SITE INFORMATION

Report Type: Work Plan NRM2008542121

General Site Information:						
Site:	**El Paso 23 Federal Tank Battery #2**					
Company:	**EOG Resources**					
Section, Township and Range	**Unit C**	**Sec. 23**	**T 26S**	**R 30E**		
County:	**Eddy County**					
GPS:	**32.03222**			**-103.851992**		
Surface Owner:						

Release Data:	
Date Released:	10/19/2019
Type Release:	Oil tank overflow
Source of Contamination:	PW & Crude
Fluid Released:	210 Oil & 80 PW
Fluids Recovered:	0bbls

Official Communication:			
Name:	Todd Wells		Mike Carmona
Company:	EOG Reources		Tetra Tech
Address:	5509 Champions Dr		901 West Wall Street
			Suite 100
City:	Midland Texas, 79706		Midland, Texas
Phone number:	432-686-7016		(432) 687-8121
Fax:			
Email:	todd_well@eogresources.com		mike.carmona@tetratech.com

Site Characterization	
Depth to Groundwater:	*100' below surface*
Karst Potential:	*Medium*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO+MRO)***	***TPH (GRO + DRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*2,500 mg/kg*	*1,000 mg/kg*	*10,000*

TETRA TECH

September 4, 2020

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

Re: Work Plan for the EOG Resources, El Paso 23 Fed #2 TB, Unit C, Section 23, Township 26 South, Range 30 East, Eddy County, New Mexico. NRM2008542121

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources to assess a release that occurred at the El Paso 23 Fed #2 TB, Unit C, Section 23, Township 26 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.032219 º, W 103.851992º. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on October 19, 2019, due to the water dump failing causing the tank to overflow inside unlined containment. A total of 210 barrels of crude oil was released and 80 barrels of produced water. No freestanding fluids were recovered. The release occurred inside the berm and impacted an area measuring approximately 22 ’x 23’. The C-141 Form is included in Appendix A.

Site Characterization

A site characterization was performed for the site, and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances and the site is in a medium karst potential area.

The nearest well is listed in the USGS National Water Information Database website in Section 22, approximately 0.87 miles southwest of the site, and has a reported depth to groundwater of 117 feet below ground surface. Site characterization data is included in Appendix B.

Tetra Tech
901 West Wall, Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

TETRA TECH

EOG plans to drill a bore to 55' below surface, and tag with a water level meter seventy-two (72) hours later to determine the groundwater within a ½ mile radius. Once drilled, a drillers log will be provided for the closure request.

Regulatory

A risk-based evaluation was performed for the site following the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, updated August 14, 2018. 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 on the site characterization, the proposed RRAL for TPH is 2,500 mg/kg (GRO+DRO+MRO) and 1,000 mg/kg (GRO+DRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 10,000 mg/kg.

Soil Assessment and Analytical Results

On March 16, 2020, Tetra Tech personnel were on site to evaluate and sample the release area. One trench (Trench-1) was installed in the spill area to assess and define the extents. Soil samples were collected, and field screened for chlorides. 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 D. The results of the sampling are summarized in Table 1. The trench location is shown on Figure 3.

Referring to Table 1, high TPH concentrations were detected at depths from surface to 13.0' with concentrations of 6,680 mg/kg, 13,500 mg/kg, 17,600 mg/kg, 12,900 mg/kg, 12,100 mg/kg, 14,300 mg/kg, 6,440 mg/kg, 12,300 mg/kg, 15,100 mg/kg, 18,100 mg/kg, 27,100 mg/kg, 21,600 mg/kg, 9,920 mg/kg, and 12,600 mg/kg, respectively. Samples of depths 1.0'-13.0' showed Total BTEX concentrations of 256 mg/kg, 775 mg/kg, 178 mg/kg, 294 mg/kg, 607 mg/kg, 261 mg/kg, 250 mg/kg, 314 mg/kg, 583 mg/kg, 629 mg/kg, 599 mg/kg, 517 mg/kg, and 360 mg/kg, respectively. In addition, chloride was detected in all samples, but exhibited high concentrations of 4,030 mg/kg, 1,040 mg/kg, and 898 mg/kg, at depths of 2.0'-2.5', 10.0', and 11', respectively. The spill area was not vertically defined by the trench.

On June 16, 2020, Tetra Tech personnel were on site to further evaluate the spill area. One borehole (Bore Hole-1) was installed in the spill area to assess and define the extents. Soil samples were collected, and field screened for chlorides. 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 D. The results of the sampling are

TETRA TECH

summarized in Table 2 bore log results are in Appendix C. The borehole location is shown on Figure 3 and is the same as trench 1.

Referring to Table 2, all collected samples except for the sampled depths at surface-1.0', 2.0'-3.0', 19.0'-20.0', and 29.0'-30.0', did not show concentrations of TPH or Total BTEX above laboratory reporting limits. Chloride concentrations were detected in all samples but exhibited one high concentration of 782 mg/kg at a depth of 29.0'-30.0'.

Work Plan

Based on the laboratory results, EOG proposes to remove the impacted soils as shown on Figure 4 and highlighted (green) on Table 1 and Table 2. The area of Trench-1 and Borehole-1 will be excavated to approximately 19.0'-20.0' below surface. The excavated areas will then be backfilled with clean material to surface grade. All of the excavated material will be transported offsite for proper disposal.

Once excavated, composite bottom hole and sidewall samples will be collected every 200 square feet to ensure proper removal of the impacted soils.

The proposed excavation depths may not be reached due to wall cave-ins and safety concerns for onsite personnel. As such, EOG will excavate the impacted soils to the maximum extent possible and have engineering controls prior to excavation.

Conclusion

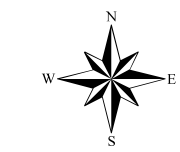
Upon completion, a final report detailing the remediation activities will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Project Manager
Mike Carmona

Figures

SITE LOCATION



Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

OVERVIEW MAP
EL PASO 23 FEDERAL #2 TB
Property Located at coordinates 32.032219°,-103.851992°
EDDY COUNTY, NEW MEXICO

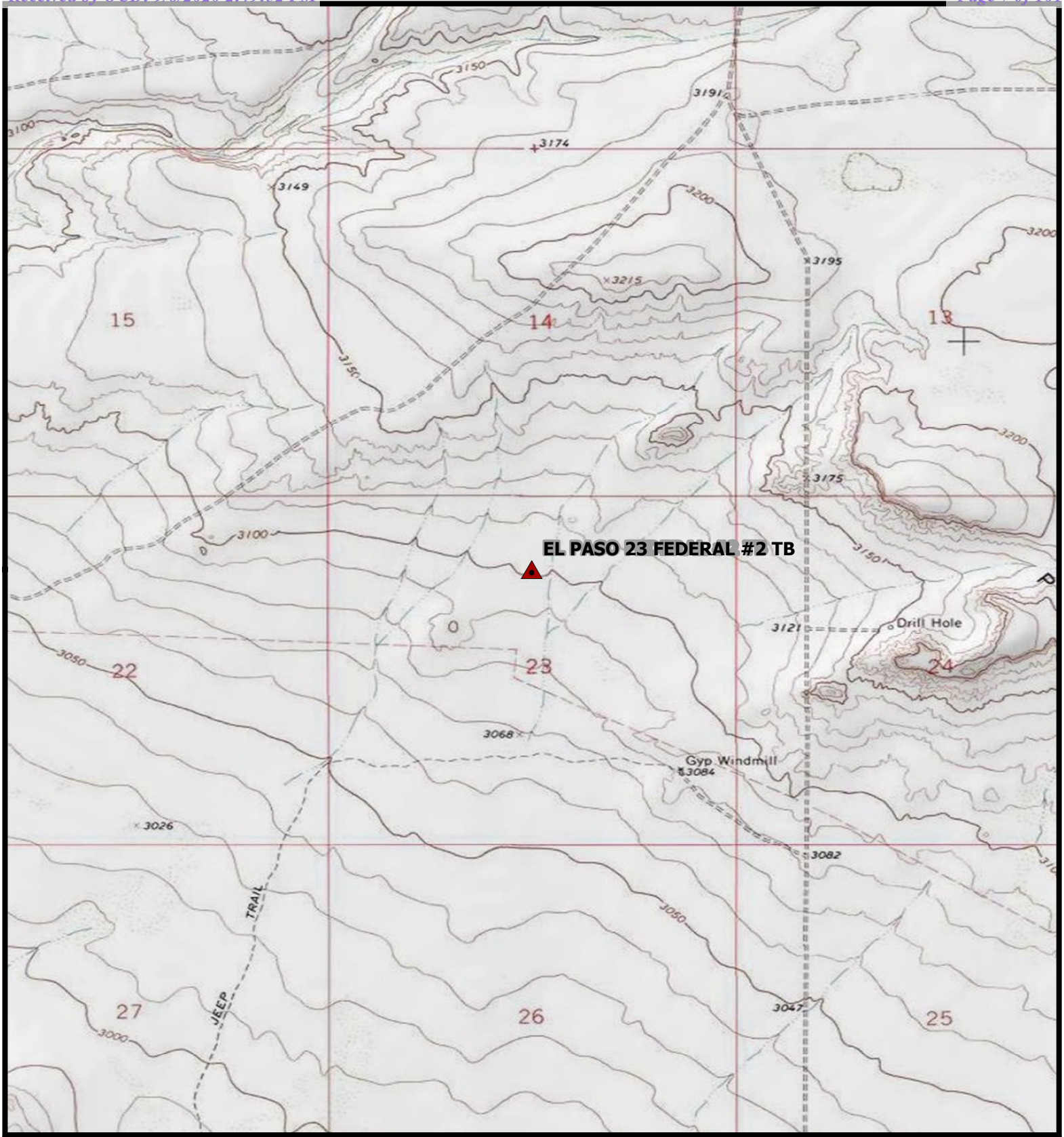
eog resources

TETRA TECH
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559

Project #: 212C-MD-02003
Date: 06-16-2020
Drawn By: MLM

FIGURE 1

Document Path: H:\GIS\EOG RESOURCES\212C-MD-02003 EL PASO FEDERAL #2 TB\MXD\212C-MD-02003 EL PASO FEDERAL #2 TB FIG 2.mxd



SITE LOCATION

N
W E
S

0 1,000 2,000

Approximate Scale in Feet

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

TOPOGRAPHIC MAP
EL PASO 23 FEDERAL #2 TB
Property Located at coordinates 32.032219°,-103.851992°
EDDY COUNTY, NEW MEXICO

eog resources

TETRA TECH
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559

Project #: 212C-MD-02003
Date: 06-16-2020
Drawn By: MLM

FIGURE 2

Document Path: H:\GIS\EOG RESOURCES\212C-MD-02003 EL PASO FEDERAL #2 TB\MXD\212C-MD-02003 EL PASO FEDERAL #2 TB FIG 2.mxd

TRENCH & BOREHOLE SAMPLE LOCATIONS	LATITUDE	LONGITUDE
T-1	32.031987°	-103.852260°
BH-1	32.031987°	-103.852260°

- BOREHOLE SAMPLE LOCATION
- TRENCH
- BURIED PIPELINE
- ABOVEGROUND PIPELINE
- AFFECTED SPILL AREA

N W E S

0 20 40
Approximate Scale in Feet

Source: "New Mexico". 32° 1'55.99"N, 103°51'7.17"W. **Google Earth**. February 21, 2019. June 16, 2020.

