REVIEWED

By Mike Buchanan at 3:13 pm, Mar 04, 2024

Groundwater Investigation Report

April 14, 2023

Groundwater Investigation Report has been received for Flying M SA Unit 4 Trunkline: Content Satisfactory 1. Continue to monitor groundwater and collect samples for analysis until eight (8) consecutive quarterly events have demonstrated below the allowable concentrations in NM WQCC and 19.15.30 of the NMAC. Submit a Stage 1 Abatement Plan as per 19.15.30 of the NMAC for OCD review 3. Submit an Annual Groundwater Monitoring Report for 2023 by April 1, 2024.

Flying M SA Unit 4" Trunkline Crude Oil and Produced Water Release

Incident No.: NOY1827137381 1RP-5214

Prepared For:

Southwest Royalties, Inc. P.O. Box 53570 Midland, Texas 79710

Prepared By:

Crain Environmental 2925 East 17th Street Odessa, Texas 79761

Cynthia K. Crain, P.G.

Flying M SA Unit 4" Trunkline Groundwater Investigation Report

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APPENDICES

Appendix A: Release Notification and Corrective Action Form (NMOCD Form C-141)

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Released to Imaging: 3/4/2024 3:21:36 PM

1.0 Introduction

Crain Environmental (CE), on behalf of Southwest Royalties, Inc. (SWR), has prepared this *Groundwater Investigation Report* for the produced water release at the Flying M SA Unit 4" Trunkline (Flying M) Site, located in Unit Letter K, Section 29, Township 9 South, Range 33 East, Lea County, New Mexico. The global positioning system (GPS) coordinates for the Release Site are 33.501508, -103.59383. The property surface rights are privately owned. The location of the Release Site is depicted on Figure 1.

2.0 Background

On September 25, 2018, a split in a flow line resulted in a release of approximately 5 barrels (bbls) of crude oil and 75 bbls of produced water. Immediately following the release, the area was secured, and the flow line was repaired.

The released fluid flowed on the ground approximately 150 feet south from the release point. Approximately 4 bbls of crude oil and 56 bbl of produced water was recovered, and impacted soil was excavated and stockpiled on plastic at the Site. Land use in the Site vicinity is primarily oil and gas production activity.

The release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) via telephone. The NMOCD Form C-141 (Release Notification Report) was received by the NMOCD on September 28, 2018, and the Site was assigned Incident Number NOY1827137381 and RP identifier 1RP-5214. A copy of the NMOCD Form C-141 and the NMOCD response is provided in Appendix A. Crude oil and produced water surface impacts at the Site covered approximately 4,300 square feet. The release point and the surface extent of the crude oil and produced water release are depicted on Figure 2.

On January 25, 2022, a *Remediation Report and Closure Request* was submitted to the NMOCD; however, the report was denied by the NMOCD on February 9, 2022, and a revised Closure Report was requested by April 11, 2022.

Due to delays in laboratory results, drilling permits, and equipment scheduling, a request for a 60-day extension was submitted to and approved by the NMOCD on April 4, 2022, with a new due date of June 6, 2022. Additional delays were encountered (survey scheduling, receipt of lab results, and collection of groundwater samples) and a request for an additional 60-day extension was submitted to and approved by the NMOCD on June 2, 2022, with a revised due date of August 5, 2022. Copies of NMOCD correspondence is included in Appendix B.

A revised *Remediation Report, Soil Variance Request, and Groundwater Investigation* (Report) was submitted to the NMOCD on August 4, 2022, that proposed re-excavation of the southern portion of the backfilled excavation and placement of a liner at a depth of four feet (') below ground surface (bgs). The Report also documented the installation of and sample collection from three monitor wells (MWs). As chloride concentrations in all three MWs (MW-1, MW-2, and MW-3) exceeded the NMOCD Criteria of 250 milligrams per liter (mg/L), SWR additionally proposed the installation of one upgradient MW.

On August 17, 2023, the NMOCD responded to the Report, stating that re-excavation of the southern portion of the backfilled excavation and placement of a liner was not required; however, the installation of two additional MWs (located NW and SE of the existing wells) was requested. On September 9, 2022, the NMOCD approved the locations of the two proposed MWs.

On December 1, 2022, CE submitted an email to the NMOCD that detailed the installation of three new MWs (MW-4, boring BH-5 [dry], and MW-6), and the laboratory results of groundwater samples from wells MW-4 and MW-6.

On December 6, 2022, the NMOCD responded with the following requests:

- Wells MW-4 and MW-6 be surveyed,
- MW-1, MW-2, and MW-3 need to be redeveloped,
- All 5 wells need to be gauged and resampled at the same time.

On January 10, 2023, SWR requested a 90-day extension to complete the activities and submit a report, and the NMOCD approved the extension until April 14, 2023.

This Groundwater Investigation Report provides details of October and November 2022, and January 2023, activities and results of groundwater monitoring.

3.0 Groundwater Monitoring Results

3.1 Groundwater Investigation – October and November 2022

From October 6 through October 8, 2022, Talon LPE (Talon) CE were on site to install proposed monitor wells MW-4 and MW-5, construct surface completions at wells MW-1 through MW-5, develop wells MW-4 and MW-5, re-sample wells MW-1, MW-2, and MW-3, and collect groundwater samples from the new monitor wells (MW-4 and MW-5). Based on survey data from wells MW-1, MW-2, and MW-3, the estimated groundwater flow direction was from the northwest to the southeast.

Well MW-4 was drilled to a total depth of 55' bgs at the proposed location to the southeast of MW-2 and completed with 30' of slotted screen. The well was developed, and a groundwater sample was collected for analysis of TPH, BTEX, and chloride on October 7, 2022. Depth to groundwater was recorded at 41.60' bgs

Well MW-5 was drilled to a total depth of 95' bgs (2' into the red bed) at the proposed location to the northwest of MW-3, and no moisture was encountered. The surface was covered, and the hole was allowed to remain open.

Well MW-6 was drilled to a total depth of 65' bgs approximately half was between the MW-3 and MW-6 locations. Depth to groundwater was recorded at a depth of 63.6' bgs on October 8, 2022. The water was very muddy and there was insufficient water to collect a sample.

Attempts were made to collect groundwater samples from monitor wells MW-1, MW-2, and MW-3, but the wells were silted in and unable to be gauged or sampled. Details were provided to NMOCD by phone, and it was determined that the wells did not need to be re-drilled (for sample collection) until chloride concentrations in the new wells (MW-4 and MW-5) were determined.

On October 11, 2022, CE returned to the site to check the boreholes at MW-5 and MW-6. Borehole MW-5 remained dry. Groundwater was measured in MW-6 at a depth of 62.4' bgs. Even though groundwater remained very muddy and development was not possible, a sample was collected for analysis of BTEX, TPH, and chloride.

On November 10, 2022, CE returned to the site to check the groundwater status at boreholes MW-5 and MW-6. Borehole MW-5 remained dry. Groundwater was measured in MW-6 at a depth of 57.7' bgs. After partial well development, a groundwater sample was collected from MW-6 for chloride analysis.

3.2 Investigation Results – October and November 2022

- Based on initial survey data from wells MW-1, MW-2, and MW-3, the estimated groundwater flow direction was from northwest to southeast.
- The groundwater sample collected from (assumed) downgradient well MW-4 on October 7, 2022, reported BTEX and TPH concentrations below the test method detection limits, and a chloride concentration of 367 mg/L.
- The groundwater sample collected from (assumed) upgradient well MW-6 on October 11, 2022, reported BTEX and TPH concentrations below the test method detection limits, except for a detection of toluene (0.000598 mg/L). The chloride concentration was reported at 28.5 mg/L.
- The groundwater sample collected from upgradient well MW-6 on November 10, 2022, reported a chloride concentration of 1,910 mg/L.

Table 1 provides a summary of the groundwater elevation data. Table 2 provides a summary of the groundwater concentrations. Figure 2 shows the locations of the monitor wells and the October/November 2022 chloride concentrations in each well. Appendix C provides copies of the laboratory reports and chain-of-custody documentation.

3.3 Groundwater Investigation – January 2023

From January 17 through January 20, and January 26 through January 27, 2023, Talon and CE were on site to re-drill monitor wells MW-1, MW-2, and MW-3, construct surface completions at wells MW-1, MW-2, MW-3, and MW-6, and re-develop monitor wells MW-1, MW-2, and MW-3. An insufficient amount of water was present in well MW-6 and development was not completed. The borehole at well MW-5 remained dry, and that boring was plugged with bentonite.

On February 20, 2023, top of casing and ground elevations were surveyed at all monitor wells (MW-1 through MW-4, and MW-6) by WTC of Andrews, Texas.

On March 13, 2023, groundwater monitoring of wells MW-1, MW-2, MW-3, MW-4, and MW-6 was conducted. Prior to sample collection, depth-to-groundwater (gauging) measurements were collected from each MW. Each well was then purged of two and a half times the well volume using dedicated disposable bailers for each well. All groundwater samples were labeled, immediately chilled in an ice chest, and transferred under chain-of-custody control to Eurofins Environment Testing (Eurofins) of Midland, Texas for analysis of chlorides. As TPH and BTEX concentrations were reported below the test method detection limits or closure criteria in previous samples, analysis was not conducted for those constituents.

Table 1 provides a summary of the groundwater elevation data. Table 2 provides a summary of the groundwater concentrations. Figure 3 shows the locations of the monitor wells and the March 2023 chloride concentrations in each well. Figure 4 provides a groundwater gradient map of the March 2023 monitoring event. Appendix C provides copies of the laboratory reports and chain-of- custody documentation. Appendix D provides copies of the boring logs.

Referring to Table 2, chloride concentrations exceeded the NMOCD Criteria in wells MW-1 (1,330 mg/L), MW-2 (2,000 mg/L), and MW-4 (273 mg/L). Referring to Figure 4, the estimated groundwater flow direction is from the southwest to the northeast. Referring to Figure 1, Lane Salt Lake is located approximately 1.9 mile southwest of the site.

3.4 Investigation Results – January 2023

- Soil boring MW-5 was plugged with bentonite.
- The estimated groundwater flow direction was from southwest to northeast.
- Lane Salt Lake is located approximately 1.9 mile southwest of the site.

Flying M SA Unit 4" Trunkline Groundwater Investigation Report Chloride concentrations exceeded the NMOCD Criteria in wells MW-1 (1,330 mg/L), MW-2 (2,000 mg/L), and MW-4 (273 mg/L).

4.0 Summary and Proposed Actions

Five monitor wells have been installed at the site. Groundwater samples from each well report TPH and BTEX concentrations below the test method detection limit and/or closure criteria. Chloride concentrations exceeded the closure criteria in three monitor wells (MW-1 [1,330 mg/L], MW-2 [2,000 mg/L], and MW-4 [273 mg/L].

As the estimated groundwater flow direction is from southwest to northeast, and Lane Salt Lake is located approximately 1.9 mile southwest of the Site, SWR respectfully requests that Incident # nOY1827137381 (1RP-5214) be closed. A copy of the C-141 is included in Appendix A for your approval.

5.0 Distribution

Copy 1: Mike Bratcher

New Mexico Energy, Minerals, and Natural Resources Department

Oil Conservation Division, District 2

811 S. First Street

Artesia, New Mexico 88210

Copy 2: Tim Culp

Southwest Royalties, Inc.

P.O. Box 53570

Midland, Texas 79710

Copy 3: M.Y. Merchant

Southwest Royalties, Inc.

2401 Avenue O

Eunice, New Mexico 88240

TABLES

TABLE 1 SUMMARY OF GROUNDWATER ELEVATION DATA SOUTHWEST ROYALTIES, LLC FLYING M SA #2 PRODUCED WATER RELEASE NMOCD TRACKING NO.: 1RP-5214

Well ID	Date Measured	Top of Casing Elevation	Depth to Water	Groundwater Elevation
		(ft AMSL)	(ft BTOC)	(ft AMSL)
BH-1	3/29/2022	1	42.37	-
BH-1	5/19/2022	4360.10	45.67	4314.43
MW-1	6/14/2022	4360.10	46.13	4313.97
MW-1	3/13/2023	4348.71	45.99	4302.72
MW-2	5/19/2022	4360.44	46.30	4314.14
MW-2	6/14/2022	4360.44	49.58	4310.86
MW-2	1/20/2023	4349.35	46.88	4302.47
MW-2	3/13/2023	4349.35	47.08	4302.27
MW-3	5/19/2022	4362.52	48.33	4314.19
MW-3	6/14/2022	4362.52	48.40	4314.12
MW-3	3/13/2023	4350.88	48.51	4302.37
MW-4	10/7/2022	4342.29	41.60	4300.69
MW-4	1/20/2023	4342.29	41.57	4300.72
MW-4	3/13/2023	4342.29	41.73	4300.56
MW-6	10/8/2022	4351.41	63.60	4287.81
MW-6	10/11/2022	4351.41	62.40	4289.01
MW-6	11/10/2022	4351.41	57.70	4293.71
MW-6	1/20/2023	4351.41	63.31	4285.10
MW-6	3/13/2023	4351.41	61.85	4289.56

bgs - Below ground surface.

---: Depth to groundwater measured prior to borehole survey.

BTOC - Below top of casing.

ft - Feet.

ID - Identification.

AMSL - Above mean sea level.

MW-1, MW-2, and MW-3 surveyed by Basin, LLC on 5/23/22

MW-1, MW-2, MW-3, MW-4, and MW-6 surveyed by WTC on $2/20/23\,$

TABLE 2 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS SOUTHWEST ROYALTIES, LLC FLYING M SA #2 PRODUCED WATER RELEASE NMOCD TRACKING NO.: 1RP-5214

Sample ID	Date	TPH C6 - C10 (mg/L)	TPH C10 - C28 (mg/L)	TPH C28-C36 (mg/L)	Total TPH (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Total BTEX (mg/L)	Chloride (mg/L)
NMOCD Guideline						0.01	0.75	0.75	0.62		250
BH-1/MW-1	03/29/22	< 0.885	< 0.885	< 0.854	< 0.885	< 0.000408	< 0.000367	< 0.000657	< 0.000642	< 0.000657	1,220
BH-1/MW-1	06/14/22	< 0.901	< 0.901	< 0.869	< 0.901	< 0.000408	< 0.000367	< 0.000657	< 0.000642	< 0.000657	1,400
MW-1	03/13/23										1,330
BH-2/MW-2	05/19/22	< 0.898	< 0.898	< 0.867	< 0.898	< 0.000408	< 0.000367	< 0.000657	< 0.000642	< 0.000657	908
BH-2/MW-2	06/14/22	< 0.901	< 0.901	< 0.869	< 0.901	< 0.000408	< 0.000367	< 0.000657	< 0.000642	< 0.000657	1,440
MW-2	03/13/23										2,000
BH-3/MW-3	05/19/22	< 0.901	< 0.901	< 0.869	< 0.901	< 0.000408	< 0.000367	< 0.000657	< 0.000642	< 0.000657	490
BH-3/MW-3	06/14/22	< 0.898	< 0.898	< 0.867	< 0.898	< 0.00408	< 0.00367	< 0.00657	< 0.00642	< 0.00657	469
MW-3	03/13/23										207
MW-4	10/07/22	< 0.904	< 0.904	< 0.872	< 0.904	< 0.000408	< 0.000367	< 0.000657	< 0.000642	< 0.000657	367
MW-4	03/13/23										273
MW-6	10/11/22	< 0.904	< 0.904	< 0.872	< 0.904	<0.000408	0.000598	< 0.000657	< 0.000642	< 0.000657	28.5
	11/10/22										1,910
	03/13/23										234

mg/L = milligram per Liter

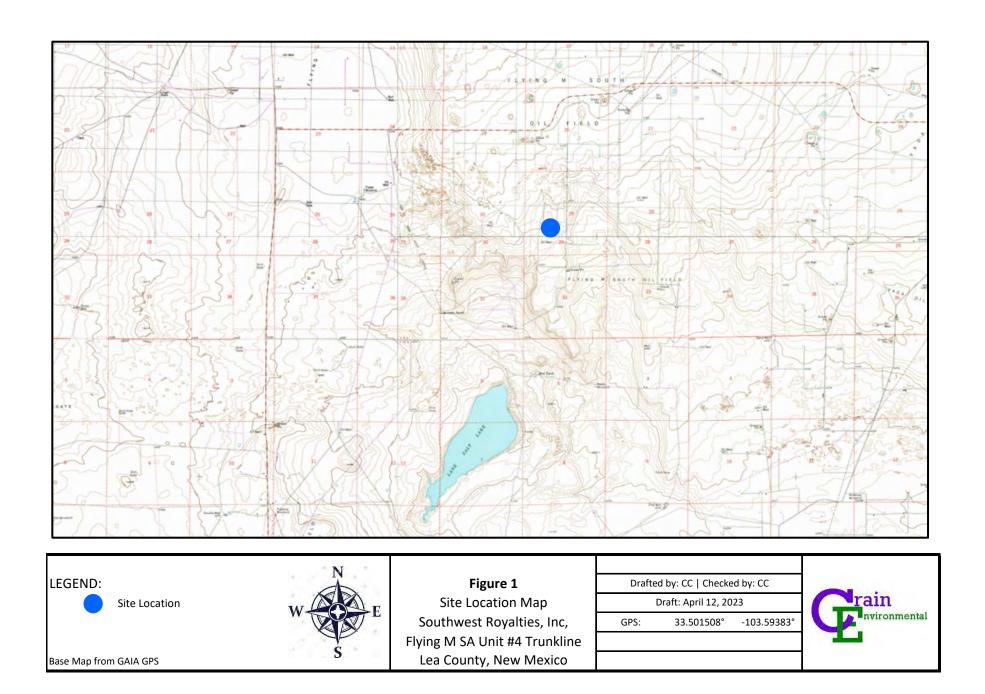
TPH = Total Petroleum Hydrocarbons by EPA Method 8015 M (Modified)

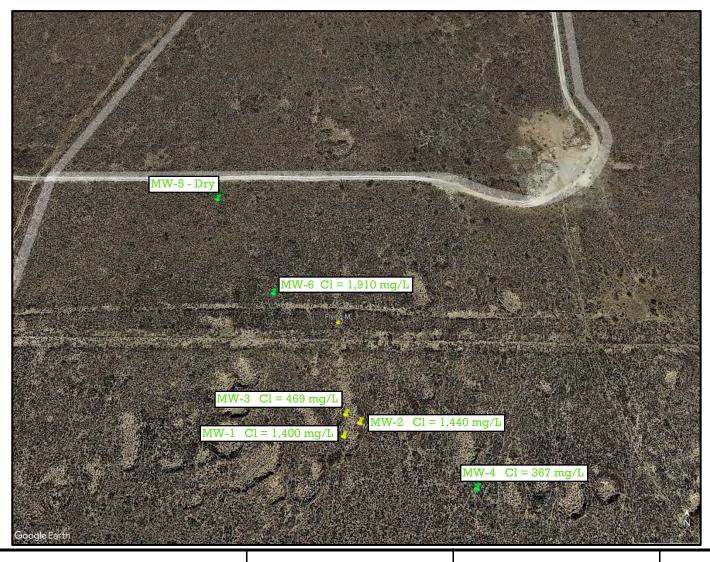
Inorganic Anions (Chlorides) by EPA Method 300

BTEX by EPA Method 8021B

Highlighted Result Exceeds the Target Concentration

FIGURES









Monitor Well Location with Chloride Concentration

New Monitor Well Location with Chloride Concentration

Base Map from Google Earth

Figure 2

Chloride Concentrations (October and November 2022) Southwest Royalties, Inc, Flying M SA Unit #4 Trunkline Lea County, New Mexico Drafted by: CC | Checked by: CC

