

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources	OGRID 7377
Contact Name James Kennedy	Contact Telephone (432) 258-4346
Contact email James_Kennedy@eogresources.com	Incident # (assigned by OCD) nAB1732027423
Contact mailing address 5509 Champions Drive Midland, TX 79706	

Location of Release Source

Latitude 32.3258° Longitude -104.0311°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Culebra BLV Federal #1H	Site Type Main water line
Date Release Discovered 11/8/17	API# (if applicable) 30-015-37615

Unit Letter	Section	Township	Range	County
E	7	23S	29E	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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 30	Volume Recovered (bbls) 30
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 120	Volume Recovered (bbls) unknown
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: When the lease operator arrived on location the main water line had ruptured and released produced water and oil into the pasture. The lease operator turned off the well and shut the valve on the water tank. The line was repaired and placed back in service.

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Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? More than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>James Kennedy</u> Title: <u>Environmental Specialist</u> Signature: _____ Date: <u>03/01/2022</u> email: <u>James_Kennedy@eogresources.com</u> Telephone: <u>(432) 848-9146</u>
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	
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Site Assessment/Characterization

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

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

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

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Oil Conservation Division

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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: _____ James F. Kennedy _____ Title: _____ Env. Specialist _____

Signature: _____ Date: _____ 03/01/2022 _____

email: _____ james_kennedy@eogresources.com _____ Telephone: _____ 432-258-4346 _____

OCD Only

Received by: _____ Date: _____

Incident ID	
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Remediation Plan

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

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

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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: James F. Kennedy Title: Env. Specialist

Signature: _____ Date: 03/01/2022

email: james_kennedy@eogresources.com Telephone: 432-258-4346

OCD Only

Received by: OCD Date: 3/3/2022

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: Ashley Maxwell Date: 9/19/2022

Printed Name: Ashley Maxwell Title: Environmental Specialist

SITE INFORMATION

Report Type: Closure Report 2RP-4483

General Site Information:

Site:	Culebra BLV Federal #1H				
Company:	EOG Resources				
Section, Township and Range	Unit E	Sec. 7	T 23S	R 29E	
Lease Number:	API No. 30-015-37615				
County:	Eddy County				
GPS:	32.3258° N			104.0311° W	
Surface Owner:	BLM				
Mineral Owner:	BLM				
Directions:	From the intersection of HWY 128 and HWY 31, turn South and go approx. 2.35m, Turn North on U.S Refinery Rd and go approx. .25m, turn East and go approx. .25m and arrive to location				

Release Data:

Date Released:	11/8/2017
Type Release:	Produced Water & Oil
Source of Contamination:	8" Poly Line
Fluid Released:	120bbls PW, 30 bbls oil
Fluids Recovered:	30 bbls Oil

Official Communication:

Name:	Zane Kurtz	Ike Tavaréz
Company:	EOG Resources	Tetra Tech
Address:	5509 Champions Dr	4000 N. Big Spring Ste 401
City:	Midland Texas, 79706	Midland, Texas
Phone number:	(432) 425-2023	(432) 687-8110
Fax:		
Email:	Zane_Kurtz@eogresources.com	Ike.Tavaréz@tetrattech.com

Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	Less than 50'
50-99 ft	10	
>100 ft.	0	
WellHead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
Total Ranking Score:		20

Acceptable Soil RRAL (mg/kg)		
Benzene	Total BTEX	TPH
10	50	100



April 24, 2018

Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Closure Report for the EOG Resources, Inc., Culebra BLV Federal #1H, Unit E, Section 07, Township 23 South, Range 29 East, Eddy County, New Mexico. 2RP-4483.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources, Inc. (EOG), to assess and remediate a release that occurred at the Culebra BLV Federal #1H, located in Unit E, Section 07, Township 23 South, Range 29 East, Eddy County, New Mexico (site). The spill site coordinates are N 32.3258 °, W 104.0311 °. The site location is shown on Figures 1 and 2.

Background

Tetra Tech, Inc., notified the NMOCD and BLM to prior to beginning the remediation for a rapid spill response, as requested by EOG. According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 8, 2017, and released approximately one hundred and twenty (120) barrels of produced water and thirty (30) barrels of oil due to a ruptured 8" poly water line. A vacuum truck was dispatched to remove all freestanding fluids, recovering approximately thirty (30) barrels of oil. Due to the size of the release, EOG decided to move forward on the remediation to immediately remove the impacted soil to prevent additional vertical migration.

The release occurred on the pad and then migrated into the adjacent pasture. The southwest pasture area extended approximately 380' south, the central pasture area measured approximately 15' x 135', the southeast pasture area measured approximately 8' x 530', the two-track area measured approximately 15' x 230', the pad area measured approximately 15' x 85', and the lease road entrance area measured approximately 30' x 75'. The initial C-141 form is included in Appendix A.



Groundwater

No water wells were listed within Section 07 on the New Mexico Office of the State Engineer's database, the Geology and Ground-Water Resources of Eddy County, New Mexico, or the USGS National Water Information System. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in this area is approximately 50' below surface. The groundwater data is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 100 mg/kg.

Soil Assessment/Remediation Activities

On November 30, 2017, through January 4, 2018, Tetra Tech personnel were onsite to evaluate, sample, and supervise the excavation of the release area. In order to ensure all of the impacted material was properly removed, bottom hole samples were collected as well as appropriate sidewall samples in each area. A total of forty-five (45) bottom hole samples were collected from the release area, which was excavated to total depths ranging from 2.0'-9.0' below surface. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3.

Referring to Table 1, none of the samples collected exceeded the laboratory reporting limits for benzene or total BTEX. Additionally, none of the samples collected showed TPH concentrations above the RRALs, with concentrations ranging from <14.9 mg/kg to 235 mg/kg.

Southeast Pasture

In the Southeast Pasture Area, twelve (S-1 through S-12) bottom hole samples and corresponding sidewall samples were collected. The Southeast Pasture Area bottom hole and sidewall samples (S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8, S-9, S-10, S-11, and S-12) showed chloride concentrations below the 600 mg/kg threshold, with ranges from 4.93 mg/kg to 169 mg/kg. The area of Southeast Pasture Area was excavated to depths ranging from 1.5' to 6.5' below surface.



Two-Track

The Two-Track Area was excavated to 2.5' below surface and bottom hole and sidewall samples were collected in four areas (S-13, S-15, S-16, and S-17). All of the samples collected showed chloride concentrations ranging from <4.98 mg/kg to 174 mg/kg.

Central Pasture

The Central Pasture Area was excavated to depths ranging from 2.0' to 6.0' below surface and bottom hole and sidewall samples were collected in five areas (S-14, S18, S19, S20, and S-21). The sample collected at S-14 (North Sidewall) showed a chloride concentration of 641 mg/kg, however none of the remaining samples showed chloride concentrations above the 600 mg/kg threshold. The area of S-14 (North Sidewall) was resampled on January 31, 2018, and showed a chloride concentration of 26.9 mg/kg.

Southwest Pasture

The Southwest Pasture Area was excavated to depths ranging from 1.0' to 5.0' below surface and bottom hole and sidewall samples were collected in twelve areas (Area-1 through Area-12). The sample collected at Area#10 (Bottom Hole #2 West Sidewall) showed a chloride concentration of 811 mg/kg. The area was resampled on December 29, 2017, to confirm the concentrations, and a chloride of 47.9 mg/kg was detected. The remaining samples collected in the Southwest Pasture Area showed chloride concentrations below the 600 mg/kg threshold.

Pad Area

The Pad Area was excavated to depths ranging from 0.5' to 2.0' below surface and bottom hole and corresponding sidewall samples were collected in six areas (P-1, P-2, P-3, P-4, P-5, and P-6). The chloride concentrations in these areas ranged from <4.92 mg/kg to 331 mg/kg. Due to safety concerns, the samples collected in the areas of (P-4, P-5, and P-6) were field screened for conductivity using an EX-Stik II Conductivity/TDS/Salinity Meter and the areas were immediately backfilled with clean material.

Lease Road Entrance

The Lease Road Entrance Area, South Lease Road Entrance, and North Lease Road Entrance areas were excavated to approximately 0.5' below surface. In the Lease Road Entrance Area three bottom hole samples (L-1, L-2, and L-3) were collected, as well as one sidewall sample (West Sidewall). The samples collected showed chloride concentrations ranging from 61.8 mg/kg to 211 mg/kg. Two bottom hole samples (BH-1 and BH-2) as well as corresponding sidewall samples were collected in the South Lease Road Entrance Area. The samples showed chloride concentrations ranging from 100 mg/kg to 294 mg/kg. Additionally, one bottom hole sample and three sidewall samples (Bottom Hole, North Sidewall, South Sidewall, and West Sidewall) were collected in the North Lease Road Entrance Area, which all showed chloride concentrations below the 600 mg/kg threshold.



Conclusions and Recommendations

Based on the remediation work performed at the site and the laboratory results, EOG requests closure of this spill. The pasture areas will be reseeded in June 2018 to coincide with the rainy season in southeastern New Mexico. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

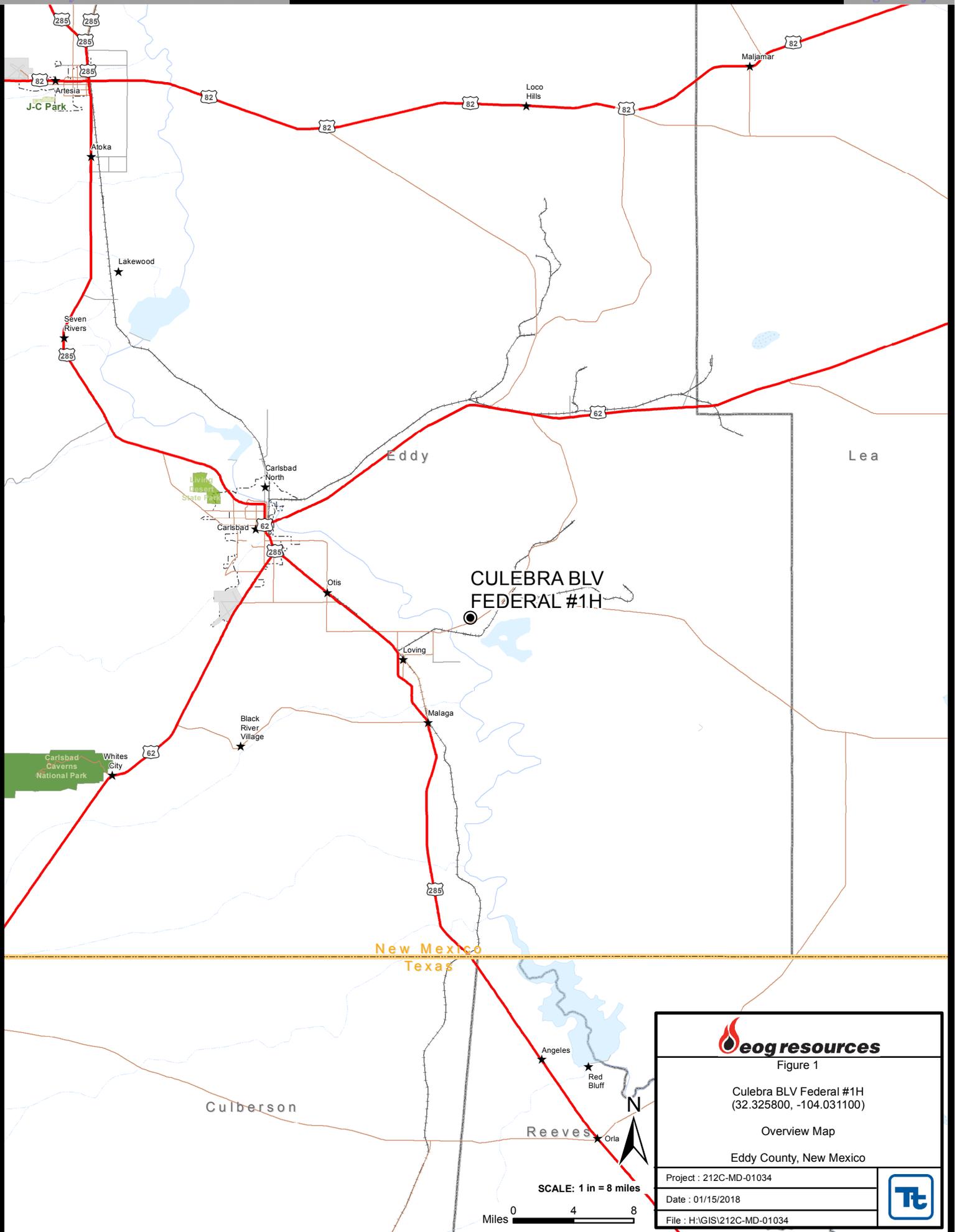
A handwritten signature in blue ink that reads 'Clair Gonzales'.

Clair Gonzales,
Project Manager,

A handwritten signature in blue ink that reads 'Ike Tavarez'.

Ike Tavarez, PG
Senior Project Manager

Figures



CULEBRA BLV
FEDERAL #1H

eog resources

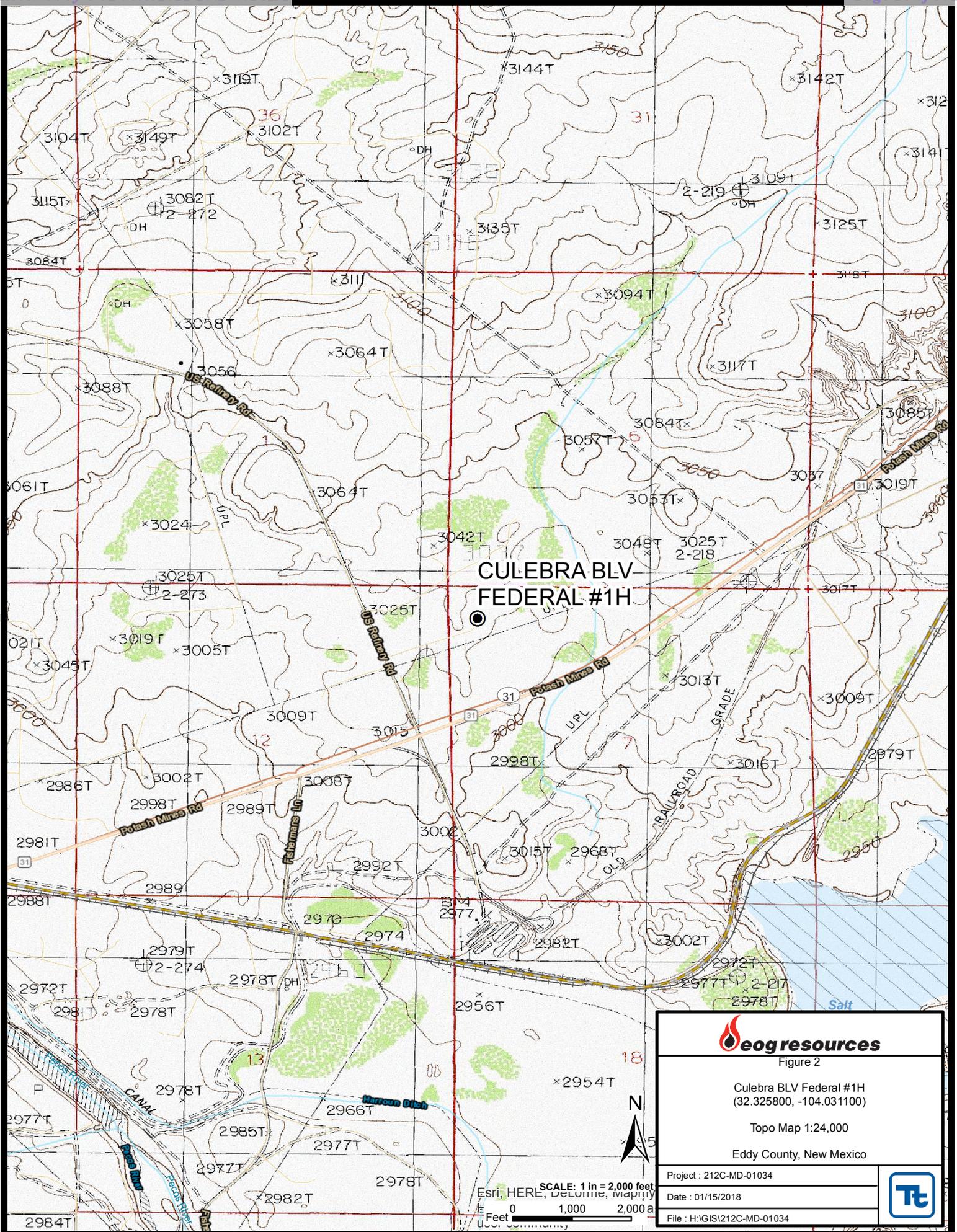
Figure 1

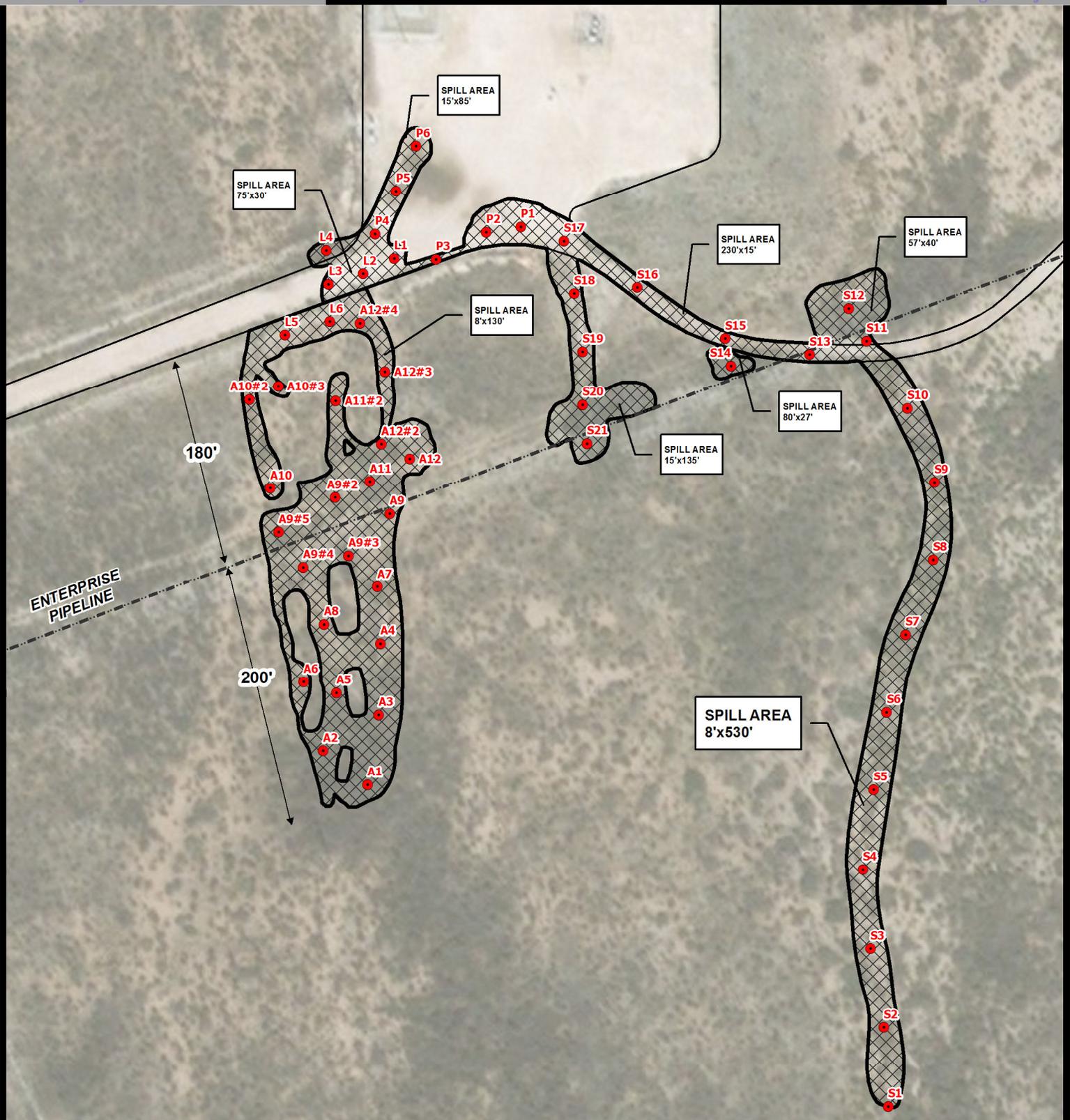
Culebra BLV Federal #1H
(32.325800, -104.031100)

Overview Map

Eddy County, New Mexico

Project : 212C-MD-01034	
Date : 01/15/2018	
File : H:\GIS\212C-MD-01034	





LEGEND

- SAMPLE LOCATIONS
- SPILL AREA

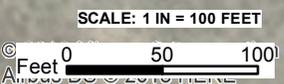




Figure 3

Culebra BLV Federal #1H
(32.325800, -104.031100)

Spill Assessment Map

Eddy County, New Mexico

Project : 212C-MD-01034	
Date : 01/15/2018	
File : H:\GIS\212C-MD-01034	

Tables

Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Southeast Pasture Area															
S1 (Bottom Hole)	12/13/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	40.2
S1 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	46.3
S1 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	16.3
S2 (BottomHole)	11/30/2017	0-6"	1.5	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	19.0
S2 (East Sidewall)	"	-	-	X		<15.0	53.1	<15.0	53.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	419
S2 (West Sidewall)	"	-	-	x		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	16.2
S3 (BottomHole)	11/30/2017	0-6"	1.5	X		<14.9	<14.9	<14.9	<14.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	27.7
S3 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	9.90
S3 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	8.04
S4 (BottomHole)	11/30/2017	0-6"	2.0	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	12.0
S4 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	45.9
S4 (West Sidewall)	"	-	-	X		<15.0	16.2	<15.0	16.2	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	133
S5 (BottomHole)	11/30/2017	0-6"	2.0	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	34.3
S5 (East Sidewall)	"	-	-	X		<14.9	20.0	<14.9	20.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	47.7
S5 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	17.0
S6 (BottomHole)	11/30/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	31.9
S6 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	42.8
S6 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	20.6
S7 (BottomHole)	11/30/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	36.6
S7 (East Sidewall)	"	-	-	X		<14.9	<14.9	<14.9	<14.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	18.4
S7 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	68.4

Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
S8 (BottomHole)	11/30/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	168
S8 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	15.8
S8 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<4.98
S9 (BottomHole)	11/30/2017	0-6"	3	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	36.4
S9 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	46.9
S9 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	10.9
S10 (BottomHole)	12/28/2017	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	4.93
S10 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	4.94
S10 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	57.3
S11 (BottomHole)	12/28/2017	0-6"	6.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	64.9
S11(South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	119
S12 (BottomHole)	12/28/2017	0-6"	5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	66.4
S12 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	103
S12 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	128
S12 (North Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	62.1
Two Track - Pipeline Road															
S13 (BottomHole)	1/4/2018	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.98
S13 (North Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	15.8
S13 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	10.4
S15 (BottomHole)	1/4/2018	0-6"	2.5	X		<14.9	<14.9	<14.9	<14.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	174
S15 (North Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	61.4
S16 (BottomHole)	1/4/2018	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	165
S16 (North Sidewall)	"	-	-	X		<14.9	<14.9	<14.9	<14.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	87.7
S16 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	110
S17 (BottomHole)	1/4/2018	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	51.4
S17 (North Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	96.1
S17 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	56.3

Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Center Pasture Area															
S14 (BottomHole)	12/28/2017	0-6"	6	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<4.98
S14 (South Sidewall)	12/28/2017	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	425
S14 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	212
S14 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	348
S14 (North Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	641
	1/31/2018	-	-	X		-	-	-	-	-	-	-	-	-	26.9
S18 (BottomHole)	12/28/2017	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	283
S18 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	9.84
S18 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	228
S19 (BottomHole)	12/28/2017	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	242
S19 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	52.2
S19 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	398
S20 (BottomHole)	12/28/2017	0-6"	2-2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	12.9
S20 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	33.3
S20 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	80.3
S21 (BottomHole)	12/28/2017	0-6"	4.5	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	98.3
S21 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	562
S21 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	90.0
S21 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	52.7

**Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Southwest Pasture															
Area #1 (BottomHole)	12/13/2017	0-6"	2.5	X		<15.0	208	27.1	235	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	41.4
Area #1 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	8.16
Area #1 (West Sidewall)	"	-	-	X		<14.9	<14.9	<14.9	<14.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	11.4
Area #1 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<4.96
Area #2 (BottomHole)	12/13/2017	0-6"	2.5	X		<15.0	347	71.1	418	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	214
Area #2 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	24.3
Area #2 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.96
Area #3 (BottomHole)	12/13/2017	0-6"	2.5	X		<15.0	184	28.3	212	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	376
Area #3 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	23.4
Area #4 (BottomHole)	12/13/2017	0-6"	2.5	X		<14.9	101	16	117	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	351
Area #4 (East Sidewall)	"	-	-	X		<14.9	80.8	19.6	100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	197
Area #4 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	35.0
Area #5 (BottomHole)	12/13/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	21.4
Area #5 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	25.8
Area #5 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	22.8
Area #6 (BottomHole #1)	12/13/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	54.0
Area #6 (BottomHole #2)	"	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	16.8
Area #6 (East Sidewall)	"	-	-	X		<15.0	358	56.5	415	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	190
Area #6 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	21.0

Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Area #7 (BottomHole)	12/13/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	29.5
Area #7 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	23.2
Area #7 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	22.0
Area #8 (BottomHole)	12/13/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	19.5
Area #8 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	8.16
Area #8 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	88.5
Area #9 (BottomHole #1)	12/21/2017	0-6"	5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	47.6
Area #9 (BottomHole #2)	"	0-6"	2-2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	189
Area #9 (BottomHole #3)	"	0-6"	3.5-4	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	110
Area #9 (BottomHole #4)	"	0-6"	3.5-4	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	41.8
Area #9 (BottomHole #5)	"	0-6"	3.5-4	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	23.1
Area #9 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.92
Area #9 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	148
Area #10 (BottomHole #1)	12/21/2017	0-6"	1.5	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<4.96
Area #10 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	243
Area #10 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	37.8
Area #10 (BottomHole #2)	12/21/2017	0-6"	2.5	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	25.5
Area #10 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	42.5
Area #10 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	811
	12/29/2017	-	-	X		-	-	-	-	-	-	-	-	-	47.9
Area #10 (BottomHole #3)	12/21/2017	0-6"	1	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	87.6
Area #10 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	121
Area #10 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	106
Area #11 (BottomHole #1)	12/21/2017	0-6"	1	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	254
Area #11 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	364
Area #11 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	336
Area #11 (BottomHole #2)	12/21/2017	0-6"	1	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	201
Area #11 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	79.6
Area #11 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	180

Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Area #12 (BottomHole #1)	12/21/2017	0-6"	3	X		<15.0	27.4	<15.0	27.4	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	168
Area #12 (East Sidewall)	"	-	-	X		<15.0	18.6	<15.0	18.6	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	149
Area #12 (South Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	20.6
Area #12 (BottomHole #2)	12/21/2017	0-6"	3.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	321
Area #12 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	63.3
Area #12 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	41.0
Area #12 (BottomHole #3)	12/21/2017	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	122
Area #12 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	65.1
Area #12 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.93
Area #12 (BottomHole #4)	12/21/2017	0-6"	3.5	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	392
Area #12 (East Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.99
Area #12 (West Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	132
Area #12 (North Sidewall)	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	231
Pad Area															
P-1 BottomHole	1/4/2018	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	123
P-1 North Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	124
P-1 South Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	132
P-2 BottomHole	1/4/2018	0-6"	2	X		<14.9	<14.9	<14.9	<14.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	72.4
P-2 North Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	30.2
P-2 South Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	51.0
P-3 BottomHole	1/4/2018	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	331
P-3 North Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	72.9
P-3 South Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	80.9
P-4 Bottomhole	1/4/2018	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	221
P-5 BottomHole	"	0-6"	1	X		<14.9	<14.9	<14.9	<14.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	32.0
P-5 East Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.94
P-5West Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	137
P-6 BottomHole	1/4/2018	0-3"	0.5	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<4.92
P-6 East Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	107
P-6 West Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	105

**Table 1
EOG Resources
Culebra BLV Federal #1H
Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	BEB (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Lease Road Entrance															
L-1 BottomHole	1/4/2018	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	126
L-2 BottomHole	"	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	61.8
L-3 BottomHole	"	0-6"	2	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	87.1
West Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	211
South Lease Road Entrance															
BottomHole #1	1/4/2018	0-6"	9	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	241
North Sidewall	"	-	-	X		<14.9	<14.9	<14.9	<14.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	206
South Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	180
East Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	294
BottomHole #2	1/4/2018	0-6"	9	X		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	127
South Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	100
East Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	119
North Lease Road Entrance															
BottomHole	1/4/2018	0-6"	6	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	139
North Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	169
South Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	49.5
West Sidewall	"	-	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	102

Photos

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View South Southwest Area-1, AH#1



View East of Southwest area Area-1, AH#2, AH#3, AH#5,
and AH#6.

