		
POD4-w-190905	9-5-19	1424	6	Water	N	N	X	X	X	X	X		
EB1-w-190905	9-5-19	1450	6	Water	N	N	X	X	X	X	X		
DUP1-w-190905	9-5-19	—	6	Water	N	N	X	X	X	X	X		
TB-1-w-190905	9-5-19	—	—	Water	N	N	X						
				Water									
				Water									
				Water									
				Water									

600-191578 Chain of Custody

RW 1-5-19

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
	9-6-19 / 1910	Arcadis		9-7-19 1049	
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
191578

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: Arcadis

UNPACKED BY: MT CARRIER/DRIVER: FEDEX '19 SEP 7 10:43

Custody Seal Present: ☐ YES ☐ NO Number of Coolers Received: 2

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
BW	Y / N	Y / N	1.7	168	+.1	1.8
BW	Y / N	Y / N	0.6			0.7
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☐ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☐ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☑ YES ☐ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓	

COMMENTS:

Analysis & containers do not match. Vein NCM.

9/9/19

7896 4779 1263
7896 4779 1274

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-191578-1

Login Number: 191578 **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	0.7, 1.8
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.

APPENDIX H

2020 Groundwater Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 600-205741-1
Client Project/Site: Chevron Onsurez #2

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Sarah Johnson

Authorized for release by:
6/18/2020 1:31:59 PM

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

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Laboratory Job ID: 600-205741-1

Table of Contents

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL HOU
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL HOU
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
3546	Microwave Extraction	SW846	TAL HOU
5030C	Purge and Trap for Solids	SW846	TAL HOU
5030C	Purge and Trap Methanol Dilution	SW846	TAL HOU
DI Leach	Deionized Water Leaching Procedure (Routine)	ASTM	TAL HOU

Protocol References:

ASTM = ASTM International

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

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-205741-1	SB-1-S-0-6"-20200526	Solid	05/26/20 11:31	05/27/20 09:47	
600-205741-2	SB-1-S-1-2'-20200526	Solid	05/26/20 11:40	05/27/20 09:47	
600-205741-3	SB-1-S-3-4'-20200526	Solid	05/26/20 11:45	05/27/20 09:47	
600-205741-4	SB-1-S-5-6'-20200526	Solid	05/26/20 11:50	05/27/20 09:47	
600-205741-5	SB-1-S-7-8'-20200526	Solid	05/26/20 11:55	05/27/20 09:47	
600-205741-6	SB-1-S-9-10'-20200526	Solid	05/26/20 12:00	05/27/20 09:47	
600-205741-7	SB-2-S-0-6"-20200526	Solid	05/26/20 12:20	05/27/20 09:47	
600-205741-8	SB-2-S-1-2'-20200526	Solid	05/26/20 12:25	05/27/20 09:47	
600-205741-9	SB-2-S-3-4'-20200526	Solid	05/26/20 12:30	05/27/20 09:47	
600-205741-10	SB-2-S-5-6'-20200526	Solid	05/26/20 12:35	05/27/20 09:47	
600-205741-11	SB-2-S-7-8'-20200526	Solid	05/26/20 12:40	05/27/20 09:47	
600-205741-12	SB-2-S-9-10'-20200526	Solid	05/26/20 12:45	05/27/20 09:47	

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-0-6"-20200526
Lab Sample ID: 600-205741-1
Date Collected: 05/26/20 11:31
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000670	U	0.00532	0.000670	mg/Kg		06/02/20 09:58	06/02/20 10:39	1
Ethylbenzene	0.00109	U	0.00532	0.00109	mg/Kg		06/02/20 09:58	06/02/20 10:39	1
Toluene	0.00147	U	0.00532	0.00147	mg/Kg		06/02/20 09:58	06/02/20 10:39	1
Xylenes, Total	0.00120	U	0.00532	0.00120	mg/Kg		06/02/20 09:58	06/02/20 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*61 - 130*	*06/02/20 09:58*	*06/02/20 10:39*	*1*
4-Bromofluorobenzene	*108*		*57 - 140*	*06/02/20 09:58*	*06/02/20 10:39*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*06/02/20 09:58*	*06/02/20 10:39*	*1*
Toluene-d8 (Surr)	*85*		*50 - 130*	*06/02/20 09:58*	*06/02/20 10:39*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**18.4**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**81.6**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-0-6"-20200526
Lab Sample ID: 600-205741-1
Date Collected: 05/26/20 11:31
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.6

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.728	U	1.24	0.728	mg/Kg	☼	05/28/20 10:22	05/29/20 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*70 - 130*	*05/28/20 10:22*	*05/29/20 14:42*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.08	U	10.1	2.08	mg/Kg	☼	06/03/20 15:12	06/04/20 13:50	1
C28-C36	**26.1**		10.1	6.09	mg/Kg	☼	06/03/20 15:12	06/12/20 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*114*		*60 - 140*	*06/03/20 15:12*	*06/04/20 13:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**767**	**F1**	24.5	3.27	mg/Kg	☼		06/10/20 17:06	5

Client Sample ID: SB-1-S-1-2'-20200526
Lab Sample ID: 600-205741-2
Date Collected: 05/26/20 11:40
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000635	U	0.00504	0.000635	mg/Kg		05/27/20 16:00	06/01/20 18:01	1
Ethylbenzene	0.00103	U	0.00504	0.00103	mg/Kg		05/27/20 16:00	06/01/20 18:01	1
Toluene	0.00139	U	0.00504	0.00139	mg/Kg		05/27/20 16:00	06/01/20 18:01	1
Xylenes, Total	0.00114	U	0.00504	0.00114	mg/Kg		05/27/20 16:00	06/01/20 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*61 - 130*	*05/27/20 16:00*	*06/01/20 18:01*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-1-2'-20200526
Lab Sample ID: 600-205741-2
Date Collected: 05/26/20 11:40
Matrix: Solid
Date Received: 05/27/20 09:47

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		57 - 140	05/27/20 16:00	06/01/20 18:01	1
Dibromofluoromethane	82		68 - 140	05/27/20 16:00	06/01/20 18:01	1
Toluene-d8 (Surr)	86		50 - 130	05/27/20 16:00	06/01/20 18:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.9		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	97.1		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-1-2'-20200526
Lab Sample ID: 600-205741-2
Date Collected: 05/26/20 11:40
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 97.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.569	U	0.970	0.569	mg/Kg	☼	05/28/20 10:22	05/29/20 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		70 - 130	05/28/20 10:22	05/29/20 15:07	1

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C28-C36	271		17.1	10.3	mg/Kg	☼	06/03/20 15:12	06/12/20 13:56	2

Method: 8015D - Diesel Range Organics (DRO) (GC) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	42.2		17.1	3.52	mg/Kg	☼	06/03/20 15:12	06/04/20 20:15	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	116		60 - 140	06/03/20 15:12	06/04/20 20:15	2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	819		20.6	2.75	mg/Kg	☼		06/10/20 18:07	5

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000625	U	0.00496	0.000625	mg/Kg		05/27/20 16:00	06/01/20 18:24	1
Ethylbenzene	0.00101	U	0.00496	0.00101	mg/Kg		05/27/20 16:00	06/01/20 18:24	1
Toluene	0.00137	U	0.00496	0.00137	mg/Kg		05/27/20 16:00	06/01/20 18:24	1
Xylenes, Total	0.00112	U	0.00496	0.00112	mg/Kg		05/27/20 16:00	06/01/20 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	05/27/20 16:00	06/01/20 18:24	1
4-Bromofluorobenzene	106		57 - 140	05/27/20 16:00	06/01/20 18:24	1
Dibromofluoromethane	84		68 - 140	05/27/20 16:00	06/01/20 18:24	1
Toluene-d8 (Surr)	86		50 - 130	05/27/20 16:00	06/01/20 18:24	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.5		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	89.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 89.5

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.608	U	1.04	0.608	mg/Kg	☼	05/28/20 10:22	05/29/20 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*109*		*70 - 130*	*05/28/20 10:22*	*05/29/20 15:57*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.90	U	9.22	1.90	mg/Kg	☼	06/03/20 15:12	06/04/20 15:00	1
C28-C36	55.0		9.22	5.55	mg/Kg	☼	06/03/20 15:12	06/12/20 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*115*		*60 - 140*	*06/03/20 15:12*	*06/04/20 15:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	429		22.3	2.98	mg/Kg	☼		06/10/20 18:27	5

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000625	U	0.00496	0.000625	mg/Kg		06/02/20 09:58	06/02/20 11:02	1
Ethylbenzene	0.00101	U	0.00496	0.00101	mg/Kg		06/02/20 09:58	06/02/20 11:02	1
Toluene	0.00137	U	0.00496	0.00137	mg/Kg		06/02/20 09:58	06/02/20 11:02	1
Xylenes, Total	0.00112	U	0.00496	0.00112	mg/Kg		06/02/20 09:58	06/02/20 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*61 - 130*	*06/02/20 09:58*	*06/02/20 11:02*	*1*
4-Bromofluorobenzene	*107*		*57 - 140*	*06/02/20 09:58*	*06/02/20 11:02*	*1*
Dibromofluoromethane	*85*		*68 - 140*	*06/02/20 09:58*	*06/02/20 11:02*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*	*06/02/20 09:58*	*06/02/20 11:02*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.0		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	81.0		1.0	1.0	%			06/01/20 09:21	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.0

