

## SITE INFORMATION

### Report Type: Closure Report (2RP-756)

#### General Site Information:

Site:	Melson ZS Federal #1					
Company:	EOG Resources					
Section, Township and Range	Unit P	Sec. 8	T 26S	R 30E		
County:	Eddy County, NM					
GPS:	32.05092			-103.897047		
Surface Owner:	Federal					

#### Release Data:

Date Released:	8/30/2009
Type Release:	Produced Water
Source of Contamination:	Water Tank overflow
Fluid Released:	30 bbls. of Produced Water
Fluids Recovered:	5 bbls. of Produced Water

#### Official Communication:

Name:	James Kennedy		Clair Gonzales
Company:	EOG Resources		Tetra Tech
Address:	5509 Champions Dr		901 West Wall Street
			Suite 100
City:	Midland, TX 79706		Midland, Texas 79701
Phone number:	432-686-7016		432-687-8634
Fax:			
Email:	<a href="mailto:James.Kennedy@eogresources.com">James.Kennedy@eogresources.com</a>		<a href="mailto:clair.gonzales@tetrattech.com">clair.gonzales@tetrattech.com</a>

#### Site Characterization

Depth to Groundwater:	>55' below ground surface (bgs)
Karst Potential:	Medium

#### Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO+MRO)	Chlorides
10 mg/kg	50 mg/kg	2,500 mg/kg	10,000 mg/kg



November 3, 2021

Bradford Billings  
Hydrologist  
District 2 Artesia  
Oil Conservation Division  
Santa Fe, NM 87505

**Re: Closure Report  
EOG Resources  
Melson ZS Federal #1  
Unit P, Section 8, Township 26 South, Range 30 East  
Eddy County, New Mexico  
2RP-756  
Incident Id: nKMW1111140111**

Mr. Billings:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess a release at the EOG Melson ZS Federal #1 (API No. 30-015-38665). The release footprint is located in the Public Land Survey System (PLSS) Unit P, Section 8, Township 26 South, Range 30 East, Eddy County, New Mexico (Site). The Site coordinates are 32.050919°, -103.897047°. The site location is shown on Figures 1 and 2.

## Background

According to the State of New Mexico C-141 Initial Report, the release occurred on August 30, 2009 as a result of the water pump at the battery being stolen causing the water tank to overflow. The release consisted of 30 barrels (bbls.) of produced water affecting an approximate area of 60' x 10' inside bermed battery. During immediate response, a vacuum truck recovered 5 bbls. of free fluids. The initial C-141 report was submitted on September 09, 2009 to the New Mexico Oil Conservation District (NMOCD). The release was subsequently assigned the Remediation Permit (RP) number 2RP-756. The C-141 forms are 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 5, approximately 1.7 miles northeast of the site, and has a reported depth to groundwater of 179.70 feet (ft.) below ground surface (bgs.), the well was last sampled in 1998. In addition, according to the New Mexico Office of the State Engineer, there are no water wells within 800 meters (½ miles) radius. However, there are five (5) water wells located within 2,400 meters (approximately 1.5 miles) of the Site. On September 7, 2021 a groundwater determination

Tetra Tech

901 West Wall Street, Suite 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



borehole was drilled at the site at a depth of 56 ft. bgs. with no evidence of water. Site characterization data is included in Appendix B.

## **Regulatory**

A risk-based evaluation was performed for the site per 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). Additionally, based on the site characterization, the proposed RRAL for chlorides is 10,000 mg/kg.

## **Initial Site Assessment**

On February 23, 2010, Yates Petroleum Corporation (Yates) submitted a final report to the NMOCD requesting closure of the incident. The report mentioned the collection of soil samples performed on September 17, 2009 and subsequent remediation efforts in which soils were excavated to a depth of 18-inches. Confirmation samples from the excavation were submitted for laboratory analysis on February 18, 2009 and analytical results were included within the report along with sample diagram. The Final Report submitted by Yates is included in Appendix C.

NMOC received the final report on April 26, 2010 however the closure was not approved due to the contamination was not fully delineated.

## **Soil Assessment and Analytical Results**

On July 16, 2021, Tetra Tech personnel were on site to evaluate and sample the release area. The formerly impacted area was identified from the description in the C-141 and the aerial imagery. Soils were field screened for salinity using an Extech EC400 ExStik and for presence of hydrocarbons using a photoionization detector (PID) to determine sampling intervals. A total of two (2) auger holes (AH-1 and AH-2) were advanced inside the release footprint to a total depth from surface to 1.5 ft. Bgs. In addition, six (6) horizontal samples (H-1 through H-6) were installed along the release footprint to a total depth from surface to 0.5 ft. bgs. A total of eight (8) 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 sample locations are shown on Figure 3. Photographic documentation is included.

Referring to Table 1, sample location (AH-1) exceeded the site RRAL for chloride (10,000 mg/kg). All the additional samples analyzed were below the Site RRAL for chloride (10,000 mg/kg), TPH (2,500 mg/kg), BTEX (50 m/kg) and benzene (10 mg/kg).



## Remediation Activities

Between September 17 and October 26, 2021, Tetra Tech personnel were on-site to supervise the excavation and remediation activities in order to remove the impacted soil from the release area. The impacted area was excavated to a total depth of 19.5 ft. bgs. The excavated area is shown in Figure 4. Once the excavation was completed, confirmation samples were collected every 200 sq. ft. Five (5) bottom holes (BH-1 through BH-5) and twelve (12) sidewalls (SW-1 through SW-12) were collected in the excavated area. A total of seventeen (17) 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 2.

Referring to Table 2, all the sample confirmations were below the Site RRALs for chloride (10,000 mg/kg), TPH (2,500 mg/kg) and BTEX (50 m/kg) and benzene (10 mg/kg).

The excavations were all backfilled with clean soil material. Approximately 838 cubic yards of material was transported offsite for proper disposal.

## Conclusion

Based on the laboratory results and site assessment activities performed, EOG requests closure of this spill issue. The final C-141 initial reports are enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

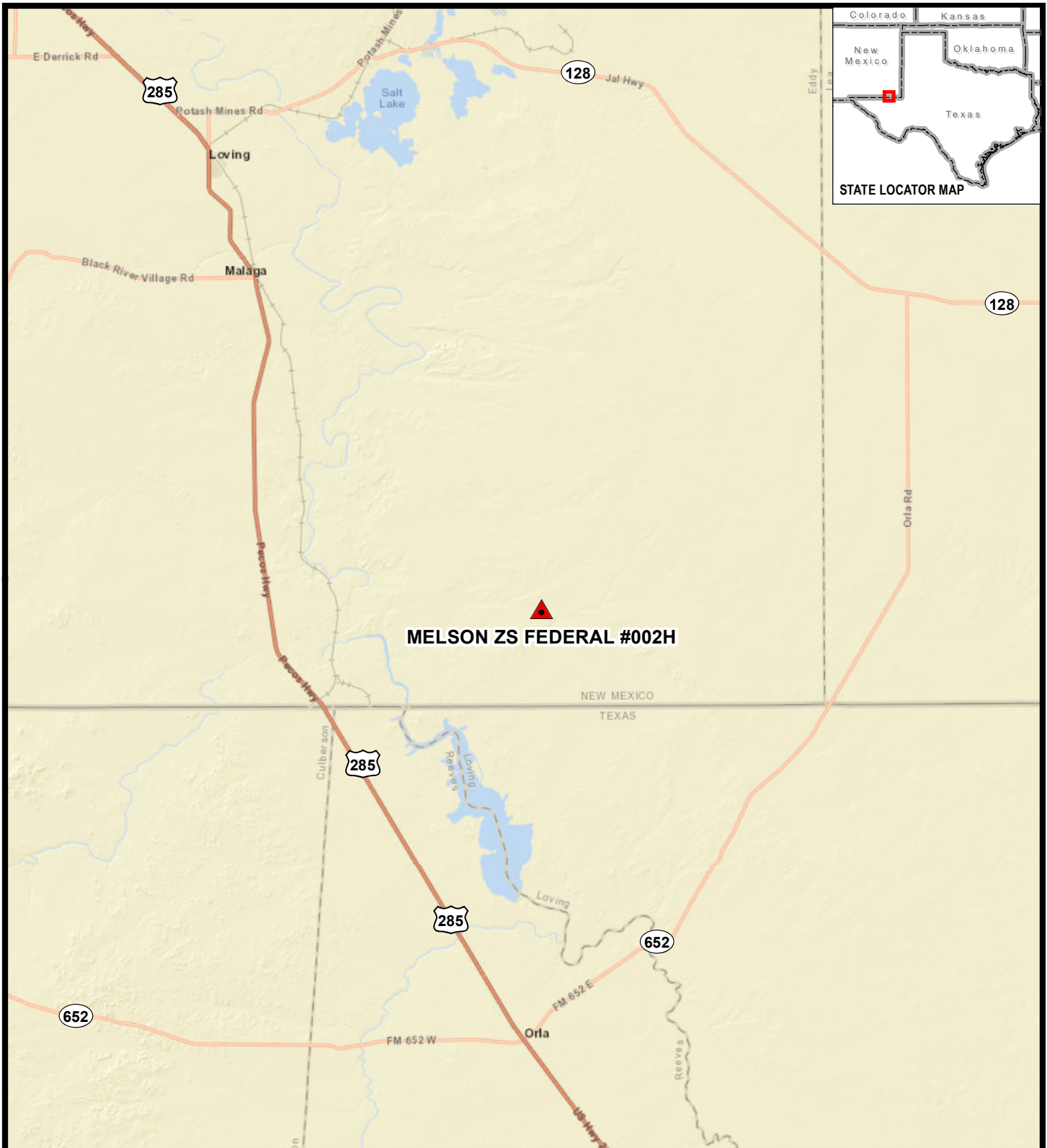
Respectfully submitted,  
TETRA TECH

*Paula Tocora Alonso*

Paula Tocora Alonso  
Environmental Engineer I  
Tetra Tech, Inc



## Figures



 SITE LOCATION



0 2.5 5  
Miles  
Approximate Scale in Miles

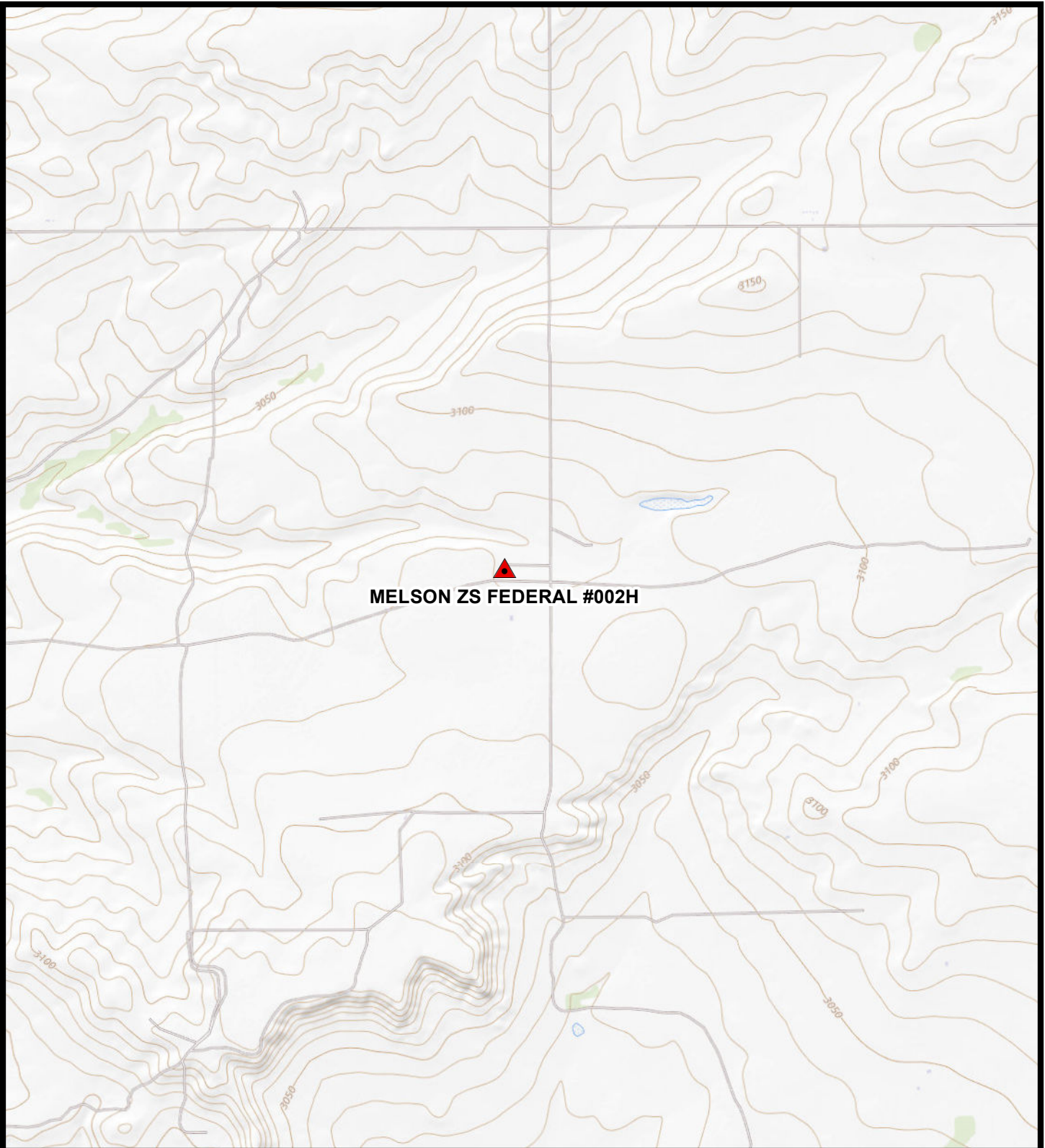
OVERVIEW MAP  
MELSON ZS FEDERAL #002H  
Property Located at coordinates 32.0509190°, -103.8970470°  
EDDY COUNTY, NEW MEXICO



Project #:  
212C-MD-02547

FIGURE  
1

Source: ESRI Basemap - Streets, 2021.



 SITE LOCATION



0 1,000 2,000 Feet  
Approximate Scale in Feet

TOPOGRAPHIC MAP  
MELSON ZS FEDERAL #002H  
Property Located at coordinates 32.0509190°, -103.8970470°  
EDDY COUNTY, NEW MEXICO



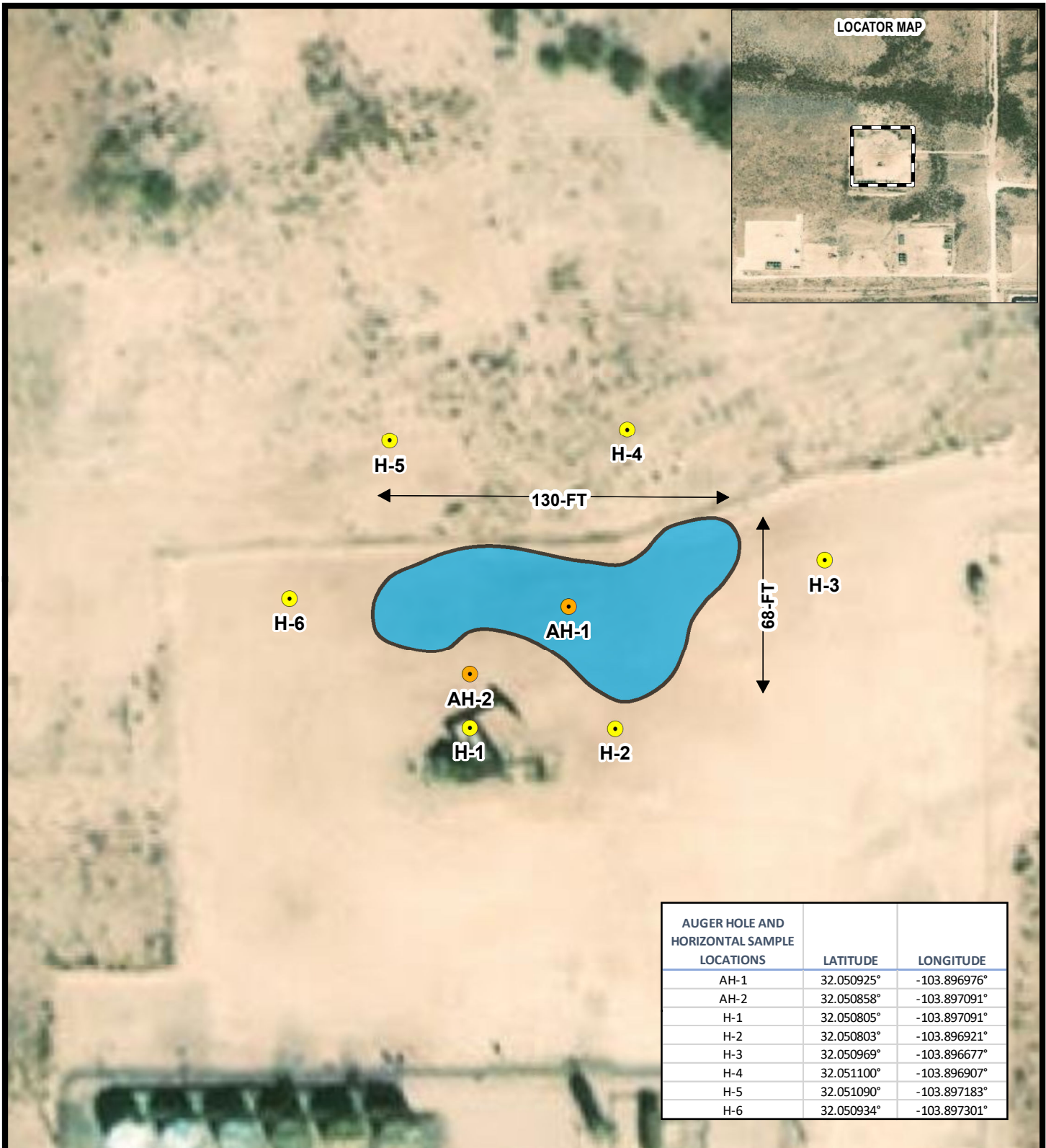
Project #:  
212C-MD-02547

FIGURE  
2

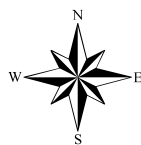
Source: USGS, The National Map,  
Topo Base, 2021.

C:\GIS\EOG Resources\212C-MD-02547\_MELSONZS\212C-MD-02547\_MELSONZS\_FIG2.mxd 9/27/2021 jml:ptx





- AUGER HOLE SAMPLE LOCATION
- HORIZONTAL SAMPLE LOCATION
- SPILL FOOTPRINT



0 25 50 Feet  
Approximate Scale in Feet

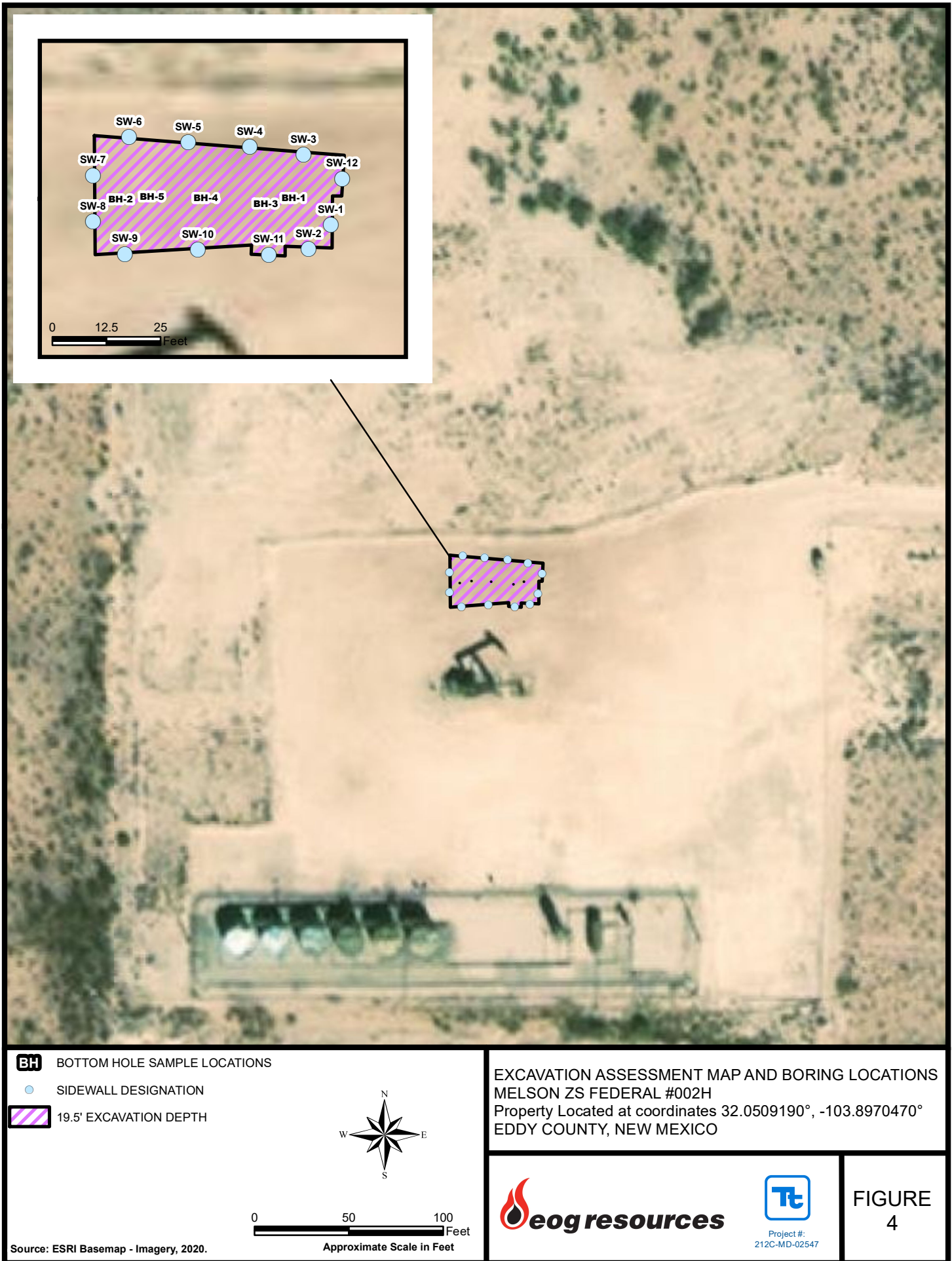
RELEASE ASSESSMENT MAP AND BORING LOCATIONS  
MELSON ZS FEDERAL #002H  
Property Located at coordinates 32.0509190°, -103.8970470°  
EDDY COUNTY, NEW MEXICO



Project #:  
212C-MD-02547

FIGURE  
3

Source: ESRI Basemap - Imagery, 2020.



## Tables

Table 1  
EOG  
Melson ZS Federal #002H  
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						
AH-1	7/16/2021	0-0.5	X	-	<49.9	66.2	<49.9	66.2	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	20,800
	"	1-1.5	X	-	<50.0	219	<50.0	219	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	21,700
AH-2	7/16/2021	0-0.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	347
	"	1-1.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	112
H-1	7/16/2021	0-0.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	11.5
H-2	7/16/2021	0-0.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	6.03
H-3	7/16/2021	0-0.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	6.00
H-4	7/16/2021	0-0.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	12.1
H-5	7/16/2021	0-0.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	225
H-6	7/16/2021	0-0.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	183

( - )                      Not Analyzed  
Exceeded RRALs



**Table 2**  
**EOG**  
**Melson ZS Federal #002H**  
**Eddy County, NM**

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
BH-1*	9/7/2021	-	0-1	-	X	<49.9	100	53.4	153	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	9,070
		-	2-3	-	X	<49.9	69.5	<49.9	70	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	4,160
		-	4-5	-	X	227	11,400	2,370	13,300	<0.199	<0.199	0.529	1.81	2.34	3,700
		-	6-7	-	X	101	4,250	868	5,220	<0.201	<0.201	<0.201	<0.402	<0.402	4,770
		-	9-10	-	X	55	1,390	267	1,710	<0.201	<0.201	<0.201	<0.402	<0.402	8,130
		-	14-15	-	X	<49.8	211	80.1	291	<0.0994	<0.0994	<0.0994	<0.199	<0.199	11,000
		-	19-20	X	-	<50.0	518	95.9	614	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	6,550
		-	25	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	4,470
BH-1	9/17/2021	-	19.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	3,700
BH-2	9/20/2021	-	19.5	X	-	<50.0	630	69.5	700	<0.00200	<0.00200	0.0118	0.0762	0.0880	5,850
BTM-3	9/22/2021	-	19.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	6,560
BTM-4	9/22/2021	-	19.5	X	-	<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	5,730
BTM-5	9/22/2021	-	19.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,480
SW-1	9/17/2021	-	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	5,780
SW-2	9/17/2021	-	-	X	-	<50.0	53.1	<50.0	53.1	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	6,270
SW-3	9/21/2021	-	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	8,800
SW-4	9/20/2021	-	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	5,940
SW-5	9/20/2021	-	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	8,660
SW-6	9/20/2021	-	-	-	X	<249	3,040	297	3,340	0.00335	0.00721	0.0350	0.223	0.269	9,850
	10/4/2021	-	-	-	X	<249	3,200	<249	3,200	<0.00199	<0.00199	0.0295	0.231	0.261	5,640
	10/18/2021	-	-	-	X	<50.0	1,190	<50.0	1,190	<0.00199	<0.00199	0.0530	0.0151	0.0681	1,730
	10/26/2021	-	-	X	-	<50.0	<50.0	<50.0	<50.0	-	-	-	-	-	-
SW-7	9/20/2021	-	-	-	X	<250	4,930	506	5,440	0.00238	0.0129	0.0553	0.464	0.535	5,430
	10/4/2021	-	-	-	X	<249	2,280	<249	2,280	<0.00200	<0.00200	0.0176	0.104	0.122	3,660
	10/18/2021	-	-	X	-	<50.0	937	<50.0	937	<0.00200	<0.00200	0.0281	0.0212	0.0493	1,600
SW-8	9/20/2021	-	-	-	X	<49.9	116	<49.9	116	<0.00200	<0.00200	<0.00200	0.0151	0.0151	9,640
	10/4/2021	-	-	-	X	<249	4,120	<249	4,120	<0.00200	0.00365	0.0286	0.176	0.209	5,540
	10/18/2021	-	-	X	-	<49.9	977	<49.9	977	<0.00199	<0.00199	0.0220	0.0117	0.0337	1,690
SW-9	9/20/2021	-	-	-	X	<249	2,700	314	3,010	<0.00201	<0.00201	0.0102	0.149	0.16	10,800
	10/4/2021	-	-	-	X	<250	2,100	<250	2,100	<0.00199	<0.00199	0.00879	0.109	0.118	9,360
	10/18/2021	-	-	-	X	<49.9	1,070	<49.9	1,070	<0.00200	<0.00200	0.0306	0.0165	0.0471	1,690
	10/26/2021	-	-	X	-	<50.0	244	<50.0	244	-	-	-	-	-	-
SW-10	9/20/2021	-	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	7,560
SW-11	9/20/2021	-	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	8,580
SW-12	9/22/2021	-	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	5,550

(-) Not Analyzed

Excavated

\* BH-1 (Borehole drilled for vertical delineation)



## Photos

EOG Resources  
Melson ZS Federal #002H  
Eddy County, New Mexico



TETRA TECH



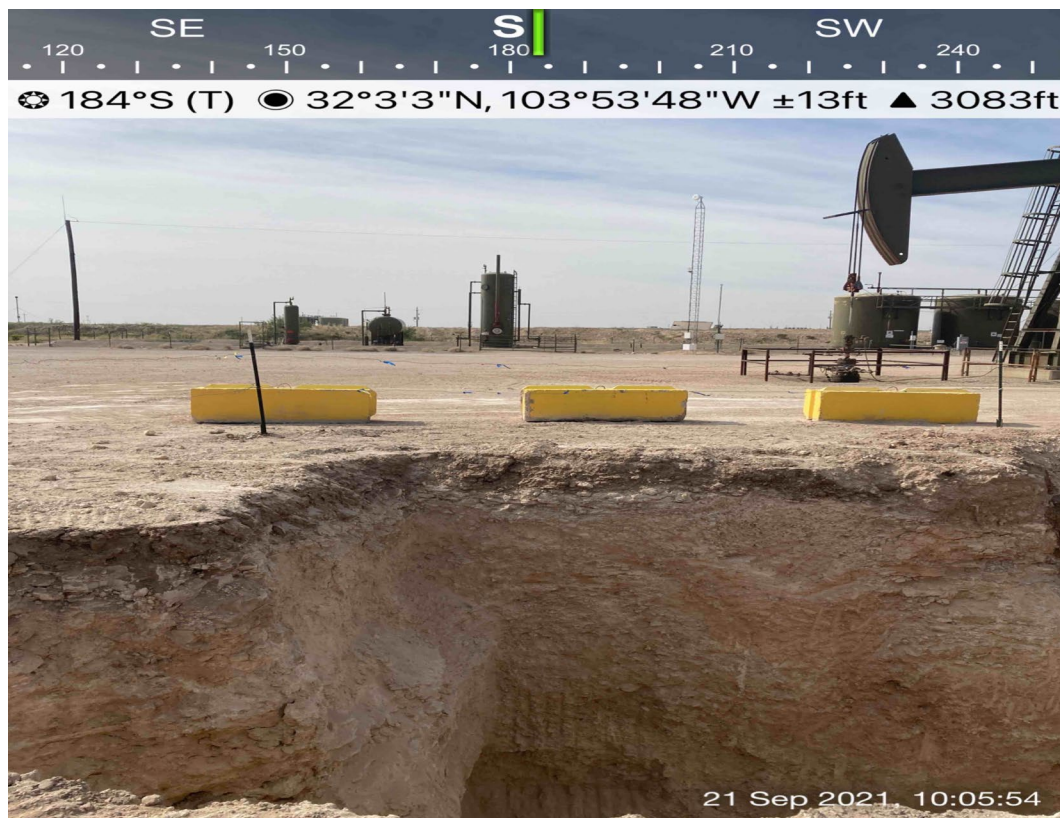
View of Release Area – View West



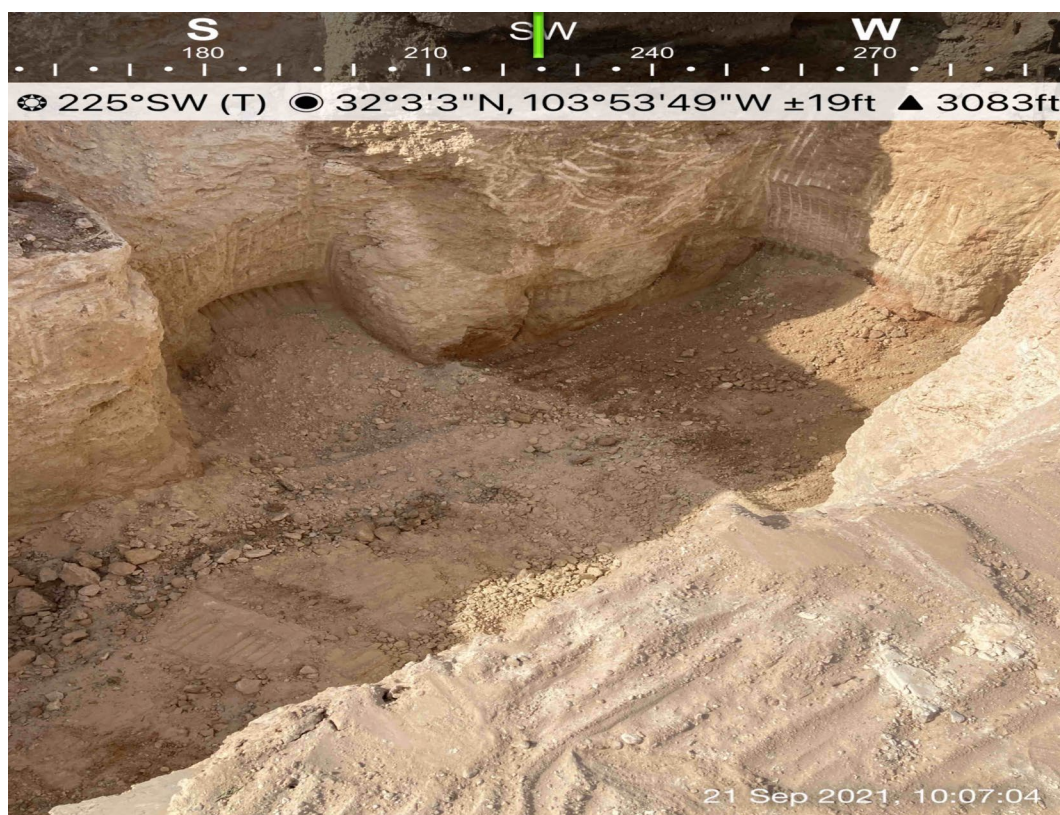
View of Release Area – View Southwest



EOG Resources  
Melson ZS Federal #002H  
Eddy County, New Mexico



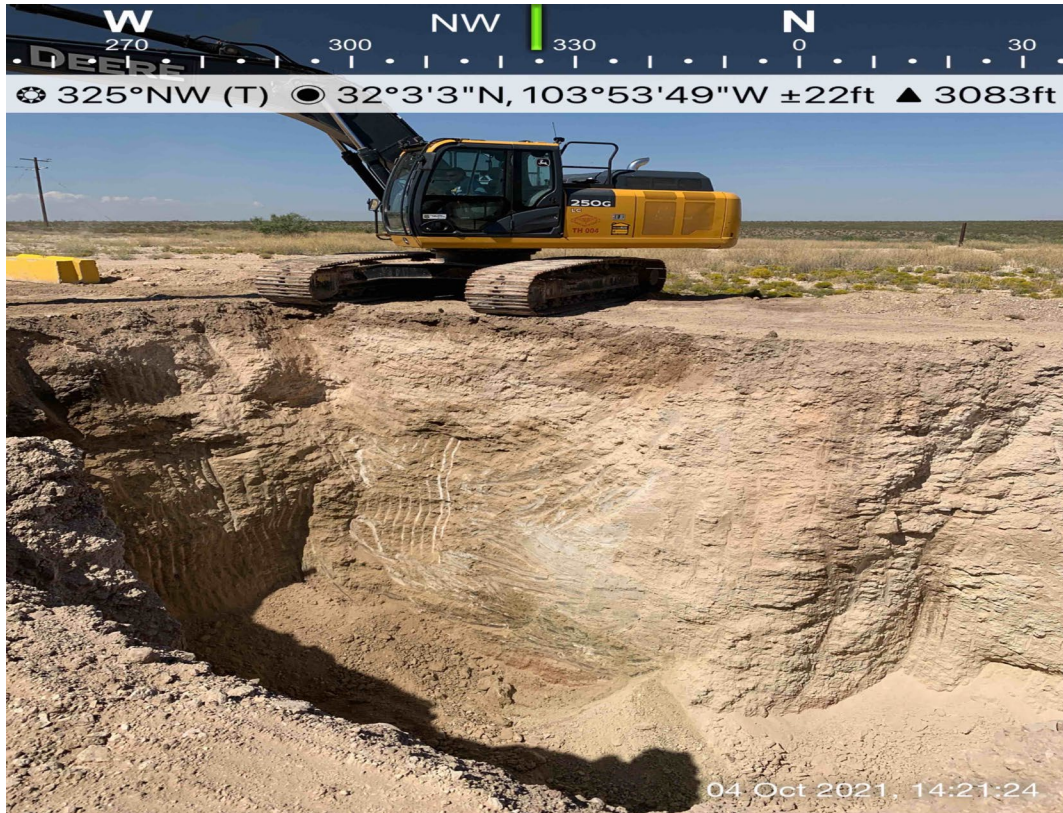
View of Remediation Activities – View South