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



**TETRA
TECH**



View North of Southwest area AH-4, AH-7, and AH-8



View South of Southwest area

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View East of Southwest Pipeline area



View North of Southwest Pipeline Area of Trench 1 area

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View West of Southwest Area-9, Area-11



View East of Southwest Area of Area-9, and Area-11

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



**TETRA
TECH**



View North of Southwest Area-12



View Northeast of the Southwest Area-12

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View of Central Area, S-21



View Central Area, S-20

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View South of Central Area, S-18, S-19, and S-20



View Southeast of Two-Track Area, S-17, S-16, S-15, and S-13

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View East of Southeast area, S-11 and S-12



View North of Southeast area, S-9 and S-10

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View of Southeast Area



View West of Pad Area

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



**TETRA
TECH**



View of Pad Area, P-1, P-2 and P-3



View of West of Pad Area

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View Southwest of Pad area, P-4, P-5 and P-6



View of Pad Area, P-4, P-5, and P-6 backfilled

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View North of Pad Area P-3 and Leas Road Entrance L-1



View West of Lease Rd. Entrance, L-1 and L2

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View West of Lease Rd. Entrance, backfilled



View of Lease Rd. Entrance North

**EOG Resources
Culebra BLV Fed. 1H
Eddy County, NM**



TETRA TECH



View of Lease Rd. Entrance South

Appendix A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

NOV 18 2017

Form C-141
Revised October 10, 2003

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

RECEIVED
Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

NAB1732027423

OPERATOR

Initial Report Final Report

Name of Company	EOG Resources, Inc. 25575	Contact	Zane Kurtz
Address	5509 Champions Drive, Midland, TX 79706	Telephone No.	(432) 425-2023
Facility Name	Culebra BLV Federal #1H	Facility Type	Main Water Line

Surface Owner: BLM	Mineral Owner: BLM	API No. 30-025-37615 ⁰¹⁵
--------------------	--------------------	-------------------------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	7	23S	29E	660	FNL	330	FWL	Eddy

Latitude 32.3258° Longitude -104.0311°

NATURE OF RELEASE

Type of Release: Produced Water & Oil	Volume of Release: 120 bbls water and 30 bbls oil	Volume Recovered: 30 bbls oil
Source of Release: 8" Poly Line	Date and Hour of Occurrence: 11/8/17 10:30 AM	Date and Hour of Discovery: 11/8/17
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

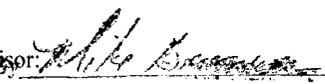
Describe Cause of Problem and Remedial Action Taken.*

When the lease operator arrived on location the main water line had ruptured and released produced water and oil into the pasture. The lease operator turned off the well and shut the valve on the water tank. The line was repaired and placed back in service.

Describe Area Affected and Cleanup Action Taken.*

The release occurred in the pasture. A vacuum truck was dispatched to remove all free standing fluids. EOG will have the spill area sampled to delineate any possible impact from the release and we will present a remediation plan to the NMOCD for approval prior to any significant remediation.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Ike Tavarez, (Agent for EOG)	Approved by District Supervisor: 	
Title: Tetra Tech - Project Manager	Approval Date: 11/14/17	Expiration Date: N/A
E-mail Address: ike.tavarez@tetrattech.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11/9/17 Phone: (432) 682-4559	See attached	2RD-4483

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company EOG Resources, Inc.	Contact Zane Kurtz	
Address 5509 Champions Drive, Midland, TX 79706	Telephone No. (432) 425-2023	
Facility Name Culebra BLV Federal #1H	Facility Type Main Water Line	
Surface Owner: Federal	Mineral Owner	API No. 30-015-37615

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	07	23S	29E	660	FNL	330	FWL	Eddy

Latitude N 32.32580° Longitude W 104.03110°

NATURE OF RELEASE

Type of Release: Produced Water & Oil	Volume of Release 120 bbls water and 30 bbls oil	Volume Recovered 30 bbls oil
Source of Release: 8" Poly Line	Date and Hour of Occurrence 11/08/17 10:30 AM	Date and Hour of Discovery 11/08/17
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* The main water line ruptured and released produced water and oil into the pasture. A vacuum truck was dispatched to remove all freestanding fluids and the release area was excavated, with NMOCD and BLM approval, as part of an emergency response.		
Describe Area Affected and Cleanup Action Taken.* Tetra Tech supervised the rapid response excavation and collected samples to ensure proper removal of the impacted soils. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.		

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

Signature: 	OIL CONSERVATION DIVISION	
	Approved by District Supervisor:	
Printed Name: Ike Tavarez	Approval Date:	Expiration Date:
Title: Project Manager	Conditions of Approval:	
E-mail Address: Ike.Tavarez@TetraTech.com	Attached <input type="checkbox"/>	
Date: 4/24/18 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

Appendix B

**Water Well Data
Average Depth to Groundwater (ft)
EOG Culebra BLV Federal #1H
Eddy County, New Mexico**

22 South 28 East

6	5	4	131	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	12	29	28	27	26
10	31	42	32	35	36

22 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	256	26	25
31	32	33	155	35	36

23 South 28 East

6	16.5	5	4	3	2	1
7	26.5	8	9	10	11	12
18	17	16	15	14	13	12
63	19	20	21	22	23	24
56	29	28	27	26	25	24
28.7	31	32	33	34	35	36

23 South 29 East

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
10	19	20	21	22	23	24
28	30	36	29	44	28	25
35	31	32	33	34	35	36

23 South 30 East

6	5	4	3	2	1	
110	7	8	9	10	11	12
18	17	16	15	14	13	12
19	20	21	22	23	24	24
30	29	28	27	26	25	25
31	32	33	34	35	36	36

24 South 28 East

6	70	5	30	4	30	3	2	55	1	60
7	8	50	9	10	11	12	13	14	15	16
18	17	16	15	14	13	12	11	10	9	8
19	20	21	22	23	24	24	23	22	21	20
30	29	28	27	26	25	25	24	23	22	21
31	32	33	34	35	36	36	35	34	33	32

24 South 29 East

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	4	16	15	14	13
19	20	21	22	23	24	24
30	29	28	27	26	25	25
31	32	33	34	35	36	36

24 South 30 East

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	186	16	15	14	13
19	231	20	21	22	23	24
150	30	29	28	27	26	25
31	32	33	34	35	36	36

- 88** New Mexico State Engineers Well Reports
- 105** USGS Well Reports
- 90** Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
Geology and Groundwater Resources of Eddy County, NM (Report 3)
- 34** NMOCD - Groundwater Data
- 123** Tetra Tech installed temporary wells and field water level
- 143** NMOCD Groundwater map well location



New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

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

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

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

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 00571		CUB	ED	1	3	3	30	23S	29E	591241	3570957*	90	38	52
C 00571 CLW241602	O		ED	3	3	3	30	23S	29E	591241	3570757*	89	38	51
C 01217 S		CUB	ED	4	1	4	16	23S	29E	595413	3574403*	350		
C 01627		C	ED	1	4	4	28	23S	29E	595649	3570959*	170		
C 02182		C	ED		4	30		23S	29E	592328	3571048*	75	30	45
C 02608		CUB	ED	3	1	4	17	23S	29E	593598	3574387*	400		
C 02613		CUB	ED	4	4	2	20	23S	29E	594203	3573176*	400		
C 02704		C	ED		1	19		23S	29E	591531	3573493*	174		
C 02705		C	ED		2	17		23S	29E	593902	3575093*	68	28	40
C 02706		C	ED		4	18		23S	29E	592302	3574291*	17	10	7
C 02707		C	ED		2	28		23S	29E	595535	3571868*	40	18	22
C 02715		CUB	ED	4	1	3	15	23S	29E	596221	3574411*	400		
C 02716		CUB	ED	4	4	4	16	23S	29E	595818	3574002*	400		
C 02717		CUB	ED	4	2	4	16	23S	29E	595817	3574407*	400		
C 02718		CUB	ED	4	4	2	16	23S	29E	595816	3574812*	400		
C 02720		CUB	ED		2	1	21	23S	29E	594911	3573690*	150		
C 02721		CUB	ED		2	3	21	23S	29E	594915	3572879*	150		
C 02792		CUB	ED		4	3	04	23S	29E	594868	3577336*	200		
C 02793		CUB	ED		4	3	04	23S	29E	594868	3577336*	100		
C 02794		CUB	ED		4	3	10	23S	29E	596518	3575731*	100		
C 02795		CUB	ED		4	3	10	23S	29E	596518	3575731*	200		
C 02797		CUB	ED		2	3	22	23S	29E	596540	3572895*	200		
C 02804		CUB	ED		2	1	08	23S	29E	593262	3576905*	100		
C 02805		CUB	ED		2	1	08	23S	29E	593262	3576905*	100		
C 02806		CUB	ED		1	1	09	23S	29E	594473	3576927*	100		
C 02807		CUB	ED		1	1	09	23S	29E	594473	3576927*	100		
C 02808		CUB	ED		2	3	16	23S	29E	594909	3574501*	100		
C 02809		CUB	ED		2	3	16	23S	29E	594909	3574501*	100		
C 03057 EXPLORE		CUB	ED	4	1	1	21	23S	29E	594605	3573586*	150		
C 03058 EXPLORE		CUB	ED	4	1	1	16	23S	29E	594605	3575206*	150		
C 03059 EXPLORE		CUB	ED	4	1	3	17	23S	29E	592993	3574378*		65	
C 03587 POD1		CUB	ED	1	4	3	29	23S	29E	593338	3570754	99	44	55
C 03587 POD2		CUB	ED	1	2	4	19	23S	29E	592213	3572706	77	16	61

Average Depth to Water:	31 feet
Minimum Depth:	10 feet
Maximum Depth:	65 feet

Record Count: 33

PLSS Search:

Township: 23S **Range:** 29E

*UTM location was derived from PLSS - see Help

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

4/10/18 12:15 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

Appendix C

Analytical Report 570089

for
Tetra Tech- Midland

Project Manager: Ike Tavarez

Culbera BLV Fed #1 H

212c-MD-01034

12-DEC-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



12-DEC-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **570089**
Culbera BLV Fed #1 H
Project Address: Eddy Co,NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 570089. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 570089 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Mike Kimmel

Client Services Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 570089

Tetra Tech- Midland, Midland, TX

Culbera BLV Fed #1 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Background 2'	S	11-28-17 00:00		570089-001
Background 4'	S	11-28-17 00:00		570089-002
Background 6'	S	11-28-17 00:00		570089-003
Background 8'	S	11-28-17 00:00		570089-004
S2 Bottomhole (BEB 1.5')	S	11-30-17 00:00		570089-005
S2 East Sidewall	S	11-30-17 00:00		570089-006
S2 West Sidewall	S	11-30-17 00:00		570089-007
S3 Bottomhole (BEB 1.5')	S	11-30-17 00:00		570089-008
S3 East Sidewall	S	11-30-17 00:00		570089-009
S3 West Sidewall	S	11-30-17 00:00		570089-010
S4 Bottomhole (BEB 2')	S	11-30-17 00:00		570089-011
S4 East Sidewall	S	11-30-17 00:00		570089-012
S4 West Sidewall	S	11-30-17 00:00		570089-013
S5 Bottomhole (BEB 2')	S	11-30-17 00:00		570089-014
S5 East Sidewall	S	11-30-17 00:00		570089-015
S5 West Sidewall	S	11-30-17 00:00		570089-016
S6 Bottomhole (BEB 2.5')	S	11-30-17 00:00		570089-017
S6 East Sidewall	S	11-30-17 00:00		570089-018
S6 West Sidewall	S	11-30-17 00:00		570089-019
S7 Bottomhole (BEB 2.5')	S	11-30-17 00:00		570089-020
S7 East Sidewall	S	11-30-17 00:00		570089-021
S7 West Sidewall	S	11-30-17 00:00		570089-022
S8 Bottomhole (BEB 2.5')	S	11-30-17 00:00		570089-023
S8 East Sidewall	S	11-30-17 00:00		570089-024
S8 West Sidewall	S	11-30-17 00:00		570089-025
S9 Bottomhole (BEB 3')	S	11-30-17 00:00		570089-026
S9 East Sidewall	S	11-30-17 00:00		570089-027
S9 West Sidewall	S	11-30-17 00:00		570089-028



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Culbera BLV Fed #1 H

Project ID: 212c-MD-01034
Work Order Number(s): 570089

Report Date: 12-DEC-17
Date Received: 12/04/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3035287 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3035409 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 570089

Tetra Tech- Midland, Midland, TX

Project Name: Culbera BLV Fed #1 H

Project Id: 212c-MD-01034

Contact: Ike Tavarez

Project Location: Eddy Co,NM

Date Received in Lab: Mon Dec-04-17 04:33 pm

Report Date: 12-DEC-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	570089-001	570089-002	570089-003	570089-004	570089-005	570089-006
	<i>Field Id:</i>	Background 2'	Background 4'	Background 6'	Background 8'	S2 Bottomhole (BEB 1.5')	S2 East Sidewall
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-28-17 00:00	Nov-28-17 00:00	Nov-28-17 00:00	Nov-28-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00
BTEX by EPA 8021B	<i>Extracted:</i>					Dec-08-17 15:00	Dec-08-17 15:00
	<i>Analyzed:</i>					Dec-08-17 20:05	Dec-08-17 20:24
	<i>Units/RL:</i>					mg/kg RL	mg/kg RL
Benzene						<0.00201 0.00201	<0.00200 0.00200
Toluene						<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene						<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes						<0.00402 0.00402	<0.00399 0.00399
o-Xylene						<0.00201 0.00201	<0.00200 0.00200
Total Xylenes						<0.00201 0.00201	<0.00200 0.00200
Total BTEX						<0.00201 0.00201	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Dec-07-17 09:00	Dec-07-17 09:00				
	<i>Analyzed:</i>	Dec-07-17 17:11	Dec-07-17 17:17	Dec-07-17 17:34	Dec-07-17 17:40	Dec-07-17 17:58	Dec-07-17 18:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		5.42 4.94	53.9 4.96	12.4 4.93	64.8 4.99	19.0 4.99	419 4.99
TPH By SW8015 Mod	<i>Extracted:</i>					Dec-05-17 11:00	Dec-05-17 11:00
	<i>Analyzed:</i>					Dec-05-17 13:44	Dec-05-17 14:43
	<i>Units/RL:</i>					mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)						<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)						<15.0 15.0	53.1 15.0
Oil Range Hydrocarbons (ORO)						<15.0 15.0	<15.0 15.0
Total TPH						<15.0 15.0	53.1 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mike Kimmel
Client Services Manager



Certificate of Analysis Summary 570089

Tetra Tech- Midland, Midland, TX

Project Name: Culbera BLV Fed #1 H

Project Id: 212c-MD-01034

Contact: Ike Tavarez

Project Location: Eddy Co,NM

Date Received in Lab: Mon Dec-04-17 04:33 pm

Report Date: 12-DEC-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	570089-007	570089-008	570089-009	570089-010	570089-011	570089-012
	Field Id:	S2 West Sidewall	S3 Bottomhole (BEB 1.5')	S3 East Sidewall	S3 West Sidewall	S4 Bottomhole (BEB 2')	S4 East Sidewall
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00
	Analyzed:	Dec-08-17 20:43	Dec-08-17 21:02	Dec-08-17 21:21	Dec-08-17 21:40	Dec-08-17 21:59	Dec-08-17 22:18
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
	Toluene	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
	Ethylbenzene	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
	m,p-Xylenes	<0.00398 0.00398	<0.00404 0.00404	<0.00403 0.00403	<0.00399 0.00399	<0.00397 0.00397	<0.00396 0.00396
	o-Xylene	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Total BTEX	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-07-17 09:00	Dec-07-17 09:00	Dec-07-17 09:00	Dec-07-17 09:00	Dec-07-17 09:00	Dec-07-17 14:30
	Analyzed:	Dec-07-17 18:10	Dec-07-17 18:16	Dec-07-17 18:22	Dec-07-17 18:28	Dec-07-17 18:34	Dec-07-17 19:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	16.2 5.00	27.7 4.94	9.90 4.93	8.04 4.98	131 4.98	45.9 4.99	
TPH By SW8015 Mod	Extracted:	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00
	Analyzed:	Dec-05-17 15:03	Dec-05-17 15:23	Dec-05-17 15:44	Dec-05-17 16:04	Dec-05-17 16:24	Dec-05-17 16:44
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Oil Range Hydrocarbons (ORO)	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mike Kimmel
Client Services Manager



Certificate of Analysis Summary 570089

Tetra Tech- Midland, Midland, TX

Project Name: Culbera BLV Fed #1 H

Project Id: 212c-MD-01034

Contact: Ike Tavarez

Project Location: Eddy Co,NM

Date Received in Lab: Mon Dec-04-17 04:33 pm

Report Date: 12-DEC-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	570089-013	570089-014	570089-015	570089-016	570089-017	570089-018
	Field Id:	S4 West Sidewall	S5 Bottomhole (BEB 2')	S5 East Sidewall	S5 West Sidewall	S6 Bottomhole (BEB 2.5')	S6 East Sidewall
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00	Dec-08-17 15:00
	Analyzed:	Dec-08-17 22:37	Dec-08-17 22:56	Dec-08-17 23:53	Dec-09-17 00:12	Dec-09-17 00:31	Dec-09-17 00:50
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199
	Toluene	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199
	Ethylbenzene	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199
	m,p-Xylenes	<0.00402 0.00402	<0.00403 0.00403	<0.00404 0.00404	<0.00402 0.00402	<0.00398 0.00398	<0.00398 0.00398
	o-Xylene	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
Total BTEX	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30
	Analyzed:	Dec-07-17 19:27	Dec-07-17 19:33	Dec-07-17 19:39	Dec-07-17 19:45	Dec-07-17 20:02	Dec-07-17 20:08
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	133 4.95	34.3 4.98	47.7 4.97	17.0 4.94	31.9 4.96	42.8 4.96	
TPH By SW8015 Mod	Extracted:	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00
	Analyzed:	Dec-05-17 17:03	Dec-05-17 17:23	Dec-05-17 18:21	Dec-05-17 18:42	Dec-05-17 19:03	Dec-05-17 19:24
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	16.2 15.0	<15.0 15.0	20.0 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	16.2 15.0	<15.0 15.0	20.0 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Version: 1.9%

Mike Kimmel
Client Services Manager



Certificate of Analysis Summary 570089

Tetra Tech- Midland, Midland, TX

Project Name: Culbera BLV Fed #1 H

Project Id: 212c-MD-01034

Contact: Ike Tavarez

Project Location: Eddy Co,NM

Date Received in Lab: Mon Dec-04-17 04:33 pm

Report Date: 12-DEC-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	570089-019	570089-020	570089-021	570089-022	570089-023	570089-024
	Field Id:	S6 West Sidewall	S7 Bottomhole (BEB 2.5')	S7 East Sidewall	S7 West Sidewall	S8 Bottomhole (BEB 2.5')	S8 East Sidewall
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-08-17 15:00	Dec-07-17 11:00	Dec-07-17 11:00	Dec-07-17 11:00	Dec-07-17 11:00	Dec-07-17 11:00
	Analyzed:	Dec-09-17 01:09	Dec-08-17 03:45	Dec-08-17 04:03	Dec-08-17 01:51	Dec-08-17 02:10	Dec-08-17 02:29
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
	Toluene	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
	Ethylbenzene	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
	m,p-Xylenes	<0.00397 0.00397	<0.00399 0.00399	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399
	o-Xylene	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Total BTEX	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30
	Analyzed:	Dec-07-17 20:14	Dec-07-17 20:20	Dec-07-17 20:26	Dec-07-17 20:32	Dec-07-17 20:50	Dec-07-17 20:56
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	20.6 4.93	36.6 4.95	18.4 4.97	68.4 4.91	168 4.95	15.8 4.98	
TPH By SW8015 Mod	Extracted:	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00	Dec-05-17 11:00
	Analyzed:	Dec-05-17 19:43	Dec-05-17 20:04	Dec-05-17 20:26	Dec-05-17 20:45	Dec-05-17 21:05	Dec-05-17 21:25
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mike Kimmel
Client Services Manager



Certificate of Analysis Summary 570089

Tetra Tech- Midland, Midland, TX

Project Name: Culbera BLV Fed #1 H

Project Id: 212c-MD-01034

Contact: Ike Tavarez

Project Location: Eddy Co,NM

Date Received in Lab: Mon Dec-04-17 04:33 pm

Report Date: 12-DEC-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	570089-025	570089-026	570089-027	570089-028		
	Field Id:	S8 West Sidewall	S9 Bottmhole (BEB 3')	S9 East Sidewall	S9 West Sidewall		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00	Nov-30-17 00:00		
BTEX by EPA 8021B	Extracted:	Dec-07-17 11:00	Dec-07-17 11:00	Dec-07-17 11:00	Dec-07-17 11:00		
	Analyzed:	Dec-08-17 02:48	Dec-08-17 03:06	Dec-08-17 03:26	Dec-08-17 04:22		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200		
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200		
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200		
m,p-Xylenes		<0.00402 0.00402	<0.00404 0.00404	<0.00401 0.00401	<0.00401 0.00401		
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200		
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200		
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200		
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30	Dec-07-17 14:30		
	Analyzed:	Dec-07-17 21:14	Dec-07-17 21:20	Dec-07-17 21:25	Dec-07-17 21:31		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<4.98 4.98	36.4 4.96	46.9 4.96	10.9 4.92		
TPH By SW8015 Mod	Extracted:	Dec-06-17 11:00	Dec-06-17 11:00	Dec-06-17 11:00	Dec-06-17 11:00		
	Analyzed:	Dec-06-17 14:39	Dec-06-17 15:37	Dec-06-17 15:57	Dec-06-17 16:16		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mike Kimmel
Client Services Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 1211 W Florida Ave, Midland, TX 79701
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(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035077

Sample: 570089-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 13:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.8	99.8	89	70-135	
o-Terphenyl	47.2	49.9	95	70-135	

Lab Batch #: 3035077

Sample: 570089-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 14:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.5	99.9	93	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 3035077

Sample: 570089-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 15:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.3	99.8	90	70-135	
o-Terphenyl	46.4	49.9	93	70-135	

Lab Batch #: 3035077

Sample: 570089-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 15:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.2	99.6	82	70-135	
o-Terphenyl	42.8	49.8	86	70-135	

Lab Batch #: 3035077

Sample: 570089-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 15:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.4	99.7	88	70-135	
o-Terphenyl	44.8	49.9	90	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035077

Sample: 570089-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 16:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	99.7	90	70-135	
o-Terphenyl	46.2	49.9	93	70-135	

Lab Batch #: 3035077

Sample: 570089-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 16:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.6	100	90	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 3035077

Sample: 570089-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 16:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.7	89	70-135	
o-Terphenyl	46.0	49.9	92	70-135	

Lab Batch #: 3035077

Sample: 570089-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 17:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.6	99.8	92	70-135	
o-Terphenyl	46.9	49.9	94	70-135	

Lab Batch #: 3035077

Sample: 570089-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 17:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.3	99.8	91	70-135	
o-Terphenyl	47.2	49.9	95	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035077

Sample: 570089-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 18:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.6	89	70-135	
o-Terphenyl	46.2	49.8	93	70-135	

Lab Batch #: 3035077

Sample: 570089-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 18:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	99.9	92	70-135	
o-Terphenyl	45.7	50.0	91	70-135	

Lab Batch #: 3035077

Sample: 570089-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 19:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.8	99.9	92	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

Lab Batch #: 3035077

Sample: 570089-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 19:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	100	86	70-135	
o-Terphenyl	44.6	50.0	89	70-135	

Lab Batch #: 3035077

Sample: 570089-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 19:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.7	89	70-135	
o-Terphenyl	45.5	49.9	91	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035077

Sample: 570089-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 20:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.0	99.7	91	70-135	
o-Terphenyl	45.9	49.9	92	70-135	

Lab Batch #: 3035077

Sample: 570089-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 20:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.1	99.6	77	70-135	
o-Terphenyl	41.2	49.8	83	70-135	

Lab Batch #: 3035077

Sample: 570089-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 20:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.8	99.9	89	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

Lab Batch #: 3035077

Sample: 570089-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 21:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.1	99.9	91	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 3035077

Sample: 570089-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 21:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	99.8	88	70-135	
o-Terphenyl	44.6	49.9	89	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035197

Sample: 570089-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/17 14:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	99.9	99	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 3035197

Sample: 570089-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/17 15:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.9	99.7	84	70-135	
o-Terphenyl	44.3	49.9	89	70-135	

Lab Batch #: 3035197

Sample: 570089-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/17 15:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	99.8	87	70-135	
o-Terphenyl	45.5	49.9	91	70-135	

Lab Batch #: 3035197

Sample: 570089-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/17 16:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.3	99.8	83	70-135	
o-Terphenyl	43.5	49.9	87	70-135	

Lab Batch #: 3035287

Sample: 570089-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 01:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035287

Sample: 570089-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 02:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3035287

Sample: 570089-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 02:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 3035287

Sample: 570089-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 02:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 3035287

Sample: 570089-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 03:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 3035287

Sample: 570089-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 03:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035287

Sample: 570089-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 03:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3035287

Sample: 570089-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 04:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 3035287

Sample: 570089-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 04:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 3035409

Sample: 570089-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 20:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3035409

Sample: 570089-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 20:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035409

Sample: 570089-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3035409

Sample: 570089-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 21:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3035409

Sample: 570089-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 21:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 3035409

Sample: 570089-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 21:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 3035409

Sample: 570089-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 21:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035409

Sample: 570089-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 22:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 3035409

Sample: 570089-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 22:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 3035409

Sample: 570089-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 22:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3035409

Sample: 570089-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 23:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3035409

Sample: 570089-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/09/17 00:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035409

Sample: 570089-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/09/17 00:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3035409

Sample: 570089-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/09/17 00:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 3035409

Sample: 570089-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/09/17 01:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 3035077

Sample: 7635497-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/17 12:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	100	91	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 3035197

Sample: 7635570-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/17 13:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.7	100	98	70-135	
o-Terphenyl	52.5	50.0	105	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035287

Sample: 7635620-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/07/17 21:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3035409

Sample: 7635691-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/08/17 19:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3035077

Sample: 7635497-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/17 13:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.8	100	89	70-135	
o-Terphenyl	46.1	50.0	92	70-135	

Lab Batch #: 3035197

Sample: 7635570-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/17 13:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

Lab Batch #: 3035287

Sample: 7635620-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/07/17 19:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035409

Sample: 7635691-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/08/17 17:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 3035077

Sample: 7635497-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/05/17 13:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

Lab Batch #: 3035197

Sample: 7635570-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/06/17 14:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.5	100	83	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 3035287

Sample: 7635620-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/07/17 20:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3035409

Sample: 7635691-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/08/17 18:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035077

Sample: 570089-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 14:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.5	99.7	84	70-135	
o-Terphenyl	44.1	49.9	88	70-135	

Lab Batch #: 3035197

Sample: 570089-025 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/17 14:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.1	99.9	89	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

Lab Batch #: 3035409

Sample: 570089-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 18:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 3035077

Sample: 570089-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/05/17 14:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	99.8	91	70-135	
o-Terphenyl	45.8	49.9	92	70-135	