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.719	U	1.23	0.719	mg/Kg	☼	05/28/20 10:22	05/29/20 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*05/28/20 10:22*	*05/29/20 16:21*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.11	U	10.2	2.11	mg/Kg	☼	06/03/20 15:12	06/04/20 15:35	1
C28-C36	**36.7**		10.2	6.16	mg/Kg	☼	06/03/20 15:12	06/12/20 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*60 - 140*	*06/03/20 15:12*	*06/04/20 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**195**		24.7	3.29	mg/Kg	☼		06/10/20 18:48	5

Client Sample ID: SB-1-S-7-8'-20200526
Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000626	U	0.00497	0.000626	mg/Kg		05/27/20 16:00	06/01/20 19:10	1
Ethylbenzene	0.00101	U	0.00497	0.00101	mg/Kg		05/27/20 16:00	06/01/20 19:10	1
Toluene	0.00137	U	0.00497	0.00137	mg/Kg		05/27/20 16:00	06/01/20 19:10	1
Xylenes, Total	0.00112	U	0.00497	0.00112	mg/Kg		05/27/20 16:00	06/01/20 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*05/27/20 16:00*	*06/01/20 19:10*	*1*
4-Bromofluorobenzene	*109*		*57 - 140*	*05/27/20 16:00*	*06/01/20 19:10*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*05/27/20 16:00*	*06/01/20 19:10*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*	*05/27/20 16:00*	*06/01/20 19:10*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.3**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**86.7**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-7-8'-20200526
Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 86.7

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.683	U	1.17	0.683	mg/Kg	☼	05/28/20 10:22	05/29/20 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*70 - 130*	*05/28/20 10:22*	*05/29/20 16:46*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-7-8'-20200526
Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 86.7

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.96	U	9.52	1.96	mg/Kg	☼	06/03/20 15:12	06/04/20 16:10	1
C28-C36	27.3		9.52	5.74	mg/Kg	☼	06/03/20 15:12	06/12/20 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*123*		*60 - 140*	*06/03/20 15:12*	*06/04/20 16:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	296		92.3	12.3	mg/Kg	☼		06/10/20 19:08	20

Client Sample ID: SB-1-S-9-10'-20200526
Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000615	U	0.00488	0.000615	mg/Kg		05/27/20 16:00	06/01/20 19:32	1
Ethylbenzene	0.000996	U	0.00488	0.000996	mg/Kg		05/27/20 16:00	06/01/20 19:32	1
Toluene	0.00135	U	0.00488	0.00135	mg/Kg		05/27/20 16:00	06/01/20 19:32	1
Xylenes, Total	0.00110	U	0.00488	0.00110	mg/Kg		05/27/20 16:00	06/01/20 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*05/27/20 16:00*	*06/01/20 19:32*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*05/27/20 16:00*	*06/01/20 19:32*	*1*
Dibromofluoromethane	*84*		*68 - 140*	*05/27/20 16:00*	*06/01/20 19:32*	*1*
Toluene-d8 (Surr)	*89*		*50 - 130*	*05/27/20 16:00*	*06/01/20 19:32*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.3		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	83.7		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-1-S-9-10'-20200526
Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 83.7

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.732	U	1.25	0.732	mg/Kg	☼	05/28/20 10:22	05/29/20 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*107*		*70 - 130*	*05/28/20 10:22*	*05/29/20 17:10*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.04	U	9.89	2.04	mg/Kg	☼	06/03/20 15:12	06/04/20 12:06	1
C28-C36	24.6		9.89	5.96	mg/Kg	☼	06/03/20 15:12	06/12/20 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*108*		*60 - 140*	*06/03/20 15:12*	*06/04/20 12:06*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-9-10'-20200526
Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 83.7

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	519		95.5	12.8	mg/Kg	☼		06/10/20 19:28	20

Client Sample ID: SB-2-S-0-6"-20200526
Lab Sample ID: 600-205741-7
Date Collected: 05/26/20 12:20
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000608	U	0.00483	0.000608	mg/Kg		05/27/20 16:00	06/01/20 19:55	1
Ethylbenzene	0.000985	U	0.00483	0.000985	mg/Kg		05/27/20 16:00	06/01/20 19:55	1
Toluene	0.00133	U	0.00483	0.00133	mg/Kg		05/27/20 16:00	06/01/20 19:55	1
Xylenes, Total	0.00109	U	0.00483	0.00109	mg/Kg		05/27/20 16:00	06/01/20 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*05/27/20 16:00*	*06/01/20 19:55*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*05/27/20 16:00*	*06/01/20 19:55*	*1*
Dibromofluoromethane	*83*		*68 - 140*	*05/27/20 16:00*	*06/01/20 19:55*	*1*
Toluene-d8 (Surr)	*85*		*50 - 130*	*05/27/20 16:00*	*06/01/20 19:55*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.6		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	84.4		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-0-6"-20200526
Lab Sample ID: 600-205741-7
Date Collected: 05/26/20 12:20
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 84.4

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.685	U	1.17	0.685	mg/Kg	☼	05/28/20 10:22	05/29/20 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*05/28/20 10:22*	*05/29/20 17:35*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.02	U	9.82	2.02	mg/Kg	☼	06/03/20 15:12	06/04/20 17:21	1
C28-C36	25.7		9.82	5.92	mg/Kg	☼	06/03/20 15:12	06/12/20 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*60 - 140*	*06/03/20 15:12*	*06/04/20 17:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	177		23.7	3.16	mg/Kg	☼		06/10/20 20:30	5

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-1-2'-20200526
Lab Sample ID: 600-205741-8
Date Collected: 05/26/20 12:25
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000601	U	0.00477	0.000601	mg/Kg		05/27/20 16:00	06/01/20 20:18	1
Ethylbenzene	0.000973	U	0.00477	0.000973	mg/Kg		05/27/20 16:00	06/01/20 20:18	1
Toluene	0.00132	U	0.00477	0.00132	mg/Kg		05/27/20 16:00	06/01/20 20:18	1
Xylenes, Total	0.00108	U	0.00477	0.00108	mg/Kg		05/27/20 16:00	06/01/20 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*61 - 130*	*05/27/20 16:00*	*06/01/20 20:18*	*1*
4-Bromofluorobenzene	*110*		*57 - 140*	*05/27/20 16:00*	*06/01/20 20:18*	*1*
Dibromofluoromethane	*85*		*68 - 140*	*05/27/20 16:00*	*06/01/20 20:18*	*1*
Toluene-d8 (Surr)	*91*		*50 - 130*	*05/27/20 16:00*	*06/01/20 20:18*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.9**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**89.1**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-1-2'-20200526
Lab Sample ID: 600-205741-8
Date Collected: 05/26/20 12:25
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 89.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.670	U	1.14	0.670	mg/Kg	☼	05/28/20 10:22	05/29/20 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*05/28/20 10:22*	*05/29/20 17:59*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.91	U	9.26	1.91	mg/Kg	☼	06/03/20 15:12	06/04/20 17:56	1
C28-C36	**23.6**		9.26	5.58	mg/Kg	☼	06/03/20 15:12	06/12/20 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*120*		*60 - 140*	*06/03/20 15:12*	*06/04/20 17:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**319**		22.4	3.00	mg/Kg	☼		06/10/20 20:50	5

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000636	U	0.00505	0.000636	mg/Kg		05/27/20 16:00	06/01/20 20:40	1
Ethylbenzene	0.00103	U	0.00505	0.00103	mg/Kg		05/27/20 16:00	06/01/20 20:40	1
Toluene	0.00139	U	0.00505	0.00139	mg/Kg		05/27/20 16:00	06/01/20 20:40	1
Xylenes, Total	0.00114	U	0.00505	0.00114	mg/Kg		05/27/20 16:00	06/01/20 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*05/27/20 16:00*	*06/01/20 20:40*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		57 - 140	05/27/20 16:00	06/01/20 20:40	1
Dibromofluoromethane	83		68 - 140	05/27/20 16:00	06/01/20 20:40	1
Toluene-d8 (Surr)	87		50 - 130	05/27/20 16:00	06/01/20 20:40	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.3		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	79.7		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 79.7

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.751	U	1.28	0.751	mg/Kg	☼	05/28/20 10:22	05/30/20 08:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	106		70 - 130	05/28/20 10:22	05/30/20 08:13	1

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.14	U	10.4	2.14	mg/Kg	☼	06/03/20 15:12	06/04/20 18:30	1
C28-C36	26.6		10.4	6.26	mg/Kg	☼	06/03/20 15:12	06/12/20 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	116		60 - 140	06/03/20 15:12	06/04/20 18:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	891		100	13.4	mg/Kg	☼		06/10/20 21:10	20

Client Sample ID: SB-2-S-5-6'-20200526
Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000633	U	0.00502	0.000633	mg/Kg		05/27/20 16:00	06/01/20 21:03	1
Ethylbenzene	0.00102	U	0.00502	0.00102	mg/Kg		05/27/20 16:00	06/01/20 21:03	1
Toluene	0.00139	U	0.00502	0.00139	mg/Kg		05/27/20 16:00	06/01/20 21:03	1
Xylenes, Total	0.00113	U	0.00502	0.00113	mg/Kg		05/27/20 16:00	06/01/20 21:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130	05/27/20 16:00	06/01/20 21:03	1
4-Bromofluorobenzene	106		57 - 140	05/27/20 16:00	06/01/20 21:03	1
Dibromofluoromethane	84		68 - 140	05/27/20 16:00	06/01/20 21:03	1
Toluene-d8 (Surr)	87		50 - 130	05/27/20 16:00	06/01/20 21:03	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-205741-1
Project/Site: Chevron Onsurez #2