SPILL ASSESSMENT MAP
EL PASO 23 FEDERAL #2 TB
Property Located at coordinates 32.032219°,-103.851992°
EDDY COUNTY, NEW MEXICO

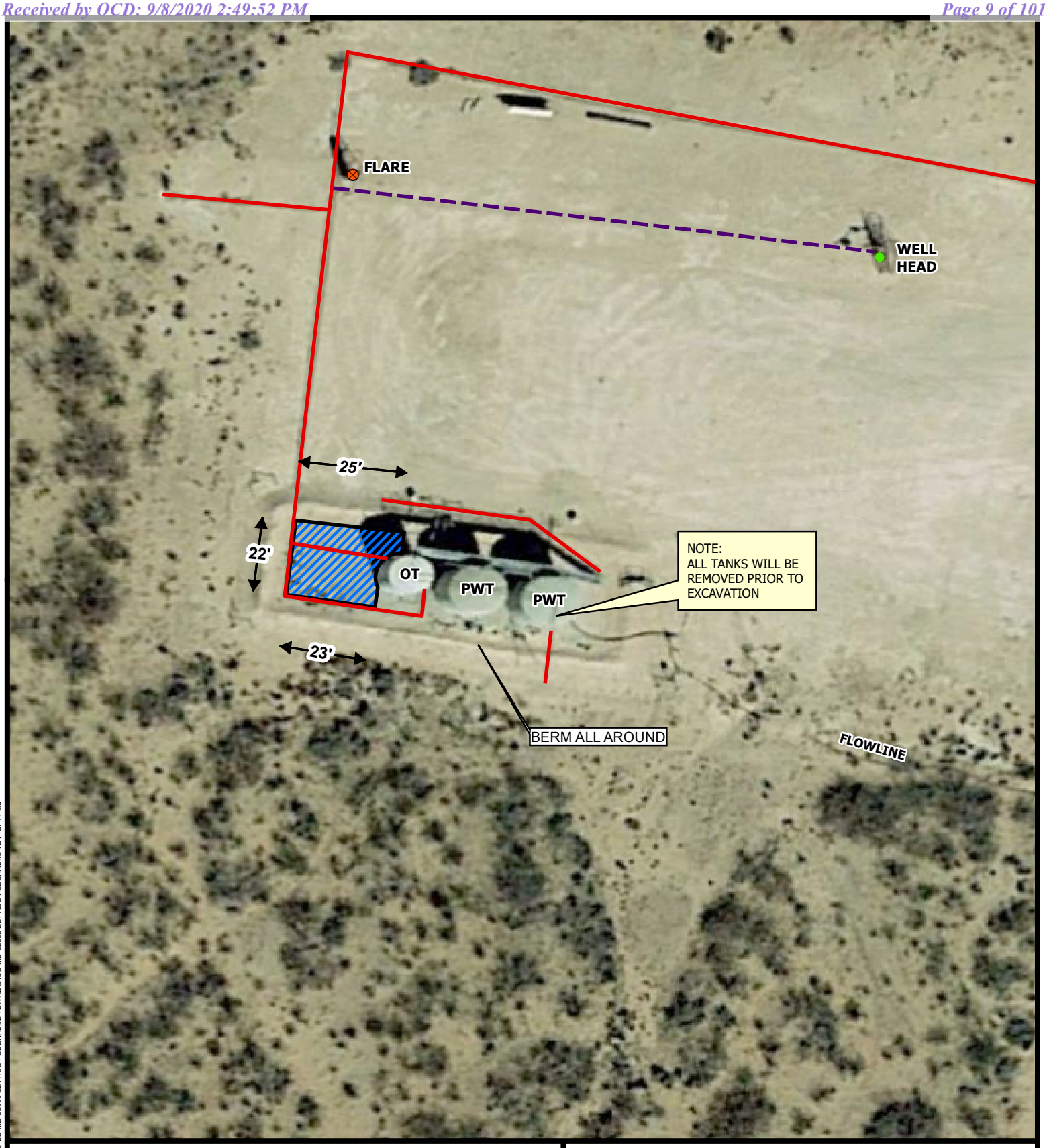
eog resources

TETRA TECH
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559

Project #: 212C-MD-02003
Date: 09-01-2020
Drawn By: MLM

FIGURE 3

Date: 9/1/2020 Document Path: H:\GIS\EOG RESOURCES\212C-MD-02003 EL PASO FEDERAL #2 TB\MXD\212C-MD-02003 EL PASO FEDERAL #2 TB FIG. 3.mxd



BURIED PIPELINE

ABOVEGROUND PIPELINE

20.0' Proposed Excavation Depth

N
W E
S

0 20 40

Approximate Scale in Feet

Source: "New Mexico". 32° 1'55.99"N, 103°51'7.17"W. **Google Earth**. February 21, 2019. June 16, 2020.

PROPOSED EXCAVATION DEPTH & AREA MAP
EL PASO 23 FEDERAL #2 TB
Property Located at coordinates 32.032219°,-103.851992°
EDDY COUNTY, NEW MEXICO

eog resources

TETRA TECH
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559

Project #: 212C-MD-02003
Date: 08-01-2020
Drawn By: MLM

FIGURE 4

Date: 9/1/2020 Document Path: H:\GIS\EOG RESOURCES\212C-MD-02003 EL PASO FEDERAL #2 TB\MXD\212C-MD-02003 EL PASO FEDERAL #2 TB FIG. 4.mxd

Tables

Table 1
EOG
El Paso 23 Fed #2 TB
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (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	MRO	Total						
Trench-1	3/16/2020	0-1	X		**2,910**	**3,770**	**<50.2**	**6,680**	<0.200	0.373	0.901	48.0	49.3	63.1
	"	1-1.5	X		**8,760**	**4,730**	**<249**	**13,500**	0.692	47.5	6.56	**202**	**256**	425
	"	2-2.5	X		**11,900**	**5,690**	**<251**	**17,600**	6.55	**231**	15.3	**522**	**775**	**4,030**
	"	3-3.5	X		**8,630**	**4,270**	**<250**	**12,900**	2.53	**52.4**	5.29	**118**	**178**	178
	"	4-4.5	X		**8,060**	**4,020**	**<251**	**12,100**	3.96	**79.2**	10.1	**200**	**294**	37.1
	"	5-5.5	X		**9,940**	**4,350**	**<250**	**14,300**	6.03	**174**	15.2	**412**	**607**	338
	"	6 - 6.5	X		**4,350**	**2,090**	**<49.8**	**6,440**	2.72	**69.3**	8.45	**180**	**261**	61.4
	"	7 - 7.5	X		**8,200**	**4,140**	**<251**	**12,300**	2.01	**67.7**	8.04	**178**	**250**	364
	"	8' - 8.5'	X		**10,200**	**4,930**	**<249**	**15,100**	3.78	**83.9**	9.96	**217**	**314**	241
	"	9 - 9.5	X		**12,300**	**5,800**	**<251**	**18,100**	6.87	**175**	18.0	**383**	**583**	78.4
	"	10	X		**16,500**	**10,600**	**<249**	**27,100**	6.85	**247**	28.4	**502**	**629**	**1,040**
	"	11	X		**14,200**	**7,360**	**<249**	**21,600**	8.39	**262**	28.4	**476**	**599**	**898**
	"	12	X		**5,820**	**4,100**	**<249**	**9,920**	4.19	**149**	15.9	**348**	**517**	570
	"	13	X		**8,160**	**4,440.0**	**<251**	**12,600**	3.38	**99.9**	11.1	**245**	**360**	242

Proposed Excavation

Table 2
EOG
El Paso 23 Fed #2 TB
Eddy County, New Mexico

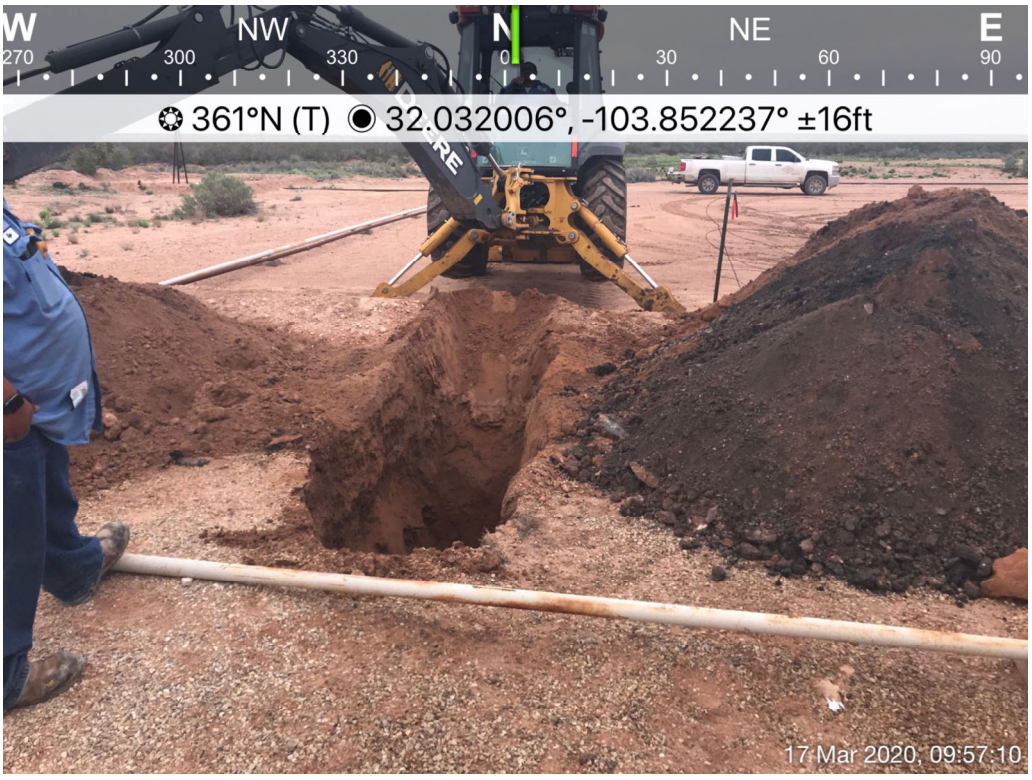
Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Bore Hole-1	6/16/2020	0-1	X		<50.0	**568**	<50.0	**568**	<0.00201	<0.00201	<0.00201	0.002620	0.00262	234
	"	2-3	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	0.00522	<0.00200	0.00522	32.9
	"	4-5	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	16.3
	"	6-7	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	15.4
	"	9-10	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	28.8
	"	14-15	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	86.8
	"	19-20	X		**1,160**	**1,520**	<49.9	**2,680**	0.105	2.04	3.18	23.6	28.9	92.6
	"	24-25	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	75.1
	"	29-30	X		**122**	**491**	<49.9	**613**	0.0414	0.0412	0.211	0.985	1.28	**782**
	"	34-35	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	173
	"	39-40	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	112
	"	44-45	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	126