Lab Batch #: 3035197

Sample: 570089-025 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/06/17 15:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.6	100	97	70-135	
o-Terphenyl	50.0	50.0	100	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Culbera BLV Fed #1 H

Work Orders : 570089,

Project ID: 212c-MD-01034

Lab Batch #: 3035409

Sample: 570089-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/08/17 18:50

SURROGATE RECOVERY STUDY

<p>BTEX by EPA 8021B</p> <p>Analytes</p>	<p>Amount Found [A]</p>	<p>True Amount [B]</p>	<p>Recovery %R [D]</p>	<p>Control Limits %R</p>	<p>Flags</p>
<p>1,4-Difluorobenzene</p>	<p>0.0289</p>	<p>0.0300</p>	<p>96</p>	<p>80-120</p>	
<p>4-Bromofluorobenzene</p>	<p>0.0292</p>	<p>0.0300</p>	<p>97</p>	<p>80-120</p>	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Culbera BLV Fed #1 H

Work Order #: 570089

Project ID: 212c-MD-01034

Analyst: ALJ

Date Prepared: 12/07/2017

Date Analyzed: 12/07/2017

Lab Batch ID: 3035287

Sample: 7635620-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00202	0.101	0.109	108	0.101	0.109	108	0	70-130	35	
Toluene	<0.00202	0.101	0.103	102	0.101	0.102	101	1	70-130	35	
Ethylbenzene	<0.00202	0.101	0.102	101	0.101	0.101	100	1	71-129	35	
m,p-Xylenes	<0.00403	0.202	0.195	97	0.202	0.194	96	1	70-135	35	
o-Xylene	<0.00202	0.101	0.0960	95	0.101	0.0957	95	0	71-133	35	

Analyst: ALJ

Date Prepared: 12/08/2017

Date Analyzed: 12/08/2017

Lab Batch ID: 3035409

Sample: 7635691-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.109	109	0.100	0.120	120	10	70-130	35	
Toluene	<0.00200	0.0998	0.104	104	0.100	0.117	117	12	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.103	103	0.100	0.115	115	11	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.200	0.221	111	11	70-135	35	
o-Xylene	<0.00200	0.0998	0.0966	97	0.100	0.108	108	11	71-133	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Culbera BLV Fed #1 H

Work Order #: 570089

Project ID: 212c-MD-01034

Analyst: MNV

Date Prepared: 12/07/2017

Date Analyzed: 12/07/2017

Lab Batch ID: 3035301

Sample: 7635586-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	262	105	250	264	106	1	90-110	20	

Analyst: MNV

Date Prepared: 12/07/2017

Date Analyzed: 12/07/2017

Lab Batch ID: 3035305

Sample: 7635603-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	266	106	250	256	102	4	90-110	20	

Analyst: ARM

Date Prepared: 12/05/2017

Date Analyzed: 12/05/2017

Lab Batch ID: 3035077

Sample: 7635497-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	904	90	1000	940	94	4	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	977	98	1000	1010	101	3	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Culbera BLV Fed #1 H

Work Order #: 570089

Project ID: 212c-MD-01034

Analyst: ARM

Date Prepared: 12/06/2017

Date Analyzed: 12/06/2017

Lab Batch ID: 3035197

Sample: 7635570-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	953	95	1000	855	86	11	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	1000	933	93	9	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Culbera BLV Fed #1 H

Work Order # : 570089

Project ID: 212c-MD-01034

Lab Batch ID: 3035409

QC- Sample ID: 570089-005 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/08/2017

Date Prepared: 12/08/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0854	85	0.101	0.0915	91	7	70-130	35	
Toluene	<0.00200	0.100	0.0805	81	0.101	0.0851	84	6	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0786	79	0.101	0.0810	80	3	71-129	35	
m,p-Xylenes	<0.00401	0.200	0.152	76	0.201	0.155	77	2	70-135	35	
o-Xylene	<0.00200	0.100	0.0777	78	0.101	0.0777	77	0	71-133	35	

Lab Batch ID: 3035301

QC- Sample ID: 570089-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/07/2017

Date Prepared: 12/07/2017

Analyst: MNV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	53.9	248	313	104	248	316	106	1	90-110	20	

Lab Batch ID: 3035301

QC- Sample ID: 570161-014 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/07/2017

Date Prepared: 12/07/2017

Analyst: MNV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	200	248	464	106	248	460	105	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Culbera BLV Fed #1 H

Work Order # : 570089

Project ID: 212c-MD-01034

Lab Batch ID: 3035305

QC- Sample ID: 570089-012 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/07/2017

Date Prepared: 12/07/2017

Analyst: MNV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	45.9	250	301	102	250	304	103	1	90-110	20	

Lab Batch ID: 3035305

QC- Sample ID: 570089-022 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/07/2017

Date Prepared: 12/07/2017

Analyst: MNV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	68.4	246	315	100	246	324	104	3	90-110	20	

Lab Batch ID: 3035077

QC- Sample ID: 570089-005 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/05/2017

Date Prepared: 12/05/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	912	91	998	976	98	7	70-135	35	
Diesel Range Organics (DRO)	<15.0	997	983	99	998	1070	107	8	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Culbera BLV Fed #1 H

Work Order # : 570089

Project ID: 212c-MD-01034

Lab Batch ID: 3035197

QC- Sample ID: 570089-025 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/06/2017

Date Prepared: 12/06/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	999	963	96	1000	1060	106	10	70-135	35	
Diesel Range Organics (DRO)	<15.0	999	1050	105	1000	1130	113	7	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Analysis Request of Custody Record

EOG
Culberr BLV Fed # 1 H
Site Manager: Ike Tavaraz

Project Name:

Project Location: (county, state)
Eddy Co, NM

Project #: 212c-MD-01034

Invoice to: Zane Kurz

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB #
(LAB USE ONLY)

SAMPLE IDENTIFICATION

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		YEAR	DATE				HCL	HNO ₃	ICE			
	Background 2'			11/28/2017		X		X			1	n
	Background 4'			11/28/17		X		X			1	n
	Background 6'			11/28/17		X		X			1	n
	Background 8'			11/28/17		X		X			1	n
	S2 Bottomhole (BEB 1.5')			11/30/17		X		X			1	n
	S2 East Sidewall			11/30/17		X		X			1	n
	S2 West Sidewall			11/30/17		X		X			1	n
	S3 Bottomhole (BEB 1.5')			11/30/17		X		X			1	n
	S3 East Sidewall			11/30/17		X		X			1	n
	S3 West Sidewall			11/30/17		X		X			1	n

Relinquished by: *[Signature]*
Date: 12-4-17 Time: 16:33

Received by: *[Signature]*
Date: 12-4-17 Time: 16:33

Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

ANALYSIS REQUEST

(Circle or Specify Method No.)

BTEX 8021B	BTEX 8260B	
TPH TX1005 (Ext to C35)		
TPH 8015M (GRO - DRO - ORO - MRO)		
PAH 8270C		
Total Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
RCI		
GC/MS Vol. 8260B / 624		
GC/MS Semi. Vol. 8270C/625		
PCB's 8082 / 608		
NORM		
PLM (Asbestos)		
Chloride		X
Chloride Sulfate TDS		X
General Water Chemistry (see attached list)		X
Anion/Cation Balance		X

LAB USE ONLY

Sample Temperature

REMARKS:

- RUSH: Same Day 24 hr 48 hr 72 hr
- Rush Charges Authorized
- Special Report Limits or TRRP Report

HAND DELIVERED FEDEX UPS Tracking #:

570089

Standard

ORIGINAL COI

Temp: 39 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 37

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Site
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

570089

Site Manager: Ike Tavaraz

Project Name: EOG Culbera BLV Fed # 1 H

Project Location: (county, state) Eddy Co, NM

Project #: 212c-MD-01034

Invoice to: Zane Kurtz

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX				PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
	YEAR	DATE	TIME	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE			
		S4 Bottomhole (BEB 2')	11/30/2017			X					1 n	X	BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35)
		S4 East Sidewall	11/30/17			X					1 n	X	TPH 8015M (GRO - DRO - ORO MRO)
		S4 West Sidewall	11/30/17			X					1 n	X	PAH 8270C
		S5 Bottomhole (BEB 2')	11/30/17			X					1 n	X	Total Metals Ag As Ba Cd Cr Pb Se Hg
		S5 East Sidewall	11/30/17			X					1 n	X	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
		S5 West Sidewall	11/30/17			X					1 n	X	TCLP Volatiles
		S6 Bottomhole (BEB 2.5')	11/30/17			X					1 n	X	TCLP Semi Volatiles
		S6 East Sidewall	11/30/17			X					1 n	X	RCI
		S6 West Sidewall	11/30/17			X					1 n	X	GC/MS Vol. 8260B / 624
		S7 Bottomhole (BEB 2.5')	11/30/17			X					1 n	X	GC/MS Semi. Vol. 8270C/625
													PCB's 8082 / 608
													NORM
													PLM (Asbestos)
													Chloride
													Chloride Sulfate TDS
													General Water Chemistry (see attached list)
													Anion/Cation Balance

Relinquished by: [Signature] Date: 12-4-17 Time: 16:33

Received by: [Signature] Date: 12-4-17 Time: 10:33

Relinquished by: [Signature] Date: [] Time: []

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

Relinquished by: [Signature] Date: [] Time: []

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

LAB USE ONLY

REMARKS:

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Sample Temperature

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

ORIGINAL COI

Temp: 3.9

IR ID: R-8

CF: (0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 3.7

HAND DELIVERED FEDEX UPS Tracking #: []

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

570089

EOG Site Manager: Ike Tavaraz

Project Name: Culbera BLV Fed # 1 H

Project Location: (county, state) Eddy Co, NM

Project #: 212c-MD-01034

Invoice to: Zane Kurtz

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST
		YEAR:	DATE		TIME	HCL	HNO ₃			
	S7 East Sidewall		11/30/2017		X			1 n		BTEX 8021B BTEX 8260B
	S7 West Sidewall		11/30/17	X		X		1 n		TPH TX1005 (Ext to C35)
	S8 Bottomhole (BEB 2.5')		11/30/17	X		X		1 n		TPH 8015M (GRO - DRO - ORO) MRO)
	S8 East Sidewall		11/30/17	X		X		1 n		PAH 8270C
	S8 West Sidewall		11/30/17	X		X		1 n		Total Metals Ag As Ba Cd Cr Pb Se Hg
	S9 Bottomhole (BEB 3')		11/30/17	X		X		1 n		TCLP Metals Ag As Ba Cd Cr Pb Se Hg
	S9 East Sidewall		11/30/17	X		X		1 n		TCLP Volatiles
	S9 West Sidewall		11/30/17	X		X		1 n		TCLP Semi Volatiles
										RCI
										GC/MS Vol. 8260B / 624
										GC/MS Semi. Vol. 8270C/625
										PCB's 8082 / 608
										NORM
										PLM (Asbestos)
										Chloride
										Chloride Sulfate TDS
										General Water Chemistry (see attached list)
										Anion/Cation Balance
										Hold

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB USE ONLY

REMARKS:

- RUSH: Same Day 24 hr 48 hr 72 hr
- Push Charges Authorized
- Special Report Limits or TRRP Report

DELIVERED FEDEX UPS Tracking #:

Relinquished by: [Signature] Date: 12-4-17 Time: 10:39

Received by: [Signature] Date: 12-4-17 Time: 10:35

Received by: [Signature] Date: 12-4-17 Time: 10:35

Relinquished by: [Signature] Date: [] Time: []

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

ORIGINAL COPY

Temp: 3.9 IR ID: R-8
CF: (-0.6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.7



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/04/2017 04:33:00 PM

Work Order #: 570089

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 12/04/2017
Shawnee Smith

Checklist reviewed by: Mike Kimmel Date: 12/10/2017
Mike Kimmel

Analytical Report 571133

for
Tetra Tech- Midland

Project Manager: Ike Tavarez

EOG- Calebra BLV Federal #1

21-DEC-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



21-DEC-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
 4000 N. Big Spring Suite 401
 Midland, TX 79705

Reference: XENCO Report No(s): **571133**
EOG- Calebra BLV Federal #1
 Project Address: Eddy County, New Mexico

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 571133. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 571133 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 571133

Tetra Tech- Midland, Midland, TX

EOG- Calebra BLV Federal #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Area #1 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-001
Area #1 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-002
Area #1 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-003
Area #1 South Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-004
Area #2 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-005
Area #2 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-006
Area #2 South Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-007
Area #3 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-008
Area #3 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-009
Area #4 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-010
Area #4 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-011
Area #4 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-012
Area #5 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-013
Area #5 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-014
Area #5 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-015
Area #6 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-016
Area #6 Bottom Hole #2 (2.5' BEB)	S	12-13-17 00:00		571133-017
Area #6 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-018
Area #6 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-019
Area #7 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-020
Area #7 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-021
Area #7 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-022
Area #8 Bottom Hole (2.5' BEB)	S	12-13-17 00:00		571133-023
Area #8 East Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-024
Area #8 West Sidewall (2.5' BEB)	S	12-13-17 00:00		571133-025
S1 (2.5' BEB)	S	12-13-17 00:00		571133-026
S1 East Sidewall	S	12-13-17 00:00		571133-027
S1 West Sidewall	S	12-13-17 00:00		571133-028



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG- Calebra BLV Federal #1

Project ID:
Work Order Number(s): 571133

Report Date: 21-DEC-17
Date Received: 12/14/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3036149 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3036151 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3036176 BTEX by EPA 8021B
Lab Sample ID 571133-018 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 571133-018, -026.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 571133-018, -026



Certificate of Analysis Summary 571133

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Calebra BLV Federal #1

Project Id:
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Dec-14-17 12:36 pm
Report Date: 21-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	571133-001	571133-002	571133-003	571133-004	571133-005	571133-006
	Field Id:	Area #1 Bottom Hole (2.5' B)	Area #1 East Sidewall (2.5' B)	Area #1 West Sidewall (2.5' B)	Area #1 South Sidewall (2.5' B)	Area #2 Bottom Hole (2.5' B)	Area #2 West Sidewall (2.5' B)
Depth:							
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00
	Analyzed:	Dec-15-17 20:01	Dec-15-17 20:20	Dec-15-17 20:39	Dec-15-17 20:58	Dec-15-17 21:17	Dec-15-17 21:36
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00404 0.00404	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-18-17 12:00	Dec-18-17 12:00	Dec-18-17 12:00	Dec-18-17 12:00	Dec-18-17 12:00	Dec-18-17 12:00
	Analyzed:	Dec-19-17 01:40	Dec-19-17 02:03	Dec-19-17 02:10	Dec-19-17 02:18	Dec-19-17 02:26	Dec-19-17 02:33
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		41.4 5.00	8.16 4.97	11.4 5.00	<4.96 4.96	214 4.99	24.3 4.91
TPH By SW8015 Mod	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00
	Analyzed:	Dec-16-17 00:49	Dec-16-17 01:09	Dec-16-17 02:11	Dec-16-17 02:30	Dec-16-17 02:50	Dec-16-17 03:12
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		208 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	347 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		27.1 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	71.1 15.0	<15.0 15.0
Total TPH		235 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	418 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 571133

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Calebra BLV Federal #1

Project Id:
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Dec-14-17 12:36 pm
Report Date: 21-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	571133-007	571133-008	571133-009	571133-010	571133-011	571133-012
	Field Id:	Area #2 South Sidewall (2.5'	Area #3 Bottom Hole (2.5' B	Area #3 East Sidewall (2.5'	Area #4 Bottom Hole (2.5' B	Area #4 East Sidewall (2.5'	Area #4 West Sidewall (2.5' F
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00
	Analyzed:	Dec-15-17 21:55	Dec-15-17 22:14	Dec-15-17 22:33	Dec-15-17 22:52	Dec-16-17 02:21	Dec-15-17 23:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00399 0.00399	<0.00397 0.00397	<0.00402 0.00402	<0.00404 0.00404	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-18-17 12:00	Dec-18-17 12:00	Dec-18-17 12:00	Dec-18-17 12:00	Dec-19-17 10:50	Dec-19-17 10:50
	Analyzed:	Dec-19-17 02:56	Dec-19-17 03:04	Dec-19-17 03:12	Dec-19-17 03:19	Dec-19-17 14:04	Dec-19-17 14:11
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.96 4.96	376 4.97	23.4 4.95	351 4.98	197 4.99	35.0 4.95
TPH By SW8015 Mod	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00
	Analyzed:	Dec-16-17 03:32	Dec-16-17 03:52	Dec-16-17 04:14	Dec-16-17 04:35	Dec-16-17 05:34	Dec-16-17 05:56
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	184 15.0	<15.0 15.0	101 14.9	80.8 14.9	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	28.3 15.0	<15.0 15.0	16.0 14.9	19.6 14.9	<15.0 15.0
Total TPH		<15.0 15.0	212 15.0	<15.0 15.0	117 14.9	100 14.9	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 571133

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Calebra BLV Federal #1

Project Id:
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Dec-14-17 12:36 pm
Report Date: 21-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	571133-013	571133-014	571133-015	571133-016	571133-017	571133-018
	Field Id:	Area #5 Bottom Hole (2.5' Bl	Area #5 East Sidewall (2.5' Bl	Area #5 West Sidewall (2.5' Bl	Area #6 Bottom Hole (2.5' Bl	Area #6 Bottom Hole #2 (2.5' Bl	Area #6 East Sidewall(2.5' Bl
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-18-17 09:30
	Analyzed:	Dec-16-17 00:08	Dec-16-17 00:27	Dec-16-17 00:46	Dec-16-17 01:05	Dec-16-17 01:24	Dec-18-17 13:31
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Toluene	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Ethylbenzene	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
m,p-Xylenes	<0.00398 0.00398	<0.00397 0.00397	<0.00396 0.00396	<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	
o-Xylene	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Total Xylenes	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Total BTEX	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-19-17 10:50	Dec-19-17 10:50	Dec-19-17 10:50	Dec-19-17 10:50	Dec-19-17 10:50	Dec-19-17 10:50
	Analyzed:	Dec-19-17 14:32	Dec-19-17 14:39	Dec-19-17 15:00	Dec-19-17 15:07	Dec-19-17 15:14	Dec-19-17 15:21
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	21.4 4.90	25.8 4.92	22.8 4.97	54.0 4.96	16.8 4.91	190 4.98	
TPH By SW8015 Mod	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00
	Analyzed:	Dec-16-17 06:17	Dec-16-17 06:37	Dec-16-17 06:58	Dec-16-17 07:21	Dec-16-17 07:41	Dec-16-17 08:02
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	358 15.0	
Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	56.5 15.0	
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	415 15.0	

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 571133

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Calebra BLV Federal #1

Project Id:
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Dec-14-17 12:36 pm
Report Date: 21-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	571133-019	571133-020	571133-021	571133-022	571133-023	571133-024
	Field Id:	Area #6 West Sidewall (2.5'	Area #7 Bottom Hole (2.5'	Area #7 East Sidewall (2.5'	Area #7 West Sidewall (2.5'	Area #8 Bottom Hole (2.5'	Area #8 East Sidewall (2.5'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-15-17 16:00	Dec-15-17 17:00	Dec-15-17 17:00	Dec-15-17 17:00	Dec-15-17 17:00	Dec-15-17 17:00
	Analyzed:	Dec-16-17 02:02	Dec-16-17 18:25	Dec-16-17 17:47	Dec-16-17 18:06	Dec-16-17 16:12	Dec-16-17 16:31
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.0100 0.0100	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.0100 0.0100	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.0100 0.0100	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.0200 0.0200	<0.00404 0.00404	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.0100 0.0100	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.0100 0.0100	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.0100 0.0100	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-19-17 10:50	Dec-19-17 10:50	Dec-19-17 10:50	Dec-19-17 12:30	Dec-19-17 12:30	Dec-19-17 12:30
	Analyzed:	Dec-19-17 15:28	Dec-19-17 15:35	Dec-19-17 15:41	Dec-19-17 16:23	Dec-19-17 16:44	Dec-19-17 16:51
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.0 4.98	29.5 4.98	23.2 4.98	22.0 4.98	19.5 4.98	8.16 4.90
TPH By SW8015 Mod	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00
	Analyzed:	Dec-16-17 08:21	Dec-16-17 08:41	Dec-16-17 13:18	Dec-16-17 13:39	Dec-16-17 14:00	Dec-16-17 14:20
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 571133

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Calebra BLV Federal #1

Project Id:
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Dec-14-17 12:36 pm
Report Date: 21-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	571133-025	571133-026	571133-027	571133-028		
	Field Id:	Area #8 West Sidewall (2.5' E)	S1 (2.5' BEB)	S1 East Sidewall	S1 West Sidewall		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00	Dec-13-17 00:00		
BTEX by EPA 8021B	Extracted:	Dec-15-17 17:00	Dec-18-17 09:30	Dec-15-17 17:00	Dec-15-17 17:00		
	Analyzed:	Dec-16-17 05:29	Dec-18-17 13:50	Dec-16-17 06:07	Dec-16-17 14:01		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200		
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200		
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200		
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00402 0.00402	<0.00399 0.00399		
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200		
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200		
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200		
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-19-17 12:30	Dec-19-17 12:30	Dec-19-17 12:30	Dec-19-17 12:30		
	Analyzed:	Dec-19-17 16:58	Dec-19-17 17:05	Dec-19-17 17:26	Dec-19-17 17:33		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		88.5 4.95	40.2 4.96	46.3 5.00	16.3 5.00		
TPH By SW8015 Mod	Extracted:	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00	Dec-15-17 16:00		
	Analyzed:	Dec-16-17 15:02	Dec-16-17 15:22	Dec-16-17 15:41	Dec-16-17 16:01		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks
Project Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036149

Sample: 571133-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/15/17 20:01

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 3036149

Sample: 571133-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/15/17 20:20

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3036149

Sample: 571133-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/15/17 20:39

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 3036149

Sample: 571133-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/15/17 20:58

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3036149

Sample: 571133-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/15/17 21:17

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036149

Sample: 571133-006 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/15/17 21:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3036149

Sample: 571133-007 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/15/17 21:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 3036149

Sample: 571133-008 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/15/17 22:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

Lab Batch #: 3036149

Sample: 571133-009 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/15/17 22:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3036149

Sample: 571133-010 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/15/17 22:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036149

Sample: 571133-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/17 23:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3036149

Sample: 571133-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 00:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3036149

Sample: 571133-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 00:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036149

Sample: 571133-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 00:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3036114

Sample: 571133-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 00:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.7	99.8	84	70-135	
o-Terphenyl	42.8	49.9	86	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036149

Sample: 571133-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 01:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036114

Sample: 571133-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 01:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.3	99.9	93	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 3036149

Sample: 571133-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 01:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3036149

Sample: 571133-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 02:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 3036114

Sample: 571133-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 02:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.3	99.6	93	70-135	
o-Terphenyl	46.3	49.8	93	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036149

Sample: 571133-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 02:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 3036114

Sample: 571133-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 02:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.9	99.7	93	70-135	
o-Terphenyl	47.0	49.9	94	70-135	

Lab Batch #: 3036114

Sample: 571133-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 02:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.9	99.7	100	70-135	
o-Terphenyl	54.2	49.9	109	70-135	

Lab Batch #: 3036114

Sample: 571133-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 03:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.8	99.9	84	70-135	
o-Terphenyl	41.2	50.0	82	70-135	

Lab Batch #: 3036114

Sample: 571133-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 03:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	99.9	99	70-135	
o-Terphenyl	49.2	50.0	98	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036114

Sample: 571133-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 03:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	99.8	97	70-135	
o-Terphenyl	50.4	49.9	101	70-135	

Lab Batch #: 3036114

Sample: 571133-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 04:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	100	90	70-135	
o-Terphenyl	43.9	50.0	88	70-135	

Lab Batch #: 3036114

Sample: 571133-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 04:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.8	99.6	89	70-135	
o-Terphenyl	45.6	49.8	92	70-135	

Lab Batch #: 3036151

Sample: 571133-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 05:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3036114

Sample: 571133-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 05:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.6	99.6	100	70-135	
o-Terphenyl	52.3	49.8	105	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036114

Sample: 571133-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 05:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	197	200	99	70-135	
o-Terphenyl	97.2	99.8	97	70-135	

Lab Batch #: 3036151

Sample: 571133-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 06:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3036114

Sample: 571133-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 06:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.5	99.9	82	70-135	
o-Terphenyl	41.9	50.0	84	70-135	

Lab Batch #: 3036114

Sample: 571133-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 06:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.8	99.9	100	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 3036114

Sample: 571133-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 06:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	50.9	49.9	102	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036114

Sample: 571133-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 07:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.8	99.7	81	70-135	
o-Terphenyl	41.0	49.9	82	70-135	

Lab Batch #: 3036114

Sample: 571133-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 07:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.4	99.7	91	70-135	
o-Terphenyl	43.8	49.9	88	70-135	

Lab Batch #: 3036114

Sample: 571133-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 08:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.5	99.9	89	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

Lab Batch #: 3036114

Sample: 571133-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 08:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.9	94	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

Lab Batch #: 3036114

Sample: 571133-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 08:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	99.8	88	70-135	
o-Terphenyl	44.9	49.9	90	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036115

Sample: 571133-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 13:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.5	99.9	92	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 3036115

Sample: 571133-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 13:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	99.7	96	70-135	
o-Terphenyl	47.8	49.9	96	70-135	

Lab Batch #: 3036115

Sample: 571133-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 14:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	99.7	87	70-135	
o-Terphenyl	45.1	49.9	90	70-135	

Lab Batch #: 3036151

Sample: 571133-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 14:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3036115

Sample: 571133-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 14:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	100	90	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036115

Sample: 571133-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 15:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.5	99.8	85	70-135	
o-Terphenyl	43.8	49.9	88	70-135	

Lab Batch #: 3036115

Sample: 571133-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 15:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 3036115

Sample: 571133-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 15:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.6	99.8	93	70-135	
o-Terphenyl	47.9	49.9	96	70-135	

Lab Batch #: 3036115

Sample: 571133-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 16:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	99.7	97	70-135	
o-Terphenyl	49.5	49.9	99	70-135	

Lab Batch #: 3036151

Sample: 571133-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 16:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036151

Sample: 571133-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 16:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3036151

Sample: 571133-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 17:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 3036151

Sample: 571133-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 18:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 3036151

Sample: 571133-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 18:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 3036176

Sample: 571133-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/18/17 13:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036176

Sample: 571133-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/18/17 13:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3036149

Sample: 7636092-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/17 19:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 3036114

Sample: 7636099-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/17 23:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	51.5	50.0	103	70-135	

Lab Batch #: 3036151

Sample: 7636108-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 05:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 3036115

Sample: 7636100-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 09:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.2	100	92	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036176

Sample: 7636163-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/18/17 13:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

Lab Batch #: 3036149

Sample: 7636092-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/17 17:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3036114

Sample: 7636099-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 00:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.6	100	100	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 3036151

Sample: 7636108-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 03:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3036115

Sample: 7636100-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 09:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036176

Sample: 7636163-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/18/17 11:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 3036149

Sample: 7636092-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/17 18:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3036114

Sample: 7636099-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 00:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	53.2	50.0	106	70-135	

Lab Batch #: 3036151

Sample: 7636108-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 03:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3036115

Sample: 7636100-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/16/17 10:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.4	100	95	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036176

Sample: 7636163-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/18/17 11:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 3036149

Sample: 571133-019 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/17 18:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3036114

Sample: 571133-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 01:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	99.9	92	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 3036151

Sample: 571133-025 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 03:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 3036115

Sample: 571254-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 10:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.9	89	70-135	
o-Terphenyl	44.1	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036176

Sample: 571133-018 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/18/17 11:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 3036149

Sample: 571133-019 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/17 18:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3036114

Sample: 571133-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 01:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	99.8	96	70-135	
o-Terphenyl	48.6	49.9	97	70-135	

Lab Batch #: 3036151

Sample: 571133-025 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 04:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 3036115

Sample: 571254-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/17 11:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	99.9	82	70-135	
o-Terphenyl	42.8	50.0	86	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: EOG- Calebra BLV Federal #1

Work Orders : 571133, 571133

Project ID:

Lab Batch #: 3036176

Sample: 571133-018 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/18/17 12:15