View of Release Area – View Northwest



EOG Resources  
Melson ZS Federal #002H  
Eddy County, New Mexico



View of Remediation Activities – View Northwest



View of Release Area – View Southwest

## Boring Log

212C-MD-02547		<b>TETRA TECH</b>										<b>LOG OF BORING BH-1</b>															Page 1 of 1				
Project Name: Melson ZS Federal #002H																															
Borehole Location: GPS Coordinates: 32.050930, -103.899006															Surface Elevation (ft. MSL): 3074.1																
Borehole Number: BH-1										Borehole Diameter (in.): 6					Date Started: 9/7/2021					Date Completed: 9/7/2021											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>WATER LEVEL OBSERVATIONS</b></p> <p>While Drilling <u>NE</u> ft Upon Completion of Drilling <u>56</u> ft</p> <p>Remarks:</p> </div> <div style="width: 50%; border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>MATERIAL DESCRIPTION</b></p> </div> </div>															<p style="text-align: center;"><b>DEPTH (ft)</b></p>					<p style="text-align: center;"><b>REMARKS</b></p>											
DEPTH (ft)		OPERATION TYPES		SAMPLE		PID SCREENING		ExStik SCREENING (ppm)		SAMPLE RECOVERY (%)		MOISTURE CONTENT (%)		DRY DENSITY (pcf)		LIQUID LIMIT		PLASTICITY INDEX		MINUS NO. 200 (%)		GRAPHIC LOG									
						ppm										LL		PI													
10		X		X		6.6		>10,000																<p><b>-SPG-</b> CALICHE/SAND: Tan, Dense, Dry</p>							
1.5		X		X		>10,000																									
215		X		X		>10,000																									
355		X		X		>10,000																									
289		X		X		8,560																		<p><b>-SM-</b> SILTY SAND: Light Brown, Dense, Dry, Poorly Sorted</p>							
52.2		X		X		9,750																									
65		X		X		5,120																									
2.8		X		X		4,750																		<p><b>-SP-</b> SAND: Dark Brown, Very Dense, Dry.</p>							
27		X		X		4,750																									
29		X		X		4,750																		<p><b>-SM-</b> SILTY SAND: Dark Brown, Very Dense, Dry.</p>							
29		X		X		4,750																									
56		X		X		4,750																									

<b>Sampler Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Split Spoon   Shelby   Bulk Sample   Grab Sample         </div> <div style="width: 50%;">  Penetrometer   Vane Shear   California   Test Pit         </div> </div>										<b>Operation Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Mud Rotary   Continuous Flight Auger   Wash Rotary         </div> <div style="width: 50%;">  Auger   Air Rotary   Core Barrel   Drive Casing         </div> </div>										<b>Notes:</b> Bottom of borehole at 56.0 feet. Surface elevation is an estimated value based on Google Earth data. Temporary Well Set. Water Measured at 32 ft. with Trace of NAPL.									
<b>Logger:</b> Ashton Thielke										<b>Drilling Equipment:</b> Mobile Drill B61H										<b>Driller:</b> Scarborough Drilling									

## Appendix A



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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

### Release Notification and Corrective Action

AKMw 1111/4011

OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Robert Asher	
Address 104 S. 4 <sup>TH</sup> Street		Telephone No. 505-748-1471	
Facility Name Melson ZS Federal #1	API Number 30-015-25171	Facility Type Battery	
Surface Owner Federal	Mineral Owner Federal	Lease No. NM-31649	

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	8	26S	30E	560	South	660	East	Eddy

Latitude 32.05132 Longitude 103.89634

### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 30 B/PW	Volume Recovered 5 B/PW
Source of Release Water Pump	Date and Hour of Occurrence 8/30/2009 AM	Date and Hour of Discovery 8/30/2009 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/NMOCD District II	
By Whom? Robert Asher/YPC Environmental	Date and Hour 9/1/2009 PM, Voicemail & E-mail	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Water pump at battery was stolen, causing water tank to overflow. Vacuum truck called.		
Describe Area Affected and Cleanup Action Taken.* An approximate area of 60' X 10' inside bermed battery, small amount outside battery. Produced water picked up. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides results for documentation, YPC will delineate to try and show decreasing levels of chlorides). If initial analytical results for TPH & BTEX are under RRAL's a Final Report, C-141 will be submitted to the OCD requesting closure. <b>Depth to Ground Water: &gt;100' (approximately 173', per the New Mexico Office of the State Engineer), Wellhead Protection Area: No, Distance to Surface Water Body: &gt;1000', SITE RANKING IS 0.</b>		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

### OIL CONSERVATION DIVISION

Signature: <u>Robert Asher</u>	Approved by District Supervisor: <u>Mike Bratcher</u>	
Printed Name: Robert Asher	Signed By: <u>Mike Bratcher</u>	
Title: Environmental Regulatory Agent	Approval Date: <u>9/21/11</u>	Expiration Date:
E-mail Address: boba@yatespetroleum.com	Conditions of Approval: Remediation per OCD Rules & Guidelines. <b>SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:</b>	
Date: Wednesday, September 09, 2009 Phone: 575-748-4217	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

5/21/11

2 RP-756



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

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

**RECEIVED**  
APR 26 2010  
NMOCD ARTESIA

Form C-141  
Revised October 10, 2003  
Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

## Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Robert Asher	<i>changed to 30-015-38665</i>
Address 104 S. 4 <sup>TH</sup> Street	Telephone No. 575-748-1471		
Facility Name Melson ZS Federal #1	API Number 30-015-25171	Facility Type Battery	<i>release is just north of Pump Jack at</i>
Surface Owner Federal	Mineral Owner Federal	Lease No. NM-31649	

## LOCATION OF RELEASE

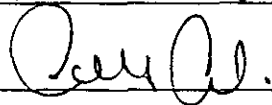
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	8	26S	30E	560	South	660	East	Eddy

Latitude 32.05132 Longitude 103.89634

## NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 30 B/PW	Volume Recovered 5 B/PW
Source of Release Water Pump	Date and Hour of Occurrence 8/30/2009 AM	Date and Hour of Discovery 8/30/2009 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/NMOCD District II	
By Whom? Robert Asher/YPC Environmental	Date and Hour 9/1/2009 PM, Voicemail & E-mail	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Water pump at battery was stolen, causing water tank to overflow. Vacuum truck called.		
Describe Area Affected and Cleanup Action Taken.* An approximate area of 60' X 10' inside bermed battery, small amount outside battery. Produced water picked up. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides results for documentation, YPC will delineate to try and show decreasing levels of chlorides). If initial analytical results for TPH & BTEX are under RRAL's a Final Report, C-141 will be submitted to the OCD requesting closure. Yates had a contractor excavate/haul 18" of impacted soils from both release areas (inside battery and south of battery), re-sampled on 2/18/2010, results are below RRAL's for the site ranking. Depth to Ground Water: >100' (approximately 173', per the New Mexico Office of the State Engineer), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 0. Based on impacted soils excavated and enclosed analytical results, Yates Petroleum Corporation requests closure.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

Signature:



Printed Name: Robert Asher

OIL CONSERVATION DIVISION

Accepted for record  
NMOCD 10/14/10

Approved by District Supervisor:

Title: Environmental Regulatory Agent

Approval Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

E-mail Address: boba@yatespetroleum.com

Conditions of Approval:

Attached ☐

Date: Tuesday, February 23, 2010

Phone: 575-748-4217

2RP-

*Deterral until site abandonment. Contamination not fully delineated*

\* Attach Additional Sheets If Necessary

Released to Imaging: 6/6/2023 3:00:42 PM

*1115 battery is closed - location just north of 30-015-38665*

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
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: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: James F. Kennedy Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

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

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

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
Signature: James F. Kennedy Date: \_\_\_\_\_  
email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

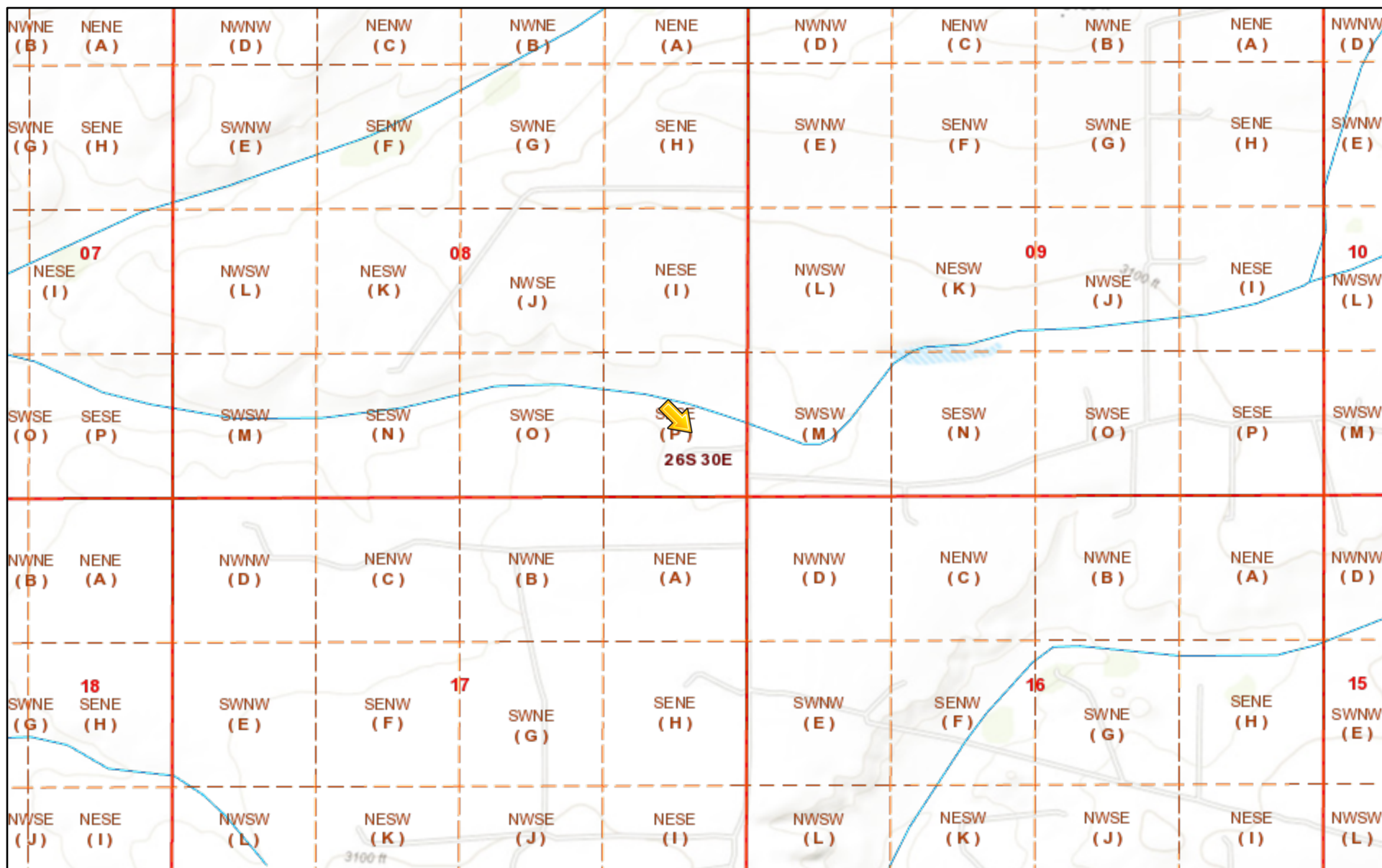
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

## Appendix B

## 2RP-756



7/14/2021, 10:19:44 AM



Override 1

PLSS First Division

PLSS Townships

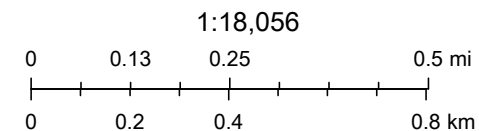
PLSS Second Division

OSE Streams

PLJV Probable Playas

OSE Water-bodies

OCD District Offices



Bureau of Land Management, Texas Parks &amp; Wildlife, Esri, HERE, Garmin,

New Mexico Oil Conservation Division



# Melson ZS Federal #002H

Karst Potential

## Legend

- High
- Low
- Medium

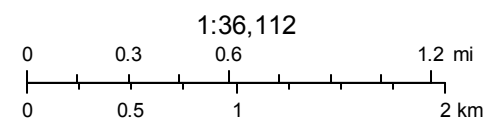
Melson ZS Federal #1



## New Mexico NFHL Data



July 14, 2021



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

National Water Information System: Mapper

[Help](#) [Info](#)



Site Information



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

(R=POD has been replaced,  
O=orphaned,

C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">C_04068 POD1</a>		CUB	ED	1	3	1	16	26S	30E	604397	3546018	651			
<a href="#">C_03483</a>		C	ED	4	4	4	05	26S	30E	604296	3548251	1649	700	200	500
<a href="#">C_03581 POD1</a>		CUB	ED	4	4	4	05	26S	30E	604298	3548291	1689	800	320	480
<a href="#">C_01361</a>		CUB	ED	3	4	3	05	26S	30E	603240	3548157	1782	775	184	591
<a href="#">C_01360</a>		CUB	ED	4	3	3	05	26S	30E	602997	3548152	1910	770	173	597

Average Depth to Water: **219 feet**

Minimum Depth: **173 feet**

Maximum Depth: **320 feet**

**Record** 5

**Count:**

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 604125.89

**Northing (Y):** 3546611

**Radius:** 2400

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

7/14/21 9:13 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



National Water Information System: Web Interface  
USGS Water Resources

USGS Home  
Contact USGS  
Search USGS

Data Category:

Groundwater

Geographic Area:

New Mexico

GO

Click to hideNews Bulletins

- Explore the [NEW USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

\* IMPORTANT: [Next Generation Station Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 320404103523101

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320404103523101 26S.30E.05.343414

Eddy County, New Mexico  
Latitude 32°04'04", Longitude 103°52'31" NAD27  
Land-surface elevation 3,173 feet above NAVD88  
The depth of the well is 775 feet below land surface.  
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.  
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1958-08-18			D	62610		2989.64	NGVD29	1	Z		A
1958-08-18			D	62611		2991.25	NAVD88	1	Z		A
1958-08-18			D	72019	181.75			1	Z		A
1971-02-18			D	62610		2988.69	NGVD29	1	Z		A
1971-02-18			D	62611		2990.30	NAVD88	1	Z		A
1971-02-18			D	72019	182.70			1	Z		A
1976-01-28			D	62610		2989.67	NGVD29	1	Z		A
1976-01-28			D	62611		2991.28	NAVD88	1	Z		A
1976-01-28			D	72019	181.72			1	Z		A
1987-10-21			D	62610		2986.76	NGVD29	1	Z		A
1987-10-21			D	62611		2988.37	NAVD88	1	Z		A
1987-10-21			D	72019	184.63			1	Z		A
1992-11-05			D	62610		2991.72	NGVD29	1	S		A
1992-11-05			D	62611		2993.33	NAVD88	1	S		A
1992-11-05			D	72019	179.67			1	S		A
1998-01-28			D	62610		2991.69	NGVD29	1	S		A
1998-01-28			D	62611		2993.30	NAVD88	1	S		A
1998-01-28			D	72019	179.70			1	S		A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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[Automated retrievals](#)  
[Help](#)  
[Data Tips](#)  
[Explanation of terms](#)  
[Subscribe for system changes](#)  
[News](#)

Accessibility   FOIA   Privacy   Policies and Notices  
U.S. Department of the Interior | U.S. Geological Survey  
Title: Groundwater for New Mexico: Water Levels  
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>

Page Contact Information: [New Mexico Water Data Maintainer](#)  
Page Last Modified: 2021-07-14 11:31:32 EDT  
0.28 0.25 nadsnw01



## Appendix C

MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2008



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (575) 748-1471

JOHN A. YATES  
CHAIRMAN OF THE BOARD  
PRESIDENT

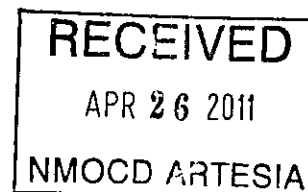
JOHN A. YATES JR.  
ASSISTANT TO THE PRESIDENT

JAMES S. BROWN  
CHIEF OPERATING OFFICER

JOHN D. PERINI  
CHIEF FINANCIAL OFFICER

February 23, 2010

Mr. Mike Bratcher  
NMOCD District II  
1301 West Grand  
Artesia, NM 88210



Re: Melson ZS Federal #1  
30-015-25171  
Section 8, T26S-R30E  
Eddy County, New Mexico

Dear Mr. Bratcher,

Enclosed please find a Form C-141, Final Report for the above captioned site regarding the release on August 30, 2009 (30 bbls of produced water with 5 bbls produced water being recovered). The release was from a water pump being stolen, allowing stock tank to over flow. Samples were taken on 9/17/2009 and sent to an OCD approved laboratory for analysis, based on results (enclosed), impacted soils were excavated to a depth of 18 (eighteen) inches and taken to an NMOCD approved facility. Samples were taken on 2/18/2009 and sent to an OCD approved laboratory for analysis. Analytical results (enclosed) show TPH & BTEX below RRAL's for the site ranking of (0) zero, (enclosed sample diagram and results). Based on impacted soils being excavated/removed and analytical results (chlorides for documentation); Yates Petroleum Corporation requests closure. Upon closure approval Yates will backfill with clean, like soils.

If you have any questions, please call me at 575-748-4217.

Thank you.

YATES PETROLEUM CORPORATION

Robert Asher  
Environmental Regulatory Agent

/rca  
Enclosure(s)



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

State of New Mexico  
Energy Minerals and Natural Resources

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

RECEIVED

APR 26 2010

NMOCD ARTESIA

Form C-141  
Revised October 10, 2003

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

## Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Robert Asher
Address 104 S. 4 <sup>TH</sup> Street		Telephone No. 575-748-1471
Facility Name Melson ZS Federal #1	API Number 30-015-25171	Facility Type Battery

Surface Owner Federal	Mineral Owner Federal	Lease No. NM-31649
--------------------------	--------------------------	-----------------------

## LOCATION OF RELEASE

Unit Letter P	Section 8	Township 26S	Range 30E	Feet from the 560	North/South Line South	Feet from the 660	East/West Line East	County Eddy
------------------	--------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	----------------

Latitude 32.05132 Longitude 103.89634

## NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 30 B/PW	Volume Recovered 5 B/PW
Source of Release Water Pump	Date and Hour of Occurrence 8/30/2009 AM	Date and Hour of Discovery 8/30/2009 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/NMOCD District II	
By Whom? Robert Asher/YPC Environmental	Date and Hour 9/1/2009 PM, Voicemail & E-mail	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.\*  
N/A

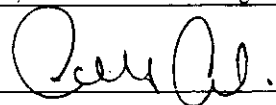
Describe Cause of Problem and Remedial Action Taken.\*

Water pump at battery was stolen, causing water tank to overflow. Vacuum truck called.

Describe Area Affected and Cleanup Action Taken.\*

An approximate area of 60' X 10' inside bermed battery, small amount outside battery. Produced water picked up. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides results for documentation, YPC will delineate to try and show decreasing levels of chlorides). If initial analytical results for TPH & BTEX are under RRAL's a Final Report, C-141 will be submitted to the OCD requesting closure. Yates had a contractor excavate/haul 18" of impacted soils from both release areas (inside battery and south of battery), re-sampled on 2/18/2010, results are below RRAL's for the site ranking. Depth to Ground Water: >100' (approximately 173', per the New Mexico Office of the State Engineer), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 0. Based on impacted soils excavated and enclosed analytical results, Yates Petroleum Corporation requests closure.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Robert Asher	Approved by District Supervisor:	
Title: Environmental Regulatory Agent	Approval Date:	Expiration Date:
E-mail Address: boba@yatespetroleum.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: Tuesday, February 23, 2010 Phone: 575-748-4217	2RP-	

\* Attach Additional Sheets If Necessary

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

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

Form C-141  
Revised October 10, 2003  
Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

AKMW 11114011

## OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Robert Asher
Address 104 S. 4 <sup>TH</sup> Street	Telephone No. 505-748-1471	
Facility Name Melson ZS Federal #1	API Number 30-015-25171	Facility Type Battery

Surface Owner Federal	Mineral Owner Federal	Lease No. NM-31649
--------------------------	--------------------------	-----------------------

## LOCATION OF RELEASE

Unit Letter P	Section 8	Township 26S	Range 30E	Feet from the 560	North/South Line South	Feet from the 660	East/West Line East	County Eddy
------------------	--------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	----------------

Latitude 32.05132 Longitude 103.89634

## NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 30 B/PW	Volume Recovered 5 B/PW
Source of Release Water Pump	Date and Hour of Occurrence 8/30/2009 AM	Date and Hour of Discovery 8/30/2009 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/NMOCD District II	
By Whom? Robert Asher/YPC Environmental	Date and Hour 9/1/2009 PM, Voicemail & E-mail	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		

## Describe Cause of Problem and Remedial Action Taken.\*

Water pump at battery was stolen, causing water tank to overflow. Vacuum truck called.

## Describe Area Affected and Cleanup Action Taken.\*

An approximate area of 60' X 10' inside bermed battery, small amount outside battery. Produced water picked up. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides results for documentation, YPC will delineate to try and show decreasing levels of chlorides). If initial analytical results for TPH & BTEX are under RRAL's a Final Report, C-141 will be submitted to the OCD requesting closure. Depth to Ground Water: >100' (approximately 173', per the New Mexico Office of the State Engineer), Wellhead Protection Area: No, Distance to Surface Water Body: >1000'. SITE RANKING IS 0.

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

## OIL CONSERVATION DIVISION

Signature:

Printed Name: Robert Asher

Approved by District Supervisor:

Signed By:

Title: Environmental Regulatory Agent

Approval Date:

4/21/11

Expiration Date:

E-mail Address: boba@yatespetroleum.com

Conditions of Approval:

Date: Wednesday, September 09, 2009

Phone: 575-748-4217

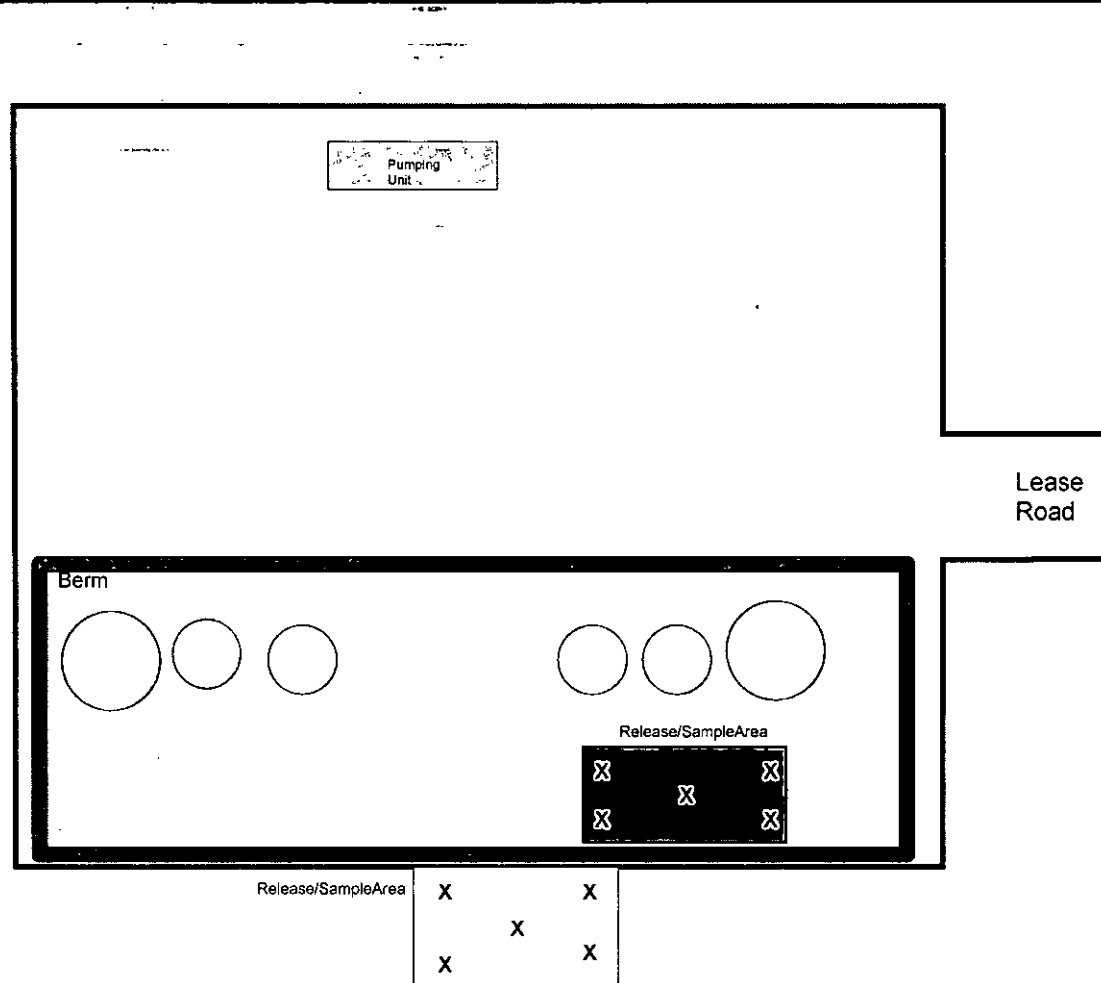
Remediation per OCD Rules &  
Guidelines. **SUBMIT REMEDIATION  
PROPOSAL NOT LATER THAN:**

5/21/11

Attached ☐

2 RP-756

\* Attach Additional Sheets If Necessary



Sample ID	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
GS/Comp-001	Battery Area	9/17/2009	Grab/Auger	4"	ND	ND	897	897	7660
GS/Comp-002	Battery Area	9/17/2009	Grab/Auger	12"	0.1158	ND	8690	8690	2920
GS/Comp-003	Battery Area	9/17/2009	Grab/Auger	18"	0.095	ND	2880	2880	5430
<b>GS/Comp-004</b>	Outside Battery	9/17/2009	Grab/Auger	4"	ND	ND	734	734	7020
<b>GS/Comp-005</b>	Outside Battery	9/17/2009	Grab/Auger	12"	ND	ND	205	205	3140
<b>GS/Comp-006</b>	Outside Battery	9/17/2009	Grab/Auger	18"	ND	ND	ND	ND	493
Sample ID	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
GS/Comp-001	Battery Area	2/18/2010	Grab/Auger	24" BSL	ND	ND	537	537	631
GS/Comp-002	Battery Area	2/18/2010	Grab/Auger	30" BSL	ND	ND	815	815	2410
<b>GS/Comp-003</b>	Outside Battery	2/18/2010	Grab/Auger	24" BSL	ND	ND	21.4	21.4	1010

Site Ranking is Zero (0). Depth to Ground Water >100' (approx. 173', per New Mexico State Engineer Office).

All results are ppm. Chloride results are for documentation. BSL - Below Subsurface Level. X - Sample Points



Melson ZS Federal #1

30-015-25171

Section 8, T26S-R30E

Eddy County, NM

**SAMPLE DIAGRAM (Not to Scale)**

Xenco Laboratories: #345135 & 345138

Report Date: 9/23/2009

Xenco Laboratories: #362839 & 362840

Report Date: 2/23/2010

Prepared by Robert Asher  
Environmental Regulatory Agent



# Analytical Report 345135

for

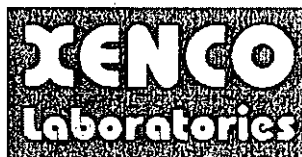
## Yates Petroleum Corporation

Project Manager: Robert Asher

Melson ZS Federal #1

30-015-25171

23-SEP-09



12600-West-I-20-East-Odessa,-Texas-79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)



23-SEP-09

Project Manager: Robert Asher  
Yates Petroleum Corporation  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: 345135  
Melson ZS Federal #1  
Project Address: Eddy County

Robert Asher:

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 345135. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 345135 will be filed for 60 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,

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 345135****Yates Petroleum Corporation, Artesia, NM**

Melson ZS Federal #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-001	S	Sep-17-09 09:48	4 - 4 In	345135-001
GS/Comp-002	S	Sep-17-09 10:01	12 - 12 In	345135-002
GS/Comp-003	S	Sep-17-09 10:20	18 - 18 In	345135-003
GS/Comp-004	S	Sep-17-09 10:33	4 - 4 In	345135-004
GS/Comp-005	S	Sep-17-09 10:47	12 - 12 In	345135-005
GS/Comp-006	S	Sep-17-09 10:59	18 - 18 In	345135-006

## CASE NARRATIVE



*Client Name: Yates Petroleum Corporation*

*Project Name: Melson ZS Federal #1*

*Project ID: 30-015-25171*

*Report Date: 23-SEP-09*

*Work Order Number: 345135*

*Date Received: 09/18/2009*

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-773206 Percent Moisture

None

Batch: LBA-773214 Percent Moisture

None

Batch: LBA-773228 BTEX-MTBE EPA 8021B

SW8021BM

Batch 773228, 4-Bromofluorobenzene recovered below QC limits Data not confirmed by re-analysis. Samples affected are: 538250-1-BLK, 345135-005, 345135-006, 345135-004. Matrix Interference is suspected in sample surrogate failures.