Client Sample ID: SB-2-S-5-6'-20200526 Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35 **Matrix: Solid**
Date Received: 05/27/20 09:47

General Chemistry (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-5-6'-20200526 Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35 **Matrix: Solid**
Date Received: 05/27/20 09:47 **Percent Solids: 81.5**

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.771	U	1.32	0.771	mg/Kg	☼	05/29/20 11:16	05/30/20 08:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*70 - 130*	*05/29/20 11:16*	*05/30/20 08:37*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.09	U	10.2	2.09	mg/Kg	☼	06/03/20 15:12	06/04/20 19:06	1
C28-C36	24.7		10.2	6.12	mg/Kg	☼	06/03/20 15:12	06/12/20 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*110*		*60 - 140*	*06/03/20 15:12*	*06/04/20 19:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	631		98.1	13.1	mg/Kg	☼		06/10/20 21:31	20

Client Sample ID: SB-2-S-7-8'-20200526 Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40 **Matrix: Solid**
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000633	U	0.00502	0.000633	mg/Kg		05/27/20 16:00	06/01/20 21:26	1
Ethylbenzene	0.00102	U	0.00502	0.00102	mg/Kg		05/27/20 16:00	06/01/20 21:26	1
Toluene	0.00139	U	0.00502	0.00139	mg/Kg		05/27/20 16:00	06/01/20 21:26	1
Xylenes, Total	0.00113	U	0.00502	0.00113	mg/Kg		05/27/20 16:00	06/01/20 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*61 - 130*	*05/27/20 16:00*	*06/01/20 21:26*	*1*
4-Bromofluorobenzene	*103*		*57 - 140*	*05/27/20 16:00*	*06/01/20 21:26*	*1*
Dibromofluoromethane	*82*		*68 - 140*	*05/27/20 16:00*	*06/01/20 21:26*	*1*
Toluene-d8 (Surr)	*85*		*50 - 130*	*05/27/20 16:00*	*06/01/20 21:26*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.5		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	82.5		1.0	1.0	%			06/01/20 09:21	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-7-8'-20200526

Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.5

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.696	U	1.19	0.696	mg/Kg	☼	05/29/20 11:16	05/30/20 09:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*70 - 130*	*05/29/20 11:16*	*05/30/20 09:01*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3.11	U	15.1	3.11	mg/Kg	☼	06/08/20 12:04	06/09/20 15:15	1
C28-C36	**16.9**		10.0	6.03	mg/Kg	☼	06/03/20 15:12	06/12/20 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*60 - 140*	*06/08/20 12:04*	*06/09/20 15:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**734**	**F1**	96.9	12.9	mg/Kg	☼		06/10/20 21:51	20

Client Sample ID: SB-2-S-9-10'-20200526

Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg		05/27/20 16:00	06/01/20 21:48	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg		05/27/20 16:00	06/01/20 21:48	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg		05/27/20 16:00	06/01/20 21:48	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg		05/27/20 16:00	06/01/20 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*	*05/27/20 16:00*	*06/01/20 21:48*	*1*
4-Bromofluorobenzene	*108*		*57 - 140*	*05/27/20 16:00*	*06/01/20 21:48*	*1*
Dibromofluoromethane	*87*		*68 - 140*	*05/27/20 16:00*	*06/01/20 21:48*	*1*
Toluene-d8 (Surr)	*89*		*50 - 130*	*05/27/20 16:00*	*06/01/20 21:48*	*1*

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.9**		1.0	1.0	%			06/01/20 09:21	1
Percent Solids	**82.1**		1.0	1.0	%			06/01/20 09:21	1

Client Sample ID: SB-2-S-9-10'-20200526

Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.675	U	1.15	0.675	mg/Kg	☼	05/29/20 11:16	05/30/20 09:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*05/29/20 11:16*	*05/30/20 09:26*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-9-10'-20200526

Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.1

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	36.9		30.3	6.25	mg/Kg	☼	06/08/20 12:04	06/09/20 15:51	1
C28-C36	52.7		30.3	18.3	mg/Kg	☼	06/08/20 12:04	06/12/20 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*60 - 140*	*06/08/20 12:04*	*06/09/20 15:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	556		48.7	6.50	mg/Kg	☼		06/10/20 22:52	10

Definitions/Glossary

Client: ARCADIS U.S., Inc. Job ID: 600-205741-1
Project/Site: Chevron Onsurez #2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (61-130)	BFB (57-140)	DBFM (68-140)	TOL (50-130)
600-205741-1	SB-1-S-0-6"-20200526	90	108	84	85
600-205741-2	SB-1-S-1-2'-20200526	87	106	82	86
600-205741-3	SB-1-S-3-4'-20200526	85	106	84	86
600-205741-4	SB-1-S-5-6'-20200526	88	107	85	87
600-205741-5	SB-1-S-7-8'-20200526	83	109	84	87
600-205741-6	SB-1-S-9-10'-20200526	83	103	84	89
600-205741-7	SB-2-S-0-6"-20200526	85	103	83	85
600-205741-8	SB-2-S-1-2'-20200526	86	110	85	91
600-205741-9	SB-2-S-3-4'-20200526	85	106	83	87
600-205741-10	SB-2-S-5-6'-20200526	87	106	84	87
600-205741-11	SB-2-S-7-8'-20200526	83	103	82	85
600-205741-12	SB-2-S-9-10'-20200526	85	108	87	89
LCS 600-295568/3	Lab Control Sample	85	111	88	92
LCS 600-295613/3	Lab Control Sample	90	110	88	90
LCSD 600-295568/4	Lab Control Sample Dup	80	101	84	90
LCSD 600-295613/4	Lab Control Sample Dup	93	110	89	90
MB 600-295568/6	Method Blank	85	108	83	89
MB 600-295613/6	Method Blank	103	107	88	87

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TFT1 (70-130)
600-205741-1	SB-1-S-0-6"-20200526	93
600-205741-2	SB-1-S-1-2'-20200526	105
600-205741-3	SB-1-S-3-4'-20200526	109
600-205741-4	SB-1-S-5-6'-20200526	99
600-205741-5	SB-1-S-7-8'-20200526	108
600-205741-6	SB-1-S-9-10'-20200526	107
600-205741-7	SB-2-S-0-6"-20200526	98
600-205741-8	SB-2-S-1-2'-20200526	99
600-205741-9	SB-2-S-3-4'-20200526	106
600-205741-10	SB-2-S-5-6'-20200526	103
600-205741-11	SB-2-S-7-8'-20200526	100
600-205741-12	SB-2-S-9-10'-20200526	99
LCS 600-295090/1-A	Lab Control Sample	95
LCSD 600-295090/2-A	Lab Control Sample Dup	94
MB 600-295090/3-A	Method Blank	93

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Surrogate Summary

Client: ARCADIS U.S., Inc. Job ID: 600-205741-1
Project/Site: Chevron Onsurez #2

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

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	OTPH (60-140)						
600-205741-1	SB-1-S-0-6"-20200526	114						
600-205741-2 - DL	SB-1-S-1-2'-20200526	116						
600-205741-3	SB-1-S-3-4'-20200526	115						
600-205741-4	SB-1-S-5-6'-20200526	100						
600-205741-5	SB-1-S-7-8'-20200526	123						
600-205741-6	SB-1-S-9-10'-20200526	108						
600-205741-6 MS	SB-1-S-9-10'-20200526	127						
600-205741-6 MS	SB-1-S-9-10'-20200526	130						
600-205741-6 MS	SB-1-S-9-10'-20200526	125						
600-205741-6 MSD	SB-1-S-9-10'-20200526	121						
600-205741-6 MSD	SB-1-S-9-10'-20200526	127						
600-205741-6 MSD	SB-1-S-9-10'-20200526	117						
600-205741-7	SB-2-S-0-6"-20200526	102						
600-205741-8	SB-2-S-1-2'-20200526	120						
600-205741-9	SB-2-S-3-4'-20200526	116						
600-205741-10	SB-2-S-5-6'-20200526	110						
600-205741-11	SB-2-S-7-8'-20200526	84						
600-205741-12	SB-2-S-9-10'-20200526	86						
LCS 600-295786/2-A	Lab Control Sample	73						
LCS 600-295786/2-A	Lab Control Sample	132						
LCS 600-295786/2-A	Lab Control Sample	98						
LCS 600-296079/2-A	Lab Control Sample	101						
LCS 600-296079/2-A	Lab Control Sample	114						
LCSD 600-296079/3-A	Lab Control Sample Dup	107						
LCSD 600-296079/3-A	Lab Control Sample Dup	111						
MB 600-295786/1-A	Method Blank	138						
MB 600-295786/1-A	Method Blank	123						
MB 600-295786/1-A	Method Blank	91						
MB 600-296079/1-A	Method Blank	98						
MB 600-296079/1-A	Method Blank	95						

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 600-295568/6
Matrix: Solid
Analysis Batch: 295568