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order #: 571133, 571133

Project ID:

Analyst: ALJ

Date Prepared: 12/15/2017

Date Analyzed: 12/15/2017

Lab Batch ID: 3036149

Sample: 7636092-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.0995	100	0.100	0.0995	100	0	70-130	35	
Toluene	<0.00200	0.0998	0.0964	97	0.100	0.0942	94	2	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0979	98	0.100	0.0976	98	0	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.188	94	0.201	0.188	94	0	70-135	35	
o-Xylene	<0.00200	0.0998	0.0924	93	0.100	0.0927	93	0	71-133	35	

Analyst: ALJ

Date Prepared: 12/15/2017

Date Analyzed: 12/16/2017

Lab Batch ID: 3036151

Sample: 7636108-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.103	103	0.100	0.103	103	0	70-130	35	
Toluene	<0.00200	0.0998	0.0985	99	0.100	0.0972	97	1	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0985	99	0.100	0.0981	98	0	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.189	95	0.200	0.188	94	1	70-135	35	
o-Xylene	<0.00200	0.0998	0.0946	95	0.100	0.0930	93	2	71-133	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order #: 571133, 571133

Project ID:

Analyst: ALJ

Date Prepared: 12/18/2017

Date Analyzed: 12/18/2017

Lab Batch ID: 3036176

Sample: 7636163-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00201	0.101	0.0996	99	0.100	0.101	101	1	70-130	35	
Toluene	<0.00201	0.101	0.0957	95	0.100	0.0971	97	1	70-130	35	
Ethylbenzene	<0.00201	0.101	0.0994	98	0.100	0.101	101	2	71-129	35	
m,p-Xylenes	<0.00402	0.201	0.191	95	0.200	0.192	96	1	70-135	35	
o-Xylene	<0.00201	0.101	0.0948	94	0.100	0.0947	95	0	71-133	35	

Analyst: OJS

Date Prepared: 12/18/2017

Date Analyzed: 12/18/2017

Lab Batch ID: 3036321

Sample: 7636162-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	260	104	250	263	105	1	90-110	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order #: 571133, 571133

Project ID:

Analyst: LRI

Date Prepared: 12/19/2017

Date Analyzed: 12/19/2017

Lab Batch ID: 3036318

Sample: 7636220-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	252	101	250	252	101	0	90-110	20	

Analyst: LRI

Date Prepared: 12/19/2017

Date Analyzed: 12/19/2017

Lab Batch ID: 3036451

Sample: 7636239-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	272	109	250	252	101	8	90-110	20	

Analyst: ARM

Date Prepared: 12/15/2017

Date Analyzed: 12/16/2017

Lab Batch ID: 3036114

Sample: 7636099-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1010	101	1000	1070	107	6	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	1000	1060	106	4	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order #: 571133, 571133

Project ID:

Analyst: ARM

Date Prepared: 12/15/2017

Date Analyzed: 12/16/2017

Lab Batch ID: 3036115

Sample: 7636100-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	984	98	1000	961	96	2	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	988	99	1000	980	98	1	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order # : 571133

Project ID:

Lab Batch ID: 3036149

QC- Sample ID: 571133-019 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/15/2017

Date Prepared: 12/15/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.101	0.0862	85	0.100	0.0956	96	10	70-130	35	
Toluene	<0.00201	0.101	0.0856	85	0.100	0.0896	90	5	70-130	35	
Ethylbenzene	<0.00201	0.101	0.0872	86	0.100	0.0745	75	16	71-129	35	
m,p-Xylenes	<0.00402	0.201	0.162	81	0.200	0.155	78	4	70-135	35	
o-Xylene	<0.00201	0.101	0.0826	82	0.100	0.0823	82	0	71-133	35	

Lab Batch ID: 3036151

QC- Sample ID: 571133-025 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/16/2017

Date Prepared: 12/15/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0996	0.0901	90	0.100	0.0855	86	5	70-130	35	
Toluene	<0.00199	0.0996	0.0752	76	0.100	0.0763	76	1	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.0727	73	0.100	0.0759	76	4	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.149	75	0.200	0.147	74	1	70-135	35	
o-Xylene	<0.00199	0.0996	0.0816	82	0.100	0.0760	76	7	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order # : 571133

Project ID:

Lab Batch ID: 3036176

QC- Sample ID: 571133-018 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/18/2017

Date Prepared: 12/18/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0980	97	0.100	0.0665	67	38	70-130	35	XF
Toluene	<0.00202	0.101	0.0780	77	0.100	0.0534	53	37	70-130	35	XF
Ethylbenzene	<0.00202	0.101	0.0696	69	0.100	0.0428	43	48	71-129	35	XF
m,p-Xylenes	<0.00403	0.202	0.125	62	0.200	0.0807	40	43	70-135	35	XF
o-Xylene	<0.00202	0.101	0.0672	67	0.100	0.0414	41	48	71-133	35	XF

Lab Batch ID: 3036318

QC- Sample ID: 571133-012 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/19/2017

Date Prepared: 12/19/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	35.0	248	290	103	248	291	103	0	90-110	20	

Lab Batch ID: 3036318

QC- Sample ID: 571473-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/19/2017

Date Prepared: 12/19/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.96	248	262	106	248	263	106	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order # : 571133

Project ID:

Lab Batch ID: 3036321

QC- Sample ID: 571055-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/19/2017

Date Prepared: 12/18/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	943	245	1180	97	245	1130	76	4	90-110	20	X

Lab Batch ID: 3036321

QC- Sample ID: 571133-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/19/2017

Date Prepared: 12/18/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	41.4	250	298	103	250	298	103	0	90-110	20	

Lab Batch ID: 3036451

QC- Sample ID: 571133-022 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/19/2017

Date Prepared: 12/19/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	22.0	249	287	106	249	285	106	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: EOG- Calebra BLV Federal #1

Work Order # : 571133

Project ID:

Lab Batch ID: 3036451

QC- Sample ID: 571250-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/19/2017

Date Prepared: 12/19/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	31.5	248	289	104	248	283	101	2	90-110	20	

Lab Batch ID: 3036114

QC- Sample ID: 571133-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/16/2017

Date Prepared: 12/15/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	963	96	998	981	98	2	70-135	35	
Diesel Range Organics (DRO)	<15.0	999	976	98	998	1010	101	3	70-135	35	

Lab Batch ID: 3036115

QC- Sample ID: 571254-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/16/2017

Date Prepared: 12/15/2017

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	908	91	999	859	86	6	70-135	35	
Diesel Range Organics (DRO)	16.3	999	922	91	999	887	87	4	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

571133

Client Name: EOG
 Project Name: Calebra BLV Federal #1H
 Project Location: (county, state) Lea County, New Mexico
 Invoice to: Tetra Tech, Inc.
 Receiving Laboratory: Xenco Midland TX
 Project #: 212C-MD-01034
 Sampler Signature: Mike Carrmona

Site Manager: Ike Tavaréz

LAB # (LAB USE ONLY)

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME		WATER	SOIL	HCL			HNO ₃
	Area #1 Bottom Hole (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #1 East Sidewall (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #1 West Sidewall (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #1 South Sidewall (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #2 Bottom Hole (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #2 West Sidewall (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #2 South Sidewall (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #3 Bottom Hole (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #3 East Sidewall (2.5' BEB)	12/13/2017		X		X	X		1	N
	Area #4 Bottom Hole (2.5' BEB)	12/13/2017		X		X	X		1	N

Received by: [Signature] Date: 12-14-17 Time: 12:31
 Received by: [Signature] Date: 12-14-17 Time: 12:36

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

LAB USE ONLY

REMARKS: STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Push Charges Authorized

Special Report Limits or TRRP Report

Temp: 4.3 IR ID: R-8
 CF: (0-6; -0.2°C)
 Corrected Temp: 4.1

ORIGINAL COPY

(Circle) HAND D

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

571133

Client Name: EOG Site Manager: Ike Tavarez

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland TX Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)		
		YEAR: 2017				WATER	SOIL	HCL	HNO ₃				ICE	None
	Area #7 East Sidewall (2.5' BEB)			12/13/2017		X	X	X	X	1	N	BTEX 8021B BTEX 8260B		
	Area #7 West Sidewall (2.5' BEB)			12/13/2017		X	X	X	X	1	N	TPH TX1005 (Ext to C35)		
	Area #8 Bottom Hole (2.5' BEB)			12/13/2017		X	X	X	X	1	N	TPH 8015M (GRO - DRO - ORO - MRO)		
	Area #8 East Sidewall (2.5' BEB)			12/13/2017		X	X	X	X	1	N	PAH 8270C		
	Area #8 West Sidewall (2.5' BEB)			12/13/2017		X	X	X	X	1	N	Total Metals Ag As Ba Cd Cr Pb Se Hg		
	S1 (2.5' BEB)			12/13/2017		X	X	X	X	1	N	TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
	S1 East Sidewall			12/13/2017		X	X	X	X	1	N	TCLP Volatiles		
	S1 West Sidewall			12/13/2017		X	X	X	X	1	N	TCLP Semi Volatiles		
												RCI		
												GC/MS Vol. 8260B / 624		
												GC/MS Semi. Vol. 8270C/625		
												PCB's 8082 / 608		
												NORM		
												PLM (Asbestos)		
												Chloride		
												Chloride Sulfate TDS		
												General Water Chemistry (see attached list)		
												Anion/Cation Balance		

Retrieved by: [Signature] Date: 12/14/17 Time: 12:36

ORIGINAL COPY

(Circle) HAND DELI

LAB USE ONLY
REMARKS:
 STANDARD
 RUSH: Same Day 24 hr 48 hr 72 hr
 Push Charges Authorized
 Special Report Limits or TRRP Report

Temp: 43 IR ID: R-8
CF: (0-6: -0.2°C)
Corrected Temp: 4.1



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/14/2017 12:36:00 PM

Work Order #: 571133

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 12/14/2017
Shawnee Smith

Checklist reviewed by: Mike Kimmel Date: 12/19/2017
Mike Kimmel

Analytical Report 572035

for
Tetra Tech- Midland

Project Manager: Ike Tavarez

Calebra BLV Federal #1H

212C-MD-01034

28-DEC-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



28-DEC-17

Project Manager: **Ike Tavaréz**

Tetra Tech- Midland

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **572035**

Calebra BLV Federal #1H

Project Address: Eddy Co, NM

Ike Tavaréz:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 572035. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 572035 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Mike Kimmel

Client Services Manager

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Sample Cross Reference 572035

Tetra Tech- Midland, Midland, TX

Calebra BLV Federal #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Area #9 Bottom #1 (5'BEB)	S	12-21-17 00:00		572035-001
Area #9 East Sidewall (5'BEB)	S	12-21-17 00:00		572035-002
Area #9 Bottom #2 (2'-2.5"BEB)	S	12-21-17 00:00		572035-003
Area #9 Bottom #3 (3.5-4'BEB)	S	12-21-17 00:00		572035-004
Area #9 Bottom #4 (3.5'-4BEB)	S	12-21-17 00:00		572035-005
Area #9 Bottom #5 (3.5-4BEB)	S	12-21-17 00:00		572035-006
Area #9 West Sidewall #1 (3.5-4BEB)	S	12-21-17 00:00		572035-007
Area 10 Bottom #1 (1.5'BEB)	S	12-21-17 00:00		572035-008
Area #10 East Sidewall (1.5'BEB)	S	12-21-17 00:00		572035-009
Area #10 West Sidewall (1.5'BEB)	S	12-21-17 00:00		572035-010
Area #10 Bottom #2 (2.5'BEB)	S	12-21-17 00:00		572035-011
Area #10 East Sidewall (2.5'BEB)	S	12-21-17 00:00		572035-012
Area #10 West Sidewall (2.5'BEB)	S	12-21-17 00:00		572035-013
Area #10 Bottom #3 (1'BEB)	S	12-21-17 00:00		572035-014
Area #10 East Sidewall #1 (1'BEB)	S	12-21-17 00:00		572035-015
Area #10 West Sidewall (1'BEB)	S	12-21-17 00:00		572035-016
Area #11 Bottom #1 (1'BEB)	S	12-21-17 00:00		572035-017
Area #11 East Sidewall (1'BEB)	S	12-21-17 00:00		572035-018
Area #11 West Sidewall (1'BEB)	S	12-21-17 00:00		572035-019
Area #11 Bottom #2 (1'BEB)	S	12-21-17 00:00		572035-020
Area #11 East Sidewall (1'BEB)	S	12-21-17 00:00		572035-021
Area #11 West Sidewall (1'BEB)	S	12-21-17 00:00		572035-022
Area #12 Bottom (3'BEB)	S	12-21-17 00:00		572035-023
Area #12 East Sidewall (3'BEB)	S	12-21-17 00:00		572035-024
Area #12 South Sidewall (3'BEB)	S	12-21-17 00:00		572035-025
Area #12 Bottom#2 (3.5 BEB)	S	12-21-17 00:00		572035-026
Area #12 East Sidewall (3'BEB)	S	12-21-17 00:00		572035-027
Area #12 West Sidewall (3'BEB)	S	12-21-17 00:00		572035-028
Area #12 Bottom#3 (2'BEB)	S	12-21-17 00:00		572035-029
Area #12 East Sidewall (2'BEB)	S	12-21-17 00:00		572035-030
Area #12 West Sidewall (2'BEB)	S	12-21-17 00:00		572035-031
Area #12 Bottom #4 (3.5'BEB)	S	12-21-17 00:00		572035-032
Area #12 East Sidewall (3.5'BEB)	S	12-21-17 00:00		572035-033
Area #12 West Sidewall (3.5 BEB)	S	12-21-17 00:00		572035-034
Area #12 North Sidewall (3.5'BEB)	S	12-21-17 00:00		572035-035



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Calebra BLV Federal #1H

Project ID: 212C-MD-01034
Work Order Number(s): 572035

Report Date: 28-DEC-17
Date Received: 12/22/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3036810 BTEX by EPA 8021B

Lab Sample ID 572035-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572035-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3037056 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 572035-035 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572035-021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034

Contact: Ike Tavarez

Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm

Report Date: 28-DEC-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-001	572035-002	572035-003	572035-004	572035-005	572035-006					
	Field Id:	Area #9 Bottom #1 (5'BE)	Area #9 East Sidewall (5'BE)	Area #9 Bottom #2 (2'-2.5"BE)	Area #9 Bottom #3 (3.5'-4'BE)	Area #9 Bottom #4 (3.5'-4'BE)	Area #9 Bottom #5 (3.5'-4'BE)					
	Depth:											
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL					
Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00					
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30					
	Analyzed:	Dec-22-17 22:19	Dec-22-17 22:38	Dec-22-17 22:57	Dec-22-17 23:16	Dec-22-17 23:35	Dec-22-17 23:54					
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL					
Benzene	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00202	0.00202
Toluene	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes	<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403	<0.00401	0.00401	<0.00404	0.00404
o-Xylene	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00202	0.00202
Total BTEX	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00202	0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50					
	Analyzed:	Dec-27-17 17:15	Dec-27-17 17:22	Dec-27-17 17:29	Dec-27-17 17:36	Dec-27-17 17:43	Dec-27-17 17:50					
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL					
Chloride	47.6	5.00	148	4.97	189	4.93	110	4.95	41.8	4.92	23.1	4.99
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00					
	Analyzed:	Dec-27-17 00:10	Dec-27-17 01:13	Dec-27-17 01:35	Dec-27-17 01:57	Dec-27-17 02:18	Dec-27-17 02:40					
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Mike Kimmel
 Client Services Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 28-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-007	572035-008	572035-009	572035-010	572035-011	572035-012
	Field Id:	Area #9 West Sidewall #1 (3	Area 10 Bottom #1 (1.5'BE	Area #10 East Sidewall (1.5'	Area #10 West Sidewall (1.5'	Area #10 Bottom #2 (2.5'BE	Area #10 East Sidewall (2.5'
Depth:							
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30
	Analyzed:	Dec-23-17 00:13	Dec-23-17 00:32	Dec-23-17 00:51	Dec-23-17 01:10	Dec-23-17 02:07	Dec-23-17 02:26
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00396 0.00396	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30
	Analyzed:	Dec-27-17 18:32	Dec-27-17 19:07	Dec-27-17 19:14	Dec-27-17 19:35	Dec-27-17 19:42	Dec-27-17 19:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.92 4.92	<4.96 4.96	243 4.99	37.8 4.94	25.5 4.98	42.5 5.00
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00
	Analyzed:	Dec-27-17 03:02	Dec-27-17 03:24	Dec-27-17 03:46	Dec-27-17 04:07	Dec-27-17 05:10	Dec-27-17 05:31
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mike Kimmel
 Client Services Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 28-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-013	572035-014	572035-015	572035-016	572035-017	572035-018
	Field Id:	Area #10 West Sidewall (2.5'	Area #10 Bottom #3 (1'BE	Area #10 East Sidewall #1'	Area #10 West Sidewall (1'	Area #11 Bottom #1 (1'BE	Area #11 East Sidewall (1'
Depth:							
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30
	Analyzed:	Dec-23-17 02:45	Dec-23-17 08:54	Dec-23-17 09:13	Dec-23-17 09:32	Dec-23-17 09:51	Dec-23-17 10:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00403 0.00403	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30
	Analyzed:	Dec-27-17 19:56	Dec-27-17 20:03	Dec-27-17 20:10	Dec-27-17 20:31	Dec-27-17 20:38	Dec-27-17 20:59
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		811 5.00	87.6 4.96	121 4.97	106 4.99	254 4.99	364 4.99
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00
	Analyzed:	Dec-27-17 05:52	Dec-27-17 06:14	Dec-27-17 06:36	Dec-27-17 06:57	Dec-27-17 07:18	Dec-27-17 07:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Mike Kimmel
 Client Services Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 28-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-019	572035-020	572035-021	572035-022	572035-023	572035-024
	Field Id:	Area #11 West Sidewall (1'BE)	Area #11 Bottom #2 (1'BE)	Area #11 East Sidewall (1'BE)	Area #11 West Sidewall (1'BE)	Area #12 Bottom (3'BE)	Area #12 East Sidewall (3'BE)
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00
	Analyzed:	Dec-23-17 10:29	Dec-23-17 10:48	Dec-26-17 11:03	Dec-26-17 11:22	Dec-26-17 11:41	Dec-26-17 12:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Toluene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00404 0.00404	<0.00404 0.00404
o-Xylene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Total BTEX	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30
	Analyzed:	Dec-27-17 21:06	Dec-27-17 21:13	Dec-27-17 21:20	Dec-27-17 21:27	Dec-27-17 21:33	Dec-27-17 21:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	336 4.93	201 4.98	79.6 4.94	180 4.98	168 4.99	149 4.90	
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00
	Analyzed:	Dec-27-17 08:01	Dec-27-17 08:22	Dec-27-17 11:53	Dec-27-17 12:12	Dec-27-17 12:32	Dec-27-17 12:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	27.4 15.0	18.6 15.0	
Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	27.4 15.0	18.6 15.0	

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Mike Kimmel
 Client Services Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 28-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-025	572035-026	572035-027	572035-028	572035-029	572035-030					
	Field Id:	Area #12 South Sidewall (3' B)	Area #12 Bottom#2 (3.5 BE)	Area #12 East Sidewall (3' B)	Area #12 West Sidewall (3' B)	Area #12 Bottom#3 (2' BE)	Area #12 East Sidewall (2' BE)					
	Depth:											
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL					
Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00					
BTEX by EPA 8021B	Extracted:	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00					
	Analyzed:	Dec-26-17 12:19	Dec-26-17 12:38	Dec-26-17 12:57	Dec-26-17 13:17	Dec-26-17 13:43	Dec-26-17 14:40					
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL					
Benzene	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Toluene	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Ethylbenzene	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
m,p-Xylenes	<0.00403	0.00403	<0.00401	0.00401	<0.00399	0.00399	<0.00400	0.00400	<0.00402	0.00402	<0.00404	0.00404
o-Xylene	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Total Xylenes	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Total BTEX	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-28-17 09:00	Dec-28-17 09:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00					
	Analyzed:	Dec-28-17 12:30	Dec-28-17 12:37	Dec-27-17 22:22	Dec-27-17 22:43	Dec-27-17 22:50	Dec-27-17 22:57					
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL					
Chloride	20.6	4.93	321	4.99	63.3	4.98	41.0	4.95	122	4.90	65.1	4.91
TPH By SW8015 Mod	Extracted:	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00					
	Analyzed:	Dec-27-17 13:13	Dec-27-17 13:33	Dec-27-17 13:53	Dec-27-17 14:14	Dec-27-17 14:35	Dec-27-17 15:36					
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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Mike Kimmel
 Client Services Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 28-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-031	572035-032	572035-033	572035-034	572035-035	
	Field Id:	Area #12 West Sidewall (2'BA	Area #12 Bottom #4 (3.5'BE	Area #12 East Sidewall (3.5'EA	Area #12 West Sidewall (3.5'WA	Area #12 North Sidewall (3.5'NA	
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	
BTEX by EPA 8021B	Extracted:	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	
	Analyzed:	Dec-26-17 14:59	Dec-26-17 15:17	Dec-26-17 15:36	Dec-26-17 15:55	Dec-26-17 10:44	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403	<0.00398 0.00398	
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	
	Analyzed:	Dec-27-17 23:04	Dec-27-17 23:25	Dec-27-17 23:32	Dec-27-17 23:39	Dec-27-17 23:46	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		<4.93 4.93	392 4.97	<4.99 4.99	132 4.92	231 4.97	
TPH By SW8015 Mod	Extracted:	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	
	Analyzed:	Dec-27-17 15:58	Dec-27-17 16:18	Dec-27-17 16:38	Dec-27-17 16:58	Dec-27-17 10:25	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Mike Kimmel
 Client Services Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 22:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 22:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 3036810

Sample: 572035-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 22:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 23:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 3036810

Sample: 572035-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 23:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 23:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 00:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3036810

Sample: 572035-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 00:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036810

Sample: 572035-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 00:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3036810

Sample: 572035-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 01:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 02:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3036810

Sample: 572035-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 02:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3036810

Sample: 572035-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 02:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 08:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 3036810

Sample: 572035-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 09:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 09:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036810

Sample: 572035-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 09:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 10:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 10:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036810

Sample: 572035-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 10:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 572035-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 10:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 11:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3037056

Sample: 572035-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 11:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3037056

Sample: 572035-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 11:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3037056

Sample: 572035-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 572035-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3037056

Sample: 572035-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 3037056

Sample: 572035-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3037056

Sample: 572035-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 13:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 13:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 572035-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 14:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 3037056

Sample: 572035-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 14:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 15:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 15:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 15:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 00:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	36.7	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 01:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.3	100	71	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 01:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.5	100	72	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 01:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.8	100	72	70-135	
o-Terphenyl	36.3	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 02:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 02:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	100	70	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 03:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 03:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.5	100	81	70-135	
o-Terphenyl	38.8	50.0	78	70-135	

Lab Batch #: 3036957

Sample: 572035-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 03:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3036957

Sample: 572035-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 04:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-135	
o-Terphenyl	35.2	50.0	70	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 05:10

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	42.2	50.0	84	70-135	

Lab Batch #: 3036957

Sample: 572035-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 05:31

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.2	100	71	70-135	
o-Terphenyl	35.6	50.0	71	70-135	

Lab Batch #: 3036957

Sample: 572035-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 05:52

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	100	70	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 06:14

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.6	100	71	70-135	
o-Terphenyl	35.2	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 06:36

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 06:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	100	70	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 07:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3036957

Sample: 572035-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 07:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.4	100	82	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 3036957

Sample: 572035-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 08:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-135	
o-Terphenyl	35.2	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 08:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 10:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.9	100	74	70-135	
o-Terphenyl	38.6	50.0	77	70-135	

Lab Batch #: 3036990

Sample: 572035-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 11:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.4	100	73	70-135	
o-Terphenyl	38.2	50.0	76	70-135	

Lab Batch #: 3036990

Sample: 572035-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 12:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	100	81	70-135	
o-Terphenyl	39.9	50.0	80	70-135	

Lab Batch #: 3036990

Sample: 572035-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 12:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.6	100	77	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 3036990

Sample: 572035-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 12:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.5	100	71	70-135	
o-Terphenyl	35.8	50.0	72	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 13:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.6	100	74	70-135	
o-Terphenyl	38.2	50.0	76	70-135	

Lab Batch #: 3036990

Sample: 572035-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 13:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	100	79	70-135	
o-Terphenyl	40.4	50.0	81	70-135	

Lab Batch #: 3036990

Sample: 572035-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 13:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 3036990

Sample: 572035-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 14:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	41.5	50.0	83	70-135	

Lab Batch #: 3036990

Sample: 572035-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 14:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.0	100	86	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 15:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.7	100	84	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

Lab Batch #: 3036990

Sample: 572035-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 15:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.7	100	72	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

Lab Batch #: 3036990

Sample: 572035-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 16:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.0	100	75	70-135	
o-Terphenyl	39.1	50.0	78	70-135	

Lab Batch #: 3036990

Sample: 572035-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 16:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.5	100	75	70-135	
o-Terphenyl	38.9	50.0	78	70-135	

Lab Batch #: 3036990

Sample: 572035-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 16:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.9	100	78	70-135	
o-Terphenyl	40.1	50.0	80	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 7636566-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/17 22:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0248	0.0300	83	80-120	

Lab Batch #: 3037056

Sample: 7636696-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 3036957

Sample: 7636643-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 23:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.1	100	78	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 3036990

Sample: 7636653-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/27/17 09:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3036810

Sample: 7636566-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/17 20:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 7636696-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/26/17 08:31

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 3036957

Sample: 7636643-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/26/17 23:29

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	79.5	100	80	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 3036990

Sample: 7636653-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/27/17 09:45

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	90.6	100	91	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 3036810

Sample: 7636566-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/22/17 20:25

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3037056

Sample: 7636696-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/26/17 08:50

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 7636643-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.3	100	82	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

Lab Batch #: 3036990

Sample: 7636653-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/27/17 10:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 3036810

Sample: 572035-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 20:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 3037056

Sample: 572035-035 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 09:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3036957

Sample: 572035-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 00:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.8	100	82	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-035 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 11:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	43.2	50.0	86	70-135	

Lab Batch #: 3036810

Sample: 572035-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 21:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 3037056

Sample: 572035-035 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 09:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3036957

Sample: 572035-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 00:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	41.7	50.0	83	70-135	

Lab Batch #: 3036990

Sample: 572035-035 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 11:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572035

Project ID: 212C-MD-01034

Analyst: ALJ

Date Prepared: 12/22/2017

Date Analyzed: 12/22/2017

Lab Batch ID: 3036810

Sample: 7636566-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.0809	81	0.0994	0.0820	82	1	70-130	35	
Toluene	<0.00200	0.0998	0.0765	77	0.0994	0.0766	77	0	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0814	82	0.0994	0.0831	84	2	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.159	80	0.199	0.163	82	2	70-135	35	
o-Xylene	<0.00200	0.0998	0.0757	76	0.0994	0.0776	78	2	71-133	35	

Analyst: ALJ

Date Prepared: 12/26/2017

Date Analyzed: 12/26/2017

Lab Batch ID: 3037056

Sample: 7636696-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00199	0.0996	0.0748	75	0.100	0.0752	75	1	70-130	35	
Toluene	<0.00199	0.0996	0.0748	75	0.100	0.0765	77	2	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.0759	76	0.100	0.0777	78	2	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.161	81	0.201	0.160	80	1	70-135	35	
o-Xylene	<0.00199	0.0996	0.0773	78	0.100	0.0791	79	2	71-133	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572035

Project ID: 212C-MD-01034

Analyst: LRI

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3037043

Sample: 7636594-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	254	102	250	252	101	1	90-110	20	

Analyst: LRI

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3037013

Sample: 7636595-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	245	98	250	245	98	0	90-110	20	

Analyst: OJS

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3037018

Sample: 7636632-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	234	94	250	230	92	2	90-110	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572035

Project ID: 212C-MD-01034

Analyst: OJS

Date Prepared: 12/28/2017

Date Analyzed: 12/28/2017

Lab Batch ID: 3037046

Sample: 7636683-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	244	98	250	245	98	0	90-110	20	