---

SW8021BM

Batch 773228, Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 345135-006, -005, -004.

The Laboratory Control Sample for m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits



## CASE NARRATIVE



Client Name: Yates Petroleum Corporation

Project Name: Melson ZS Federal #1

Project ID: 30-015-25171

Report Date: 23-SEP-09

Work Order Number: 345135

Date Received: 09/18/2009

Batch: LBA-773294 BTEX-MTBE EPA 8021B  
SW8021BM

Batch 773294, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 345135-002, -003, -001.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 773294, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; sample data confirmed by re-analysis

Samples affected are: 345135-001 S, 345135-001 SD, 345135-003.

4-Bromofluorobenzene recovered below QC limits Sample Data confirmed by re-analysis.

Samples affected are: 538297-1-BLK, 345135-001.

4-Bromofluorobenzene recovered above QC limits. Sample Data confirmed by re-analysis.

Samples affected are: 345135-002, 345135-003.

Batch: LBA-773698 TPH by SW 8015B

None



**Certificate of Analysis Summary 345135**  
**Yates Petroleum Corporation, Artesia, NM**  
**Project Name: Melson ZS Federal #1**

Received by OCD: 1/6/2022 10:20:29 AM

Page 42 of 255



Project Id: 30-015-25171  
Contact: Robert Asher  
Project Location: Eddy County

Date Received in Lab: Fri Sep-18-09 09:58 am  
Report Date: 23-SEP-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		345135-001		345135-002		345135-003		345135-004		345135-005		345135-006	
	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:
BTEX by EPA 8021B														
Percent Moisture														
TPH By SW8015B Mod														
C6-C10 Gasoline Range Hydrocarbons														
C10-C28 Diesel Range Hydrocarbons														
Total TPH														

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

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron, II  
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.
- BRL Below Reporting Limit.
- RL Reporting Limit

\* Outside XENCO's scope of NELAC Accreditation.

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 5332 Blackberry Drive, San Antonio TX 78238  
 2505 North Falkenburg Rd, Tampa, FL 33619  
 5757 NW 158th St, Miami Lakes, FL 33014  
 12600 West I-20 East, Odessa, TX 79765  
 842 Cantwell Lane, Corpus Christi, TX 78408

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116

## Environmental Lab of Texas

A. Xerox Laboratories Company

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

17650 NW 120 East  
Custodian, Texas 75765Phone: 432-563-1888  
Fax: 432-563-1713

Project Manager:

Robert Asher

Company Name

Yates Petroleum Corporation

Company Address:

105 South 4th Street

City/State/Zip:

Ardmore, OK 73401

Telephone No:

505-48-4217

Sampler Signature:

D. J. C. J.

Fax No:

505-48-4682

e-mail:

doba@yatespetroleum.com

Project Name: Melson ZS Federal #1

Project #: 30 U15-23171

Project Loc: Early County

PO #: 108522

Report Format:

☒ Standard☐ TRRP

(BIO USE ONLY)

ORDER #

245135/345138-1

Field No:

245135/345138-1

Matrix

TPH, 418, 80218, 8018

TOTAL

Standard 1A1

Standard 1A2

Standard 1A3

Standard 1A4

Standard 1A5

Standard 1A6

Standard 1A7

Standard 1A8

Standard 1A9

Standard 1A10

Standard 1A11

Standard 1A12

Standard 1A13

Standard 1A14

Standard 1A15

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Standard 1A313

Standard 1A314

Standard 1A315



Environmental Lab of Texas  
Variance/ Corrective Action Report- Sample Log-In

Client: Yates, Pat  
 Date/ Time: 12/13/09 9:58  
 Lab ID #: 345135/ 345138  
 Initials: gnd

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	<u>A</u>
#2	Shipping container in good condition?	<u>Yes</u>	No	<u>C</u>
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	No	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event

# Analytical Report 345138

for

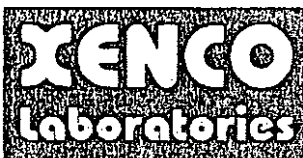
## Yates Petroleum Corporation

Project Manager: Robert Asher

Melson ZS Federal #1

30-015-25171

23-SEP-09



12600-West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)

**Sample Cross Reference 345138****Yates Petroleum Corporation, Artesia, NM**

Melson ZS Federal #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-001	S	Sep-17-09 09:48	4 - 4 In	345138-001
GS/Comp-002	S	Sep-17-09 10:01	12 - 12 In	345138-002
GS/Comp-003	S	Sep-17-09 10:20	18 - 18 In	345138-003
GS/Comp-004	S	Sep-17-09 10:33	4 - 4 In	345138-004
GS/Comp-005	S	Sep-17-09 10:47	12 - 12 In	345138-005
GS/Comp-006	S	Sep-17-09 10:59	18 - 18 In	345138-006

## CASE NARRATIVE



*Client Name: Yates Petroleum Corporation*

*Project Name: Melson ZS Federal #1*

*Project ID: 30-015-25171*

*Report Date: 23-SEP-09*

*Work Order Number: 345138*

*Date Received: 09/18/2009*

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-773214 Percent Moisture

None

Batch: LBA-773259 Inorganic Anions by EPA 300  
E300MI

Batch 773259, Chloride recovered above QC limits in the Matrix Spike.

Samples affected are: 345138-001, -002, -005, -003, -004, -006.

The Laboratory Control Sample for Chloride is within laboratory Control Limits





## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.
- BRL** Below Reporting Limit.
- RL** Reporting Limit.

\* Outside XENCO's scope of NELAC Accreditation.

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 5757 NW 158th St, Miami Lakes, FL 33014  
 12600 West I-20 East, Odessa, TX 79765  
 842 Cantwell Lane, Corpus Christi, TX 78408

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Environmental Lab of Texas  
Variance/ Corrective Action Report- Sample Log-In

Client: Yates, Pat  
 Date/ Time: 2/15/09 9:38  
 Lab ID #: 3451355/ 345133  
 Initials: AM

Sample Receipt Checklist

				Client Initials	
#1	Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>4</u>	<u>C</u>
#2	Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Present	
#5	Chain of Custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#11	Containers supplied by ELOT?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#12	Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below	
#13	Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below	
#14	Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#15	Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#16	Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below	
#18	All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below	
#19	Subcontract of sample(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable	
#20	VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable	

Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event

# Analytical Report 362839

for

## Yates Petroleum Corporation

Project Manager: Robert Asher

Melson ZS Federal # 1

30-015-25171

23-FEB-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

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Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)  
North Carolina(444), Texas(T104704468-TX), Illinois(002295)





23-FEB-10

Project Manager: Robert Asher  
Yates Petroleum Corporation  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: 362839  
Melson ZS Federal # 1  
Project Address: Eddy County

**Robert Asher:**

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 362839. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 362839 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink, appearing to read "Brent Barron, II", written over a horizontal line.

**Brent Barron, II**

Odessa Laboratory Manager

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## Sample Cross Reference 362839



Yates Petroleum Corporation, Artesia, NM

Melson ZS Federal # 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-001	S	Feb-18-10 10:34	24 - 24 In	362839-001
GS/Comp-002	S	Feb-18-10 10:47	30 - 30 In	362839-002
GS/Comp-003	S	Feb-18-10 11:03	6 - 6 In	362839-003



## CASE NARRATIVE

Client Name: Yates Petroleum Corporation

Project Name: Melson ZS Federal # 1

Project ID: 30-015-25171

Work Order Number: 362839

Report Date: 23-FEB-10

Date Received: 02/19/2010

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-794718 TPH by SW 8015B

SW8015B\_NM

Batch 794718, C10-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 362839-001, -002, -003.

The Laboratory Control Sample for C10-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-794783 Percent Moisture

None

Batch: LBA-794998 BTEX by EPA 8021

SW8021BM

---

Batch 794998, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 362839-001, -002, -003.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

**Certificate of Analysis Summary 362839**  
**Yates Petroleum Corporation, Artesia, NM**

**Project Name: Melson ZS Federal # 1**

**Date Received in Lab:** Fri Feb-19-10 09:35 am

Report Date: 23-FEB-10

**Project Manager:** Brem Barron, II

Project Id: 30-015-25171


**Contact: Robert Asher**

**Project Location:** Eddy County

Analysis Requested		Lab Id:	362839-001	362839-002	362839-003		
		Field Id:	GS/Comp-001	GS/Comp-002	GS/Comp-003		
		Depth:	24-24 In	30-30 In	6-6 In		
		Matrix:	SOIL	SOIL	SOIL		
		Sampled:	Feb-18-10 10:34	Feb-18-10 10:47	Feb-18-10 11:03		
BTEX by EPA 8021	Extracted:	Feb-22-10 17:05	Feb-22-10 17:05	Feb-22-10 17:05	Feb-22-10 17:05		
	Analyzed:	Feb-23-10 03:51	Feb-23-10 04:13	Feb-23-10 04:35	Feb-23-10 04:35		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	ND 0.0012	ND 0.0011	ND 0.0012	ND 0.0012		
	Toluene	ND 0.0023	ND 0.0023	ND 0.0023	ND 0.0023		
	Ethylbenzene	ND 0.0012	ND 0.0011	ND 0.0012	ND 0.0012		
Percent Moisture	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	o-Xylene	ND 0.0012	ND 0.0011	ND 0.0012	ND 0.0012		
	Xylenes, Total	ND 0.0012	ND 0.0011	ND 0.0012	ND 0.0012		
	Total BTEX	ND 0.0012	ND 0.0011	ND 0.0012	ND 0.0012		
	Extracted:	Feb-19-10 17:00	Feb-19-10 17:00	Feb-19-10 17:00	Feb-19-10 17:00		
	Analyzed:	% RL	% RL	% RL	% RL		
TPH by SW 8015B	Units/RL:	13.7 1.00	12.4 1.00	15.1 1.00	15.1 1.00		
	Percent Moisture						
	Extracted:	Feb-19-10 11:45	Feb-19-10 11:45	Feb-19-10 11:45	Feb-19-10 11:45		
	Analyzed:	Feb-20-10 06:08	Feb-20-10 06:35	Feb-20-10 07:03	Feb-20-10 07:03		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	C6-C10 Gasoline Range Hydrocarbons	ND 17.4	ND 85.5	ND 17.7	ND 17.7		
Total TPH	C10-C28 Diesel Range Hydrocarbons	537 17.4	815 85.5	21.4 17.7	21.4 17.7		
	Total TPH	537 17.4	815 85.5	21.4 17.7	21.4 17.7		

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

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Brent Barron, II  
Odessa Laboratory Manager

Final Ver. 1.000

Page 5 of 15



## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116





## Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: Vates Petroleum  
 Date/ Time: 2-19-10 9:35  
 Lab ID #: 362839 / 362840  
 Initials: AL

## Sample Receipt Checklist

Client Initials

#1 Temperature of container/ cooler?	(Yes)	No	4.6 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont/ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	Not Applicable	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	

## Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

Check all that Apply:

- ☐ See attached e-mail/ fax  
☐ Client understands and would like to proceed with analysis  
☐ Cooling process had begun shortly after sampling event

# Analytical Report 362840

for

## Yates Petroleum Corporation

Project Manager: Robert Asher

Melson ZS Federal # 1

30-015-25171

23-FEB-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida (E86240), South Carolina (96031001), Louisiana (04154), Georgia (917)

North Carolina (444), Texas (T104704468-TX), Illinois (002295)



23-FEB-10

Project Manager: Robert Asher  
Yates Petroleum Corporation  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: 362840  
Melson ZS Federal # 1  
Project Address: Eddy County

Robert Asher:

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 362840. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 362840 will be filed for 60 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,

**Brent Barron, II**

Odessa Laboratory Manager

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**Sample Cross Reference 362840****Yates Petroleum Corporation, Artesia, NM**

Melson ZS Federal # 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-001	S	Feb-18-10 10:34	24 - 24 In	362840-001
GS/Comp-002	S	Feb-18-10 10:47	30 - 30 In	362840-002
GS/Comp-003	S	Feb-18-10 11:03	6 - 6 In	362840-003



## CASE NARRATIVE



Client Name: Yates Petroleum Corporation

Project Name: Melson ZS Federal # 1



Project ID: 30-015-25171

Report Date: 23-FEB-10

Work Order Number: 362840

Date Received: 02/19/2010

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-794783 Percent Moisture

None

Batch: LBA-794973 Inorganic Anions by EPA 300

None



**Certificate of Analysis Summary 362840**  
**Yates Petroleum Corporation, Artesia, NM**  
**Project Name: Melson ZS Federal # 1**

Received by OCD: 1/6/2022 10:20:29 AM

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Project Id: 30-015-25171  
Contact: Robert Asher  
Project Location: Eddy County

Date Received in Lab: Fri Feb-19-10 09:35 am  
Report Date: 23-FEB-10  
Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	362840-001	362840-002	362840-003		
	<b>Field Id:</b>	GS/Comp-001	GS/Comp-002	GS/Comp-003		
	<b>Depth:</b>	24-24 In	30-30 In	6-6 In		
	<b>Matrix:</b>	SOIL	SOIL	SOIL		
<b>Anions in Soil By EPA 300.0</b>	<b>Sampled:</b>	Feb-18-10 10:34	Feb-18-10 10:47	Feb-18-10 11:03		
	<b>Extracted:</b>					
	<b>Analyzed:</b>	Feb-22-10 19:16	Feb-22-10 19:16	Feb-22-10 19:16		
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL		
<b>Percent Moisture</b>		631 19.5	2410 48.0	1010 49.5		
	<b>Extracted:</b>					
	<b>Analyzed:</b>	Feb-19-10 17:00	Feb-19-10 17:00	Feb-19-10 17:00		
	<b>Units/RL:</b>	% RL	% RL	% RL		
<b>Percent Moisture</b>		13.7 1.00	12.4 1.00	15.1 1.00		

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

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Brent Barron, II  
Odessa Laboratory Manager

Final Ver. 1.000

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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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

\* Outside XENCO's scope of NELAC Accreditation.

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116

**Environmental Lab of Texas**

A Xenco Laboratories Company

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**12600 West I-20 East  
Odessa, Texas 79765  
Phone: 432-563-1800  
Fax: 432-563-1713

Project Manager: Robert Asher

Project Name: Melson ZS Federal #1

Company Name: Yates Petroleum Corporation

Project #: 30-015-25171

Company Address: 105 South 4th Street

Project Loc: Eddy County


City/State/Zip: Artesia, NM 88210

PO #: 105632

Telephone No: 505-748-4217

Fax No: 505-748-4662

Report Format:

☒ Standard ☐ TRRP ☐ NPDESSampler Signature: 

e-mail: boba@yatespetroleum.com

ORDER #:		302839/362840		FIELD CODE		Beginning Depth		Ending Depth		Date Sampled		Time Sampled		Field Filtered		Total # of Containers		Preservation & # of Containers		Matrix		Analyze For:		Laboratory Comments:			
LAB # (lab use only)																											
01		GS/Comp-001	24"	24"	2/18/2010	10:34 AM																					
02		GS/Comp-002	30"	30"	2/18/2010	10:47 AM																					
03		GS/Comp-003	6"	6"	2/18/2010	11:03 AM																					
PLEASE PUT CHLORIDES																											
ON SEPARATE REPORT																											
Special Instructions: TPH: 8015B; BTEX: 8021B & Chlorides. Please show BTEX results as mg/kg. Thank you.																											
Relinquished by:		Date		Time		Received by:		Date		Time		Date		Time		Date		Time		Date		Time		Date		Time	
Robert Asher		02/18/10		3:29 PM																							
Relinquished by:		Date		Time		Received by:		Date		Time		Date		Time		Date		Time		Date		Time		Date		Time	
Relinquished by:		Date		Time		Received by:		Date		Time		Date		Time		Date		Time		Date		Time		Date		Time	
Fedex						Received by ELOT:		2/19/10		9:35																	
Laboratory Comments: Sample Containers Intact? <input checked="" type="checkbox"/> VOCs Free of Headspace? <input checked="" type="checkbox"/> Labels on container(s) <input checked="" type="checkbox"/> Custody seals on container(s) <input checked="" type="checkbox"/> Cuelody seals on cooler(s) <input checked="" type="checkbox"/> Sample Hand Delivered <input checked="" type="checkbox"/> by Sampler/Client Rep? <input checked="" type="checkbox"/> by Courier? <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> DHL <input checked="" type="checkbox"/> FedEx <input checked="" type="checkbox"/> Temperature Upon Receipt: 46 °C																											

## Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: Vates Petroleum  
 Date/ Time: 2-19-10 9:35  
 Lab ID #: 362839 / 362840  
 Initials: AL

## Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	(Yes)	No	4.6 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont/ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

## Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax  
☐ Client understands and would like to proceed with analysis  
☐ Cooling process had begun shortly after sampling event



## Appendix D



## Environment Testing America

### ANALYTICAL REPORT

Eurofins Xenco, Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
Tel: (575)988-3199

Laboratory Job ID: 890-956-1

Laboratory Sample Delivery Group: Eddy County New Mexico  
Client Project/Site: Melson Federal #002

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
7/21/2021 10:38:13 PM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

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

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Laboratory Job ID: 890-956-1  
SDG: Eddy County New Mexico

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Job ID: 890-956-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative	Job Narrative 890-956-1
-----------	----------------------------

Receipt

The samples were received on 7/16/2021 1:01 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: H-2 (0-6) (890-956-2), H-4 (0-6) (890-956-4), H-5 (0-6) (890-956-5), H-6 (0-6) (890-956-6), AH-2 (1-1.5) (890-956-10) and (890-954-A-38-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

HPLC/IC

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

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## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: H-1 (0-6)

Lab Sample ID: 890-956-1

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/19/21 22:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/19/21 22:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/19/21 22:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/19/21 11:25	07/19/21 22:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/19/21 22:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/19/21 11:25	07/19/21 22:13	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		07/19/21 11:25	07/19/21 22:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	07/19/21 11:25	07/19/21 22:13	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/19/21 11:25	07/19/21 22:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 02:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 02:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 02:21	1
Total TPH	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 02:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	07/19/21 14:13	07/20/21 02:21	1
o-Terphenyl	108		70 - 130	07/19/21 14:13	07/20/21 02:21	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.5		5.00		mg/Kg			07/20/21 13:50	1

Client Sample ID: H-2 (0-6)

Lab Sample ID: 890-956-2

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 22:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 22:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 22:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/19/21 11:25	07/19/21 22:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 22:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/19/21 11:25	07/19/21 22:33	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		07/19/21 11:25	07/19/21 22:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	07/19/21 11:25	07/19/21 22:33	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/19/21 11:25	07/19/21 22:33	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Client Sample ID: H-2 (0-6)

## Lab Sample ID: 890-956-2

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 02:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 02:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 02:42	1
Total TPH	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 02:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	07/19/21 14:13	07/20/21 02:42	1
o-Terphenyl	108		70 - 130	07/19/21 14:13	07/20/21 02:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.03		5.03		mg/Kg			07/20/21 13:55	1

## Client Sample ID: H-3 (0-6)

## Lab Sample ID: 890-956-3

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 22:54	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 22:54	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 22:54	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/19/21 11:25	07/19/21 22:54	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 22:54	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/19/21 11:25	07/19/21 22:54	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		07/19/21 11:25	07/19/21 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	07/19/21 11:25	07/19/21 22:54	1
1,4-Difluorobenzene (Surr)	100		70 - 130	07/19/21 11:25	07/19/21 22:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:23	1
Total TPH	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	07/19/21 14:13	07/20/21 03:23	1
o-Terphenyl	119		70 - 130	07/19/21 14:13	07/20/21 03:23	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.00		4.98		mg/Kg			07/20/21 14:01	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: H-4 (0-6)

Lab Sample ID: 890-956-4

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 23:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 23:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 23:14	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/19/21 11:25	07/19/21 23:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 23:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/19/21 11:25	07/19/21 23:14	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/19/21 11:25	07/19/21 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	07/19/21 11:25	07/19/21 23:14	1
1,4-Difluorobenzene (Surr)	91		70 - 130	07/19/21 11:25	07/19/21 23:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:44	1
Total TPH	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 03:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	07/19/21 14:13	07/20/21 03:44	1
o-Terphenyl	99		70 - 130	07/19/21 14:13	07/20/21 03:44	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		5.05		mg/Kg			07/20/21 01:01	1

Client Sample ID: H-5 (0-6)

Lab Sample ID: 890-956-5

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 23:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 23:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 23:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/19/21 11:25	07/19/21 23:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/19/21 11:25	07/19/21 23:34	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/19/21 11:25	07/19/21 23:34	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		07/19/21 11:25	07/19/21 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	07/19/21 11:25	07/19/21 23:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130	07/19/21 11:25	07/19/21 23:34	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: H-5 (0-6)

Lab Sample ID: 890-956-5

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:05	1
Total TPH	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	07/19/21 14:13	07/20/21 04:05	1
o-Terphenyl	107		70 - 130	07/19/21 14:13	07/20/21 04:05	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	225		5.00		mg/Kg			07/20/21 01:07	1

Client Sample ID: H-6 (0-6)

Lab Sample ID: 890-956-6

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 23:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 23:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 23:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/19/21 11:25	07/19/21 23:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/19/21 11:25	07/19/21 23:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/19/21 11:25	07/19/21 23:55	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		07/19/21 11:25	07/19/21 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	07/19/21 11:25	07/19/21 23:55	1
1,4-Difluorobenzene (Surr)	90		70 - 130	07/19/21 11:25	07/19/21 23:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:26	1
Total TPH	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	07/19/21 14:13	07/20/21 04:26	1
o-Terphenyl	95		70 - 130	07/19/21 14:13	07/20/21 04:26	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	183		4.96		mg/Kg			07/20/21 01:12	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: AH-1 (0-1)

Lab Sample ID: 890-956-7

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 6

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:15	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:15	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/19/21 11:25	07/20/21 00:15	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:15	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/19/21 11:25	07/20/21 00:15	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		07/19/21 11:25	07/20/21 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	07/19/21 11:25	07/20/21 00:15	1
1,4-Difluorobenzene (Surr)	102		70 - 130	07/19/21 11:25	07/20/21 00:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:46	1
Diesel Range Organics (Over C10-C28)	66.2		49.9		mg/Kg		07/19/21 14:13	07/20/21 04:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/19/21 14:13	07/20/21 04:46	1
Total TPH	66.2		49.9		mg/Kg		07/19/21 14:13	07/20/21 04:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	07/19/21 14:13	07/20/21 04:46	1
o-Terphenyl	112		70 - 130	07/19/21 14:13	07/20/21 04:46	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20800		250		mg/Kg			07/20/21 01:18	50

Client Sample ID: AH-1 (1-1.5)

Lab Sample ID: 890-956-8

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 1 - 1.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/20/21 00:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/20/21 00:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/20/21 00:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/19/21 11:25	07/20/21 00:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/20/21 00:36	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/19/21 11:25	07/20/21 00:36	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/19/21 11:25	07/20/21 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	07/19/21 11:25	07/20/21 00:36	1
1,4-Difluorobenzene (Surr)	99		70 - 130	07/19/21 11:25	07/20/21 00:36	1

Eurofins Xenco, Carlsbad



## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Client Sample ID: AH-1 (1-1.5)

## Lab Sample ID: 890-956-8

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 1 - 1.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 05:07	1
Diesel Range Organics (Over C10-C28)	219		50.0		mg/Kg		07/19/21 14:13	07/20/21 05:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 05:07	1
Total TPH	219		50.0		mg/Kg		07/19/21 14:13	07/20/21 05:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	07/19/21 14:13	07/20/21 05:07	1
o-Terphenyl	113		70 - 130	07/19/21 14:13	07/20/21 05:07	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21700		101		mg/Kg			07/20/21 09:34	20

## Client Sample ID: AH-2 (0-1)

## Lab Sample ID: 890-956-9

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 0 - 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/19/21 11:25	07/20/21 00:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/19/21 11:25	07/20/21 00:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/19/21 11:25	07/20/21 00:56	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		07/19/21 11:25	07/20/21 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	07/19/21 11:25	07/20/21 00:56	1
1,4-Difluorobenzene (Surr)	100		70 - 130	07/19/21 11:25	07/20/21 00:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 05:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 05:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 05:28	1
Total TPH	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/20/21 05:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	07/19/21 14:13	07/20/21 05:28	1
o-Terphenyl	99		70 - 130	07/19/21 14:13	07/20/21 05:28	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	347		5.05		mg/Kg			07/20/21 01:28	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: AH-2 (1-1.5)

Lab Sample ID: 890-956-10

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Sample Depth: 1 - 1.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/20/21 01:16	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/20/21 01:16	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/20/21 01:16	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/19/21 11:25	07/20/21 01:16	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/19/21 11:25	07/20/21 01:16	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/19/21 11:25	07/20/21 01:16	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		07/19/21 11:25	07/20/21 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	07/19/21 11:25	07/20/21 01:16	1
1,4-Difluorobenzene (Surr)	93		70 - 130	07/19/21 11:25	07/20/21 01:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 20:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 20:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 20:45	1
Total TPH	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	07/21/21 14:31	07/21/21 20:45	1
o-Terphenyl	109		70 - 130	07/21/21 14:31	07/21/21 20:45	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	112		4.98		mg/Kg			07/20/21 01:34	1

Eurofins Xenco, Carlsbad

## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-956-1	H-1 (0-6)	114	95
890-956-2	H-2 (0-6)	120	95
890-956-3	H-3 (0-6)	112	100
890-956-4	H-4 (0-6)	122	91
890-956-5	H-5 (0-6)	124	91
890-956-6	H-6 (0-6)	128	90
890-956-7	AH-1 (0-1)	115	102
890-956-8	AH-1 (1-1.5)	115	99
890-956-9	AH-2 (0-1)	113	100
890-956-10	AH-2 (1-1.5)	122	93
LCS 880-5364/1-A	Lab Control Sample	98	98
LCSD 880-5364/2-A	Lab Control Sample Dup	100	96
MB 880-5364/5-A	Method Blank	109	93
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-956-1	H-1 (0-6)	96	108
890-956-2	H-2 (0-6)	99	108
890-956-3	H-3 (0-6)	101	119
890-956-4	H-4 (0-6)	90	99
890-956-5	H-5 (0-6)	92	107
890-956-6	H-6 (0-6)	87	95
890-956-7	AH-1 (0-1)	101	112
890-956-8	AH-1 (1-1.5)	99	113
890-956-9	AH-2 (0-1)	93	99
890-956-10	AH-2 (1-1.5)	108	109
LCS 880-5389/2-A	Lab Control Sample	112	115
LCS 880-5482/2-A	Lab Control Sample	106	100
LCSD 880-5389/3-A	Lab Control Sample Dup	116	114
LCSD 880-5482/3-A	Lab Control Sample Dup	95	91
MB 880-5389/1-A	Method Blank	98	105
MB 880-5482/1-A	Method Blank	110	118
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5364/5-A

Matrix: Solid

Analysis Batch: 5378

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5364

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 16:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 16:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 16:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/19/21 11:25	07/19/21 16:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/21 11:25	07/19/21 16:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/19/21 11:25	07/19/21 16:50	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		07/19/21 11:25	07/19/21 16:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	07/19/21 11:25	07/19/21 16:50	1
1,4-Difluorobenzene (Surr)	93		70 - 130	07/19/21 11:25	07/19/21 16:50	1

Lab Sample ID: LCS 880-5364/1-A

Matrix: Solid

Analysis Batch: 5378

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5364

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09891		mg/Kg		99	70 - 130
Toluene	0.100	0.09843		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1029		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2065		mg/Kg		103	70 - 130
o-Xylene	0.100	0.09717		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-5364/2-A

Matrix: Solid

Analysis Batch: 5378

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5364

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09438		mg/Kg		94	70 - 130	5	35
Toluene	0.100	0.09783		mg/Kg		98	70 - 130	1	35
Ethylbenzene	0.100	0.1038		mg/Kg		104	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2102		mg/Kg		105	70 - 130	2	35
o-Xylene	0.100	0.09923		mg/Kg		99	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

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

Lab Sample ID: MB 880-5389/1-A

Matrix: Solid

Analysis Batch: 5354

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/19/21 21:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/19/21 21:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/19/21 21:51	1
Total TPH	<50.0	U	50.0		mg/Kg		07/19/21 14:13	07/19/21 21:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	07/19/21 14:13	07/19/21 21:51	1
o-Terphenyl	105		70 - 130	07/19/21 14:13	07/19/21 21:51	1

Lab Sample ID: LCS 880-5389/2-A

Matrix: Solid

Analysis Batch: 5354

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	899.1		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1089		mg/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: LCSD 880-5389/3-A

Matrix: Solid

Analysis Batch: 5354

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	952.5		mg/Kg		95	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1123		mg/Kg		112	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: MB 880-5482/1-A

Matrix: Solid

Analysis Batch: 5450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5482

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 19:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 19:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 19:42	1
Total TPH	<50.0	U	50.0		mg/Kg		07/21/21 14:31	07/21/21 19:42	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	07/21/21 14:31	07/21/21 19:42	1
o-Terphenyl	118		70 - 130	07/21/21 14:31	07/21/21 19:42	1

Lab Sample ID: LCS 880-5482/2-A

Matrix: Solid

Analysis Batch: 5450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5482

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	860.7		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	999.1		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-5482/3-A

Matrix: Solid

Analysis Batch: 5450

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5482

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	776.6		mg/Kg		78	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	885.6		mg/Kg		89	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	91		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5374/1-A

Matrix: Solid

Analysis Batch: 5399

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/19/21 22:52	1

Lab Sample ID: LCS 880-5374/2-A

Matrix: Solid

Analysis Batch: 5399

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	243.4		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-5374/3-A

Matrix: Solid

Analysis Batch: 5399

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	243.7		mg/Kg		97	90 - 110	0	20

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5370/1-A

Matrix: Solid

Analysis Batch: 5418

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/20/21 11:16	1

Lab Sample ID: LCS 880-5370/2-A

Matrix: Solid

Analysis Batch: 5418

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	247.2		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-5370/3-A

Matrix: Solid

Analysis Batch: 5418

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	247.2		mg/Kg		99	90 - 110	0	20

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## GC VOA

## Prep Batch: 5364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-1	H-1 (0-6)	Total/NA	Solid	5035	
890-956-2	H-2 (0-6)	Total/NA	Solid	5035	
890-956-3	H-3 (0-6)	Total/NA	Solid	5035	
890-956-4	H-4 (0-6)	Total/NA	Solid	5035	
890-956-5	H-5 (0-6)	Total/NA	Solid	5035	
890-956-6	H-6 (0-6)	Total/NA	Solid	5035	
890-956-7	AH-1 (0-1)	Total/NA	Solid	5035	
890-956-8	AH-1 (1-1.5)	Total/NA	Solid	5035	
890-956-9	AH-2 (0-1)	Total/NA	Solid	5035	
890-956-10	AH-2 (1-1.5)	Total/NA	Solid	5035	
MB 880-5364/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5364/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5364/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 5378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-1	H-1 (0-6)	Total/NA	Solid	8021B	5364
890-956-2	H-2 (0-6)	Total/NA	Solid	8021B	5364
890-956-3	H-3 (0-6)	Total/NA	Solid	8021B	5364
890-956-4	H-4 (0-6)	Total/NA	Solid	8021B	5364
890-956-5	H-5 (0-6)	Total/NA	Solid	8021B	5364
890-956-6	H-6 (0-6)	Total/NA	Solid	8021B	5364
890-956-7	AH-1 (0-1)	Total/NA	Solid	8021B	5364
890-956-8	AH-1 (1-1.5)	Total/NA	Solid	8021B	5364
890-956-9	AH-2 (0-1)	Total/NA	Solid	8021B	5364
890-956-10	AH-2 (1-1.5)	Total/NA	Solid	8021B	5364
MB 880-5364/5-A	Method Blank	Total/NA	Solid	8021B	5364
LCS 880-5364/1-A	Lab Control Sample	Total/NA	Solid	8021B	5364
LCSD 880-5364/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5364