Draft: Nov. 30, 2022

GPS: 33.501508° -103.59383°



D. J. J. 4. T. 2/4/2024 2.21.26 D







Monitor Well Location with Chloride Concentration

New Monitor Well Location with Chloride Concentration

Base Map from Google Earth

Figure 3

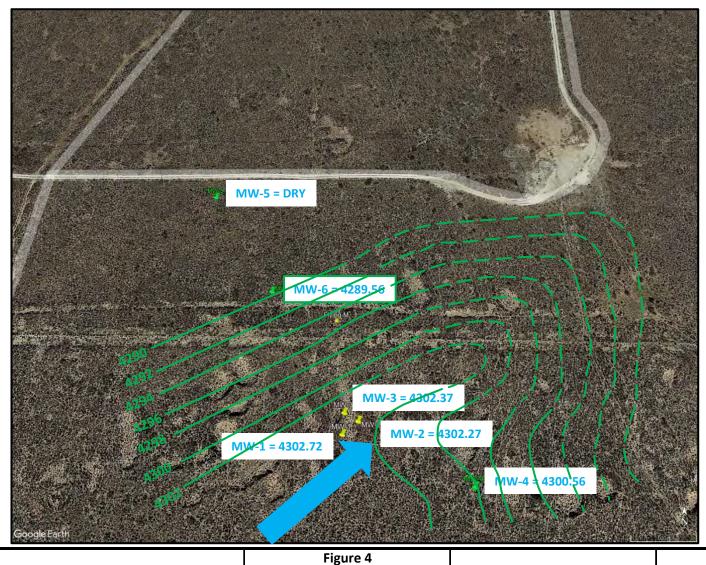
Chloride Concentrations March 2023 Southwest Royalties, Inc, Flying M SA Unit #4 Trunkline Lea County, New Mexico

Drafted by: CC | Checked by: CC

Draft: April 12, 2023

-103.59383 GPS: 33.501508°







Monitor Well Location with Groundwater Elevation
New Monitor Well Location with Groundwater Elevation
Groundwater Elevation Contour
Contour Interval (= 2.0 ft msl)

Estimated Direction of Groundwater Flow

Groundwater Gradient Map March 2023 Southwest Royalties, Inc, Flying M SA Unit #4 Trunkline

Lea County, New Mexico

Drafted by: CC | Checked by: CC

Draft: April 12, 2023

GPS: 33.501508° -103.59383°

Base Map from Google Earth



Appendix A: Release Notification and Corrective Action Form (NMOCD Form C-141)

3625 N. French Dr., Hobbs, NM 88240 istrict II 1 S. First St., Artesia, NM 88210 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural** Resources Department

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

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

Incident ID	NOY1827137381		
District RP	1RP-5214		
Facility ID	fOY1827136767	_	
Application ID	pOY1827139495	_	

HOBBS OCD

SEP 27 2018

Release Notification

RECEIVED

Responsible Party: Southwest Royalties, Inc

Contact email: llivesay@swrpermian.com

Contact Name: Lindsay Livesay

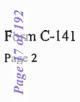
Responsible Party

OGRID: 21355

Contact Telephone: 432-207-3054

Incident # (assigned by OCD)

Carrier 1	Contact email: llivesay@swrpermian.com				incident i	# (assigned by OCD)	JNOY18	327137381	
Contact mailing address: P.O. Box 53570; Midland, TX 79710									
			Locatio	n of F	Release S	Source			
atitude: 33.	50139		(NAD 83 in	Longitude: -103.59389 degrees to 5 decimal places)					
Site Name: Flying M SA Unit #2_ #4 Trunk Line						Site Type: 4" Trunk Line from Battery to Injection Well			
Date Release	Discovered	: 9/25/2018			API# (if ap	oplicable) 30-02	5-24692		
Unit Letter	Section	Township	Range	T	Cou	inty	F		
K	29	92 9S	33E	Lea			Fee	minerals	
Material(s) Released (Select all that apply and attach calcula Crude Oil Volume Released (bbls) 5 bbl			-11 41- 4						
			all that apply and atte	ach calcula	tions or specifi	ia iurtification for the .	alumas zesui	ded below	
M Clude OI					tions or specifi	Volume Recov			bl
□ Crude Of □ Produced □ Produced	1	Volume Releas	sed (bbls) 5 bbl sed (bbls) 75 bb	l bl		Volume Recov	ered (bbls) ered (bbls)	5bbl 4 b	bl bbl
	1	Volume Releas Volume Releas Is the concentra	sed (bbls) 5 bbl sed (bbls) 75 bl ation of dissolved	l bl		Volume Recov	ered (bbls) ered (bbls)	5bbl 4 b	
	l Water	Volume Releas Volume Releas Is the concentra	sed (bbls) 5 bbl sed (bbls) 75 bl ation of dissolved r >10,000 mg/l?	l bl		Volume Recov	ered (bbls) ered (bbls)	5bbl 4 b 75 bbl 56	
☐ Produced	l Water	Volume Releas Volume Releas Is the concentrate produced water	sed (bbls) 5 bbl sed (bbls) 75 bl ation of dissolved r >10,000 mg/l? sed (bbls)	l bl		Volume Recov Volume Recov ☐ Yes ☑ No	ered (bbls) ered (bbls) ered (bbls)	5bbl 4 b 75 bbl 56	
☑ Produced☐ Condensa	l Water ate	Volume Releas Volume Releas Is the concentrate produced water Volume Releas Volume Releas	sed (bbls) 5 bbl sed (bbls) 75 bl ation of dissolved r >10,000 mg/l? sed (bbls)	l bl d chlorid	e in the	Volume Recov Volume Recov ☐ Yes ☑ No Volume Recov	ered (bbls) ered (bbls) ered (bbls) ered (Mcf)	5bbl 4 b 75 bbl 56	bbl



State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Released to Imaging: 3/4/2024 3:21:36 PM

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release? Leak of a volume greater than 25 bbl.						
Yes □ No							
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?							
Yes; by Merch Merchant (VP of Southwest Royalties, Inc) to Maxey Brown via phone call.							
	Initial Response						
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury						
☐ The source of the rele	ease has been stopped.						
	is been secured to protect human health and the environment.						
Released materials ha	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.						
All free liquids and re	ecoverable materials have been removed and managed appropriately.						
If all the actions describe	d above have not been undertaken, explain why:						
	>						
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.							
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Printed Name:	NER CULIP Title: PETROLEUM EMGINGER						
Signature: Janu	Date: 9/26/18						
email: Fannerce	10@ surpermian.com Telephone: [432]207-3055						
OCD Only RECEI	Datas						
Received by: By Olivia	a Yu at 10:23 am, Sep 28, 2018 Date:						

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Incident ID	NOY1827137381
District RP	1RP-5214
Facility ID	fOY1827136767
Application ID	pOY1827139495

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

- X Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- X Field data
- ∑ Data table of soil contaminant concentration data
- No Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- X Boring or excavation logs
- X Photographs including date and GIS information
- Topographic/Aerial maps
- X 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.

Received by OCD: 4/14/2023 11:39:25 AM Form C-141 State of New Mexico
Page 4 Oil Conservation Division

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Incident ID	NOY1827137381
District RP	1RP-5214
Facility ID	fOY1827136767
Application ID	pOY1827139495

	Page 20 of 1	92
Incident ID	NOY1827137381	
District RP	1RP-5214	
Facility ID	fOY1827136767	
Application ID	pOY1827139495	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.						
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)						
Deferral Requests Only: Each of the following items must be con	firmed as part of any request for deferral of remediation.					
Contamination must be in areas immediately under or around predeconstruction.	roduction equipment where remediation could cause a major facility					
X Extents of contamination must be fully delineated.						
🗓 Contamination does not cause an imminent risk to human health	n, the environment, or groundwater.					
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.						
Printed Name: Cynthia K. Crain	Title: Agent for Southwest Royalties, Inc.					
Printed Name: Cynthia K. Crain Signature: Cynthia K. Csain	Date:8/4/22					
email:cindy.crain@gmail.com	Telephone:(575) 441-7244					
OCD Only						
<u> </u>						
Received by:	Date:					
☐ Approved ☐ Approved with Attached Conditions of	Approval					
Signature:	Date:					

Page 21 of 192

Incident ID	NOY1827137381
District RP	1RP-5214
Facility ID	fOY1827136767
Application ID	pOY1827139495

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			
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	nediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for tions. The responsible party acknowledges they must substantially neditions that existed prior to the release or their final land use in CD when reclamation and re-vegetation are complete. Title: Agent for Southwest Royalties, Inc.		
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: NMOCD Correspondence



Cindy Crain <cindy.crain@gmail.com>

The Oil Conservation Division (OCD) has approved the application, Application ID: 123608

6 messages

OCDOnline@state.nm.us < OCDOnline@state.nm.us >

Wed, Aug 17, 2022 at 2:13 PM

To: cindy.crain@gmail.com

To whom it may concern (c/o Cindy Crain for SOUTHWEST ROYALTIES INC),

The OCD has approved the submitted Application for administrative approval of a release notification and corrective action (C-141), for incident ID (n#) nOY1827137381, with the following conditions:

Remediation Plan Approved with Conditions, OCD does approve re-excavation and installation of a liner in the southern portion of the site. OCD requests the installation of two (2) additional groundwater monitoring wells at the site. However, before you proceed with this request, we ask that you provide us with a site plan depicting the 3 wells you installed (MW-1, MW-2, and MW-3) in relation to the excavation. We would like to see a groundwater monitoring well installed at last 150 feet NW of MW-3 and another well installed about 200 ft S-SE of MW-2 in Figure 6. Before you install these two wells, we request that you email OCD a figure with the proposed locations of these two new wells. Please contact OCD for further information.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you, Jennifer Nobui **Environmental Specialist-Advanced** 505-470-3407 Jennifer.Nobui@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive

Santa Fe, NM 87505

Cindy Crain <cindy.crain@gmail.com>

Wed, Aug 24, 2022 at 10:56 AM

To: "Nobui, Jennifer, EMNRD" <jennifer.nobui@state.nm.us>

Bcc: Tim Culp <tculp@swrpermian.com>, Mickey Cunningham <mcunningham@swrpermian.com>, mymerch@penrocoil.com

Jennifer,

Please see the OCD response below to the Remediation Plan for incident ID (n#) nOY1827137381.

As we discussed on the phone earlier today, it is my understanding that the first condition should say the OCD will not require re-excavation and installation of a liner in the southern portion of the site. If you would please confirm that my understanding is correct, I would appreciate it.

Southwest Royalties will begin preparations for the installation of 2 additional monitor wells. A revised Figure 2 with the monitor well locations shown in relation to the excavation, and a map with proposed well locations will be sent to you next week.

Please let me know if you have any questions or need any additional information in the meantime.

Thank you,

Cindy Crain

[Quoted text hidden]

Crain Environmental 2925 East 17th Street Odessa, TX 79761 (575) 441-7244

Nobui, Jennifer, EMNRD < Jennifer. Nobui@state.nm.us>

Wed, Aug 24, 2022 at 12:07 PM

To: Cindy Crain <cindy.crain@gmail.com>

Cc: "Billings, Bradford, EMNRD" < Bradford.Billings@state.nm.us>

Hello Cindy

That is correct. The error was in OCD's response. The response should have stated:

"OCD does not approve re-excavation and installation of a liner in the southern portion of the site".

Please let us know if you encounter any difficulties locating the two proposed groundwater monitoring wells at the site.

Thanks,

Jennifer Nobui

From: Cindy Crain <cindy.crain@gmail.com> Sent: Wednesday, August 24, 2022 9:56 AM

To: Nobui, Jennifer, EMNRD < Jennifer. Nobui@state.nm.us>

Subject: [EXTERNAL] Fwd: The Oil Conservation Division (OCD) has approved the application, Application ID: 123608

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

[Quoted text hidden]

Cindy Crain <cindy.crain@gmail.com>

Wed, Aug 24, 2022 at 12:19 PM

To: "Nobui, Jennifer, EMNRD" < Jennifer. Nobui@state.nm.us>

Cc: "Billings, Bradford, EMNRD" < Bradford.Billings@state.nm.us>

Thank you, Jennifer!

This statement does mean that the soil portion of the site has been closed, right?

I will be sure to let you know if any difficulties are encountered with locating the monitor wells.

Cindy Crain

[Quoted text hidden]

Received by OCD: 4/14/2023 11:39:25 AM - The Oil Conservation Division (OCD) has approved the application, Application ID: 123608

Nobui, Jennifer, EMNRD < Jennifer. Nobui@state.nm.us>

To: Cindy Crain <cindy.crain@gmail.com>

Cc: "Billings, Bradford, EMNRD" < Bradford.Billings@state.nm.us>

Hello Cindy

The Incident nOY1827137381 cannot be closed at this time, even though it appears that impacted soil has been addressed. We need to determine if groundwater is indeed impacted by the release and if so, an Abatement Order will be opened up, and then this incident can be closed. If groundwater is determined not to have been impacted by the release, the incident would also be closed as well. Let me know if you have any questions.

[Quoted text hidden]

Cindy Crain <cindy.crain@gmail.com>

Wed, Aug 24, 2022 at 2:41 PM

Wed, Aug 24, 2022 at 2:09 PM

To: "Nobui, Jennifer, EMNRD" < Jennifer.Nobui@state.nm.us> Cc: "Billings, Bradford, EMNRD" < Bradford.Billings@state.nm.us>

Bcc: mymerch@penrocoil.com, tculp@swrpermian.com, mcunningham@swrpermian.com

Thank you, Jennifer!

I appreciate the clarification/explanation!

Cindy Crain, P.G. (575) 441-7244 cindy.crain@gmail.com [Quoted text hidden]

Cindy Crain <cindy.crain@gmail.com>

Sep 8, 2022, 2:18 PM

to Jennifer,, Bradford,

Jennifer.

Attached please find the following:

- Revised Figure 2 (showing the monitor well locations),
- Revised Figure 6 (showing the monitor well locations), and
- Figure 7 (showing the proposed monitor well locations).

Since we previously had issues with the drilling rig getting stuck in the sand, the proposed monitor wells (MW-4 and MW-5) are located as near as possible to lease roads. Proposed MW-4 is located approximately 500 feet northwest of MW-3, and proposed MW-5 is located approximately 900 feet southeast of MW-2.

Please let me know if you have any questions, and if you approve the proposed well locations.

Thank you, Cindy Crain



Nobui, Jennifer, EMNRD < Jennifer.Nobui@state.nm.us>

Sep 9, 2022, 9:57 AM

to me, Bradford,

Hello Cindy

Thank you for providing the revised figures and the site plan showing the locations of the proposed groundwater monitoring wells. OCD is ok with the location of the well proposed NW of well MW-3. However, the proposed location of the well S-SE of MW-2 is currently over 800 feet away from the release and that is too far. You will need to bring that proposed well location in closer to the release by about 500'. OCD is aware of the sinking sand conditions and we propose the drillers use plywood boards. Please let us know if you have any questions or would like to discuss these propose locations further.

Thanks.

Jennifer Nobui, PG ● Environmental Specialist A
Environmental Bureau
EMNRD - Oil Conservation Division
5200 Oakland Avenue N.E Suite 100 | Albuquerque, NM 87113
505.470-3407 | Jennifer.Nobui@state.nm.us
http://www.emnrd.state.nm.us/OCD/



Cindy Crain <cindy.crain@gmail.com>

Sep 9, 2022, 2:12 PM

to Jennifer,, Bradford,

Jennifer,

Thank you for your response! Attached please find a figure with a revised location for proposed well MW-5. The new location is approximately 200 feet southeast of well MW-2, and should be accessible with a skid mounted drilling rig.

If the location of these 2 wells meets your approval, we will begin the NMOSE permitting process.

Sincerely, Cindy Crain

One attachment • Scanned by Gmail



Nobui, Jennifer, EMNRD < Jennifer.Nobui@state.nm.us> Sep 9, 2022,

2:23 PM

to me, Bradford,

Hello Cindy

Yes, both locations are now approved by OCD. Thank you again for all your efforts. Have a great weekend!

C

Cindy Crain <cindy.crain@gmail.com>

Sep 9, 2022, 2:45 PM

to Jennifer,, Bradford,

Thank you, Jennifer -

You have a great weekend too!

Cindy Crain

Cindy Crain <cindy.crain@gmail.com>

Dec 1, 2022, 4:16 PM

to Jennifer,, Bradford,, Tim, mymerch, Mickey, Tanner

Jennifer.

From October 6 through October 8, 2022, Talon LPE and Crain Environmental (CE) were on site to install proposed monitor wells MW-4 and MW-5, construct surface completions at wells MW-1 through MW-5, develop wells MW-4 and MW-5, re-sample wells MW-1, MW-2, and MW-3, and collect groundwater samples from the new monitor wells (MW-4 and MW-5). Details of daily activities are provided below.

October 6:

- MW-4 was drilled to a total depth of 55 feet (') below ground surface (bgs) at the proposed location to the southeast of MW-2, and completed with 30' of slotted screen.
- Soil samples were collected from the surface, 5' bgs, and 10' bgs for chloride analysis.
- Surface completion was constructed at MW-4.
- Attempts were made to collect groundwater samples from monitor wells MW-1, MW-2, and MW-3, but the wells were silted in and unable to be gauged or sampled. Details were provided to OCD by phone, and it was determined that the wells did not need to be re-drilled (for sample collection) until chloride concentrations in the new wells (MW-4 and MW-5) were determined.

- Drilling began at MW-5 (proposed location to the northwest of MW-3), but the air compressor went out at a depth of 15' bgs and the boring was not completed.
- Soil samples were collected at MW-5 from the surface, 5' bgs, and 10' bgs for chloride analysis.

October 7:

- MW-4: depth to groundwater was recorded at 41.60' bgs. The well was developed and a groundwater sample was collected for analysis of BTEX, TPH, and chloride.
- MW-5: drilling continued to a total depth of 80' bgs (2' into the redbed) and no moisture was encountered. The surface was covered, and the hole was allowed to remain open.
- Drilling began at MW-6 (halfway between MW-3 and MW-5), and continued to a total depth of 65' bgs (2' into the redbed). Some moisture was encountered.
- Soil samples were collected at MW-6 from the surface, 5' bgs, and 10' bgs for chloride analysis.

October 8:

- MW-5: checked borehole for the presence of groundwater. The borehole was dry.
- MW-6: checked borehole for the presence of groundwater. Groundwater was recorded at a depth of 63.6' bgs; however, the water was very muddy and there was insufficient water to collect a sample.

On October 11, 2022, CE returned to the site to check the boreholes at MW-5 and MW-6. Borehole MW-5 remained dry. Groundwater was measured in MW-6 at a depth of 62.4' bgs. Even though groundwater remained very muddy and development was not possible, a sample was collected for analysis of BTEX, TPH, and chloride.

On November 10, 2022, CE returned to the site to check the groundwater status at boreholes MW-5 and MW-6. Borehole MW-5 remained dry. Groundwater was measured in MW-6 at a depth of 57.7' bgs. After partial well development, a groundwater sample was collected from MW-6 for chloride analysis.

Investigation Results

- Chloride concentrations in all soil samples from borings MW-4, MW-5, and MW-6 were reported below the Closure Criteria.
- The groundwater sample collected from downgradient well MW-4 on October 7, 2022 reported BTEX and TPH concentrations below the test method detection limits, and a chloride concentration of 367 mg/L.

- The groundwater sample collected from upgradient well MW-6 on October 11, 2022 reported BTEX and TPH concentrations below the test method detection limits, except for a detection of toluene (0.000598 mg/L). The chloride concentration was reported at 28.5 mg/L.
- The groundwater sample collected from upgradient well MW-6 on November 10, 2022 reported a chloride concentration of 1,910 mg/L.

The attached figure shows the locations of the monitor wells and the most recent chloride concentration in each well. The attached tables provide a summary of the soil sample results from MW-4, MW-5, and MW-6 (Table 1), and the groundwater results from wells MW-1, MW-2, MW-3, MW-4 and MW-6 (Table 2). Laboratory reports for October and November 2022 samples are attached.

Summary and Request for Closure

Soil concentrations in each borehole (MW-4, MW-5, and MW-6) reported chloride concentrations below the Closure Criteria. The downgradient well MW-4 reported a chloride concentration of 367 mg/L, and the upgradient well MW-6 reported a chloride concentration (1,910 mg/L). The chloride concentration in the upgradient well (MW-6) was higher than the chloride concentration reported in wells MW-1 (1,400 mg/L) and MW-2 (1,440 mg/L) on June 14, 2022, therefore, SWR respectfully requests that Incident # nOY1827137381 (1RP-5214) be closed. A copy of the C-141 is attached for your approval.