Analyst: JUM

Date Prepared: 12/26/2017

Date Analyzed: 12/26/2017

Lab Batch ID: 3036957

Sample: 7636643-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	941	94	1000	981	98	4	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	823	82	1000	821	82	0	70-135	35	

Analyst: JUM

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3036990

Sample: 7636653-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	814	81	1000	935	94	14	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	812	81	1000	853	85	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3036810

QC- Sample ID: 572035-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/22/2017

Date Prepared: 12/22/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0996	0.0617	62	0.100	0.0546	55	12	70-130	35	X
Toluene	<0.00199	0.0996	0.0583	59	0.100	0.0508	51	14	70-130	35	X
Ethylbenzene	<0.00199	0.0996	0.0630	63	0.100	0.0558	56	12	71-129	35	X
m,p-Xylenes	<0.00398	0.199	0.125	63	0.200	0.110	55	13	70-135	35	X
o-Xylene	<0.00199	0.0996	0.0599	60	0.100	0.0525	53	13	71-133	35	X

Lab Batch ID: 3037056

QC- Sample ID: 572035-035 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/26/2017

Date Prepared: 12/26/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0474	47	0.100	0.0528	53	11	70-130	35	X
Toluene	<0.00202	0.101	0.0426	42	0.100	0.0490	49	14	70-130	35	X
Ethylbenzene	<0.00202	0.101	0.0477	47	0.100	0.0538	54	12	71-129	35	X
m,p-Xylenes	<0.00403	0.202	0.0942	47	0.200	0.107	54	13	70-135	35	X
o-Xylene	<0.00202	0.101	0.0459	45	0.100	0.0504	50	9	71-133	35	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3037013

QC- Sample ID: 572035-007 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.92	246	271	110	246	271	110	0	90-110	20	

Lab Batch ID: 3037013

QC- Sample ID: 572035-015 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	121	249	383	105	249	384	106	0	90-110	20	

Lab Batch ID: 3037018

QC- Sample ID: 571856-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/26/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	322	248	594	110	248	559	96	6	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3037018

QC- Sample ID: 572035-027 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	63.3	249	310	99	249	332	108	7	90-110	20	

Lab Batch ID: 3037043

QC- Sample ID: 571800-005 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/26/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	43.4	246	287	99	246	288	99	0	90-110	20	

Lab Batch ID: 3037043

QC- Sample ID: 571800-016 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/26/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	5.52	245	242	97	245	251	100	4	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3037046

QC- Sample ID: 572054-007 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/28/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	32.7	250	277	98	250	276	97	0	90-110	20	

Lab Batch ID: 3037046

QC- Sample ID: 572181-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/28/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	62.1	249	304	97	249	306	98	1	90-110	20	

Lab Batch ID: 3036957

QC- Sample ID: 572035-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	991	99	1000	860	86	14	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	763	76	1000	753	75	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3036990

QC- Sample ID: 572035-035 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	820	82	1000	881	88	7	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	865	87	1000	862	86	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 582-4559
Fax (432) 582-3946

572035

Client Name: EOG
 Project Name: Calebra BLV Federal #1H
 Project Location: (county) Eddy County, New Mexico
 Project #: 212C-MD-01034
 Invoice to: Tetra Tech, Inc.
 Receiving Laboratory: Xenco Midland TX
 Comments: Sampler Signature: Mike Carmona

Site Manager: Ike Tavares

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2017	DATE		TIME	WATER	SOIL	HCL	HNO ₃			ICE
	Area #9 Bottom#1 (5'BEB)		12/21/2017		X						1	N
	Area #9 East Sidewall (5'BEB)		12/21/2017		X						1	N
	Area #9 Bottom#2 (2'-2.5"BEB)		12/21/2017		X						1	N
	Area #9 Bottom#3 (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #9 Bottom#4 (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #9 Bottom#5 (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #9 West Sidewall (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #10 Bottom#1 (1.5'BEB)		12/21/2017		X						1	N
	Area #10 East Sidewall (1.5'BEB)		12/21/2017		X						1	N
	Area #10 West Sidewall (1.5'BEB)		12/21/2017		X						1	N

Relinquished by: *Mike Carmona* Date: 12/21/2017 Time: 14:00
 Relinquished by: *Mike Carmona* Date: 12/21/2017 Time: 14:00
 Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

Temp: 13
 CF: (0-6: -0.2°C)
 (6-23: +0.2°C)
 Corrected Temp: 11

IR ID: R-8

LAB USE ONLY

REMARKS: 1 STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	BTEX 8260B	
TPH TX1005 (Ext to C35)		
TPH 8015M (GRO - DRO - ORO - MRO)		
PAH 8270C		
Total Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
RCI		
GC/MS Vol. 8260B / 624		
GC/MS Semi. Vol. 8270C/625		
PCB's 8082 / 608		
NORM		
PLM (Asbestos)		
Chloride		
Chloride Sulfate TDS		
General Water Chemistry (see attached list)		
Anion/Cation Balance		

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946

S 72035

Client Name: EOG Site Manager: Ike Tavarez

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland Tx Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX	PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
	Area	Description	YEAR: 2017	DATE		TIME	WATER	SOIL	HCL	HNO ₃			ICE
	Area #10 Bottom#2 (2.5'BEB)			12/21/2017		X						1	N
	Area #10 East Sidewall (2.5'BEB)			12/21/2017		X						1	N
	Area #10 West Sidewall (2.5'BEB)			12/21/2017		X						1	N
	Area #10 Bottom#3 (1'BEB)			12/21/2017		X						1	N
	Area #10 East Sidewall (1'BEB)			12/21/2017		X						1	N
	Area #10 West Sidewall (1'BEB)			12/21/2017		X						1	N
	Area #11 Bottom#1 (1'BEB)			12/21/2017		X						1	N
	Area #11 East Sidewall (1'BEB)			12/21/2017		X						1	N
	Area #11 Westsidewall (1'BEB)			12/21/2017		X						1	N
	Area #11 Bottom#2 (1'BEB)			12/21/2017		X						1	N

Relinquished by: Mike Carmona Date: 12/21/17 Time: 1406

Relinquished by: Date: Time:

Relinquished by: Date: Time:

Received by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY	REMARKS:
<input type="checkbox"/> BTEX 8021B <input type="checkbox"/> BTEX 8260B <input type="checkbox"/> TPH TX1005 (Ext to C35) <input type="checkbox"/> TPH 8015M (GRO - DRO - ORO - MRO) <input type="checkbox"/> PAH 8270C <input type="checkbox"/> Total Metals Ag As Ba Cd Cr Pb Se Hg <input type="checkbox"/> TCLP Metals Ag As Ba Cd Cr Pb Se Hg <input type="checkbox"/> TCLP Volatiles <input type="checkbox"/> TCLP Semi Volatiles <input type="checkbox"/> RCI <input type="checkbox"/> GC/MS Vol. 8260B / 624 <input type="checkbox"/> GC/MS Semi. Vol. 8270C/625 <input type="checkbox"/> PCB's 8082 / 608 <input type="checkbox"/> NORM <input type="checkbox"/> PLM (Asbestos) <input type="checkbox"/> Chloride <input type="checkbox"/> Chloride Sulfate TDS <input type="checkbox"/> General Water Chemistry (see attached list) <input type="checkbox"/> Anion/Cation Balance	STANDARD <input checked="" type="checkbox"/> RUSH: Same Day 24 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report

ORIGINAL COPY

Temp: 1.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.1

AND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Suite 401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

ANALYSIS REQUEST

(Circle or Specify Method No.)

572035

Client Name: EOG Site Manager: Ilike Tavaraz

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico

Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland TX

Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
	Area	Location	YEAR: 2017	DATE	TIME	WATER	SOIL	HCL		

	Area #11 East Sidewall (1'BEB)		12/21/2017			X					1	N
	Area #11 West Sidewall (1'BEB)		12/21/2017			X					1	N
	Area #12 Bottom#1 (3'BEB)		12/21/2017			X					1	N
	Area #12 East Sidewall (3'BEB)		12/21/2017			X					1	N
	Area #12 South Sidewall (3'BEB)		12/21/2017			X					1	N
	Area #12 Bottom#2 (3.5'BEB)		12/21/2017			X					1	N
	Area #12 East Sidewall (3'BEB)		12/21/2017			X					1	N
	Area #12 West Sidewall (3'BEB)		12/21/2017			X					1	N
	Area #12 Bottom#3 (2'BEB)		12/21/2017			X					1	N
	Area #12 East Sidewall (2'BEB)		12/21/2017			X					1	N

Acquisition by: Mike Date: 12/21/17 Time: 14:00

Received by: [Signature] Date: 12/21/17 Time: 14:00

Received by: [Signature] Date: 12/21/17 Time: 14:00

Received by: [Signature] Date: 12/21/17 Time: 14:00

LAB USE ONLY

REMARKS: STANDARD

RUSH: Same Day 24 hr 48 hr (72 hr)

Rush Charges Authorized

Special Report Limits or TRRP Report

Shipping Method: FEDEX UPS Tracking #:

Sample Temperature

Original COP Temp: 13 IR ID: R-8

CF: (0-6: -0.2°C) (6-23: +0.2°C) Corrected Temp: 1.1

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4539
Fax (432) 682-3946

Client Name: EOG
Site Manager: Ike Tavarez

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico

Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland Tx

Sampler Signature: Mike Carmona

Comments:

572035

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		DATE	TIME		WATER	SOIL	HCL	HNO ₃		
	Area #12 West Sidewall (2'BEB)	12/21/2017		X		X				1 N
	Area #12 Bottom#4 (3.5'BEB)	12/21/2017		X		X				1 N
	Area #12 East Sidewall (3.5'BEB)	12/21/2017		X		X				1 N
	Area #12 West Sidewall (3.5'BEB)	12/21/2017		X		X				1 N
	Area #12 North Sidewall (3.5'BEB)	12/21/2017		X		X				1 N

REMARKS: STANDARD

LAB USE ONLY

Sample Temperature

RUSH: Same Day 24 hr 48 hr **72 hr**

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking # _____

ORIGINAL COPY



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/22/2017 02:06:00 PM

Work Order #: 572035

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 12/22/2017
Shawnee Smith

Checklist reviewed by: Mike Kimmel Date: 12/27/2017
Mike Kimmel

Analytical Report 572035

for
Tetra Tech- Midland

Project Manager: Ike Tavaréz

Calebra BLV Federal #1H

212C-MD-01034

29-DEC-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



29-DEC-17

Project Manager: **Ike Tavarez**

Tetra Tech- Midland

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **572035**

Calebra BLV Federal #1H

Project Address: Eddy Co, NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 572035. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 572035 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Kelsey Brooks'.

Kelsey Brooks

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 572035

Tetra Tech- Midland, Midland, TX

Calebra BLV Federal #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Area #9 Bottom #1 (5'BEB)	S	12-21-17 00:00		572035-001
Area #9 East Sidewall (5'BEB)	S	12-21-17 00:00		572035-002
Area #9 Bottom #2 (2'-2.5"BEB)	S	12-21-17 00:00		572035-003
Area #9 Bottom #3 (3.5-4'BEB)	S	12-21-17 00:00		572035-004
Area #9 Bottom #4 (3.5'-4BEB)	S	12-21-17 00:00		572035-005
Area #9 Bottom #5 (3.5-4BEB)	S	12-21-17 00:00		572035-006
Area #9 West Sidewall #1 (3.5-4BEB)	S	12-21-17 00:00		572035-007
Area 10 Bottom #1 (1.5'BEB)	S	12-21-17 00:00		572035-008
Area #10 East Sidewall (1.5'BEB)	S	12-21-17 00:00		572035-009
Area #10 West Sidewall (1.5'BEB)	S	12-21-17 00:00		572035-010
Area #10 Bottom #2 (2.5'BEB)	S	12-21-17 00:00		572035-011
Area #10 East Sidewall (2.5'BEB)	S	12-21-17 00:00		572035-012
Area #10 West Sidewall (2.5'BEB)	S	12-21-17 00:00		572035-013
Area #10 Bottom #3 (1'BEB)	S	12-21-17 00:00		572035-014
Area #10 East Sidewall #1 (1'BEB)	S	12-21-17 00:00		572035-015
Area #10 West Sidewall (1'BEB)	S	12-21-17 00:00		572035-016
Area #11 Bottom #1 (1'BEB)	S	12-21-17 00:00		572035-017
Area #11 East Sidewall (1'BEB)	S	12-21-17 00:00		572035-018
Area #11 West Sidewall (1'BEB)	S	12-21-17 00:00		572035-019
Area #11 Bottom #2 (1'BEB)	S	12-21-17 00:00		572035-020
Area #11 East Sidewall (1'BEB)	S	12-21-17 00:00		572035-021
Area #11 West Sidewall (1'BEB)	S	12-21-17 00:00		572035-022
Area #12 Bottom (3'BEB)	S	12-21-17 00:00		572035-023
Area #12 East Sidewall (3'BEB)	S	12-21-17 00:00		572035-024
Area #12 South Sidewall (3'BEB)	S	12-21-17 00:00		572035-025
Area #12 Bottom#2 (3.5 BEB)	S	12-21-17 00:00		572035-026
Area #12 East Sidewall (3'BEB)	S	12-21-17 00:00		572035-027
Area #12 West Sidewall (3'BEB)	S	12-21-17 00:00		572035-028
Area #12 Bottom#3 (2'BEB)	S	12-21-17 00:00		572035-029
Area #12 East Sidewall (2'BEB)	S	12-21-17 00:00		572035-030
Area #12 West Sidewall (2'BEB)	S	12-21-17 00:00		572035-031
Area #12 Bottom #4 (3.5'BEB)	S	12-21-17 00:00		572035-032
Area #12 East Sidewall (3.5'BEB)	S	12-21-17 00:00		572035-033
Area #12 West Sidewall (3.5 BEB)	S	12-21-17 00:00		572035-034
Area #12 North Sidewall (3.5'BEB)	S	12-21-17 00:00		572035-035

**CASE NARRATIVE***Client Name: Tetra Tech- Midland**Project Name: Calebra BLV Federal #1H*Project ID: 212C-MD-01034
Work Order Number(s): 572035Report Date: 29-DEC-17
Date Received: 12/22/2017**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3036810 BTEX by EPA 8021B

Lab Sample ID 572035-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572035-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3037056 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 572035-035 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572035-021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 29-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-001	572035-002	572035-003	572035-004	572035-005	572035-006
	Field Id:	Area #9 Bottom #1 (5'BE)	Area #9 East Sidewall (5'BE)	Area #9 Bottom #2 (2'-2.5"BE)	Area #9 Bottom #3 (3.5'-4'BE)	Area #9 Bottom #4 (3.5'-4'BE)	Area #9 Bottom #5 (3.5'-4'BE)
Depth:							
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30
	Analyzed:	Dec-22-17 22:19	Dec-22-17 22:38	Dec-22-17 22:57	Dec-22-17 23:16	Dec-22-17 23:35	Dec-22-17 23:54
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403	<0.00401 0.00401	<0.00404 0.00404
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50	Dec-26-17 12:50
	Analyzed:	Dec-27-17 17:15	Dec-27-17 17:22	Dec-27-17 17:29	Dec-27-17 17:36	Dec-27-17 17:43	Dec-27-17 17:50
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		47.6 5.00	148 4.97	189 4.93	110 4.95	41.8 4.92	23.1 4.99
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00
	Analyzed:	Dec-27-17 00:10	Dec-27-17 01:13	Dec-27-17 01:35	Dec-27-17 01:57	Dec-27-17 02:18	Dec-27-17 02:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 29-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-007	572035-008	572035-009	572035-010	572035-011	572035-012
	Field Id:	Area #9 West Sidewall #1 (3	Area 10 Bottom #1 (1.5'BE	Area #10 East Sidewall (1.5'	Area #10 West Sidewall (1.5'	Area #10 Bottom #2 (2.5'BE	Area #10 East Sidewall (2.5'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30
	Analyzed:	Dec-23-17 00:13	Dec-23-17 00:32	Dec-23-17 00:51	Dec-23-17 01:10	Dec-23-17 02:07	Dec-23-17 02:26
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00396 0.00396	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30
	Analyzed:	Dec-27-17 18:32	Dec-27-17 19:07	Dec-27-17 19:14	Dec-27-17 19:35	Dec-27-17 19:42	Dec-27-17 19:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.92 4.92	<4.96 4.96	243 4.99	37.8 4.94	25.5 4.98	42.5 5.00
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00
	Analyzed:	Dec-27-17 03:02	Dec-27-17 03:24	Dec-27-17 03:46	Dec-27-17 04:07	Dec-27-17 05:10	Dec-27-17 05:31
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 29-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-013	572035-014	572035-015	572035-016	572035-017	572035-018
	Field Id:	Area #10 West Sidewall (2.5	Area #10 Bottom #3 (1'BE	Area #10 East Sidewall #1	Area #10 West Sidewall (1'BE	Area #11 Bottom #1 (1'BE	Area #11 East Sidewall (1'BE
Depth:							
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30	Dec-22-17 16:30
	Analyzed:	Dec-23-17 02:45	Dec-23-17 08:54	Dec-23-17 09:13	Dec-23-17 09:32	Dec-23-17 09:51	Dec-23-17 10:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00403 0.00403	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30
	Analyzed:	Dec-27-17 19:56	Dec-27-17 20:03	Dec-27-17 20:10	Dec-27-17 20:31	Dec-27-17 20:38	Dec-27-17 20:59
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		811 5.00	87.6 4.96	121 4.97	106 4.99	254 4.99	364 4.99
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 12:00
	Analyzed:	Dec-27-17 05:52	Dec-27-17 06:14	Dec-27-17 06:36	Dec-27-17 06:57	Dec-27-17 07:18	Dec-27-17 07:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 29-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-019	572035-020	572035-021	572035-022	572035-023	572035-024
	Field Id:	Area #11 West Sidewall (1'BE)	Area #11 Bottom #2 (1'BE)	Area #11 East Sidewall (1'BE)	Area #11 West Sidewall (1'BE)	Area #12 Bottom (3'BE)	Area #12 East Sidewall (3'BE)
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-22-17 16:30	Dec-22-17 16:30	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00
	Analyzed:	Dec-23-17 10:29	Dec-23-17 10:48	Dec-26-17 11:03	Dec-26-17 11:22	Dec-26-17 11:41	Dec-26-17 12:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Toluene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00404 0.00404	<0.00404 0.00404
o-Xylene	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Total BTEX	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30	Dec-26-17 14:30
	Analyzed:	Dec-27-17 21:06	Dec-27-17 21:13	Dec-27-17 21:20	Dec-27-17 21:27	Dec-27-17 21:33	Dec-27-17 21:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	336 4.93	201 4.98	79.6 4.94	180 4.98	168 4.99	149 4.90	149 4.90
TPH By SW8015 Mod	Extracted:	Dec-26-17 12:00	Dec-26-17 12:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00
	Analyzed:	Dec-27-17 08:01	Dec-27-17 08:22	Dec-27-17 11:53	Dec-27-17 12:12	Dec-27-17 12:32	Dec-27-17 12:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	27.4 15.0	18.6 15.0	18.6 15.0
Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	27.4 15.0	18.6 15.0	18.6 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 29-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-025	572035-026	572035-027	572035-028	572035-029	572035-030
	Field Id:	Area #12 South Sidewall (3' B)	Area #12 Bottom#2 (3.5 BE)	Area #12 East Sidewall (3' B)	Area #12 West Sidewall (3' B)	Area #12 Bottom#3 (2' BE)	Area #12 East Sidewall (2' BE)
Depth:							
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00
	Analyzed:	Dec-26-17 12:19	Dec-26-17 12:38	Dec-26-17 12:57	Dec-26-17 13:17	Dec-26-17 13:43	Dec-26-17 14:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00399 0.00399	<0.00400 0.00400	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-28-17 09:00	Dec-28-17 09:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00
	Analyzed:	Dec-28-17 12:30	Dec-28-17 12:37	Dec-27-17 22:22	Dec-27-17 22:43	Dec-27-17 22:50	Dec-27-17 22:57
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		20.6 4.93	321 4.99	63.3 4.98	41.0 4.95	122 4.90	65.1 4.91
TPH By SW8015 Mod	Extracted:	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00
	Analyzed:	Dec-27-17 13:13	Dec-27-17 13:33	Dec-27-17 13:53	Dec-27-17 14:14	Dec-27-17 14:35	Dec-27-17 15:36
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572035

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-22-17 02:06 pm
Report Date: 29-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572035-031	572035-032	572035-033	572035-034	572035-035	
	Field Id:	Area #12 West Sidewall (2'BA	Area #12 Bottom #4 (3.5'BE	Area #12 East Sidewall (3.5'EA	Area #12 West Sidewall (3.5	Area #12 North Sidewall (3.5	
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	Dec-21-17 00:00	
BTEX by EPA 8021B	Extracted:	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	Dec-26-17 10:00	
	Analyzed:	Dec-26-17 14:59	Dec-26-17 15:17	Dec-26-17 15:36	Dec-26-17 15:55	Dec-26-17 10:44	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403	<0.00398 0.00398	
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	Dec-26-17 18:00	
	Analyzed:	Dec-27-17 23:04	Dec-27-17 23:25	Dec-27-17 23:32	Dec-27-17 23:39	Dec-27-17 23:46	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		<4.93 4.93	392 4.97	<4.99 4.99	132 4.92	231 4.97	
TPH By SW8015 Mod	Extracted:	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	Dec-26-17 17:00	
	Analyzed:	Dec-27-17 15:58	Dec-27-17 16:18	Dec-27-17 16:38	Dec-27-17 16:58	Dec-27-17 10:25	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Kelsey Brooks
Project Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 22:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 22:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 3036810

Sample: 572035-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 22:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 23:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 3036810

Sample: 572035-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 23:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-006 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 23:54

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-007 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/23/17 00:13

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3036810

Sample: 572035-008 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/23/17 00:32

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036810

Sample: 572035-009 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/23/17 00:51

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3036810

Sample: 572035-010 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/23/17 01:10

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 02:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3036810

Sample: 572035-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 02:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3036810

Sample: 572035-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 02:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 08:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 3036810

Sample: 572035-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 09:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 572035-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 09:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036810

Sample: 572035-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 09:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 10:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3036810

Sample: 572035-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 10:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3036810

Sample: 572035-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/17 10:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 572035-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 10:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 11:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3037056

Sample: 572035-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 11:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3037056

Sample: 572035-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 11:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3037056

Sample: 572035-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 572035-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3037056

Sample: 572035-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 3037056

Sample: 572035-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 12:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3037056

Sample: 572035-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 13:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 13:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 572035-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 14:40

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 3037056

Sample: 572035-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 14:59

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 15:17

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 15:36

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037056

Sample: 572035-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 15:55

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 00:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	36.7	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 01:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.3	100	71	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 01:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.5	100	72	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 01:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.8	100	72	70-135	
o-Terphenyl	36.3	50.0	73	70-135	

Lab Batch #: 3036957

Sample: 572035-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 02:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 02:40

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	100	70	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 03:02

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 03:24

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.5	100	81	70-135	
o-Terphenyl	38.8	50.0	78	70-135	

Lab Batch #: 3036957

Sample: 572035-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 03:46

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3036957

Sample: 572035-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 04:07

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-135	
o-Terphenyl	35.2	50.0	70	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 05:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	42.2	50.0	84	70-135	

Lab Batch #: 3036957

Sample: 572035-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 05:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.2	100	71	70-135	
o-Terphenyl	35.6	50.0	71	70-135	

Lab Batch #: 3036957

Sample: 572035-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 05:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	100	70	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 06:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.6	100	71	70-135	
o-Terphenyl	35.2	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 06:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 572035-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 06:57

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	100	70	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 07:18

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3036957

Sample: 572035-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 07:40

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.4	100	82	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 3036957

Sample: 572035-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 08:01

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-135	
o-Terphenyl	35.2	50.0	70	70-135	

Lab Batch #: 3036957

Sample: 572035-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 08:22

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 10:25

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.9	100	74	70-135	
o-Terphenyl	38.6	50.0	77	70-135	

Lab Batch #: 3036990

Sample: 572035-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 11:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.4	100	73	70-135	
o-Terphenyl	38.2	50.0	76	70-135	

Lab Batch #: 3036990

Sample: 572035-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 12:12

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	100	81	70-135	
o-Terphenyl	39.9	50.0	80	70-135	

Lab Batch #: 3036990

Sample: 572035-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 12:32

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.6	100	77	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 3036990

Sample: 572035-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 12:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.5	100	71	70-135	
o-Terphenyl	35.8	50.0	72	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-025 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/27/17 13:13

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.6	100	74	70-135	
o-Terphenyl	38.2	50.0	76	70-135	

Lab Batch #: 3036990

Sample: 572035-026 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/27/17 13:33

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	100	79	70-135	
o-Terphenyl	40.4	50.0	81	70-135	

Lab Batch #: 3036990

Sample: 572035-027 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/27/17 13:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 3036990

Sample: 572035-028 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/27/17 14:14

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	41.5	50.0	83	70-135	

Lab Batch #: 3036990

Sample: 572035-029 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/27/17 14:35

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.0	100	86	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 15:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.7	100	84	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

Lab Batch #: 3036990

Sample: 572035-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 15:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.7	100	72	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

Lab Batch #: 3036990

Sample: 572035-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 16:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.0	100	75	70-135	
o-Terphenyl	39.1	50.0	78	70-135	

Lab Batch #: 3036990

Sample: 572035-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 16:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.5	100	75	70-135	
o-Terphenyl	38.9	50.0	78	70-135	

Lab Batch #: 3036990

Sample: 572035-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 16:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.9	100	78	70-135	
o-Terphenyl	40.1	50.0	80	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036810

Sample: 7636566-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/17 22:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0248	0.0300	83	80-120	

Lab Batch #: 3037056

Sample: 7636696-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 3036957

Sample: 7636643-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 23:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.1	100	78	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 3036990

Sample: 7636653-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/27/17 09:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3036810

Sample: 7636566-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/17 20:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3037056

Sample: 7636696-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 08:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 3036957

Sample: 7636643-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 23:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.5	100	80	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 3036990

Sample: 7636653-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/27/17 09:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	100	91	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 3036810

Sample: 7636566-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/17 20:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3037056

Sample: 7636696-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 08:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036957

Sample: 7636643-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/26/17 23:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.3	100	82	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

Lab Batch #: 3036990

Sample: 7636653-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/27/17 10:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 3036810

Sample: 572035-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 20:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 3037056

Sample: 572035-035 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 09:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3036957

Sample: 572035-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 00:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.8	100	82	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572035,

Project ID: 212C-MD-01034

Lab Batch #: 3036990

Sample: 572035-035 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 11:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	43.2	50.0	86	70-135	

Lab Batch #: 3036810

Sample: 572035-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/17 21:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 3037056

Sample: 572035-035 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/26/17 09:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3036957

Sample: 572035-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 00:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	41.7	50.0	83	70-135	

Lab Batch #: 3036990

Sample: 572035-035 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/27/17 11:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572035

Project ID: 212C-MD-01034

Analyst: ALJ

Date Prepared: 12/22/2017

Date Analyzed: 12/22/2017

Lab Batch ID: 3036810

Sample: 7636566-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.0809	81	0.0994	0.0820	82	1	70-130	35	
Toluene	<0.00200	0.0998	0.0765	77	0.0994	0.0766	77	0	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0814	82	0.0994	0.0831	84	2	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.159	80	0.199	0.163	82	2	70-135	35	
o-Xylene	<0.00200	0.0998	0.0757	76	0.0994	0.0776	78	2	71-133	35	

Analyst: ALJ

Date Prepared: 12/26/2017

Date Analyzed: 12/26/2017

Lab Batch ID: 3037056

Sample: 7636696-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00199	0.0996	0.0748	75	0.100	0.0752	75	1	70-130	35	
Toluene	<0.00199	0.0996	0.0748	75	0.100	0.0765	77	2	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.0759	76	0.100	0.0777	78	2	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.161	81	0.201	0.160	80	1	70-135	35	
o-Xylene	<0.00199	0.0996	0.0773	78	0.100	0.0791	79	2	71-133	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572035

Project ID: 212C-MD-01034

Analyst: LRI

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3037043

Sample: 7636594-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	254	102	250	252	101	1	90-110	20	