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			06/01/20 14:59	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			06/01/20 14:59	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			06/01/20 14:59	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			06/01/20 14:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*		*06/01/20 14:59*	*1*
4-Bromofluorobenzene	*108*		*57 - 140*		*06/01/20 14:59*	*1*
Dibromofluoromethane	*83*		*68 - 140*		*06/01/20 14:59*	*1*
Toluene-d8 (Surr)	*89*		*50 - 130*		*06/01/20 14:59*	*1*

Lab Sample ID: LCS 600-295568/3
Matrix: Solid
Analysis Batch: 295568

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	0.04508		mg/Kg		90	70 - 131
Ethylbenzene	0.0500	0.04410		mg/Kg		88	66 - 130
Toluene	0.0500	0.04345		mg/Kg		87	67 - 130
Xylenes, Total	0.100	0.08787		mg/Kg		88	63 - 130
m-Xylene & p-Xylene	0.0500	0.04359		mg/Kg		87	64 - 130
o-Xylene	0.0500	0.04428		mg/Kg		89	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*
4-Bromofluorobenzene	*111*		*57 - 140*
Dibromofluoromethane	*88*		*68 - 140*
Toluene-d8 (Surr)	*92*		*50 - 130*

Lab Sample ID: LCSD 600-295568/4
Matrix: Solid
Analysis Batch: 295568

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	0.04399		mg/Kg		88	70 - 131	2	30
Ethylbenzene	0.0500	0.04094		mg/Kg		82	66 - 130	7	30
Toluene	0.0500	0.04170		mg/Kg		83	67 - 130	4	30
Xylenes, Total	0.100	0.08524		mg/Kg		85	63 - 130	3	30
m-Xylene & p-Xylene	0.0500	0.04258		mg/Kg		85	64 - 130	2	30
o-Xylene	0.0500	0.04266		mg/Kg		85	62 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*61 - 130*
4-Bromofluorobenzene	*101*		*57 - 140*
Dibromofluoromethane	*84*		*68 - 140*
Toluene-d8 (Surr)	*90*		*50 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: MB 600-295613/6
Matrix: Solid
Analysis Batch: 295613

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			06/02/20 09:54	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			06/02/20 09:54	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			06/02/20 09:54	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			06/02/20 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*61 - 130*		*06/02/20 09:54*	*1*
4-Bromofluorobenzene	*107*		*57 - 140*		*06/02/20 09:54*	*1*
Dibromofluoromethane	*88*		*68 - 140*		*06/02/20 09:54*	*1*
Toluene-d8 (Surr)	*87*		*50 - 130*		*06/02/20 09:54*	*1*

Lab Sample ID: LCS 600-295613/3
Matrix: Solid
Analysis Batch: 295613

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	0.04956		mg/Kg		99	70 - 131
Ethylbenzene	0.0500	0.04526		mg/Kg		91	66 - 130
Toluene	0.0500	0.04524		mg/Kg		90	67 - 130
Xylenes, Total	0.100	0.09186		mg/Kg		92	63 - 130
m-Xylene & p-Xylene	0.0500	0.04628		mg/Kg		93	64 - 130
o-Xylene	0.0500	0.04558		mg/Kg		91	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*61 - 130*
4-Bromofluorobenzene	*110*		*57 - 140*
Dibromofluoromethane	*88*		*68 - 140*
Toluene-d8 (Surr)	*90*		*50 - 130*

Lab Sample ID: LCSD 600-295613/4
Matrix: Solid
Analysis Batch: 295613

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	0.04647		mg/Kg		93	70 - 131	6	30
Ethylbenzene	0.0500	0.04234		mg/Kg		85	66 - 130	7	30
Toluene	0.0500	0.04181		mg/Kg		84	67 - 130	8	30
Xylenes, Total	0.100	0.08456		mg/Kg		85	63 - 130	8	30
m-Xylene & p-Xylene	0.0500	0.04263		mg/Kg		85	64 - 130	8	30
o-Xylene	0.0500	0.04193		mg/Kg		84	62 - 130	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 130*
4-Bromofluorobenzene	*110*		*57 - 140*
Dibromofluoromethane	*89*		*68 - 140*
Toluene-d8 (Surr)	*90*		*50 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 600-295090/3-A
Matrix: Solid
Analysis Batch: 295416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295090

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.586	U	1.00	0.586	mg/Kg		05/28/20 10:22	05/29/20 09:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*70 - 130*	*05/28/20 10:22*	*05/29/20 09:01*	*1*

Lab Sample ID: LCS 600-295090/1-A
Matrix: Solid
Analysis Batch: 295416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	5.04	5.822		mg/Kg		116	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*95*		*70 - 130*

Lab Sample ID: LCSD 600-295090/2-A
Matrix: Solid
Analysis Batch: 295416

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 295090

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	5.04	6.059		mg/Kg		120	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*94*		*70 - 130*

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

Lab Sample ID: MB 600-295786/1-A
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295786

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.25	1.70	mg/Kg		06/03/20 15:12	06/04/20 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*138*		*60 - 140*	*06/03/20 15:12*	*06/04/20 10:46*	*1*

Lab Sample ID: MB 600-295786/1-A
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295786

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.25	1.70	mg/Kg		06/03/20 15:12	06/04/20 17:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*123*		*60 - 140*	*06/03/20 15:12*	*06/04/20 17:21*	*1*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: MB 600-295786/1-A
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295786

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.25	1.70	mg/Kg		06/03/20 15:12	06/12/20 12:10	1
C28-C36	4.97	U	8.25	4.97	mg/Kg		06/03/20 15:12	06/12/20 12:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*60 - 140*	*06/03/20 15:12*	*06/12/20 12:10*	*1*

Lab Sample ID: LCS 600-295786/2-A
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.5	71.32		mg/Kg		107	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*73*		*60 - 140*

Lab Sample ID: LCS 600-295786/2-A
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.5	55.34		mg/Kg		83	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*132*		*60 - 140*

Lab Sample ID: LCS 600-295786/2-A
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.5	51.49		mg/Kg		77	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*98*		*60 - 140*

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.04	U	79.4	95.25		mg/Kg	☼	120	66 - 134

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	127		60 - 140

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.04	U	79.4	67.78		mg/Kg	☼	85	66 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	130		60 - 140

Lab Sample ID: 600-205741-6 MS
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	4.95	J	79.4	73.37		mg/Kg	☼	86	66 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	125		60 - 140

Lab Sample ID: 600-205741-6 MSD
Matrix: Solid
Analysis Batch: 293250

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2.04	U	79.3	91.09		mg/Kg	☼	115	66 - 134	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	121		60 - 140

Lab Sample ID: 600-205741-6 MSD
Matrix: Solid
Analysis Batch: 295826

Client Sample ID: SB-1-S-9-10'-20200526
Prep Type: Total/NA
Prep Batch: 295786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2.04	U	79.3	70.62		mg/Kg	☼	89	66 - 134	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	127		60 - 140

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: 600-205741-6 MSD — **Client Sample ID: SB-1-S-9-10'-20200526**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296478 — **Prep Batch: 295786**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	4.95	J	79.3	70.01		mg/Kg	☼	82	66 - 134	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*117*		*60 - 140*

Lab Sample ID: MB 600-296079/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296178 — **Prep Batch: 296079**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.71	U	8.30	1.71	mg/Kg		06/08/20 12:04	06/09/20 13:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*60 - 140*	*06/08/20 12:04*	*06/09/20 13:30*	*1*

Lab Sample ID: MB 600-296079/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296478 — **Prep Batch: 296079**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.71	U	8.30	1.71	mg/Kg		06/08/20 12:04	06/12/20 20:53	1
C28-C36	5.00	U	8.30	5.00	mg/Kg		06/08/20 12:04	06/12/20 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*60 - 140*	*06/08/20 12:04*	*06/12/20 20:53*	*1*

Lab Sample ID: LCS 600-296079/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296178 — **Prep Batch: 296079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.8	71.58		mg/Kg		107	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*101*		*60 - 140*

Lab Sample ID: LCS 600-296079/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 296478 — **Prep Batch: 296079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.8	59.49		mg/Kg		89	66 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*114*		*60 - 140*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

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

Lab Sample ID: LCSD 600-296079/3-A
Matrix: Solid
Analysis Batch: 296178

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 296079

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			66.7	76.29		mg/Kg		114	66 - 134	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*107*		*60 - 140*

Lab Sample ID: LCSD 600-296079/3-A
Matrix: Solid
Analysis Batch: 296478

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 296079

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			66.7	59.92		mg/Kg		90	66 - 134	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*111*		*60 - 140*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-296298/1-A
Matrix: Solid
Analysis Batch: 296246

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			06/10/20 09:17	1

Lab Sample ID: LCS 600-296298/2-A
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	181.7		mg/Kg		91	90 - 110		

Lab Sample ID: 600-205741-1 MS
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-1-S-0-6"-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	767	F1	613	1517	F1	mg/Kg	☼	122	80 - 120		

Lab Sample ID: 600-205741-1 MSD
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-1-S-0-6"-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	767	F1	613	1565	F1	mg/Kg	☼	130	80 - 120	3	20

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 600-205741-11 MS
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-2-S-7-8'-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	734	F1	2420	2316	F1	mg/Kg	☼	65	80 - 120		