Please let me know if you have any questions or need additional information.

Thank you, Cindy Crain

7 Attachments • Scanned by Gmail

Nobui, Jennifer, EMNRD < Jennifer.Nobui@emnrd.nm.gov>

Dec 6, 2022, 11:19 AM

to Bradford,, Michael,, me

Hello Cindy

OCD has reviewed your recent groundwater data and at this time we cannot close this case out. The groundwater gradient appears to be flowing to the northwest as opposed to the southeast, which may indicate the release onsite has impacted groundwater in this immediate region. In order to better evaluate this situation we request the following:

- Wells MW-4 and MW-6 be surveyed (you can use MW-1 as the benchmark elevation); we need groundwater elevations to determine a more accurate groundwater flow direction
- MW-1, MW-2, and MW-3 need to be redeveloped, the silt must be removed to be able to use these 3 wells in the evaluation
- All 5 wells need to be gauged an resampled at the same time

Going forward, the soil samples collected >10' from MW-4, MW-5, and MW-6 should have been analyzed. In situations where groundwater quality is in question, you need to obtain soil samples at depth, in particular from the air/water interface. Please let us know if you want to set up a call with OCD to discuss the path forward.



Cindy Crain <cindy.crain@gmail.com>

Dec 7, 2022, 7:07 PM

to Jennifer,, Bradford,, Michael,

Hi Jennifer,

I would like to set up a call to discuss the path forward. I have availability all day Friday (12/9/22) if you are available any time that day. Please let me know what works best for you.

Thank you, Cindy Crain



Nobui, Jennifer, EMNRD < Jennifer.Nobui@emnrd.nm.gov>

Dec 8, 2022, 10:14 AM

to me, Bradford,, Michael,

Hello Cindy

Can you make next Tuesday or Wednesday? We are not available tomorrow. Please let us know if next week will work and what time.

Thanks



Cindy Crain <cindy.crain@gmail.com>

Dec 8, 2022, 11:09 AM

to Jennifer,, Bradford,, Michael,

Jennifer,

I can be available any time next Tuesday or Wednesday. Whatever works best for you, please just let me know.

Thank you, Cindy Crain



Nobui, Jennifer, EMNRD < Jennifer.Nobui@emnrd.nm.gov> Dec 12, 2022, 12:45 PM

to me, Bradford,, Michael,

Hi Cindy

How about tomorrow 12/13/22 at 11am MST? If that works for you can you send us an Evite so we have it on our calendars?



Cindy Crain <cindy.crain@gmail.com>

Jan 10, 2023, 12:05 PM

to Jennifer,, Michael,, bcc: Tim, bcc: Mickey, bcc: mymerch

Good morning, Jennifer -

As I mentioned to you on the phone yesterday, drilling is scheduled for the week of January 16, 2023, at the Southwest Royalties (SWR) Flying M site. Following installation and development of monitor wells at the BH-2/MW-2 and BH-6/MW-6 locations, groundwater samples will be collected from monitor wells MW-2, MW-4, and MW-6 for chloride analysis, and top of casing and ground elevations will be surveyed by a professional surveyor.

Additionally, soil borings BH-1/MW-1, BH-3/MW-3, and BH-5 will be plugged so as to comply with the New Mexico Office of the State Engineer (NMOSE) permit.

Given the activities to be completed prior to submitting an Investigation Report, SWR respectfully requests a 90-day extension. All efforts will be made to complete activities and submit the report as soon as possible (pending subcontractor availability).

Please let me know if you have any questions, and/or if you approve the extension.

Thank you, Cindy Crain



Nobui, Jennifer, EMNRD < Jennifer.Nobui@emnrd.nm.gov> Jan 10, 2023, 12:19 PM

to Michael,, Robert,, Jocelyn,, me

Hello Cindy

OCD approves your request for a 90-day extension to 04/14/2023 to submit your report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Please contact me if any issues come up in the field regarding the groundwater monitoring wells.



Cindy Crain <cindy.crain@gmail.com>

Jan 10, 2023, 1:05 PM

to Jennifer,, Michael,, Robert,, Jocelyn,, bcc: Tim, bcc: Mickey, bcc: mymerch

Jennifer,

Thank you for the quick response! I will definitely let you know if any issues arise with the groundwater monitoring wells!

Sincerely, Cindy Crain



ReplyReply allForward

Appendix C: Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-13092-1

Laboratory Sample Delivery Group: Lea Co. NM

Client Project/Site: Flying M SA #2

Revision: 1

For:

Crain Environmental 2925 E. 17th St. Odessa, Texas 79761

Attn: Cindy Crain

MEAMER

Authorized for release by: 4/11/2022 8:15:56 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project results through

Iotal Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/4/2024 3:21:36 PM

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

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

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Client: Crain Environmental

Project/Site: Flying M SA #2

Laboratory Job ID: 880-13092-1

SDG: Lea Co. NM

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Definitions/Glossary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-13092-1

SDG: Lea Co. NM

2

Qualifiers

GC VOA

Qualifier Qualifier Description

F1 MS and/or MSD recovery exceeds control limits.
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.

General Chemistry

Qualifier Description

H Sample was prepped or analyzed beyond the specified holding time

HF Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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.

Eisted 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: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-13092-1

SDG: Lea Co. NM

Job ID: 880-13092-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-13092-1

Receipt

The sample was received on 3/30/2022 3:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

GC VOA

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.

Job ID: 880-13092-2

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-13092-2

Receipt

The sample was received on 3/30/2022 3:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

General Chemistry

Method 2540C_Calcd: The following sample was analyzed outside of analytical holding time due to client adding additional test without sufficient time remaining>: BH-1 (880-13092-1).

Method SM4500_H+: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: BH-1 (880-13092-1).

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: Crain Environmental Job ID: 880-13092-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Client Sample ID: BH-1 Lab Sample ID: 880-13092-1

Date Collected: 03/29/22 11:10 **Matrix: Water** Date Received: 03/30/22 15:18

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L		<u> </u>	03/31/22 20:54	
Toluene	< 0.000367	U	0.00200	0.000367	-			03/31/22 20:54	1
Ethylbenzene	< 0.000657	U	0.00200	0.000657	mg/L			03/31/22 20:54	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			03/31/22 20:54	
o-Xylene	< 0.000642	U	0.00200	0.000642	mg/L			03/31/22 20:54	
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			03/31/22 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	102		70 - 130					03/31/22 20:54	
1,4-Difluorobenzene (Surr)	94		70 - 130					03/31/22 20:54	•
Method: Total BTEX - Total B	TEX Calcula	tion							
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			04/01/22 15:21	•
Method: 8015 NM - Diesel Rai	•		•						
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<0.885		4.48	0.885	mg/L			04/05/22 10:37	•
Method: 8015B NM - Diesel R Analyte	•	ics (DRO) Qualifier	(GC) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<0.885		4.48	0.885		— <u> </u>	04/04/22 14:13	04/04/22 20:58	
GRO)-C6-C10									
Diesel Range Organics (Over	<0.885	U	4.48	0.885	mg/L		04/04/22 14:13	04/04/22 20:58	
C10-C28) Oll Range Organics (Over C28-C36)	<0.854	U	4.48	0.854	mg/L		04/04/22 14:13	04/04/22 20:58	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	106		70 - 130				04/04/22 14:13	04/04/22 20:58	
1-Chlorooctane	89		70 - 130				04/04/22 14:13	04/04/22 21:40	
o-Terphenyl	128		70 - 130				04/04/22 14:13	04/04/22 20:58	
o-Terphenyl	99		70 - 130				04/04/22 14:13	04/04/22 21:40	
Method: 300.0 - Anions, Ion C	hromatogra	iphy							
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1220		10.0	0.421	mg/L			04/01/22 21:54	20
Analyte		Qualifier	RL		Unit	<u>D</u>	Prepared	Analyzed	
General Chemistry Analyte Total Dissolved Solids	Result 3820	H	200	200	mg/L	<u>D</u>	Prepared	04/08/22 09:55	Dil Fac
Analyte		H HF		200 0.01		<u>D</u>	Prepared		

Surrogate Summary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-13092-1

SDG: Lea Co. NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water Prep Type: Total/NA

			Percer	nt Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-13092-1	BH-1	102	94	
880-13092-1 MS	BH-1	105	102	
880-13092-1 MSD	BH-1	99	89	
880-13097-A-7 MS	Matrix Spike	106	92	
880-13097-A-7 MSD	Matrix Spike Duplicate	110	86	
LCS 880-22736/3	Lab Control Sample	107	95	
LCS 880-22760/3	Lab Control Sample	104	93	
LCSD 880-22736/4	Lab Control Sample Dup	108	90	
LCSD 880-22760/4	Lab Control Sample Dup	104	99	
MB 880-22736/8	Method Blank	72	88	
MB 880-22760/8	Method Blank	73	88	
Surrogate Legend				
BFB = 4-Bromofluorob	enzene (Surr)			
DER7 - 1.4 Diffuoraba	nzono (Surr)			

DFBZ = 1,4-Difluorobenzene (Surr)

OTPH = o-Terphenyl

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

Matrix: Water Prep Type: Total/NA

			Percen	it Surrogate Recovery (Acceptance Lin
		1CO1	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
30-13092-1	BH-1	106	128	
0-13092-1	BH-1	89	99	
80-13092-1 MS	BH-1	87	94	
Surrogate Legend				
1CO = 1-Chlorooctane				

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

Matrix: Water Prep Type: Total/NA

				1 71
•			Percent	t Surrogate Recovery (Acceptance Limits)
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-22959/2-A	Lab Control Sample	100	117	
LCSD 880-22959/3-A	Lab Control Sample Dup	100	119	
MB 880-22959/1-A	Method Blank	103	124	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

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Client: Crain Environmental Job ID: 880-13092-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22736/8

Matrix: Water

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Analysis Batch: 22736

Client Samp	ole ID:	Meth	od Blank
	Prep	Type:	Total/NA

MB MB Result Qualifier RL **MDL** Unit Prepared Dil Fac D Analyzed <0.000408 U 0.00200 0.000408 mg/L 03/31/22 20:28 <0.000367 U 0.00200 0.000367 mg/L 03/31/22 20:28 0.000657 mg/L 03/31/22 20:28 <0.000657 U 0.00200 <0.000629 U 0.00400 0.000629 mg/L 03/31/22 20:28 <0.000642 U 0.00200 0.000642 mg/L 03/31/22 20:28

0.000642 mg/L

MB MB

<0.000642 U

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130		03/31/22 20:28	1
1,4-Difluorobenzene (Surr)	88		70 - 130		03/31/22 20:28	1

0.00400

Lab Sample ID: LCS 880-22736/3

Matrix: Water

Analysis Batch: 22736

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

03/31/22 20:28

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1098 mg/L 110 70 - 130 Toluene 0.100 0.1120 70 - 130 mg/L 112 Ethylbenzene 0.100 0.1059 mg/L 106 70 - 130 0.200 m-Xylene & p-Xylene 0.2127 mg/L 106 70 - 130 o-Xylene 0.100 0.1072 107 70 - 130 mg/L

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-22736/4

Matrix: Water

Analysis Batch: 22736

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

	Spike	LCSD L	CSD			%Rec		RPD
Analyte	Added	Result Q	ualifier l	Unit D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1069		mg/L	107	70 - 130	3	20
Toluene	0.100	0.1074	ı	mg/L	107	70 - 130	4	20
Ethylbenzene	0.100	0.09728	ı	mg/L	97	70 - 130	8	20
m-Xylene & p-Xylene	0.200	0.1979	1	mg/L	99	70 - 130	7	20
o-Xylene	0.100	0.1006	ı	mg/L	101	70 - 130	6	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-13092-1 MS

Matrix: Water

Analysis Batch: 22736

-	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.000408	U	0.100	0.1236		mg/L		124	70 - 130
Toluene	<0.000367	U	0.100	0.1152		mg/L		115	70 - 130

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Client Sample ID: BH-1

Prep Type: Total/NA

Client: Crain Environmental Job ID: 880-13092-1 SDG: Lea Co. NM Project/Site: Flying M SA #2

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

Lab Sample ID: 880-13092-1 MS

Matrix: Water

Analysis Batch: 22736

Client Sample ID: BH-1

Prep Type: Total/NA

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.000657 U 0.100 0.1063 mg/L 106 70 - 130 m-Xylene & p-Xylene <0.000629 U 0.200 0.2143 mg/L 107 70 - 130 <0.000642 U 0.100 0.1084 70 - 130 o-Xylene mg/L 108

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 105 1,4-Difluorobenzene (Surr) 102 70 - 130

Lab Sample ID: 880-13092-1 MSD Client Sample ID: BH-1 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22736

RPD Sample Sample Spike MSD MSD %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.000408 U 0.100 70 - 130 25 0.1112 mg/L 111 11 Toluene <0.000367 U 0.100 0.1118 112 70 - 130 25 mg/L Ethylbenzene <0.000657 U 0.100 0.1058 mg/L 106 70 - 130 0 25 m-Xylene & p-Xylene <0.000629 U 0.200 0.2140 107 70 - 130 25 mg/L <0.000642 U 0.100 0.1087 25 o-Xylene mg/L 109 70 - 130

MSD MSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 99 89 1,4-Difluorobenzene (Surr) 70 - 130

Lab Sample ID: MB 880-22760/8 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22760

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			04/01/22 11:49	1
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			04/01/22 11:49	1
Ethylbenzene	< 0.000657	U	0.00200	0.000657	mg/L			04/01/22 11:49	1
m-Xylene & p-Xylene	< 0.000629	U	0.00400	0.000629	mg/L			04/01/22 11:49	1
o-Xylene	< 0.000642	U	0.00200	0.000642	mg/L			04/01/22 11:49	1
Xylenes, Total	< 0.000642	U	0.00400	0.000642	mg/L			04/01/22 11:49	1

MB MB Surrogate Qualifier Limits Analyzed Dil Fac %Recovery Prepared 4-Bromofluorobenzene (Surr) 70 - 130 04/01/22 11:49 73 1,4-Difluorobenzene (Surr) 88 70 - 130 04/01/22 11:49

Lab Sample ID: LCS 880-22760/3

Matrix: Water

Analysis Batch: 22760

7 maryolo Batolii 22700	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1158		mg/L		116	70 - 130	
Toluene	0.100	0.1164		mg/L		116	70 - 130	
Ethylbenzene	0.100	0.1104		mg/L		110	70 - 130	
m-Xylene & p-Xylene	0.200	0.2236		mg/L		112	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Client: Crain Environmental Job ID: 880-13092-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

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

Lab Sample ID: LCS 880-22760/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22760

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits 0.100 mg/L o-Xylene 0.1127 113 70 - 130

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 104 70 - 130 1,4-Difluorobenzene (Surr) 93 70 - 130

Lab Sample ID: LCSD 880-22760/4 **Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 22760

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1270		mg/L		127	70 - 130	9	20
Toluene	0.100	0.1166		mg/L		117	70 - 130	0	20
Ethylbenzene	0.100	0.1100		mg/L		110	70 - 130	0	20
m-Xylene & p-Xylene	0.200	0.2222		mg/L		111	70 - 130	1	20
o-Xylene	0.100	0.1109		mg/L		111	70 - 130	2	20

LCSD LCSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 104 70 - 130 1,4-Difluorobenzene (Surr) 99 70 - 130

Lab Sample ID: 880-13097-A-7 MS **Client Sample ID: Matrix Spike Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22760

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.000408	U F1	0.100	0.1325	F1	mg/L		133	70 - 130	
Toluene	< 0.000367	U	0.100	0.1214		mg/L		121	70 - 130	
Ethylbenzene	< 0.000657	U	0.100	0.1123		mg/L		112	70 - 130	
m-Xylene & p-Xylene	<0.000629	U	0.200	0.2255		mg/L		113	70 - 130	
o-Xylene	< 0.000642	U	0.100	0.1128		mg/L		113	70 - 130	

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-13097-A-7 MSD **Client Sample ID: Matrix Spike Duplicate Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22760

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.000408	U F1	0.100	0.1186		mg/L		119	70 - 130	11	25
Toluene	< 0.000367	U	0.100	0.1214		mg/L		121	70 - 130	0	25
Ethylbenzene	< 0.000657	U	0.100	0.1126		mg/L		113	70 - 130	0	25
m-Xylene & p-Xylene	<0.000629	U	0.200	0.2276		mg/L		114	70 - 130	1	25
o-Xylene	<0.000642	U	0.100	0.1149		mg/L		115	70 - 130	2	25

Client: Crain Environmental Job ID: 880-13092-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

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

Lab Sample ID: 880-13097-A-7 MSD

Matrix: Water

Analysis Batch: 22760

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

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

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

Lab Sample ID: MB 880-22959/1-A

Matrix: Water

Analysis Batch: 22887

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

Client Sample ID: Lab Control Sample

Prep Batch: 22959

Prep Type: Total/NA

Prep Batch: 22959

мв мв Result Qualifier **MDL** Unit Analyte RL Prepared Analyzed Dil Fac Gasoline Range Organics <0.904 U 04/04/22 14:13 04/04/22 19:54 4.57 0.904 mg/L (GRO)-C6-C10 Diesel Range Organics (Over <0.904 U 4.57 0.904 mg/L 04/04/22 14:13 04/04/22 19:54 C10-C28) Oll Range Organics (Over C28-C36) <0.872 U 4.57 0.872 mg/L 04/04/22 14:13 04/04/22 19:54

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	04/04/22 14:13	04/04/22 19:54	1
o-Terphenyl	124		70 - 130	04/04/22 14:13	04/04/22 19:54	1

Lab Sample ID: LCS 880-22959/2-A

Matrix: Water

Analysis Batch: 22887

Spike LCS LCS

	Spi	ke LCS	LCS				%Rec	
Analyte	Add	ed Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	92	.7 78.40		mg/L		85	75 - 125	
(GRO)-C6-C10								
Diesel Range Organics (Over	91	.7 92.94		mg/L		101	75 - 125	

C10-C28)

	LCS L	CS	
Surrogate	%Recovery Q	ualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: LCSD 880-22959/3-A

Matrix: Water

Analysis Batch: 22887

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 22959

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 92.0 78.52 mg/L 85 75 - 125 0 20 (GRO)-C6-C10 Diesel Range Organics (Over 92.0 90.85 mg/L 99 75 - 125 2 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	119		70 - 130

Job ID: 880-13092-1

SDG: Lea Co. NM

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

Lab Sample ID: 880-13092-1 MS

Matrix: Water

Analysis Batch: 22887

Client: Crain Environmental

Project/Site: Flying M SA #2

Client Sample ID: BH-1 **Prep Type: Total/NA**

Prep Batch: 22959

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	79.7	F1	89.3	79.46	F1	mg/L		-0.2	75 - 125	
Diesel Range Organics (Over C10-C28)	69.1	F1	89.3	66.52	F1	mg/L		-3	75 - 125	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	94		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22725/3 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22725

MB MB

Analyte	Result Qualifier	RL		Jnit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.0210 U	0.500	0.0210 m	ng/L	_		03/31/22 22:07	1

Lab Sample ID: LCS 880-22725/4 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 22725

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	25.0	24.34		mg/L		97	90 - 110	

Lab Sample ID: LCSD 880-22725/5 **Client Sample ID: Lab Control Sample Dup Matrix: Water** Prep Type: Total/NA

Analysis Batch: 22725

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	25.0	23.90		mg/L		96	90 - 110	2	20	

Lab Sample ID: 880-13085-A-1 MS **Client Sample ID: Matrix Spike** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 22725

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	2.78		25.0	28.02		ma/L		101	90 - 110	

Lab Sample ID: 880-13085-A-1 MSD **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 22725

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Alialysis Datcil. 22123											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2.78		25.0	27.58		mg/L		99	90 - 110	2	20

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: BH-1

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Client: Crain Environmental Job ID: 880-13092-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 880-23205/1

Matrix: Water

Analysis Batch: 23205

MB MB

Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte D Prepared 25.0 Total Dissolved Solids 25.0 mg/L 04/08/22 09:55 <25.0 U