Analyst: LRI

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3037013

Sample: 7636595-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	245	98	250	245	98	0	90-110	20	

Analyst: OJS

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3037018

Sample: 7636632-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	234	94	250	230	92	2	90-110	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572035

Project ID: 212C-MD-01034

Analyst: OJS

Date Prepared: 12/28/2017

Date Analyzed: 12/28/2017

Lab Batch ID: 3037046

Sample: 7636683-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	244	98	250	245	98	0	90-110	20	

Analyst: JUM

Date Prepared: 12/26/2017

Date Analyzed: 12/26/2017

Lab Batch ID: 3036957

Sample: 7636643-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	941	94	1000	981	98	4	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	823	82	1000	821	82	0	70-135	35	

Analyst: JUM

Date Prepared: 12/26/2017

Date Analyzed: 12/27/2017

Lab Batch ID: 3036990

Sample: 7636653-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	814	81	1000	935	94	14	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	812	81	1000	853	85	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3036810

QC- Sample ID: 572035-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/22/2017

Date Prepared: 12/22/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0996	0.0617	62	0.100	0.0546	55	12	70-130	35	X
Toluene	<0.00199	0.0996	0.0583	59	0.100	0.0508	51	14	70-130	35	X
Ethylbenzene	<0.00199	0.0996	0.0630	63	0.100	0.0558	56	12	71-129	35	X
m,p-Xylenes	<0.00398	0.199	0.125	63	0.200	0.110	55	13	70-135	35	X
o-Xylene	<0.00199	0.0996	0.0599	60	0.100	0.0525	53	13	71-133	35	X

Lab Batch ID: 3037056

QC- Sample ID: 572035-035 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/26/2017

Date Prepared: 12/26/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0474	47	0.100	0.0528	53	11	70-130	35	X
Toluene	<0.00202	0.101	0.0426	42	0.100	0.0490	49	14	70-130	35	X
Ethylbenzene	<0.00202	0.101	0.0477	47	0.100	0.0538	54	12	71-129	35	X
m,p-Xylenes	<0.00403	0.202	0.0942	47	0.200	0.107	54	13	70-135	35	X
o-Xylene	<0.00202	0.101	0.0459	45	0.100	0.0504	50	9	71-133	35	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3037013

QC- Sample ID: 572035-007 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.92	246	271	110	246	271	110	0	90-110	20	

Lab Batch ID: 3037013

QC- Sample ID: 572035-015 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	121	249	383	105	249	384	106	0	90-110	20	

Lab Batch ID: 3037018

QC- Sample ID: 571856-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/26/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	322	248	594	110	248	559	96	6	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035
Lab Batch ID: 3037018
Date Analyzed: 12/27/2017
Reporting Units: mg/kg

Project ID: 212C-MD-01034

QC- Sample ID: 572035-027 S **Batch #:** 1 **Matrix:** Soil
Date Prepared: 12/26/2017 **Analyst:** OJS

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	63.3	249	310	99	249	332	108	7	90-110	20	

Lab Batch ID: 3037043
Date Analyzed: 12/28/2017
Reporting Units: mg/kg

QC- Sample ID: 571800-005 S **Batch #:** 1 **Matrix:** Soil
Date Prepared: 12/26/2017 **Analyst:** LRI

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	43.4	246	287	99	246	288	99	0	90-110	20	

Lab Batch ID: 3037043
Date Analyzed: 12/28/2017
Reporting Units: mg/kg

QC- Sample ID: 571800-016 S **Batch #:** 1 **Matrix:** Soil
Date Prepared: 12/26/2017 **Analyst:** LRI

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	5.52	245	242	97	245	251	100	4	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3037046

QC- Sample ID: 572054-007 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/28/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	32.7	250	277	98	250	276	97	0	90-110	20	

Lab Batch ID: 3037046

QC- Sample ID: 572181-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/28/2017

Date Prepared: 12/28/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	62.1	249	304	97	249	306	98	1	90-110	20	

Lab Batch ID: 3036957

QC- Sample ID: 572035-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	991	99	1000	860	86	14	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	763	76	1000	753	75	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572035

Project ID: 212C-MD-01034

Lab Batch ID: 3036990

QC- Sample ID: 572035-035 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/27/2017

Date Prepared: 12/26/2017

Analyst: JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	820	82	1000	881	88	7	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	865	87	1000	862	86	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 582-4559
Fax (432) 582-3946

572035

Client Name: EOG
 Project Name: Calebra BLV Federal #1H
 Project Location: (county) Eddy County, New Mexico
 Project #: 212C-MD-01034
 Invoice to: Tetra Tech, Inc.
 Receiving Laboratory: Xenco Midland TX
 Comments: Sampler Signature: Mike Carmona

Site Manager: Ike Tavares

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2017	DATE		TIME	WATER	SOIL	HCL	HNO ₃			ICE
	Area #9 Bottom#1 (5'BEB)		12/21/2017		X						1	N
	Area #9 East Sidewall (5'BEB)		12/21/2017		X						1	N
	Area #9 Bottom#2 (2'-2.5"BEB)		12/21/2017		X						1	N
	Area #9 Bottom#3 (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #9 Bottom#4 (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #9 Bottom#5 (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #9 West Sidewall (3.5'-4'BEB)		12/21/2017		X						1	N
	Area #10 Bottom#1 (1.5'BEB)		12/21/2017		X						1	N
	Area #10 East Sidewall (1.5'BEB)		12/21/2017		X						1	N
	Area #10 West Sidewall (1.5'BEB)		12/21/2017		X						1	N

Relinquished by: *Mike Carmona* Date: 12/21/2017 Time: 14:00
 Relinquished by: *Mike Carmona* Date: 12/21/2017 Time: 14:00
 Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

Temp: 13
 CF: (0-6: -0.2°C)
 (6-23: +0.2°C)
 Corrected Temp: 11

LAB USE ONLY

REMARKS: 1 STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B
 TPH TX1005 (Ext to C35)
 TPH 8015M (GRO - DRO - ORO - MRO)
 PAH 8270C
 Total Metals Ag As Ba Cd Cr Pb Se Hg
 TCLP Metals Ag As Ba Cd Cr Pb Se Hg
 TCLP Volatiles
 TCLP Semi Volatiles
 RCI
 GC/MS Vol. 8260B / 624
 GC/MS Semi. Vol. 8270C/625
 PCB's 8082 / 608
 NORM
 PLM (Asbestos)
 Chloride
 Chloride Sulfate TDS
 General Water Chemistry (see attached list)
 Anion/Cation Balance

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946

S 72035

Client Name: EOG Site Manager: Ike Tavarez

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland Tx Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX					PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
	Area	Description	YEAR: 2017	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None		
	Area #10 Bottom#2 (2.5'BEB)			12/21/2017		X						1	N
	Area #10 East Sidewall (2.5'BEB)			12/21/2017		X						1	N
	Area #10 West Sidewall (2.5'BEB)			12/21/2017		X						1	N
	Area #10 Bottom#3 (1'BEB)			12/21/2017		X						1	N
	Area #10 East Sidewall (1'BEB)			12/21/2017		X						1	N
	Area #10 West Sidewall (1'BEB)			12/21/2017		X						1	N
	Area #11 Bottom#1 (1'BEB)			12/21/2017		X						1	N
	Area #11 East Sidewall (1'BEB)			12/21/2017		X						1	N
	Area #11 Westsidewall (1'BEB)			12/21/2017		X						1	N
	Area #11 Bottom#2 (1'BEB)			12/21/2017		X						1	N

Relinquished by: Mike Carmona Date: 12/21/17 Time: 1406

Relinquished by: Date: Time: Received by: Date: Time: Received by: Date: Time:

ORIGINAL COPY

Temp: 1.3 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.1

AND DELIVERED FEDEX UPS Tracking #:

(Circle or Specify Method No.)

LAB USE ONLY

<input type="checkbox"/>	BTEX 8021B	BTEX 8260B
<input type="checkbox"/>	TPH TX1005 (Ext to C35)	
<input type="checkbox"/>	TPH 8015M (GRO - DRO - ORO - MRO)	
<input type="checkbox"/>	PAH 8270C	
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg	
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
<input type="checkbox"/>	TCLP Volatiles	
<input type="checkbox"/>	TCLP Semi Volatiles	
<input type="checkbox"/>	RCI	
<input type="checkbox"/>	GC/MS Vol. 8260B / 624	
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C/625	
<input type="checkbox"/>	PCB's 8082 / 608	
<input type="checkbox"/>	NORM	
<input type="checkbox"/>	PLM (Asbestos)	
<input type="checkbox"/>	Chloride	
<input type="checkbox"/>	Chloride Sulfate TDS	
<input type="checkbox"/>	General Water Chemistry (see attached list)	
<input type="checkbox"/>	Anion/Cation Balance	

REMARKS:

STANDARD

- RUSH: Same Day 24 hr 48 hr 2 hr
- Rush Charges Authorized
- Special Report Limits or TRRP Report



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/22/2017 02:06:00 PM

Work Order #: 572035

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 12/22/2017
Shawnee Smith

Checklist reviewed by: Mike Kimmel Date: 12/27/2017
Mike Kimmel

Analytical Report 572353

for
Tetra Tech- Midland

Project Manager: Ike Tavarez

Calebra BLV Federal #1 H

212C-MD-01034

04-JAN-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



04-JAN-18

Project Manager: **Ike Tavarez**

Tetra Tech- Midland

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **572353**

Calebra BLV Federal #1 H

Project Address: Eddy County, New Mexico

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 572353. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 572353 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 572353

Tetra Tech- Midland, Midland, TX

Calebra BLV Federal #1 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S10 Bottom Hole (2'BEB)	S	12-28-17 00:00		572353-001
S10 East SideWall(2'BEB)	S	12-28-17 00:00		572353-002
S10 West Sidewall (2'BEB)	S	12-28-17 00:00		572353-003
S11 Bottom Hole (6.5'BEB)	S	12-28-17 00:00		572353-004
S11 South Sidewall (6.5'BEB)	S	12-28-17 00:00		572353-005
S12 Bottom Hole (5'BEB)	S	12-28-17 00:00		572353-006
S12 East Sidewall (5'BEB)	S	12-28-17 00:00		572353-007
S12 West Sidewall (5'BEB)	S	12-28-17 00:00		572353-008
S12 North Sidewall (5'BEB)	S	12-28-17 00:00		572353-009
S14 Bottom Hole (6'BEB)	S	12-28-17 00:00		572353-010
S14 North Sideall (6'BEB)	S	12-28-17 00:00		572353-011
S14 South Sidewall (6'BEB)	S	12-28-17 00:00		572353-012
S14 East Sidewall (6'BEB)	S	12-28-17 00:00		572353-013
S14 West Sidewall (6'BEB)	S	12-28-17 00:00		572353-014
S18 Bottom Hole (2'BEB)	S	12-28-17 00:00		572353-015
S18 East Sidewall (2'BEB)	S	12-28-17 00:00		572353-016
S18 West Sidewall (2'BEB)	S	12-28-17 00:00		572353-017
S19 Bottom Hole (2'BEB)	S	12-28-17 00:00		572353-018
S19 East Sidewall (2'BEB)	S	12-28-17 00:00		572353-019
S19 West Sidewall (2'BEB)	S	12-28-17 00:00		572353-020
S20 Bottom Hole(2-2.5'BEB)	S	12-28-17 00:00		572353-021
S20 East Sidewall (2'-2.5BEB)	S	12-28-17 00:00		572353-022
S20 West Sidewall (2'-2.5BEB)	S	12-28-17 00:00		572353-023
S21 Bottom Hole (4.5'BEB)	S	12-28-17 00:00		572353-024
S21 East Sidewall (4.5'BEB)	S	12-28-17 00:00		572353-025
S21 West Sidewall (4.5'BEB)	S	12-28-17 00:00		572353-026
S21 South Sidewall (4.5'BEB)	S	12-28-17 00:00		572353-027
Area #10 West Sidewall (2.5'BEB)	S	12-29-17 00:00		572353-028



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Calebra BLV Federal #1 H

Project ID: 212C-MD-01034
Work Order Number(s): 572353

Report Date: 04-JAN-18
Date Received: 12/29/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3037334 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3037335 BTEX by EPA 8021B

Lab Sample ID 572353-025 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).

Toluene, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572353-021, -022, -023, -024, -025, -026, -027, -028.

The Laboratory Control Sample for Toluene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 572353

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1 H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri Dec-29-17 03:46 pm
Report Date: 04-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572353-001	572353-002	572353-003	572353-004	572353-005	572353-006
	Field Id:	S10 Bottom Hole (2'BEB)	S10 East SideWall(2'BEB)	S10 West Sidewall (2'BEB)	S11 Bottom Hole (6.5'BEB)	S11 South Sidewall (6.5'BEB)	S12 Bottom Hole (5'BEB)
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00
	Analyzed:	Jan-01-18 13:47	Dec-30-17 12:56	Dec-30-17 13:16	Dec-30-17 13:35	Dec-30-17 13:54	Dec-30-17 14:13
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30
	Analyzed:	Dec-30-17 02:04	Dec-30-17 02:11	Dec-30-17 02:18	Dec-30-17 02:39	Dec-30-17 02:46	Dec-30-17 03:07
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.93 4.93	<4.94 4.94	57.3 4.90	64.9 4.93	119 4.92	66.4 4.94
TPH By SW8015 Mod	Extracted:	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30
	Analyzed:	Dec-30-17 14:32	Dec-30-17 14:53	Dec-30-17 15:15	Dec-30-17 16:21	Dec-30-17 16:43	Dec-30-17 17:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572353

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1 H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri Dec-29-17 03:46 pm
Report Date: 04-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572353-007	572353-008	572353-009	572353-010	572353-011	572353-012
	Field Id:	S12 East Sidewall (5'BEB)	S12 West Sidewall (5'BEB)	S12 North Sidewall (5'BEB)	S14 Bottom Hole (6'BEB)	S14 North Sideall (6'BEB)	S14 South Sidewall (6'BEB)
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00
	Analyzed:	Dec-30-17 14:32	Dec-30-17 14:52	Dec-30-17 15:11	Dec-30-17 15:31	Dec-30-17 16:29	Jan-01-18 13:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199
	Toluene	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199
	Ethylbenzene	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199
	m,p-Xylenes	<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00403 0.00403	<0.00398 0.00398
	o-Xylene	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	
Total BTEX	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30	Dec-29-17 17:30
	Analyzed:	Dec-30-17 03:14	Dec-30-17 03:21	Dec-30-17 03:28	Dec-30-17 03:35	Dec-30-17 03:42	Dec-30-17 03:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	103 4.99	128 4.99	62.1 4.98	<4.98 4.98	641 4.98	425 4.98	
TPH By SW8015 Mod	Extracted:	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30
	Analyzed:	Dec-30-17 17:27	Dec-30-17 17:49	Dec-30-17 18:11	Dec-30-17 18:33	Dec-30-17 18:54	Dec-30-17 19:16
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572353

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1 H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri Dec-29-17 03:46 pm
Report Date: 04-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572353-013	572353-014	572353-015	572353-016	572353-017	572353-018
	<i>Field Id:</i>	S14 East Sidewall (6'BEB)	S14 West Sidewall (6'BEB)	S18 Bottom Hole (2'BEB)	S18 East Sidewall (2'BEB)	S18 West Sidewall (2'BEB)	S19 Bottom Hole (2'BEB)
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 10:00
	<i>Analyzed:</i>	Jan-01-18 13:28	Dec-30-17 12:37	Jan-01-18 14:06	Dec-30-17 16:48	Dec-30-17 17:07	Dec-30-17 17:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
	Toluene	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
	Ethylbenzene	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
	m,p-Xylenes	<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399	<0.00404 0.00404	<0.00401 0.00401	<0.00403 0.00403
	o-Xylene	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	
Total BTEX	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10
	<i>Analyzed:</i>	Dec-30-17 04:31	Dec-30-17 04:52	Dec-30-17 04:59	Dec-30-17 05:06	Dec-30-17 05:13	Dec-30-17 05:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		212 4.99	348 4.97	283 4.99	9.84 4.96	228 4.99	242 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30
	<i>Analyzed:</i>	Dec-30-17 19:38	Dec-30-17 21:27	Dec-30-17 22:33	Dec-30-17 22:55	Dec-30-17 23:17	Dec-30-17 23:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572353

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1 H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri Dec-29-17 03:46 pm
Report Date: 04-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572353-019	572353-020	572353-021	572353-022	572353-023	572353-024
	Field Id:	S19 East Sidewall (2'BEB)	S19 West Sidewall (2'BEB)	S20 Bottom Hole(2-2.5'BEB)	S20 East Sidewall (2'-2.5'BEB)	S20 West Sidewall (2'-2.5'BEB)	S21 Bottom Hole (4.5'BEB)
Depth:							
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00
BTEX by EPA 8021B	Extracted:	Dec-30-17 10:00	Dec-30-17 10:00	Dec-30-17 12:00	Dec-30-17 12:00	Dec-30-17 12:00	Dec-30-17 12:00
	Analyzed:	Dec-30-17 17:46	Dec-30-17 18:05	Dec-30-17 22:54	Dec-30-17 23:13	Dec-30-17 22:15	Dec-30-17 22:34
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10
	Analyzed:	Dec-30-17 05:41	Dec-30-17 05:48	Dec-30-17 05:55	Dec-30-17 06:02	Dec-30-17 06:09	Dec-30-17 06:30
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		52.2 4.98	398 4.96	12.9 4.93	33.3 4.96	80.3 4.97	98.3 4.98
TPH By SW8015 Mod	Extracted:	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30
	Analyzed:	Dec-31-17 00:01	Dec-31-17 00:22	Dec-31-17 00:44	Dec-31-17 01:06	Dec-31-17 01:29	Dec-31-17 02:35
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572353

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1 H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri Dec-29-17 03:46 pm
Report Date: 04-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572353-025	572353-026	572353-027	572353-028		
	Field Id:	S21 East Sidewall (4.5'BE)	S21 West Sidewall (4.5'BE)	S21 South Sidewall (4.5'BE)	Area #10 West Sidewall (2.5		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Dec-28-17 00:00	Dec-28-17 00:00	Dec-28-17 00:00	Dec-29-17 00:00		
BTEX by EPA 8021B	Extracted:	Dec-30-17 12:00	Dec-30-17 12:00	Dec-30-17 12:00	Dec-30-17 12:00		
	Analyzed:	Dec-30-17 20:58	Dec-30-17 21:17	Dec-30-17 21:37	Dec-30-17 21:56		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202		
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202		
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202		
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00396 0.00396	<0.00403 0.00403		
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202		
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202		
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202		
Inorganic Anions by EPA 300/300.1	Extracted:	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10	Dec-29-17 18:10		
	Analyzed:	Dec-30-17 06:37	Dec-30-17 06:57	Dec-30-17 07:04	Dec-30-17 07:11		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		562 4.97	90.0 4.97	52.7 4.94	47.9 4.97		
TPH By SW8015 Mod	Extracted:	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30	Dec-29-17 16:30		
	Analyzed:	Dec-31-17 02:56	Dec-31-17 03:18	Dec-31-17 03:41	Dec-31-17 04:03		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		

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Kelsey Brooks
Project Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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 9701 Harry Hines Blvd, Dallas, TX 75220
 5332 Blackberry Drive, San Antonio TX 78238
 1211 W Florida Ave, Midland, TX 79701
 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037334

Sample: 572353-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 12:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3037334

Sample: 572353-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 12:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3037334

Sample: 572353-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 13:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3037334

Sample: 572353-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 13:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037334

Sample: 572353-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 13:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037334

Sample: 572353-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 14:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 3037216

Sample: 572353-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 14:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.9	100	86	70-135	
o-Terphenyl	42.0	50.0	84	70-135	

Lab Batch #: 3037334

Sample: 572353-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 14:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3037334

Sample: 572353-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 14:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3037216

Sample: 572353-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 14:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.7	100	81	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037334

Sample: 572353-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 15:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3037216

Sample: 572353-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 15:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.1	100	84	70-135	
o-Terphenyl	42.1	50.0	84	70-135	

Lab Batch #: 3037334

Sample: 572353-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 15:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 3037216

Sample: 572353-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 16:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.6	100	84	70-135	
o-Terphenyl	42.2	50.0	84	70-135	

Lab Batch #: 3037334

Sample: 572353-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 16:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037216

Sample: 572353-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 16:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.6	100	76	70-135	
o-Terphenyl	37.1	50.0	74	70-135	

Lab Batch #: 3037334

Sample: 572353-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 16:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 3037216

Sample: 572353-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 17:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

Lab Batch #: 3037334

Sample: 572353-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 17:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3037334

Sample: 572353-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 17:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037216

Sample: 572353-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 17:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	100	79	70-135	
o-Terphenyl	38.3	50.0	77	70-135	

Lab Batch #: 3037334

Sample: 572353-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 17:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 3037216

Sample: 572353-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 17:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.1	100	76	70-135	
o-Terphenyl	36.1	50.0	72	70-135	

Lab Batch #: 3037334

Sample: 572353-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 18:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3037216

Sample: 572353-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 18:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.1	100	85	70-135	
o-Terphenyl	40.2	50.0	80	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037216

Sample: 572353-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 18:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	100	86	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 3037216

Sample: 572353-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 18:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.4	100	85	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 3037216

Sample: 572353-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 19:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.4	100	88	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 3037216

Sample: 572353-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 19:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.8	100	90	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

Lab Batch #: 3037335

Sample: 572353-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 20:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037335

Sample: 572353-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 21:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

Lab Batch #: 3037335

Sample: 572353-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 21:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.8	100	90	70-135	
o-Terphenyl	45.6	50.0	91	70-135	

Lab Batch #: 3037335

Sample: 572353-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 21:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0248	0.0300	83	80-120	

Lab Batch #: 3037335

Sample: 572353-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 21:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037335

Sample: 572353-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 22:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037336

Sample: 572353-015 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/30/17 22:33

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.4	100	78	70-135	
o-Terphenyl	39.6	50.0	79	70-135	

Lab Batch #: 3037335

Sample: 572353-024 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/30/17 22:34

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 3037335

Sample: 572353-021 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/30/17 22:54

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 3037335

Sample: 572353-016 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/30/17 22:55

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.5	100	79	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 3037335

Sample: 572353-022 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/30/17 23:13

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037336

Sample: 572353-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 23:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	100	87	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 3037336

Sample: 572353-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 23:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.4	100	79	70-135	
o-Terphenyl	40.1	50.0	80	70-135	

Lab Batch #: 3037336

Sample: 572353-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 00:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.5	100	73	70-135	
o-Terphenyl	35.7	50.0	71	70-135	

Lab Batch #: 3037336

Sample: 572353-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 00:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.5	50.0	71	70-135	

Lab Batch #: 3037336

Sample: 572353-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 00:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	100	83	70-135	
o-Terphenyl	40.6	50.0	81	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037336

Sample: 572353-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 01:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.1	100	84	70-135	
o-Terphenyl	43.0	50.0	86	70-135	

Lab Batch #: 3037336

Sample: 572353-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 01:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.6	100	78	70-135	
o-Terphenyl	37.6	50.0	75	70-135	

Lab Batch #: 3037336

Sample: 572353-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 02:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	100	87	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 3037336

Sample: 572353-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 02:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.7	100	81	70-135	
o-Terphenyl	40.6	50.0	81	70-135	

Lab Batch #: 3037336

Sample: 572353-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 03:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.3	100	89	70-135	
o-Terphenyl	45.7	50.0	91	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037336

Sample: 572353-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 03:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.1	100	93	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 3037336

Sample: 572353-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/31/17 04:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.1	100	88	70-135	
o-Terphenyl	44.6	50.0	89	70-135	

Lab Batch #: 3037334

Sample: 572353-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/01/18 13:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 3037334

Sample: 572353-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/01/18 13:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3037334

Sample: 572353-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/01/18 13:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037334

Sample: 572353-015 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/01/18 14:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037216

Sample: 7636801-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 10:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.3	100	91	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 3037334

Sample: 7636893-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 12:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 3037336

Sample: 7636874-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 20:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 3037335

Sample: 7636894-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 20:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0242	0.0300	81	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037334

Sample: 7636893-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 10:07

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 3037216

Sample: 7636801-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 10:37

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.1	100	95	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 3037335

Sample: 7636894-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 18:43

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3037336

Sample: 7636874-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 20:44

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.4	100	85	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 3037334

Sample: 7636893-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 12/30/17 10:27

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037216

Sample: 7636801-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/30/17 10:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.2	100	93	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 3037335

Sample: 7636894-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/30/17 19:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 3037336

Sample: 7636874-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/30/17 21:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.0	100	90	70-135	
o-Terphenyl	53.0	50.0	106	70-135	

Lab Batch #: 3037334

Sample: 572353-014 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 10:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 3037216

Sample: 572349-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 12:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.0	100	74	70-135	
o-Terphenyl	43.8	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037335

Sample: 572353-025 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 19:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3037336

Sample: 572353-014 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 21:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	48.8	50.0	98	70-135	

Lab Batch #: 3037334

Sample: 572353-014 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 11:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 3037216

Sample: 572349-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 12:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	100	81	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

Lab Batch #: 3037335

Sample: 572353-025 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/17 19:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1 H

Work Orders : 572353,

Project ID: 212C-MD-01034

Lab Batch #: 3037336

Sample: 572353-014 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 12/30/17 22:11

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1 H

Work Order #: 572353

Project ID: 212C-MD-01034

Analyst: ALJ

Date Prepared: 12/30/2017

Date Analyzed: 12/30/2017

Lab Batch ID: 3037334

Sample: 7636893-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00201	0.100	0.0978	98	0.101	0.0896	89	9	70-130	35	
Toluene	<0.00201	0.100	0.0911	91	0.101	0.0837	83	8	70-130	35	
Ethylbenzene	<0.00201	0.100	0.101	101	0.101	0.0925	92	9	71-129	35	
m,p-Xylenes	<0.00402	0.201	0.197	98	0.202	0.182	90	8	70-135	35	
o-Xylene	<0.00201	0.100	0.0924	92	0.101	0.0856	85	8	71-133	35	

Analyst: ALJ

Date Prepared: 12/30/2017

Date Analyzed: 12/30/2017

Lab Batch ID: 3037335

Sample: 7636894-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00202	0.101	0.0827	82	0.100	0.0838	84	1	70-130	35	
Toluene	<0.00202	0.101	0.0769	76	0.100	0.0782	78	2	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0826	82	0.100	0.0830	83	0	71-129	35	
m,p-Xylenes	<0.00403	0.202	0.162	80	0.200	0.163	82	1	70-135	35	
o-Xylene	<0.00202	0.101	0.0778	77	0.100	0.0779	78	0	71-133	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1 H

Work Order #: 572353

Project ID: 212C-MD-01034

Analyst: OJS

Date Prepared: 12/29/2017

Date Analyzed: 12/30/2017

Lab Batch ID: 3037257

Sample: 7636793-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	258	103	250	268	107	4	90-110	20	

Analyst: OJS

Date Prepared: 12/29/2017

Date Analyzed: 12/30/2017

Lab Batch ID: 3037259

Sample: 7636798-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	253	101	250	268	107	6	90-110	20	

Analyst: JUM

Date Prepared: 12/29/2017

Date Analyzed: 12/30/2017

Lab Batch ID: 3037216

Sample: 7636801-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1030	103	1000	1020	102	1	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	919	92	1000	876	88	5	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1 H

Work Order #: 572353

Project ID: 212C-MD-01034

Analyst: JUM

Date Prepared: 12/29/2017

Date Analyzed: 12/30/2017

Lab Batch ID: 3037336

Sample: 7636874-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1110	111	1000	1060	106	5	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	942	94	1000	1000	100	6	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1 H

Work Order # : 572353

Project ID: 212C-MD-01034

Lab Batch ID: 3037334

QC- Sample ID: 572353-014 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/30/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.100	0.0837	84	0.0996	0.0815	82	3	70-130	35	
Toluene	<0.00201	0.100	0.0778	78	0.0996	0.0750	75	4	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0852	85	0.0996	0.0818	82	4	71-129	35	
m,p-Xylenes	<0.00402	0.201	0.167	83	0.199	0.161	81	4	70-135	35	
o-Xylene	<0.00201	0.100	0.0785	79	0.0996	0.0755	76	4	71-133	35	