## GC Semi VOA

## Analysis Batch: 5354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-1	H-1 (0-6)	Total/NA	Solid	8015B NM	5389
890-956-2	H-2 (0-6)	Total/NA	Solid	8015B NM	5389
890-956-3	H-3 (0-6)	Total/NA	Solid	8015B NM	5389
890-956-4	H-4 (0-6)	Total/NA	Solid	8015B NM	5389
890-956-5	H-5 (0-6)	Total/NA	Solid	8015B NM	5389
890-956-6	H-6 (0-6)	Total/NA	Solid	8015B NM	5389
890-956-7	AH-1 (0-1)	Total/NA	Solid	8015B NM	5389
890-956-8	AH-1 (1-1.5)	Total/NA	Solid	8015B NM	5389
890-956-9	AH-2 (0-1)	Total/NA	Solid	8015B NM	5389
MB 880-5389/1-A	Method Blank	Total/NA	Solid	8015B NM	5389
LCS 880-5389/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5389
LCSD 880-5389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5389

## Prep Batch: 5389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-1	H-1 (0-6)	Total/NA	Solid	8015NM Prep	
890-956-2	H-2 (0-6)	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## GC Semi VOA (Continued)

## Prep Batch: 5389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-3	H-3 (0-6)	Total/NA	Solid	8015NM Prep	
890-956-4	H-4 (0-6)	Total/NA	Solid	8015NM Prep	
890-956-5	H-5 (0-6)	Total/NA	Solid	8015NM Prep	
890-956-6	H-6 (0-6)	Total/NA	Solid	8015NM Prep	
890-956-7	AH-1 (0-1)	Total/NA	Solid	8015NM Prep	
890-956-8	AH-1 (1-1.5)	Total/NA	Solid	8015NM Prep	
890-956-9	AH-2 (0-1)	Total/NA	Solid	8015NM Prep	
MB 880-5389/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5389/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 5450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-10	AH-2 (1-1.5)	Total/NA	Solid	8015B NM	5482
MB 880-5482/1-A	Method Blank	Total/NA	Solid	8015B NM	5482
LCS 880-5482/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5482
LCSD 880-5482/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5482

## Prep Batch: 5482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-10	AH-2 (1-1.5)	Total/NA	Solid	8015NM Prep	
MB 880-5482/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5482/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5482/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## HPLC/IC

## Leach Batch: 5370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-1	H-1 (0-6)	Soluble	Solid	DI Leach	
890-956-2	H-2 (0-6)	Soluble	Solid	DI Leach	
890-956-3	H-3 (0-6)	Soluble	Solid	DI Leach	
MB 880-5370/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5370/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5370/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Leach Batch: 5374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-4	H-4 (0-6)	Soluble	Solid	DI Leach	
890-956-5	H-5 (0-6)	Soluble	Solid	DI Leach	
890-956-6	H-6 (0-6)	Soluble	Solid	DI Leach	
890-956-7	AH-1 (0-1)	Soluble	Solid	DI Leach	
890-956-8	AH-1 (1-1.5)	Soluble	Solid	DI Leach	
890-956-9	AH-2 (0-1)	Soluble	Solid	DI Leach	
890-956-10	AH-2 (1-1.5)	Soluble	Solid	DI Leach	
MB 880-5374/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5374/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5374/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## HPLC/IC

## Analysis Batch: 5399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-4	H-4 (0-6)	Soluble	Solid	300.0	5374
890-956-5	H-5 (0-6)	Soluble	Solid	300.0	5374
890-956-6	H-6 (0-6)	Soluble	Solid	300.0	5374
890-956-7	AH-1 (0-1)	Soluble	Solid	300.0	5374
890-956-8	AH-1 (1-1.5)	Soluble	Solid	300.0	5374
890-956-9	AH-2 (0-1)	Soluble	Solid	300.0	5374
890-956-10	AH-2 (1-1.5)	Soluble	Solid	300.0	5374
MB 880-5374/1-A	Method Blank	Soluble	Solid	300.0	5374
LCS 880-5374/2-A	Lab Control Sample	Soluble	Solid	300.0	5374
LCSD 880-5374/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5374

## Analysis Batch: 5418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-956-1	H-1 (0-6)	Soluble	Solid	300.0	5370
890-956-2	H-2 (0-6)	Soluble	Solid	300.0	5370
890-956-3	H-3 (0-6)	Soluble	Solid	300.0	5370
MB 880-5370/1-A	Method Blank	Soluble	Solid	300.0	5370
LCS 880-5370/2-A	Lab Control Sample	Soluble	Solid	300.0	5370
LCSD 880-5370/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5370

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

## Client Sample ID: H-1 (0-6)

## Lab Sample ID: 890-956-1

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/19/21 22:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 02:21	AJ	XEN MID
Soluble	Leach	DI Leach			5370	07/19/21 11:49	SC	XEN MID
Soluble	Analysis	300.0		1	5418	07/20/21 13:50	CH	XEN MID

## Client Sample ID: H-2 (0-6)

## Lab Sample ID: 890-956-2

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/19/21 22:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 02:42	AJ	XEN MID
Soluble	Leach	DI Leach			5370	07/19/21 11:49	SC	XEN MID
Soluble	Analysis	300.0		1	5418	07/20/21 13:55	CH	XEN MID

## Client Sample ID: H-3 (0-6)

## Lab Sample ID: 890-956-3

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/19/21 22:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 03:23	AJ	XEN MID
Soluble	Leach	DI Leach			5370	07/19/21 11:49	SC	XEN MID
Soluble	Analysis	300.0		1	5418	07/20/21 14:01	CH	XEN MID

## Client Sample ID: H-4 (0-6)

## Lab Sample ID: 890-956-4

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/19/21 23:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 03:44	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1	5399	07/20/21 01:01	CH	XEN MID

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## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: H-5 (0-6)

Lab Sample ID: 890-956-5

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/19/21 23:34	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 04:05	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1	5399	07/20/21 01:07	CH	XEN MID

Client Sample ID: H-6 (0-6)

Lab Sample ID: 890-956-6

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/19/21 23:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 04:26	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1	5399	07/20/21 01:12	CH	XEN MID

Client Sample ID: AH-1 (0-1)

Lab Sample ID: 890-956-7

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/20/21 00:15	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 04:46	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		50	5399	07/20/21 01:18	CH	XEN MID

Client Sample ID: AH-1 (1-1.5)

Lab Sample ID: 890-956-8

Date Collected: 07/16/21 00:00

Matrix: Solid

Date Received: 07/16/21 13:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/20/21 00:36	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 05:07	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		20	5399	07/20/21 09:34	CH	XEN MID

Eurofins Xenco, Carlsbad



Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Client Sample ID: AH-2 (0-1)  
Date Collected: 07/16/21 00:00  
Date Received: 07/16/21 13:01

Lab Sample ID: 890-956-9  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/20/21 00:56	KL	XEN MID
Total/NA	Prep	8015NM Prep			5389	07/19/21 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5354	07/20/21 05:28	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1	5399	07/20/21 01:28	CH	XEN MID

Client Sample ID: AH-2 (1-1.5)  
Date Collected: 07/16/21 00:00  
Date Received: 07/16/21 13:01

Lab Sample ID: 890-956-10  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5364	07/19/21 11:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5378	07/20/21 01:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			5482	07/21/21 14:31	AJ	XEN MID
Total/NA	Analysis	8015B NM		1	5450	07/21/21 20:45	AJ	XEN MID
Soluble	Leach	DI Leach			5374	07/19/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1	5399	07/20/21 01:34	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

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

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

## Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002

Job ID: 890-956-1  
SDG: Eddy County New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-956-1	H-1 (0-6)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-2	H-2 (0-6)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-3	H-3 (0-6)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-4	H-4 (0-6)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-5	H-5 (0-6)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-6	H-6 (0-6)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-7	AH-1 (0-1)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 6
890-956-8	AH-1 (1-1.5)	Solid	07/16/21 00:00	07/16/21 13:01	1 - 1.5
890-956-9	AH-2 (0-1)	Solid	07/16/21 00:00	07/16/21 13:01	0 - 1
890-956-10	AH-2 (1-1.5)	Solid	07/16/21 00:00	07/16/21 13:01	1 - 1.5

## Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

890-956 Chain of Custody



Page 1 of 1

7/21/2021

Client Name: <b>EOG - Resources</b>		Site Manager: <b>Paula Tabora Alonso</b>	
Project Name: <b>Nelson Federal #002</b>		Project #: <b>212C-MD-02547</b>	
Project Location: <b>Eddy County, New Mexico</b> (county, state)		Invoice to: <b>James Kennedy - EOG</b>	
Receiving Laboratory: <b>Xenco Eurofins</b>		Sampler Signature: <i>Eddy Nelson</i>	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>		
	H-1 (0-6")	7/16/21			X			X	
	H-2 (0-6")								
	H-3 (0-6")								
	H-4 (0-6")								
	H-5 (0-6")								
	H-6 (0-6")								
	AH-1 (0-1')								
	AH-1 (1-1.5')								
	AH-2 (0-1')								
	AH-2 (1-1.5')								

Received by: <i>Eddy Nelson</i>	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____
Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____

LAB USE ONLY	REMARKS:
Sample Temperature	<input checked="" type="checkbox"/> Rush - Same Day 24hr 48hr 72hr
5.2	<input type="checkbox"/> Rush Charges Authorized
5.0	<input type="checkbox"/> Special Report Limits or TRRP Report

ANALYSIS REQUEST  
(Circle or Specify Method No.)
 BTEX 8021B BTEX 8260B  
 TPH TX1005 (Ext to C35)  
 TPH 8015M (GRO - DRO - ORO)  
 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  
 Asbestos

Hold

ORIGINAL COPY

## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-956-1

SDG Number: Eddy County New Mexico

Login Number: 956

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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



## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-956-1

SDG Number: Eddy County New Mexico

Login Number: 956

List Number: 2

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

List Creation: 07/19/21 10:20 AM

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-5851-1

Laboratory Sample Delivery Group: Eddy Count NM  
Client Project/Site: Melson Federal #002H

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
9/13/2021 9:09:08 AM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

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results through

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

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-5851-1  
SDG: Eddy Count NM

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

**Job ID: 880-5851-1****Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative  
880-5851-1****Receipt**

The samples were received on 9/8/2021 10:33 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7645 and analytical batch 880-7670 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for Benzene were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: Borehole-1 (24-25) (880-5851-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7729 and analytical batch 880-7728 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**GC Semi VOA**

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7639 and analytical batch 880-7682 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Client Sample ID: Borehole-1 (0-1)

Lab Sample ID: 880-5851-1

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/09/21 11:58	09/10/21 04:35	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/09/21 11:58	09/10/21 04:35	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/09/21 11:58	09/10/21 04:35	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/09/21 11:58	09/10/21 04:35	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/09/21 11:58	09/10/21 04:35	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/09/21 11:58	09/10/21 04:35	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		09/09/21 11:58	09/10/21 04:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	09/09/21 11:58	09/10/21 04:35	1
1,4-Difluorobenzene (Surr)	98		70 - 130	09/09/21 11:58	09/10/21 04:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/08/21 11:00	09/08/21 18:47	1
Diesel Range Organics (Over C10-C28)	100		49.9		mg/Kg		09/08/21 11:00	09/08/21 18:47	1
Oil Range Organics (Over C28-C36)	53.4		49.9		mg/Kg		09/08/21 11:00	09/08/21 18:47	1
Total TPH	153		49.9		mg/Kg		09/08/21 11:00	09/08/21 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	09/08/21 11:00	09/08/21 18:47	1
o-Terphenyl	104		70 - 130	09/08/21 11:00	09/08/21 18:47	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9070	F1	101		mg/Kg			09/09/21 18:04	20

Client Sample ID: Borehole-1 (2-3)

Lab Sample ID: 880-5851-2

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/09/21 11:58	09/10/21 04:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/09/21 11:58	09/10/21 04:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/09/21 11:58	09/10/21 04:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/09/21 11:58	09/10/21 04:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/09/21 11:58	09/10/21 04:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/09/21 11:58	09/10/21 04:56	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		09/09/21 11:58	09/10/21 04:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	09/09/21 11:58	09/10/21 04:56	1
1,4-Difluorobenzene (Surr)	101		70 - 130	09/09/21 11:58	09/10/21 04:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/08/21 11:00	09/08/21 19:09	1

Eurofins Xenco, Midland



## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Client Sample ID: Borehole-1 (2-3)

## Lab Sample ID: 880-5851-2

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	69.5		49.9		mg/Kg		09/08/21 11:00	09/08/21 19:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/21 11:00	09/08/21 19:09	1
Total TPH	69.5		49.9		mg/Kg		09/08/21 11:00	09/08/21 19:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				09/08/21 11:00	09/08/21 19:09	1
o-Terphenyl	102		70 - 130				09/08/21 11:00	09/08/21 19:09	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4160		99.8		mg/Kg			09/09/21 18:21	20

## Client Sample ID: Borehole-1 (4-5)

## Lab Sample ID: 880-5851-3

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
Toluene	<0.199	U	0.199		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
Ethylbenzene	0.529		0.199		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
m-Xylene & p-Xylene	1.46		0.398		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
o-Xylene	0.350		0.199		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
Xylenes, Total	1.81		0.398		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
Total BTEX	2.34		0.398		mg/Kg		09/10/21 09:09	09/10/21 23:30	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130				09/10/21 09:09	09/10/21 23:30	100
1,4-Difluorobenzene (Surr)	96		70 - 130				09/10/21 09:09	09/10/21 23:30	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	227		49.8		mg/Kg		09/08/21 11:00	09/08/21 17:02	1
Diesel Range Organics (Over C10-C28)	11400		249		mg/Kg		09/08/21 11:00	09/09/21 08:43	5
Oil Range Organics (Over C28-C36)	2370		49.8		mg/Kg		09/08/21 11:00	09/08/21 17:02	1
Total TPH	13300		49.8		mg/Kg		09/08/21 11:00	09/08/21 17:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				09/08/21 11:00	09/08/21 17:02	1
1-Chlorooctane	117		70 - 130				09/08/21 11:00	09/09/21 08:43	5
o-Terphenyl	125		70 - 130				09/08/21 11:00	09/08/21 17:02	1
o-Terphenyl	122		70 - 130				09/08/21 11:00	09/09/21 08:43	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3700		49.5		mg/Kg			09/09/21 18:26	10

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Client Sample ID: Borehole-1 (6-7)

Lab Sample ID: 880-5851-4

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/10/21 23:50	100
Toluene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/10/21 23:50	100
Ethylbenzene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/10/21 23:50	100
m-Xylene & p-Xylene	<0.402	U	0.402		mg/Kg		09/10/21 09:09	09/10/21 23:50	100
o-Xylene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/10/21 23:50	100
Xylenes, Total	<0.402	U	0.402		mg/Kg		09/10/21 09:09	09/10/21 23:50	100
Total BTEX	<0.402	U	0.402		mg/Kg		09/10/21 09:09	09/10/21 23:50	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	09/10/21 09:09	09/10/21 23:50	100
1,4-Difluorobenzene (Surr)	104		70 - 130	09/10/21 09:09	09/10/21 23:50	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	101		49.9		mg/Kg		09/08/21 11:00	09/08/21 17:23	1
Diesel Range Organics (Over C10-C28)	4250		49.9		mg/Kg		09/08/21 11:00	09/08/21 17:23	1
Oil Range Organics (Over C28-C36)	868		49.9		mg/Kg		09/08/21 11:00	09/08/21 17:23	1
Total TPH	5220		49.9		mg/Kg		09/08/21 11:00	09/08/21 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	09/08/21 11:00	09/08/21 17:23	1
o-Terphenyl	99		70 - 130	09/08/21 11:00	09/08/21 17:23	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4770		50.3		mg/Kg			09/09/21 18:32	10

Client Sample ID: Borehole-1 (9-10)

Lab Sample ID: 880-5851-5

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/11/21 00:11	100
Toluene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/11/21 00:11	100
Ethylbenzene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/11/21 00:11	100
m-Xylene & p-Xylene	<0.402	U	0.402		mg/Kg		09/10/21 09:09	09/11/21 00:11	100
o-Xylene	<0.201	U	0.201		mg/Kg		09/10/21 09:09	09/11/21 00:11	100
Xylenes, Total	<0.402	U	0.402		mg/Kg		09/10/21 09:09	09/11/21 00:11	100
Total BTEX	<0.402	U	0.402		mg/Kg		09/10/21 09:09	09/11/21 00:11	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	09/10/21 09:09	09/11/21 00:11	100
1,4-Difluorobenzene (Surr)	99		70 - 130	09/10/21 09:09	09/11/21 00:11	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	55.0		50.0		mg/Kg		09/08/21 11:00	09/08/21 17:44	1

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## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Client Sample ID: Borehole-1 (9-10)

Lab Sample ID: 880-5851-5

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	1390		50.0		mg/Kg		09/08/21 11:00	09/08/21 17:44	1
Oil Range Organics (Over C28-C36)	267		50.0		mg/Kg		09/08/21 11:00	09/08/21 17:44	1
Total TPH	1710		50.0		mg/Kg		09/08/21 11:00	09/08/21 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	09/08/21 11:00	09/08/21 17:44	1
o-Terphenyl	110		70 - 130	09/08/21 11:00	09/08/21 17:44	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8130		50.4		mg/Kg			09/09/21 18:37	10

## Client Sample ID: Borehole-1 (14-15)

Lab Sample ID: 880-5851-6

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0994	U	0.0994		mg/Kg		09/10/21 09:09	09/11/21 00:31	50
Toluene	<0.0994	U	0.0994		mg/Kg		09/10/21 09:09	09/11/21 00:31	50
Ethylbenzene	<0.0994	U	0.0994		mg/Kg		09/10/21 09:09	09/11/21 00:31	50
m-Xylene & p-Xylene	<0.199	U	0.199		mg/Kg		09/10/21 09:09	09/11/21 00:31	50
o-Xylene	<0.0994	U	0.0994		mg/Kg		09/10/21 09:09	09/11/21 00:31	50
Xylenes, Total	<0.199	U	0.199		mg/Kg		09/10/21 09:09	09/11/21 00:31	50
Total BTEX	<0.199	U	0.199		mg/Kg		09/10/21 09:09	09/11/21 00:31	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	09/10/21 09:09	09/11/21 00:31	50
1,4-Difluorobenzene (Surr)	103		70 - 130	09/10/21 09:09	09/11/21 00:31	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/08/21 11:00	09/08/21 18:05	1
Diesel Range Organics (Over C10-C28)	211		49.8		mg/Kg		09/08/21 11:00	09/08/21 18:05	1
Oil Range Organics (Over C28-C36)	80.1		49.8		mg/Kg		09/08/21 11:00	09/08/21 18:05	1
Total TPH	291		49.8		mg/Kg		09/08/21 11:00	09/08/21 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	09/08/21 11:00	09/08/21 18:05	1
o-Terphenyl	120		70 - 130	09/08/21 11:00	09/08/21 18:05	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11000		50.5		mg/Kg			09/09/21 18:54	10

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## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Client Sample ID: Borehole-1 (19-20)

Lab Sample ID: 880-5851-7

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 10:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 10:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 10:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/08/21 13:51	09/09/21 10:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 10:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/08/21 13:51	09/09/21 10:45	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		09/08/21 13:51	09/09/21 10:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	09/08/21 13:51	09/09/21 10:45	1
1,4-Difluorobenzene (Surr)	90		70 - 130	09/08/21 13:51	09/09/21 10:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/08/21 11:00	09/08/21 18:26	1
Diesel Range Organics (Over C10-C28)	518		50.0		mg/Kg		09/08/21 11:00	09/08/21 18:26	1
Oil Range Organics (Over C28-C36)	95.9		50.0		mg/Kg		09/08/21 11:00	09/08/21 18:26	1
Total TPH	614		50.0		mg/Kg		09/08/21 11:00	09/08/21 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	09/08/21 11:00	09/08/21 18:26	1
o-Terphenyl	110		70 - 130	09/08/21 11:00	09/08/21 18:26	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6550		50.1		mg/Kg			09/09/21 19:00	10

Client Sample ID: Borehole-1 (24-25)

Lab Sample ID: 880-5851-8

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 11:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 11:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 11:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/08/21 13:51	09/09/21 11:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/08/21 13:51	09/09/21 11:05	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/08/21 13:51	09/09/21 11:05	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		09/08/21 13:51	09/09/21 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130	09/08/21 13:51	09/09/21 11:05	1
1,4-Difluorobenzene (Surr)	83		70 - 130	09/08/21 13:51	09/09/21 11:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/08/21 11:00	09/08/21 19:30	1

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## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Client Sample ID: Borehole-1 (24-25)

Lab Sample ID: 880-5851-8

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/21 11:00	09/08/21 19:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/21 11:00	09/08/21 19:30	1
Total TPH	<50.0	U	50.0		mg/Kg		09/08/21 11:00	09/08/21 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				09/08/21 11:00	09/08/21 19:30	1
o-Terphenyl	105		70 - 130				09/08/21 11:00	09/08/21 19:30	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4470		25.1		mg/Kg			09/09/21 19:05	5

## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
880-5804-A-1-G MS	Matrix Spike	111	98				
880-5804-A-1-H MSD	Matrix Spike Duplicate	93	74				
880-5851-1	Borehole-1 (0-1)	126	98				
880-5851-2	Borehole-1 (2-3)	131 S1+	101				
880-5851-3	Borehole-1 (4-5)	121	96				
880-5851-4	Borehole-1 (6-7)	106	104				
880-5851-5	Borehole-1 (9-10)	120	99				
880-5851-6	Borehole-1 (14-15)	126	103				
880-5851-7	Borehole-1 (19-20)	133 S1+	90				
880-5851-8	Borehole-1 (24-25)	143 S1+	83				
880-5902-A-21-B MS	Matrix Spike	138 S1+	84				
880-5902-A-21-C MSD	Matrix Spike Duplicate	129	88				
890-1230-A-2-C MS	Matrix Spike	126	93				
890-1230-A-2-D MSD	Matrix Spike Duplicate	116	108				
LCS 880-7645/1-A	Lab Control Sample	143 S1+	87				
LCS 880-7698/1-A	Lab Control Sample	114	104				
LCS 880-7729/1-A	Lab Control Sample	116	99				
LCSD 880-7645/2-A	Lab Control Sample Dup	103	90				
LCSD 880-7698/2-A	Lab Control Sample Dup	111	102				
MB 880-7644/5-A	Method Blank	120	110				
MB 880-7645/5-A	Method Blank	133 S1+	104				
MB 880-7677/5-A	Method Blank	109	99				
MB 880-7698/5-A	Method Blank	111	95				
MB 880-7729/5-A	Method Blank	104	98				
<b>Surrogate Legend</b>							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1	DFBZ1						
		(70-130)	(70-130)	(70-130)	(70-130)	(70-130)	(70-130)	(70-130)	(70-130)
LCSD 880-7729/2-A	Lab Control Sample Dup								
<b>Surrogate Legend</b>									
BFB = 4-Bromofluorobenzene (Surr)									
DFBZ = 1,4-Difluorobenzene (Surr)									

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
880-5804-A-1-E MS	Matrix Spike	100	93				
880-5804-A-1-F MSD	Matrix Spike Duplicate	91	84				
880-5851-1	Borehole-1 (0-1)	103	104				
880-5851-2	Borehole-1 (2-3)	98	102				

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## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-5851-3	Borehole-1 (4-5)	109	125
880-5851-3	Borehole-1 (4-5)	117	122
880-5851-4	Borehole-1 (6-7)	109	99
880-5851-5	Borehole-1 (9-10)	113	110
880-5851-6	Borehole-1 (14-15)	123	120
880-5851-7	Borehole-1 (19-20)	111	110
880-5851-8	Borehole-1 (24-25)	107	105
LCS 880-7622/2-A	Lab Control Sample	109	105
LCSD 880-7622/3-A	Lab Control Sample Dup	124	117
MB 880-7622/1-A	Method Blank	102	112
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7644/5-A

Matrix: Solid

Analysis Batch: 7670

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7644

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:47	09/08/21 19:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:47	09/08/21 19:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:47	09/08/21 19:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/08/21 11:47	09/08/21 19:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:47	09/08/21 19:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/08/21 11:47	09/08/21 19:59	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/08/21 11:47	09/08/21 19:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	09/08/21 11:47	09/08/21 19:59	1
1,4-Difluorobenzene (Surr)	110		70 - 130	09/08/21 11:47	09/08/21 19:59	1

Lab Sample ID: MB 880-7645/5-A

Matrix: Solid

Analysis Batch: 7670

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7645

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:57	09/09/21 07:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:57	09/09/21 07:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:57	09/09/21 07:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/08/21 11:57	09/09/21 07:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/08/21 11:57	09/09/21 07:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/08/21 11:57	09/09/21 07:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/08/21 11:57	09/09/21 07:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	09/08/21 11:57	09/09/21 07:33	1
1,4-Difluorobenzene (Surr)	104		70 - 130	09/08/21 11:57	09/09/21 07:33	1

Lab Sample ID: LCS 880-7645/1-A

Matrix: Solid

Analysis Batch: 7670

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09255		mg/Kg		93	70 - 130
Toluene	0.100	0.09254		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.1995		mg/Kg		100	70 - 130
o-Xylene	0.100	0.1079		mg/Kg		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-7645/2-A

Matrix: Solid

Analysis Batch: 7670

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7645

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08256		mg/Kg		83	70 - 130	11	35
Toluene	0.100	0.09815		mg/Kg		98	70 - 130	6	35
Ethylbenzene	0.100	0.1055		mg/Kg		106	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1970		mg/Kg		99	70 - 130	1	35
o-Xylene	0.100	0.09939		mg/Kg		99	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-5804-A-1-G MS

Matrix: Solid

Analysis Batch: 7670

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7645

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0218	F1 F2	0.0998	0.06053	F1	mg/Kg		39	70 - 130
Toluene	0.0468	F1 F2	0.0998	0.05219	F1	mg/Kg		5	70 - 130
Ethylbenzene	0.103	F1	0.0998	0.06099	F1	mg/Kg		-42	70 - 130
m-Xylene & p-Xylene	0.280	F1 F2	0.200	0.1151	F1	mg/Kg		-83	70 - 130
o-Xylene	0.0523	F1 F2	0.0998	0.07526	F1	mg/Kg		23	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-5804-A-1-H MSD

Matrix: Solid

Analysis Batch: 7670

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7645

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.0218	F1 F2	0.101	0.03166	F1 F2	mg/Kg		10	70 - 130	63	35
Toluene	0.0468	F1 F2	0.101	0.02481	F1 F2	mg/Kg		-22	70 - 130	71	35
Ethylbenzene	0.103	F1	0.101	0.05157	F1	mg/Kg		-51	70 - 130	17	35
m-Xylene & p-Xylene	0.280	F1 F2	0.202	0.03935	F1 F2	mg/Kg		-120	70 - 130	98	35
o-Xylene	0.0523	F1 F2	0.101	0.03104	F1 F2	mg/Kg		-21	70 - 130	83	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	74		70 - 130

Lab Sample ID: MB 880-7677/5-A

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/09/21 08:23	09/09/21 12:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/09/21 08:23	09/09/21 12:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/09/21 08:23	09/09/21 12:36	1

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-7677/5-A

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/09/21 08:23	09/09/21 12:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/09/21 08:23	09/09/21 12:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/09/21 08:23	09/09/21 12:36	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/09/21 08:23	09/09/21 12:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	09/09/21 08:23	09/09/21 12:36	1
1,4-Difluorobenzene (Surr)	99		70 - 130	09/09/21 08:23	09/09/21 12:36	1

Lab Sample ID: MB 880-7698/5-A

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/09/21 11:58	09/09/21 23:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/09/21 11:58	09/09/21 23:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/09/21 11:58	09/09/21 23:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/09/21 11:58	09/09/21 23:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/09/21 11:58	09/09/21 23:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/09/21 11:58	09/09/21 23:48	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/09/21 11:58	09/09/21 23:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	09/09/21 11:58	09/09/21 23:48	1
1,4-Difluorobenzene (Surr)	95		70 - 130	09/09/21 11:58	09/09/21 23:48	1

Lab Sample ID: LCS 880-7698/1-A

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7698

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08971		mg/Kg		90	70 - 130
Toluene	0.100	0.08453		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.08606		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1811		mg/Kg		91	70 - 130
o-Xylene	0.100	0.09017		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-7698/2-A

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7698

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08407		mg/Kg		84	70 - 130	6	35
Toluene	0.100	0.07976		mg/Kg		80	70 - 130	6	35

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-7698/2-A

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7698

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	0.100	0.07964		mg/Kg		80	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1663		mg/Kg		83	70 - 130	9	35
o-Xylene	0.100	0.08340		mg/Kg		83	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-5902-A-21-B MS

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7698

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1	0.0998	0.02869	F1	mg/Kg		29	70 - 130
Toluene	<0.00199	U F1	0.0998	0.03475	F1	mg/Kg		35	70 - 130
Ethylbenzene	<0.00199	U F1	0.0998	0.03551	F1	mg/Kg		36	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.07596	F1	mg/Kg		38	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.04000	F1	mg/Kg		40	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: 880-5902-A-21-C MSD

Matrix: Solid

Analysis Batch: 7678

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7698

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.101	0.02284	F1	mg/Kg		23	70 - 130	23	35
Toluene	<0.00199	U F1	0.101	0.03327	F1	mg/Kg		33	70 - 130	4	35
Ethylbenzene	<0.00199	U F1	0.101	0.03229	F1	mg/Kg		32	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.06718	F1	mg/Kg		33	70 - 130	12	35
o-Xylene	<0.00199	U F1	0.101	0.03739	F1	mg/Kg		37	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: MB 880-7729/5-A

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7729

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/10/21 09:09	09/10/21 17:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/10/21 09:09	09/10/21 17:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/10/21 09:09	09/10/21 17:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/10/21 09:09	09/10/21 17:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/10/21 09:09	09/10/21 17:21	1

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-7729/5-A

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7729

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/10/21 09:09	09/10/21 17:21	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/10/21 09:09	09/10/21 17:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	09/10/21 09:09	09/10/21 17:21	1
1,4-Difluorobenzene (Surr)	98		70 - 130	09/10/21 09:09	09/10/21 17:21	1

Lab Sample ID: LCS 880-7729/1-A

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08645		mg/Kg		86	70 - 130
Toluene	0.100	0.08777		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.08937		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1902		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09347		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-7729/2-A

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7729

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08285		mg/Kg					
Toluene	0.100	0.08121		mg/Kg					
Ethylbenzene	0.100	0.08236		mg/Kg					
m-Xylene & p-Xylene	0.200	0.1748		mg/Kg					
o-Xylene	0.100	0.08603		mg/Kg					

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

Lab Sample ID: 890-1230-A-2-C MS

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7729

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.101	0.08146		mg/Kg		81	70 - 130
Toluene	<0.00200	U	0.101	0.08340		mg/Kg		83	70 - 130
Ethylbenzene	<0.00200	U	0.101	0.08460		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.201	0.1801		mg/Kg		90	70 - 130
o-Xylene	<0.00200	U	0.101	0.08900		mg/Kg		88	70 - 130

Eurofins Xenco, Midland



## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1230-A-2-C MS

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7729

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	126		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-1230-A-2-D MSD

Matrix: Solid

Analysis Batch: 7728

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7729

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.07990		mg/Kg		80	70 - 130	2	35
Toluene	<0.00200	U	0.0994	0.07221		mg/Kg		73	70 - 130	14	35
Ethylbenzene	<0.00200	U	0.0994	0.07000		mg/Kg		70	70 - 130	19	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1465		mg/Kg		74	70 - 130	21	35
o-Xylene	<0.00200	U	0.0994	0.07317		mg/Kg		74	70 - 130	20	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-7622/1-A

Matrix: Solid

Analysis Batch: 7630

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/07/21 16:33	09/08/21 10:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/07/21 16:33	09/08/21 10:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/07/21 16:33	09/08/21 10:39	1
Total TPH	<50.0	U	50.0		mg/Kg		09/07/21 16:33	09/08/21 10:39	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	102		70 - 130	09/07/21 16:33	09/08/21 10:39	1			
o-Terphenyl	112		70 - 130	09/07/21 16:33	09/08/21 10:39	1			

Lab Sample ID: LCS 880-7622/2-A

Matrix: Solid

Analysis Batch: 7630

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	868.7		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	985.0		mg/Kg		99	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	105		70 - 130

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

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

Lab Sample ID: LCSD 880-7622/3-A

Matrix: Solid

Analysis Batch: 7630

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7622

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	974.9		mg/Kg		97	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	1000	1119		mg/Kg		112	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	124		70 - 130						
o-Terphenyl	117		70 - 130						