Proposed Excavation

Photos

EOG Resources
El Paso 23 Federal #2 TB
Eddy County, New Mexico

TETRA TECH



Area of Trench-1 – View North

Area of Trench-1 – View Southeast

Appendix A

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 Todd Wells	Contact Telephone (432) 686-3613
Contact email Todd_Wells@eogresources.com	Incident # *(assigned by OCD)*
Contact mailing address 5509 Champions Drive Midland, TX 79706	

Location of Release Source

Latitude 32.032019° Longitude -103.852174°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name El Paso 23 Fed #2	Site Type Tank Battery
Date Release Discovered 10/19/19	API# *(if applicable)* 30-015-29307

Unit Letter	Section	Township	Range	County
C	23	26S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 210	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 80	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: The water dump failed to open and sent water through the oil side of the separator, sending water to the oil tank and over filling the oil tank. Approximately 210 bbls of crude oil and 80 bbls of produced water released inside unlined containment, 0 bbls was recovered.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? 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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 3-20-20

email: Todd_Wells@eogresources.com Telephone: (432) 686-3613

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2008542121
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	117' (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2008542121
District RP	
Facility ID	
Application ID	

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

Printed Name: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 9/4/2020

email: Todd_Wells@eogresources.com Telephone: 432-686-3613

OCD Only

Received by: Cristina Eads Date: 09/08/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2008542121
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- ☑ Detailed description of proposed remediation technique
- ☑ 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: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 9/4/2020

email: Todd_Wells@eogresources.com Telephone: 432-686-3613

OCD Only

Received by: Cristina Eads Date: 09/08/2020

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

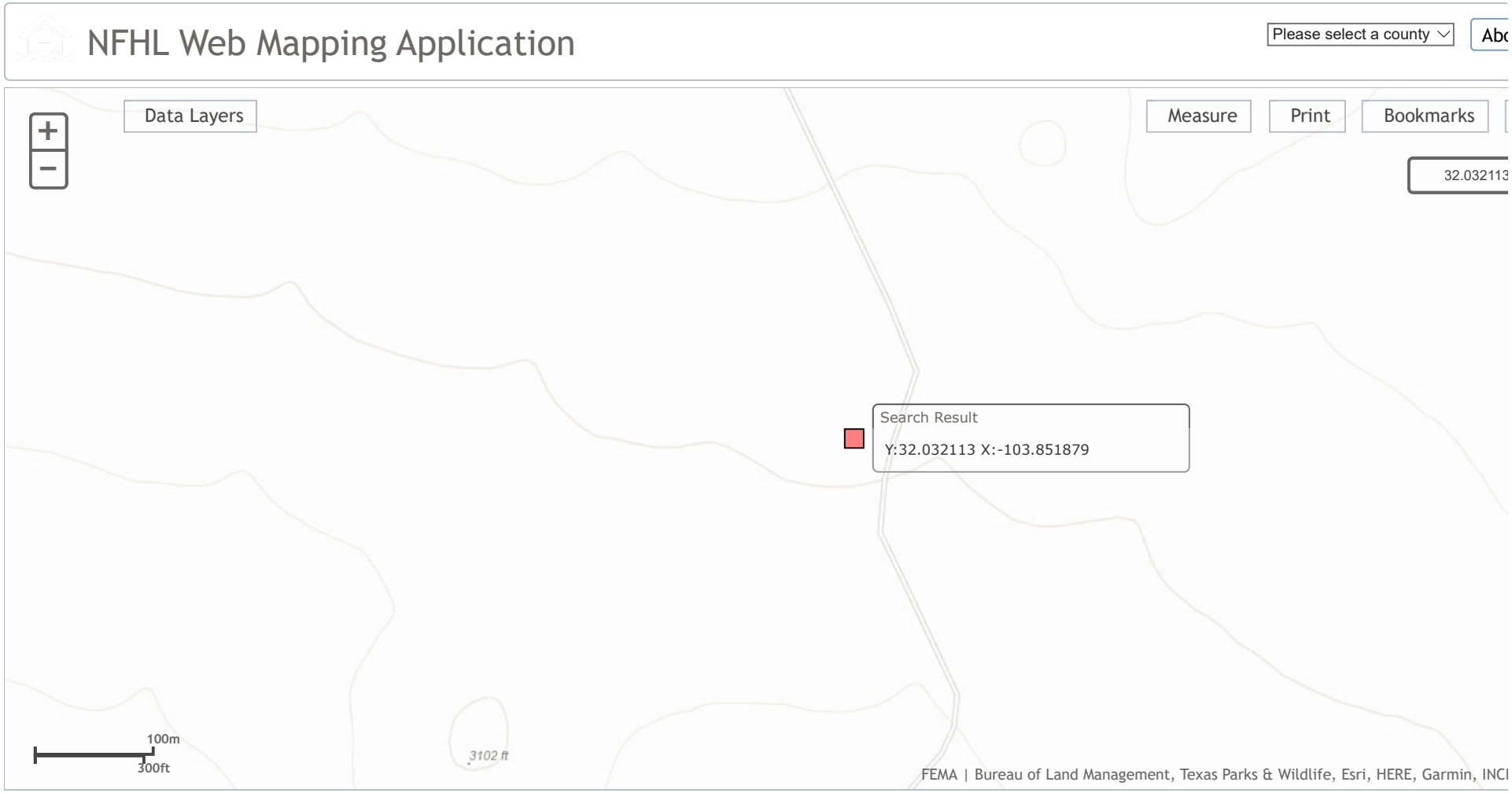
Signature: Date: 11/02/2020

Appendix B

USGS science for a changing world

National Water Information System: Mapper

Site Information


NFHL Web Mapping Application
Please select a county
Abc
Data Layers
Measure
Print
Bookmarks
32.032113
Search Result
Y:32.032113 X:-103.851879
100m
300ft
3102 ft
FEMA | Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCI

National Water Information System: Web Interface

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320125103514701

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

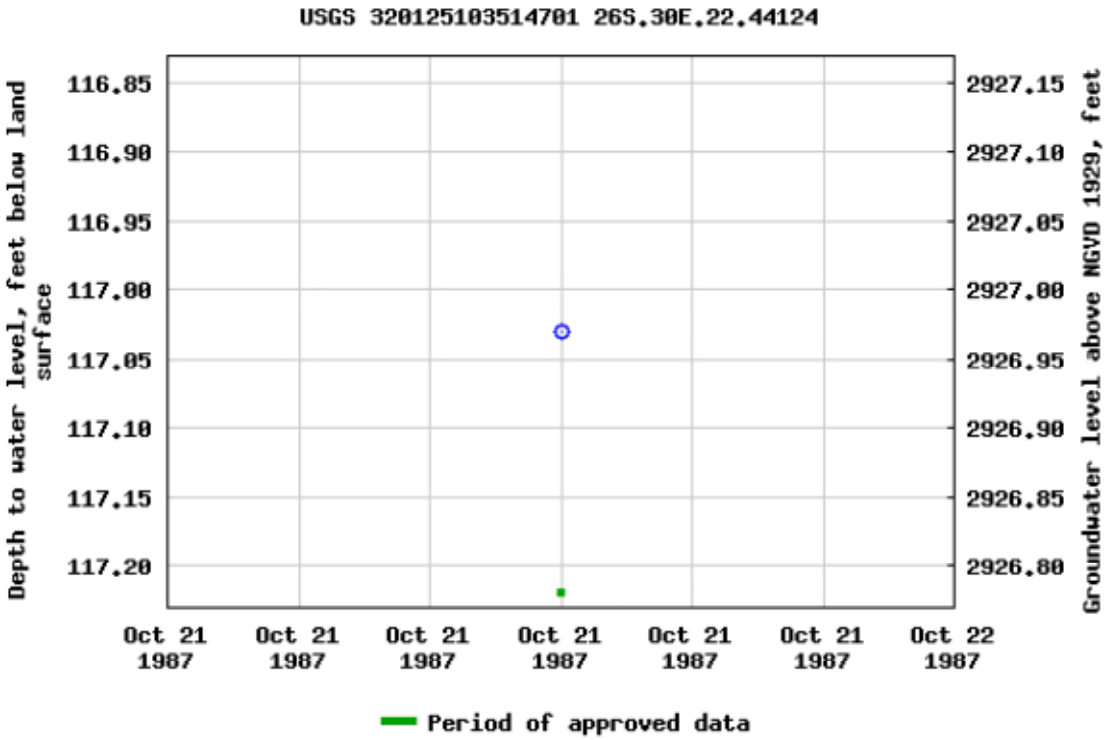
USGS 320125103514701 26S.30E.22.44124

Available data for this site Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13070001
Latitude 32°01'25", Longitude 103°51'47" NAD27
Land-surface elevation 3,044 feet above NGVD29

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-21 10:03:30 EST
0.54 0.49 nadww01

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 Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01360	CUB	ED	4	3	3	05	26S	30E	602997	3548152	770	173	597
C 01361	CUB	ED	3	4	3	05	26S	30E	603240	3548157	775	184	591
C 02165	C	ED				24	26S	30E	610036	3544121*	440	180	260
C 03483	C	ED	4	4	4	05	26S	30E	604296	3548251	700	200	500
C 03581 POD1	CUB	ED	4	4	4	05	26S	30E	604298	3548291	800	320	480
C 04068 POD1	CUB	ED	1	3	1	16	26S	30E	604397	3546018			