Lab Sample ID: LCS 880-23205/2

Matrix: Water

Analysis Batch: 23205

Spike LCS LCS %Rec Added Result Qualifier D %Rec Limits Analyte Unit 1000 989.0 80 - 120 **Total Dissolved Solids** mg/L 99

Lab Sample ID: LCSD 880-23205/3

Matrix: Water

Analysis Batch: 23205

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits **RPD** Analyte Unit D %Rec Limit Total Dissolved Solids 1000 1005 101 80 - 120 10 mg/L

Lab Sample ID: 880-13092-1 DU

Matrix: Water

Analysis Batch: 23205

DU DU **RPD** Sample Sample Analyte Result Qualifier Result Qualifier Unit **RPD** Limit Total Dissolved Solids 3820 H 3664 mg/L 10

Method: SM 4500 H+ B - pH

Lab Sample ID: 880-13092-1 DU

Matrix: Water

Analysis Batch: 23203

DU DU **RPD** Sample Sample Result Qualifier Analyte Result Qualifier Unit D RPD Limit pН 7.3 HF 7.3 S.U. 0.3 10 23.2 HF 23.4 Deg. C 0.9 10 Temperature

QC Association Summary

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-13092-1
SDG: Lea Co. NM

GC VOA

Analysis Batch: 22736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13092-1	BH-1	Total/NA	Water	8021B	
MB 880-22736/8	Method Blank	Total/NA	Water	8021B	
LCS 880-22736/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-22736/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-13092-1 MS	BH-1	Total/NA	Water	8021B	
880-13092-1 MSD	BH-1	Total/NA	Water	8021B	

Analysis Batch: 22760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-22760/8	Method Blank	Total/NA	Water	8021B	
LCS 880-22760/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-22760/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-13097-A-7 MS	Matrix Spike	Total/NA	Water	8021B	
880-13097-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 22836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13092-1	BH-1	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 22887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13092-1	BH-1	Total/NA	Water	8015B NM	22959
880-13092-1	BH-1	Total/NA	Water	8015B NM	22959
MB 880-22959/1-A	Method Blank	Total/NA	Water	8015B NM	22959
LCS 880-22959/2-A	Lab Control Sample	Total/NA	Water	8015B NM	22959
LCSD 880-22959/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	22959
880-13092-1 MS	BH-1	Total/NA	Water	8015B NM	22959

Prep Batch: 22959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Ba
880-13092-1	BH-1	Total/NA	Water	8015NM Aq Prep
880-13092-1	BH-1	Total/NA	Water	8015NM Aq Prep
MB 880-22959/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep
LCS 880-22959/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep
LCSD 880-22959/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep
880-13092-1 MS	BH-1	Total/NA	Water	8015NM Aq Prep

Analysis Batch: 23015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13092-1	BH-1	Total/NA	Water	8015 NM	_

HPLC/IC

Analysis Batch: 22725

Lab Sample ID 880-13092-1	Client Sample ID BH-1	Prep Type Total/NA	Matrix Water	Method 300.0	Prep Batch
MB 880-22725/3	Method Blank	Total/NA	Water	300.0	
LCS 880-22725/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-22725/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-13085-A-1 MS	Matrix Spike	Total/NA	Water	300.0	

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QC Association Summary

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-13092-1
SDG: Lea Co. NM

HPLC/IC (Continued)

Analysis Batch: 22725 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13085-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 23203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13092-1	BH-1	Total/NA	Water	SM 4500 H+ B	
880-13092-1 DU	BH-1	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 23205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13092-1	BH-1	Total/NA	Water	SM 2540C	
MB 880-23205/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 880-23205/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 880-23205/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-13092-1 DU	BH-1	Total/NA	Water	SM 2540C	

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Lab Chronicle

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-13092-1
SDG: Lea Co. NM

Client Sample ID: BH-1

Lab Sample ID: 880-13092-1

Drop Time	Batch	Batch	D	Dil	Initial	Final	Batch	Prepared	Amalyat	l ab
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	22736	03/31/22 20:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22836	04/01/22 15:21	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23015	04/05/22 10:37	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.5 mL	3 mL	22959	04/04/22 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22887	04/04/22 20:58	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.8 mL	3 mL	22959	04/04/22 14:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22887	04/04/22 21:40	AJ	XEN MID
Total/NA	Analysis	300.0		20			22725	04/01/22 21:54	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23205	04/08/22 09:55	SC	XEN MID
Total/NA	Analysis	SM 4500 H+ B		1			23203	04/08/22 09:52	SC	XEN MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: Crain Environmental Job ID: 880-13092-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Laboratory: Eurofins Midland

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

Authority	F	Program	Identification Number	Expiration Date		
Texas	<u> </u>	NELAP	T104704400-21-22	06-30-22		
The following analytes the agency does not do	•	port, but the laboratory is r	not certified by the governing authority.	This list may include analytes for whic		
Analysis Method	Prep Method	Matrix	Analyte			
300.0		Water	Chloride			
8015 NM		Water	Total TPH			
SM 2540C		Water	Total Dissolved Solids			
SM 4500 H+ B		Water	Temperature			
Total BTEX		Water	Total BTEX			

Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2

Job ID: 880-13092-1 SDG: Lea Co. NM

/lethod	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	XEN MID
otal BTEX	Total BTEX Calculation	TAL SOP	XEN MID
015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
0.00	Anions, Ion Chromatography	MCAWW	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN MID
SM 4500 H+ B	pH	SM	XEN MID
6030B	Purge and Trap	SW846	XEN MID
015NM Aq Prep	Microextraction	SW846	XEN MID

Protocol References:

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-13092-1

SDG: Lea Co. NM

Lab Sample ID Client Sample ID Matrix Collected Received 880-13092-1 BH-1 Water 03/29/22 11:10 03/30/22 15:18

.ompany Name: roject Manager * Curofins **2025** 200 Environment Testing CONTROL WESTER! :九十二 Bill to: (if different) Company Name: Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 P.O. Box SER My W Hale 53570

SAMPLE RECEIPT

Cooler Custody Seals: amples Received Intact:

Yes No (N/A)

Thermometer ID

Temp Blank:

Yes (No

Wet ice:

Yes) No

Parameters

8015M

Cotal Containers:

Sample Identification

Matrix SE

> Sampled Date

Time Sampled

Depth

Comp Grab/

> Cont # of

> > BTEX Chloride 5

3/29/22

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mple Custody Seals:

Yes No (N/A

Corrected Temperature: Temperature Reading Correction Factor

のエー

Sampler's Name:

Cirdy C

Z

Due Date

4/7/22

Routine

Rush

Code

Turn Around

TAT starts the day received by the lab, if received by 4:30pm

1000

roject Location. roject Number

roject Name:

Flying M

5A # 2

575) 441-7244

City, State ZIP

Nesta

TX 7976

City, State ZIP

Clody.

<u>Crain @ Amail. com</u>

Midland.

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Deliverables.

EDD [

ADaPT

Other-

Level IV

ANALYSIS REQUEST

ddress:

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Chain of Custody

www.xenco.com Page of Work Order Comments

Program: UST/PST PRP Brownfields RRC Superfund

Reporting Level II | Level III | PST/UST | TRRP |

State of Project: NM

880-13092 Chain of Custody

Na₂S₂O₃ NaSO ₃

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

NaHSO 4 NABIS H₃PO₄ HP H₂SO₄ H₂

NaOH Na HNO 3 HN МеОН Ме

HCL. HC

Cool Cool

None NO

DI Water: H₂O

Preservative Codes

Work Order No: _

4/11/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: Crain Environmental Job Number: 880-13092-1 SDG Number: Lea Co. NM

Login Number: 13092 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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").	True	

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-15046-1

Laboratory Sample Delivery Group: Lea Co. NM

Client Project/Site: Flying M SA #2

Revision: 1

For:

Crain Environmental 2925 E. 17th St. Odessa, Texas 79761

Attn: Cindy Crain

RAMER

Authorized for release by: 6/2/2022 8:56:05 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Crain Environmental Project/Site: Flying M SA #2

Laboratory Job ID: 880-15046-1 SDG: Lea Co. NM

Table of Contents

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Eurofins Midland 6/2/2022 (Rev. 1)

Definitions/Glossary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-15046-1

SDG: Lea Co. NM

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Qualifiers

GC VOA

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier Qualifier Description

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.

Eisted 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: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-15046-1
SDG: Lea Co. NM

Job ID: 880-15046-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-15046-1

REVISION

The report being provided is a revision of the original report sent on 5/31/2022. The report (revision 1) is being revised due to BTEX parameters missing on final report.

Report revision history

Receipt

The samples were received on 5/23/2022 12:04 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 4.2°C

GC VOA

Method Total_BTEX_GCV: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 880-26211 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

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: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-15046-1

SDG: Lea Co. NM

Client Sample ID: MW-2 Lab Sample ID: 880-15046-1

Date Collected: 05/19/22 10:00 Matrix: Water Date Received: 05/23/22 12:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			05/25/22 23:51	
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			05/25/22 23:51	•
Ethylbenzene	< 0.000657	U	0.00200	0.000657	mg/L			05/25/22 23:51	•
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			05/25/22 23:51	· · · · · · · · ·
o-Xylene	< 0.000642	U	0.00200	0.000642	mg/L			05/25/22 23:51	
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			05/25/22 23:51	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	122		70 - 130					05/25/22 23:51	
1,4-Difluorobenzene (Surr)	92		70 - 130					05/25/22 23:51	•
Method: Total BTEX - Total B	TEX Calcula	tion							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			05/31/22 12:57	•
Method: 8015 NM - Diesel Rai Analyte	•	s (DRO) (O	GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.898	U	4.55	0.898	mg/L			05/27/22 12:03	
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.898	U	4.55	0.898	mg/L		05/26/22 14:03	05/26/22 17:39	•
Diesel Range Organics (Over C10-C28)	<0.898	U	4.55	0.898	mg/L		05/26/22 14:03	05/26/22 17:39	,
Oll Range Organics (Over C28-C36)	<0.867	U	4.55	0.867	mg/L		05/26/22 14:03	05/26/22 17:39	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	111		70 - 130				05/26/22 14:03	05/26/22 17:39	
o-Terphenyl	122		70 - 130				05/26/22 14:03	05/26/22 17:39	•
Method: 300.0 - Anions, Ion C	hromatogra	phy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Allalyto	rtosuit	Quannon			• • • • • • • • • • • • • • • • • • • •		. ropurou	<u>y</u>	

Client Sample ID: MW-3

Date Collected: 05/19/22 10:50

Lab Sample ID: 880-15046-2

Matrix: Water

Date Received: 05/23/22 12:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			05/25/22 23:31	1
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			05/25/22 23:31	1
Ethylbenzene	< 0.000657	U	0.00200	0.000657	mg/L			05/25/22 23:31	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			05/25/22 23:31	1
o-Xylene	< 0.000642	U	0.00200	0.000642	mg/L			05/25/22 23:31	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			05/25/22 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			-		05/25/22 23:31	1
1.4-Difluorobenzene (Surr)	94		70 - 130					05/25/22 23:31	1

Client Sample Results

Client: Crain Environmental Job ID: 880-15046-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Client Sample ID: MW-3 Lab Sample ID: 880-15046-2 Date Collected: 05/19/22 10:50

Matrix: Water

Date Received: 05/23/22 12:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			05/25/22 23:31	1
- Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	SC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.901	U	4.56	0.901	mg/L			05/27/22 12:03	1
Method: 8015B NM - Diesel R	ange Organi	ics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<0.901	U	4.56	0.901	mg/L		05/26/22 14:03	05/26/22 18:01	1
(GRO)-C6-C10									
Diesel Range Organics (Over	< 0.901	U	4.56	0.901	mg/L		05/26/22 14:03	05/26/22 18:01	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<0.869	U	4.56	0.869	mg/L		05/26/22 14:03	05/26/22 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				05/26/22 14:03	05/26/22 18:01	1
o-Terphenyl	135	S1+	70 - 130				05/26/22 14:03	05/26/22 18:01	1
Method: 300.0 - Anions, Ion C	hromatogra	vhq							
Analyte	_	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	490		10.0	0.421	mg/L		<u> </u>	05/25/22 22:49	20

Released to Imaging: 3/4/2024 3:21:36 PM

Surrogate Summary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-15046-1

SDG: Lea Co. NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water Prep Type: Total/NA

			Perce	nt Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-15046-1	MW-2	122	92	
880-15046-2	MW-3	123	94	
Surrogate Legend				

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Water Prep Type: Total/NA

			Percent S	Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-15046-1	MW-2	111	122	
880-15046-2	MW-3	127	135 S1+	
880-15197-B-1-B MS	Matrix Spike	88	85	
880-15197-B-1-C MSD	Matrix Spike Duplicate	88	85	
LCS 880-26369/2-A	Lab Control Sample	104	102	
LCSD 880-26369/3-A	Lab Control Sample Dup	108	105	
MB 880-26369/1-A	Method Blank	109	115	

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Job ID: 880-15046-1

SDG: Lea Co. NM

Method: Total BTEX - Total BTEX Calculation

Lab Sample ID: MB 880-26190/5-A

Matrix: Water

Analysis Batch: 26211

Client: Crain Environmental

Project/Site: Flying M SA #2

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26190

MB MB Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac **Prepared** Total BTEX 0.00200 05/24/22 14:35 05/25/22 12:32 <0.00100 U 0.00100 mg/L

Lab Sample ID: MB 880-26211/39 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA **Analysis Batch: 26211**

MB MB

Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac Analyte Total BTEX <0.00100 U 0.00200 05/25/22 23:09 0.00100 mg/L

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

Lab Sample ID: MB 880-26369/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 26295** Prep Batch: 26369

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.904	Ū	4.57	0.904	mg/L		05/26/22 09:03	05/26/22 10:44	1
Diesel Range Organics (Over C10-C28)	<0.904	U	4.57	0.904	mg/L		05/26/22 09:03	05/26/22 10:44	1
Oll Range Organics (Over C28-C36)	<0.872	U	4.57	0.872	mg/L		05/26/22 09:03	05/26/22 10:44	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	05/26/22 09:03	05/26/22 10:44	1
o-Terphenyl	115		70 - 130	05/26/22 09:03	05/26/22 10:44	1

Lab Sample ID: LCS 880-26369/2-A **Client Sample ID: Lab Control Sample**

o-Terphenyl

Matrix: Water Prep Type: Total/NA Prep Batch: 26369 **Analysis Batch: 26295** Chile

	эріке	LUS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	91.7	79.04		mg/L		86	75 - 125	
Diesel Range Organics (Over C10-C28)	91.7	72.59		mg/L		79	75 - 125	

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 104 70 - 130

102

Lab Sample ID: LCSD 880-26369/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 26295** Prep Batch: 26369 LCSD LCSD %Rec **RPD** Spike Added Analyte Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics 92.0 82.66 90 75 - 125 20 mg/L

(GRO)-C6-C10 Diesel Range Organics (Over 92.0 76.31 mg/L 83 75 - 125 5 C10-C28)

70 - 130

Eurofins Midland

Client: Crain Environmental Job ID: 880-15046-1 SDG: Lea Co. NM Project/Site: Flying M SA #2

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

Lab Sample ID: LCSD 880-26369/3-A

Matrix: Water

Analysis Batch: 26295

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26369

LCSD LCSD

%Recovery Qualifier Limits Surrogate 1-Chlorooctane 108 70 - 130 o-Terphenyl 105 70 - 130

Client Sample ID: Matrix Spike Lab Sample ID: 880-15197-B-1-B MS

Analysis Batch: 26295

Matrix: Water Prep Type: Total/NA Prep Batch: 26369

%Rec MS MS Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <0.893 U 89.6 91.62 mg/L 102 75 - 125 (GRO)-C6-C10 Diesel Range Organics (Over <0.893 U 89.6 83.08 mg/L 93 75 - 125

C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 88 70 - 130 70 - 130 o-Terphenyl 85

Lab Sample ID: 880-15197-B-1-C MSD

Matrix: Water

Analysis Batch: 26295

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA Prep Batch: 26369

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier Limits **RPD** Limit Analyte Unit D %Rec

<0.893 U 75 - 125 Gasoline Range Organics 89.6 93.27 mg/L 104 2 20 (GRO)-C6-C10 89.6 Diesel Range Organics (Over <0.893 U 83.29 mg/L 93 75 - 125 0 20

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 88 70 - 130 o-Terphenyl 85

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26254/3 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 26254

MB MB

Result Qualifier RL **MDL** Unit Dil Fac Analyte Prepared Analyzed 0.500 Chloride <0.0210 U 0.0210 mg/L 05/25/22 19:32

Lab Sample ID: LCS 880-26254/4 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 26254

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 	25.0	24.46		mg/L		98	90 - 110	

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Prep Type: Total/NA

Client: Crain Environmental Job ID: 880-15046-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-26254/5 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water Analysis Batch: 26254

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 25.0 25.04 mg/L 100 90 - 110 2

Lab Sample ID: 880-15135-A-1 MS **Client Sample ID: Matrix Spike Matrix: Water** Prep Type: Total/NA

Analysis Batch: 26254

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	9.41		25.0	34.99		mg/L		102	90 - 110	

Lab Sample ID: 880-15135-A-1 MSD **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 26254

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit %Rec Chloride 9.41 25.0 33.37 mg/L 96 90 - 110 20

QC Association Summary

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-15046-1
SDG: Lea Co. NM

GC VOA

Prep Batch: 26190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26190/5-A	Method Blank	Total/NA	Water	5035	

Analysis Batch: 26211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15046-1	MW-2	Total/NA	Water	8021B	
880-15046-2	MW-3	Total/NA	Water	8021B	
880-15046-2	MW-3	Total/NA	Water	Total BTEX	
MB 880-26190/5-A	Method Blank	Total/NA	Water	Total BTEX	26190
MB 880-26211/39	Method Blank	Total/NA	Water	Total BTEX	
LCS 880-26211/34	Lab Control Sample	Total/NA	Water	Total BTEX	
LCSD 880-26211/35	Lab Control Sample Dup	Total/NA	Water	Total BTEX	
880-15046-2 MS	MW-3	Total/NA	Water	Total BTEX	
880-15046-2 MSD	MW-3	Total/NA	Water	Total BTEX	

Analysis Batch: 26584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15046-1	MW-2	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 26295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15046-1	MW-2	Total/NA	Water	8015B NM	26369
880-15046-2	MW-3	Total/NA	Water	8015B NM	26369
MB 880-26369/1-A	Method Blank	Total/NA	Water	8015B NM	26369
LCS 880-26369/2-A	Lab Control Sample	Total/NA	Water	8015B NM	26369
LCSD 880-26369/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	26369
880-15197-B-1-B MS	Matrix Spike	Total/NA	Water	8015B NM	26369
880-15197-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8015B NM	26369

Prep Batch: 26369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15046-1	MW-2	Total/NA	Water	8015NM Aq Prep	
880-15046-2	MW-3	Total/NA	Water	8015NM Aq Prep	
MB 880-26369/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-26369/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-26369/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	
880-15197-B-1-B MS	Matrix Spike	Total/NA	Water	8015NM Aq Prep	
880-15197-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8015NM Aq Prep	

Analysis Batch: 26439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15046-1	MW-2	Total/NA	Water	8015 NM	
880-15046-2	MW-3	Total/NA	Water	8015 NM	

HPLC/IC

Analysis Batch: 26254

Lab Sample ID 880-15046-1	Client Sample ID MW-2	Prep Type Total/NA	Matrix Water	Method 300.0	Prep Batch
880-15046-2	MW-3	Total/NA	Water	300.0	
MB 880-26254/3	Method Blank	Total/NA	Water	300.0	

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6/2/2022 (Rev. 1)

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QC Association Summary

Client: Crain Environmental
Project/Site: Flying M SA #2

Job ID: 880-15046-1
SDG: Lea Co. NM

HPLC/IC (Continued)

Analysis Batch: 26254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-26254/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-26254/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-15135-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-15135-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

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Lab Chronicle

Client: Crain Environmental Job ID: 880-15046-1 Project/Site: Flying M SA #2 SDG: Lea Co. NM