Lab Sample ID: 600-205741-11 MSD
Matrix: Solid
Analysis Batch: 296246

Client Sample ID: SB-2-S-7-8'-20200526
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	734	F1	2420	2401	F1	mg/Kg	☼	69	80 - 120	4	20

Method: 2540B - Percent Moisture

Lab Sample ID: 600-205741-8 DU
Matrix: Solid
Analysis Batch: 295535

Client Sample ID: SB-2-S-1-2'-20200526
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	10.9			10.5		%				4	20
Percent Solids	89.1			89.5		%				0.4	20

Lab Sample ID: 600-205741-11 DU
Matrix: Solid
Analysis Batch: 295535

Client Sample ID: SB-2-S-7-8'-20200526
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	17.5			16.9		%				4	20
Percent Solids	82.5			83.1		%				0.7	20

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Prep: 5030C

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: 8015D - Gasoline Range Organics (GRO) (GC)

Prep: 5030C

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	1.00	0.586	mg/Kg

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

Prep: 3546

Analyte	MQL	MDL	Units
C28-C36	8.30	5.00	mg/Kg
Diesel Range Organics [C10-C28]	8.30	1.71	mg/Kg

Method: 300.0 - 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: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC/MS VOA

Prep Batch: 295295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	5030C	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	5030C	
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	5030C	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	5030C	

Analysis Batch: 295568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	8260C	295295
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8260C	295295
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8260C	295295
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8260C	295295
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8260C	295295
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8260C	295295
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8260C	295295
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8260C	295295
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8260C	295295
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8260C	295295
MB 600-295568/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-295568/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-295568/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 295613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8260C	295651
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8260C	295651
MB 600-295613/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-295613/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-295613/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Prep Batch: 295651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	5030C	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	5030C	

GC VOA

Prep Batch: 295090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	5030C	
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	5030C	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	5030C	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	5030C	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC VOA (Continued)

Prep Batch: 295090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	5030C	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	5030C	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	5030C	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	5030C	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	5030C	
MB 600-295090/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 600-295090/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 600-295090/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 295416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8015D	295090
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	8015D	295090
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8015D	295090
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8015D	295090
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8015D	295090
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295090
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8015D	295090
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8015D	295090
MB 600-295090/3-A	Method Blank	Total/NA	Solid	8015D	295090
LCS 600-295090/1-A	Lab Control Sample	Total/NA	Solid	8015D	295090
LCSD 600-295090/2-A	Lab Control Sample Dup	Total/NA	Solid	8015D	295090

Analysis Batch: 295498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8015D	295090
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8015D	295090
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8015D	295090
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8015D	295090

GC Semi VOA

Analysis Batch: 293250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-2 - DL	SB-1-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8015D	295786
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8015D	295786
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8015D	295786
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8015D	295786
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8015D	295786
MB 600-295786/1-A	Method Blank	Total/NA	Solid	8015D	295786
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	8015D	295786
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC Semi VOA

Prep Batch: 295786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	3546	
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	3546	
600-205741-2 - DL	SB-1-S-1-2'-20200526	Total/NA	Solid	3546	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	3546	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	3546	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	3546	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	3546	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	3546	
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	3546	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	3546	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	3546	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	3546	
MB 600-295786/1-A	Method Blank	Total/NA	Solid	3546	
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	3546	
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	3546	
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	3546	

Analysis Batch: 295826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-295786/1-A	Method Blank	Total/NA	Solid	8015D	295786
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	8015D	295786
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786

Prep Batch: 296079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	3546	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	3546	
MB 600-296079/1-A	Method Blank	Total/NA	Solid	3546	
LCS 600-296079/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 600-296079/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 296178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8015D	296079
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8015D	296079
MB 600-296079/1-A	Method Blank	Total/NA	Solid	8015D	296079
LCS 600-296079/2-A	Lab Control Sample	Total/NA	Solid	8015D	296079
LCSD 600-296079/3-A	Lab Control Sample Dup	Total/NA	Solid	8015D	296079

Analysis Batch: 296478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	8015D	295786
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	8015D	295786
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	8015D	295786
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	8015D	295786
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	8015D	295786
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	8015D	295786

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

GC Semi VOA (Continued)

Analysis Batch: 296478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	8015D	295786
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	8015D	295786
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	8015D	296079
MB 600-295786/1-A	Method Blank	Total/NA	Solid	8015D	295786
MB 600-296079/1-A	Method Blank	Total/NA	Solid	8015D	296079
LCS 600-295786/2-A	Lab Control Sample	Total/NA	Solid	8015D	295786
LCS 600-296079/2-A	Lab Control Sample	Total/NA	Solid	8015D	296079
LCSD 600-296079/3-A	Lab Control Sample Dup	Total/NA	Solid	8015D	296079
600-205741-6 MS	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786
600-205741-6 MSD	SB-1-S-9-10'-20200526	Total/NA	Solid	8015D	295786

HPLC/IC

Analysis Batch: 296246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-2	SB-1-S-1-2'-20200526	Soluble	Solid	300.0	296298
600-205741-3	SB-1-S-3-4'-20200526	Soluble	Solid	300.0	296298
600-205741-4	SB-1-S-5-6'-20200526	Soluble	Solid	300.0	296298
600-205741-5	SB-1-S-7-8'-20200526	Soluble	Solid	300.0	296298
600-205741-6	SB-1-S-9-10'-20200526	Soluble	Solid	300.0	296298
600-205741-7	SB-2-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-8	SB-2-S-1-2'-20200526	Soluble	Solid	300.0	296298
600-205741-9	SB-2-S-3-4'-20200526	Soluble	Solid	300.0	296298
600-205741-10	SB-2-S-5-6'-20200526	Soluble	Solid	300.0	296298
600-205741-11	SB-2-S-7-8'-20200526	Soluble	Solid	300.0	296298
600-205741-12	SB-2-S-9-10'-20200526	Soluble	Solid	300.0	296298
MB 600-296298/1-A	Method Blank	Soluble	Solid	300.0	296298
LCS 600-296298/2-A	Lab Control Sample	Soluble	Solid	300.0	296298
600-205741-1 MS	SB-1-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-1 MSD	SB-1-S-0-6"-20200526	Soluble	Solid	300.0	296298
600-205741-11 MS	SB-2-S-7-8'-20200526	Soluble	Solid	300.0	296298
600-205741-11 MSD	SB-2-S-7-8'-20200526	Soluble	Solid	300.0	296298

Leach Batch: 296298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Soluble	Solid	DI Leach	
600-205741-2	SB-1-S-1-2'-20200526	Soluble	Solid	DI Leach	
600-205741-3	SB-1-S-3-4'-20200526	Soluble	Solid	DI Leach	
600-205741-4	SB-1-S-5-6'-20200526	Soluble	Solid	DI Leach	
600-205741-5	SB-1-S-7-8'-20200526	Soluble	Solid	DI Leach	
600-205741-6	SB-1-S-9-10'-20200526	Soluble	Solid	DI Leach	
600-205741-7	SB-2-S-0-6"-20200526	Soluble	Solid	DI Leach	
600-205741-8	SB-2-S-1-2'-20200526	Soluble	Solid	DI Leach	
600-205741-9	SB-2-S-3-4'-20200526	Soluble	Solid	DI Leach	
600-205741-10	SB-2-S-5-6'-20200526	Soluble	Solid	DI Leach	
600-205741-11	SB-2-S-7-8'-20200526	Soluble	Solid	DI Leach	
600-205741-12	SB-2-S-9-10'-20200526	Soluble	Solid	DI Leach	
MB 600-296298/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-296298/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-205741-1 MS	SB-1-S-0-6"-20200526	Soluble	Solid	DI Leach	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

HPLC/IC (Continued)

Leach Batch: 296298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1 MSD	SB-1-S-0-6"-20200526	Soluble	Solid	DI Leach	
600-205741-11 MS	SB-2-S-7-8'-20200526	Soluble	Solid	DI Leach	
600-205741-11 MSD	SB-2-S-7-8'-20200526	Soluble	Solid	DI Leach	

General Chemistry

Analysis Batch: 295535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205741-1	SB-1-S-0-6"-20200526	Total/NA	Solid	2540B	
600-205741-2	SB-1-S-1-2'-20200526	Total/NA	Solid	2540B	
600-205741-3	SB-1-S-3-4'-20200526	Total/NA	Solid	2540B	
600-205741-4	SB-1-S-5-6'-20200526	Total/NA	Solid	2540B	
600-205741-5	SB-1-S-7-8'-20200526	Total/NA	Solid	2540B	
600-205741-6	SB-1-S-9-10'-20200526	Total/NA	Solid	2540B	
600-205741-7	SB-2-S-0-6"-20200526	Total/NA	Solid	2540B	
600-205741-8	SB-2-S-1-2'-20200526	Total/NA	Solid	2540B	
600-205741-9	SB-2-S-3-4'-20200526	Total/NA	Solid	2540B	
600-205741-10	SB-2-S-5-6'-20200526	Total/NA	Solid	2540B	
600-205741-11	SB-2-S-7-8'-20200526	Total/NA	Solid	2540B	
600-205741-12	SB-2-S-9-10'-20200526	Total/NA	Solid	2540B	
600-205741-8 DU	SB-2-S-1-2'-20200526	Total/NA	Solid	2540B	
600-205741-11 DU	SB-2-S-7-8'-20200526	Total/NA	Solid	2540B	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-0-6"-20200526 — Lab Sample ID: 600-205741-1