Average Depth to Water: **211 feet**

Minimum Depth: **173 feet**

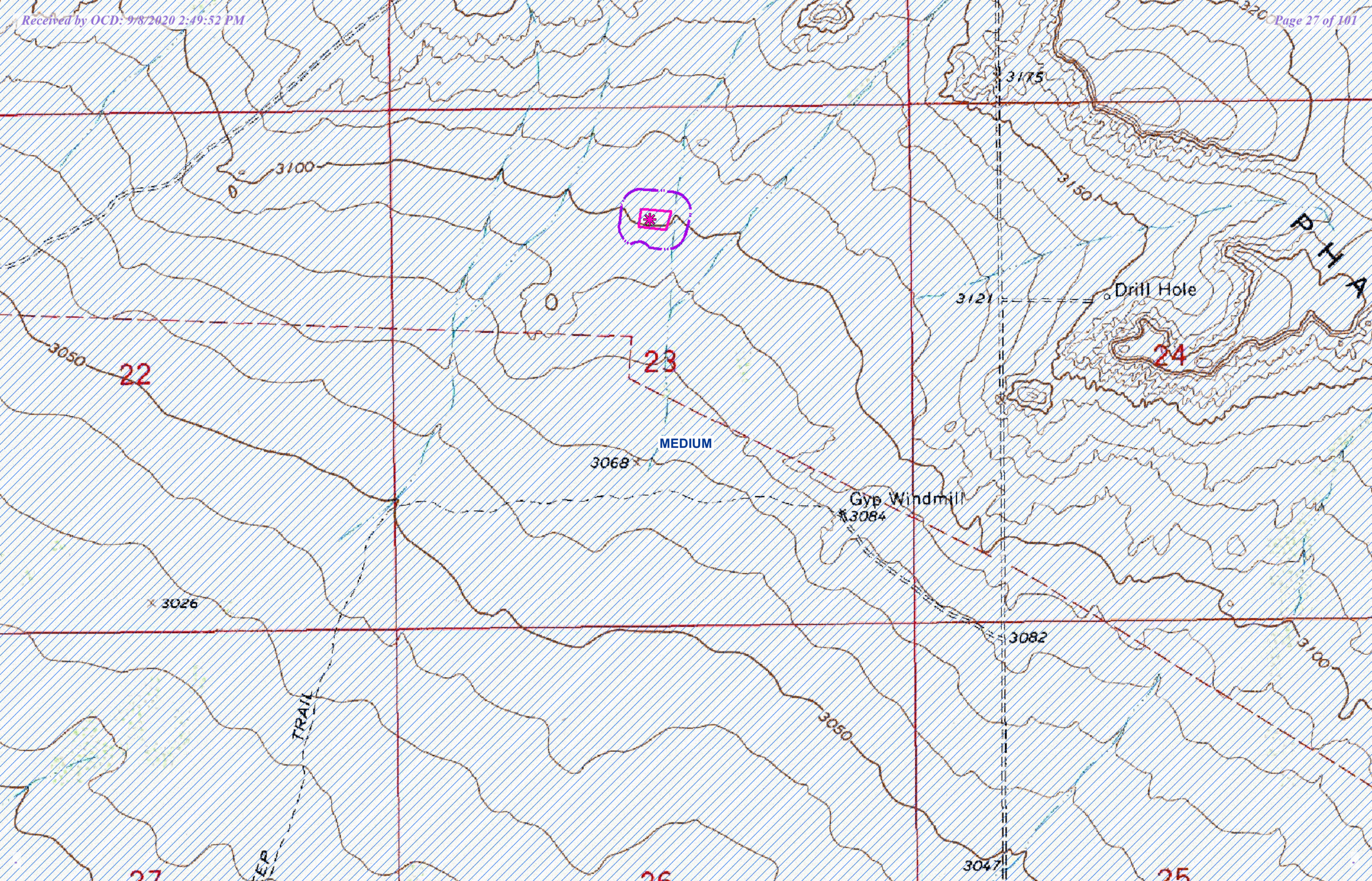
Maximum Depth: **320 feet**

Record Count: 6

PLSS Search:

Township: 26S **Range:** 30E

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


3175
3100
3150
Drill Hole
3121
3050
22
23
24
MEDIUM
3068
Gyp Windmill
3084
3026
3082
TRAIL
3047

Water Well Data
Average Depth to Groundwater (ft)
EOG - El Paso 23 Federal #2 TB

25 South 29 East

6 40	5	4	3	2	1
7	8	9	10 40	11	12
18	17	16	15 60	14	13
19	20	21	22	23	24
30 30	29	28	27	26	25
31	32 115	33	34	35	36

25 South 30 East

6	5	4	3	2 295	1
7 264	8	9 295	10	11	12 390
18	17	16	15	14	13
19	20	21 265 268	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South 31 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 390 290	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South 29 East

6	5 78	4	3	2	1
7	8	9	10	11	12
18	17	16 125	15	14	13
19	20	21	22 57 69	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South 30 East

6	5 179 180	4	3	2	1
7	8 172	9	10	11	12
18	17	16	15	14	13
19	20	21	22 117	23	24 180
30	29	28	27	26	25
31	32	33	34	35	36

26 South 31 East

6	5	4	3	2	1 335 287
7	8 295 275	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

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
121 Abandoned Waterwell (recently measured)

Appendix C

TETRA TECH

BH-1

Soil Drilling Log with Field Testing Results

Project Name : EOG EL Paso 23 Federal Tank Battery
Project No. : 212C-MD-02003
Location : Eddy County, NM
Coordinates : 32.031989 -103.852262
Elevation : NA

Date : Tuesday, June 16, 2020
Sampler : Devin Dominguez
Driller : Scarborough Drilling
Method : Air Rotary

Depth (ft.)	WL	Soil Description	Organic Analyzer (ppm)	Chloride Field Test (ppm)
0		Brown silty sand with gravel, HO, HS	151.3	
		Brown silty sand, HO	186.7	
5		Brown/black sand, HO, HS	235.8	
		Black silty sand, HO, HS	261.1	
10		Black silty sand, HO, HS		
15		Dark brown/black silty sand, HO, HS	108.8	765
20		Dark brown/black silty sand, HO, HS	1,444	1.19 ppt
25		Brown silty sand, HO, LS	165.8	1.27 ppt
30		Brown silty sand, HO, LS	1,475	1.42 ppt
35		Light brown silty sand, no odor, no staining	23.6	422
40		Light brown silty sand, no odor, no staining	18.4	394
45		Light brown silty sand, no odor, no staining	4.5	327
50				

Depth (ft.)	WL	Soil Description	Organic Analyzer (ppm)	Chloride Field Test (ppm)
50				
55				
60				
65				
70				
75				
80				
85				
90				
95				
100				

* *H.O. = Heavy Odor*
* *H.S. = Heavy Staining*
* *L.O. = Low Odor*
* *L.S. = Low Staining*

Appendix D

Analytical Report 655975

for

Tetra Tech- Midland

Project Manager: Mike Carmona

El Paso 23 Fed 2 TB

212C-MD-02003

20-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

20-MAR-20

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **655975**
El Paso 23 Fed 2 TB
Project Address: Eddy Co, NM

Mike Carmona:

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) 655975. 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. 655975 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,

Jessica Kramer

Jessica Kramer
Project Manager

Sample Cross Reference 655975

Tetra Tech- Midland, Midland, TX

El Paso 23 Fed 2 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench 1 (0-1')	S	03-16-20 00:00	0 - 1 ft	655975-001
Trench 1 (1-1.5')	S	03-16-20 00:00	1 - 1.5 ft	655975-002
Trench 1 (2-2.5')	S	03-16-20 00:00	2 - 2.5 ft	655975-003
Trench 1 (3-3.5')	S	03-16-20 00:00	3 - 3.5 ft	655975-004
Trench 1 (4-4.5')	S	03-16-20 00:00	4 - 4.5 ft	655975-005
Trench 1 (5-5.5')	S	03-16-20 00:00	5 - 5.5 ft	655975-006
Trench 1 (6-6.5')	S	03-16-20 00:00	6 - 6.5 ft	655975-007
Trench 1 (7-7.5')	S	03-16-20 00:00	7 - 7.5 ft	655975-008
Trench 1 (8-8.5')	S	03-16-20 00:00	8 - 8.5 ft	655975-009
Trench 1 (9-9.5')	S	03-16-20 00:00	9 - 9.5 ft	655975-010
Trench 1 (10')	S	03-17-20 00:00	10 - 1 ft	655975-011
Trench 1 (11')	S	03-17-20 00:00	11 - 1 ft	655975-012
Trench 1 (12')	S	03-17-20 00:00	12 - 1 ft	655975-013
Trench 1 (13')	S	03-17-20 00:00	13 - 1 ft	655975-014

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: El Paso 23 Fed 2 TB

Project ID: *212C-MD-02003*
Work Order Number(s): *655975*

Report Date: *20-MAR-20*
Date Received: *03/17/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120001 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3120167 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3120331 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 655975

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Fed 2 TB

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy Co, NM

Date Received in Lab: Tue Mar-17-20 02:13 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	655975-001		655975-002		655975-003		655975-004		655975-005		655975-006	
	Field Id:	Trench 1 (0-1')		Trench 1 (1-1.5')		Trench 1 (2-2.5')		Trench 1 (3-3.5')		Trench 1 (4-4.5')		Trench 1 (5-5.5')	
	Depth:	0-1 ft		1-1.5 ft		2-2.5 ft		3-3.5 ft		4-4.5 ft		5-5.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-16-20 00:00		Mar-16-20 00:00		Mar-16-20 00:00		Mar-16-20 00:00		Mar-16-20 00:00		Mar-16-20 00:00	
BTEX by EPA 8021B	***Extracted:***	Mar-17-20 15:15		Mar-17-20 15:15		Mar-17-20 15:15		Mar-17-20 15:15		Mar-17-20 15:15		Mar-17-20 15:15	
	Analyzed:	Mar-17-20 19:34		Mar-17-20 19:55		Mar-17-20 20:15		Mar-17-20 20:36		Mar-17-20 20:56		Mar-17-20 21:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.200	0.200	0.692	0.400	6.55	0.398	2.53	0.395	3.96	0.399	6.03	0.398
Toluene		0.373	0.200	47.5	0.400	231 D	1.99	52.4	0.395	79.2	0.399	174 D	0.994
Ethylbenzene		0.901	0.200	6.56	0.400	15.3	0.398	5.29	0.395	10.1	0.399	15.2	0.398
m,p-Xylenes		23.8	0.399	155	0.800	455 D	3.98	93.9	0.791	156	0.798	346 D	1.99
o-Xylene		24.2	0.200	46.7	0.400	67.4	0.398	24.2	0.395	44.4	0.399	65.6	0.398
Total Xylenes		48.0	0.200	202	0.400	522	0.398	118	0.395	200	0.399	412	0.398
Total BTEX		49.3	0.200	256	0.400	775	0.398	178	0.395	294	0.399	607	0.398
Inorganic Anions by EPA 300/300.1	***Extracted:***	Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00	
	Analyzed:	Mar-17-20 18:14		Mar-17-20 18:20		Mar-17-20 18:38		Mar-17-20 18:43		Mar-17-20 18:49		Mar-17-20 18:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		63.1	10.1	425	10.1	4030	10.0	178	10.1	37.1	10.1	338	10.0
TPH By SW8015 Mod	***Extracted:***	Mar-17-20 16:00		Mar-17-20 16:00		Mar-17-20 16:00		Mar-17-20 16:00		Mar-17-20 16:00		** ** ** **	
	Analyzed:	Mar-17-20 16:01		Mar-17-20 21:12		Mar-17-20 21:33		Mar-17-20 21:53		Mar-17-20 22:13		Mar-17-20 20:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		2910	50.2	8760	249	11900	251	8630	250	8060	251	9940	250
Diesel Range Organics (DRO)		3770	50.2	4730	249	5690	251	4270	250	4020	251	4350	250
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<249	249	<251	251	<250	250	<251	251	<250	250
Total TPH		6680	50.2	13500	249	17600	251	12900	250	12100	251	14300	250