Client Sample ID: MW-2 Lab Sample ID: 880-15046-1 Date Collected: 05/19/22 10:00

Matrix: Water

Date Received: 05/23/22 12:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1			26211	05/25/22 23:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26584	05/31/22 12:57	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26439	05/27/22 12:03	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33 mL	3 mL	26369	05/26/22 14:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26295	05/26/22 17:39	SM	XEN MID
Total/NA	Analysis	300.0		50			26254	05/25/22 22:40	CH	XEN MID

Client Sample ID: MW-3 Lab Sample ID: 880-15046-2

Date Collected: 05/19/22 10:50 **Matrix: Water**

Date Received: 05/23/22 12:04

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1			26211	05/25/22 23:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26211	05/25/22 23:31	MR	XEN MID
Total/NA	Analysis	8015 NM		1			26439	05/27/22 12:03	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			32.9 mL	3 mL	26369	05/26/22 14:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26295	05/26/22 18:01	SM	XEN MID
Total/NA	Analysis	300.0		20			26254	05/25/22 22:49	СН	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-15046-1
SDG: Lea Co. NM

Laboratory: Eurofins Midland

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

Authority	I	Program	Identification Number	Expiration Date
Texas		NELAP	T104704400-21-22	06-30-22
The following analyte the agency does not o		port, but the laboratory is	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
300.0		Water	Chloride	
8015 NM		Water	Total TPH	

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Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2

Job ID: 880-15046-1 SDG: Lea Co. NM

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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
5030B	Purge and Trap	SW846	XEN MID
8015NM Ag Prep	Microextraction	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-15046-1

SDG: Lea Co. NM

Lab Sample ID	Client Sample ID	Matrix	Collected Received	
880-15046-1	MW-2	Water	05/19/22 10:00 05/23/22 12:04	
880-15046-2	MW-3	Water	05/19/22 10:50 05/23/22 12:04	

Houston, TX (281) 240-4200, Dallas TX (214) 902-0300 Chain of Custody

		204 4				5
		202 2	JOK ST	#16	<u>[</u>	ling (sa
Received by (Signature) Date/Time	Relinquished by (Signature)	Date/Time Relinquis	e) //	Received by (Signature)	; (Signature)	Relipquished by: (Signature)
12-	Notice: Signature of this document and relinquishment of samples Constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to sech project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Notice: Signature of this document and relinquishment of samples Constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to get project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously nego	der from client company to Eurofi onsibility for any losses or expens s for each sample submitted to Eu	Constitutes a valid purchase or sand shall not assume any respeach project and a charge of \$	ument and relinquishment of sample rill be liable only for the cost of sample rim charge of \$85.00 will be applied to	lotice: Signature of this doc of service. Eurofins Xenco w of Eurofins Xenco. A minimu
Se Ag SiO ₂ Na Sr Tl Sn U V Zn Hg 1631/2451/7470/7471	Co Cu Fe Pb Mg Mn Mo Ni K Se ù Pb Mn Mo Ni Se Ag Tl U	11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo N 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	A 13PPM Texas 11 Al Sb TCLP/SPLP6010 8RCRA SI	8RCRA 13PPM zed TCLP/SPLI	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010 Cırcle Method(s) ar
	880-15046 Chain of Custody					
						NAMES OF TAXABLE PARTY
					<u> </u>	
i will interest to		X	- 6			N . W
400.000		X		$\stackrel{\sim}{\dashv}$, M.9	MW-2
Sample Comments		TF. B7 Ch.	Depth Grab/ # of Comp Cont	Date Time Sampled Sampled	Matrix	Sample Identification
NaOH+Ascorbic Acid SAPC		E	727	Corrected Temperature:		Total Containers.
Zn Acetate+NaOH Zn		<u> </u>	4,4	Temperature Reading	Yes No (N/A)	Sample Custody Seals.
Na S O NaSO		5 S	Para	Correction Factor	Var No (NA)	Cooler Custody Seals.
H ₃ PO ₄ HP		4	Yes) No mete	Ver No Wet Ice:	Temp Blank.	SAMPLE RECEIPT
H ₂ SO ₄ . H ₂ NaOH Na			ine ido, ii received by 4.50pm	gie lab, ii rei		PO#
			TAT starts the day received by	TAT starts th	Cindy Crain	Sampler's Name:
			5/27/22	Due Date	Lea Co NM	Project Location
None NO DI Water H-O			Rush Pres.	X Routine	1.	Project Number
Preservative Codes	ANALYSIS REQUEST		Turn Around	೩	Flyma M SA #	Project Name
	Deliverables.	@ amail.com	cindy. crain	Email	(575)441-7244	Phone
evel II	Reporting Level II	Midland 7X 79710	City, State ZIP	79761	Ochossa, TX	City, State ZIP
	State of Proj	P.O. Box 53570	Address.	ć.	£ 17%	Address:
UST/PST PRP Brownfields RRC Superfund	S Program:		Company Name.	ental	Crain Covironmenta	Company Name.
omments		Leasa Hale	Bill to. (if different)		Cindy Crain	Project Manager
www.xenco.com Page of					,	de la companya de la
•	96 199	EL Paso, IX (915) 585-3443 Lubbock, IX (806) 794-1296 Hobbs, NM (575) 392-7550 Carlsbad NM (575) 988-3199	Hobbs, NM (57		्रे अप्तार प्रकार स्थाप प्रमुक्ति	
Work Order No: 15046	3334	Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334	Midland, TX (433	Kanjo ment Testing		•
y *	00	Houston, TX (281) 240-4200. Dallas TX (214) 902-0300	Houston, TX (? Curotins
			<u>_</u>		•	3

Login Sample Receipt Checklist

Client: Crain Environmental Job Number: 880-15046-1 SDG Number: Lea Co. NM

Login Number: 15046 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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").	True	

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-15938-1

Laboratory Sample Delivery Group: Lea Co., NM

Client Project/Site: Flying M SA #2

For:

Crain Environmental 2925 E. 17th St. Odessa, Texas 79761

Attn: Cindy Crain

CRAMER

Authorized for release by: 6/20/2022 1:23:25 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Crain Environmental

Project/Site: Flying M SA #2

Laboratory Job ID: 880-15938-1

SDG: Lea Co., NM

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Definitions/Glossary

Client: Crain Environmental Job ID: 880-15938-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Qualifiers

GC VOA Qualifier

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

S1+ Surrogate recovery exceeds control limits, high biased.
U Indicates the analyte was analyzed for but not detected.

HPLC/IC

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.

Eisted 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

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Case Narrative

Client: Crain Environmental Job ID: 880-15938-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Job ID: 880-15938-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-15938-1

Receipt

The samples were received on 6/15/2022 3:21 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 5.7°C

GC VOA

Method 8021B: The following sample was diluted because the initial analysis produced a significant negative result - the absolute value exceeded the reporting limit (RL): MW-3 (880-15938-3). Reporting limits (RLs) are elevated as a result.

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: Surrogate recovery for the following sample was outside control limits: MW-1 (880-15938-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-27757 and analytical batch 880-27733 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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: Crain Environmental Job ID: 880-15938-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Client Sample ID: MW-1 Lab Sample ID: 880-15938-1 Date Collected: 06/14/22 13:50

Matrix: Water

Date Received: 06/15/22 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			06/16/22 19:23	1
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			06/16/22 19:23	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			06/16/22 19:23	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			06/16/22 19:23	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			06/16/22 19:23	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			06/16/22 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130					06/16/22 19:23	1
1,4-Difluorobenzene (Surr)	100		70 - 130					06/16/22 19:23	1
Method: Total BTEX - Total BTEX	Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	- Result <0.901	Qualifier U	RL 4.56	MDL 0.901	Unit mg/L	D	Prepared	Analyzed 06/20/22 12:52	Dil Fac
			4.56	0.901	mg/L			06/20/22 12:52	1
Method: 8015B NM - Diesel Rang			D.	MDI	1114		B	A	D!! E
Analyte		Qualifier	RL 4.50		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.901	U	4.56	0.901	mg/L		06/17/22 09:00	06/18/22 07:54	1
Diesel Range Organics (Over C10-C28)	<0.901	U	4.56	0.901	mg/L		06/17/22 09:00	06/18/22 07:54	1
Oll Range Organics (Over C28-C36)	<0.869	U	4.56	0.869	mg/L		06/17/22 09:00	06/18/22 07:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130				06/17/22 09:00	06/18/22 07:54	1
o-Terphenyl	137	S1+	70 - 130				06/17/22 09:00	06/18/22 07:54	1
Method: 300.0 - Anions, Ion Chro	0 . ,								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
			5.00	0.210	mg/L			06/17/22 11:21	10

Client Sample ID: MW-2 Lab Sample ID: 880-15938-2 Date Collected: 06/14/22 14:45 **Matrix: Water**

Date Received: 06/15/22 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			06/16/22 19:49	1
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			06/16/22 19:49	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			06/16/22 19:49	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			06/16/22 19:49	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			06/16/22 19:49	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			06/16/22 19:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 _ 130			-		06/16/22 19:49	1
1,4-Difluorobenzene (Surr)	91		70 - 130					06/16/22 19:49	1

Eurofins Midland

6/20/2022

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-15938-1

SDG: Lea Co., NM

Client Sample ID: MW-2

Lab Sample ID: 880-15938-2

Matrix: Water

Date Collected: 06/14/22 14:45 Date Received: 06/15/22 15:21

Method: Total BTEX - Total BTEX Analyte		Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657		0.00400	0.000657	mg/L		- riepaieu	06/17/22 09:40	1
Total BTEX	0.000007	Ü	0.00100	0.000001	mg/L			00/11/22 00:10	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.901	U	4.56	0.901	mg/L			06/20/22 12:52	1
Method: 8015B NM - Diesel Rang	•	, , ,							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<0.901	U	4.56	0.901	mg/L		06/17/22 09:00	06/18/22 09:10	1
(GRO)-C6-C10									
Diesel Range Organics (Over	< 0.901	U	4.56	0.901	mg/L		06/17/22 09:00	06/18/22 09:10	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<0.869	U	4.56	0.869	mg/L		06/17/22 09:00	06/18/22 09:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				06/17/22 09:00	06/18/22 09:10	1
o-Terphenyl	110		70 - 130				06/17/22 09:00	06/18/22 09:10	1
Method: 300.0 - Anions, Ion Chro	matography								
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1440		25.0	1.05	mg/L			06/16/22 23:00	50

Client Sample ID: MW-3 Lab Sample ID: 880-15938-3

Date Collected: 06/14/22 15:40 **Matrix: Water**

Date Received: 06/15/22 15:21

Released to Imaging: 3/4/2024 3:21:36 PM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00408	U	0.0200	0.00408	mg/L			06/16/22 20:15	10
Toluene	< 0.00367	U	0.0200	0.00367	mg/L			06/16/22 20:15	10
Ethylbenzene	< 0.00657	U	0.0200	0.00657	mg/L			06/16/22 20:15	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			06/16/22 20:15	10
o-Xylene	< 0.00642	U	0.0200	0.00642	mg/L			06/16/22 20:15	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			06/16/22 20:15	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130					06/16/22 20:15	10
			70 - 130			_		06/16/22 20:15	
Method: Total BTEX - Total BTE Analyte	EX Calculation Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	06/16/22 20:15 Analyzed	
Method: Total BTEX - Total BTE Analyte Total BTEX	EX Calculation Result <0.00657	U		MDL 0.00657		<u>D</u>	Prepared		
Method: Total BTEX - Total BTE Analyte Total BTEX Method: 8015 NM - Diesel Rang	EX Calculation Result <0.00657 ge Organics (DR	U (GC)	RL	0.00657	mg/L			Analyzed 06/17/22 09:40	Dil Fac
Method: Total BTEX - Total BTE Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte	EX Calculation Result <0.00657 ge Organics (DRORESULT) Result	O) (GC) Qualifier	RL 0.0400	0.00657 MDL	mg/L Unit	<u>D</u>	Prepared Prepared	Analyzed 06/17/22 09:40 Analyzed	Dil Fac
Method: Total BTEX - Total BTE Analyte	EX Calculation Result <0.00657 ge Organics (DR	O) (GC) Qualifier	RL	0.00657	mg/L Unit			Analyzed 06/17/22 09:40	Dil Fac
Method: Total BTEX - Total BTE Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte	EX Calculation Result <0.00657 ge Organics (DRO Result <0.898	O) (GC) Qualifier	RL 0.0400	0.00657 MDL	mg/L Unit			Analyzed 06/17/22 09:40 Analyzed	Dil Fac
Method: Total BTEX - Total BTE Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte Total TPH	EX Calculation Result <0.00657 ge Organics (DR) Result <0.898 nge Organics (D	O) (GC) Qualifier	RL 0.0400	0.00657 MDL 0.898	mg/L Unit			Analyzed 06/17/22 09:40 Analyzed	Dil Fac
Method: Total BTEX - Total BTE Analyte Total BTEX Method: 8015 NM - Diesel Rang Analyte Total TPH Method: 8015B NM - Diesel Rang	EX Calculation Result <0.00657 ge Organics (DR) Result <0.898 nge Organics (D	O) (GC) Qualifier U RO) (GC) Qualifier	RL 0.0400 RL 4.55	0.00657 MDL 0.898	mg/L Unit mg/L Unit	<u>D</u>	Prepared	Analyzed 06/17/22 09:40 Analyzed 06/20/22 12:52	Dil Fac

Client: Crain Environmental Job ID: 880-15938-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Client Sample ID: MW-3 Lab Sample ID: 880-15938-3 Date Collected: 06/14/22 15:40

Matrix: Water

Date Received: 06/15/22 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<0.867	U	4.55	0.867	mg/L		06/17/22 09:00	06/18/22 09:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				06/17/22 09:00	06/18/22 09:32	1
o-Terphenyl	109		70 - 130				06/17/22 09:00	06/18/22 09:32	1

Method: 300.0 - Anions, Ion Chron	natography								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	469		10.0	0.421	mg/L			06/16/22 23:09	20

Surrogate Summary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-15938-1

SDG: Lea Co., NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Sample ID	Client Sample ID	(70-130)	(70-130)	
15720-A-1 MS	Matrix Spike	114	108	
5720-A-1 MSD	Matrix Spike Duplicate	106	95	
15938-1	MW-1	115	100	
15938-2	MW-2	115	91	
15938-3	MW-3	118	94	
880-27653/3	Lab Control Sample	103	99	
0 880-27653/4	Lab Control Sample Dup	109	100	
880-27653/8	Method Blank	83	93	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Water Prep Type: Total/NA

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-15938-1	MW-1	123	137 S1+
880-15938-1 MS	MW-1	92	96
880-15938-1 MSD	MW-1	97	102
880-15938-2	MW-2	99	110
880-15938-3	MW-3	98	109
LCS 880-27757/2-A	Lab Control Sample	94	107
LCSD 880-27757/3-A	Lab Control Sample Dup	99	111
MB 880-27757/1-A	Method Blank	111	127

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Crain Environmental Job ID: 880-15938-1 SDG: Lea Co., NM Project/Site: Flying M SA #2

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27653/8

Matrix: Water

Analysis Batch: 27653

Client	Sample	ID:	Meth	od I	3lank
	D.		T	7-4	- 1/N I A

Prep Type: Total/NA

	INID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			06/16/22 11:07	1
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			06/16/22 11:07	1
Ethylbenzene	< 0.000657	U	0.00200	0.000657	mg/L			06/16/22 11:07	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			06/16/22 11:07	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			06/16/22 11:07	1
Xylenes, Total	< 0.000642	U	0.00400	0.000642	mg/L			06/16/22 11:07	1

MB MB

MD MD

Surrogate	%Recovery Quality	fier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83	70 - 130		06/16/22 11:07	1
1,4-Difluorobenzene (Surr)	93	70 - 130		06/16/22 11:07	1

Lab Sample ID: LCS 880-27653/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 27653

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08318		mg/L		83	70 - 130	
Toluene	0.100	0.08612		mg/L		86	70 - 130	
Ethylbenzene	0.100	0.09575		mg/L		96	70 - 130	
m-Xylene & p-Xylene	0.200	0.1891		mg/L		95	70 - 130	
o-Xylene	0.100	0.09290		mg/L		93	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-27653/4

Matrix: Water

Analysis Batch: 27653

Client S	Sample I	D: La	b Conti	ol Saı	mple Dup	
			Prep	Type:	Total/NA	

	Spike	LCSD	LCSD				70KeC		KPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.08934		mg/L		89	70 - 130	7	20	
Toluene	0.100	0.09106		mg/L		91	70 - 130	6	20	
Ethylbenzene	0.100	0.1006		mg/L		101	70 - 130	5	20	
m-Xylene & p-Xylene	0.200	0.2001		mg/L		100	70 - 130	6	20	
o-Xylene	0.100	0.09787		mg/L		98	70 - 130	5	20	

LCSD LCSD

Surrogate	%Recovery Qua	alifier Limits
4-Bromofluorobenzene (Surr)	109	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: 880-15720-A-1 MS

Matrix: Water

Analysis Batch: 27653

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

•	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.000408	U	0.100	0.1035		mg/L		103	70 - 130
Toluene	< 0.000367	U	0.100	0.1080		mg/L		108	70 - 130

QC Sample Results

Client: Crain Environmental Job ID: 880-15938-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

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

Lab Sample ID: 880-15720-A-1 MS

Matrix: Water

Analysis Batch: 27653

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.000657 U 0.100 0.1158 116 70 - 130 mg/L m-Xylene & p-Xylene <0.000629 0.200 0.2287 mg/L 114 70 - 130 0.100 o-Xylene <0.000642 U 0.1147 mg/L 70 - 130 115

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	114	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: 880-15720-A-1 MSD

Matrix: Water

Analysis Batch: 27653

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Limits RPD Limit Analyte Result Qualifier Unit %Rec Benzene <0.000408 U 0.100 0.08268 mg/L 83 70 - 130 22 25 Toluene <0.000367 U 0.100 0.08640 mg/L 86 70 - 130 22 25 Ethylbenzene <0.000657 U 0.100 0.09580 96 70 - 130 19 25 mg/L <0.000629 U 0.200 0.1898 70 - 130 25 m-Xylene & p-Xylene mg/L 95 19 <0.000642 U 0.100 0.09397 94 70 - 130 20 o-Xylene mg/L

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-27757/1-A

Matrix: Water

Analysis Batch: 27733

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

Prep Batch: 27757

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1.231	J	4.57	0.904	mg/L		06/17/22 09:00	06/18/22 06:49	1
Diesel Range Organics (Over C10-C28)	1.153	J	4.57	0.904	mg/L		06/17/22 09:00	06/18/22 06:49	1
Oll Range Organics (Over C28-C36)	<0.872	U	4.57	0.872	mg/L		06/17/22 09:00	06/18/22 06:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	06/17/22 09:00	06/18/22 06:49	1
o-Terphenyl	127		70 - 130	06/17/22 09:00	06/18/22 06:49	1

Lab Sample ID: LCS 880-27757/2-A

Matrix: Water

Analysis Batch: 27733

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

Prep Batch: 27757

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	91.7	74.37		mg/L		81	75 - 125
(GRO)-C6-C10							
Diesel Range Organics (Over	91.7	90.76		mg/L		99	75 - 125
C10-C28)							

Job ID: 880-15938-1

SDG: Lea Co., NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued) Lab Sample ID: LCS 880-27757/2-A

Lab Sample ID: LCSD 880-27757/3-A

Lab Sample ID: 880-15938-1 MS

Matrix: Water

Matrix: Water

Analysis Batch: 27733

Client: Crain Environmental

Project/Site: Flying M SA #2

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27757

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 94 70 - 130 o-Terphenyl 107 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27757

Analysis Batch: 27733 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 92.0 77.98 85 75 - 125 5 20 Gasoline Range Organics mg/L (GRO)-C6-C10 Diesel Range Organics (Over 92.0 102 94.29 mg/L 75 - 12520

C10-C28)

Matrix: Water

LCSD LCSD

Surrogate %Recovery Qualifier Limits 99 70 - 130 1-Chlorooctane 111 70 - 130 o-Terphenyl

Client Sample ID: MW-1

Prep Type: Total/NA

Analysis Batch: 27733 MS MS

Prep Batch: 27757

Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics < 0.901 U 90.9 91.56 mg/L 101 75 - 125 (GRO)-C6-C10 Diesel Range Organics (Over <0.901 U 90.9 91.27 mg/L 100 75 - 125