Lab Sample ID: 880-5804-A-1-E MS

Matrix: Solid

Analysis Batch: 7630

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	841.1		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	995	1007		mg/Kg		99	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	93		70 - 130								

Lab Sample ID: 880-5804-A-1-F MSD

Matrix: Solid

Analysis Batch: 7630

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	791.2		mg/Kg		79	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	913.1		mg/Kg		89	70 - 130	10	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	91		70 - 130								
o-Terphenyl	84		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7639/1-A

Matrix: Solid

Analysis Batch: 7682

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/09/21 17:47	1

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-7639/2-A

Matrix: Solid

Analysis Batch: 7682

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	253.0		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-7639/3-A

Matrix: Solid

Analysis Batch: 7682

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	253.9		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-5851-1 MS

Matrix: Solid

Analysis Batch: 7682

Client Sample ID: Borehole-1 (0-1)

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9070	F1	5050	14680	F1	mg/Kg		111	90 - 110

Lab Sample ID: 880-5851-1 MSD

Matrix: Solid

Analysis Batch: 7682

Client Sample ID: Borehole-1 (0-1)

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9070	F1	5050	14680	F1	mg/Kg		111	90 - 110	0	20

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## GC VOA

## Prep Batch: 7644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7644/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 7645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7645/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7645/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7645/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5804-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-5804-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Prep Batch: 7654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-7	Borehole-1 (19-20)	Total/NA	Solid	5035	
880-5851-8	Borehole-1 (24-25)	Total/NA	Solid	5035	

## Analysis Batch: 7670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-7	Borehole-1 (19-20)	Total/NA	Solid	8021B	7654
880-5851-8	Borehole-1 (24-25)	Total/NA	Solid	8021B	7654
MB 880-7644/5-A	Method Blank	Total/NA	Solid	8021B	7644
MB 880-7645/5-A	Method Blank	Total/NA	Solid	8021B	7645
LCS 880-7645/1-A	Lab Control Sample	Total/NA	Solid	8021B	7645
LCSD 880-7645/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7645
880-5804-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	7645
880-5804-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7645

## Prep Batch: 7677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7677/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 7678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-1	Borehole-1 (0-1)	Total/NA	Solid	8021B	7698
880-5851-2	Borehole-1 (2-3)	Total/NA	Solid	8021B	7698
MB 880-7677/5-A	Method Blank	Total/NA	Solid	8021B	7677
MB 880-7698/5-A	Method Blank	Total/NA	Solid	8021B	7698
LCS 880-7698/1-A	Lab Control Sample	Total/NA	Solid	8021B	7698
LCSD 880-7698/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7698
880-5902-A-21-B MS	Matrix Spike	Total/NA	Solid	8021B	7698
880-5902-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7698

## Prep Batch: 7698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-1	Borehole-1 (0-1)	Total/NA	Solid	5035	
880-5851-2	Borehole-1 (2-3)	Total/NA	Solid	5035	
MB 880-7698/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7698/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7698/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5902-A-21-B MS	Matrix Spike	Total/NA	Solid	5035	
880-5902-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## GC VOA

## Analysis Batch: 7728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-3	Borehole-1 (4-5)	Total/NA	Solid	8021B	7729
880-5851-4	Borehole-1 (6-7)	Total/NA	Solid	8021B	7729
880-5851-5	Borehole-1 (9-10)	Total/NA	Solid	8021B	7729
880-5851-6	Borehole-1 (14-15)	Total/NA	Solid	8021B	7729
MB 880-7729/5-A	Method Blank	Total/NA	Solid	8021B	7729
LCS 880-7729/1-A	Lab Control Sample	Total/NA	Solid	8021B	7729
LCSD 880-7729/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7729
890-1230-A-2-C MS	Matrix Spike	Total/NA	Solid	8021B	7729
890-1230-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7729

## Prep Batch: 7729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-3	Borehole-1 (4-5)	Total/NA	Solid	5035	
880-5851-4	Borehole-1 (6-7)	Total/NA	Solid	5035	
880-5851-5	Borehole-1 (9-10)	Total/NA	Solid	5035	
880-5851-6	Borehole-1 (14-15)	Total/NA	Solid	5035	
MB 880-7729/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7729/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7729/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1230-A-2-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1230-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## GC Semi VOA

## Prep Batch: 7622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-1	Borehole-1 (0-1)	Total/NA	Solid	8015NM Prep	
880-5851-2	Borehole-1 (2-3)	Total/NA	Solid	8015NM Prep	
880-5851-3	Borehole-1 (4-5)	Total/NA	Solid	8015NM Prep	
880-5851-4	Borehole-1 (6-7)	Total/NA	Solid	8015NM Prep	
880-5851-5	Borehole-1 (9-10)	Total/NA	Solid	8015NM Prep	
880-5851-6	Borehole-1 (14-15)	Total/NA	Solid	8015NM Prep	
880-5851-7	Borehole-1 (19-20)	Total/NA	Solid	8015NM Prep	
880-5851-8	Borehole-1 (24-25)	Total/NA	Solid	8015NM Prep	
MB 880-7622/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7622/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-5804-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-5804-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 7630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-1	Borehole-1 (0-1)	Total/NA	Solid	8015B NM	7622
880-5851-2	Borehole-1 (2-3)	Total/NA	Solid	8015B NM	7622
880-5851-3	Borehole-1 (4-5)	Total/NA	Solid	8015B NM	7622
880-5851-3	Borehole-1 (4-5)	Total/NA	Solid	8015B NM	7622
880-5851-4	Borehole-1 (6-7)	Total/NA	Solid	8015B NM	7622
880-5851-5	Borehole-1 (9-10)	Total/NA	Solid	8015B NM	7622
880-5851-6	Borehole-1 (14-15)	Total/NA	Solid	8015B NM	7622
880-5851-7	Borehole-1 (19-20)	Total/NA	Solid	8015B NM	7622
880-5851-8	Borehole-1 (24-25)	Total/NA	Solid	8015B NM	7622

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## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## GC Semi VOA (Continued)

## Analysis Batch: 7630 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7622/1-A	Method Blank	Total/NA	Solid	8015B NM	7622
LCS 880-7622/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7622
LCSD 880-7622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7622
880-5804-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	7622
880-5804-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7622

## HPLC/IC

## Leach Batch: 7639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-1	Borehole-1 (0-1)	Soluble	Solid	DI Leach	
880-5851-2	Borehole-1 (2-3)	Soluble	Solid	DI Leach	
880-5851-3	Borehole-1 (4-5)	Soluble	Solid	DI Leach	
880-5851-4	Borehole-1 (6-7)	Soluble	Solid	DI Leach	
880-5851-5	Borehole-1 (9-10)	Soluble	Solid	DI Leach	
880-5851-6	Borehole-1 (14-15)	Soluble	Solid	DI Leach	
880-5851-7	Borehole-1 (19-20)	Soluble	Solid	DI Leach	
880-5851-8	Borehole-1 (24-25)	Soluble	Solid	DI Leach	
MB 880-7639/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7639/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7639/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-5851-1 MS	Borehole-1 (0-1)	Soluble	Solid	DI Leach	
880-5851-1 MSD	Borehole-1 (0-1)	Soluble	Solid	DI Leach	

## Analysis Batch: 7682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5851-1	Borehole-1 (0-1)	Soluble	Solid	300.0	7639
880-5851-2	Borehole-1 (2-3)	Soluble	Solid	300.0	7639
880-5851-3	Borehole-1 (4-5)	Soluble	Solid	300.0	7639
880-5851-4	Borehole-1 (6-7)	Soluble	Solid	300.0	7639
880-5851-5	Borehole-1 (9-10)	Soluble	Solid	300.0	7639
880-5851-6	Borehole-1 (14-15)	Soluble	Solid	300.0	7639
880-5851-7	Borehole-1 (19-20)	Soluble	Solid	300.0	7639
880-5851-8	Borehole-1 (24-25)	Soluble	Solid	300.0	7639
MB 880-7639/1-A	Method Blank	Soluble	Solid	300.0	7639
LCS 880-7639/2-A	Lab Control Sample	Soluble	Solid	300.0	7639
LCSD 880-7639/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7639
880-5851-1 MS	Borehole-1 (0-1)	Soluble	Solid	300.0	7639
880-5851-1 MSD	Borehole-1 (0-1)	Soluble	Solid	300.0	7639

Eurofins Xenco, Midland



## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Client Sample ID: Borehole-1 (0-1)

## Lab Sample ID: 880-5851-1

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	7698	09/09/21 11:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7678	09/10/21 04:35	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 18:47	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		20			7682	09/09/21 18:04	CH	XEN MID

## Client Sample ID: Borehole-1 (2-3)

## Lab Sample ID: 880-5851-2

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	7698	09/09/21 11:58	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7678	09/10/21 04:56	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 19:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		20			7682	09/09/21 18:21	CH	XEN MID

## Client Sample ID: Borehole-1 (4-5)

## Lab Sample ID: 880-5851-3

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	7729	09/10/21 09:09	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	7728	09/10/21 23:30	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 17:02	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		5			7630	09/09/21 08:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		10			7682	09/09/21 18:26	CH	XEN MID

## Client Sample ID: Borehole-1 (6-7)

## Lab Sample ID: 880-5851-4

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	7729	09/10/21 09:09	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	7728	09/10/21 23:50	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 17:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		10			7682	09/09/21 18:32	CH	XEN MID

Eurofins Xenco, Midland

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

## Client Sample ID: Borehole-1 (9-10)

## Lab Sample ID: 880-5851-5

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	7729	09/10/21 09:09	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	7728	09/11/21 00:11	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 17:44	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		10			7682	09/09/21 18:37	CH	XEN MID

## Client Sample ID: Borehole-1 (14-15)

## Lab Sample ID: 880-5851-6

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	7729	09/10/21 09:09	MR	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	7728	09/11/21 00:31	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 18:05	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		10			7682	09/09/21 18:54	CH	XEN MID

## Client Sample ID: Borehole-1 (19-20)

## Lab Sample ID: 880-5851-7

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	7654	09/08/21 13:51	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7670	09/09/21 10:45	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 18:26	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		10			7682	09/09/21 19:00	CH	XEN MID

## Client Sample ID: Borehole-1 (24-25)

## Lab Sample ID: 880-5851-8

Date Collected: 09/07/21 00:00

Matrix: Solid

Date Received: 09/08/21 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	7654	09/08/21 13:51	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7670	09/09/21 11:05	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	7622	09/08/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7630	09/08/21 19:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	7639	09/08/21 10:45	SC	XEN MID
Soluble	Analysis	300.0		5			7682	09/09/21 19:05	CH	XEN MID

## Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

Eurofins Xenco, Midland

## Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-5851-1  
SDG: Eddy Count NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-5851-1	Borehole-1 (0-1)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-2	Borehole-1 (2-3)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-3	Borehole-1 (4-5)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-4	Borehole-1 (6-7)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-5	Borehole-1 (9-10)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-6	Borehole-1 (14-15)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-7	Borehole-1 (19-20)	Solid	09/07/21 00:00	09/08/21 10:33
880-5851-8	Borehole-1 (24-25)	Solid	09/07/21 00:00	09/08/21 10:33

## Analysis Request of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring St.  
401 Midland, Texas  
Tel (432) 682-4  
Fax (432) 682-3

880-5851 Chain of Custody



880-5851

Page 1 of 1

9/13/2021

Client Name		EOG Resources		Site Manager		Paula Tocora	
Project Name		Melson Federal #002H					
Project Location (county, state)		Eddy Co, NM		Project #		212C-MD-02547	
Invoice to		James Kennedy - EOG					
Receiving Laboratory		Xenco Eurofines		Sampler Signature		Ashton Thielke	
Comments							

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		DATE	TIME		WATER	SOIL	HCL	HNO <sub>3</sub>		
	Borehole-1 (0-1)	9/7/2021		X					1	
	Borehole-1 (2-3)	9/7/2021		X					1	
	Borehole-1 (4-5)	9/7/2021		X					1	
	Borehole-1 (6-7)	9/7/2021		X					1	
	Borehole-1 (9-10)	9/7/2021		X					1	
	Borehole-1 (14-15)	9/7/2021		X					1	
	Borehole-1 (19-20)	9/7/2021		X					1	
	Borehole-1 (24-25)	9/7/2021		X					1	

Requisitioned by	Date	Time	Received by	Date	Time
10/6/2021	9/8/21	1027	KG	9/8/21	1027
Requisitioned by	Date	Time	Received by	Date	Time

Requisitioned by	Date	Time	Received by	Date	Time

LAB USE ONLY	REMARKS:
Sample Temperature 0/0.5	<input checked="" type="checkbox"/> RUSH Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Push Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report

ORIGINAL COPY



## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-5851-1

SDG Number: Eddy Count NM

Login Number: 5851

List Number: 1

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-6271-1

Laboratory Sample Delivery Group: Eddy Co, NM  
Client Project/Site: Melson Federal #002H

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
9/22/2021 1:58:58 PM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-6271-1  
SDG: Eddy Co, NM

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

**Job ID: 880-6271-1****Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative  
880-6271-1****Receipt**

The samples were received on 9/20/2021 11:43 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.1°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8173 and analytical batch 880-8207 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**GC Semi VOA**

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-8127 and analytical batch 880-8200 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

Client Sample ID: BH-1 (19.5')

Lab Sample ID: 880-6271-1

Date Collected: 09/17/21 13:00

Matrix: Solid

Date Received: 09/20/21 11:43

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:33	1
Toluene	<0.00200	U F1	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:33	1
Ethylbenzene	<0.00200	U F1	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:33	1
m-Xylene & p-Xylene	<0.00401	U F1	0.00401		mg/Kg		09/21/21 09:06	09/21/21 16:33	1
o-Xylene	<0.00200	U F1	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:33	1
Xylenes, Total	<0.00401	U F1	0.00401		mg/Kg		09/21/21 09:06	09/21/21 16:33	1
Total BTEX	<0.00401	U F1	0.00401		mg/Kg		09/21/21 09:06	09/21/21 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	09/21/21 09:06	09/21/21 16:33	1
1,4-Difluorobenzene (Surr)	99		70 - 130	09/21/21 09:06	09/21/21 16:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/20/21 16:21	09/21/21 18:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/20/21 16:21	09/21/21 18:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/20/21 16:21	09/21/21 18:49	1
Total TPH	<49.9	U	49.9		mg/Kg		09/20/21 16:21	09/21/21 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	09/20/21 16:21	09/21/21 18:49	1
o-Terphenyl	108		70 - 130	09/20/21 16:21	09/21/21 18:49	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3700	F1	24.9		mg/Kg			09/21/21 20:11	5

Client Sample ID: SW-1-East

Lab Sample ID: 880-6271-2

Date Collected: 09/17/21 13:10

Matrix: Solid

Date Received: 09/20/21 11:43

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/21/21 09:06	09/21/21 16:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/21/21 09:06	09/21/21 16:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/21/21 09:06	09/21/21 16:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/21/21 09:06	09/21/21 16:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/21/21 09:06	09/21/21 16:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/21/21 09:06	09/21/21 16:53	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		09/21/21 09:06	09/21/21 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	09/21/21 09:06	09/21/21 16:53	1
1,4-Difluorobenzene (Surr)	113		70 - 130	09/21/21 09:06	09/21/21 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/20/21 16:21	09/21/21 19:10	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

Client Sample ID: SW-1-East

Lab Sample ID: 880-6271-2

Date Collected: 09/17/21 13:10

Matrix: Solid

Date Received: 09/20/21 11:43

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/20/21 16:21	09/21/21 19:10	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/20/21 16:21	09/21/21 19:10	1
Total TPH	<49.8	U	49.8		mg/Kg		09/20/21 16:21	09/21/21 19:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				09/20/21 16:21	09/21/21 19:10	1
o-Terphenyl	112		70 - 130				09/20/21 16:21	09/21/21 19:10	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5780		49.5		mg/Kg			09/21/21 20:28	10

Client Sample ID: SW-2 (South)

Lab Sample ID: 880-6271-3

Date Collected: 09/17/21 13:20

Matrix: Solid

Date Received: 09/20/21 11:43

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/21/21 09:06	09/21/21 17:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				09/21/21 09:06	09/21/21 17:14	1
1,4-Difluorobenzene (Surr)	87		70 - 130				09/21/21 09:06	09/21/21 17:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/21 16:21	09/21/21 19:32	1
Diesel Range Organics (Over C10-C28)	53.1		50.0		mg/Kg		09/20/21 16:21	09/21/21 19:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/21 16:21	09/21/21 19:32	1
Total TPH	53.1		50.0		mg/Kg		09/20/21 16:21	09/21/21 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				09/20/21 16:21	09/21/21 19:32	1
o-Terphenyl	116		70 - 130				09/20/21 16:21	09/21/21 19:32	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6270		50.0		mg/Kg			09/21/21 20:34	10

Eurofins Xenco, Midland



## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-6271-1	BH-1 (19.5')	92	99
880-6271-1 MS	BH-1 (19.5')	90	81
880-6271-1 MSD	BH-1 (19.5')	124	100
880-6271-2	SW-1-East	115	113
880-6271-3	SW-2 (South)	103	87
LCS 880-8173/1-A	Lab Control Sample	88	83
LCSD 880-8173/2-A	Lab Control Sample Dup	99	92
MB 880-8173/5-A	Method Blank	120	127
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-6271-1	BH-1 (19.5')	98	108
880-6271-2	SW-1-East	99	112
880-6271-3	SW-2 (South)	103	116
880-6272-A-41-F MS	Matrix Spike	96	97
880-6272-A-41-G MSD	Matrix Spike Duplicate	98	99
LCS 880-8154/2-A	Lab Control Sample	96	101
LCSD 880-8154/3-A	Lab Control Sample Dup	103	110
MB 880-8154/1-A	Method Blank	93	106
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8173/5-A

Matrix: Solid

Analysis Batch: 8207

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8173

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/21/21 09:06	09/21/21 16:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/21/21 09:06	09/21/21 16:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/21/21 09:06	09/21/21 16:11	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/21/21 09:06	09/21/21 16:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	09/21/21 09:06	09/21/21 16:11	1
1,4-Difluorobenzene (Surr)	127		70 - 130	09/21/21 09:06	09/21/21 16:11	1

Lab Sample ID: LCS 880-8173/1-A

Matrix: Solid

Analysis Batch: 8207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8173

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09661		mg/Kg		97	70 - 130
Toluene	0.100	0.08381		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.08625		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1571		mg/Kg		79	70 - 130
o-Xylene	0.100	0.07448		mg/Kg		74	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: LCSD 880-8173/2-A

Matrix: Solid

Analysis Batch: 8207

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8173

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09055		mg/Kg		91	70 - 130	6	35
Toluene	0.100	0.09868		mg/Kg		99	70 - 130	16	35
Ethylbenzene	0.100	0.1023		mg/Kg		102	70 - 130	17	35
m-Xylene & p-Xylene	0.200	0.1812		mg/Kg		91	70 - 130	14	35
o-Xylene	0.100	0.08524		mg/Kg		85	70 - 130	13	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-6271-1 MS

Matrix: Solid

Analysis Batch: 8207

Client Sample ID: BH-1 (19.5')

Prep Type: Total/NA

Prep Batch: 8173

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F2 F1	0.0996	<0.00199	U F1	mg/Kg		1	70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-6271-1 MS

Client Sample ID: BH-1 (19.5')

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 8207

Prep Batch: 8173

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00200	U F1	0.0996	0.05483	F1	mg/Kg		55	70 - 130
Ethylbenzene	<0.00200	U F1	0.0996	0.05464	F1	mg/Kg		54	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.09997	F1	mg/Kg		50	70 - 130
o-Xylene	<0.00200	U F1	0.0996	0.04740	F1	mg/Kg		48	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	90		70 - 130						
1,4-Difluorobenzene (Surr)	81		70 - 130						

Lab Sample ID: 880-6271-1 MSD

Client Sample ID: BH-1 (19.5')

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 8207

Prep Batch: 8173

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0994	0.02583	F2 F1	mg/Kg		26	70 - 130	185	35
Toluene	<0.00200	U F1	0.0994	0.05591	F1	mg/Kg		56	70 - 130	2	35
Ethylbenzene	<0.00200	U F1	0.0994	0.05377	F1	mg/Kg		53	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.09867	F1	mg/Kg		50	70 - 130	1	35
o-Xylene	<0.00200	U F1	0.0994	0.04935	F1	mg/Kg		50	70 - 130	4	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	124		70 - 130								
1,4-Difluorobenzene (Surr)	100		70 - 130								

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

Lab Sample ID: MB 880-8154/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 8183

Prep Batch: 8154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/21 16:21	09/21/21 11:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/21 16:21	09/21/21 11:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/21 16:21	09/21/21 11:00	1
Total TPH	<50.0	U	50.0		mg/Kg		09/20/21 16:21	09/21/21 11:00	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				09/20/21 16:21	09/21/21 11:00	1
o-Terphenyl	106		70 - 130				09/20/21 16:21	09/21/21 11:00	1

Lab Sample ID: LCS 880-8154/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 8183

Prep Batch: 8154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	972.2		mg/Kg		97	70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

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

Lab Sample ID: LCS 880-8154/2-A

Matrix: Solid

Analysis Batch: 8183

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8154

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	1003		mg/Kg		100	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	101		70 - 130								

Lab Sample ID: LCSD 880-8154/3-A

Matrix: Solid

Analysis Batch: 8183

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8154

			Spike	LCSD	LCSD				%Rec.			RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	930.8		mg/Kg		93	70 - 130	4	20	
Diesel Range Organics (Over C10-C28)			1000	995.5		mg/Kg		100	70 - 130	1	20	
			LCSD	LCSD								
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	103		70 - 130									
o-Terphenyl	110		70 - 130									

Lab Sample ID: 880-6272-A-41-F MS

Matrix: Solid

Analysis Batch: 8183

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8154

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	895.6		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	997	944.8		mg/Kg		95	70 - 130		

Lab Sample ID: 880-6272-A-41-G MSD

Matrix: Solid

Analysis Batch: 8183

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8154

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	930.0		mg/Kg		93	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	973.3		mg/Kg		97	70 - 130	3	20

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-8127/1-A

Matrix: Solid

Analysis Batch: 8200

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/21/21 19:54	1

Lab Sample ID: LCS 880-8127/2-A

Matrix: Solid

Analysis Batch: 8200

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	255.9		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-8127/3-A

Matrix: Solid

Analysis Batch: 8200

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	256.2		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-6271-1 MS

Matrix: Solid

Analysis Batch: 8200

Client Sample ID: BH-1 (19.5')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3700	F1	1240	5110	F1	mg/Kg		113	90 - 110

Lab Sample ID: 880-6271-1 MSD

Matrix: Solid

Analysis Batch: 8200

Client Sample ID: BH-1 (19.5')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3700	F1	1240	5118	F1	mg/Kg		114	90 - 110	0	20

Eurofins Xenco, Midland

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## GC VOA

## Prep Batch: 8173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6271-1	BH-1 (19.5')	Total/NA	Solid	5035	
880-6271-2	SW-1-East	Total/NA	Solid	5035	
880-6271-3	SW-2 (South)	Total/NA	Solid	5035	
MB 880-8173/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-8173/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-8173/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-6271-1 MS	BH-1 (19.5')	Total/NA	Solid	5035	
880-6271-1 MSD	BH-1 (19.5')	Total/NA	Solid	5035	

## Analysis Batch: 8207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6271-1	BH-1 (19.5')	Total/NA	Solid	8021B	8173
880-6271-2	SW-1-East	Total/NA	Solid	8021B	8173
880-6271-3	SW-2 (South)	Total/NA	Solid	8021B	8173
MB 880-8173/5-A	Method Blank	Total/NA	Solid	8021B	8173
LCS 880-8173/1-A	Lab Control Sample	Total/NA	Solid	8021B	8173
LCSD 880-8173/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	8173
880-6271-1 MS	BH-1 (19.5')	Total/NA	Solid	8021B	8173
880-6271-1 MSD	BH-1 (19.5')	Total/NA	Solid	8021B	8173

## GC Semi VOA

## Prep Batch: 8154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6271-1	BH-1 (19.5')	Total/NA	Solid	8015NM Prep	
880-6271-2	SW-1-East	Total/NA	Solid	8015NM Prep	
880-6271-3	SW-2 (South)	Total/NA	Solid	8015NM Prep	
MB 880-8154/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8154/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8154/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6272-A-41-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6272-A-41-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 8183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6271-1	BH-1 (19.5')	Total/NA	Solid	8015B NM	8154
880-6271-2	SW-1-East	Total/NA	Solid	8015B NM	8154
880-6271-3	SW-2 (South)	Total/NA	Solid	8015B NM	8154
MB 880-8154/1-A	Method Blank	Total/NA	Solid	8015B NM	8154
LCS 880-8154/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8154
LCSD 880-8154/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8154
880-6272-A-41-F MS	Matrix Spike	Total/NA	Solid	8015B NM	8154
880-6272-A-41-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8154

## HPLC/IC

## Leach Batch: 8127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6271-1	BH-1 (19.5')	Soluble	Solid	DI Leach	
880-6271-2	SW-1-East	Soluble	Solid	DI Leach	
880-6271-3	SW-2 (South)	Soluble	Solid	DI Leach	
MB 880-8127/1-A	Method Blank	Soluble	Solid	DI Leach	

Eurofins Xenco, Midland

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

## HPLC/IC (Continued)

## Leach Batch: 8127 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-8127/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-8127/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6271-1 MS	BH-1 (19.5')	Soluble	Solid	DI Leach	
880-6271-1 MSD	BH-1 (19.5')	Soluble	Solid	DI Leach	

## Analysis Batch: 8200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6271-1	BH-1 (19.5')	Soluble	Solid	300.0	8127
880-6271-2	SW-1-East	Soluble	Solid	300.0	8127
880-6271-3	SW-2 (South)	Soluble	Solid	300.0	8127
MB 880-8127/1-A	Method Blank	Soluble	Solid	300.0	8127
LCS 880-8127/2-A	Lab Control Sample	Soluble	Solid	300.0	8127
LCSD 880-8127/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	8127
880-6271-1 MS	BH-1 (19.5')	Soluble	Solid	300.0	8127
880-6271-1 MSD	BH-1 (19.5')	Soluble	Solid	300.0	8127



## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

Client Sample ID: BH-1 (19.5')

Lab Sample ID: 880-6271-1

Date Collected: 09/17/21 13:00

Matrix: Solid

Date Received: 09/20/21 11:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	8173	09/21/21 09:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8207	09/21/21 16:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8154	09/20/21 16:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8183	09/21/21 18:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	8127	09/20/21 12:34	CH	XEN MID
Soluble	Analysis	300.0		5			8200	09/21/21 20:11	CH	XEN MID

Client Sample ID: SW-1-East

Lab Sample ID: 880-6271-2

Date Collected: 09/17/21 13:10

Matrix: Solid

Date Received: 09/20/21 11:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	8173	09/21/21 09:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8207	09/21/21 16:53	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8154	09/20/21 16:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8183	09/21/21 19:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	8127	09/20/21 12:34	CH	XEN MID
Soluble	Analysis	300.0		10			8200	09/21/21 20:28	CH	XEN MID

Client Sample ID: SW-2 (South)

Lab Sample ID: 880-6271-3

Date Collected: 09/17/21 13:20

Matrix: Solid

Date Received: 09/20/21 11:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	8173	09/21/21 09:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8207	09/21/21 17:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8154	09/20/21 16:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8183	09/21/21 19:32	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8127	09/20/21 12:34	CH	XEN MID
Soluble	Analysis	300.0		10			8200	09/21/21 20:34	CH	XEN MID

## Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

Eurofins Xenco, Midland

Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6271-1  
SDG: Eddy Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6271-1	BH-1 (19.5')	Solid	09/17/21 13:00	09/20/21 11:43
880-6271-2	SW-1-East	Solid	09/17/21 13:10	09/20/21 11:43
880-6271-3	SW-2 (South)	Solid	09/17/21 13:20	09/20/21 11:43

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

## Analysis Request of Custody Record



Tetra Tech, Inc.