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager

Certificate of Analysis Summary 655975

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Fed 2 TB

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy Co, NM

Date Received in Lab: Tue Mar-17-20 02:13 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	655975-007		655975-008		655975-009		655975-010		655975-011		655975-012	
	Field Id:	Trench 1 (6-6.5')		Trench 1 (7-7.5')		Trench 1 (8-8.5')		Trench 1 (9-9.5')		Trench 1 (10')		Trench 1 (11')	
	Depth:	6-6.5 ft		7-7.5 ft		8-8.5 ft		9-9.5 ft		10-1 ft		11-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-16-20 00:00		Mar-16-20 00:00		Mar-16-20 00:00		Mar-16-20 00:00		Mar-17-20 00:00		Mar-17-20 00:00	
BTEX by EPA 8021B	***Extracted:***	Mar-17-20 15:15		Mar-18-20 11:00		Mar-18-20 11:00		Mar-19-20 13:34		Mar-19-20 13:34		Mar-19-20 13:34	
	Analyzed:	Mar-17-20 21:37		Mar-18-20 15:48		Mar-18-20 16:08		Mar-19-20 17:06		Mar-19-20 17:26		Mar-19-20 18:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		2.72	0.399	2.01	0.998	3.78	1.00	6.87	3.99	6.85	4.01	8.39	4.03
Toluene		69.3	0.399	61.7	0.998	83.9	1.00	175	3.99	247	4.01	262	4.03
Ethylbenzene		8.54	0.399	8.04	0.998	9.96	1.00	18.0	3.99	28.4	4.01	28.4	4.03
m,p-Xylenes		143	0.798	144	2.00	175	2.00	306	7.98	502	8.02	476	8.06
o-Xylene		37.0	0.399	34.4	0.998	41.7	1.00	77.0	3.99	127	4.01	123	4.03
Total Xylenes		180	0.399	178	0.998	217	1.00	383	3.99	629	4.01	599	4.03
Total BTEX		261	0.399	250	0.998	314	1.00	583	3.99	911	4.01	898	4.03
Inorganic Anions by EPA 300/300.1	***Extracted:***	Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00		Mar-17-20 17:00	
	Analyzed:	Mar-17-20 19:01		Mar-17-20 19:06		Mar-17-20 19:12		Mar-17-20 19:30		Mar-17-20 19:47		Mar-17-20 19:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		61.4	9.98	364	9.92	241	10.0	78.4	10.0	1040	10.1	689	9.96
TPH By SW8015 Mod	***Extracted:***	** ** ** **		Mar-18-20 16:30		Mar-18-20 16:30		Mar-18-20 14:50		Mar-18-20 14:50		Mar-18-20 14:50	
	Analyzed:	Mar-17-20 16:48		Mar-18-20 17:06		Mar-18-20 17:28		Mar-18-20 17:48		Mar-18-20 18:09		Mar-18-20 16:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		4350	49.8	8200	251	10200	249	12300	251	16500	249	14200	249
Diesel Range Organics (DRO)		2090	49.8	4140	251	4930	249	5800	251	10600	249	7360	249
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<251	251	<249	249	<251	251	<249	249	<249	249
Total TPH		6440	49.8	12300	251	15100	249	18100	251	27100	249	21600	249

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager

Certificate of Analysis Summary 655975

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Fed 2 TB

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy Co, NM

Date Received in Lab: Tue Mar-17-20 02:13 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	655975-013		655975-014					
	Field Id:	Trench 1 (12')		Trench 1 (13')					
	Depth:	12-1 ft		13-1 ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Mar-17-20 00:00		Mar-17-20 00:00					
BTEX by EPA 8021B	***Extracted:***	Mar-19-20 13:34		Mar-19-20 13:34					
	Analyzed:	Mar-19-20 19:08		Mar-19-20 19:29					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		4.19	2.00	3.38	1.98				
Toluene		149	2.00	99.9	1.98				
Ethylbenzene		15.9	2.00	11.1	1.98				
m,p-Xylenes		278	3.99	196	3.97				
o-Xylene		70.4	2.00	49.3	1.98				
Total Xylenes		348	2.00	245	1.98				
Total BTEX		517	2.00	360	1.98				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Mar-17-20 17:00		Mar-17-20 17:00					
	Analyzed:	Mar-17-20 19:58		Mar-17-20 20:04					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		570	9.98	242	9.92				
TPH By SW8015 Mod	***Extracted:***	Mar-18-20 14:50		Mar-18-20 14:50					
	Analyzed:	Mar-18-20 17:06		Mar-18-20 17:28					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		5820	249	8160	251				
Diesel Range Organics (DRO)		4100	249	4440	251				
Motor Oil Range Hydrocarbons (MRO)		<249	249	<251	251				
Total TPH		9920	249	12600	251				

Jessica Kramer
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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120049 **Sample:** 655975-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 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	126	100	126	70-135	
o-Terphenyl	52.0	50.2	104	70-135	

Lab Batch #: 3120026 **Sample:** 655975-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 16:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	131	99.5	132	70-135	
o-Terphenyl	53.9	49.8	108	70-135	

Lab Batch #: 3120001 **Sample:** 655975-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 19:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3120001 **Sample:** 655975-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 19:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0253	0.0300	84	70-130	
4-Bromofluorobenzene	0.0323	0.0300	108	70-130	

Lab Batch #: 3120001 **Sample:** 655975-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 20:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120001 **Sample:** 655975-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 20:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3120026 **Sample:** 655975-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 20:52

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	99.9	86	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 3120001 **Sample:** 655975-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 20:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

Lab Batch #: 3120049 **Sample:** 655975-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 21:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.7	99.5	93	70-135	
o-Terphenyl	54.8	49.8	110	70-135	

Lab Batch #: 3120001 **Sample:** 655975-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 21:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	70-130	
4-Bromofluorobenzene	0.0384	0.0300	128	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120049 **Sample:** 655975-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 21:33

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	101	80	70-135	
o-Terphenyl	55.5	50.3	110	70-135	

Lab Batch #: 3120001 **Sample:** 655975-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 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	0.0275	0.0300	92	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	70-130	

Lab Batch #: 3120049 **Sample:** 655975-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 21:53

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	53.2	50.1	106	70-135	

Lab Batch #: 3120049 **Sample:** 655975-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 22:13

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	56.6	50.2	113	70-135	

Lab Batch #: 3120167 **Sample:** 655975-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 15:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0282	0.0300	94	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120167 **Sample:** 655975-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 16:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

Lab Batch #: 3120217 **Sample:** 655975-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 16:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99.7	99	70-135	
o-Terphenyl	55.5	49.9	111	70-135	

Lab Batch #: 3120220 **Sample:** 655975-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 17:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.0	100	94	70-135	
o-Terphenyl	53.9	50.1	108	70-135	

Lab Batch #: 3120217 **Sample:** 655975-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 17:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	99.5	95	70-135	
o-Terphenyl	60.8	49.8	122	70-135	

Lab Batch #: 3120220 **Sample:** 655975-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 17:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	99.7	98	70-135	
o-Terphenyl	55.8	49.9	112	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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120217 **Sample:** 655975-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 17:28

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	100	82	70-135	
o-Terphenyl	62.9	50.2	125	70-135	

Lab Batch #: 3120220 **Sample:** 655975-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 17:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	55.7	50.3	111	70-135	

Lab Batch #: 3120220 **Sample:** 655975-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 18:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.5	114	70-135	
o-Terphenyl	57.1	49.8	115	70-135	

Lab Batch #: 3120331 **Sample:** 655975-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 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	0.0311	0.0300	104	70-130	
4-Bromofluorobenzene	0.0280	0.0300	93	70-130	

Lab Batch #: 3120331 **Sample:** 655975-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 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	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0298	0.0300	99	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120331 **Sample:** 655975-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 18:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3120331 **Sample:** 655975-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 19:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3120331 **Sample:** 655975-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 19:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3120026 **Sample:** 7699135-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 13:59

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	49.7	50.0	99	70-135	

Lab Batch #: 3120049 **Sample:** 7699137-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 13:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	100	86	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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120001 **Sample:** 7699108-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 16:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0291	0.0300	97	70-130	

Lab Batch #: 3120167 **Sample:** 7699151-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 11:23

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	70-130	
4-Bromofluorobenzene	0.0264	0.0300	88	70-130	

Lab Batch #: 3120217 **Sample:** 7699257-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 14:02

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	49.2	50.0	98	70-135	

Lab Batch #: 3120220 **Sample:** 7699259-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 14:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 3120331 **Sample:** 7699269-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/19/20 12:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120026 **Sample:** 7699135-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 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	110	100	110	70-135	
o-Terphenyl	55.8	50.0	112	70-135	

Lab Batch #: 3120049 **Sample:** 7699137-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 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	127	100	127	70-135	
o-Terphenyl	55.6	50.0	111	70-135	

Lab Batch #: 3120001 **Sample:** 7699108-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 17:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0274	0.0300	91	70-130	

Lab Batch #: 3120167 **Sample:** 7699151-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 11:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0241	0.0300	80	70-130	

Lab Batch #: 3120217 **Sample:** 7699257-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 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	111	100	111	70-135	
o-Terphenyl	49.1	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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120220 **Sample:** 7699259-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 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	120	100	120	70-135	
o-Terphenyl	56.1	50.0	112	70-135	

Lab Batch #: 3120331 **Sample:** 7699269-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/19/20 12:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	70-130	
4-Bromofluorobenzene	0.0279	0.0300	93	70-130	

Lab Batch #: 3120026 **Sample:** 7699135-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 14:40

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	54.8	50.0	110	70-135	

Lab Batch #: 3120049 **Sample:** 7699137-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 14:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	50.1	50.0	100	70-135	

Lab Batch #: 3120001 **Sample:** 7699108-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/17/20 17:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0275	0.0300	92	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120167 **Sample:** 7699151-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 12:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0258	0.0300	86	70-130	