C10-C28)

MS MS

%Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 92 o-Terphenyl 96 70 - 130

Lab Sample ID: 880-15938-1 MSD Client Sample ID: MW-1

Matrix: Water Prep Type: Total/NA Analysis Batch: 27733 Prep Batch: 27757

Sample Sample MSD MSD %Rec RPD Spike

Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics U 90.9 98.53 108 < 0.901 mg/L 75 - 125 20 (GRO)-C6-C10 Diesel Range Organics (Over <0.901 U 90.9 98.71 mg/L 109 75 - 125 20

C10-C28)

MSD MSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	97	70 - 130
o-Terphenyl	102	70 - 130

Job ID: 880-15938-1

Client: Crain Environmental Project/Site: Flying M SA #2

SDG: Lea Co., NM

Prep Type: Total/NA

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27724/3

Lab Sample ID: LCS 880-27724/4

Matrix: Water

Analysis Batch: 27724

мв мв

Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac Chloride <0.0210 U 0.500 0.0210 mg/L 06/16/22 19:24

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Client Sample ID: Method Blank

Analysis Batch: 27724

Matrix: Water

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 25.0 25.63 mg/L 103 90 - 110

Lab Sample ID: LCSD 880-27724/5 Client Sample ID: Lab Control Sample Dup

Matrix: Water Prep Type: Total/NA

Analysis Batch: 27724

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 25.0 25.56 mg/L 102 90 - 110

Lab Sample ID: 880-15951-A-1 MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 27724

MS MS Sample Sample Spike %Rec Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 40.3 25.0 64.43 90 - 110 mg/L

Lab Sample ID: 880-15951-A-1 MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 27724

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 25.0 Chloride 40.3 64.56 mg/L 97 90 - 110

Lab Sample ID: 880-15993-A-1 MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 27724

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 8.59 25.0 33 94 mg/L 101 90 - 110

Lab Sample ID: 880-15993-A-1 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Analysis Batch: 27724

MSD MSD %Rec RPD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit D %Rec Chloride 8.59 25.0 33.94 mg/L 101 90 - 110 20

QC Association Summary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-15938-1

SDG: Lea Co., NM

GC VOA

Analysis Batch: 27653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15938-1	MW-1	Total/NA	Water	8021B	
880-15938-2	MW-2	Total/NA	Water	8021B	
880-15938-3	MW-3	Total/NA	Water	8021B	
MB 880-27653/8	Method Blank	Total/NA	Water	8021B	
LCS 880-27653/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-27653/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-15720-A-1 MS	Matrix Spike	Total/NA	Water	8021B	
880-15720-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 27782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15938-1	MW-1	Total/NA	Water	Total BTEX	
880-15938-2	MW-2	Total/NA	Water	Total BTEX	
880-15938-3	MW-3	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 27733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15938-1	MW-1	Total/NA	Water	8015B NM	27757
880-15938-2	MW-2	Total/NA	Water	8015B NM	27757
880-15938-3	MW-3	Total/NA	Water	8015B NM	27757
MB 880-27757/1-A	Method Blank	Total/NA	Water	8015B NM	27757
LCS 880-27757/2-A	Lab Control Sample	Total/NA	Water	8015B NM	27757
LCSD 880-27757/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	27757
880-15938-1 MS	MW-1	Total/NA	Water	8015B NM	27757
880-15938-1 MSD	MW-1	Total/NA	Water	8015B NM	27757

Prep Batch: 27757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15938-1	MW-1	Total/NA	Water	8015NM Aq Prep	
880-15938-2	MW-2	Total/NA	Water	8015NM Aq Prep	
880-15938-3	MW-3	Total/NA	Water	8015NM Aq Prep	
MB 880-27757/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-27757/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-27757/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	
880-15938-1 MS	MW-1	Total/NA	Water	8015NM Aq Prep	
880-15938-1 MSD	MW-1	Total/NA	Water	8015NM Aq Prep	

Analysis Batch: 27903

Lab Sample ID 880-15938-1	Client Sample ID MW-1	Prep Type Total/NA	Matrix Water	Method 8015 NM	Prep Batch
880-15938-2	MW-2	Total/NA	Water	8015 NM	
880-15938-3	MW-3	Total/NA	Water	8015 NM	

HPLC/IC

Analysis Batch: 27724

Released to Imaging: 3/4/2024 3:21:36 PM

La	ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
88	30-15938-1	MW-1	Total/NA	Water	300.0	
88	30-15938-2	MW-2	Total/NA	Water	300.0	
88	30-15938-3	MW-3	Total/NA	Water	300.0	

Eurofins Midland

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QC Association Summary

Client: Crain Environmental Job ID: 880-15938-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

HPLC/IC (Continued)

Analysis Batch: 27724 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27724/3	Method Blank	Total/NA	Water	300.0	
LCS 880-27724/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-27724/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-15951-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-15951-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
880-15993-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-15993-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

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Lab Chronicle

Client: Crain Environmental Job ID: 880-15938-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Client Sample ID: MW-1 Lab Sample ID: 880-15938-1 Date Collected: 06/14/22 13:50

Matrix: Water Date Received: 06/15/22 15:21

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 8021B Total/NA Analysis 27653 06/16/22 19:23 MR XEN MID Total/NA Analysis Total BTEX 27782 06/17/22 09:40 AJ XEN MID Total/NA 8015 NM 27903 06/20/22 12:52 SM XEN MID Analysis 1 Total/NA Prep 8015NM Aq Prep 32.9 mL 3 mL 27757 06/17/22 09:00 DM XEN MID 06/18/22 07:54 Total/NA 27733 XEN MID Analysis 8015B NM SM 1 Total/NA Analysis 300.0 10 27724 06/17/22 11:21 XEN MID

Client Sample ID: MW-2 Lab Sample ID: 880-15938-2

Date Collected: 06/14/22 14:45 **Matrix: Water** Date Received: 06/15/22 15:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1			27653	06/16/22 19:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27782	06/17/22 09:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			27903	06/20/22 12:52	SM	XEN MID
Total/NA	Prep	8015NM Aq Prep			32.9 mL	3 mL	27757	06/17/22 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27733	06/18/22 09:10	SM	XEN MID
Total/NA	Analysis	300.0		50			27724	06/16/22 23:00	СН	XEN MID

Client Sample ID: MW-3 Lab Sample ID: 880-15938-3 Date Collected: 06/14/22 15:40 **Matrix: Water**

Date Received: 06/15/22 15:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10			27653	06/16/22 20:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27782	06/17/22 09:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			27903	06/20/22 12:52	SM	XEN MID
Total/NA	Prep	8015NM Aq Prep			33 mL	3 mL	27757	06/17/22 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27733	06/18/22 09:32	SM	XEN MID
Total/NA	Analysis	300.0		20			27724	06/16/22 23:09	СН	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Crain Environmental Job ID: 880-15938-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-21-22	06-30-22	
The following analytes the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for which	
Analysis Method	Prep Method	Matrix	Analyte		
300.0		Water	Chloride		
000.0		vvaler	Chloride		
8015 NM		Water	Chloride Total TPH		

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Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-15938-1

SDG: Lea Co., 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
5030B	Purge and Trap	SW846	XEN MID
8015NM Aq Prep	Microextraction	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-15938-1

SDG: Lea Co., NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-15938-1	MW-1	Water	06/14/22 13:50	06/15/22 15:21
880-15938-2	MW-2	Water	06/14/22 14:45	06/15/22 15:21
880-15938-3	MW-3	Water	06/14/22 15:40	06/15/22 15:21

City, State ZIP-

13761

Address.

State of Project: NH

Program:

UST/PST PRP Brownfields

RRC □

Superfund

Work Order Comments

www.xenco.com

Bill to: (if different)

Company Name:

Address.

2925 Clesse

Company Name Project Manager

13

Chain of Custody

Houston, TX (281) 240-4200, Dallas TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392 7550 Carlsbad, NM (575) 988-3199

Xenco

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Work Order No:
No:
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		2	15.50 10.00				COUR T	but for
Date/Time	Received by (Signature)	Relinquished by (Signature)	Date/Time	1	Received by: (Signature)	Received by	(Signature)	Relinquished by: (Signature)
	ditions ontrol y negotiated.	which signature or this occument and relinquisament of samples constitutes a vide purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ofins Xenco, its affiliates and s ses incurred by the client if s urofins Xenco, but not analy	company to Eur ny losses or expe ple submitted to	Id purchase order from client sume any responsibility for a la charge of \$5 for each sam	amples constitutes a val samples and shall not as bled to each project and	In the many reinquishment or all be liable only for the cost of methods of \$85.00 will be appearance.	f service. Eurofins Xenco wi f Service. Eurofins Xenco wi f Eurofins Xenco. A minimu
J V Zn 7471	g Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Se Ag Tl U Hg 1631/2451/7470/7471	Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo N Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Al Sb As Ba Be B Cd Ca CRA Sb As Ba Be Cd Cr C	8RCRA	8RCRA 13PPM Texas 11 TCLP / SPLP 6010 8F	analyzed	Iotal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	Circle Method(s) ar
					11 1 1			
	Silain of Custody							
	880-15938 Ch							
			X	- 6	1540 -	6W 6/14/22	6	MW-3
			X	- 6	- 9641	L	W &	MW-2
			XXX	- 6	1350 -	W 6/14/22	SW.	MN-1
Sample Comments	Sar		Tr. BT	Grab/ # of Comp Cont	Time Depth	rix Date Sampled	fication Matrix	Sample Identification
NaOH+Ascorbic Acid SAPC	NaOH+A		EX Vori		nperature: S	Corrected Temperature		Total Containers.
Zn Acetate+NaOH Zn	Zn Aceta		81		Reading: \S.	Temperature Reading:	Yes No (N/A	Sample Custody Seals.
Na-S-O- NASO -	Na.S.O. Nasco		7.E	Pai	tor =	/_	Yes	Cooler Custody Seals.
NARIS	Nation .		514	rame	ر	Thermometer ID:		Samples Received Intact:
	T. 500 HB			No	Wet Ice: (Yes)	Yey No	Temp Blank:	SAMPLE RECEIPT
HNO 3 HN	H-S0. H-				the lab, if received by 4.30pm			PO#
	Cool Cool			d by	ğ ۲		\searrow	Sampler's Name:
	NO.				Due Date: 6/22/22		LAN B NM	Project Location.
	None			Pres. Code	X Routine □Rush		-)	Project Number
Presentative Codes	Pro	ANALYSIS REQUEST	(Turn Around	SA # 2	Flying M &	Project Name
Other [,]	Deliverables. EDD ADaPT		Crain@ qmail.com	nely. Ose	Email Cir	7244	(575) 441- 7244	Phone:
] TRRP [] Level IV []	Reporting Level II Level III PST/UST	7X 79710 Repo	Midland	e ZIP:	City, State ZIP	19/16/	Lesse, X Mile	City, State ZIP:

Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-15938-1

SDG Number: Lea Co., NM

List Source: Eurofins Midland

List Number: 1

Login Number: 15938

Creator: Rodriguez, Leticia

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	
s 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	True	

94 0J 192

Eurofins Midland

<6mm (1/4").



ANALYTICAL REPORT

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

Laboratory Job ID: 880-20129-1

Laboratory Sample Delivery Group: Lea Co., NM

Client Project/Site: Flying M SA #2

For:

eurofins

Crain Environmental 2925 E. 17th St. Odessa, Texas 79761

Attn: Cindy Crain

CRAMER

Authorized for release by: 10/19/2022 10:07:58 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Have a Question? Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/4/2024 3:21:36 PM

EOL

.....LINKS

Review your project results through

Received by OCD: 4/14/2023 11:39:25 AM

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

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

Client: Crain Environmental

Project/Site: Flying M SA #2

Laboratory Job ID: 880-20129-1

SDG: Lea Co., NM

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Definitions/Glossary

Client: Crain Environmental Job ID: 880-20129-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Qualifiers

GC VOA

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

S1+ Surrogate recovery exceeds control limits, high biased.
U Indicates the analyte was analyzed for but not detected.

HPLC/IC

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: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-20129-1

SDG: Lea Co., NM

Job ID: 880-20129-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-20129-1

Receipt

The samples were received on 10/10/2022 9:00 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 5.9°C

Receipt Exceptions

The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: MW-4 (0-1') (880-20129-1), MW-4 (5') (880-20129-2), MW-4 (10') (880-20129-3), MW-4 (15') (880-20129-4), MW-4 (20') (880-20129-5), MW-4 (25') (880-20129-6) and MW-4 (880-20129-7).

GC VOA

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 surrogate recovery for the blank associated with preparation batch 880-37209 and analytical batch 880-37194 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-37209 and analytical batch 880-37194 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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 880-36661 and analytical batch 880-36885 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.

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Job ID: 880-20129-1

Client: Crain Environmental Project/Site: Flying M SA #2 SDG: Lea Co., NM

Client Sample ID: MW-4 (0-1') Lab Sample ID: 880-20129-1

Date Collected: 10/06/22 10:24 Matrix: Solid Date Received: 10/10/22 09:00

Sample Depth: 0-1'

Method: MCAWW 300.0 - Anions, Ion	Chromato	graphy - Solu	uble						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.3		5.02	0.397	mg/Kg			10/13/22 17:51	1

Client Sample ID: MW-4 (5') Lab Sample ID: 880-20129-2 **Matrix: Solid**

Date Collected: 10/06/22 10:30 Date Received: 10/10/22 09:00

Sample Depth: 5'

Method: MCAWW 300.0 - Anions, Id	on Chromatogra	aphy - Soluble						
Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.5	5.02	0.397	mg/Kg	_		10/13/22 17:58	1

Client Sample ID: MW-4 (10') Lab Sample ID: 880-20129-3 **Matrix: Solid**

Date Collected: 10/06/22 10:40 Date Received: 10/10/22 09:00

Sample Depth: 10'

Method: MCAWW 300.0 - Anions, le	on Chromato	graphy - S	oluble						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.5		5.02	0.397	mg/Kg			10/13/22 18:06	1

Client Sample ID: MW-4 Lab Sample ID: 880-20129-7 Date Collected: 10/06/22 11:35 **Matrix: Water**

Date Received: 10/10/22 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			10/12/22 20:36	1
Toluene	< 0.000367	U	0.00200	0.000367	mg/L			10/12/22 20:36	1
Ethylbenzene	< 0.000657	U	0.00200	0.000657	mg/L			10/12/22 20:36	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			10/12/22 20:36	1
o-Xylene	< 0.000642	U	0.00200	0.000642	mg/L			10/12/22 20:36	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			10/12/22 20:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130					10/12/22 20:36	1
1,4-Difluorobenzene (Surr)	88		70 - 130					10/12/22 20:36	1
Method: TAL SOP Total BTEX	- Total BTFX Cald	culation							
Analyte		Qualifier	RL 0.00400		Unit mg/L	<u>D</u>	Prepared	Analyzed 10/13/22 11:37	Dil Fac
Analyte Total BTEX	<0.000657	Qualifier U	0.00400			<u>D</u>	Prepared	<u>-</u>	Dil Fac
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte	Result <0.000657 esel Range Organ	Qualifier U	0.00400	0.000657		<u>D</u>	Prepared Prepared	<u>-</u>	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Die	Result <0.000657 esel Range Organ	Qualifier U ics (DRO) (Qualifier	0.00400 GC)	0.000657	mg/L Unit			10/13/22 11:37	1
Analyte Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH	Result <0.000657 Pesel Range Organ Result <0.904	Qualifier U ics (DRO) (Qualifier U	0.00400 GC) RL 4.57	0.000657 MDL	mg/L Unit			10/13/22 11:37 Analyzed	1
Analyte Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D	Result <0.000657 Pesel Range Organ Result <0.904 Piesel Range Orga	Qualifier U ics (DRO) (Qualifier U	0.00400 GC) RL 4.57	0.000657 MDL 0.904	mg/L Unit			10/13/22 11:37 Analyzed	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Die Analyte	Result <0.000657 Pesel Range Organ Result <0.904 Piesel Range Orga	Qualifier U ics (DRO) (Qualifier U inics (DRO) Qualifier	0.00400 GC) RL 4.57	0.000657 MDL 0.904	mg/L Unit mg/L Unit	<u>D</u>	Prepared	10/13/22 11:37 Analyzed 10/19/22 10:15	1

Eurofins Midland

10/19/2022

Client: Crain Environmental Job ID: 880-20129-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Client Sample ID: MW-4 Lab Sample ID: 880-20129-7

Date Collected: 10/06/22 11:35 **Matrix: Water** Date Received: 10/10/22 09:00

Method: SW846 8015B NM - Dies	•	•	(GC) (Continu	ed)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<0.872	U	4.57	0.872	mg/L		10/18/22 10:08	10/18/22 13:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				10/18/22 10:08	10/18/22 13:17	1
o-Terphenyl	113		70 - 130				10/18/22 10:08	10/18/22 13:17	1

Method: MCAWW 300.0 - Anions, I	on Chromatography						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	367	5 00	3.46 mg/L			10/12/22 19:35	10

Surrogate Summary

Client: Crain Environmental Job ID: 880-20129-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20129-7	MW-4	105	88	
880-20129-7 MS	MW-4	107	91	
880-20129-7 MSD	MW-4	114	104	
LCS 880-36730/3	Lab Control Sample	107	98	
LCSD 880-36730/4	Lab Control Sample Dup	107	87	
MB 880-36730/8	Method Blank	70	89	
Surrogate Legend				

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

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20129-7	MW-4	101	113	
880-20296-F-8-A MS	Matrix Spike	89	91	
880-20296-F-8-B MSD	Matrix Spike Duplicate	88	88	
LCS 880-37209/2-A	Lab Control Sample	103	117	
LCSD 880-37209/3-A	Lab Control Sample Dup	95	108	
MB 880-37209/1-A	Method Blank	113	131 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Crain Environmental Job ID: 880-20129-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36730/8

Matrix: Water

Analysis Batch: 36730

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Benzene <0.000408 U 0.00200 0.000408 mg/L 10/12/22 20:09 Toluene <0.000367 U 0.00200 0.000367 mg/L 10/12/22 20:09 Ethylbenzene 0.00200 0.000657 mg/L 10/12/22 20:09 <0.000657 U m-Xylene & p-Xylene <0.000629 U 0.00400 0.000629 mg/L 10/12/22 20:09 o-Xylene <0.000642 U 0.00200 0.000642 mg/L 10/12/22 20:09 Xylenes, Total <0.000642 U 0.00400 0.000642 mg/L 10/12/22 20:09

MB MB

Surrogate	%Recovery Q	ualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70	70 - 130		10/12/22 20:09	1
1,4-Difluorobenzene (Surr)	89	70 - 130		10/12/22 20:09	1

Lab Sample ID: LCS 880-36730/3

Matrix: Water

Analysis Batch: 36730

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

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1050 mg/L 105 70 - 130 Toluene 0.100 0.1086 mg/L 109 70 - 130 Ethylbenzene 0.100 0.1061 mg/L 106 70 - 130 70 - 130 0.200 m-Xylene & p-Xylene 0.2191 mg/L 110 0.100 o-Xylene 0.09878 mg/L 99 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-36730/4

Matrix: Water

Analysis Batch: 36730

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1038		mg/L		104	70 - 130	1	20	
Toluene	0.100	0.1086		mg/L		109	70 - 130	0	20	
Ethylbenzene	0.100	0.1103		mg/L		110	70 - 130	4	20	
m-Xylene & p-Xylene	0.200	0.2297		mg/L		115	70 - 130	5	20	
o-Xylene	0.100	0.1055		mg/L		105	70 - 130	7	20	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1 4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: 880-20129-7 MS

Matrix: Water

Analysis Batch: 36730

Client Sample ID: MW-4	
Prep Type: Total/NA	

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.000408	U	0.100	0.1044		mg/L		104	70 - 130
Toluene	<0.000367	U	0.100	0.1055		mg/L		106	70 - 130

Eurofins Midland

Page 8 of 20

QC Sample Results

Job ID: 880-20129-1 Client: Crain Environmental Project/Site: Flying M SA #2 SDG: Lea Co., NM