Lab Batch ID: 3037335

QC- Sample ID: 572353-025 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/30/2017

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.100	0.0740	74	0.0998	0.0853	85	14	70-130	35	
Toluene	<0.00201	0.100	0.0676	68	0.0998	0.0785	79	15	70-130	35	X
Ethylbenzene	<0.00201	0.100	0.0724	72	0.0998	0.0841	84	15	71-129	35	
m,p-Xylenes	<0.00402	0.201	0.142	71	0.200	0.164	82	14	70-135	35	
o-Xylene	<0.00201	0.100	0.0684	68	0.0998	0.0787	79	14	71-133	35	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1 H

Work Order # : 572353

Project ID: 212C-MD-01034

Lab Batch ID: 3037257

QC- Sample ID: 572349-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/29/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	618	246	853	96	246	879	106	3	90-110	20	

Lab Batch ID: 3037257

QC- Sample ID: 572353-003 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/29/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	57.3	245	320	107	245	323	108	1	90-110	20	

Lab Batch ID: 3037259

QC- Sample ID: 572353-013 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/29/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	212	250	483	108	250	456	98	6	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1 H

Work Order # : 572353

Project ID: 212C-MD-01034

Lab Batch ID: 3037259

QC- Sample ID: 572353-023 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/29/2017

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	80.3	249	353	110	249	350	108	1	90-110	20	

Lab Batch ID: 3037216

QC- Sample ID: 572349-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/29/2017

Analyst: JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	848	85	1000	926	93	9	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	778	78	1000	799	80	3	70-135	35	

Lab Batch ID: 3037336

QC- Sample ID: 572353-014 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 12/30/2017

Date Prepared: 12/29/2017

Analyst: JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1030	103	1000	1180	118	14	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	801	80	1000	861	86	7	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Site
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

572353

Client Name: EOG Site Manager: Ike Tavaraz

Project Name: Calebra BLV Federal #1H

Project Location: Eddy County, New Mexico

Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland TX

Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2017	DATE		TIME	WATER	SOIL	HCL			HNO ₃
	S10 Bottom Hole (2'BEB)		12/28/2017		X			X		1 N	
	S10 East SideWall (2'BEB)		12/28/2017		X			X		1 N	
	S10 West SideWall (2'BEB)		12/28/2017		X			X		1 N	
	S11 Bottomhole (6.5'BEB)		12/28/2017		X			X		1 N	
	S11 South SideWall (6.5'BEB)		12/28/2017		X			X		1 N	
	S12 Bottom Hole (5'BEB)		12/28/2017		X			X		1 N	
	S12 East SideWall (5'BEB)		12/28/2017		X			X		1 N	
	S12 West SideWall (5'BEB)		12/28/2017		X			X		1 N	
	S12 North SideWall (5'BEB)		12/28/2017		X			X		1 N	
	S14 Bottom Hole (6'BEB)		12/28/2017		X			X		1 N	

LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD	
<input type="checkbox"/> RUSH: Same Day 24 hr 48 hr (72 hr)	
<input type="checkbox"/> Rush Charges Authorized	
<input type="checkbox"/> Special Report Limits or TRRP Report	

Reinquired by: Mike Carmona Date: 12-29-17 Time: 15:45
 Received by: Mike Carmona Date: 12-29-17 Time: 15:46
 Temp: 1.4 IR ID: R-8
 OR CF: (0-6: -0.2°C) (6-23: +0.2°C)
 Corrected Temp: 1.7

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Site
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

572353

Client Name: EOG Site Manager: Ike Tavarez

Project Name: Calebra BLV Federal #1H

Project Location: Eddy County, New Mexico Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland TX Sampler Signature: Mike Carrona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2017	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE			None
S14 North SideWall (6'BEB)			12/28/2017		X					X	1 N	X
S14 South SideWall (6'BEB)			12/28/2017		X					X	1 N	X
S14 East SideWall (6'BEB)			12/28/2017		X					X	1 N	X
S14 West SideWall (6'BEB)			12/28/2017		X					X	1 N	X
S18 Bottom Hole (2'BEB)			12/28/2017		X					X	1 N	X
S18 East SideWall (2'BEB)			12/28/2017		X					X	1 N	X
S18 West SideWall (2'BEB)			12/28/2017		X					X	1 N	X
S19 Bottom Hole (2'BEB)			12/28/2017		X					X	1 N	X
S19 East SideWall (2'BEB)			12/28/2017		X					X	1 N	X
S19 West SideWall (2'BEB)			12/28/2017		X					X	1 N	X

Relinquished by: Mike Carrona Date: 12-29-17 Time: 15:45
 Received by: [Signature] Date: 12-29-17 Time: 15:45

Relinquished by: Date: Time:
 Received by: Date: Time:

Temp: 1.4 IR ID: R-8
 CF: (0-6: -0.2°C)
 (6-23: +0.2°C)
 Corrected Temp: 1.2

LAB USE ONLY	REMARKS:
<input checked="" type="checkbox"/>	STANDARD
<input type="checkbox"/>	RUSH: Same Day 24 hr 48 hr 72 hr
<input type="checkbox"/>	Rush Charges Authorized
<input type="checkbox"/>	Special Report Limits or TRRP Report

ANALYSIS REQUEST
(Circle or Specify Method No.)

<input type="checkbox"/>	BTEX 8021B
<input type="checkbox"/>	BTEX 8260B
<input type="checkbox"/>	TPH TX1005 (Ext to C35)
<input type="checkbox"/>	TPH 8015M (GRO - DRO - ORO - MRO)
<input type="checkbox"/>	PAH 8270C
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C/625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	NORM
<input type="checkbox"/>	PLM (Asbestos)
<input type="checkbox"/>	Chloride
<input type="checkbox"/>	Chloride Sulfate TDS
<input type="checkbox"/>	General Water Chemistry (see attached list)
<input type="checkbox"/>	Anion/Cation Balance
<input type="checkbox"/>	Hold

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

572353

ANALYSIS REQUEST

(Circle or Specify Method No.)

Client Name: EOG Site Manager: Ike Tavarez

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico

Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland Tx Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME		WATER	SOIL	HCL	HNO ₃	ICE			None
	S20 Bottom Hole (2'-2.5'BEB)	12/28/2017		X							1 N	
	S20 East SideWall(2'-2.5'BEB)	12/28/2017		X							1 N	
	S20 West SideWall(2'-2.5'BEB)	12/28/2017		X							1 N	
	S21 Bottom Hole (4.5'BEB)	12/28/2017		X							1 N	
	S21 East SideWall(4.5'BEB)	12/28/2017		X							1 N	
	S21 West SideWall(4.5'BEB)	12/28/2017		X							1 N	
	S21 South SideWall(4.5'BEB)	12/28/2017		X							1 N	
	Area #10 West SideWall (2.5' BEB)	12/29/2017		X							1 N	

LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD	
<input type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72hr	
<input type="checkbox"/> Rush Charges Authorized	
<input type="checkbox"/> Special Report Limits or TRRP Report	

Relinquished by: *Mike Carmona* Date: 12-29-17 Time: 15:45
 Received by: *Mike Carmona* Date: 12-29-17 Time: 15:45

ORIGINAL Temp: 1.4 IR ID: R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 1.2



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/29/2017 03:46:00 PM

Work Order #: 572353

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 12/29/2017
Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 12/31/2017
Kelsey Brooks

Analytical Report 572801

for
Tetra Tech- Midland

Project Manager: Ike Tavarez

Calebra BLV Federal #1H

212C-MD-01034

11-JAN-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



11-JAN-18

Project Manager: **Ike Tavarez**

Tetra Tech- Midland

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **572801**

Calebra BLV Federal #1H

Project Address: Eddy County, NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 572801. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 572801 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 572801

Tetra Tech- Midland, Midland, TX

Calebra BLV Federal #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S13 Bottom Hole (2.5'BEB)	S	01-04-18 00:00		572801-001
S13 North SideWall (2.5'BEB)	S	01-04-18 00:00		572801-002
S13 South SideWall (2.5'BEB)	S	01-04-18 00:00		572801-003
S15 Bottom Hole (2.5'BEB)	S	01-04-18 00:00		572801-004
S15 North SideWall (2.5'BEB)	S	01-04-18 00:00		572801-005
S16 Bottom Hole (2.5'BEB)	S	01-04-18 00:00		572801-006
S16 North SideWall (2.5'BEB)	S	01-04-18 00:00		572801-007
S16 South SideWall (2.5'BEB)	S	01-04-18 00:00		572801-008
S17 Bottom Hole (2.5'BEB)	S	01-04-18 00:00		572801-009
S17 North SideWall (2.5'BEB)	S	01-04-18 00:00		572801-010
S17 South SideWall (2.5'BEB)	S	01-04-18 00:00		572801-011
Pad Area Bottom Hole #1 (2'BEB)	S	01-04-18 00:00		572801-012
Pad Area North SideWall (2'BEB)	S	01-04-18 00:00		572801-013
Pad Area South SideWall (2'BEB)	S	01-04-18 00:00		572801-014
Pad Area Bottom Hole #2 (2'BEB)	S	01-04-18 00:00		572801-015
Pad Area North SideWall (2'BEB)	S	01-04-18 00:00		572801-016
Pad Area South SideWall (2'BEB)	S	01-04-18 00:00		572801-017
Pad Area Bottom Hole #3 (2'BEB)	S	01-04-18 00:00		572801-018
Pad Area North SideWall (2'BEB)	S	01-04-18 00:00		572801-019
Pad Area South SideWall (2'BEB)	S	01-04-18 00:00		572801-020
Pad Area Bottom Hole #4 (2'BEB)	S	01-04-18 00:00		572801-021
Pad Area Bottom Hole #5 (1'BEB)	S	01-04-18 00:00		572801-022
Pad Area East SideWall (1'BEB)	S	01-04-18 00:00		572801-023
Pad Area West SideWall (1'BEB)	S	01-04-18 00:00		572801-024
Pad Area Bottom Hole #6 (6"BEB)	S	01-04-18 00:00		572801-025
Pad Area East Sidewall (6"BEB)	S	01-03-18 00:00		572801-026
Pad Area West SideWall (6"BEB)	S	01-03-18 00:00		572801-027
South of LeaseRoad Entrance BottomHole#1	S	01-04-18 00:00		572801-028
South of LeaseRoad Entrance NorthSideWal	S	01-04-18 00:00		572801-029
South of LeaseRoad Entrance SouthSideWal	S	01-04-18 00:00		572801-030
South of LeaseRoad Entrance EastSideWall (S	01-04-18 00:00		572801-031
South of LeaseRoad Entrance BottomHole#2	S	01-04-18 00:00		572801-032
South of LeaseRoad Entrance NorthSideWal	S	01-04-18 00:00		572801-033
South of LeaseRoad Entrance SouthSideWal	S	01-04-18 00:00		572801-034
North of LeaseRoad Entrance BottomHole (6	S	01-04-18 00:00		572801-035
North of LeaseRoad Entrance NorthSideWal	S	01-04-18 00:00		572801-036
North of LeaseRoad Entrance SouthSideWal	S	01-04-18 00:00		572801-037
North of LeaseRoad Entrance WestSideWall	S	01-04-18 00:00		572801-038
LeaseRoad Entrance BottomHole#1 (2'BEB)	S	01-04-18 00:00		572801-039
LeaseRoad Entrance BottomHole#2 (2'BEB)	S	01-04-18 00:00		572801-040
LeaseRoad Entrance BottomHole#3 (2'BEB)	S	01-04-18 00:00		572801-041
LeaseRoad Entrance WestSideWall (2'BEB)	S	01-04-18 00:00		572801-042

**CASE NARRATIVE***Client Name: Tetra Tech- Midland**Project Name: Calebra BLV Federal #1H*Project ID: 212C-MD-01034
Work Order Number(s): 572801Report Date: 11-JAN-18
Date Received: 01/08/2018**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3037751 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 572801-042 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572801-008, -025, -026, -027, -028, -029, -030, -032, -033, -034, -035, -042.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3037834 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3037897 TPH By SW8015 Mod

Lab Sample ID 572801-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO), Gasoline Range Hydrocarbons (GRO) recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572801-001, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019.

The Laboratory Control Sample for Gasoline Range Hydrocarbons (GRO), Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3037901 TPH By SW8015 Mod

Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 572801-035.



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Calebra BLV Federal #1H

Project ID: 212C-MD-01034
Work Order Number(s): 572801

Report Date: 11-JAN-18
Date Received: 01/08/2018

Batch: LBA-3037993 BTEX by EPA 8021B

Lab Sample ID 572801-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 572801-001, -003, -004, -005, -006, -007, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019.

The Laboratory Control Sample for Toluene, Benzene is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	572801-001	572801-002	572801-003	572801-004	572801-005	572801-006
	Field Id:	S13 Bottom Hole (2.5'BEB)	S13 North SideWall (2.5'BEB)	S13 South SideWall (2.5'BEB)	S15 Bottom Hole (2.5'BEB)	S15 North SideWall (2.5'BEB)	S16 Bottom Hole (2.5'BEB)
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00
BTEX by EPA 8021B	Extracted:	Jan-08-18 12:30	Jan-09-18 12:00	Jan-08-18 12:30	Jan-08-18 12:30	Jan-08-18 12:30	Jan-08-18 12:30
	Analyzed:	Jan-08-18 16:00	Jan-09-18 14:24	Jan-08-18 16:40	Jan-08-18 16:59	Jan-08-18 17:18	Jan-08-18 17:37
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Toluene	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes	<0.00399 0.00399	<0.00402 0.00402	<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398
o-Xylene	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total BTEX	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	Extracted:	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30
	Analyzed:	Jan-08-18 16:35	Jan-08-18 16:56	Jan-08-18 17:03	Jan-08-18 17:09	Jan-08-18 17:16	Jan-08-18 17:37
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	<4.98 4.98	15.8 5.00	10.4 4.98	174 4.97	61.4 4.97	165 4.94	
TPH By SW8015 Mod	Extracted:	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00
	Analyzed:	Jan-08-18 16:33	Jan-09-18 01:51	Jan-08-18 17:57	Jan-08-18 18:17	Jan-08-18 18:37	Jan-08-18 18:57
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572801-007	572801-008	572801-009	572801-010	572801-011	572801-012
	<i>Field Id:</i>	S16 North SideWall (2.5'BE)	S16 South SideWall (2.5'BE)	S17 Bottom Hole (2.5'BE)	S17 North SideWall (2.5'BE)	S17 South SideWall (2.5'BE)	Pad Area Bottom Hole #1 (2)
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-08-18 12:30	Jan-08-18 17:00	Jan-08-18 12:30	Jan-08-18 12:30	Jan-08-18 12:30	Jan-08-18 12:30
	<i>Analyzed:</i>	Jan-08-18 17:55	Jan-09-18 10:09	Jan-08-18 19:11	Jan-08-18 19:31	Jan-08-18 19:50	Jan-08-18 20:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00398 0.00398	<0.00402 0.00402	<0.00401 0.00401	<0.00399 0.00399	<0.00400 0.00400
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 15:30
	<i>Analyzed:</i>	Jan-08-18 17:44	Jan-08-18 17:51	Jan-08-18 17:58	Jan-08-18 18:05	Jan-08-18 18:12	Jan-08-18 18:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		87.7 4.99	110 5.00	51.4 4.93	96.1 4.96	56.3 4.97	123 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00
	<i>Analyzed:</i>	Jan-08-18 19:17	Jan-08-18 19:37	Jan-08-18 19:57	Jan-08-18 20:17	Jan-08-18 21:15	Jan-08-18 21:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572801-013	572801-014	572801-015	572801-016	572801-017	572801-018
	<i>Field Id:</i>	Pad Area North SideWall (2'	Pad Area South SideWall (2'	Pad Area Bottom Hole #2 (2'	Pad Area North SideWall (2'	Pad Area South SideWall (2'	Pad Area Bottom Hole #3 (2'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-04-18 00:00					
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-08-18 12:30					
	<i>Analyzed:</i>	Jan-08-18 20:27	Jan-08-18 20:46	Jan-08-18 21:05	Jan-08-18 21:24	Jan-08-18 21:43	Jan-08-18 22:02
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
	Toluene	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
	Ethylbenzene	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
	m,p-Xylenes	<0.00402 0.00402	<0.00402 0.00402	<0.00398 0.00398	<0.00397 0.00397	<0.00401 0.00401	<0.00399 0.00399
	o-Xylene	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	
Total BTEX	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Jan-08-18 15:30					
	<i>Analyzed:</i>	Jan-08-18 18:40	Jan-08-18 19:01	Jan-08-18 19:08	Jan-08-18 19:15	Jan-08-18 19:22	Jan-08-18 19:29
	<i>Units/RL:</i>	mg/kg RL					
Chloride	124 5.00	132 4.96	72.4 4.98	30.2 4.99	51.0 4.91	331 4.95	
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-08-18 12:00					
	<i>Analyzed:</i>	Jan-08-18 21:55	Jan-08-18 22:16	Jan-08-18 22:36	Jan-08-18 22:55	Jan-08-18 23:15	Jan-08-18 23:35
	<i>Units/RL:</i>	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics (DRO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Oil Range Hydrocarbons (ORO)	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572801-019	572801-020	572801-021	572801-022	572801-023	572801-024
	<i>Field Id:</i>	Pad Area North SideWall (2'	Pad Area South SideWall (2'	Pad Area Bottom Hole #4 (2'	Pad Area Bottom Hole #5 (1'	Pad Area East SideWall (1'	Pad Area West SideWall (1'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-08-18 12:30	Jan-09-18 12:00	Jan-09-18 12:00	Jan-09-18 12:00	Jan-09-18 12:00	Jan-09-18 12:00
	<i>Analyzed:</i>	Jan-08-18 16:21	Jan-09-18 17:06	Jan-09-18 16:47	Jan-09-18 15:59	Jan-09-18 15:40	Jan-09-18 15:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00400 0.00400	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Jan-08-18 15:30	Jan-08-18 15:30	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20
	<i>Analyzed:</i>	Jan-08-18 19:36	Jan-08-18 19:43	Jan-08-18 20:25	Jan-08-18 20:46	Jan-08-18 20:53	Jan-08-18 21:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		72.9 4.95	80.9 4.97	221 4.97	32.0 5.00	<4.94 4.94	137 4.91
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00
	<i>Analyzed:</i>	Jan-08-18 23:54	Jan-09-18 02:49	Jan-09-18 03:09	Jan-09-18 03:28	Jan-09-18 03:47	Jan-09-18 04:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572801-025	572801-026	572801-027	572801-028	572801-029	572801-030
	<i>Field Id:</i>	Pad Area Bottom Hole #6 (6"	Pad Area East Sidewall (6"	Pad Area West SideWall (6"	South of LeaseRoad Entranc	South of LeaseRoad Entranc	South of LeaseRoad Entranc
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>	Jan-04-18 00:00	Jan-03-18 00:00	Jan-03-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-08-18 17:00	Jan-08-18 17:00	Jan-08-18 17:00	Jan-08-18 17:00	Jan-08-18 17:00	Jan-08-18 17:00
	<i>Analyzed:</i>	Jan-09-18 01:10	Jan-09-18 01:29	Jan-09-18 01:48	Jan-09-18 02:07	Jan-09-18 02:25	Jan-09-18 02:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20
	<i>Analyzed:</i>	Jan-08-18 21:07	Jan-08-18 21:28	Jan-08-18 21:35	Jan-08-18 21:42	Jan-08-18 21:49	Jan-08-18 21:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.92 4.92	107 4.99	105 4.93	241 4.93	206 4.97	180 4.94
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00	Jan-08-18 12:00
	<i>Analyzed:</i>	Jan-09-18 04:25	Jan-09-18 04:44	Jan-09-18 05:03	Jan-09-18 05:22	Jan-09-18 06:20	Jan-09-18 06:41
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572801-031	572801-032	572801-033	572801-034	572801-035	572801-036
	<i>Field Id:</i>	South of LeaseRoad Entrance	North of LeaseRoad Entrance	North of LeaseRoad Entrance			
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-04-18 00:00					
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-09-18 12:00	Jan-08-18 17:00	Jan-08-18 17:00	Jan-08-18 17:00	Jan-08-18 17:00	Jan-09-18 12:00
	<i>Analyzed:</i>	Jan-09-18 19:57	Jan-09-18 03:22	Jan-09-18 03:40	Jan-09-18 04:37	Jan-09-18 10:28	Jan-09-18 19:18
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00402 0.00402	<0.00398 0.00398	<0.00403 0.00403	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Jan-08-18 16:20					
	<i>Analyzed:</i>	Jan-08-18 22:03	Jan-08-18 22:23	Jan-08-18 22:30	Jan-08-18 22:51	Jan-08-18 22:58	Jan-08-18 23:05
	<i>Units/RL:</i>	mg/kg RL					
Chloride		294 4.99	127 4.99	100 4.90	119 4.94	139 4.95	169 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-08-18 12:00					
	<i>Analyzed:</i>	Jan-09-18 07:01	Jan-09-18 07:21	Jan-09-18 07:40	Jan-09-18 08:00	Jan-09-18 08:20	Jan-09-18 08:41
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 572801

Tetra Tech- Midland, Midland, TX

Project Name: Calebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, NM

Date Received in Lab: Mon Jan-08-18 11:26 am
Report Date: 11-JAN-18
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	572801-037	572801-038	572801-039	572801-040	572801-041	572801-042
	<i>Field Id:</i>	North of LeaseRoad Entrance	North of LeaseRoad Entrance	LeaseRoad Entrance Bottom	LeaseRoad Entrance Bottom	LeaseRoad Entrance Bottom	LeaseRoad Entrance WestSide
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00	Jan-04-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-09-18 12:00	Jan-09-18 12:00	Jan-09-18 12:00	Jan-09-18 12:00	Jan-09-18 12:00	Jan-08-18 17:00
	<i>Analyzed:</i>	Jan-09-18 17:25	Jan-09-18 17:44	Jan-09-18 18:03	Jan-09-18 18:59	Jan-09-18 19:37	Jan-09-18 00:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00396 0.00396	<0.00401 0.00401	<0.00400 0.00400	<0.00396 0.00396	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:20	Jan-08-18 16:25	Jan-08-18 16:25
	<i>Analyzed:</i>	Jan-08-18 23:12	Jan-08-18 23:19	Jan-08-18 23:26	Jan-08-18 23:33	Jan-09-18 00:15	Jan-09-18 00:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		49.5 4.99	102 4.96	126 4.96	61.8 4.91	87.1 4.97	211 4.91
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-09-18 08:00	Jan-09-18 08:00	Jan-09-18 08:00	Jan-09-18 08:00	Jan-09-18 08:00	Jan-09-18 08:00
	<i>Analyzed:</i>	Jan-09-18 13:27	Jan-09-18 13:47	Jan-09-18 12:25	Jan-09-18 12:46	Jan-09-18 13:06	Jan-09-18 11:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Kelsey Brooks
Project Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037993

Sample: 572801-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 16:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 3037993

Sample: 572801-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 16:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 3037897

Sample: 572801-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 16:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	99.8	70	70-135	
o-Terphenyl	35.6	49.9	71	70-135	

Lab Batch #: 3037993

Sample: 572801-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 16:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 3037993

Sample: 572801-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 16:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037993

Sample: 572801-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 17:18

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3037993

Sample: 572801-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 17:37

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 3037993

Sample: 572801-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 17:55

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 3037897

Sample: 572801-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 17:57

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.7	99.9	81	70-135	
o-Terphenyl	40.3	50.0	81	70-135	

Lab Batch #: 3037897

Sample: 572801-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 18:17

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.6	99.6	73	70-135	
o-Terphenyl	36.3	49.8	73	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037897

Sample: 572801-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 18:37

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.0	99.8	76	70-135	
o-Terphenyl	38.5	49.9	77	70-135	

Lab Batch #: 3037897

Sample: 572801-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 18:57

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	99.7	70	70-135	
o-Terphenyl	35.3	49.9	71	70-135	

Lab Batch #: 3037993

Sample: 572801-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 19:11

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3037897

Sample: 572801-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 19:17

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.1	99.5	79	70-135	
o-Terphenyl	39.7	49.8	80	70-135	

Lab Batch #: 3037993

Sample: 572801-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 19:31

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037897

Sample: 572801-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 19:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.7	99.9	85	70-135	
o-Terphenyl	41.9	50.0	84	70-135	

Lab Batch #: 3037993

Sample: 572801-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 19:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 3037897

Sample: 572801-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 19:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.3	99.7	76	70-135	
o-Terphenyl	38.2	49.9	77	70-135	

Lab Batch #: 3037993

Sample: 572801-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 20:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 3037897

Sample: 572801-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 20:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.3	99.8	82	70-135	
o-Terphenyl	41.5	49.9	83	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037993

Sample: 572801-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 20:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3037993

Sample: 572801-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 20:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3037993

Sample: 572801-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 21:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 3037897

Sample: 572801-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 21:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.2	99.8	78	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 3037993

Sample: 572801-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 21:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037897

Sample: 572801-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 21:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.6	99.9	72	70-135	
o-Terphenyl	36.6	50.0	73	70-135	

Lab Batch #: 3037993

Sample: 572801-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 21:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3037897

Sample: 572801-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 21:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.3	99.8	80	70-135	
o-Terphenyl	39.1	49.9	78	70-135	

Lab Batch #: 3037993

Sample: 572801-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 22:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 3037897

Sample: 572801-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 22:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	99.7	70	70-135	
o-Terphenyl	34.9	49.9	70	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037897

Sample: 572801-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 22:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	69.8	99.6	70	70-135	
o-Terphenyl	35.2	49.8	71	70-135	

Lab Batch #: 3037897

Sample: 572801-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 22:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.2	99.7	71	70-135	
o-Terphenyl	35.8	49.9	72	70-135	

Lab Batch #: 3037897

Sample: 572801-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 23:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.7	99.9	71	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 3037897

Sample: 572801-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 23:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	35.4	50.0	71	70-135	

Lab Batch #: 3037897

Sample: 572801-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 23:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.5	99.8	83	70-135	
o-Terphenyl	40.2	49.9	81	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037751

Sample: 572801-042 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 00:51

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3037751

Sample: 572801-025 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 01:10

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3037751

Sample: 572801-026 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 01:29

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3037751

Sample: 572801-027 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 01:48

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3037901

Sample: 572801-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 01:51

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.1	99.8	73	70-135	
o-Terphenyl	35.7	49.9	72	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037751

Sample: 572801-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 02:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 3037751

Sample: 572801-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 02:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3037751

Sample: 572801-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 02:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 3037901

Sample: 572801-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 02:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	99.9	89	70-135	
o-Terphenyl	43.8	50.0	88	70-135	

Lab Batch #: 3037901

Sample: 572801-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 03:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.1	99.7	81	70-135	
o-Terphenyl	39.9	49.9	80	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037751

Sample: 572801-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 03:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 3037901

Sample: 572801-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 03:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.1	99.6	84	70-135	
o-Terphenyl	41.4	49.8	83	70-135	

Lab Batch #: 3037751

Sample: 572801-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 03:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3037901

Sample: 572801-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 03:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	99.8	77	70-135	
o-Terphenyl	39.0	49.9	78	70-135	

Lab Batch #: 3037901

Sample: 572801-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 04:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.6	99.9	84	70-135	
o-Terphenyl	42.6	50.0	85	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037901

Sample: 572801-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 04:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.6	100	76	70-135	
o-Terphenyl	39.8	50.0	80	70-135	

Lab Batch #: 3037751

Sample: 572801-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 04:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 3037901

Sample: 572801-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 04:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.2	100	81	70-135	
o-Terphenyl	41.0	50.0	82	70-135	

Lab Batch #: 3037901

Sample: 572801-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 05:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.6	99.8	71	70-135	
o-Terphenyl	36.1	49.9	72	70-135	

Lab Batch #: 3037901

Sample: 572801-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 05:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.0	99.9	72	70-135	
o-Terphenyl	35.8	50.0	72	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037901