Lab Batch #: 3120217 **Sample:** 7699257-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 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	102	100	102	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

Lab Batch #: 3120220 **Sample:** 7699259-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/20 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	116	100	116	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 3120331 **Sample:** 7699269-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/19/20 13:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0284	0.0300	95	70-130	

Lab Batch #: 3120026 **Sample:** 655954-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 15:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	59.2	50.2	118	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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120049 **Sample:** 655954-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 15:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 3120001 **Sample:** 655954-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 17:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0273	0.0300	91	70-130	

Lab Batch #: 3120167 **Sample:** 656032-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 12:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3120217 **Sample:** 656032-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 15:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.5	119	70-135	
o-Terphenyl	53.9	49.8	108	70-135	

Lab Batch #: 3120220 **Sample:** 656034-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 15:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	57.6	50.2	115	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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120331 **Sample:** 656196-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 13:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0287	0.0300	96	70-130	

Lab Batch #: 3120026 **Sample:** 655954-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 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	115	100	115	70-135	
o-Terphenyl	57.5	50.2	115	70-135	

Lab Batch #: 3120049 **Sample:** 655954-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 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	116	99.7	116	70-135	
o-Terphenyl	51.9	49.9	104	70-135	

Lab Batch #: 3120001 **Sample:** 655954-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/17/20 18:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0277	0.0300	92	70-130	

Lab Batch #: 3120167 **Sample:** 656032-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 12:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	70-130	
4-Bromofluorobenzene	0.0270	0.0300	90	70-130	

* 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: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120217 **Sample:** 656032-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 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	115	100	115	70-135	
o-Terphenyl	61.5	50.2	123	70-135	

Lab Batch #: 3120220 **Sample:** 656034-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/20 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	120	100	120	70-135	
o-Terphenyl	57.4	50.1	115	70-135	

Lab Batch #: 3120331 **Sample:** 656196-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/20 13:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

* 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: El Paso 23 Fed 2 TB

Work Order #: 655975 **Project ID:** 212C-MD-02003

Analyst: MAB **Date Prepared:** 03/17/2020 **Date Analyzed:** 03/17/2020

Lab Batch ID: 3120001 **Sample:** 7699108-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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
Benzene	<0.00200	0.100	0.0995	100	0.100	0.0998	100	0	70-130	35	
Toluene	<0.00200	0.100	0.0968	97	0.100	0.0988	99	2	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.100	0.0955	96	2	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.200	0.197	99	2	70-135	35	
o-Xylene	<0.00200	0.100	0.0970	97	0.100	0.0984	98	1	71-133	35	

Analyst: MRB **Date Prepared:** 03/18/2020 **Date Analyzed:** 03/18/2020

Lab Batch ID: 3120167 **Sample:** 7699151-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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
Benzene	<0.00200	0.100	0.111	111	0.100	0.118	118	6	70-130	35	
Toluene	<0.00200	0.100	0.102	102	0.100	0.107	107	5	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.100	0.0996	100	4	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.200	0.194	97	4	70-135	35	
o-Xylene	<0.00200	0.100	0.0917	92	0.100	0.0979	98	7	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: El Paso 23 Fed 2 TB

Work Order #: 655975 **Project ID:** 212C-MD-02003

Analyst: MAB **Date Prepared:** 03/19/2020 **Date Analyzed:** 03/19/2020

Lab Batch ID: 3120331 **Sample:** 7699269-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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
Benzene	<0.00200	0.100	0.108	108	0.100	0.104	104	4	70-130	35	
Toluene	<0.00200	0.100	0.104	104	0.100	0.0995	100	4	70-130	35	
Ethylbenzene	<0.00200	0.100	0.100	100	0.100	0.0950	95	5	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.200	0.197	99	5	70-135	35	
o-Xylene	<0.00200	0.100	0.103	103	0.100	0.0982	98	5	71-133	35	

Analyst: MAB **Date Prepared:** 03/17/2020 **Date Analyzed:** 03/17/2020

Lab Batch ID: 3120039 **Sample:** 7699128-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	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	<10.0	250	259	104	250	261	104	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: El Paso 23 Fed 2 TB

Work Order #: 655975 **Project ID:** 212C-MD-02003

Analyst: DTH **Date Prepared:** 03/17/2020 **Date Analyzed:** 03/17/2020

Lab Batch ID: 3120026 **Sample:** 7699135-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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)	<50.0	1000	918	92	1000	892	89	3	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1000	1000	100	3	70-135	35	

Analyst: DTH **Date Prepared:** 03/17/2020 **Date Analyzed:** 03/17/2020

Lab Batch ID: 3120049 **Sample:** 7699137-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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)	<50.0	1000	946	95	1000	844	84	11	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1000	918	92	11	70-135	35	

Analyst: DTH **Date Prepared:** 03/18/2020 **Date Analyzed:** 03/18/2020

Lab Batch ID: 3120217 **Sample:** 7699257-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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)	<50.0	1000	829	83	1000	761	76	9	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	905	91	1000	835	84	8	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: El Paso 23 Fed 2 TB

Work Order #: 655975 **Project ID:** 212C-MD-02003

Analyst: DTH **Date Prepared:** 03/18/2020 **Date Analyzed:** 03/18/2020

Lab Batch ID: 3120220 **Sample:** 7699259-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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)	<50.0	1000	1010	101	1000	961	96	5	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1000	1030	103	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: El Paso 23 Fed 2 TB

Work Order # : 655975 **Project ID:** 212C-MD-02003

Lab Batch ID: 3120001 **QC- Sample ID:** 655954-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/17/2020 **Date Prepared:** 03/17/2020 **Analyst:** MAB

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	<0.00198	0.0990	0.0977	99	0.101	0.108	107	10	70-130	35	
Toluene	<0.00198	0.0990	0.0950	96	0.101	0.105	104	10	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0907	92	0.101	0.100	99	10	71-129	35	
m,p-Xylenes	<0.00396	0.198	0.186	94	0.201	0.204	101	9	70-135	35	
o-Xylene	<0.00198	0.0990	0.0947	96	0.101	0.104	103	9	71-133	35	

Lab Batch ID: 3120167 **QC- Sample ID:** 656032-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/18/2020 **Date Prepared:** 03/18/2020 **Analyst:** MRB

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	0.0994	0.128	129	0.100	0.122	122	5	70-130	35	
Toluene	<0.00199	0.0994	0.116	117	0.100	0.110	110	5	70-130	35	
Ethylbenzene	<0.00199	0.0994	0.107	108	0.100	0.100	100	7	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.209	105	0.200	0.195	98	7	70-135	35	
o-Xylene	<0.00199	0.0994	0.105	106	0.100	0.0992	99	6	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: El Paso 23 Fed 2 TB

Work Order # : 655975 **Project ID:** 212C-MD-02003

Lab Batch ID: 3120331 **QC- Sample ID:** 656196-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/19/2020 **Date Prepared:** 03/19/2020 **Analyst:** MAB

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	0.103	103	0.0992	0.104	105	1	70-130	35	
Toluene	<0.00200	0.100	0.0933	93	0.0992	0.0844	85	10	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0877	88	0.0992	0.0770	78	13	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.178	89	0.198	0.153	77	15	70-135	35	
o-Xylene	<0.00200	0.100	0.0916	92	0.0992	0.0828	83	10	71-133	35	

Lab Batch ID: 3120039 **QC- Sample ID:** 655954-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/17/2020 **Date Prepared:** 03/17/2020 **Analyst:** MAB

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	13.4	200	211	99	200	215	101	2	90-110	20	

Lab Batch ID: 3120039 **QC- Sample ID:** 655975-009 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/17/2020 **Date Prepared:** 03/17/2020 **Analyst:** MAB

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	241	200	452	106	200	450	105	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: El Paso 23 Fed 2 TB

Work Order # : 655975 **Project ID:** 212C-MD-02003

Lab Batch ID: 3120026 **QC- Sample ID:** 655954-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/17/2020 **Date Prepared:** 03/17/2020 **Analyst:** DTH

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)	<50.2	1000	956	96	1000	944	94	1	70-135	35	
Diesel Range Organics (DRO)	<50.2	1000	1110	111	1000	1100	110	1	70-135	35	

Lab Batch ID: 3120049 **QC- Sample ID:** 655954-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/17/2020 **Date Prepared:** 03/17/2020 **Analyst:** DTH

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)	<50.0	1000	869	87	997	848	85	2	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	949	95	997	930	93	2	70-135	35	

Lab Batch ID: 3120217 **QC- Sample ID:** 656032-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/18/2020 **Date Prepared:** 03/18/2020 **Analyst:** DTH

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)	<49.8	995	850	85	1000	966	97	13	70-135	35	
Diesel Range Organics (DRO)	<49.8	995	928	93	1000	1070	107	14	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: El Paso 23 Fed 2 TB

Work Order # : 655975 **Project ID:** 212C-MD-02003

Lab Batch ID: 3120220 **QC- Sample ID:** 656034-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/18/2020 **Date Prepared:** 03/18/2020 **Analyst:** DTH

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)	<50.2	1000	922	92	1000	950	95	3	70-135	35	
Diesel Range Organics (DRO)	<50.2	1000	1020	102	1000	1040	104	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

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

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.

u55975

Analysis Request of Chain of Custody Record

Page 1 of 2

Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG
Site Manager: Mike Carmona
Project Name: El Paso 23 Fed 2 TB
Project Location: (county, state) Eddy Co, NM
Project #: 212C-MD-02003
Invoice to: EOG - Todd Wells
Receiving Laboratory: Xenco
Sampler Signature: Conner Moehring
Comments: Run deeper samples if TPH (GRO + DRO + MRO) exceeds 100 mg/kg. Run deeper samples if benzene exceeds 10 mg/kg or Total BTEX exceeds 50 mg/kg.

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING (YEAR: 2020) DATE	TIME	MATRIX WATER	SOIL	PRESERVATIVE METHOD HCL	HNO_3	ICE	None	# CONTAINERS	FILTERED (Y/N)	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	Hold
	Trench 1 (0-1')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (1-1.5')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (2-2.5')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (3-3.5')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (4-4.5')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (5-5.5')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (6-6.5')	3/16/2020			X			X		1	N	X		X												X				
	Trench 1 (7-7.5')	3/16/2020			X			X		1	N															X				
	Trench 1 (8-8.5')	3/16/2020			X			X		1	N															X				
	Trench 1 (9-9.5')	3/16/2020			X			X		1	N															X				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Tomu Maley	3/17/20	14:13	[signature]	3/17/20	14:13
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY
Sample Temperature: 2.8 / 2.8 i AM 3/17

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

605975

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: El Paso 23 Fed 2 TB	
Project Location: (county, state) Eddy Co, NM	**Project #:** 212C-MD-02003
Invoice to: EOG - Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Conner Moehring

Comments: Run deeper samples if TPH (GRO + DRO + MRO) exceeds 100 mg/kg. Run deeper samples if benzene exceeds 10 mg/kg or Total BTEX exceeds 50 mg/kg.