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

Matrix: Water

Analysis Batch: 36730

Lab Sample ID: 880-20129-7 MS Client Sample ID: MW-4 Prep Type: Total/NA

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene < 0.000657 U 0.100 0.09995 100 70 - 130 mg/L m-Xylene & p-Xylene <0.000629 0.200 0.2049 mg/L 102 70 - 130 <0.000642 U 0.100 0.09627 96 70 - 130 o-Xylene mg/L

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 880-20129-7 MSD

Matrix: Water

Analysis Batch: 36730

Client Sample ID: MW-4 Prep Type: Total/NA

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier RPD Limit Analyte babbA Result Qualifier %Rec Limits Unit Benzene <0.000408 U 0.100 0.1167 mg/L 117 70 - 130 11 25 Toluene < 0.000367 0.100 0.1148 mg/L 115 70 - 130 8 25 Ethylbenzene <0.000657 U 0.100 0.1146 115 70 - 130 25 mg/L 14 0.200 m-Xylene & p-Xylene <0.000629 U 0.2346 mg/L 117 70 - 130 14 25 <0.000642 U 0.100 0.1079 70 - 130 25 o-Xylene mg/L 108 11

MSD MSD

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

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

Lab Sample ID: MB 880-37209/1-A

Matrix: Water

Analysis Batch: 37194

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 37209 мв мв

Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte 10/18/22 10:08 10/18/22 11:15 2.263 J 4.55 0.898 mg/L Gasoline Range Organics (GRO)-C6-C10 10/18/22 10:08 10/18/22 11:15 Diesel Range Organics (Over 1.319 J 4 55 0.898 mg/L C10-C28) OII Range Organics (Over C28-C36) <0.867 U 4.55 0.867 mg/L 10/18/22 10:08 10/18/22 11:15

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	10/18/22 10:08	10/18/22 11:15	1
o-Terphenyl	131	S1+	70 - 130	10/18/22 10:08	10/18/22 11:15	1

Lab Sample ID: LCS 880-37209/2-A

Matrix: Water

Analysis Batch: 37194

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 37209

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits 100 75 - 125 90.4 90.37 Gasoline Range Organics mg/L (GRO)-C6-C10 Diesel Range Organics (Over 90.4 91.17 mg/L 101 75 - 125 C10-C28)

Client: Crain Environmental Job ID: 880-20129-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

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

Lab Sample ID: LCS 880-37209/2-A

Lab Sample ID: LCSD 880-37209/3-A

Matrix: Water

Analysis Batch: 37194

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37209

LCS LCS

%Recovery Qualifier Surrogate Limits 1-Chlorooctane 103 70 - 130 o-Terphenyl 117 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Batch: 37209

Matrix: Water Prep Type: Total/NA Analysis Batch: 37194

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 90.6 85.33 94 75 - 125 6 20 Gasoline Range Organics mg/L (GRO)-C6-C10 Diesel Range Organics (Over 90.6 85.39 94 20 mg/L 75 - 125C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-20296-F-8-A MS Client Sample ID: Matrix Spike

Matrix: Water

Analysis Batch: 37194

Prep Type: Total/NA

Prep Batch: 37209

Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics <0.904 UF1 91.2 91.52 mg/L 100 75 - 125 (GRO)-C6-C10 Diesel Range Organics (Over <0.904 UF1 91.2 77.49 mg/L 85 75 - 125 C10-C28)

	MS MS	
Surrogate	%Recovery Quali	fier Limits
1-Chlorooctane	89	70 - 130
o-Terphenyl	91	70 - 130

Lab Sample ID: 880-20296-F-8-B MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Analysis Batch: 37194

Prep Type: Total/NA

Prep Batch: 37209

	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	<0.904	U F1	91.5	86.99		mg/L		95	75 - 125	5	20
Diesel Range Organics (Over C10-C28)	<0.904	U F1	91.5	75.07		mg/L		82	75 - 125	3	20

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	88		70 - 130

Job ID: 880-20129-1

SDG: Lea Co., NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36823/3

Matrix: Water

Analysis Batch: 36823

Client: Crain Environmental Project/Site: Flying M SA #2

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

Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac Chloride <0.346 U 0.500 0.346 mg/L 10/12/22 18:34

Lab Sample ID: LCS 880-36823/4 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 36823

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 25.0 25.87 mg/L 103 90 - 110

мв мв

Lab Sample ID: LCSD 880-36823/5 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 36823

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 25.0 25.94 mg/L 104 90 - 110

Lab Sample ID: 880-20237-A-1 MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 36823

MS MS Spike %Rec Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 87.0 25.0 109.8 90 - 110 mg/L

Lab Sample ID: 880-20237-A-1 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Analysis Batch: 36823

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 87.0 25.0 110.0 mg/L 92 90 - 110

Lab Sample ID: MB 880-36661/1-A Client Sample ID: Method Blank Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 36885

MB MB

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Chloride <0.395 U 5.00 0.395 mg/Kg 10/13/22 15:47

Lab Sample ID: LCS 880-36661/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36885

LCS LCS %Rec Spike Added Result Qualifier Limits Analyte Unit %Rec Chloride 250 267.3 mg/Kg 107 90 - 110

Lab Sample ID: LCSD 880-36661/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36885

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 254.7 mg/Kg 102 90 - 110 20

QC Sample Results

Client: Crain Environmental Job ID: 880-20129-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-20128-A-21-B MS Client Sample ID: Matrix Spike **Matrix: Solid**

Prep Type: Soluble

Analysis Batch: 36885

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Chloride 701 F1 248 910.5 F1 mg/Kg 85 90 - 110

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analysis Batch: 36885

Matrix: Solid

Lab Sample ID: 880-20128-A-21-C MSD

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Chloride 701 F1 248 901.2 F1 mg/Kg 81 90 - 110 20

QC Association Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-20129-1 SDG: Lea Co., NM

GC VOA

Analysis Batch: 36730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-7	MW-4	Total/NA	Water	8021B	
MB 880-36730/8	Method Blank	Total/NA	Water	8021B	
LCS 880-36730/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-36730/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-20129-7 MS	MW-4	Total/NA	Water	8021B	
880-20129-7 MSD	MW-4	Total/NA	Water	8021B	

Analysis Batch: 36866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-7	MW-4	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 37194

Lab Sample ID 880-20129-7	Client Sample ID MW-4	Prep Type Total/NA	Matrix Water	Method 8015B NM	Prep Batch 37209
MB 880-37209/1-A	Method Blank	Total/NA	Water	8015B NM	37209
LCS 880-37209/2-A	Lab Control Sample	Total/NA	Water	8015B NM	37209
LCSD 880-37209/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	37209
880-20296-F-8-A MS	Matrix Spike	Total/NA	Water	8015B NM	37209
880-20296-F-8-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B NM	37209

Prep Batch: 37209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-7	MW-4	Total/NA	Water	8015NM Aq Prep	
MB 880-37209/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-37209/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-37209/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	
880-20296-F-8-A MS	Matrix Spike	Total/NA	Water	8015NM Aq Prep	
880-20296-F-8-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015NM Aq Prep	

Analysis Batch: 37291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-7	MW-4	Total/NA	Water	8015 NM	

HPLC/IC

Leach Batch: 36661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-1	MW-4 (0-1')	Soluble	Solid	DI Leach	
880-20129-2	MW-4 (5')	Soluble	Solid	DI Leach	
880-20129-3	MW-4 (10')	Soluble	Solid	DI Leach	
MB 880-36661/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36661/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36661/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-20128-A-21-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-20128-A-21-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-7	MW-4	Total/NA	Water	300.0	
MB 880-36823/3	Method Blank	Total/NA	Water	300.0	

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QC Association Summary

Client: Crain Environmental Job ID: 880-20129-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

HPLC/IC (Continued)

Analysis Batch: 36823 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-36823/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-36823/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-20237-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-20237-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 36885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20129-1	MW-4 (0-1')	Soluble	Solid	300.0	36661
880-20129-2	MW-4 (5')	Soluble	Solid	300.0	36661
880-20129-3	MW-4 (10')	Soluble	Solid	300.0	36661
MB 880-36661/1-A	Method Blank	Soluble	Solid	300.0	36661
LCS 880-36661/2-A	Lab Control Sample	Soluble	Solid	300.0	36661
LCSD 880-36661/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36661
880-20128-A-21-B MS	Matrix Spike	Soluble	Solid	300.0	36661
880-20128-A-21-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36661

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Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-20129-1

SDG: Lea Co., NM

Lab Sample ID: 880-20129-1

Matrix: Solid

Client Sample ID: MW-4 (0-1')

Date Collected: 10/06/22 10:24 Date Received: 10/10/22 09:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	36661	10/11/22 10:10	KS	EET MID
Soluble	Analysis	300.0		1			36885	10/13/22 17:51	CH	EET MID

Client Sample ID: MW-4 (5')

Date Collected: 10/06/22 10:30 Date Received: 10/10/22 09:00

Lab	Sample	ID:	880-20129-2

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	36661	10/11/22 10:10	KS	EET MID
Soluble	Analysis	300.0		1			36885	10/13/22 17:58	CH	EET MID

Client Sample ID: MW-4 (10')

Lab Sample ID: 880-20129-3 Date Collected: 10/06/22 10:40

Matrix: Solid

Date Received: 10/10/22 09:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	36661	10/11/22 10:10	KS	EET MID
Soluble	Analysis	300.0		1			36885	10/13/22 18:06	CH	EET MID

Client Sample ID: MW-4

Lab Sample ID: 880-20129-7

Matrix: Water

Date Collected: 10/06/22 11:35 Date Received: 10/10/22 09:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	36730	10/12/22 20:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36866	10/13/22 11:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			37291	10/19/22 10:15	SM	EET MID
Total/NA	Prep	8015NM Aq Prep			32.8 mL	3 mL	37209	10/18/22 10:08	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37194	10/18/22 13:17	SM	EET MID
Total/NA	Analysis	300.0		10			36823	10/12/22 19:35	СН	EET MID

Laboratory References:

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

Released to Imaging: 3/4/2024 3:21:36 PM

Accreditation/Certification Summary

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-20129-1
SDG: Lea Co., NM

Laboratory: Eurofins Midland

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

exas		Program	Identification Number	Expiration Date 06-30-23	
		NELAP	T104704400-22-24		
The following analytes the agency does not of	· ·	out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for which	
Analysis Method	Prep Method	Matrix	Analyte		
Analysis Method 300.0	Prep Method	Matrix Water	Analyte Chloride		
	Prep Method				

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Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-20129-1

SDG: Lea Co., NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Aq Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET 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:

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

Eurofins Midland

Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-20129-1

SDG: Lea Co., NM

ODG. Lea Co., NW	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-20129-1	MW-4 (0-1')	Solid	10/06/22 10:24	10/10/22 09:00	0-1'
880-20129-2	MW-4 (5')	Solid	10/06/22 10:30	10/10/22 09:00	5'
880-20129-3	MW-4 (10')	Solid	10/06/22 10:40	10/10/22 09:00	10'
880-20129-7	MW-4	Water	10/06/22 11:35	10/10/22 09:00	

Date/Time

Received by (Signature)

Relinquished by (Signature)

Date/Time

20110172

PST/UST TRRP Level IV Superfund DI Water H₂O меон ме HNO 3 HN NaOH Na Preservative Codes NaOH+Ascorbic Acid SAPC Sample Comments Zn Acetate+NaOH Zn UST/PST | PRP | Brownfields | RRC | 880-20129 Chain of Custody Na₂S₂O₃ NaSO₃ Other: NaHSO 4 NABIS K Se Ag SiO₂ Na Sr Tl Sn U V Zn 1631 / 245 1 / 7470 / 7471 HOLD HOLD HOLD H₂S0₄ H₂ None NO H₃PO₄. HP Page Cool Cool HCL. HC Work Order Comments ADaPT \square www.xenco.com Reporting Level II ☐ Level III ☐ EDD State of Project: NM 웃 Wo Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated. Deliverables 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Notce: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control TCLP/SPLP6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ANALYSIS REQUEST 79710 Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Koyalties EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 53570 Chain of Custody Cirdy. Crain @ Amail. com History TX Southwest 6052 P.O. BOX X3L8 9108 HdL fort Cont 9 Pres, Code Parameters Bill to: (if different) Company Name: Comp Grab/ City, State ZIP TAT starts the day received by the lab, if received by 4:30pm Yes No \$ Rush 18'ce 12, Address. Depth **Turn Around** Ŋ Received by (Signature) Email 1135 1125 Routine 1105 030 040 Corrected Temperature 1024 Due Date. Sampled Wet Ice Time Temperature Reading Envionnent Testag Correction Factor Thermometer ID 10/11/22 10/4/22 10/4/22 10/4/22 10/6/22 25/2/02 Carironmental 79761 2010/01 Sampled ž Date Circle Method(s) and Metal(s) to be analyzed Yes 441.7244 rain 3 Matrix **≥** SSS S ZZ S S K Temp Blank: 200.8 / 6020: ž 2425 E. Z ž å 10/05/2 ipaly Fluing es(Yes Relinquished by (Signature) (575) S CUTOFINS (.1-0)Ĭ, 25. 30. Sample Identification S Samples Received Intact: Total 200.7 / 6010 Sample Custody Seals: Cooler Custody Seals: SAMPLE RECEIPT Total Containers. Sampler's Name: Project Manager Company Name: Project Number Project Location MW- 4 MW- 4 MW-4 MW-4 F-MW 7-AX MW City, State ZIP Project Name:

Address:

Phone-

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Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-20129-1

SDG Number: Lea Co., NM

Login Number: 20129 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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").	True	

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-20350-1

Laboratory Sample Delivery Group: Lea Co., NM

Client Project/Site: Flying M SA #2

For:

eurofins

Crain Environmental 2925 E. 17th St. Odessa, Texas 79761

Attn: Cindy Crain



Authorized for release by: 10/19/2022 10:12:59 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

results through EOL **Have a Question?**

.....LINKS

Review your project

Received by OCD: 4/14/2023 11:39:25 AM

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 3/4/2024 3:21:36 PM

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

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

Client: Crain Environmental

Project/Site: Flying M SA #2

Laboratory Job ID: 880-20350-1

SDG: Lea Co., NM

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Definitions/Glossary

Job ID: 880-20350-1 Client: Crain Environmental Project/Site: Flying M SA #2 SDG: Lea Co., NM

Qualifiers

GC VOA

Qualifier **Qualifier Description** Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

S1+ Surrogate recovery exceeds control limits, high biased. Indicates the analyte was analyzed for but not detected.

HPLC/IC Qualifier

Qualifier Description

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

DFR 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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit 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

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

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Case Narrative

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-20350-1

SDG: Lea Co., NM

Job ID: 880-20350-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-20350-1

Receipt

The samples were received on $10/13/2022\ 1:35\ PM$. 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 $5.4^{\circ}C$

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: MW-6 (880-20350-1), MW-6 (0-1') (880-20350-2), MW-6 (5') (880-20350-3), MW-6 (10') (880-20350-4), MW-6 (15') (880-20350-5), MW-6 (20') (880-20350-6), MW-6 (25') (880-20350-7), MW-5 (0-1') (880-20350-8), MW-5 (5') (880-20350-9), MW-5 (10') (880-20350-10), MW-5 (15') (880-20350-11), MW-5 (20') (880-20350-12) and MW-5 (25') (880-20350-13).

GC VOA

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 surrogate recovery for the blank associated with preparation batch 880-37209 and analytical batch 880-37194 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-37209 and analytical batch 880-37194 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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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Eurofins Midland 10/19/2022

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-20350-1

SDG: Lea Co., NM

Client Sample ID: MW-6

Lab Sample ID: 880-20350-1 Date Collected: 10/11/22 10:20

Matrix: Water

Date Received: 10/13/22	13:35
Mothod: SW946 9024B	Volatila Organia Compounda (C.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			10/14/22 18:46	1
Toluene	0.000598	J	0.00200	0.000367	mg/L			10/14/22 18:46	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			10/14/22 18:46	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			10/14/22 18:46	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			10/14/22 18:46	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			10/14/22 18:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			_		10/14/22 18:46	1
1,4-Difluorobenzene (Surr)	98		70 - 130					10/14/22 18:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			10/17/22 10:10	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.904 l	U	4.57	0.904	mg/L			10/19/22 10:15	1

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	5. Hange 5. games (2.15) (5.5)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<0.904	U	4.57	0.904	mg/L		10/18/22 17:00	10/19/22 08:42	1
(GRO)-C6-C10									
Diesel Range Organics (Over	< 0.904	U	4.57	0.904	mg/L		10/18/22 17:00	10/19/22 08:42	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<0.872	U	4.57	0.872	mg/L		10/18/22 17:00	10/19/22 08:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				10/18/22 17:00	10/19/22 08:42	

Method: MCAWW 300.0 - Anions, Ion Chromatography										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	28.5		0.500	0.346	mg/L			10/13/22 22:33	1

70 - 130

Client Sample ID: MW-6 (0-1')

Client Sample ID: MW-6 (0-1')	Lab Sample ID: 880-20350-2
Date Collected: 10/07/22 16:50	Matrix: Solid
Date Received: 10/13/22 13:35	

Sample Depth: 0-1'

o-Terphenyl

Method: MCAWW 300.0 - Anions, I	on Chromato	graphy - So	oluble						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.6		4.99	0.394	mg/Kg			10/16/22 12:28	1

Client Sample ID: MW-6 (5') Lab Sample ID: 880-20350-3

Date Collected: 10/07/22 16:55 **Matrix: Solid** Date Received: 10/13/22 13:35

Sample Depth: 5'

Method: MCAWW 300.0 - Anions,							
Analyte	Result Qualifier	RL	MDL Uni	t D	Prepare	ed Analyzed	Dil Fac
Chloride	19.0	5.05	0.399 mg/	Kg		10/16/22 12:33	1

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10/18/22 17:00 10/19/22 08:42

Job II

Job ID: 880-20350-1 SDG: Lea Co., NM

Client Sample ID: MW-6 (10')

Date Collected: 10/07/22 17:05 Date Received: 10/13/22 13:35

Client: Crain Environmental

Project/Site: Flying M SA #2

Sample Depth: 10'

Lab Sample ID: 880-20350-4

Matrix: Solid

Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.4		5.02	0.397	mg/Kg			10/16/22 12:38	1

Client Sample ID: MW-5 (0-1')

Date Collected: 10/06/22 13:00

Lab Sample ID: 880-20350-8

Matrix: Solid

Date Collected: 10/06/22 13:00 Date Received: 10/13/22 13:35

Sample Depth: 0-1'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.9		4.99	0.394	mg/Kg			10/16/22 12:43	1

Client Sample ID: MW-5 (5')

Date Collected: 10/06/22 13:05

Lab Sample ID: 880-20350-9

Matrix: Solid

Date Collected: 10/06/22 13:05 Date Received: 10/13/22 13:35

Sample Depth: 5'

Method: MCAWW 300.0 - Anions, Id	oluble								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.1		4.97	0.393	mg/Kg			10/16/22 12:47	1

Client Sample ID: MW-5 (10')

Lab Sample ID: 880-20350-10

Date Collected: 10/06/22 13:15 Date Received: 10/13/22 13:35

Sample Depth: 10'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	113		5.02	0.397	mg/Kg			10/18/22 18:25	1

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Surrogate Summary

Client: Crain Environmental Job ID: 880-20350-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20298-A-1 MS	Matrix Spike	108	96	
880-20298-A-1 MSD	Matrix Spike Duplicate	106	100	
880-20350-1	MW-6	98	98	
LCS 880-36926/3	Lab Control Sample	92	109	
LCSD 880-36926/4	Lab Control Sample Dup	87	111	
MB 880-36926/8	Method Blank	85	98	
Surrogate Legend				
BFB = 4-Bromofluorobenze	ene (Surr)			
DFBZ = 1,4-Difluorobenze	ne (Surr)			

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

Matrix: Water Prep Type: Total/NA

		1001	OTPH1				
Lab Sample ID	Client Sample ID	(70-130)	(70-130)				
880-20296-F-8-A MS	Matrix Spike	89	91				
880-20296-F-8-B MSD	Matrix Spike Duplicate	88	88				
380-20350-1	MW-6	92	107				
LCS 880-37209/2-A	Lab Control Sample	103	117				
LCSD 880-37209/3-A	Lab Control Sample Dup	95	108				
MB 880-37209/1-A	Method Blank	113	131 S1+				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Crain Environmental Job ID: 880-20350-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36926/8