Sample: 572801-029 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 06:20

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	99.6	70	70-135	
o-Terphenyl	36.8	49.8	74	70-135	

Lab Batch #: 3037901

Sample: 572801-030 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 06:41

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.1	99.7	73	70-135	
o-Terphenyl	35.0	49.9	70	70-135	

Lab Batch #: 3037901

Sample: 572801-031 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 07:01

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.9	99.8	85	70-135	
o-Terphenyl	41.7	49.9	84	70-135	

Lab Batch #: 3037901

Sample: 572801-032 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 07:21

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.8	99.9	73	70-135	
o-Terphenyl	35.4	50.0	71	70-135	

Lab Batch #: 3037901

Sample: 572801-033 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 01/09/18 07:40

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	99.7	79	70-135	
o-Terphenyl	40.8	49.9	82	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037901

Sample: 572801-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 08:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.6	99.8	90	70-135	
o-Terphenyl	45.3	49.9	91	70-135	

Lab Batch #: 3037901

Sample: 572801-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 08:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	148	99.7	148	70-135	**
o-Terphenyl	76.1	49.9	153	70-135	**

Lab Batch #: 3037901

Sample: 572801-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 08:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.5	99.9	72	70-135	
o-Terphenyl	36.3	50.0	73	70-135	

Lab Batch #: 3037751

Sample: 572801-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 10:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 3037751

Sample: 572801-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 10:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037909

Sample: 572801-042 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 11:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.9	100	72	70-135	
o-Terphenyl	36.8	50.0	74	70-135	

Lab Batch #: 3037909

Sample: 572801-039 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 12:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.8	100	79	70-135	
o-Terphenyl	40.5	50.0	81	70-135	

Lab Batch #: 3037909

Sample: 572801-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 12:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.7	100	73	70-135	
o-Terphenyl	37.0	50.0	74	70-135	

Lab Batch #: 3037909

Sample: 572801-041 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 13:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.2	100	76	70-135	
o-Terphenyl	39.5	50.0	79	70-135	

Lab Batch #: 3037909

Sample: 572801-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 13:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.2	100	80	70-135	
o-Terphenyl	40.9	50.0	82	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037909

Sample: 572801-038 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 13:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.2	100	84	70-135	
o-Terphenyl	42.6	50.0	85	70-135	

Lab Batch #: 3037834

Sample: 572801-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 14:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 3037834

Sample: 572801-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 15:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3037834

Sample: 572801-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 15:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3037834

Sample: 572801-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 15:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037834

Sample: 572801-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 16:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 3037834

Sample: 572801-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 17:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3037834

Sample: 572801-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 17:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 3037834

Sample: 572801-038 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 17:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 3037834

Sample: 572801-039 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 18:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037834

Sample: 572801-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 18:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3037834

Sample: 572801-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 19:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3037834

Sample: 572801-041 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 19:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3037834

Sample: 572801-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 3037993

Sample: 7637176-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 14:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037751

Sample: 7637177-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 14:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 3037897

Sample: 7637141-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 15:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.1	99.8	82	70-135	
o-Terphenyl	41.9	49.9	84	70-135	

Lab Batch #: 3037901

Sample: 7637143-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 00:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.2	99.7	78	70-135	
o-Terphenyl	40.6	49.9	81	70-135	

Lab Batch #: 3037909

Sample: 7637268-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 10:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	100	88	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 3037834

Sample: 7637195-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 14:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0246	0.0300	82	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037993

Sample: 7637176-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 12:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 3037751

Sample: 7637177-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 12:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 3037897

Sample: 7637141-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 15:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.7	99.9	86	70-135	
o-Terphenyl	38.6	50.0	77	70-135	

Lab Batch #: 3037901

Sample: 7637143-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 01:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.5	99.9	88	70-135	
o-Terphenyl	39.9	50.0	80	70-135	

Lab Batch #: 3037909

Sample: 7637268-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 10:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.3	100	99	70-135	
o-Terphenyl	41.5	50.0	83	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037834

Sample: 7637195-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 12:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 3037993

Sample: 7637176-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 13:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 3037751

Sample: 7637177-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 13:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 3037897

Sample: 7637141-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/08/18 16:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.4	99.9	82	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 3037901

Sample: 7637143-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 01:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.9	99.8	85	70-135	
o-Terphenyl	38.3	49.9	77	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037909

Sample: 7637268-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 10:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.1	100	89	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 3037834

Sample: 7637195-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/09/18 12:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 3037993

Sample: 572801-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 13:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 3037897

Sample: 572801-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 16:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.5	99.8	77	70-135	
o-Terphenyl	38.6	49.9	77	70-135	

Lab Batch #: 3037751

Sample: 572801-042 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 23:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037901

Sample: 572801-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 02:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.8	99.9	86	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

Lab Batch #: 3037909

Sample: 572801-042 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 11:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.7	100	81	70-135	
o-Terphenyl	36.4	50.0	73	70-135	

Lab Batch #: 3037834

Sample: 572801-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 12:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 3037993

Sample: 572801-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 13:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3037897

Sample: 572801-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 17:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.7	99.7	77	70-135	
o-Terphenyl	37.6	49.9	75	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Calebra BLV Federal #1H

Work Orders : 572801,

Project ID: 212C-MD-01034

Lab Batch #: 3037751

Sample: 572801-042 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/08/18 23:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3037901

Sample: 572801-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 02:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.7	99.8	82	70-135	
o-Terphenyl	37.2	49.9	75	70-135	

Lab Batch #: 3037909

Sample: 572801-042 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 11:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.7	100	84	70-135	
o-Terphenyl	36.8	50.0	74	70-135	

Lab Batch #: 3037834

Sample: 572801-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/09/18 13:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572801

Project ID: 212C-MD-01034

Analyst: ALJ

Date Prepared: 01/08/2018

Date Analyzed: 01/08/2018

Lab Batch ID: 3037993

Sample: 7637176-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00199	0.0996	0.0748	75	0.0998	0.0766	77	2	70-130	35	
Toluene	<0.00199	0.0996	0.0783	79	0.0998	0.0806	81	3	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.0858	86	0.0998	0.0885	89	3	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.171	86	0.200	0.177	89	3	70-135	35	
o-Xylene	<0.00199	0.0996	0.0880	88	0.0998	0.0910	91	3	71-133	35	

Analyst: ALJ

Date Prepared: 01/08/2018

Date Analyzed: 01/08/2018

Lab Batch ID: 3037751

Sample: 7637177-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00201	0.100	0.0754	75	0.101	0.0773	77	2	70-130	35	
Toluene	<0.00201	0.100	0.0789	79	0.101	0.0814	81	3	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0865	87	0.101	0.0894	89	3	71-129	35	
m,p-Xylenes	<0.00402	0.201	0.172	86	0.202	0.178	88	3	70-135	35	
o-Xylene	<0.00201	0.100	0.0887	89	0.101	0.0919	91	4	71-133	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572801

Project ID: 212C-MD-01034

Analyst: ALJ

Date Prepared: 01/09/2018

Date Analyzed: 01/09/2018

Lab Batch ID: 3037834

Sample: 7637195-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00202	0.101	0.101	100	0.101	0.0999	99	1	70-130	35	
Toluene	<0.00202	0.101	0.0997	99	0.101	0.0982	97	2	70-130	35	
Ethylbenzene	<0.00202	0.101	0.101	100	0.101	0.0978	97	3	71-129	35	
m,p-Xylenes	<0.00404	0.202	0.204	101	0.201	0.197	98	3	70-135	35	
o-Xylene	<0.00202	0.101	0.100	99	0.101	0.0978	97	2	71-133	35	

Analyst: OJS

Date Prepared: 01/08/2018

Date Analyzed: 01/08/2018

Lab Batch ID: 3037691

Sample: 7637109-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	262	105	250	256	102	2	90-110	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572801

Project ID: 212C-MD-01034

Analyst: OJS

Date Prepared: 01/08/2018

Date Analyzed: 01/08/2018

Lab Batch ID: 3037692

Sample: 7637115-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	272	109	250	272	109	0	90-110	20	

Analyst: OJS

Date Prepared: 01/08/2018

Date Analyzed: 01/09/2018

Lab Batch ID: 3037694

Sample: 7637116-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	274	110	250	273	109	0	90-110	20	

Analyst: ALJ

Date Prepared: 01/08/2018

Date Analyzed: 01/08/2018

Lab Batch ID: 3037897

Sample: 7637141-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	832	83	999	794	79	5	70-135	35	
Diesel Range Organics (DRO)	<15.0	999	866	87	999	823	82	5	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order #: 572801

Project ID: 212C-MD-01034

Analyst: ALJ

Date Prepared: 01/08/2018

Date Analyzed: 01/09/2018

Lab Batch ID: 3037901

Sample: 7637143-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	999	841	84	998	819	82	3	70-135	35	
Diesel Range Organics (DRO)	<15.0	999	870	87	998	829	83	5	70-135	35	

Analyst: ALJ

Date Prepared: 01/09/2018

Date Analyzed: 01/09/2018

Lab Batch ID: 3037909

Sample: 7637268-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	890	89	1000	850	85	5	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	906	91	1000	856	86	6	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572801

Project ID: 212C-MD-01034

Lab Batch ID: 3037751

QC- Sample ID: 572801-042 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0560	56	0.0998	0.0514	52	9	70-130	35	X
Toluene	<0.00200	0.100	0.0577	58	0.0998	0.0522	52	10	70-130	35	X
Ethylbenzene	<0.00200	0.100	0.0609	61	0.0998	0.0569	57	7	71-129	35	X
m,p-Xylenes	<0.00401	0.200	0.121	61	0.200	0.115	58	5	70-135	35	X
o-Xylene	<0.00200	0.100	0.0635	64	0.0998	0.0602	60	5	71-133	35	X

Lab Batch ID: 3037834

QC- Sample ID: 572801-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/09/2018

Date Prepared: 01/09/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0846	84	0.100	0.0882	88	4	70-130	35	
Toluene	<0.00202	0.101	0.0838	83	0.100	0.0859	86	2	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0838	83	0.100	0.0883	88	5	71-129	35	
m,p-Xylenes	<0.00403	0.202	0.169	84	0.200	0.179	90	6	70-135	35	
o-Xylene	<0.00202	0.101	0.0846	84	0.100	0.0890	89	5	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572801

Project ID: 212C-MD-01034

Lab Batch ID: 3037993

QC- Sample ID: 572801-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0719	71	0.100	0.0664	66	8	70-130	35	X
Toluene	<0.00202	0.101	0.0741	73	0.100	0.0686	69	8	70-130	35	X
Ethylbenzene	<0.00202	0.101	0.0827	82	0.100	0.0717	72	14	71-129	35	
m,p-Xylenes	<0.00403	0.202	0.165	82	0.201	0.142	71	15	70-135	35	
o-Xylene	<0.00202	0.101	0.0858	85	0.100	0.0739	74	15	71-133	35	

Lab Batch ID: 3037691

QC- Sample ID: 572801-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.98	249	257	103	249	269	108	5	90-110	20	

Lab Batch ID: 3037691

QC- Sample ID: 572801-011 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	56.3	249	307	101	249	309	101	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572801

Project ID: 212C-MD-01034

Lab Batch ID: 3037692

QC- Sample ID: 572801-021 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	221	249	479	104	249	468	99	2	90-110	20	

Lab Batch ID: 3037692

QC- Sample ID: 572801-031 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	294	250	529	94	250	548	102	4	90-110	20	

Lab Batch ID: 3037694

QC- Sample ID: 572801-041 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/09/2018

Date Prepared: 01/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	87.1	249	351	106	249	357	108	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Calebra BLV Federal #1H

Work Order # : 572801

Project ID: 212C-MD-01034

Lab Batch ID: 3037897

QC- Sample ID: 572801-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/08/2018

Date Prepared: 01/08/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	585	59	997	591	59	1	70-135	35	X
Diesel Range Organics (DRO)	<15.0	998	646	65	997	610	61	6	70-135	35	X

Lab Batch ID: 3037901

QC- Sample ID: 572801-002 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/09/2018

Date Prepared: 01/08/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	822	82	998	781	78	5	70-135	35	
Diesel Range Organics (DRO)	<15.0	999	836	84	998	767	77	9	70-135	35	

Lab Batch ID: 3037909

QC- Sample ID: 572801-042 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 01/09/2018

Date Prepared: 01/09/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	784	78	1000	770	77	2	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	782	78	1000	766	77	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 692-4559
Fax (432) 692-5946

572501

Client Name: EOG
Site Manager: Ike Tavares
Project Name: Calebra BLV Federal #1H
Project Location: (county, state) Eddy County, New Mexico
Project #: 212C-MD-01034
Invoice to: Tetra Tech, Inc.
Receiving Laboratory: Xenco Midland Tx
Sampler Signature: Mike Carmona

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			
	S13 Bottom Hole (2.5'BEB)	1/4/2018		X		X		1 N	X	BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM PLM (Asbestos) Chloride Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance
	S13 North Sidewall(2.5'BEB)	1/4/2018		X		X		1 N	X	
	S13 South Sidewall (2.5'BEB)	1/4/2018		X		X		1 N	X	
	S15 Bottom Hole (2.5'BEB)	1/4/2018		X		X		1 N	X	
	S15 North Sidewall(2.5'BEB)	1/4/2018		X		X		1 N	X	
	S16 Bottom Hole (2.5'BEB)	1/4/2018		X		X		1 N	X	
	S16 North Sidewall(2.5'BEB)	1/4/2018		X		X		1 N	X	
	S16 South Sidewall (2.5'BEB)	1/4/2018		X		X		1 N	X	
	S17 Bottom Hole (2.5'BEB)	1/4/2018		X		X		1 N	X	
	S17 North Sidewall(2.5'BEB)	1/4/2018		X		X		1 N	X	

LAB USE ONLY

Received by: *Mike Carmona* Date: 1/8/18 Time: 11:36
 Received by: _____ Date: _____ Time: _____

REMARKS:
 STANDARD
 RUSH: Same Day 24 hr 48 hr **72 hr**
 Rush Charges Authorized
 Special Report Limits or TRRP Report

Temp: **7** IR ID: R-8
 CF: (-0.6: -0.2°C)
 (6-23: +0.2°C)
 Corrected Temp: **5**

ORIGINAL COP

RECEIVED DELIVERED FEDEX UPS Tracking # _____

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel: (432) 682-4559
Fax: (432) 682-3946

572801

Client Name: EOG
 Project Name: Calebra BLV Federal #1H
 Project Location: (county, state) Eddy County, New Mexico
 Project #: 212C-MD-01034
 Invoice to: Tetra Tech, Inc.
 Receiving Laboratory: Xenco Midland Tx
 Comments: Sampler Signature: Mike Carmona

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None	# CONTAINERS	FILTERED (Y/N)
		YEAR: 2017	METHOD										
	Pad Area Bottom Hole#1 (2'BEB)			1/4/2018		X						1	N
	Pad Area North SideWall (2'BEB)			1/4/2018		X						1	N
	Pad Area South SideWall (2'BEB)			1/4/2018		X						1	N
	Pad Area Bottom Hole#2 (2'BEB)			1/4/2018		X						1	N
	Pad Area North SideWall (2'BEB)			1/4/2018		X						1	N
	Pad Area South SideWall (2'BEB)			1/4/2018		X						1	N
	Pad Area Bottom Hole#3 (2'BEB)			1/4/2018		X						1	N
	Pad Area North SideWall (2'BEB)			1/4/2018		X						1	N
	Pad Area South SideWall (2'BEB)			1/4/2018		X						1	N
	Pad Area South SideWall (2'BEB)			1/4/2018		X						1	N

Site Manager: Ike Tavaroz
 Received by: Mike Carmona
 Date: 1/8/18
 Time: 11:26 am
 Received by: [Signature]
 Date: 1/8/18
 Time: 11:36

Temp: 7
 CF: (0-6: -0.2°C)
 (6-23: +0.2°C)
 Corrected Temp: 5

IR ID: R-8

LAB USE ONLY

REMARKS: STANDARD RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized
 Special Report Limits or TRRP Report

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	BTEX 8260B
TPH TX1005 (Ext to C35)	
TPH 8015M (GRO - DRO - ORO - MRO)	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082 / 608	
NORM	
PLM (Asbestos)	
Chloride	
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

572801

Client Name: EOG Site Manager: Ike Tavaréz

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc. Receiving Laboratory: Xenco Midland Tx Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS		ANALYSIS REQUEST (Circle or Specify Method No.)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None	FILTERED (Y/N)	
	Pad Area Bottom Hole#4 (2'BEB)	1/4/2018		X						1 N	BTEX 8021B BTEX 8260B
	Pad Area Bottom Hole#5 (1'BEB)	1/4/2018		X						1 N	TPH TX1005 (Ext to C35)
	Pad Area East SideWall (1'BEB)	1/4/2018		X						1 N	TPH 8015M (GRO - DRO - ORO - MRO)
	Pad Area West SideWall (1'BEB)	1/4/2018		X						1 N	PAH 8270C
	Pad Area Bottom Hole#6 (6"BEB)	1/3/2018		X						1 N	Total Metals Ag As Ba Cd Cr Pb Se Hg
	Pad Area East SideWall (6"BEB)	1/3/2018		X						1 N	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
	Pad Area West SideWall (6"BEB)	1/3/2018		X						1 N	TCLP Volatiles
	South of Leaseroad Entrance BottomHole#1 (9'BEB)	1/4/2018		X						1 N	TCLP Semi Volatiles
	South of Leaseroad Entrance NorthSideWall (9'BEB)	1/4/2018		X						1 N	RCI
	South of Leaseroad Entrance SouthSideWall (9'BEB)	1/4/2018		X						1 N	GC/MS Vol. 8260B / 624
											GC/MS Semi. Vol. 8270C/625
											PCB's 8082 / 608
											NORM
											PLM (Asbestos)
											Chloride
											Chloride Sulfate TDS
											General Water Chemistry (see attached list)
											Anion/Cation Balance

Relinquished by: Mike Carmona Date: 1-8-18 Time: 1126 am Received by: Mike Carmona Date: 1/8/18 Time: 11:26

Relinquished by: Date: Time: Received by: Date: Time:

ORIGINAL CO Temp: 7 IR ID: R-8

CF: (0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 5

HAND DELIVERED FEDEX UPS Tracking #:

LAB USE ONLY REMARKS: STANDARD RUSH: Same Day 24 hr 48 hr (2h) Rush Charges Authorized Special Report Limits or TRRP Report

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

572801

Client Name: EOG Site Manager: Ike Tavaréz

Project Name: Calebra BLV Federal #1H

Project Location: (county, state) Eddy County, New Mexico Project #: 212C-MD-01034

Invoice to: Tetra Tech, Inc.

Receiving Laboratory: Xenco Midland TX Sampler Signature: Mike Carrmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)
		YEAR: 2017	DATE	TIME	WATER	SOIL	HCL	HNO ₃		
	South of LeaseRoad Entrance EastSideWall (9'BEB)		1/4/2018		X			X		1 N
	South of LeaseRoad Entrance BottomHole#2 (9'BEB)		1/4/2018		X			X		1 N
	South of LeaseRoad Entrance NorthSideWall (9'BEB)		1/4/2018		X			X		1 N
	South of LeaseRoad Entrance SouthSideWall (9'BEB)		1/4/2018		X			X		1 N
	North of LeaseRoad Entrance BottomHole (6'BEB)		1/4/2018		X			X		1 N
	North of LeaseRoad Entrance NorthSideWall (6'BEB)		1/4/2018		X			X		1 N
	North of LeaseRoad Entrance SouthSideWall (6'BEB)		1/4/2018		X			X		1 N
	North of LeaseRoad Entrance WestSideWall (6'BEB)		1/4/2018		X			X		1 N
	LeaseRoad Entrance BottomHole#1 (2'BEB)		1/4/2018		X			X		1 N
	LeaseRoad Entrance BottomHole#2 (2'BEB)		1/4/2018		X			X		1 N

Disinquinshed by: *Mika Carrmona* Date: 1-8-18 Time: 11:20 am Received by: *Mika Carrmona* Date: 1/8/18 Time: 11:20

ANALYSIS REQUEST
(Circle or Specify Method No.)

<input checked="" type="checkbox"/>	BTEX 8021B	BTEX 8260B
<input checked="" type="checkbox"/>	TPH TX1005 (Ext to C35)	
<input checked="" type="checkbox"/>	TPH 8015M (GRO - DRO - ORO - MRO)	
<input checked="" type="checkbox"/>	PAH 8270C	
<input checked="" type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg	
<input checked="" type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
<input checked="" type="checkbox"/>	TCLP Volatiles	
<input checked="" type="checkbox"/>	TCLP Semi Volatiles	
<input checked="" type="checkbox"/>	RCI	
<input checked="" type="checkbox"/>	GC/MS Vol. 8260B / 624	
<input checked="" type="checkbox"/>	GC/MS Semi. Vol. 8270C/625	
<input checked="" type="checkbox"/>	PCB's 8082 / 608	
<input checked="" type="checkbox"/>	NORM	
<input checked="" type="checkbox"/>	PLM (Asbestos)	
<input checked="" type="checkbox"/>	Chloride	
<input checked="" type="checkbox"/>	Chloride Sulfate TDS	
<input checked="" type="checkbox"/>	General Water Chemistry (see attached list)	
<input checked="" type="checkbox"/>	Anion/Cation Balance	
<input checked="" type="checkbox"/>	Hold	

Disinquinshed by: _____ Date: _____ Time: _____
Received by: _____ Date: _____ Time: _____

ORIGIN

Temp: .7 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: .5

LAB USE ONLY
REMARKS:
 STANDARD
 RUSH: Same Day 24 hr 48 hr 72 hr
 Rush Charges Authorized
 Special Report Limits or TRRP Report

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4539
Fax (432) 682-3946

572801

Client Name: EOG
 Project Name: Calebra BLV Federal #1H
 Project Location: (county, state) Eddy County, New Mexico
 Invoice to: Tetra Tech, Inc.
 Receiving Laboratory: Xenco Midland Tx
 Comments:

Site Manager: Ike Tavaraz
 Project #: 212C-MD-01034
 Sampler Signature: Mike Carmona

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃		
	LeaseRoad Entrance BottomHole#3 (2'BEB)	1/4/2018		X				X	1 N
	LeaseRoad Entrance WestSideWall (2'BEB)	1/4/2018		X				X	1 N

Relinquished by: Mike Carmona
 Date: 1-8-18 Time: 1126 am
 Received by: Mike Carmona
 Date: 1/8/18 Time: 11:26 am

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B
 TPH TX1005 (Ext to C35)
 TPH 8015M (GRO - DRO - ORO - MRO)
 PAH 8270C
 Total Metals Ag As Ba Cd Cr Pb Se Hg
 TCLP Metals Ag As Ba Cd Cr Pb Se Hg
 TCLP Volatiles
 TCLP Semi Volatiles
 RCI
 GC/MS Vol. 8260B / 624
 GC/MS Semi. Vol. 8270C/625
 PCB's 8082 / 608
 NORM
 PLM (Asbestos)
 Chloride
 Chloride Sulfate TDS
 General Water Chemistry (see attached list)
 Anion/Cation Balance

LAB USE ONLY

REMARKS:
 STANDARD
 RUSH: Same Day 24 hr 48 hr (2 hr)
 Rush Charges Authorized
 Special Report Limits or TRRP Report

Sample Temperature

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGIN Temp: 7 IR ID: R-8

CF: (0-6: -0.2°C)
 (6-23: +0.2°C)

Corrected Temp: 5

Analytical Report 575611

for
Tetra Tech- Midland

Project Manager: Ike Tavarez

Culebra BLV Federal #1H

212C-MD-01034

08-FEB-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



08-FEB-18

Project Manager: **Ike Tavarez**

Tetra Tech- Midland

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **575611**

Culebra BLV Federal #1H

Project Address: Eddy County, New Mexico

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 575611. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 575611 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 575611

Tetra Tech- Midland, Midland, TX

Culebra BLV Federal #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S14 North Sidewall	S	01-31-18 00:00		575611-001



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Culebra BLV Federal #1H

Project ID: 212C-MD-01034
Work Order Number(s): 575611

Report Date: 08-FEB-18
Date Received: 02/07/2018

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 575611

Tetra Tech- Midland, Midland, TX

Project Name: Culebra BLV Federal #1H

Project Id: 212C-MD-01034
Contact: Ike Tavarez
Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Feb-07-18 09:46 am
Report Date: 08-FEB-18
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	575611-001				
	Field Id:	S14 North Sidewall				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jan-31-18 00:00				
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-08-18 09:00				
	Analyzed:	Feb-08-18 11:53				
	Units/RL:	mg/kg RL				
Chloride		26.9 4.94				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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4147 Greenbriar Dr, Stafford, TX 77477
 9701 Harry Hines Blvd , Dallas, TX 75220
 5332 Blackberry Drive, San Antonio TX 78238
 1211 W Florida Ave, Midland, TX 79701
 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



BS / BSD Recoveries



Project Name: Culebra BLV Federal #1H

Work Order #: 575611

Project ID: 212C-MD-01034

Analyst: OJS

Date Prepared: 02/08/2018

Date Analyzed: 02/08/2018

Lab Batch ID: 3040513

Sample: 7638789-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	265	106	250	261	104	2	90-110	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Culebra BLV Federal #1H

Work Order # : 575611

Project ID: 212C-MD-01034

Lab Batch ID: 3040513

QC- Sample ID: 575611-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 02/08/2018

Date Prepared: 02/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	26.9	247	275	100	247	277	101	1	90-110	20	

Lab Batch ID: 3040513

QC- Sample ID: 575687-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 02/08/2018

Date Prepared: 02/08/2018

Analyst: OJS

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	236	249	461	90	249	465	92	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Site
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG

Site Manager: Ike Tavaréz

Project Name: Culebra BLV Federal #1H

Project Location: Eddy County, New Mexico

Project #:

212C-MD-01034

Invoice to: Tetra Tech

Receiving Laboratory: Xenco Midland Tx

Sampler Signature: Mike Carmona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)		
		YEAR: 2017	DATE	TIME	WATER	SOIL	HCL			HNO ₃	ICE
	S14 North Sidewall		1/31/2018		X			X	None	1	N

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Mike Carmona	2-7-18	9:40	Mike Carmona	2-7-18	9:40
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

ANALYSIS REQUEST

(Circle or Specify Method No.)

BTEX 8021B	BTEX 8260B
TPH TX1005 (Ext to C35)	
TPH 8015M (GRO - DRO - ORO - MRO)	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082 / 608	
NORM	
PLM (Asbestos)	
Chloride	X
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	

Temp: 1.2
CF: (0-6; -0.2°C)
(6-23; +0.2°C)
Corrected Temp: 1.0

IR ID: R-8

LAB USE ONLY

REMARKS: STANDARD

- RUSH: Same Day 24 hr 48 hr 72 hr
- Rush Charges Authorized
- Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Site
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

575611

ANALYSIS REQUEST

(Circle or Specify Method No.)

Client Name: EOG Site Manager: Ike Tavarez

Project Name: Culebra BLV Federal #1H

Project Location: Eddy County, New Mexico

Project #: 212C-MD-01034

Invoice to: Tetra Tech

Receiving Laboratory: Xenco Midland Tx

Sampler Signature: Mike Carrona

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2017	DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE
	S14 North Sidewall		1/31/2018		X			X	None	1	N

Inquired by: Mike	Date: 2-7-18	Time: 9:40	Received by: [Signature]	Date: 2-7-18	Time: 9:40
Inquired by:	Date:	Time:	Received by:	Date:	Time:
Inquired by:	Date:	Time:	Received by:	Date:	Time:

BTEX 8021B	BTEX 8260B
TPH TX1005 (Ext to C35)	
TPH 8015M (GRO - DRO - ORO - MRO)	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082 / 608	
NORM	
PLM (Asbestos)	
Chloride	X
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	

Temp: 1.2 IR ID: R-8
 CF: (-0.6: -0.2°C)
 (6-23: +0.2°C)
 Corrected Temp: 1.0

LAB USE ONLY

REMARKS: STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 02/07/2018 09:46:00 AM

Work Order #: 575611

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 02/07/2018
Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 02/08/2018
Kelsey Brooks

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 85923

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 85923
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	9/19/2022