Date Collected: 05/26/20 11:31 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295651	06/02/20 09:58	WS1	TAL HOU
Total/NA	Analysis	8260C		1	295613	06/02/20 10:39	WS1	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-0-6"-20200526 — Lab Sample ID: 600-205741-1

Date Collected: 05/26/20 11:31 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 81.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 14:42	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 13:50	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 13:22	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 17:06	W1N	TAL HOU

Client Sample ID: SB-1-S-1-2'-20200526 — Lab Sample ID: 600-205741-2

Date Collected: 05/26/20 11:40 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 18:01	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-1-2'-20200526 — Lab Sample ID: 600-205741-2

Date Collected: 05/26/20 11:40 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 97.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 15:07	WS1	TAL HOU
Total/NA	Prep	3546	DL		295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D	DL	2	293250	06/04/20 20:15	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		2	296478	06/12/20 13:56	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 18:07	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 18:24	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-3-4'-20200526
Lab Sample ID: 600-205741-3
Date Collected: 05/26/20 11:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 15:57	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 15:00	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 14:30	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 18:27	W1N	TAL HOU

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295651	06/02/20 09:58	WS1	TAL HOU
Total/NA	Analysis	8260C		1	295613	06/02/20 11:02	WS1	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-5-6'-20200526
Lab Sample ID: 600-205741-4
Date Collected: 05/26/20 11:50
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 16:21	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 15:35	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 15:37	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 18:48	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-1-S-7-8'-20200526
Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 19:10	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-7-8'-20200526
Lab Sample ID: 600-205741-5
Date Collected: 05/26/20 11:55
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 16:46	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 16:10	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 16:12	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 19:08	W1N	TAL HOU

Client Sample ID: SB-1-S-9-10'-20200526
Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 19:32	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-1-S-9-10'-20200526
Lab Sample ID: 600-205741-6
Date Collected: 05/26/20 12:00
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 17:10	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 12:06	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 16:47	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 19:28	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-0-6"-20200526 — Lab Sample ID: 600-205741-7

Date Collected: 05/26/20 12:20 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 19:55	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-0-6"-20200526 — Lab Sample ID: 600-205741-7

Date Collected: 05/26/20 12:20 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 84.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 17:35	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 17:21	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 18:33	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 20:30	W1N	TAL HOU

Client Sample ID: SB-2-S-1-2'-20200526 — Lab Sample ID: 600-205741-8

Date Collected: 05/26/20 12:25 — **Matrix: Solid**
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 20:18	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-1-2'-20200526 — Lab Sample ID: 600-205741-8

Date Collected: 05/26/20 12:25 — **Matrix: Solid**
Date Received: 05/27/20 09:47 — **Percent Solids: 89.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295416	05/29/20 17:59	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 17:56	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 19:08	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		5	296246	06/10/20 20:50	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 20:40	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-3-4'-20200526
Lab Sample ID: 600-205741-9
Date Collected: 05/26/20 12:30
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/28/20 10:22	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 08:13	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 18:30	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 19:43	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 21:10	W1N	TAL HOU

Client Sample ID: SB-2-S-5-6'-20200526
Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 21:03	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-5-6'-20200526
Lab Sample ID: 600-205741-10
Date Collected: 05/26/20 12:35
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/29/20 11:16	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 08:37	WS1	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	293250	06/04/20 19:06	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 20:18	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 21:31	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Client Sample ID: SB-2-S-7-8'-20200526
Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 21:26	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-7-8'-20200526
Lab Sample ID: 600-205741-11
Date Collected: 05/26/20 12:40
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/29/20 11:16	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 09:01	WS1	TAL HOU
Total/NA	Prep	3546			296079	06/08/20 12:04	EAT	TAL HOU
Total/NA	Analysis	8015D		1	296178	06/09/20 15:15	RJV	TAL HOU
Total/NA	Prep	3546			295786	06/03/20 15:12	SMB	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 23:10	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		20	296246	06/10/20 21:51	W1N	TAL HOU

Client Sample ID: SB-2-S-9-10'-20200526
Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295295	05/27/20 16:00	KLV	TAL HOU
Total/NA	Analysis	8260C		1	295568	06/01/20 21:48	KLV	TAL HOU
Total/NA	Analysis	2540B		1	295535	06/01/20 09:21	AAZ	TAL HOU

Client Sample ID: SB-2-S-9-10'-20200526
Lab Sample ID: 600-205741-12
Date Collected: 05/26/20 12:45
Matrix: Solid
Date Received: 05/27/20 09:47
Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			295090	05/29/20 11:16	WS1	TAL HOU
Total/NA	Analysis	8015D		1	295498	05/30/20 09:26	WS1	TAL HOU
Total/NA	Prep	3546			296079	06/08/20 12:04	EAT	TAL HOU
Total/NA	Analysis	8015D		1	296178	06/09/20 15:51	RJV	TAL HOU
Total/NA	Prep	3546			296079	06/08/20 12:04	EAT	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/12/20 23:44	RJV	TAL HOU
Soluble	Leach	DI Leach			296298	06/10/20 14:13	DTN	TAL HOU
Soluble	Analysis	300.0		10	296246	06/10/20 22:52	W1N	TAL HOU

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205741-1

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-19-25	10-31-20

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
8015D	3546	Solid	C28-C36

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

Chain of Custody Record

Midland #264

eurofins Environment Testing America

Client Information	Sampler: Justin Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-77164-20710 1
Client Contact: Sarah Johnson	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1004 North Big Spring Suite 121	Due Date Requested: —			
City: Midland	TAT Requested (days): Standard			
State, Zip: TX, 79701				
Phone: 432-227-0266(Tel)	PO #:			
Email: sarah.johnson@arcadis.com	WO #:			
Project Name: Chevron Onsurez #2	Project #: 60012357			
Site: Onsurez #2	SSOW#:			Other:

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)

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)	8015D_DRO /-ORO	8015D_GRO	8260C - BETX Only	300- Chloride	2540C_moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X						X	
SB-1-S-0-6"-20200526	5/26/20	1131	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-1-2'-20200526	5/26/20	1140	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-3-4'-20200526	5/26/20	1145	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-5-6'-20200526	5/26/20	1150	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-7-8'-20200526	5/26/20	1155	G	S			✓	✓	✓	✓	✓	2	
SB-1-S-9-10'-20200526	5/26/20	1200	G	S			✓	✓	✓	✓	✓	2	
SB-~~2~~-S-0-6"-20200526	5/26/20	1220	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-1-2'-20200526	5/26/20	1225	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-3-4'-20200526	5/26/20	1230	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-5-6'-20200526	5/26/20	1235	G	S			✓	✓	✓	✓	✓	2	
SB-2-S-7-8'-20200526	5/26/20	1240	G	S			✓	✓	✓	✓	✓	2	

600-205741 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: SB-#-"S"-#-#'-20200526 In quotations: Letter S, all other are numbers

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5/26/20 1600	Company: Arcadis	Received by: [signature]		Date/Time: 5/27/20 947	Company: ETA	
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

Midland #264

eurofins | Environment Testing America

Client Information	Sampler: Justin Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-77164-20710.1
Client Contact: Sarah Johnson	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:

Address: 1004 North Big Spring Suite 121	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Midland	TAT Requested (days): Std		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, 79701			
Phone: 432-227-0266(Tel)	PO #:		Other:
Email: sarah.johnson@arcadis.com	WO #:		
Project Name: Chevron Onsurez #2	Project #: 60012357		
Site: Onsurez #2	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)	8015D_DRO / ORO	8015D_GRO	8260C - BETX Only	300- Chloride	2540C_moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SB-2-S-9-10'-20200526	5/26/20	1245	G	S			1	1	1	1	1	2	

gs 5/26/20

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		5/26/20 1600	Arcadis	YCRA	5/27/20 947	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

Loc: 600
205741

eurofins | Environment Testing TestAmerica

Eurofins TestAmerica Houston

Sample Receipt Checklist

'20 MAY 27 5:47

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: Arcadis

UNPACKED BY: YP CARRIER/DRIVER: Fedex

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

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
8726	Y / ~~N~~	Y / ~~N~~	1.9	678	-0.1	1.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				5/27/20
	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

TX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____

pH paper Lot #_____ VOA headspace acceptable (5-6mm): ☐YES ☐NO ☑NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☑YES	☐ NO

COMMENTS:

5/27/20

CS# 1001743

HS-SA-WI-013 Rev. 4A; 08/26/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-205741-1

Login Number: 205741 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Rubio, Yuri

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	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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ANALYTICAL REPORT

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

Laboratory Job ID: 600-205909-1
Client Project/Site: Chevron Onsurez #2

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Sarah Johnson

Authorized for release by:
6/18/2020 1:27:12 PM

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

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Laboratory Job ID: 600-205909-1

Table of Contents

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL HOU
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL HOU
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL HOU
5030C	Purge and Trap	SW846	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-205909-1	POD-2-W-20200529	Water	05/29/20 12:41	05/30/20 10:26	
600-205909-2	DUP-1-W-20200529	Water	05/29/20 00:00	05/30/20 10:26	
600-205909-3	POD-3-W-20200529	Water	05/29/20 13:50	05/30/20 10:26	

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Client Sample ID: POD-2-W-20200529