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	# CONTAINERS	FILTERED (Y/N)	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	Hold
	Trench 1 (10')	3/17/2020			X			X		1	N														X				
	Trench 1 (11')	3/17/2020			X			X		1	N														X				
	Trench 1 (12')	3/17/2020			X			X		1	N														X				
	Trench 1 (13')	3/17/2020			X			X		1	N														X				

Relinquished by:	Date: 3/17/20	Time: 14:13	Received by: Date: 3/17/20 Time: 14:13
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY
Sample Temperature 2.8

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 03.17.2020 02.13.00 PM

Work Order #: 655975

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#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: Elizabeth McClellan Date: 03.17.2020

Checklist reviewed by: Martha Castro Date: 03.19.2020

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Certificate of Analysis Summary 664790

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Federal Tank Battery

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 06.18.2020 10:44
Report Date: 07.02.2020 09:47
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664790-001		664790-002		664790-003		664790-004		664790-005		664790-006	
	Field Id:	BH-1 0-1'		BH-1 2'-3'		BH-1 4'-5'		BH-1 6'-7'		BH-1 9'-10'		BH-1 14'-15'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30	
	Analyzed:	06.26.2020 03:27		06.26.2020 03:48		06.26.2020 04:08		06.26.2020 04:28		06.26.2020 04:49		06.26.2020 05:09	
	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	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	0.00522	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398	<0.00397	0.00397	<0.00399	0.00399
o-Xylene		0.00262	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Total Xylenes		0.00262	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Total BTEX		0.00262	0.00201	0.00522	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200
Inorganic Anions by EPA 300/300.1	***Extracted:***	06.19.2020 15:40		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10	
	Analyzed:	06.20.2020 00:38		06.19.2020 17:42		06.19.2020 17:57		06.19.2020 18:02		06.19.2020 18:07		06.19.2020 18:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		234	25.0	32.9	5.01	16.3	4.98	15.4	4.95	28.8	4.95	86.8	49.5
TPH By SW8015 Mod	***Extracted:***	06.20.2020 11:00		06.20.2020 11:00		06.20.2020 11:00		06.20.2020 11:00		06.20.2020 11:00		06.20.2020 11:00	
	Analyzed:	06.21.2020 00:09		06.21.2020 01:05		06.21.2020 01:24		06.21.2020 01:42		06.21.2020 02:01		06.21.2020 02:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		568	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9
Total TPH		568	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9

BRL - Below Reporting Limit

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Certificate of Analysis Summary 664790

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Federal Tank Battery

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 06.18.2020 10:44
Report Date: 07.02.2020 09:47
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664790-007		664790-008		664790-009		664790-010		664790-011		664790-012	
	Field Id:	BH-1 19'-20'		BH-1 24'-25'		BH-1 29'-30'		BH-1 34'-35'		BH-1 39'-40'		BH-1 44'-45'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00		06.16.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30		06.25.2020 16:30	
	Analyzed:	06.26.2020 08:15		06.26.2020 05:30		06.26.2020 08:35		06.26.2020 05:50		06.26.2020 06:10		06.26.2020 06:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.105	0.0998	<0.00200	0.00200	0.0414	0.0400	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Toluene		2.04	0.0998	<0.00200	0.00200	0.0412	0.0400	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		3.18	0.0998	<0.00200	0.00200	0.211	0.0400	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		19.1	0.200	<0.00401	0.00401	0.771	0.0800	<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		4.45	0.0998	<0.00200	0.00200	0.214	0.0400	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		23.6	0.0998	<0.00200	0.00200	0.985	0.0400	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		28.9	0.0998	<0.00200	0.00200	1.28	0.0400	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Inorganic Anions by EPA 300/300.1	***Extracted:***	06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10	
	Analyzed:	06.19.2020 18:28		06.19.2020 18:33		06.19.2020 18:38		06.19.2020 18:43		06.19.2020 18:48		06.19.2020 18:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		92.6	50.4	75.1	49.5	782	25.0	173	24.9	112	5.03	126	5.05
TPH By SW8015 Mod	***Extracted:***	06.20.2020 11:00		06.19.2020 15:00		06.19.2020 15:00		06.19.2020 15:00		06.19.2020 15:00		06.19.2020 15:00	
	Analyzed:	06.21.2020 02:39		06.20.2020 04:27		06.20.2020 04:48		06.20.2020 05:09		06.20.2020 05:31		06.20.2020 05:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		1160	49.9	<50.0	50.0	122	49.9	<50.0	50.0	<49.8	49.8	<49.9	49.9
Diesel Range Organics (DRO)		1520	49.9	<50.0	50.0	491	49.9	<50.0	50.0	<49.8	49.8	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<49.9	49.9
Total TPH		2680	49.9	<50.0	50.0	613	49.9	<50.0	50.0	<49.8	49.8	<49.9	49.9

BRL - Below Reporting Limit

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Analytical Report 664790

for

Tetra Tech- Midland

Project Manager: Mike Carmona

El Paso 23 Federal Tank Battery

212C-MD-02003

07.02.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.02.2020

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **664790**
El Paso 23 Federal Tank Battery
Project Address: Eddy County, New Mexico

Mike Carmona:

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 Eurofins Xenco, LLC Report Number(s) 664790. 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 Eurofins Xenco, LLC. 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. 664790 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 0-1'	S	06.16.2020 00:00		664790-001
BH-1 2'-3'	S	06.16.2020 00:00		664790-002
BH-1 4'-5'	S	06.16.2020 00:00		664790-003
BH-1 6'-7'	S	06.16.2020 00:00		664790-004
BH-1 9'-10'	S	06.16.2020 00:00		664790-005
BH-1 14'-15'	S	06.16.2020 00:00		664790-006
BH-1 19'-20'	S	06.16.2020 00:00		664790-007
BH-1 24'-25'	S	06.16.2020 00:00		664790-008
BH-1 29'-30'	S	06.16.2020 00:00		664790-009
BH-1 34'-35'	S	06.16.2020 00:00		664790-010
BH-1 39'-40'	S	06.16.2020 00:00		664790-011
BH-1 44'-45'	S	06.16.2020 00:00		664790-012

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: El Paso 23 Federal Tank Battery

Project ID: *212C-MD-02003*
Work Order Number(s): *664790*

Report Date: *07.02.2020*
Date Received: *06.18.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3129568 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7705874-1-BLK.

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 0-1'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-001	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 15:40	Basis:	Wet Weight
Seq Number:	3129542				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**234**	25.0	mg/kg	06.20.2020 00:38		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3129568				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 00:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**568**	50.0	mg/kg	06.21.2020 00:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 00:09	U	1
Total TPH	PHC635	**568**	50.0	mg/kg	06.21.2020 00:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	06.21.2020 00:09	
o-Terphenyl	84-15-1	125	%	70-130	06.21.2020 00:09	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 0-1'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-001	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.26.2020 03:27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.26.2020 03:27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.26.2020 03:27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.26.2020 03:27	U	1
o-Xylene	95-47-6	**0.00262**	0.00201	mg/kg	06.26.2020 03:27		1
Total Xylenes	1330-20-7	**0.00262**	0.00201	mg/kg	06.26.2020 03:27		1
Total BTEX		**0.00262**	0.00201	mg/kg	06.26.2020 03:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.26.2020 03:27	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.26.2020 03:27	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 2'-3'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-002	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**32.9**	5.01	mg/kg	06.19.2020 17:42		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3129568				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	06.21.2020 01:05	
o-Terphenyl	84-15-1	117	%	70-130	06.21.2020 01:05	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 2'-3'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-002	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Ethylbenzene	100-41-4	**0.00522**	0.00200	mg/kg	06.26.2020 03:48		1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.26.2020 03:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Total BTEX		**0.00522**	0.00200	mg/kg	06.26.2020 03:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	06.26.2020 03:48	
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.26.2020 03:48	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 4'-5'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-003	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.3**	4.98	mg/kg	06.19.2020 17:57		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3129568				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	06.21.2020 01:24	
o-Terphenyl	84-15-1	120	%	70-130	06.21.2020 01:24	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 4'-5'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-003	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 04:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.26.2020 04:08	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.26.2020 04:08	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 6'-7'** Matrix: Soil Date Received:06.18.2020 10:44

Lab Sample Id: 664790-004 Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.19.2020 17:10 Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.4**	4.95	mg/kg	06.19.2020 18:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.20.2020 11:00 Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	06.21.2020 01:42	
o-Terphenyl	84-15-1	115	%	70-130	06.21.2020 01:42	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 6'-7'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-004	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 04:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 04:28	
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.26.2020 04:28	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 9'-10'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-005	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.8**	4.95	mg/kg	06.19.2020 18:07		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3129568				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	06.21.2020 02:01	
o-Terphenyl	84-15-1	121	%	70-130	06.21.2020 02:01	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 9'-10'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-005	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.26.2020 04:49	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.26.2020 04:49	
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.26.2020 04:49	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 14'-15'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-006	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.8**	49.5	mg/kg	06.19.2020 18:12		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3129568				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	06.21.2020 02:20	
o-Terphenyl	84-15-1	123	%	70-130	06.21.2020 02:20	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 14'-15'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-006	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.26.2020 05:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 05:09	
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.26.2020 05:09	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 19'-20'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-007	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**92.6**	50.4	mg/kg	06.19.2020 18:28		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3129568				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1160**	49.9	mg/kg	06.21.2020 02:39		1
Diesel Range Organics (DRO)	C10C28DRO	**1520**	49.9	mg/kg	06.21.2020 02:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.21.2020 02:39	U	1
Total TPH	PHC635	**2680**	49.9	mg/kg	06.21.2020 02:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	06.21.2020 02:39	
o-Terphenyl	84-15-1	128	%	70-130	06.21.2020 02:39	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 19'-20'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-007	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.105**	0.0998	mg/kg	06.26.2020 08:15		50
Toluene	108-88-3	**2.04**	0.0998	mg/kg	06.26.2020 08:15		50
Ethylbenzene	100-41-4	**3.18**	0.0998	mg/kg	06.26.2020 08:15		50
m,p-Xylenes	179601-23-1	**19.1**	0.200	mg/kg	06.26.2020 08:15		50
o-Xylene	95-47-6	**4.45**	0.0998	mg/kg	06.26.2020 08:15		50
Total Xylenes	1330-20-7	**23.6**	0.0998	mg/kg	06.26.2020 08:15		50
Total BTEX		**28.9**	0.0998	mg/kg	06.26.2020 08:15		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.26.2020 08:15	
4-Bromofluorobenzene	460-00-4	114	%	70-130	06.26.2020 08:15	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 24'-25'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-008	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.1**	49.5	mg/kg	06.19.2020 18:33		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.19.2020 15:00	Basis:	Wet Weight
Seq Number:	3129565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	06.20.2020 04:27	
o-Terphenyl	84-15-1	94	%	70-130	06.20.2020 04:27	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 24'-25'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-008	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.26.2020 05:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 05:30	
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.26.2020 05:30	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 29'-30'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-009	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**782**	25.0	mg/kg	06.19.2020 18:38		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.19.2020 15:00	Basis:	Wet Weight
Seq Number:	3129565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**122**	49.9	mg/kg	06.20.2020 04:48		1
Diesel Range Organics (DRO)	C10C28DRO	**491**	49.9	mg/kg	06.20.2020 04:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 04:48	U	1
Total TPH	PHC635	**613**	49.9	mg/kg	06.20.2020 04:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	06.20.2020 04:48	
o-Terphenyl	84-15-1	104	%	70-130	06.20.2020 04:48	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 29'-30'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-009	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0414**	0.0400	mg/kg	06.26.2020 08:35		20
Toluene	108-88-3	**0.0412**	0.0400	mg/kg	06.26.2020 08:35		20
Ethylbenzene	100-41-4	**0.211**	0.0400	mg/kg	06.26.2020 08:35		20
m,p-Xylenes	179601-23-1	**0.771**	0.0800	mg/kg	06.26.2020 08:35		20
o-Xylene	95-47-6	**0.214**	0.0400	mg/kg	06.26.2020 08:35		20
Total Xylenes	1330-20-7	**0.985**	0.0400	mg/kg	06.26.2020 08:35		20
Total BTEX		**1.28**	0.0400	mg/kg	06.26.2020 08:35		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.26.2020 08:35	
4-Bromofluorobenzene	460-00-4	93	%	70-130	06.26.2020 08:35	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 34'-35'** Matrix: Soil Date Received:06.18.2020 10:44