 901 West Wall St, Suite 100  
 Midland, Texas 79701  
 Tel (432) 682-4559  
 Fax (432) 682-3946


880-6271 Chain of Custody

1 of 1

9/22/2021

Client Name		EOG Resources		Site Manager		Paula Tocora	
Project Name		Melson Federal #002H		Project #		212C-MD-02547	
Project Location (county, state)		Eddy Co, NM		Project #		212C-MD-02547	
Invoice to		James Kennedy - EOG		Sampler Signature		Ashton Thielke	
Receiving Laboratory		Xenco Eurofines		Sampler Signature		Ashton Thielke	
Comments							

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
		YEAR	DATE					
		TIME						
	BH-1 (19.5)		9/17/2021	13:00	X	X	1	BTEX 8021B BTEX 8260B
	SW-1 - East		9/17/2021	13:10	X	X	1	TPH TX1005 (Ext to C35)
	SW-2 (south)		9/17/2021	13:20	X	X	1	TPH 8015M ( GRO - DRO - ORO)
								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
								PCBs 8082 / 608
								NORM
								PLM (Asbestos)
								Chloride
								Chloride Sulfate TDS
								General Water Chemistry (see attached list)
								Anion/Cation Balance
								Asbestos
								Hold

Relinquished by Ashton Thielke	Date Time	Received by Paula Tocora Alonso	Date Time
Relinquished by [Signature]	9/22/21 11:05	Received by [Signature]	9-2021 11:05

LAB USE ONLY	REMARKS
Sample Temperature	<input type="checkbox"/> RUSH Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report
46.0e	

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #

## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-6271-1

SDG Number: Eddy Co, NM

Login Number: 6271

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-6305-1

Laboratory Sample Delivery Group: Eddy Co, NM  
Client Project/Site: Melson Federal #002H

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
9/27/2021 11:37:39 AM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

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results through

**TotalAccess**

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

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



Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-6305-1  
SDG: Eddy Co,NM

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

**Job ID: 880-6305-1**

**Laboratory: Eurofins Xenco, Midland**

**Narrative**

**Job Narrative  
880-6305-1**

**Receipt**

The samples were received on 9/21/2021 9:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8198 and analytical batch 880-8262 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-2 (19.5') (880-6305-1), SW-4 (North) (880-6305-2), SW-6 (North) (880-6305-4), SW-7 (West) (880-6305-5), SW-10 (South) (880-6305-8), SW-11 (South) (880-6305-9) and (880-6345-A-8-E). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**GC Semi VOA**

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8210 and analytical batch 880-8175 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**HPLC/IC**

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

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: BH-2 (19.5')

Lab Sample ID: 880-6305-1

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 04:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 04:38	1
Ethylbenzene	0.0118		0.00200		mg/Kg		09/22/21 09:44	09/23/21 04:38	1
m-Xylene & p-Xylene	0.0412		0.00401		mg/Kg		09/22/21 09:44	09/23/21 04:38	1
o-Xylene	0.0350		0.00200		mg/Kg		09/22/21 09:44	09/23/21 04:38	1
Xylenes, Total	0.0762		0.00401		mg/Kg		09/22/21 09:44	09/23/21 04:38	1
Total BTEX	0.0880		0.00401		mg/Kg		09/22/21 09:44	09/23/21 04:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130	09/22/21 09:44	09/23/21 04:38	1
1,4-Difluorobenzene (Surr)	77		70 - 130	09/22/21 09:44	09/23/21 04:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/21/21 14:14	09/21/21 23:42	1
Diesel Range Organics (Over C10-C28)	630		50.0		mg/Kg		09/21/21 14:14	09/21/21 23:42	1
Oil Range Organics (Over C28-C36)	69.5		50.0		mg/Kg		09/21/21 14:14	09/21/21 23:42	1
Total TPH	700		50.0		mg/Kg		09/21/21 14:14	09/21/21 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	09/21/21 14:14	09/21/21 23:42	1
o-Terphenyl	102		70 - 130	09/21/21 14:14	09/21/21 23:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5850		49.5		mg/Kg			09/24/21 17:37	10

Client Sample ID: SW-4 (North)

Lab Sample ID: 880-6305-2

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 04:59	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 04:59	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 04:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/22/21 09:44	09/23/21 04:59	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 04:59	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/22/21 09:44	09/23/21 04:59	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		09/22/21 09:44	09/23/21 04:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	09/22/21 09:44	09/23/21 04:59	1
1,4-Difluorobenzene (Surr)	76		70 - 130	09/22/21 09:44	09/23/21 04:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:03	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: SW-4 (North)

Lab Sample ID: 880-6305-2

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:03	1
Total TPH	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				09/21/21 14:14	09/22/21 00:03	1
o-Terphenyl	105		70 - 130				09/21/21 14:14	09/22/21 00:03	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5940		49.7		mg/Kg			09/24/21 17:54	10

Client Sample ID: SW-5 (North)

Lab Sample ID: 880-6305-3

Date Collected: 09/20/21 13:20

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		09/22/21 09:44	09/23/21 05:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130				09/22/21 09:44	09/23/21 05:19	1
1,4-Difluorobenzene (Surr)	78		70 - 130				09/22/21 09:44	09/23/21 05:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:23	1
Total TPH	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 00:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				09/21/21 14:14	09/22/21 00:23	1
o-Terphenyl	108		70 - 130				09/21/21 14:14	09/22/21 00:23	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8660		49.8		mg/Kg			09/24/21 18:00	10

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: SW-6 (North)

Lab Sample ID: 880-6305-4

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00335		0.00200		mg/Kg		09/22/21 09:44	09/23/21 05:39	1
Toluene	0.00721		0.00200		mg/Kg		09/22/21 09:44	09/23/21 05:39	1
Ethylbenzene	0.0350		0.00200		mg/Kg		09/22/21 09:44	09/23/21 05:39	1
m-Xylene & p-Xylene	0.130		0.00400		mg/Kg		09/22/21 09:44	09/23/21 05:39	1
o-Xylene	0.0934		0.00200		mg/Kg		09/22/21 09:44	09/23/21 05:39	1
Xylenes, Total	0.223		0.00400		mg/Kg		09/22/21 09:44	09/23/21 05:39	1
Total BTEX	0.269		0.00400		mg/Kg		09/22/21 09:44	09/23/21 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	177	S1+	70 - 130	09/22/21 09:44	09/23/21 05:39	1
1,4-Difluorobenzene (Surr)	76		70 - 130	09/22/21 09:44	09/23/21 05:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		09/21/21 14:14	09/22/21 00:43	5
Diesel Range Organics (Over C10-C28)	3040		249		mg/Kg		09/21/21 14:14	09/22/21 00:43	5
Oil Range Organics (Over C28-C36)	297		249		mg/Kg		09/21/21 14:14	09/22/21 00:43	5
Total TPH	3340		249		mg/Kg		09/21/21 14:14	09/22/21 00:43	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	09/21/21 14:14	09/22/21 00:43	5
o-Terphenyl	98		70 - 130	09/21/21 14:14	09/22/21 00:43	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9850		50.0		mg/Kg			09/24/21 18:17	10

Client Sample ID: SW-7 (West)

Lab Sample ID: 880-6305-5

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00238		0.00202		mg/Kg		09/22/21 09:44	09/23/21 06:00	1
Toluene	0.0129		0.00202		mg/Kg		09/22/21 09:44	09/23/21 06:00	1
Ethylbenzene	0.0553		0.00202		mg/Kg		09/22/21 09:44	09/23/21 06:00	1
m-Xylene & p-Xylene	0.288		0.00403		mg/Kg		09/22/21 09:44	09/23/21 06:00	1
o-Xylene	0.176		0.00202		mg/Kg		09/22/21 09:44	09/23/21 06:00	1
Xylenes, Total	0.464		0.00403		mg/Kg		09/22/21 09:44	09/23/21 06:00	1
Total BTEX	0.535		0.00403		mg/Kg		09/22/21 09:44	09/23/21 06:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	217	S1+	70 - 130	09/22/21 09:44	09/23/21 06:00	1
1,4-Difluorobenzene (Surr)	83		70 - 130	09/22/21 09:44	09/23/21 06:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		09/21/21 14:14	09/22/21 01:03	5

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## Client Sample ID: SW-7 (West)

Lab Sample ID: 880-6305-5

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	4930		250		mg/Kg		09/21/21 14:14	09/22/21 01:03	5
Oil Range Organics (Over C28-C36)	506		250		mg/Kg		09/21/21 14:14	09/22/21 01:03	5
Total TPH	5440		250		mg/Kg		09/21/21 14:14	09/22/21 01:03	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	09/21/21 14:14	09/22/21 01:03	5
o-Terphenyl	105		70 - 130	09/21/21 14:14	09/22/21 01:03	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5430		50.2		mg/Kg			09/24/21 18:22	10

## Client Sample ID: SW-8 (West)

Lab Sample ID: 880-6305-6

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 06:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 06:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 06:20	1
m-Xylene & p-Xylene	0.00714		0.00399		mg/Kg		09/22/21 09:44	09/23/21 06:20	1
o-Xylene	0.00794		0.00200		mg/Kg		09/22/21 09:44	09/23/21 06:20	1
Xylenes, Total	0.0151		0.00399		mg/Kg		09/22/21 09:44	09/23/21 06:20	1
Total BTEX	0.0151		0.00399		mg/Kg		09/22/21 09:44	09/23/21 06:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	09/22/21 09:44	09/23/21 06:20	1
1,4-Difluorobenzene (Surr)	83		70 - 130	09/22/21 09:44	09/23/21 06:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 01:43	1
Diesel Range Organics (Over C10-C28)	116		49.9		mg/Kg		09/21/21 14:14	09/22/21 01:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 01:43	1
Total TPH	116		49.9		mg/Kg		09/21/21 14:14	09/22/21 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	09/21/21 14:14	09/22/21 01:43	1
o-Terphenyl	113		70 - 130	09/21/21 14:14	09/22/21 01:43	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9640		49.9		mg/Kg			09/24/21 18:28	10

Eurofins Xenco, Midland



## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: SW-9 (South)

Lab Sample ID: 880-6305-7

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 07:42	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/22/21 09:44	09/23/21 07:42	1
Ethylbenzene	0.0102		0.00201		mg/Kg		09/22/21 09:44	09/23/21 07:42	1
m-Xylene & p-Xylene	0.0786		0.00402		mg/Kg		09/22/21 09:44	09/23/21 07:42	1
o-Xylene	0.0707		0.00201		mg/Kg		09/22/21 09:44	09/23/21 07:42	1
Xylenes, Total	0.149		0.00402		mg/Kg		09/22/21 09:44	09/23/21 07:42	1
Total BTEX	0.160		0.00402		mg/Kg		09/22/21 09:44	09/23/21 07:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	09/22/21 09:44	09/23/21 07:42	1
1,4-Difluorobenzene (Surr)	78		70 - 130	09/22/21 09:44	09/23/21 07:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		09/21/21 14:14	09/22/21 02:03	5
Diesel Range Organics (Over C10-C28)	2700		249		mg/Kg		09/21/21 14:14	09/22/21 02:03	5
Oil Range Organics (Over C28-C36)	314		249		mg/Kg		09/21/21 14:14	09/22/21 02:03	5
Total TPH	3010		249		mg/Kg		09/21/21 14:14	09/22/21 02:03	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	09/21/21 14:14	09/22/21 02:03	5
o-Terphenyl	118		70 - 130	09/21/21 14:14	09/22/21 02:03	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10800		49.8		mg/Kg			09/24/21 18:33	10

Client Sample ID: SW-10 (South)

Lab Sample ID: 880-6305-8

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/22/21 09:44	09/23/21 08:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/22/21 09:44	09/23/21 08:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/22/21 09:44	09/23/21 08:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/22/21 09:44	09/23/21 08:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/22/21 09:44	09/23/21 08:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/22/21 09:44	09/23/21 08:02	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		09/22/21 09:44	09/23/21 08:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	142	S1+	70 - 130	09/22/21 09:44	09/23/21 08:02	1
1,4-Difluorobenzene (Surr)	73		70 - 130	09/22/21 09:44	09/23/21 08:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 02:23	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: SW-10 (South)

Lab Sample ID: 880-6305-8

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 02:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 02:23	1
Total TPH	<49.9	U	49.9		mg/Kg		09/21/21 14:14	09/22/21 02:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				09/21/21 14:14	09/22/21 02:23	1
o-Terphenyl	106		70 - 130				09/21/21 14:14	09/22/21 02:23	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7560		49.8		mg/Kg			09/24/21 18:39	10

Client Sample ID: SW-11 (South)

Lab Sample ID: 880-6305-9

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/22/21 09:44	09/23/21 08:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130				09/22/21 09:44	09/23/21 08:23	1
1,4-Difluorobenzene (Surr)	72		70 - 130				09/22/21 09:44	09/23/21 08:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/21/21 14:14	09/22/21 02:43	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/21/21 14:14	09/22/21 02:43	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/21/21 14:14	09/22/21 02:43	1
Total TPH	<49.8	U	49.8		mg/Kg		09/21/21 14:14	09/22/21 02:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				09/21/21 14:14	09/22/21 02:43	1
o-Terphenyl	104		70 - 130				09/21/21 14:14	09/22/21 02:43	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8580		49.8		mg/Kg			09/24/21 18:45	10

Eurofins Xenco, Midland

## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-6305-1	BH-2 (19.5')	162 S1+	77
880-6305-2	SW-4 (North)	136 S1+	76
880-6305-3	SW-5 (North)	123	78
880-6305-4	SW-6 (North)	177 S1+	76
880-6305-5	SW-7 (West)	217 S1+	83
880-6305-6	SW-8 (West)	112	83
880-6305-7	SW-9 (South)	103	78
880-6305-8	SW-10 (South)	142 S1+	73
880-6305-9	SW-11 (South)	135 S1+	72
880-6345-A-8-C MS	Matrix Spike	125	82
880-6345-A-8-D MSD	Matrix Spike Duplicate	130	83
LCS 880-8198/1-A	Lab Control Sample	114	86
LCSD 880-8198/2-A	Lab Control Sample Dup	122	72
MB 880-8142/5-A	Method Blank	107	76
MB 880-8198/5-A	Method Blank	119	82
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-6305-1	BH-2 (19.5')	105	102
880-6305-2	SW-4 (North)	104	105
880-6305-3	SW-5 (North)	105	108
880-6305-4	SW-6 (North)	100	98
880-6305-5	SW-7 (West)	111	105
880-6305-6	SW-8 (West)	111	113
880-6305-7	SW-9 (South)	116	118
880-6305-8	SW-10 (South)	104	106
880-6305-9	SW-11 (South)	104	104
890-1267-A-1-I MS	Matrix Spike	93	90
890-1267-A-1-J MSD	Matrix Spike Duplicate	96	94
LCS 880-8210/2-A	Lab Control Sample	93	86
LCSD 880-8210/3-A	Lab Control Sample Dup	95	88
MB 880-8210/1-A	Method Blank	93	92
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8142/5-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:45	09/22/21 16:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:45	09/22/21 16:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:45	09/22/21 16:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/21 09:45	09/22/21 16:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:45	09/22/21 16:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/21 09:45	09/22/21 16:03	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/22/21 09:45	09/22/21 16:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	09/22/21 09:45	09/22/21 16:03	1
1,4-Difluorobenzene (Surr)	76		70 - 130	09/22/21 09:45	09/22/21 16:03	1

Lab Sample ID: MB 880-8198/5-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 02:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 02:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 02:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/21 09:44	09/23/21 02:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:44	09/23/21 02:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/21 09:44	09/23/21 02:55	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/22/21 09:44	09/23/21 02:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	09/22/21 09:44	09/23/21 02:55	1
1,4-Difluorobenzene (Surr)	82		70 - 130	09/22/21 09:44	09/23/21 02:55	1

Lab Sample ID: LCS 880-8198/1-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08388		mg/Kg		84	70 - 130
Toluene	0.100	0.08505		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.08810		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1844		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09718		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-8198/2-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8198

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08359		mg/Kg		84	70 - 130	0	35
Toluene	0.100	0.08817		mg/Kg		88	70 - 130	4	35
Ethylbenzene	0.100	0.09335		mg/Kg		93	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1969		mg/Kg		98	70 - 130	7	35
o-Xylene	0.100	0.1016		mg/Kg		102	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	72		70 - 130

Lab Sample ID: 880-6345-A-8-C MS

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8198

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00198	U F1	0.100	0.05090	F1	mg/Kg		51	70 - 130		
Toluene	<0.00198	U F1	0.100	0.03736	F1	mg/Kg		37	70 - 130		
Ethylbenzene	<0.00198	U F1	0.100	0.04601	F1	mg/Kg		46	70 - 130		
m-Xylene & p-Xylene	<0.00396	U F1	0.201	0.09039	F1	mg/Kg		45	70 - 130		
o-Xylene	<0.00198	U F1	0.100	0.05994	F1	mg/Kg		60	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: 880-6345-A-8-D MSD

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8198

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00198	U F1	0.100	0.05894	F1	mg/Kg		59	70 - 130	15	35
Toluene	<0.00198	U F1	0.100	0.03865	F1	mg/Kg		39	70 - 130	3	35
Ethylbenzene	<0.00198	U F1	0.100	0.05040	F1	mg/Kg		50	70 - 130	9	35
m-Xylene & p-Xylene	<0.00396	U F1	0.200	0.09513	F1	mg/Kg		48	70 - 130	5	35
o-Xylene	<0.00198	U F1	0.100	0.07027		mg/Kg		70	70 - 130	16	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	130		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

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

Lab Sample ID: MB 880-8210/1-A

Matrix: Solid

Analysis Batch: 8175

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8210

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/21/21 14:14	09/21/21 20:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/21/21 14:14	09/21/21 20:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/21/21 14:14	09/21/21 20:21	1
Total TPH	<50.0	U	50.0		mg/Kg		09/21/21 14:14	09/21/21 20:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	09/21/21 14:14	09/21/21 20:21	1
o-Terphenyl	92		70 - 130	09/21/21 14:14	09/21/21 20:21	1

Lab Sample ID: LCS 880-8210/2-A

Matrix: Solid

Analysis Batch: 8175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8210

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	862.4		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	855.3		mg/Kg		86	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: LCSD 880-8210/3-A

Matrix: Solid

Analysis Batch: 8175

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8210

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	816.1		mg/Kg		82	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	876.2		mg/Kg		88	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 890-1267-A-1-I MS

Matrix: Solid

Analysis Batch: 8175

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8210

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	997	<49.9	U F1	mg/Kg		0.4	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F1	997	<49.9	U F1	mg/Kg		0.5	70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

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

Lab Sample ID: 890-1267-A-1-I MS

Matrix: Solid

Analysis Batch: 8175

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8210

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 890-1267-A-1-J MSD

Matrix: Solid

Analysis Batch: 8175

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8210

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	999	<50.0	U F1	mg/Kg		0.8	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	999	<50.0	U F1	mg/Kg		0.7	70 - 130	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	94		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-8229/1-A

Matrix: Solid

Analysis Batch: 8389

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/24/21 16:02	1

Lab Sample ID: LCS 880-8229/2-A

Matrix: Solid

Analysis Batch: 8389

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.3		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-8229/3-A

Matrix: Solid

Analysis Batch: 8389

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	250.3		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-6305-1 MS

Matrix: Solid

Analysis Batch: 8389

Client Sample ID: BH-2 (19.5')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5850		2480	8410		mg/Kg		104	90 - 110

Eurofins Xenco, Midland



QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-6305-1 MSD					Client Sample ID: BH-2 (19.5')							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 8389												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	5850		2480	8424		mg/Kg		104	90 - 110	0	20	

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## GC VOA

## Prep Batch: 8142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-8142/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 8198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-1	BH-2 (19.5')	Total/NA	Solid	5035	
880-6305-2	SW-4 (North)	Total/NA	Solid	5035	
880-6305-3	SW-5 (North)	Total/NA	Solid	5035	
880-6305-4	SW-6 (North)	Total/NA	Solid	5035	
880-6305-5	SW-7 (West)	Total/NA	Solid	5035	
880-6305-6	SW-8 (West)	Total/NA	Solid	5035	
880-6305-7	SW-9 (South)	Total/NA	Solid	5035	
880-6305-8	SW-10 (South)	Total/NA	Solid	5035	
880-6305-9	SW-11 (South)	Total/NA	Solid	5035	
MB 880-8198/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-8198/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-8198/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-6345-A-8-C MS	Matrix Spike	Total/NA	Solid	5035	
880-6345-A-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 8262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-1	BH-2 (19.5')	Total/NA	Solid	8021B	8198
880-6305-2	SW-4 (North)	Total/NA	Solid	8021B	8198
880-6305-3	SW-5 (North)	Total/NA	Solid	8021B	8198
880-6305-4	SW-6 (North)	Total/NA	Solid	8021B	8198
880-6305-5	SW-7 (West)	Total/NA	Solid	8021B	8198
880-6305-6	SW-8 (West)	Total/NA	Solid	8021B	8198
880-6305-7	SW-9 (South)	Total/NA	Solid	8021B	8198
880-6305-8	SW-10 (South)	Total/NA	Solid	8021B	8198
880-6305-9	SW-11 (South)	Total/NA	Solid	8021B	8198
MB 880-8142/5-A	Method Blank	Total/NA	Solid	8021B	8142
MB 880-8198/5-A	Method Blank	Total/NA	Solid	8021B	8198
LCS 880-8198/1-A	Lab Control Sample	Total/NA	Solid	8021B	8198
LCSD 880-8198/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	8198
880-6345-A-8-C MS	Matrix Spike	Total/NA	Solid	8021B	8198
880-6345-A-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	8198

## GC Semi VOA

## Analysis Batch: 8175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-1	BH-2 (19.5')	Total/NA	Solid	8015B NM	8210
880-6305-2	SW-4 (North)	Total/NA	Solid	8015B NM	8210
880-6305-3	SW-5 (North)	Total/NA	Solid	8015B NM	8210
880-6305-4	SW-6 (North)	Total/NA	Solid	8015B NM	8210
880-6305-5	SW-7 (West)	Total/NA	Solid	8015B NM	8210
880-6305-6	SW-8 (West)	Total/NA	Solid	8015B NM	8210
880-6305-7	SW-9 (South)	Total/NA	Solid	8015B NM	8210
880-6305-8	SW-10 (South)	Total/NA	Solid	8015B NM	8210
880-6305-9	SW-11 (South)	Total/NA	Solid	8015B NM	8210
MB 880-8210/1-A	Method Blank	Total/NA	Solid	8015B NM	8210

Eurofins Xenco, Midland

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

## GC Semi VOA (Continued)

## Analysis Batch: 8175 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-8210/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8210
LCSD 880-8210/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8210
890-1267-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	8210
890-1267-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8210

## Prep Batch: 8210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-1	BH-2 (19.5')	Total/NA	Solid	8015NM Prep	
880-6305-2	SW-4 (North)	Total/NA	Solid	8015NM Prep	
880-6305-3	SW-5 (North)	Total/NA	Solid	8015NM Prep	
880-6305-4	SW-6 (North)	Total/NA	Solid	8015NM Prep	
880-6305-5	SW-7 (West)	Total/NA	Solid	8015NM Prep	
880-6305-6	SW-8 (West)	Total/NA	Solid	8015NM Prep	
880-6305-7	SW-9 (South)	Total/NA	Solid	8015NM Prep	
880-6305-8	SW-10 (South)	Total/NA	Solid	8015NM Prep	
880-6305-9	SW-11 (South)	Total/NA	Solid	8015NM Prep	
MB 880-8210/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8210/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8210/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1267-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1267-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## HPLC/IC

## Leach Batch: 8229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-1	BH-2 (19.5')	Soluble	Solid	DI Leach	
880-6305-2	SW-4 (North)	Soluble	Solid	DI Leach	
880-6305-3	SW-5 (North)	Soluble	Solid	DI Leach	
880-6305-4	SW-6 (North)	Soluble	Solid	DI Leach	
880-6305-5	SW-7 (West)	Soluble	Solid	DI Leach	
880-6305-6	SW-8 (West)	Soluble	Solid	DI Leach	
880-6305-7	SW-9 (South)	Soluble	Solid	DI Leach	
880-6305-8	SW-10 (South)	Soluble	Solid	DI Leach	
880-6305-9	SW-11 (South)	Soluble	Solid	DI Leach	
MB 880-8229/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-8229/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-8229/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6305-1 MS	BH-2 (19.5')	Soluble	Solid	DI Leach	
880-6305-1 MSD	BH-2 (19.5')	Soluble	Solid	DI Leach	

## Analysis Batch: 8389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-1	BH-2 (19.5')	Soluble	Solid	300.0	8229
880-6305-2	SW-4 (North)	Soluble	Solid	300.0	8229
880-6305-3	SW-5 (North)	Soluble	Solid	300.0	8229
880-6305-4	SW-6 (North)	Soluble	Solid	300.0	8229
880-6305-5	SW-7 (West)	Soluble	Solid	300.0	8229
880-6305-6	SW-8 (West)	Soluble	Solid	300.0	8229
880-6305-7	SW-9 (South)	Soluble	Solid	300.0	8229
880-6305-8	SW-10 (South)	Soluble	Solid	300.0	8229

Eurofins Xenco, Midland

QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

HPLC/IC (Continued)

Analysis Batch: 8389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6305-9	SW-11 (South)	Soluble	Solid	300.0	8229
MB 880-8229/1-A	Method Blank	Soluble	Solid	300.0	8229
LCS 880-8229/2-A	Lab Control Sample	Soluble	Solid	300.0	8229
LCSD 880-8229/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	8229
880-6305-1 MS	BH-2 (19.5')	Soluble	Solid	300.0	8229
880-6305-1 MSD	BH-2 (19.5')	Soluble	Solid	300.0	8229

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: BH-2 (19.5')

Lab Sample ID: 880-6305-1

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 04:38	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8175	09/21/21 23:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 17:37	CH	XEN MID

Client Sample ID: SW-4 (North)

Lab Sample ID: 880-6305-2

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 04:59	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8175	09/22/21 00:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 17:54	CH	XEN MID

Client Sample ID: SW-5 (North)

Lab Sample ID: 880-6305-3

Date Collected: 09/20/21 13:20

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 05:19	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8175	09/22/21 00:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:00	CH	XEN MID

Client Sample ID: SW-6 (North)

Lab Sample ID: 880-6305-4

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 05:39	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8175	09/22/21 00:43	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:17	CH	XEN MID

Eurofins Xenco, Midland

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: SW-7 (West)

Lab Sample ID: 880-6305-5

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 06:00	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8175	09/22/21 01:03	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:22	CH	XEN MID

Client Sample ID: SW-8 (West)

Lab Sample ID: 880-6305-6

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 06:20	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8175	09/22/21 01:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:28	CH	XEN MID

Client Sample ID: SW-9 (South)

Lab Sample ID: 880-6305-7

Date Collected: 09/20/21 13:10

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 07:42	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8175	09/22/21 02:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	8229	09/21/21 18:49	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:33	CH	XEN MID

Client Sample ID: SW-10 (South)

Lab Sample ID: 880-6305-8

Date Collected: 09/20/21 13:00

Matrix: Solid

Date Received: 09/21/21 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 08:02	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8175	09/22/21 02:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	8229	09/21/21 19:17	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:39	CH	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Client Sample ID: SW-11 (South)  
Date Collected: 09/20/21 13:10  
Date Received: 09/21/21 09:58

Lab Sample ID: 880-6305-9  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	8198	09/22/21 09:44	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/23/21 08:23	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8210	09/21/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8175	09/22/21 02:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	8229	09/21/21 19:17	SC	XEN MID
Soluble	Analysis	300.0		10			8389	09/24/21 18:45	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

Eurofins Xenco, Midland

Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6305-1  
SDG: Eddy Co,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6305-1	BH-2 (19.5')	Solid	09/20/21 13:00	09/21/21 09:58
880-6305-2	SW-4 (North)	Solid	09/20/21 13:10	09/21/21 09:58
880-6305-3	SW-5 (North)	Solid	09/20/21 13:20	09/21/21 09:58
880-6305-4	SW-6 (North)	Solid	09/20/21 13:00	09/21/21 09:58
880-6305-5	SW-7 (West)	Solid	09/20/21 13:10	09/21/21 09:58
880-6305-6	SW-8 (West)	Solid	09/20/21 13:00	09/21/21 09:58
880-6305-7	SW-9 (South)	Solid	09/20/21 13:10	09/21/21 09:58
880-6305-8	SW-10 (South)	Solid	09/20/21 13:00	09/21/21 09:58
880-6305-9	SW-11 (South)	Solid	09/20/21 13:10	09/21/21 09:58

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

901 West 1  
Midland,  
Tel (432) 682-4559  
Fax (432) 682-3946

880-6305 Chain of Custody

880-6305

Page 1 of 1

9/27/2021

Client Name		EOG Resources		Site Manager		Paula Tocora					
Project Name		Melson Federal #002H		Project #		212C-MD-02547					
Project Location (county, state)		Eddy Co, NM		Project #		212C-MD-02547					
Invoice to		James Kennedy - EOG		Sampler Signature		Ashton Thielke					
Receiving Laboratory		Xenco Eurofines		Sampler Signature		Ashton Thielke					
Comments											
LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					
		YEAR	DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	# CONTAINERS	FILTERED (Y/N)
	BH-2 (19 5')		9/20/2021	13:00	X					1	
	SW-4 (North)		9/20/2021	13:10	X					1	
	SW-5 (North)		9/20/2021	13:20	X					1	
	SW-6 (North)		9/20/2021	13:00	X					1	
	SW-7 (West)		9/20/2021	13:10	X					1	
	SW-8 (West)		9/20/2021	13:00	X					1	
	SW-9 (South)		9/20/2021	13:10	X					1	
	SW-10 (South)		9/20/2021	13:00	X					1	
	SW-11 (South)		9/20/2021	13:10	X					1	
Relinquished by Ashton Thielke		Date	Time	Received by Paula Tocora Alonso		Date	Time				
Relinquished by <i>Ashton Thielke</i>		9/21/21	9:50	Received by <i>Paula Tocora</i>		9/21/21	0958				
LAB USE ONLY		ANALYSIS REQUEST (Circle or Specify Method No.)									
REMARKS:		BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35) TPH 8015M ( GRO - DRO - ORO) 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 Asbestos Hold									
LAB USE ONLY		Sample Temperature 0/0.5									
REMARKS:		<input type="checkbox"/> RUSH Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRAP Report									

ORIGINAL COPY

## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-6305-1

SDG Number: Eddy Co,NM

Login Number: 6305

List Number: 1

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-6370-1

Laboratory Sample Delivery Group: Eddy Co, NM  
Client Project/Site: Melson Federal #002H

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
9/27/2021 4:08:58 PM

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-6370-1  
SDG: Eddy Co, NM

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

**Job ID: 880-6370-1****Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative  
880-6370-1****Receipt**

The samples were received on 9/22/2021 1:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.0°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8263 and analytical batch 880-8262 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-12 (East) (880-6370-1), SW-3 (North) (880-6370-2), BTM-3 (19.5) (880-6370-3), BTM-4 (19.5) (880-6370-4) and (890-1285-A-2-E). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**GC Semi VOA**

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-8284 and analytical batch 880-8340 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-8312 and 880-8312 and analytical batch 880-8401 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Client Sample ID: SW-12 (East)

Lab Sample ID: 880-6370-1

Date Collected: 09/21/21 13:00

Matrix: Solid

Date Received: 09/22/21 13:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 04:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 04:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 04:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/22/21 13:16	09/24/21 04:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 04:05	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/22/21 13:16	09/24/21 04:05	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		09/22/21 13:16	09/24/21 04:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130	09/22/21 13:16	09/24/21 04:05	1
1,4-Difluorobenzene (Surr)	76		70 - 130	09/22/21 13:16	09/24/21 04:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8		mg/Kg		09/22/21 16:43	09/24/21 16:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/22/21 16:43	09/24/21 16:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/22/21 16:43	09/24/21 16:25	1
Total TPH	<49.8	U	49.8		mg/Kg		09/22/21 16:43	09/24/21 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	09/22/21 16:43	09/24/21 16:25	1
o-Terphenyl	136	S1+	70 - 130	09/22/21 16:43	09/24/21 16:25	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5550	F1	99.8		mg/Kg			09/26/21 02:08	20

Client Sample ID: SW-3 (North)

Lab Sample ID: 880-6370-2

Date Collected: 09/21/21 13:10

Matrix: Solid

Date Received: 09/22/21 13:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 04:26	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 04:26	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 04:26	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		09/22/21 13:16	09/24/21 04:26	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 04:26	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		09/22/21 13:16	09/24/21 04:26	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		09/22/21 13:16	09/24/21 04:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130	09/22/21 13:16	09/24/21 04:26	1
1,4-Difluorobenzene (Surr)	77		70 - 130	09/22/21 13:16	09/24/21 04:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		09/22/21 16:43	09/24/21 16:46	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Client Sample ID: SW-3 (North)

Lab Sample ID: 880-6370-2

Date Collected: 09/21/21 13:10

Matrix: Solid

Date Received: 09/22/21 13:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 16:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 16:46	1
Total TPH	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 16:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130				09/22/21 16:43	09/24/21 16:46	1
o-Terphenyl	138	S1+	70 - 130				09/22/21 16:43	09/24/21 16:46	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8800		50.4		mg/Kg			09/26/21 02:27	10

Client Sample ID: BTM-3 (19.5)

Lab Sample ID: 880-6370-3

Date Collected: 09/22/21 08:30

Matrix: Solid

Date Received: 09/22/21 13:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		09/22/21 13:16	09/24/21 04:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	151	S1+	70 - 130				09/22/21 13:16	09/24/21 04:46	1
1,4-Difluorobenzene (Surr)	89		70 - 130				09/22/21 13:16	09/24/21 04:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		09/22/21 16:43	09/24/21 17:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 17:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 17:08	1
Total TPH	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 17:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				09/22/21 16:43	09/24/21 17:08	1
o-Terphenyl	113		70 - 130				09/22/21 16:43	09/24/21 17:08	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6560		49.7		mg/Kg			09/26/21 02:33	10

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Client Sample ID: BTM-4 (19.5)

Lab Sample ID: 880-6370-4

Date Collected: 09/22/21 08:30

Matrix: Solid

Date Received: 09/22/21 13:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 05:07	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 05:07	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 05:07	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/22/21 13:16	09/24/21 05:07	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/22/21 13:16	09/24/21 05:07	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/22/21 13:16	09/24/21 05:07	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		09/22/21 13:16	09/24/21 05:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	145	S1+	70 - 130	09/22/21 13:16	09/24/21 05:07	1
1,4-Difluorobenzene (Surr)	78		70 - 130	09/22/21 13:16	09/24/21 05:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/22/21 15:50	09/24/21 18:13	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/22/21 15:50	09/24/21 18:13	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/22/21 15:50	09/24/21 18:13	1
Total TPH	<49.8	U	49.8		mg/Kg		09/22/21 15:50	09/24/21 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	09/22/21 15:50	09/24/21 18:13	1
o-Terphenyl	124		70 - 130	09/22/21 15:50	09/24/21 18:13	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5730		49.5		mg/Kg			09/26/21 02:39	10

Client Sample ID: BTM-5 (19.5)

Lab Sample ID: 880-6370-5

Date Collected: 09/22/21 08:30

Matrix: Solid

Date Received: 09/22/21 13:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 05:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 05:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 05:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/22/21 13:16	09/24/21 05:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 05:27	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/22/21 13:16	09/24/21 05:27	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		09/22/21 13:16	09/24/21 05:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	09/22/21 13:16	09/24/21 05:27	1
1,4-Difluorobenzene (Surr)	75		70 - 130	09/22/21 13:16	09/24/21 05:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 18:35	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Client Sample ID: BTM-5 (19.5)

Lab Sample ID: 880-6370-5

Date Collected: 09/22/21 08:30

Matrix: Solid

Date Received: 09/22/21 13:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 18:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 18:35	1
Total TPH	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 18:35	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				09/22/21 15:50	09/24/21 18:35	1
o-Terphenyl	109		70 - 130				09/22/21 15:50	09/24/21 18:35	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2480		25.1		mg/Kg			09/26/21 02:45	5

## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-6370-1	SW-12 (East)	141 S1+	76
880-6370-2	SW-3 (North)	137 S1+	77
880-6370-3	BTM-3 (19.5)	151 S1+	89
880-6370-4	BTM-4 (19.5)	145 S1+	78
880-6370-5	BTM-5 (19.5)	128	75
890-1285-A-2-C MS	Matrix Spike	123	64 S1-
890-1285-A-2-D MSD	Matrix Spike Duplicate	123	81
LCS 880-8263/1-A	Lab Control Sample	128	71
LCSD 880-8263/2-A	Lab Control Sample Dup	129	79
MB 880-8209/5-A	Method Blank	109	79
MB 880-8263/5-A	Method Blank	101	78
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-6370-1	SW-12 (East)	116	136 S1+
880-6370-2	SW-3 (North)	121	138 S1+
880-6370-3	BTM-3 (19.5)	101	113
880-6370-4	BTM-4 (19.5)	119	124
880-6370-5	BTM-5 (19.5)	106	109
880-6375-A-3-C MS	Matrix Spike	108	102
880-6375-A-3-D MSD	Matrix Spike Duplicate	117	112
880-6376-A-1-B MS	Matrix Spike	86	80
880-6376-A-1-C MSD	Matrix Spike Duplicate	74	71
LCS 880-8276/2-A	Lab Control Sample	96	88
LCS 880-8284/2-A	Lab Control Sample	112	109
LCSD 880-8276/3-A	Lab Control Sample Dup	90	82
LCSD 880-8284/3-A	Lab Control Sample Dup	96	97
MB 880-8276/1-A	Method Blank	112	122
MB 880-8284/1-A	Method Blank	97	111
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland



## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8209/5-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:00	09/23/21 16:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:00	09/23/21 16:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:00	09/23/21 16:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/21 09:00	09/23/21 16:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 09:00	09/23/21 16:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/21 09:00	09/23/21 16:32	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/22/21 09:00	09/23/21 16:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	09/22/21 09:00	09/23/21 16:32	1
1,4-Difluorobenzene (Surr)	79		70 - 130	09/22/21 09:00	09/23/21 16:32	1

Lab Sample ID: MB 880-8263/5-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 03:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 03:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 03:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/21 13:16	09/24/21 03:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/21 13:16	09/24/21 03:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/21 13:16	09/24/21 03:24	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/22/21 13:16	09/24/21 03:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	09/22/21 13:16	09/24/21 03:24	1
1,4-Difluorobenzene (Surr)	78		70 - 130	09/22/21 13:16	09/24/21 03:24	1

Lab Sample ID: LCS 880-8263/1-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09072		mg/Kg		91	70 - 130
Toluene	0.100	0.09667		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.1013		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2132		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1075		mg/Kg		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	71		70 - 130

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-8263/2-A

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8263

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
							Limits	RPD		
Benzene	0.100	0.08034		mg/Kg		80	70 - 130	12		35
Toluene	0.100	0.08706		mg/Kg		87	70 - 130	10		35
Ethylbenzene	0.100	0.09732		mg/Kg		97	70 - 130	4		35
m-Xylene & p-Xylene	0.200	0.2042		mg/Kg		102	70 - 130	4		35
o-Xylene	0.100	0.1036		mg/Kg		104	70 - 130	4		35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	79		70 - 130

Lab Sample ID: 890-1285-A-2-C MS

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8263

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
									Limits	
Benzene	<0.00199	U F2 F1	0.100	0.03895	F1	mg/Kg		39	70 - 130	
Toluene	<0.00199	U F2 F1	0.100	0.04917	F1	mg/Kg		49	70 - 130	
Ethylbenzene	<0.00199	U F1	0.100	0.05776	F1	mg/Kg		58	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1141	F1	mg/Kg		57	70 - 130	
o-Xylene	<0.00199	U F1	0.100	0.05958	F1	mg/Kg		60	70 - 130	

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130

Lab Sample ID: 890-1285-A-2-D MSD

Matrix: Solid

Analysis Batch: 8262

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8263

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
									Limits	RPD		
Benzene	<0.00199	U F2 F1	0.0998	0.07229	F2	mg/Kg		72	70 - 130	60		35
Toluene	<0.00199	U F2 F1	0.0998	0.07795	F2	mg/Kg		78	70 - 130	45		35
Ethylbenzene	<0.00199	U F1	0.0998	0.08024		mg/Kg		80	70 - 130	33		35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1664	F2	mg/Kg		83	70 - 130	37		35
o-Xylene	<0.00199	U F1	0.0998	0.08481		mg/Kg		85	70 - 130	35		35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

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

Lab Sample ID: MB 880-8276/1-A

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 09:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 09:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 09:37	1
Total TPH	<50.0	U	50.0		mg/Kg		09/22/21 15:50	09/24/21 09:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	09/22/21 15:50	09/24/21 09:37	1
o-Terphenyl	122		70 - 130	09/22/21 15:50	09/24/21 09:37	1

Lab Sample ID: LCS 880-8276/2-A

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	871.1		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	880.4		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: LCSD 880-8276/3-A

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8276

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	713.0		mg/Kg		71	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	1000	824.4		mg/Kg		82	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: 880-6375-A-3-C MS

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	994.6		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	997	939.7		mg/Kg		93	70 - 130

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

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

Lab Sample ID: 880-6375-A-3-C MS

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8276

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 880-6375-A-3-D MSD

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8276

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	1158		mg/Kg		113	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	1024		mg/Kg		101	70 - 130	9	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: MB 880-8284/1-A

Matrix: Solid

Analysis Batch: 8340

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8284

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 09:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 09:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 09:37	1
Total TPH	<50.0	U	50.0		mg/Kg		09/22/21 16:43	09/24/21 09:37	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				09/22/21 16:43	09/24/21 09:37	1
o-Terphenyl	111		70 - 130				09/22/21 16:43	09/24/21 09:37	1

Lab Sample ID: LCS 880-8284/2-A

Matrix: Solid

Analysis Batch: 8340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8284

			Spike	LCS	LCS				
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1077		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1053		mg/Kg		105	70 - 130
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	112		70 - 130						
o-Terphenyl	109		70 - 130						

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

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

Lab Sample ID: LCSD 880-8284/3-A

Matrix: Solid

Analysis Batch: 8340

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8284

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	843.4	*1	mg/Kg		84	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	1000	926.8		mg/Kg		93	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	96		70 - 130						
o-Terphenyl	97		70 - 130						

Lab Sample ID: 880-6376-A-1-B MS

Matrix: Solid

Analysis Batch: 8340

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	997	1038		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	997	876.3		mg/Kg		86	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	86		70 - 130								
o-Terphenyl	80		70 - 130								

Lab Sample ID: 880-6376-A-1-C MSD

Matrix: Solid

Analysis Batch: 8340

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	999	897.6		mg/Kg		90	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	779.7		mg/Kg		76	70 - 130	12	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	74		70 - 130								
o-Terphenyl	71		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-8312/1-A

Matrix: Solid

Analysis Batch: 8401

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/26/21 01:50	1

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-8312/2-A

Matrix: Solid

Analysis Batch: 8401

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	261.3		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-8312/3-A

Matrix: Solid

Analysis Batch: 8401

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	261.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 880-6370-1 MS

Matrix: Solid

Analysis Batch: 8401

Client Sample ID: SW-12 (East)

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5550	F1	4990	11310	F1	mg/Kg		115	90 - 110

Lab Sample ID: 880-6370-1 MSD

Matrix: Solid

Analysis Batch: 8401

Client Sample ID: SW-12 (East)

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5550	F1	4990	11440	F1	mg/Kg		118	90 - 110	1	20

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## GC VOA

## Prep Batch: 8209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-8209/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 8262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-1	SW-12 (East)	Total/NA	Solid	8021B	8263
880-6370-2	SW-3 (North)	Total/NA	Solid	8021B	8263
880-6370-3	BTM-3 (19.5)	Total/NA	Solid	8021B	8263
880-6370-4	BTM-4 (19.5)	Total/NA	Solid	8021B	8263
880-6370-5	BTM-5 (19.5)	Total/NA	Solid	8021B	8263
MB 880-8209/5-A	Method Blank	Total/NA	Solid	8021B	8209
MB 880-8263/5-A	Method Blank	Total/NA	Solid	8021B	8263
LCS 880-8263/1-A	Lab Control Sample	Total/NA	Solid	8021B	8263
LCSD 880-8263/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	8263
890-1285-A-2-C MS	Matrix Spike	Total/NA	Solid	8021B	8263
890-1285-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	8263

## Prep Batch: 8263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-1	SW-12 (East)	Total/NA	Solid	5035	
880-6370-2	SW-3 (North)	Total/NA	Solid	5035	
880-6370-3	BTM-3 (19.5)	Total/NA	Solid	5035	
880-6370-4	BTM-4 (19.5)	Total/NA	Solid	5035	
880-6370-5	BTM-5 (19.5)	Total/NA	Solid	5035	
MB 880-8263/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-8263/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-8263/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1285-A-2-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1285-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## GC Semi VOA

## Prep Batch: 8276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-4	BTM-4 (19.5)	Total/NA	Solid	8015NM Prep	
880-6370-5	BTM-5 (19.5)	Total/NA	Solid	8015NM Prep	
MB 880-8276/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8276/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8276/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6375-A-3-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6375-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Prep Batch: 8284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-1	SW-12 (East)	Total/NA	Solid	8015NM Prep	
880-6370-2	SW-3 (North)	Total/NA	Solid	8015NM Prep	
880-6370-3	BTM-3 (19.5)	Total/NA	Solid	8015NM Prep	
MB 880-8284/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8284/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8284/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6376-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6376-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## GC Semi VOA

## Analysis Batch: 8338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-4	BTM-4 (19.5)	Total/NA	Solid	8015B NM	8276
880-6370-5	BTM-5 (19.5)	Total/NA	Solid	8015B NM	8276
MB 880-8276/1-A	Method Blank	Total/NA	Solid	8015B NM	8276
LCS 880-8276/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8276
LCSD 880-8276/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8276
880-6375-A-3-C MS	Matrix Spike	Total/NA	Solid	8015B NM	8276
880-6375-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8276

## Analysis Batch: 8340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-1	SW-12 (East)	Total/NA	Solid	8015B NM	8284
880-6370-2	SW-3 (North)	Total/NA	Solid	8015B NM	8284
880-6370-3	BTM-3 (19.5)	Total/NA	Solid	8015B NM	8284
MB 880-8284/1-A	Method Blank	Total/NA	Solid	8015B NM	8284
LCS 880-8284/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8284
LCSD 880-8284/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8284
880-6376-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	8284
880-6376-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8284

## HPLC/IC

## Leach Batch: 8312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-1	SW-12 (East)	Soluble	Solid	DI Leach	
880-6370-2	SW-3 (North)	Soluble	Solid	DI Leach	
880-6370-3	BTM-3 (19.5)	Soluble	Solid	DI Leach	
880-6370-4	BTM-4 (19.5)	Soluble	Solid	DI Leach	
880-6370-5	BTM-5 (19.5)	Soluble	Solid	DI Leach	
MB 880-8312/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-8312/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-8312/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6370-1 MS	SW-12 (East)	Soluble	Solid	DI Leach	
880-6370-1 MSD	SW-12 (East)	Soluble	Solid	DI Leach	

## Analysis Batch: 8401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6370-1	SW-12 (East)	Soluble	Solid	300.0	8312
880-6370-2	SW-3 (North)	Soluble	Solid	300.0	8312
880-6370-3	BTM-3 (19.5)	Soluble	Solid	300.0	8312
880-6370-4	BTM-4 (19.5)	Soluble	Solid	300.0	8312
880-6370-5	BTM-5 (19.5)	Soluble	Solid	300.0	8312
MB 880-8312/1-A	Method Blank	Soluble	Solid	300.0	8312
LCS 880-8312/2-A	Lab Control Sample	Soluble	Solid	300.0	8312
LCSD 880-8312/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	8312
880-6370-1 MS	SW-12 (East)	Soluble	Solid	300.0	8312
880-6370-1 MSD	SW-12 (East)	Soluble	Solid	300.0	8312

Eurofins Xenco, Midland

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

## Client Sample ID: SW-12 (East)

## Lab Sample ID: 880-6370-1

Date Collected: 09/21/21 13:00

Matrix: Solid

Date Received: 09/22/21 13:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	8263	09/22/21 13:16	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/24/21 04:05	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8284	09/22/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8340	09/24/21 16:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	8312	09/23/21 12:08	SC	XEN MID
Soluble	Analysis	300.0		20			8401	09/26/21 02:08	CH	XEN MID

## Client Sample ID: SW-3 (North)

## Lab Sample ID: 880-6370-2

Date Collected: 09/21/21 13:10

Matrix: Solid

Date Received: 09/22/21 13:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	8263	09/22/21 13:16	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/24/21 04:26	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8284	09/22/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8340	09/24/21 16:46	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	8312	09/23/21 12:08	SC	XEN MID
Soluble	Analysis	300.0		10			8401	09/26/21 02:27	CH	XEN MID

## Client Sample ID: BTM-3 (19.5)

## Lab Sample ID: 880-6370-3

Date Collected: 09/22/21 08:30

Matrix: Solid

Date Received: 09/22/21 13:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8263	09/22/21 13:16	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/24/21 04:46	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8284	09/22/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8340	09/24/21 17:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	8312	09/23/21 12:08	SC	XEN MID
Soluble	Analysis	300.0		10			8401	09/26/21 02:33	CH	XEN MID

## Client Sample ID: BTM-4 (19.5)

## Lab Sample ID: 880-6370-4

Date Collected: 09/22/21 08:30

Matrix: Solid

Date Received: 09/22/21 13:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	8263	09/22/21 13:16	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/24/21 05:07	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8276	09/22/21 15:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8338	09/24/21 18:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	8312	09/23/21 12:08	SC	XEN MID
Soluble	Analysis	300.0		10			8401	09/26/21 02:39	CH	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Client Sample ID: BTM-5 (19.5)  
Date Collected: 09/22/21 08:30  
Date Received: 09/22/21 13:00

Lab Sample ID: 880-6370-5  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	8263	09/22/21 13:16	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8262	09/24/21 05:27	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8276	09/22/21 15:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8338	09/24/21 18:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	8312	09/23/21 12:08	SC	XEN MID
Soluble	Analysis	300.0		5			8401	09/26/21 02:45	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

Eurofins Xenco, Midland

Sample Summary

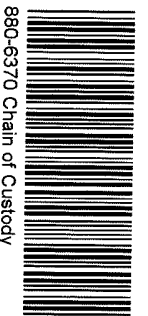
Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6370-1  
SDG: Eddy Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6370-1	SW-12 (East)	Solid	09/21/21 13:00	09/22/21 13:00
880-6370-2	SW-3 (North)	Solid	09/21/21 13:10	09/22/21 13:00
880-6370-3	BTM-3 (19.5)	Solid	09/22/21 08:30	09/22/21 13:00
880-6370-4	BTM-4 (19.5)	Solid	09/22/21 08:30	09/22/21 13:00
880-6370-5	BTM-5 (19.5)	Solid	09/22/21 08:30	09/22/21 13:00

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## Analysis Request of Custody Record

**Tetra Tech, Inc.**901 West Wall St., Suite 11  
Midland, Texas 79701  
Tel (432) 682-4559  
Fax (432) 582-3946

880-6370 Chain of Custody

880-6370

Page 1 of 1

9/27/2021

Client Name		EOG Resources		Site Manager		Paula Tocora	
Project Name		Melson Federal #002H					
Project Location (county, state)		Eddy Co, NM		Project #		212C-MD-02547	
Invoice to		James Kennedy - EOG					
Receiving Laboratory		Xenco Eurofines		Sampler Signature		Ashton Thielke	
Comments							

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)		
		YEAR	DATE	TIME	WATER	SOIL	HCL				HNO <sub>3</sub>	ICE
	SW-12 (East)		9/21/2021	13 00	X			X		1	BTEX 8021B BTEX 8260B	
	SW-3 (North)		9/21/2021	13 10	X			X		1	TPH TX1005 (Ext to C35)	
	BTM-3 (19 5)		9/22/2021	8 30	X			X		1	TPH 8015M ( GRO - DRO - ORO)	
	BTM-4 (19 5)		9/22/2021	8 30	X			X		1	PAH 8270C	
	BTM-5 (19 5)		9/22/2021	8 30	X			X		1	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	
											PCBs 8082 / 608	
											NORM	
											PLM (Asbestos)	
											Chloride	
											Chloride Sulfate TDS	
											General Water Chemistry (see attached list)	
											Anion/Cation Balance	
											Asbestos	
											Hold	

Reinquished by Ashton Thielke	Date 9-22-21	Time 13:00	Received by Paula Tocora Alonso	Date 9/22/21	Time 1300
Reinquished by Karlene Huerta	Date 9-22-21	Time 13:00	Received by Kellie	Date 9/22/21	Time 1300

LAB USE ONLY	REMARKS
Sample Temperature 5.5/6.0	<input checked="" type="checkbox"/> RUSH Same Day 24 hr 48 hr <b>12 hr</b> <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #



## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-6370-1

SDG Number: Eddy Co, NM

Login Number: 6370

List Number: 1

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-6800-1

Laboratory Sample Delivery Group: 212C-MD-02547

Client Project/Site: Melson Federal #002H

#### For:

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
10/8/2021 5:13:24 PM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

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results through

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

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-6800-1  
SDG: 212C-MD-02547

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

**Job ID: 880-6800-1****Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative  
880-6800-1****Receipt**

The samples were received on 10/5/2021 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8912 and analytical batch 880-8885 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-6 (880-6800-1), SW-7 (880-6800-2) and SW-8 (880-6800-3). Evidence of matrix interferences is not obvious.

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

**GC Semi VOA**

Method 8015MOD\_NM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 880-8894 and analytical batch 880-8951.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: SW-8 (880-6800-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**HPLC/IC**

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

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Client Sample ID: SW-6

Lab Sample ID: 880-6800-1

Date Collected: 10/04/21 13:30

Matrix: Solid

Date Received: 10/05/21 10:20

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/05/21 17:00	10/06/21 04:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/05/21 17:00	10/06/21 04:46	1
Ethylbenzene	0.0295		0.00199		mg/Kg		10/05/21 17:00	10/06/21 04:46	1
m-Xylene & p-Xylene	0.123		0.00398		mg/Kg		10/05/21 17:00	10/06/21 04:46	1
o-Xylene	0.108		0.00199		mg/Kg		10/05/21 17:00	10/06/21 04:46	1
Xylenes, Total	0.231		0.00398		mg/Kg		10/05/21 17:00	10/06/21 04:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	10/05/21 17:00	10/06/21 04:46	1
1,4-Difluorobenzene (Surr)	76		70 - 130	10/05/21 17:00	10/06/21 04:46	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.261		0.00200		mg/Kg			10/05/21 10:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3200		249		mg/Kg			10/07/21 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		10/05/21 10:43	10/06/21 18:14	5
Diesel Range Organics (Over C10-C28)	3200		249		mg/Kg		10/05/21 10:43	10/06/21 18:14	5
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		10/05/21 10:43	10/06/21 18:14	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				10/05/21 10:43	10/06/21 18:14	5
o-Terphenyl	105		70 - 130				10/05/21 10:43	10/06/21 18:14	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5640		49.6		mg/Kg			10/05/21 22:57	10

Client Sample ID: SW-7

Lab Sample ID: 880-6800-2

Date Collected: 10/04/21 11:30

Matrix: Solid

Date Received: 10/05/21 10:20

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:06	1
Ethylbenzene	0.0176		0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:06	1
m-Xylene & p-Xylene	0.0646		0.00400		mg/Kg		10/05/21 17:00	10/06/21 05:06	1
o-Xylene	0.0398		0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:06	1
Xylenes, Total	0.104		0.00400		mg/Kg		10/05/21 17:00	10/06/21 05:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	173	S1+	70 - 130	10/05/21 17:00	10/06/21 05:06	1
1,4-Difluorobenzene (Surr)	88		70 - 130	10/05/21 17:00	10/06/21 05:06	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Client Sample ID: SW-7

Lab Sample ID: 880-6800-2

Date Collected: 10/04/21 11:30

Matrix: Solid

Date Received: 10/05/21 10:20

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.122		0.00200		mg/Kg			10/05/21 10:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2280		249		mg/Kg			10/07/21 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		10/05/21 10:43	10/06/21 18:35	5
Diesel Range Organics (Over C10-C28)	2280		249		mg/Kg		10/05/21 10:43	10/06/21 18:35	5
OII Range Organics (Over C28-C36)	<249	U	249		mg/Kg		10/05/21 10:43	10/06/21 18:35	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				10/05/21 10:43	10/06/21 18:35	5
o-Terphenyl	113		70 - 130				10/05/21 10:43	10/06/21 18:35	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3660		25.2		mg/Kg			10/05/21 23:13	5

Client Sample ID: SW-8

Lab Sample ID: 880-6800-3

Date Collected: 10/04/21 14:45

Matrix: Solid

Date Received: 10/05/21 10:20

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:27	1
Toluene	0.00365		0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:27	1
Ethylbenzene	0.0286		0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:27	1
m-Xylene & p-Xylene	0.101		0.00399		mg/Kg		10/05/21 17:00	10/06/21 05:27	1
o-Xylene	0.0754		0.00200		mg/Kg		10/05/21 17:00	10/06/21 05:27	1
Xylenes, Total	0.176		0.00399		mg/Kg		10/05/21 17:00	10/06/21 05:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	166	S1+	70 - 130				10/05/21 17:00	10/06/21 05:27	1
1,4-Difluorobenzene (Surr)	82		70 - 130				10/05/21 17:00	10/06/21 05:27	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.209		0.00200		mg/Kg			10/05/21 10:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4120		249		mg/Kg			10/07/21 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		10/05/21 10:43	10/06/21 18:57	5
Diesel Range Organics (Over C10-C28)	4120		249		mg/Kg		10/05/21 10:43	10/06/21 18:57	5

Eurofins Xenco, Midland



## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## Client Sample ID: SW-8

## Lab Sample ID: 880-6800-3

Date Collected: 10/04/21 14:45

Matrix: Solid

Date Received: 10/05/21 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		10/05/21 10:43	10/06/21 18:57	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130				10/05/21 10:43	10/06/21 18:57	5
o-Terphenyl	131	S1+	70 - 130				10/05/21 10:43	10/06/21 18:57	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5540		49.9		mg/Kg			10/05/21 23:19	10

## Client Sample ID: SW-9

## Lab Sample ID: 880-6800-4

Date Collected: 10/04/21 13:15

Matrix: Solid

Date Received: 10/05/21 10:20

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/05/21 17:00	10/06/21 05:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/05/21 17:00	10/06/21 05:47	1
Ethylbenzene	0.00879		0.00199		mg/Kg		10/05/21 17:00	10/06/21 05:47	1
m-Xylene & p-Xylene	0.0577		0.00398		mg/Kg		10/05/21 17:00	10/06/21 05:47	1
o-Xylene	0.0512		0.00199		mg/Kg		10/05/21 17:00	10/06/21 05:47	1
Xylenes, Total	0.109		0.00398		mg/Kg		10/05/21 17:00	10/06/21 05:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130				10/05/21 17:00	10/06/21 05:47	1
1,4-Difluorobenzene (Surr)	78		70 - 130				10/05/21 17:00	10/06/21 05:47	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.118		0.00200		mg/Kg			10/05/21 10:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2100		250		mg/Kg			10/07/21 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		10/05/21 10:43	10/06/21 19:18	5
Diesel Range Organics (Over C10-C28)	2100		250		mg/Kg		10/05/21 10:43	10/06/21 19:18	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		10/05/21 10:43	10/06/21 19:18	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130				10/05/21 10:43	10/06/21 19:18	5
o-Terphenyl	116		70 - 130				10/05/21 10:43	10/06/21 19:18	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9360		49.7		mg/Kg			10/05/21 23:25	10

Eurofins Xenco, Midland

## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
820-2130-A-1-C MS	Matrix Spike	115	82
820-2130-A-1-D MSD	Matrix Spike Duplicate	114	82
880-6800-1	SW-6	136 S1+	76
880-6800-2	SW-7	173 S1+	88
880-6800-3	SW-8	166 S1+	82
880-6800-4	SW-9	122	78
LCS 880-8912/1-A	Lab Control Sample	109	81
LCSD 880-8912/2-A	Lab Control Sample Dup	116	80
MB 880-8800/5-A	Method Blank	116	85
MB 880-8912/5-A	Method Blank	119	80
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-6727-A-1-C MS	Matrix Spike	118	114
880-6727-A-1-D MSD	Matrix Spike Duplicate	104	102
880-6800-1	SW-6	102	105
880-6800-2	SW-7	108	113
880-6800-3	SW-8	118	131 S1+
880-6800-4	SW-9	121	116
LCS 880-8894/2-A	Lab Control Sample	92	87
LCSD 880-8894/3-A	Lab Control Sample Dup	96	92
MB 880-8894/1-A	Method Blank	101	108
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8800/5-A

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/21 13:33	10/05/21 12:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/21 13:33	10/05/21 12:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/21 13:33	10/05/21 12:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/04/21 13:33	10/05/21 12:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/04/21 13:33	10/05/21 12:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/04/21 13:33	10/05/21 12:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	10/04/21 13:33	10/05/21 12:03	1
1,4-Difluorobenzene (Surr)	85		70 - 130	10/04/21 13:33	10/05/21 12:03	1

Lab Sample ID: MB 880-8912/5-A

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8912

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/05/21 22:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/05/21 22:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/05/21 22:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/05/21 17:00	10/05/21 22:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/05/21 17:00	10/05/21 22:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/05/21 17:00	10/05/21 22:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	10/05/21 17:00	10/05/21 22:57	1
1,4-Difluorobenzene (Surr)	80		70 - 130	10/05/21 17:00	10/05/21 22:57	1

Lab Sample ID: LCS 880-8912/1-A

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08802		mg/Kg		88	70 - 130
Toluene	0.100	0.08907		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.08779		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1839		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09282		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: LCSD 880-8912/2-A

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8912

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09678		mg/Kg		97	70 - 130	9	35

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-8912/2-A

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8912

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.1007		mg/Kg		101	70 - 130	12	35
Ethylbenzene	0.100	0.09997		mg/Kg		100	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.2116		mg/Kg		106	70 - 130	14	35
o-Xylene	0.100	0.1064		mg/Kg		106	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	80		70 - 130

Lab Sample ID: 820-2130-A-1-C MS

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8912

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.00464		0.0992	0.09542		mg/Kg		92	70 - 130
Toluene	0.00601		0.0992	0.1008		mg/Kg		96	70 - 130
Ethylbenzene	0.0599	F1	0.0992	0.1010	F1	mg/Kg		41	70 - 130
m-Xylene & p-Xylene	0.0692	F1	0.198	0.2164		mg/Kg		74	70 - 130
o-Xylene	0.0786	F1	0.0992	0.1077	F1	mg/Kg		29	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: 820-2130-A-1-D MSD

Matrix: Solid

Analysis Batch: 8885

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8912

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00464		0.0996	0.09318		mg/Kg		89	70 - 130	2	35
Toluene	0.00601		0.0996	0.09719		mg/Kg		92	70 - 130	4	35
Ethylbenzene	0.0599	F1	0.0996	0.09695	F1	mg/Kg		37	70 - 130	4	35
m-Xylene & p-Xylene	0.0692	F1	0.199	0.2060	F1	mg/Kg		69	70 - 130	5	35
o-Xylene	0.0786	F1	0.0996	0.1038	F1	mg/Kg		25	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

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

Lab Sample ID: MB 880-8894/1-A

Matrix: Solid

Analysis Batch: 8951

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/05/21 10:43	10/06/21 10:20	1

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

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

Lab Sample ID: MB 880-8894/1-A

Matrix: Solid

Analysis Batch: 8951

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/05/21 10:43	10/06/21 10:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/05/21 10:43	10/06/21 10:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				10/05/21 10:43	10/06/21 10:20	1
o-Terphenyl	108		70 - 130				10/05/21 10:43	10/06/21 10:20	1

Lab Sample ID: LCS 880-8894/2-A

Matrix: Solid

Analysis Batch: 8951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	895.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	1000	779.7		mg/Kg		78	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	92		70 - 130				
o-Terphenyl	87		70 - 130				

Lab Sample ID: LCSD 880-8894/3-A

Matrix: Solid

Analysis Batch: 8951

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8894

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	890.9		mg/Kg		89	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	821.6		mg/Kg		82	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	96		70 - 130						
o-Terphenyl	92		70 - 130						

Lab Sample ID: 880-6727-A-1-C MS

Matrix: Solid

Analysis Batch: 8951

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8894

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	995	1258		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	995	971.0		mg/Kg		96	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	118		70 - 130						
o-Terphenyl	114		70 - 130						

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

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

Lab Sample ID: 880-6727-A-1-D MSD

Matrix: Solid

Analysis Batch: 8951

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8894

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	997	980.9	F2	mg/Kg		96	70 - 130	25	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	877.7		mg/Kg		86	70 - 130	10	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	104		70 - 130								
o-Terphenyl	102		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-8935/1-A

Matrix: Solid

Analysis Batch: 8969

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/05/21 22:40	1

Lab Sample ID: LCS 880-8935/2-A

Matrix: Solid

Analysis Batch: 8969

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	234.6		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-8935/3-A

Matrix: Solid

Analysis Batch: 8969

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	235.5		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 880-6800-1 MS

Matrix: Solid

Analysis Batch: 8969

Client Sample ID: SW-6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5640		2480	8177		mg/Kg		102	90 - 110

Lab Sample ID: 880-6800-1 MSD

Matrix: Solid

Analysis Batch: 8969

Client Sample ID: SW-6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5640		2480	8188		mg/Kg		103	90 - 110	0	20

Eurofins Xenco, Midland

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## GC VOA

## Prep Batch: 8800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-8800/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 8885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Total/NA	Solid	8021B	8912
880-6800-2	SW-7	Total/NA	Solid	8021B	8912
880-6800-3	SW-8	Total/NA	Solid	8021B	8912
880-6800-4	SW-9	Total/NA	Solid	8021B	8912
MB 880-8800/5-A	Method Blank	Total/NA	Solid	8021B	8800
MB 880-8912/5-A	Method Blank	Total/NA	Solid	8021B	8912
LCS 880-8912/1-A	Lab Control Sample	Total/NA	Solid	8021B	8912
LCSD 880-8912/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	8912
820-2130-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	8912
820-2130-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	8912

## Analysis Batch: 8902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Total/NA	Solid	Total BTEX	
880-6800-2	SW-7	Total/NA	Solid	Total BTEX	
880-6800-3	SW-8	Total/NA	Solid	Total BTEX	
880-6800-4	SW-9	Total/NA	Solid	Total BTEX	

## Prep Batch: 8912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Total/NA	Solid	5035	
880-6800-2	SW-7	Total/NA	Solid	5035	
880-6800-3	SW-8	Total/NA	Solid	5035	
880-6800-4	SW-9	Total/NA	Solid	5035	
MB 880-8912/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-8912/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-8912/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-2130-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
820-2130-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## GC Semi VOA

## Prep Batch: 8894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Total/NA	Solid	8015NM Prep	
880-6800-2	SW-7	Total/NA	Solid	8015NM Prep	
880-6800-3	SW-8	Total/NA	Solid	8015NM Prep	
880-6800-4	SW-9	Total/NA	Solid	8015NM Prep	
MB 880-8894/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8894/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8894/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6727-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6727-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 8951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Total/NA	Solid	8015B NM	8894

Eurofins Xenco, Midland



## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

## GC Semi VOA (Continued)

## Analysis Batch: 8951 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-2	SW-7	Total/NA	Solid	8015B NM	8894
880-6800-3	SW-8	Total/NA	Solid	8015B NM	8894
880-6800-4	SW-9	Total/NA	Solid	8015B NM	8894
MB 880-8894/1-A	Method Blank	Total/NA	Solid	8015B NM	8894
LCS 880-8894/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8894
LCSD 880-8894/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8894
880-6727-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	8894
880-6727-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8894

## Analysis Batch: 9044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Total/NA	Solid	8015 NM	
880-6800-2	SW-7	Total/NA	Solid	8015 NM	
880-6800-3	SW-8	Total/NA	Solid	8015 NM	
880-6800-4	SW-9	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 8935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Soluble	Solid	DI Leach	
880-6800-2	SW-7	Soluble	Solid	DI Leach	
880-6800-3	SW-8	Soluble	Solid	DI Leach	
880-6800-4	SW-9	Soluble	Solid	DI Leach	
MB 880-8935/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-8935/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-8935/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6800-1 MS	SW-6	Soluble	Solid	DI Leach	
880-6800-1 MSD	SW-6	Soluble	Solid	DI Leach	

## Analysis Batch: 8969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6800-1	SW-6	Soluble	Solid	300.0	8935
880-6800-2	SW-7	Soluble	Solid	300.0	8935
880-6800-3	SW-8	Soluble	Solid	300.0	8935
880-6800-4	SW-9	Soluble	Solid	300.0	8935
MB 880-8935/1-A	Method Blank	Soluble	Solid	300.0	8935
LCS 880-8935/2-A	Lab Control Sample	Soluble	Solid	300.0	8935
LCSD 880-8935/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	8935
880-6800-1 MS	SW-6	Soluble	Solid	300.0	8935
880-6800-1 MSD	SW-6	Soluble	Solid	300.0	8935

Eurofins Xenco, Midland

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Client Sample ID: SW-6

Lab Sample ID: 880-6800-1

Date Collected: 10/04/21 13:30

Matrix: Solid

Date Received: 10/05/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	8912	10/05/21 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8885	10/06/21 04:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			8902	10/05/21 10:58	KL	XEN MID
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8894	10/05/21 10:43	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8951	10/06/21 18:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	8935	10/05/21 16:30	CH	XEN MID
Soluble	Analysis	300.0		10			8969	10/05/21 22:57	CH	XEN MID

Client Sample ID: SW-7

Lab Sample ID: 880-6800-2

Date Collected: 10/04/21 11:30

Matrix: Solid

Date Received: 10/05/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	8912	10/05/21 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8885	10/06/21 05:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			8902	10/05/21 10:58	KL	XEN MID
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8894	10/05/21 10:43	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8951	10/06/21 18:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	8935	10/05/21 16:30	CH	XEN MID
Soluble	Analysis	300.0		5			8969	10/05/21 23:13	CH	XEN MID

Client Sample ID: SW-8

Lab Sample ID: 880-6800-3

Date Collected: 10/04/21 14:45

Matrix: Solid

Date Received: 10/05/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	8912	10/05/21 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8885	10/06/21 05:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			8902	10/05/21 10:58	KL	XEN MID
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8894	10/05/21 10:43	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8951	10/06/21 18:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	8935	10/05/21 16:30	CH	XEN MID
Soluble	Analysis	300.0		10			8969	10/05/21 23:19	CH	XEN MID

Client Sample ID: SW-9

Lab Sample ID: 880-6800-4

Date Collected: 10/04/21 13:15

Matrix: Solid

Date Received: 10/05/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	8912	10/05/21 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8885	10/06/21 05:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			8902	10/05/21 10:58	KL	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Client Sample ID: SW-9

Lab Sample ID: 880-6800-4

Date Collected: 10/04/21 13:15

Matrix: Solid

Date Received: 10/05/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8894	10/05/21 10:43	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8951	10/06/21 19:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	8935	10/05/21 16:30	CH	XEN MID
Soluble	Analysis	300.0		10			8969	10/05/21 23:25	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

Eurofins Xenco, Midland

## Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-6800-1  
SDG: 212C-MD-02547

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6800-1	SW-6	Solid	10/04/21 13:30	10/05/21 10:20
880-6800-2	SW-7	Solid	10/04/21 11:30	10/05/21 10:20
880-6800-3	SW-8	Solid	10/04/21 14:45	10/05/21 10:20
880-6800-4	SW-9	Solid	10/04/21 13:15	10/05/21 10:20

### Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

9011  
N

880-6800 Chain of Custody

# 880-6800

Client Name

EOG Resources

Site Manager

Paula Tocora

Project Name

Melson Federal #002H

ANALYSIS REQUEST  
(Circle or Specify Method No.)