Lab Sample ID: 600-205909-1
Date Collected: 05/29/20 12:41
Matrix: Water
Date Received: 05/30/20 10:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			06/02/20 14:12	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			06/02/20 14:12	1
Toluene	0.550	U	5.00	0.550	ug/L			06/02/20 14:12	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			06/02/20 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*76*		*50 - 134*		*06/02/20 14:12*	*1*
4-Bromofluorobenzene	*97*		*67 - 139*		*06/02/20 14:12*	*1*
Dibromofluoromethane	*82*		*62 - 130*		*06/02/20 14:12*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/02/20 14:12*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.0230	U	0.0500	0.0230	mg/L			06/02/20 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*101*		*70 - 130*		*06/02/20 11:22*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0464	U	0.258	0.0464	mg/L		06/05/20 08:55	06/13/20 03:07	1
C28-C36	0.155	U	0.258	0.155	mg/L		06/05/20 08:55	06/13/20 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*70*		*60 - 140*	*06/05/20 08:55*	*06/13/20 03:07*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**992**	**F1**	40.0	5.34	mg/L			06/08/20 15:30	100

Client Sample ID: DUP-1-W-20200529

Lab Sample ID: 600-205909-2
Date Collected: 05/29/20 00:00
Matrix: Water
Date Received: 05/30/20 10:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			06/02/20 14:39	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			06/02/20 14:39	1
Toluene	0.550	U	5.00	0.550	ug/L			06/02/20 14:39	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			06/02/20 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*50 - 134*		*06/02/20 14:39*	*1*
4-Bromofluorobenzene	*98*		*67 - 139*		*06/02/20 14:39*	*1*
Dibromofluoromethane	*84*		*62 - 130*		*06/02/20 14:39*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/02/20 14:39*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.0230	U	0.0500	0.0230	mg/L			06/02/20 11:47	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Client Sample ID: DUP-1-W-20200529

Lab Sample ID: 600-205909-2
Date Collected: 05/29/20 00:00
Matrix: Water
Date Received: 05/30/20 10:26

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	*102*		*70 - 130*		*06/02/20 11:47*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0459	U	0.255	0.0459	mg/L		06/05/20 08:55	06/13/20 04:14	1
C28-C36	0.153	U	0.255	0.153	mg/L		06/05/20 08:55	06/13/20 04:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*67*		*60 - 140*	*06/05/20 08:55*	*06/13/20 04:14*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1440**		40.0	5.34	mg/L			06/08/20 16:03	100

Client Sample ID: POD-3-W-20200529

Lab Sample ID: 600-205909-3
Date Collected: 05/29/20 13:50
Matrix: Water
Date Received: 05/30/20 10:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			06/02/20 15:05	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			06/02/20 15:05	1
Toluene	0.550	U	5.00	0.550	ug/L			06/02/20 15:05	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			06/02/20 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*77*		*50 - 134*		*06/02/20 15:05*	*1*
4-Bromofluorobenzene	*89*		*67 - 139*		*06/02/20 15:05*	*1*
Dibromofluoromethane	*84*		*62 - 130*		*06/02/20 15:05*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/02/20 15:05*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.0230	U	0.0500	0.0230	mg/L			06/02/20 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	*101*		*70 - 130*		*06/02/20 12:11*	*1*

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

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0459	U	0.255	0.0459	mg/L		06/05/20 08:55	06/13/20 04:47	1
C28-C36	0.153	U	0.255	0.153	mg/L		06/05/20 08:55	06/13/20 04:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*64*		*60 - 140*	*06/05/20 08:55*	*06/13/20 04:47*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1180**		40.0	5.34	mg/L			06/08/20 16:13	100

Definitions/Glossary

Client: ARCADIS U.S., Inc. Job ID: 600-205909-1
Project/Site: Chevron Onsurez #2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(50-134)	(67-139)	(62-130)	(70-130)
600-205909-1	POD-2-W-20200529	76	97	82	102
600-205909-2	DUP-1-W-20200529	73	98	84	102
600-205909-3	POD-3-W-20200529	77	89	84	102
LCS 600-295647/4	Lab Control Sample	80	90	90	105
LCSD 600-295647/5	Lab Control Sample Dup	79	89	86	95
MB 600-295647/7	Method Blank	74	93	83	111

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
		TFT1
Lab Sample ID	Client Sample ID	(70-130)
600-205909-1	POD-2-W-20200529	101
600-205909-2	DUP-1-W-20200529	102
600-205909-3	POD-3-W-20200529	101
LCS 600-295615/5	Lab Control Sample	102
LCSD 600-295615/6	Lab Control Sample Dup	102
MB 600-295615/7	Method Blank	100

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH
Lab Sample ID	Client Sample ID	(60-140)
600-205909-1	POD-2-W-20200529	70
600-205909-2	DUP-1-W-20200529	67
600-205909-3	POD-3-W-20200529	64
LCS 600-295943/2-A	Lab Control Sample	88
LCSD 600-295943/3-A	Lab Control Sample Dup	98
MB 600-295943/1-A	Method Blank	67

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 600-295647/7
Matrix: Water
Analysis Batch: 295647

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.560	U	5.00	0.560	ug/L			06/02/20 12:54	1
Ethylbenzene	1.29	U	5.00	1.29	ug/L			06/02/20 12:54	1
Toluene	0.550	U	5.00	0.550	ug/L			06/02/20 12:54	1
Xylenes, Total	1.98	U	5.00	1.98	ug/L			06/02/20 12:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*50 - 134*		*06/02/20 12:54*	*1*
4-Bromofluorobenzene	*93*		*67 - 139*		*06/02/20 12:54*	*1*
Dibromofluoromethane	*83*		*62 - 130*		*06/02/20 12:54*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*06/02/20 12:54*	*1*

Lab Sample ID: LCS 600-295647/4
Matrix: Water
Analysis Batch: 295647

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	44.62		ug/L		89	70 - 131
Ethylbenzene	50.0	55.37		ug/L		111	70 - 130
Toluene	50.0	53.09		ug/L		106	70 - 130
Xylenes, Total	100	107.8		ug/L		108	70 - 130
m-Xylene & p-Xylene	50.0	54.97		ug/L		110	70 - 130
o-Xylene	50.0	52.81		ug/L		106	69 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*50 - 134*
4-Bromofluorobenzene	*90*		*67 - 139*
Dibromofluoromethane	*90*		*62 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 600-295647/5
Matrix: Water
Analysis Batch: 295647

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	50.0	43.17		ug/L		86	70 - 131	3	20
Ethylbenzene	50.0	50.00		ug/L		100	70 - 130	10	20
Toluene	50.0	49.73		ug/L		99	70 - 130	7	20
Xylenes, Total	100	97.91		ug/L		98	70 - 130	10	20
m-Xylene & p-Xylene	50.0	49.66		ug/L		99	70 - 130	10	20
o-Xylene	50.0	48.25		ug/L		97	69 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*79*		*50 - 134*
4-Bromofluorobenzene	*89*		*67 - 139*
Dibromofluoromethane	*86*		*62 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 600-295615/7
Matrix: Water
Analysis Batch: 295615

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.0230	U	0.0500	0.0230	mg/L			06/02/20 10:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*70 - 130*		*06/02/20 10:09*	*1*

Lab Sample ID: LCS 600-295615/5
Matrix: Water
Analysis Batch: 295615

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	0.252	0.2797		mg/L		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*70 - 130*

Lab Sample ID: LCSD 600-295615/6
Matrix: Water
Analysis Batch: 295615

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
Gasoline Range Organics [C6 - C10]	0.252	0.2714		mg/L		108	70 - 130	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*70 - 130*

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

Lab Sample ID: MB 600-295943/1-A
Matrix: Water
Analysis Batch: 296478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295943

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.0450	U	0.250	0.0450	mg/L		06/05/20 08:55	06/13/20 00:18	1
C28-C36	0.150	U	0.250	0.150	mg/L		06/05/20 08:55	06/13/20 00:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*60 - 140*	*06/05/20 08:55*	*06/13/20 00:18*	*1*

Lab Sample ID: LCS 600-295943/2-A
Matrix: Water
Analysis Batch: 296478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	1.00	0.8867		mg/L		89	70 - 130

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

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

Lab Sample ID: LCS 600-295943/2-A
Matrix: Water
Analysis Batch: 296478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295943

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	88		60 - 140

Lab Sample ID: LCSD 600-295943/3-A
Matrix: Water
Analysis Batch: 296478

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 295943

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			1.00	0.8922		mg/L		89	70 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	98		60 - 140

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-296028/6
Matrix: Water
Analysis Batch: 296028

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			06/08/20 09:31	1

Lab Sample ID: LCS 600-296028/7
Matrix: Water
Analysis Batch: 296028

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			20.0	19.74		mg/L		99	90 - 110		

Lab Sample ID: 600-205909-1 MS
Matrix: Water
Analysis Batch: 296028

Client Sample ID: POD-2-W-20200529
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	992	F1	1000	2812	F1	mg/L		182	80 - 120		

Lab Sample ID: 600-205909-1 MSD
Matrix: Water
Analysis Batch: 296028

Client Sample ID: POD-2-W-20200529
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	992	F1	1000	2780	F1	mg/L		179	80 - 120	1	20

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	MQL	MDL	Units
Benzene	5.00	0.560	ug/L
Ethylbenzene	5.00	1.29	ug/L
Toluene	5.00	0.550	ug/L
Xylenes, Total	5.00	1.98	ug/L