Lab Sample Id: 664790-010 Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.19.2020 17:10 Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**173**	24.9	mg/kg	06.19.2020 18:43		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.19.2020 15:00 Basis: Wet Weight

Seq Number: 3129565

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	06.20.2020 05:09	
o-Terphenyl	84-15-1	95	%	70-130	06.20.2020 05:09	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 34'-35'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-010	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 05:50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.26.2020 05:50	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 05:50	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 39'-40'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-011	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**112**	5.03	mg/kg	06.19.2020 18:48		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.19.2020 15:00	Basis:	Wet Weight
Seq Number:	3129565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	06.20.2020 05:31	
o-Terphenyl	84-15-1	100	%	70-130	06.20.2020 05:31	

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Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 39'-40'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-011	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 06:10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.26.2020 06:10	
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.26.2020 06:10	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 44'-45'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-012	Date Collected:	06.16.2020 00:00		

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129543				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**126**	5.05	mg/kg	06.19.2020 18:53		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.19.2020 15:00	Basis:	Wet Weight
Seq Number:	3129565				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	06.20.2020 05:52	
o-Terphenyl	84-15-1	96	%	70-130	06.20.2020 05:52	

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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id:	**BH-1 44'-45'**	Matrix:	Soil	Date Received:	06.18.2020 10:44
Lab Sample Id:	664790-012	Date Collected:	06.16.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.25.2020 16:30	Basis:	Wet Weight
Seq Number:	3130050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.26.2020 06:31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.26.2020 06:31	
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.26.2020 06:31	

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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. **ND** Not Detected.

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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ 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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QC Summary 664790

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3129542 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705823-1-BLK — LCS Sample Id: 7705823-1-BKS — LCSD Sample Id: 7705823-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	254	102	254	102	90-110	0	20	mg/kg	06.19.2020 21:34	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3129543 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705852-1-BLK — LCS Sample Id: 7705852-1-BKS — LCSD Sample Id: 7705852-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	246	98	230	92	90-110	7	20	mg/kg	06.19.2020 17:32	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3129542 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664787-083 — MS Sample Id: 664787-083 S — MSD Sample Id: 664787-083 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.9	249	282	106	280	105	90-110	1	20	mg/kg	06.19.2020 21:53	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3129542 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664787-093 — MS Sample Id: 664787-093 S — MSD Sample Id: 664787-093 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.4	250	280	104	279	103	90-110	0	20	mg/kg	06.19.2020 23:21	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3129543 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664790-002 — MS Sample Id: 664790-002 S — MSD Sample Id: 664790-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	32.9	251	275	96	297	105	90-110	8	20	mg/kg	06.19.2020 17:47	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3129543 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664790-012 — MS Sample Id: 664790-012 S — MSD Sample Id: 664790-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	253	363	94	361	93	90-110	1	20	mg/kg	06.19.2020 18:58	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 664790

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129565 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705837-1-BLK — LCS Sample Id: 7705837-1-BKS — LCSD Sample Id: 7705837-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	883	88	825	83	70-130	7	20	mg/kg	06.19.2020 21:22	
Diesel Range Organics (DRO)	<50.0	1000	908	91	863	86	70-130	5	20	mg/kg	06.19.2020 21:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		93		95		70-130	%	06.19.2020 21:22
o-Terphenyl	94		105		112		70-130	%	06.19.2020 21:22

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129568 — Matrix: Solid — Date Prep: 06.20.2020
MB Sample Id: 7705874-1-BLK — LCS Sample Id: 7705874-1-BKS — LCSD Sample Id: 7705874-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	1130	113	70-130	4	20	mg/kg	06.20.2020 23:32	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1170	117	70-130	3	20	mg/kg	06.20.2020 23:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		92		87		70-130	%	06.20.2020 23:32
o-Terphenyl	135	**	129		74		70-130	%	06.20.2020 23:32

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129565 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705837-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 21:01	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129568 — Matrix: Solid — Date Prep: 06.20.2020
MB Sample Id: 7705874-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.20.2020 23:13	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 664790

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129565 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664787-081 MS Sample Id: 664787-081 S MSD Sample Id: 664787-081 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	839	84	891	89	70-130	6	20	mg/kg	06.19.2020 22:26	
Diesel Range Organics (DRO)	<49.9	997	874	88	865	87	70-130	1	20	mg/kg	06.19.2020 22:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		86		70-130	%	06.19.2020 22:26
o-Terphenyl	98		96		70-130	%	06.19.2020 22:26

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129568 Matrix: Soil Date Prep: 06.20.2020
Parent Sample Id: 664790-001 MS Sample Id: 664790-001 S MSD Sample Id: 664790-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1040	104	1030	103	70-130	1	20	mg/kg	06.21.2020 00:28	
Diesel Range Organics (DRO)	568	998	1770	120	1730	117	70-130	2	20	mg/kg	06.21.2020 00:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		128		70-130	%	06.21.2020 00:28
o-Terphenyl	99		128		70-130	%	06.21.2020 00:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3130050 Matrix: Solid Date Prep: 06.25.2020
MB Sample Id: 7706239-1-BLK LCS Sample Id: 7706239-1-BKS LCSD Sample Id: 7706239-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0914	91	0.0921	92	70-130	1	35	mg/kg	06.26.2020 01:24	
Toluene	<0.00200	0.100	0.0926	93	0.0925	93	70-130	0	35	mg/kg	06.26.2020 01:24	
Ethylbenzene	<0.00200	0.100	0.0933	93	0.0943	94	70-130	1	35	mg/kg	06.26.2020 01:24	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.191	96	70-130	2	35	mg/kg	06.26.2020 01:24	
o-Xylene	<0.00200	0.100	0.0950	95	0.0970	97	70-130	2	35	mg/kg	06.26.2020 01:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		98		70-130	%	06.26.2020 01:24
4-Bromofluorobenzene	97		97		98		70-130	%	06.26.2020 01:24

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 664790

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3130050 Matrix: Soil Date Prep: 06.25.2020

Parent Sample Id: 664790-004 MS Sample Id: 664790-004 S MSD Sample Id: 664790-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0881	89	0.0873	88	70-130	1	35	mg/kg	06.26.2020 02:05	
Toluene	<0.00199	0.0994	0.0886	89	0.0890	90	70-130	0	35	mg/kg	06.26.2020 02:05	
Ethylbenzene	<0.00199	0.0994	0.0892	90	0.0899	90	70-130	1	35	mg/kg	06.26.2020 02:05	
m,p-Xylenes	<0.00398	0.199	0.176	88	0.179	90	70-130	2	35	mg/kg	06.26.2020 02:05	
o-Xylene	<0.00199	0.0994	0.0893	90	0.0904	91	70-130	1	35	mg/kg	06.26.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		97		70-130	%	06.26.2020 02:05
4-Bromofluorobenzene	100		100		70-130	%	06.26.2020 02:05

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Analysis Request of Chain of Custody Record

1604790

Tetra Tech, Inc.

900 West Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:	EOG	**Site Manager:**	Mike Carmona
Project Name:	El Paso 23 Federal Tank Battery		
Project Location: (county, state)	Eddy County, New Mexico	**Project #:**	212C-MD-02003
Invoice to:	Todd Wells		
Receiving Laboratory:	Xenco	**Sampler Signature:**	Devin Dominguez
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2020)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: None	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	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	TPH 8015R			Hold
	BH-1 0-1'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 2'-3'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 4'-5'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 6'-7'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 9'-10'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 14'-15'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 19'-20'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 24'-25'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 29'-30'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 34'-35'	6/16/2020			X				X			1	N	X		X												X							

Relinquished by:	Date: 6/18	Time:	Received by: Date: 6/18 Time: 1044
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY

Sample Temperature

1.7 / 1.3
-0.4 IR8

REMARKS:

- [X] 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 Chain of Custody Record

Lab# 647790

Tetra Tech, Inc.

900 West Wall Street, Ste 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: El Paso 23 Federal Tank Battery	
Project Location: (county, state) Eddy County, New Mexico	**Project #:** 212C-MD-02003
Invoice to: Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin Dominguez
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: None	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	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	TPH 8015R			Hold
		YEAR: 2020																																	
	BH-1 39'-40'	6/16/2020			X				X			1	N	X		X												X							
	BH-1 44'-45'	6/16/2020			X				X			1	N	X		X												X							

Relinquished by: Date: Time: Received by: Date: 6/18 Time:

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

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

ORIGINAL COPY

LAB USE ONLY

Sample Temperature 17/1.3

REMARKS:

- [X] 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 #: _____

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 06.18.2020 10.44.00 AM

Work Order #: 664790

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#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**	BTEX was in bulk container
#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)?	**N/A**	
#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: Brianna Teel Date: 06.18.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06.19.2020

Jessica Kramer