Project Location (county state)

Eddy Co, NM

Project #:

212C-MD-02547

Invoice to:

James Kennedy - EOG

Receiving Laboratory:

Xenco Eurofines

Sampler Signature

Gabriel Huerta

Comments:

LAB #

LAB USE ONLY

SAMPLE IDENTIFICATION

SAMPLING

MATRIX

PRESERVATIVE METHOD

YEAR

DATE

TIME

WATER  
SOIL

HCL

HNO<sub>3</sub>

ICE

# CONTAINERS

FILTERED (Y/N)

BTEX 8021B

BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO DRO ORO)

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

Asbestos

Hold

Relinquished by

Date Time

Gabriel Huerta

Received by:

Date Time

Paula Tocora Alonso

Relinquished by

Date Time

Gabriel Huerta

Received by:

Date Time

Keq

10/5/21

1020

LAB USE ONLY

Sample Temperature

4.1/4.6

REMARKS

☒ RUSH Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #



## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-6800-1

SDG Number: 212C-MD-02547

Login Number: 6800

List Number: 1

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-7346-1

Laboratory Sample Delivery Group: Eddy County, NM  
Client Project/Site: Melson Federal #002H

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Paula TocoraAlonso

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
10/25/2021 9:52:11 AM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

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

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-7346-1  
SDG: Eddy County, NM

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

**Job ID: 880-7346-1**

**Laboratory: Eurofins Xenco, Midland**

**Narrative**

**Job Narrative  
880-7346-1**

**Receipt**

The samples were received on 10/19/2021 10:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9908 and 880-9908 and analytical batch 880-9938 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**GC Semi VOA**

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-10073 and analytical batch 880-10053 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

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

**HPLC/IC**

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

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

Client Sample ID: SW-6

Lab Sample ID: 880-7346-1

Date Collected: 10/18/21 13:30

Matrix: Solid

Date Received: 10/19/21 10:35

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 F2	0.00199		mg/Kg		10/19/21 14:57	10/21/21 02:33	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		10/19/21 14:57	10/21/21 02:33	1
Ethylbenzene	0.0530	F1 F2	0.00199		mg/Kg		10/19/21 14:57	10/21/21 02:33	1
m-Xylene & p-Xylene	0.00917	F1 F2	0.00398		mg/Kg		10/19/21 14:57	10/21/21 02:33	1
o-Xylene	0.00596	F1 F2	0.00199		mg/Kg		10/19/21 14:57	10/21/21 02:33	1
Xylenes, Total	0.0151	F1 F2	0.00398		mg/Kg		10/19/21 14:57	10/21/21 02:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/19/21 14:57	10/21/21 02:33	1
1,4-Difluorobenzene (Surr)	105		70 - 130	10/19/21 14:57	10/21/21 02:33	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0681		0.00398		mg/Kg			10/21/21 11:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1190		50.0		mg/Kg			10/22/21 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 12:43	1
Diesel Range Organics (Over C10-C28)	1190	*1	50.0		mg/Kg		10/21/21 09:49	10/21/21 12:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	10/21/21 09:49	10/21/21 12:43	1
o-Terphenyl	121		70 - 130	10/21/21 09:49	10/21/21 12:43	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1730		25.0		mg/Kg			10/20/21 03:56	5

Client Sample ID: SW-7

Lab Sample ID: 880-7346-2

Date Collected: 10/18/21 13:40

Matrix: Solid

Date Received: 10/19/21 10:35

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:53	1
Ethylbenzene	0.0281		0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:53	1
m-Xylene & p-Xylene	0.00860		0.00400		mg/Kg		10/19/21 14:57	10/21/21 02:53	1
o-Xylene	0.0126		0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:53	1
Xylenes, Total	0.0212		0.00400		mg/Kg		10/19/21 14:57	10/21/21 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	10/19/21 14:57	10/21/21 02:53	1
1,4-Difluorobenzene (Surr)	125		70 - 130	10/19/21 14:57	10/21/21 02:53	1

Eurofins Xenco, Midland

## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

Client Sample ID: SW-7

Lab Sample ID: 880-7346-2

Date Collected: 10/18/21 13:40

Matrix: Solid

Date Received: 10/19/21 10:35

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0493		0.00400		mg/Kg			10/20/21 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	937		50.0		mg/Kg			10/22/21 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 13:42	1
Diesel Range Organics (Over C10-C28)	937	*1	50.0		mg/Kg		10/21/21 09:49	10/21/21 13:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130				10/21/21 09:49	10/21/21 13:42	1
o-Terphenyl	123		70 - 130				10/21/21 09:49	10/21/21 13:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		24.8		mg/Kg			10/20/21 04:02	5

Client Sample ID: SW-8

Lab Sample ID: 880-7346-3

Date Collected: 10/18/21 13:50

Matrix: Solid

Date Received: 10/19/21 10:35

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/19/21 14:57	10/21/21 03:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/19/21 14:57	10/21/21 03:14	1
Ethylbenzene	0.0220		0.00199		mg/Kg		10/19/21 14:57	10/21/21 03:14	1
m-Xylene & p-Xylene	0.00561		0.00398		mg/Kg		10/19/21 14:57	10/21/21 03:14	1
o-Xylene	0.00611		0.00199		mg/Kg		10/19/21 14:57	10/21/21 03:14	1
Xylenes, Total	0.0117		0.00398		mg/Kg		10/19/21 14:57	10/21/21 03:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				10/19/21 14:57	10/21/21 03:14	1
1,4-Difluorobenzene (Surr)	114		70 - 130				10/19/21 14:57	10/21/21 03:14	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0337		0.00398		mg/Kg			10/20/21 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	977		49.9		mg/Kg			10/22/21 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/21/21 09:49	10/21/21 14:02	1
Diesel Range Organics (Over C10-C28)	977	*1	49.9		mg/Kg		10/21/21 09:49	10/21/21 14:02	1

Eurofins Xenco, Midland



## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## Client Sample ID: SW-8

## Lab Sample ID: 880-7346-3

Date Collected: 10/18/21 13:50

Matrix: Solid

Date Received: 10/19/21 10:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/21 09:49	10/21/21 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130				10/21/21 09:49	10/21/21 14:02	1
o-Terphenyl	115		70 - 130				10/21/21 09:49	10/21/21 14:02	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1690		25.0		mg/Kg			10/20/21 04:19	5

## Client Sample ID: SW-9

## Lab Sample ID: 880-7346-4

Date Collected: 10/18/21 14:00

Matrix: Solid

Date Received: 10/19/21 10:35

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 03:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 03:34	1
Ethylbenzene	0.0306		0.00200		mg/Kg		10/19/21 14:57	10/21/21 03:34	1
m-Xylene & p-Xylene	0.00856		0.00400		mg/Kg		10/19/21 14:57	10/21/21 03:34	1
o-Xylene	0.00796		0.00200		mg/Kg		10/19/21 14:57	10/21/21 03:34	1
Xylenes, Total	0.0165		0.00400		mg/Kg		10/19/21 14:57	10/21/21 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				10/19/21 14:57	10/21/21 03:34	1
1,4-Difluorobenzene (Surr)	112		70 - 130				10/19/21 14:57	10/21/21 03:34	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0471		0.00400		mg/Kg			10/20/21 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1070		49.9		mg/Kg			10/22/21 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/21/21 09:49	10/21/21 14:22	1
Diesel Range Organics (Over C10-C28)	1070	*1	49.9		mg/Kg		10/21/21 09:49	10/21/21 14:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/21 09:49	10/21/21 14:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				10/21/21 09:49	10/21/21 14:22	1
o-Terphenyl	121		70 - 130				10/21/21 09:49	10/21/21 14:22	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1690		25.1		mg/Kg			10/20/21 04:24	5

Eurofins Xenco, Midland

## Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-7346-1	SW-6	94	105
880-7346-1 MS	SW-6	124	127
880-7346-1 MSD	SW-6	75	72
880-7346-2	SW-7	102	125
880-7346-3	SW-8	96	114
880-7346-4	SW-9	103	112
LCS 880-9908/1-A	Lab Control Sample	94	106
LCSD 880-9908/2-A	Lab Control Sample Dup	93	107
MB 880-9756/5-A	Method Blank	100	109
MB 880-9908/5-A	Method Blank	98	102
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-7346-1	SW-6	116	121
880-7346-1 MS	SW-6	127	124
880-7346-1 MSD	SW-6	123	125
880-7346-2	SW-7	118	123
880-7346-3	SW-8	111	115
880-7346-4	SW-9	120	121
LCS 880-10073/2-A	Lab Control Sample	88	83
LCSD 880-10073/3-A	Lab Control Sample Dup	98	94
MB 880-10073/1-A	Method Blank	103	108
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9756/5-A

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/18/21 14:16	10/20/21 14:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/18/21 14:16	10/20/21 14:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/18/21 14:16	10/20/21 14:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/18/21 14:16	10/20/21 14:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/18/21 14:16	10/20/21 14:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/18/21 14:16	10/20/21 14:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/18/21 14:16	10/20/21 14:30	1
1,4-Difluorobenzene (Surr)	109		70 - 130	10/18/21 14:16	10/20/21 14:30	1

Lab Sample ID: MB 880-9908/5-A

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/19/21 14:57	10/21/21 02:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/19/21 14:57	10/21/21 02:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/19/21 14:57	10/21/21 02:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	10/19/21 14:57	10/21/21 02:04	1
1,4-Difluorobenzene (Surr)	102		70 - 130	10/19/21 14:57	10/21/21 02:04	1

Lab Sample ID: LCS 880-9908/1-A

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1031		mg/Kg		103	70 - 130
Toluene	0.100	0.1075		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1152		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2275		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1217		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-9908/2-A

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1031		mg/Kg		103	70 - 130	0	35

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-9908/2-A

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.1074		mg/Kg		107	70 - 130	0	35
Ethylbenzene	0.100	0.1163		mg/Kg		116	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2257		mg/Kg		113	70 - 130	1	35
o-Xylene	0.100	0.1189		mg/Kg		119	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 880-7346-1 MS

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: SW-6

Prep Type: Total/NA

Prep Batch: 9908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1 F2	0.0990	0.02863	F1	mg/Kg		28	70 - 130
Toluene	<0.00199	U F1	0.0990	0.02025	F1	mg/Kg		19	70 - 130
Ethylbenzene	0.0530	F1 F2	0.0990	0.05535	F1	mg/Kg		2	70 - 130
m-Xylene & p-Xylene	0.00917	F1 F2	0.198	0.06192	F1	mg/Kg		27	70 - 130
o-Xylene	0.00596	F1 F2	0.0990	0.03361	F1	mg/Kg		28	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	127		70 - 130

Lab Sample ID: 880-7346-1 MSD

Matrix: Solid

Analysis Batch: 9938

Client Sample ID: SW-6

Prep Type: Total/NA

Prep Batch: 9908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.0998	0.009546	F1 F2	mg/Kg		9	70 - 130	100	35
Toluene	<0.00199	U F1	0.0998	0.01621	F1	mg/Kg		15	70 - 130	22	35
Ethylbenzene	0.0530	F1 F2	0.0998	0.01603	F1 F2	mg/Kg		-37	70 - 130	110	35
m-Xylene & p-Xylene	0.00917	F1 F2	0.200	0.03474	F1 F2	mg/Kg		13	70 - 130	56	35
o-Xylene	0.00596	F1 F2	0.0998	0.01835	F1 F2	mg/Kg		12	70 - 130	59	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	75		70 - 130
1,4-Difluorobenzene (Surr)	72		70 - 130

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

Lab Sample ID: MB 880-10073/1-A

Matrix: Solid

Analysis Batch: 10053

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 11:42	1

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

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

Lab Sample ID: MB 880-10073/1-A

Matrix: Solid

Analysis Batch: 10053

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/21 09:49	10/21/21 11:42	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				10/21/21 09:49	10/21/21 11:42	1
o-Terphenyl	108		70 - 130				10/21/21 09:49	10/21/21 11:42	1

Lab Sample ID: LCS 880-10073/2-A

Matrix: Solid

Analysis Batch: 10053

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	801.8		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	1000	816.3		mg/Kg		82	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	88		70 - 130				
o-Terphenyl	83		70 - 130				

Lab Sample ID: LCSD 880-10073/3-A

Matrix: Solid

Analysis Batch: 10053

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10073

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	983.9		mg/Kg		98	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	1000	1020	*1	mg/Kg		102	70 - 130	22	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	98		70 - 130						
o-Terphenyl	94		70 - 130						

Lab Sample ID: 880-7346-1 MS

Matrix: Solid

Analysis Batch: 10053

Client Sample ID: SW-6

Prep Type: Total/NA

Prep Batch: 10073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	1082		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1190	*1	996	2214		mg/Kg		103	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	127		70 - 130						
o-Terphenyl	124		70 - 130						

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## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

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

Lab Sample ID: 880-7346-1 MSD

Matrix: Solid

Analysis Batch: 10053

Client Sample ID: SW-6

Prep Type: Total/NA

Prep Batch: 10073

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1061		mg/Kg		105	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1190	*1	998	2245		mg/Kg		106	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	123		70 - 130								
o-Terphenyl	125		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9724/1-A

Matrix: Solid

Analysis Batch: 9925

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/20/21 02:26	1

Lab Sample ID: LCS 880-9724/2-A

Matrix: Solid

Analysis Batch: 9925

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	251.8		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-9724/3-A

Matrix: Solid

Analysis Batch: 9925

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.4		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-7346-2 MS

Matrix: Solid

Analysis Batch: 9925

Client Sample ID: SW-7

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1600		1240	2912		mg/Kg		106	90 - 110

Lab Sample ID: 880-7346-2 MSD

Matrix: Solid

Analysis Batch: 9925

Client Sample ID: SW-7

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1600		1240	2913		mg/Kg		106	90 - 110	0	20

Eurofins Xenco, Midland

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## GC VOA

## Prep Batch: 9756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-9756/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 9908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Total/NA	Solid	5035	
880-7346-2	SW-7	Total/NA	Solid	5035	
880-7346-3	SW-8	Total/NA	Solid	5035	
880-7346-4	SW-9	Total/NA	Solid	5035	
MB 880-9908/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9908/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9908/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-7346-1 MS	SW-6	Total/NA	Solid	5035	
880-7346-1 MSD	SW-6	Total/NA	Solid	5035	

## Analysis Batch: 9938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Total/NA	Solid	8021B	9908
880-7346-2	SW-7	Total/NA	Solid	8021B	9908
880-7346-3	SW-8	Total/NA	Solid	8021B	9908
880-7346-4	SW-9	Total/NA	Solid	8021B	9908
MB 880-9756/5-A	Method Blank	Total/NA	Solid	8021B	9756
MB 880-9908/5-A	Method Blank	Total/NA	Solid	8021B	9908
LCS 880-9908/1-A	Lab Control Sample	Total/NA	Solid	8021B	9908
LCSD 880-9908/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9908
880-7346-1 MS	SW-6	Total/NA	Solid	8021B	9908
880-7346-1 MSD	SW-6	Total/NA	Solid	8021B	9908

## Analysis Batch: 10032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-2	SW-7	Total/NA	Solid	Total BTEX	
880-7346-3	SW-8	Total/NA	Solid	Total BTEX	
880-7346-4	SW-9	Total/NA	Solid	Total BTEX	

## Analysis Batch: 10089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 10053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Total/NA	Solid	8015B NM	10073
880-7346-2	SW-7	Total/NA	Solid	8015B NM	10073
880-7346-3	SW-8	Total/NA	Solid	8015B NM	10073
880-7346-4	SW-9	Total/NA	Solid	8015B NM	10073
MB 880-10073/1-A	Method Blank	Total/NA	Solid	8015B NM	10073
LCS 880-10073/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10073
LCSD 880-10073/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10073
880-7346-1 MS	SW-6	Total/NA	Solid	8015B NM	10073
880-7346-1 MSD	SW-6	Total/NA	Solid	8015B NM	10073

Eurofins Xenco, Midland



## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## GC Semi VOA

## Prep Batch: 10073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Total/NA	Solid	8015NM Prep	
880-7346-2	SW-7	Total/NA	Solid	8015NM Prep	
880-7346-3	SW-8	Total/NA	Solid	8015NM Prep	
880-7346-4	SW-9	Total/NA	Solid	8015NM Prep	
MB 880-10073/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10073/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10073/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7346-1 MS	SW-6	Total/NA	Solid	8015NM Prep	
880-7346-1 MSD	SW-6	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 10196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Total/NA	Solid	8015 NM	
880-7346-2	SW-7	Total/NA	Solid	8015 NM	
880-7346-3	SW-8	Total/NA	Solid	8015 NM	
880-7346-4	SW-9	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 9724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Soluble	Solid	DI Leach	
880-7346-2	SW-7	Soluble	Solid	DI Leach	
880-7346-3	SW-8	Soluble	Solid	DI Leach	
880-7346-4	SW-9	Soluble	Solid	DI Leach	
MB 880-9724/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9724/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9724/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7346-2 MS	SW-7	Soluble	Solid	DI Leach	
880-7346-2 MSD	SW-7	Soluble	Solid	DI Leach	

## Analysis Batch: 9925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7346-1	SW-6	Soluble	Solid	300.0	9724
880-7346-2	SW-7	Soluble	Solid	300.0	9724
880-7346-3	SW-8	Soluble	Solid	300.0	9724
880-7346-4	SW-9	Soluble	Solid	300.0	9724
MB 880-9724/1-A	Method Blank	Soluble	Solid	300.0	9724
LCS 880-9724/2-A	Lab Control Sample	Soluble	Solid	300.0	9724
LCSD 880-9724/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9724
880-7346-2 MS	SW-7	Soluble	Solid	300.0	9724
880-7346-2 MSD	SW-7	Soluble	Solid	300.0	9724

Eurofins Xenco, Midland

## Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

## Client Sample ID: SW-6

## Lab Sample ID: 880-7346-1

Date Collected: 10/18/21 13:30

Matrix: Solid

Date Received: 10/19/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	9908	10/19/21 14:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9938	10/21/21 02:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			10089	10/21/21 11:35	MR	XEN MID
Total/NA	Analysis	8015 NM		1			10196	10/22/21 09:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10073	10/21/21 09:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10053	10/21/21 12:43	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	9724	10/19/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		5			9925	10/20/21 03:56	CH	XEN MID

## Client Sample ID: SW-7

## Lab Sample ID: 880-7346-2

Date Collected: 10/18/21 13:40

Matrix: Solid

Date Received: 10/19/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	9908	10/19/21 14:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9938	10/21/21 02:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			10032	10/20/21 20:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10196	10/22/21 09:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10073	10/21/21 09:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10053	10/21/21 13:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	9724	10/19/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		5			9925	10/20/21 04:02	CH	XEN MID

## Client Sample ID: SW-8

## Lab Sample ID: 880-7346-3

Date Collected: 10/18/21 13:50

Matrix: Solid

Date Received: 10/19/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	9908	10/19/21 14:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9938	10/21/21 03:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			10032	10/20/21 20:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10196	10/22/21 09:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10073	10/21/21 09:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10053	10/21/21 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	9724	10/19/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		5			9925	10/20/21 04:19	CH	XEN MID

## Client Sample ID: SW-9

## Lab Sample ID: 880-7346-4

Date Collected: 10/18/21 14:00

Matrix: Solid

Date Received: 10/19/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	9908	10/19/21 14:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9938	10/21/21 03:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			10032	10/20/21 20:18	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

Client Sample ID: SW-9  
Date Collected: 10/18/21 14:00  
Date Received: 10/19/21 10:35

Lab Sample ID: 880-7346-4  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10196	10/22/21 09:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	10073	10/21/21 09:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10053	10/21/21 14:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	9724	10/19/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		5			9925	10/20/21 04:24	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

## Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

Eurofins Xenco, Midland

## Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7346-1  
SDG: Eddy County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-7346-1	SW-6	Solid	10/18/21 13:30	10/19/21 10:35
880-7346-2	SW-7	Solid	10/18/21 13:40	10/19/21 10:35
880-7346-3	SW-8	Solid	10/18/21 13:50	10/19/21 10:35
880-7346-4	SW-9	Solid	10/18/21 14:00	10/19/21 10:35

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### Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Mall St., Suite 100  
Midland Texas 79701  
Tel (432) 682-4458  
Fax (432) 682-3946

880-7346 Chain of Custody

Client Name

EOG Resources

Site Manager

Paula Tocora

Project Name

Melson Federal #002H

ANALYSIS REQUEST  
(Circle or Specify Method No.)

Project Location  
(county,  
state)

(county,  
state)  
Eddy Co, NM

Project #

212C-MD-02547

Invoice to

Receiving Laboratory

James Kennedy - EOG

Sampler Signature

Adrian Garcia

Comments

Xenoco Eurofines

LAB #  
(LAB USE ONLY)

SAMPLE IDENTIFICATION

SAMPLING

YEAR

DATE

TIME

MATRIX

WATER

SOIL

PRESERVATIVE METHOD

HCL

HNO<sub>3</sub>

ICE

# CONTAINERS

FILTERED (Y/N)

BTX 8021B BTX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M ( GRO DRO ORO)

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

Asbestos

Hold

Relinquished by

Adrian Garcia

Date Time

Received by

Paula Tocora Alonso

Date Time

Relinquished by

Date Time

Received by

Date Time

Relinquished by

Date Time

Received by

Date Time

LAB USE ONLY

Sample Temperature

RUSH Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #



## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-7346-1

SDG Number: Eddy County, NM

Login Number: 7346

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-7628-1

Laboratory Sample Delivery Group: Eddy County, NM  
Client Project/Site: Melson Federal #002H

**For:**

Tetra Tech, Inc.  
901 W Wall  
Ste 100  
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
11/1/2021 12:08:18 PM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

#### LINKS

Review your project  
results through

**TotalAccess**

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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Laboratory Job ID: 880-7628-1  
SDG: Eddy County, NM

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## Definitions/Glossary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

## Qualifiers

## GC Semi VOA

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

## Glossary

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

## Case Narrative

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

**Job ID: 880-7628-1**

**Laboratory: Eurofins Xenco, Midland**

### Narrative

#### Job Narrative 880-7628-1

### Receipt

The samples were received on 10/27/2021 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

### GC Semi VOA

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

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## Client Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

Client Sample ID: SW-6

Lab Sample ID: 880-7628-1

Date Collected: 10/26/21 14:00

Matrix: Solid

Date Received: 10/27/21 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 13:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 13:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 13:14	1
Total TPH	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	10/29/21 16:10	10/30/21 13:14	1
o-Terphenyl	108		70 - 130	10/29/21 16:10	10/30/21 13:14	1

Client Sample ID: SW-9

Lab Sample ID: 880-7628-2

Date Collected: 10/26/21 14:10

Matrix: Solid

Date Received: 10/27/21 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	244		50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 13:35	1
Diesel Range Organics (Over C10-C28)	244		50.0		mg/Kg		10/29/21 16:10	10/30/21 13:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 13:35	1
Total TPH	244		50.0		mg/Kg		10/29/21 16:10	10/30/21 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	10/29/21 16:10	10/30/21 13:35	1
o-Terphenyl	103		70 - 130	10/29/21 16:10	10/30/21 13:35	1

Eurofins Xenco, Midland

Surrogate Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-7623-A-1-H MS	Matrix Spike	95	91
880-7623-A-1-I MSD	Matrix Spike Duplicate	92	92
880-7628-1	SW-6	97	108
880-7628-2	SW-9	93	103
LCS 880-10989/2-A	Lab Control Sample	89	97
LCSD 880-10989/3-A	Lab Control Sample Dup	95	105
MB 880-10989/1-A	Method Blank	102	115
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			



## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

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

Lab Sample ID: MB 880-10989/1-A

Matrix: Solid

Analysis Batch: 10996

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10989

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 10:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 10:43	1
Total TPH	<50.0	U	50.0		mg/Kg		10/29/21 16:10	10/30/21 10:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	10/29/21 16:10	10/30/21 10:43	1
o-Terphenyl	115		70 - 130	10/29/21 16:10	10/30/21 10:43	1

Lab Sample ID: LCS 880-10989/2-A

Matrix: Solid

Analysis Batch: 10996

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10989

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	791.7		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	1000	947.9		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-10989/3-A

Matrix: Solid

Analysis Batch: 10996

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10989

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	829.2		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	914.5		mg/Kg		91	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 880-7623-A-1-H MS

Matrix: Solid

Analysis Batch: 10996

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10989

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	893.1		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	857.8		mg/Kg		86	70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

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

Lab Sample ID: 880-7623-A-1-H MS  
Matrix: Solid  
Analysis Batch: 10996

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 10989

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 880-7623-A-1-I MSD  
Matrix: Solid  
Analysis Batch: 10996

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 10989

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	899.9		mg/Kg		88	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	883.4		mg/Kg		88	70 - 130	3	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
o-Terphenyl	92		70 - 130								

## QC Association Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

## GC Semi VOA

## Prep Batch: 10989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7628-1	SW-6	Total/NA	Solid	8015NM Prep	
880-7628-2	SW-9	Total/NA	Solid	8015NM Prep	
MB 880-10989/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10989/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10989/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7623-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7623-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 10996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7628-1	SW-6	Total/NA	Solid	8015B NM	10989
880-7628-2	SW-9	Total/NA	Solid	8015B NM	10989
MB 880-10989/1-A	Method Blank	Total/NA	Solid	8015B NM	10989
LCS 880-10989/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10989
LCSD 880-10989/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10989
880-7623-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	10989
880-7623-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10989

## Analysis Batch: 11118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7628-1	SW-6	Total/NA	Solid	8015 NM	
880-7628-2	SW-9	Total/NA	Solid	8015 NM	

Lab Chronicle

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

Client Sample ID: SW-6  
Date Collected: 10/26/21 14:00  
Date Received: 10/27/21 10:15

Lab Sample ID: 880-7628-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10989	10/29/21 16:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			10996	10/30/21 13:14	AJ	XEN MID

Client Sample ID: SW-9  
Date Collected: 10/26/21 14:10  
Date Received: 10/27/21 10:15

Lab Sample ID: 880-7628-2  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10989	10/29/21 16:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			10996	10/30/21 13:35	AJ	XEN MID

Laboratory References:  
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH

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

Method Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

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

**Laboratory References:**  
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.  
Project/Site: Melson Federal #002H

Job ID: 880-7628-1  
SDG: Eddy County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-7628-1	SW-6	Solid	10/26/21 14:00	10/27/21 10:15
880-7628-2	SW-9	Solid	10/26/21 14:10	10/27/21 10:15

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

Analysis Request of Chain of Custody Record

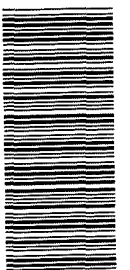


Tetra Tech, Inc.

901 West Wall St, Suite 100  
Midland, Texas 79701  
Tel (432) 582-4559  
Fax (432) 582-3946

880-7628 Chain of Custody

1 of 1



Client Name	EOG	Site Manager	Paula Tocora						
Project Name	Melison Federal #002H	Contact Info	Paula.TocoraAlonso@tetrattech.com						
Project Location (county, state)	Eddy County, NM	Project #	212C-MD-02547						
Invoice to	EOG - James Kennedy								
Receiving Laboratory	Eurofins Xenco	Sampler Signature	Adrian Garcia						
Comments	Bill direct to EOG, Attention James Kennedy								
LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)	
		YEAR	DATE						TIME
	SW-6	10/26/2021	2:50pm			1		BTEX 8021B	
	SW-9	10/26/2021	2:10pm	X		1		TPH TX1005 (Ext to C35)	
								TPH 8015M ( GRO DRO - ORO)	
								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 300 0	
								Chloride Sulfate TDS	
								General Water Chemistry (see attached list)	
								Anion/Cation Balance	
								Asbestos	
								Hold	
Relinquished by	Adrian Garcia	Date	Time	Received by	Paula Tocora Alonso	Date	Time	LAB USE ONLY Sample Temperature 13114 1R-8	REMARKS. <input type="checkbox"/> RUSH Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report
Relinquished by	Paula Tocora Alonso	Date	Time	Received by		Date	Time		
Relinquished by		Date	Time	Received by		Date	Time		

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #



## Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-7628-1

SDG Number: Eddy County, NM

Login Number: 7628

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

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

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS  
  
Action 70828

COMMENTS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 70828
	Action Type: [C-141] Release Corrective Action (C-141)

COMMENTS

Created By	Comment	Comment Date
csmith	Returned to OCD Review, discussed with Operator, Remediation was in correct location.	6/6/2023

**District I**

1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

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**District IV**

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 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 70828

**CONDITIONS**

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 70828
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
bhall	Closure approved. Site will need to meet the requirements of 19.15.29.13 NMAC at time of plugging and abandonment.	6/6/2023
bhall	Initial submittal was rejected for "The historic report included in the appendices shows that the release occurred at the tank battery and south of the tank battery. The release that was remediated near the wellhead/pump jack does not appear to have been reported to the NMOCD. This release will need to be reported on an initial C-141 and the closure report can be resubmitted under the new incident number for this release." After conversations with Mr. James Kennedy with EOG about location of the battery in 2009, OCD had the application returned to "Under OCD review" as remediation did occur in the correct area.	6/6/2023