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	0.0500	0.0230	mg/L

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

Prep: 3510C

Analyte	MQL	MDL	Units
C28-C36	0.250	0.150	mg/L
Diesel Range Organics [C10-C28]	0.250	0.0450	mg/L

Method: 300.0 - Anions, Ion Chromatography

Analyte	MQL	MDL	Units
Chloride	0.400	0.0534	mg/L

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

GC/MS VOA

Analysis Batch: 295647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205909-1	POD-2-W-20200529	Total/NA	Water	8260C	
600-205909-2	DUP-1-W-20200529	Total/NA	Water	8260C	
600-205909-3	POD-3-W-20200529	Total/NA	Water	8260C	
MB 600-295647/7	Method Blank	Total/NA	Water	8260C	
LCS 600-295647/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 600-295647/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 295615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205909-1	POD-2-W-20200529	Total/NA	Water	8015D	
600-205909-2	DUP-1-W-20200529	Total/NA	Water	8015D	
600-205909-3	POD-3-W-20200529	Total/NA	Water	8015D	
MB 600-295615/7	Method Blank	Total/NA	Water	8015D	
LCS 600-295615/5	Lab Control Sample	Total/NA	Water	8015D	
LCSD 600-295615/6	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 295943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205909-1	POD-2-W-20200529	Total/NA	Water	3510C	
600-205909-2	DUP-1-W-20200529	Total/NA	Water	3510C	
600-205909-3	POD-3-W-20200529	Total/NA	Water	3510C	
MB 600-295943/1-A	Method Blank	Total/NA	Water	3510C	
LCS 600-295943/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-295943/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 296478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205909-1	POD-2-W-20200529	Total/NA	Water	8015D	295943
600-205909-2	DUP-1-W-20200529	Total/NA	Water	8015D	295943
600-205909-3	POD-3-W-20200529	Total/NA	Water	8015D	295943
MB 600-295943/1-A	Method Blank	Total/NA	Water	8015D	295943
LCS 600-295943/2-A	Lab Control Sample	Total/NA	Water	8015D	295943
LCSD 600-295943/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	295943

HPLC/IC

Analysis Batch: 296028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-205909-1	POD-2-W-20200529	Total/NA	Water	300.0	
600-205909-2	DUP-1-W-20200529	Total/NA	Water	300.0	
600-205909-3	POD-3-W-20200529	Total/NA	Water	300.0	
MB 600-296028/6	Method Blank	Total/NA	Water	300.0	
LCS 600-296028/7	Lab Control Sample	Total/NA	Water	300.0	
600-205909-1 MS	POD-2-W-20200529	Total/NA	Water	300.0	
600-205909-1 MSD	POD-2-W-20200529	Total/NA	Water	300.0	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Client Sample ID: POD-2-W-20200529
Date Collected: 05/29/20 12:41
Date Received: 05/30/20 10:26

Lab Sample ID: 600-205909-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	295647	06/02/20 14:12	DT1	TAL HOU
Total/NA	Analysis	8015D		1	295615	06/02/20 11:22	WS1	TAL HOU
Total/NA	Prep	3510C			295943	06/05/20 08:55	RLK	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/13/20 03:07	RJV	TAL HOU
Total/NA	Analysis	300.0		100	296028	06/08/20 15:30	W1N	TAL HOU

Client Sample ID: DUP-1-W-20200529
Date Collected: 05/29/20 00:00
Date Received: 05/30/20 10:26

Lab Sample ID: 600-205909-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	295647	06/02/20 14:39	DT1	TAL HOU
Total/NA	Analysis	8015D		1	295615	06/02/20 11:47	WS1	TAL HOU
Total/NA	Prep	3510C			295943	06/05/20 08:55	RLK	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/13/20 04:14	RJV	TAL HOU
Total/NA	Analysis	300.0		100	296028	06/08/20 16:03	W1N	TAL HOU

Client Sample ID: POD-3-W-20200529
Date Collected: 05/29/20 13:50
Date Received: 05/30/20 10:26

Lab Sample ID: 600-205909-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	295647	06/02/20 15:05	DT1	TAL HOU
Total/NA	Analysis	8015D		1	295615	06/02/20 12:11	WS1	TAL HOU
Total/NA	Prep	3510C			295943	06/05/20 08:55	RLK	TAL HOU
Total/NA	Analysis	8015D		1	296478	06/13/20 04:47	RJV	TAL HOU
Total/NA	Analysis	300.0		100	296028	06/08/20 16:13	W1N	TAL HOU

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Onsurez #2

Job ID: 600-205909-1

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-19-25	10-31-20

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
300.0		Water	Chloride
8015D	3510C	Water	C28-C36

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

Chain of Custody Record

Midland #264

eurofins | Environment Testing America

Client Information	Sampler: Justin Steinman	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-77164-20710.1
Client Contact: Sarah Johnson	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:

Address: 1004 North Big Spring Suite 121	Due Date Requested: —	Analysis Requested	Preservation Codes:
City: Midland	TAT Requested (days): Std		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, 79701			
Phone: 432-227-0266(Tel)	PO #:		Other:
Email: sarah.johnson@arcadis.com	WO #:		
Project Name: Chevron Onsurez #2	Project #: 60012357		
Site: Onsurez #2	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)	8015D_DRO / ORO	8015D_GRO	8260C - BETX Only	300- Chloride	2540C_moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
POD-2-W-20200529	5/29/20	1241	G	W			/	/	/	/		9	
Dup-1-W-20200529	5/29/20	—	G	W			/	/	/	/		9	
POD-3-W-20200529	5/29/20	1350	G	W			/	/	/	/		9	

9
5/29/20

600-205909 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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: Justin	Date/Time: 5/29/20 1600	Company: Arcadis	Received by:	Date/Time: 5/30/20 1026	Company: ETA
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

Loc: 600
205909

eurofins | Environment Testing TestAmerica

Eurofins TestAmerica Houston

'20 MAY 30 10:26

Sample Receipt Checklist

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: Arcadis

UNPACKED BY: JR CARRIER/DRIVER: Fedex

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

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
4044	Y / ~~N~~	Y / ~~N~~	0.7	678	-0.1	0.6
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N			5/30/20	
	~~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

TX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____

pH paper Lot #_____ VOA headspace acceptable (5-6mm): ☑YES ☐NO ☐NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☑YES	☐ NO

COMMENTS:

5/30/20

HS-SA-WI-013 Rev. 4A; 08/26/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-205909-1

Login Number: 205909 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Rubio, Yuri

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	0.6
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.

APPENDIX I

New Mexico Office of the State Engineer Transaction Summary

New Mexico Office of the State Engineer
Transaction Summary

APPRO Application to Appropriate

Transaction Number: 194329 **Transaction Desc:** SP 1955 **File Date:** 05/22/1931

Primary Status: PMT Permit
Secondary Status: CRT Certificate of Construction
Person Assigned: *******
Applicant: E.T. CARTER
Applicant: W.A. MOORE

Events

Date	Type	Description	Comment	Processed By
05/22/1931	APP	Application Received	*	*******
05/22/1931	NFP	Notice for Publication		*******
07/15/1931	AOP	Affidavit of Publication rcv		*******
07/23/1931	PUC	PBU/PCW Approval		*******
07/23/1931	FIN	Final Action on application		*******
09/14/1932	PCW	Proof Completion of Well/Works	*	*******
09/14/1932	PCW	Proof Completion of Well/Works		*******
09/25/1933	PBU	Proof of Beneficial Use	*	*******
10/05/1933	CRT	Certificate of Construction	*	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
SP 01955	37.7	150.8		IRR IRRIGATION

****Point of Diversion**

SP 01955		570282	3590059*

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

****Place of Use**

Q 256	Q 64	Q 16	Q 4	Sec	Tws	Rng	Acres	Diversion	Consumptive	Use	Priority	Status	Other Loc Desc
		NW	SW	25	21S	26E	15	60		IRR		PMT	
		SE	SW	25	21S	26E	12.75	51		IRR		PMT	
		SW	SE	25	21S	26E	4.25	17		IRR		PMT	
	SE	NE	SE	26	21S	26E	2.5	10		IRR		PMT	
		SE	SE	26	21S	26E	3.2	12.8		IRR		PMT	

Remarks

THIS APPLICATION IS TO APPROPRIATE 150.8 AF/AN FROM AN UNNAMED SPRING BRANCH, TRIBUTARY TO THE PECOS RIVER FOR IRRIGATION OF 37.7 ACRES OF LAND AND FOR DOMESTIC PURPOSES.

Action of the State Engineer

THIS APPLICATION IS APPROVED SUBJECT TO THE ADJUDICATION OF THE WATERS OF THE PECOS STREAM SYSTEM IN CAUSE NUMBER 712,

EQUITY IN THE DISTRICT COURT OF THE UNITED STATES DISTRICT OF NEW MEXICO, ENTITLED USA, PLANTIFF VS HOPE COMM. DITCH, ET AL.

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 07/23/1931

PCW Due Date: 10/23/1932

PBU Due Date: 10/23/1933

State Engineer:

10/7/20 12:59 PM TRANSACTION SUMMARY

Arcadis U.S., Inc.

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Midland, Texas 79701

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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 83030
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	None	10/25/2022