Matrix: Water

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Analysis Batch: 36926

Client Sam	ple ID:	Meth	od Bla	ank
	Prep	Type:	Total/	NA

10/14/22 11:01

MB MB Dil Fac Result Qualifier RL MDL Unit D Prepared Analyzed <0.000408 U 0.00200 0.000408 mg/L 10/14/22 11:01 <0.000367 U 0.00200 0.000367 mg/L 10/14/22 11:01 10/14/22 11:01 <0.000657 U 0.00200 0.000657 mg/L <0.000629 U 0.00400 0.000629 mg/L 10/14/22 11:01 <0.000642 U 0.00200 0.000642 mg/L 10/14/22 11:01

0.000642 mg/L

MB MB

<0.000642 U

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130		10/14/22 11:01	1
1,4-Difluorobenzene (Surr)	98		70 - 130		10/14/22 11:01	1

0.00400

Lab Sample ID: LCS 880-36926/3

Matrix: Water

Analysis Batch: 36926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1083 mg/L 108 70 - 130 Toluene 0.100 0.09381 mg/L 94 70 - 130 Ethylbenzene 0.100 0.08813 mg/L 88 70 - 130 m-Xylene & p-Xylene 0.200 0.1798 mg/L 90 70 - 130 0.100 o-Xylene 0.08784 mg/L 88 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-36926/4

Matrix: Water

Analysis Batch: 36926

Client Sample ID: Lab	Control Sample Dup
	Prop Type: Total/NA

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1068		mg/L		107	70 - 130	1	20	
Toluene	0.100	0.09102		mg/L		91	70 - 130	3	20	
Ethylbenzene	0.100	0.08473		mg/L		85	70 - 130	4	20	
m-Xylene & p-Xylene	0.200	0.1711		mg/L		86	70 - 130	5	20	
o-Xylene	0.100	0.08371		mg/L		84	70 - 130	5	20	

LCSD LCSD %Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 87 70 - 130 1,4-Difluorobenzene (Surr) 111 70 - 130

Lab Sample ID: 880-20298-A-1 MS

Matrix: Water								Prep Type: Total/NA		
Analysis Batch: 36926										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	

<0.000408 U 0.100 0.1085 Benzene mg/L 108 70 - 130 Toluene 0.000719 J 0.100 0.1033 mg/L 103 70 - 130

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Client Sample ID: Matrix Spike

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QC Sample Results

Job ID: 880-20350-1 Client: Crain Environmental Project/Site: Flying M SA #2 SDG: Lea Co., NM

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

Lab Sample ID: 880-20298-A-1 MS

Matrix: Water

Analysis Batch: 36926

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.000657 U 0.100 0.1007 70 - 130 ma/L 101 m-Xylene & p-Xylene 0.00140 J 0.200 0.2135 mg/L 106 70 - 130 o-Xylene 0.00142 J 0.100 0.1054 104 70 - 130 mg/L

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 880-20298-A-1 MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 36926

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier %Rec RPD Limit Analyte babbA Result Qualifier Limits Unit Benzene <0.000408 U 0.100 0.1123 mg/L 112 70 - 130 3 25 Toluene 0.000719 J 0.100 0.1065 mg/L 106 70 - 130 3 25 Ethylbenzene <0.000657 U 0.100 0.1038 104 70 - 130 25 mg/L 3 25 m-Xylene & p-Xylene 0.00140 J 0.200 0.2155 mg/L 107 70 - 130 0.00142 J 0.100 0.1080 70 - 130 25 o-Xylene mg/L 107 2

MSD MSD Qualifier Limits Surrogate %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 106 1,4-Difluorobenzene (Surr) 100 70 - 130

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

Lab Sample ID: MB 880-37209/1-A

Matrix: Water

Analysis Batch: 37194

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 37209

MB MB Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte 10/18/22 10:08 10/18/22 11:15 2.263 J 4.55 0.898 mg/L Gasoline Range Organics (GRO)-C6-C10 10/18/22 11:15 Diesel Range Organics (Over 1.319 J 4.55 0.898 mg/L 10/18/22 10:08 C10-C28) OII Range Organics (Over C28-C36) <0.867 U 4.55 10/18/22 10:08 10/18/22 11:15 0.867 mg/L

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	10/18/22 10:08	10/18/22 11:15	1
o-Terphenyl	131	S1+	70 - 130	10/18/22 10:08	10/18/22 11:15	1

Lab Sample ID: LCS 880-37209/2-A **Client Sample ID: Lab Control Sample**

Matrix: Water

Analysis Batch: 37194

Prep Type: Total/NA Prep Batch: 37209 LCS LCS Snike

	Opike	LUU	LUU				/OIXEC
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	90.4	90.37		mg/L		100	75 - 125
(GRO)-C6-C10							
Diesel Range Organics (Over	90.4	91.17		mg/L		101	75 - 125
C10-C28)							

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Job ID: 880-20350-1

SDG: Lea Co., NM

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

LCS LCS

Lab Sample ID: LCS 880-37209/2-A

Lab Sample ID: LCSD 880-37209/3-A

Lab Sample ID: 880-20296-F-8-A MS

Matrix: Water

Matrix: Water

Analysis Batch: 37194

Diesel Range Organics (Over

Client: Crain Environmental

Project/Site: Flying M SA #2

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37209

Surrogate %Recovery Qualifier

Limits 1-Chlorooctane 103 70 - 130 o-Terphenyl 117 70 - 130

Client Sample ID: Lab Control Sample Dup

75 - 125

94

Prep Type: Total/NA

Prep Batch: 37209

Analysis Batch: 37194 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 90.6 85.33 94 75 - 125 6 20 Gasoline Range Organics mg/L (GRO)-C6-C10

85.39

mg/L

90.6

C10-C28)

Matrix: Water

Analysis Batch: 37194

LCSD LCSD

Surrogate %Recovery Qualifier Limits 95 70 - 130 1-Chlorooctane 108 70 - 130 o-Terphenyl

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 37209

MS MS Sample Sample Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics < 0.904 U F1 91.2 91.52 mg/L 100 75 - 125 (GRO)-C6-C10 Diesel Range Organics (Over <0.904 UF1 91.2 77.49 mg/L 85 75 - 125 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 89 o-Terphenyl 91 70 - 130

Lab Sample ID: 880-20296-F-8-B MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Analysis Batch: 37194

Prep Type: Total/NA

Prep Batch: 37209

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit U F1 91.5 86.99 95 Gasoline Range Organics < 0.904 75 - 125 5 20 mg/L (GRO)-C6-C10 Diesel Range Organics (Over <0.904 UF1 91.5 75.07 mg/L 82 75 - 125 3 20 C10-C28)

MSD MSD

Qualifier Surrogate %Recovery Limits 1-Chlorooctane 88 70 - 130 88 70 - 130 o-Terphenyl

Eurofins Midland

Job ID: 880-20350-1

SDG: Lea Co., NM

Prep Type: Total/NA

Client Sample ID: Method Blank

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36899/3

Analysis Batch: 36899

Client: Crain Environmental

Project/Site: Flying M SA #2

Matrix: Water

Analysis Batch. 00000									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.346	U	0.500	0.346	mg/L			10/13/22 19:52	1

Lab Sample ID: LCS 880-36899/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 36899

	Spike	LCS LCS				%Rec	
Analyte	Added	Result Qualifie	er Unit	D	%Rec	Limits	
Chloride	25.0	25.90	mg/L		104	90 - 110	

Lab Sample ID: LCSD 880-36899/5 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 36899

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	25.0	26.03		mg/L		104	90 - 110	1	20

Client Sample ID: Matrix Spike Lab Sample ID: 880-20312-A-1 MS **Matrix: Water**

Analysis Batch: 36899

		Sample	Sample	Spike	MS	MS				%Rec	
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Į	Chloride	12.6		25.0	38.28		mg/L		103	90 - 110	

Lab Sample ID: 880-20312-A-1 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Analysis Batch: 36899

	Sample	Sample	Spike	MSD	MSD			%Rec		RPD	J
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit) %R	ec Limits	RPD	Limit	Ĺ
Chloride	12.6		25.0	38.39		ma/L	1	90 - 110		20)

Lab Sample ID: MB 880-36935/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 37026

MR MR

	1115 1115							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395 U	5.00	0.395	mg/Kg			10/16/22 10:22	1

Lab Sample ID: LCS 880-36935/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 37026

	Spike	LCS LCS				%Rec
Analyte	Added	Result Qualit	ier Unit	D	%Rec	Limits
Chloride	250	251.9	mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-36935/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 37026

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	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	 250	249.2		mg/Kg		100	90 - 110	1	20

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Prep Type: Soluble

QC Sample Results

Job ID: 880-20350-1 Client: Crain Environmental Project/Site: Flying M SA #2 SDG: Lea Co., NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3197-A-7-B MS

Matrix: Solid

Analysis Batch: 37026

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	1050		1240	2312		mg/Kg		102	90 - 110	

Lab Sample ID: 890-3197-A-7-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 37026

ı		Sample	Sample	Spike	MSD	MSD				%Rec		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Chloride	1050		1240	2300		mg/Kg		101	90 - 110	1	20

Lab Sample ID: MB 880-36932/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 37029

мв мв Analyte Result Qualifier MDL Unit Prepared Analyzed Dil Fac Chloride <0.395 U 5.00 0.395 mg/Kg 10/18/22 15:59

Lab Sample ID: LCS 880-36932/2-A Client Sample ID: Lab Control Sample **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 37029

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	242.3		mg/Kg		97	90 - 110	

Lab Sample ID: LCSD 880-36932/3-A

Matrix: Solid

Analysis Batch: 37029

	Spike	LCGD	LCSD				/ortec		KFD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	241.7		mg/Kg		97	90 - 110	0	20	

Lab Sample ID: 880-20339-A-11-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 37029

•	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	155		251	300 0		ma/Ka	_	98	90 110	

Lab Sample ID: 880-20339-A-11-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 37029

7 maryoro Batom or ozo												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	155		251	401.6		mg/Kg		99	90 - 110	0	20	

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Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Lab Control Sample Dup

QC Association Summary

Client: Crain Environmental
Project/Site: Flying M SA #2

Job ID: 880-20350-1 SDG: Lea Co., NM

GC VOA

Analysis Batch: 36926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-1	MW-6	Total/NA	Water	8021B	
MB 880-36926/8	Method Blank	Total/NA	Water	8021B	
LCS 880-36926/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-36926/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-20298-A-1 MS	Matrix Spike	Total/NA	Water	8021B	
880-20298-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 37116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-1	MW-6	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 37194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-1	MW-6	Total/NA	Water	8015B NM	37209
MB 880-37209/1-A	Method Blank	Total/NA	Water	8015B NM	37209
LCS 880-37209/2-A	Lab Control Sample	Total/NA	Water	8015B NM	37209
LCSD 880-37209/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	37209
880-20296-F-8-A MS	Matrix Spike	Total/NA	Water	8015B NM	37209
880-20296-F-8-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B NM	37209

Prep Batch: 37209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-1	MW-6	Total/NA	Water	8015NM Aq Prep	
MB 880-37209/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-37209/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-37209/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	
880-20296-F-8-A MS	Matrix Spike	Total/NA	Water	8015NM Aq Prep	
880-20296-F-8-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015NM Aq Prep	

Analysis Batch: 37294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-1	MW-6	Total/NA	Water	8015 NM	

HPLC/IC

Analysis Batch: 36899

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-1	MW-6	Total/NA	Water	300.0	
MB 880-36899/3	Method Blank	Total/NA	Water	300.0	
LCS 880-36899/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-36899/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-20312-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-20312-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Leach Batch: 36932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-10	MW-5 (10')	Soluble	Solid	DI Leach	
MB 880-36932/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36932/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36932/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Midland

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QC Association Summary

Client: Crain Environmental Job ID: 880-20350-1 Project/Site: Flying M SA #2

SDG: Lea Co., NM

HPLC/IC (Continued)

Leach Batch: 36932 (Continued)

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	880-20339-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
l	880-20339-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 36935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-2	MW-6 (0-1')	Soluble	Solid	DI Leach	
880-20350-3	MW-6 (5')	Soluble	Solid	DI Leach	
880-20350-4	MW-6 (10')	Soluble	Solid	DI Leach	
880-20350-8	MW-5 (0-1')	Soluble	Solid	DI Leach	
880-20350-9	MW-5 (5')	Soluble	Solid	DI Leach	
MB 880-36935/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36935/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36935/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3197-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3197-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 37026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-2	MW-6 (0-1')	Soluble	Solid	300.0	36935
880-20350-3	MW-6 (5')	Soluble	Solid	300.0	36935
880-20350-4	MW-6 (10')	Soluble	Solid	300.0	36935
880-20350-8	MW-5 (0-1')	Soluble	Solid	300.0	36935
880-20350-9	MW-5 (5')	Soluble	Solid	300.0	36935
MB 880-36935/1-A	Method Blank	Soluble	Solid	300.0	36935
LCS 880-36935/2-A	Lab Control Sample	Soluble	Solid	300.0	36935
LCSD 880-36935/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36935
890-3197-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	36935
890-3197-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36935

Analysis Batch: 37029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20350-10	MW-5 (10')	Soluble	Solid	300.0	36932
MB 880-36932/1-A	Method Blank	Soluble	Solid	300.0	36932
LCS 880-36932/2-A	Lab Control Sample	Soluble	Solid	300.0	36932
LCSD 880-36932/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36932
880-20339-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	36932
880-20339-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36932

Eurofins Midland

Job ID: 880-20350-1

SDG: Lea Co., NM

Client Sample ID: MW-6 Lab Sample ID: 880-20350-1 Date Collected: 10/11/22 10:20

Matrix: Water

Date Received: 10/13/22 13:35

Client: Crain Environmental

Project/Site: Flying M SA #2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	36926	10/14/22 18:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37116	10/17/22 10:10	AJ	EET MID
Total/NA	Analysis	8015 NM		1			37294	10/19/22 10:15	SM	EET MID
Total/NA	Prep	8015NM Aq Prep			32.8 mL	3 mL	37209	10/18/22 17:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37194	10/19/22 08:42	SM	EET MID
Total/NA	Analysis	300.0		1			36899	10/13/22 22:33	СН	EET MID

Lab Sample ID: 880-20350-2 Client Sample ID: MW-6 (0-1')

Date Collected: 10/07/22 16:50 **Matrix: Solid**

Date Received: 10/13/22 13:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	36935	10/14/22 08:56	KS	EET MID
Soluble	Analysis	300.0		1			37026	10/16/22 12:28	CH	EET MID

Client Sample ID: MW-6 (5') Lab Sample ID: 880-20350-3 Matrix: Solid

Date Collected: 10/07/22 16:55

Date Received: 10/13/22 13:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	36935	10/14/22 08:56	KS	EET MID
Soluble	Analysis	300.0		1			37026	10/16/22 12:33	CH	EET MID

Client Sample ID: MW-6 (10') Lab Sample ID: 880-20350-4 **Matrix: Solid**

Date Collected: 10/07/22 17:05 Date Received: 10/13/22 13:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	36935	10/14/22 08:56	KS	EET MID
Soluble	Analysis	300.0		1			37026	10/16/22 12:38	CH	EET MID

Client Sample ID: MW-5 (0-1') Lab Sample ID: 880-20350-8 Date Collected: 10/06/22 13:00 **Matrix: Solid**

Date Received: 10/13/22 13:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	36935	10/14/22 08:56	KS	EET MID
Soluble	Analysis	300.0		1			37026	10/16/22 12:43	CH	EET MID

Client Sample ID: MW-5 (5') Lab Sample ID: 880-20350-9

Date Collected: 10/06/22 13:05 Date Received: 10/13/22 13:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	36935	10/14/22 08:56	KS	EET MID
Solublo	Analysis	300.0		1			37026	10/16/22 12:47	CH	EET MID

Eurofins Midland

Matrix: Solid

Lab Chronicle

Client: Crain Environmental Job ID: 880-20350-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Client Sample ID: MW-5 (10')

Lab Sample ID: 880-20350-10

Date Collected: 10/06/22 13:15
Date Received: 10/13/22 13:35
Matrix: Solid

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	36932	10/14/22 08:52	KS	EET MID
Soluble	Analysis	300.0		1			37029	10/18/22 18:25	CH	EET MID

Laboratory References:

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

Eurofins Midland

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Accreditation/Certification Summary

Client: Crain Environmental Job ID: 880-20350-1
Project/Site: Flying M SA #2 SDG: Lea Co., NM

Laboratory: Eurofins Midland

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

Authority	P	Program	Identification Number	Expiration Date
Texas	N	NELAP	T104704400-22-24	06-30-23
The following analytes the agency does not of	· ·	out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
Analysis Method 300.0	Prep Method	Matrix Water	Analyte Chloride	
	Prep Method			

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Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2

Job ID: 880-20350-1

SDG: Lea Co., NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Aq Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET 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:

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

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Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-20350-1

SDG: Lea Co., NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	De
880-20350-1	MW-6	Water	10/11/22 10:20	10/13/22 13:35	
880-20350-2	MW-6 (0-1')	Solid	10/07/22 16:50	10/13/22 13:35	
880-20350-3	MW-6 (5')	Solid	10/07/22 16:55	10/13/22 13:35	5
880-20350-4	MW-6 (10')	Solid	10/07/22 17:05	10/13/22 13:35	
880-20350-8	MW-5 (0-1')	Solid	10/06/22 13:00	10/13/22 13:35	0
880-20350-9	MW-5 (5')	Solid	10/06/22 13:05	10/13/22 13:35	5
880-20350-10	MW-5 (10')	Solid	10/06/22 13:15	10/13/22 13:35	-

Revised Date: 08/25/2020 Rev. 2020.2

Date/Time

Received by: (Signature)

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

of Eurofins Xenco. A minimum charge of \$85.00 will be appl Relinguished by Signature)

880-20350 Chain of Custody

Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392 7550, Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Chain of Custody

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				www.xenco.com Page of	Page 1 of
Project Manager	Cindy Cain	Bill to: (if different)	Leasa Hale	Work Order Comments	ents
Company Name:	Crain Environ mental	Company Name:	Southwest Row Hips	Program: UST/PST PRP Brownfields PRC Sunadimed	Ide Superfund
Address:	2925 C. 17th St.	Address.	P.o. Bax 53570	State of Project: NM	
City, State ZIP-	Odess, TX 79761	City, State ZIP-	Ninland 7X 79710	Reporting Level III PST/UST TRRP Level IV	ST TRRP Level IV
Phone:	(575) 441-7244	Email. Cindy. Co	Lindy, Crain@ Amail. 80m	Deliverables EDD ADaPT	ADaPT ☐ Other
Droingt Names	FL.:				
L OJECKINGINE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	lum Around	ANALYSIS REQUEST	UEST	Preservative Codes
Project Number		X Routine	Pres.		O-H rate M IO ON Agon
Project Location	Lea To NA	Due Date:			
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Address: 24%	2925 E. 17th	Ą		Address.		P.O. Bex	P.O. Box 53570	<u> </u>	State of Project: N.M.	l]
City, State ZIP: Ode	Odess, TX	19761		City, State ZIP	ó	Midland	Midland, TX 79710	<u>*</u>	Reporting Level II Level III		PST/UST TRRP Level IV	Level IV
Phone: (575	575) 441-7244	44	Email.	Lings	Crain	Lindy. Crain@ amail. com	. tom	_ă]	Deliverables EDD	АОаРТ 🗌	r 🗌 📄 Other]
Project Name Flying	Flying M SA	#3	Tum/	Turn Around		•	ANALYSIS REQUEST	REQUEST			Preservative Codes	Codes
Project Number	,	***************************************	Moutine	Rush	Pres.						None NO	DI Water H,O
Project Location Lea	Č. NM		Due Date:								رمما رمما	MeOH Me
Sampler's Name: Can	Crain		TAT starts the day received by	day received b	Γ		-				HU HU	HND, HN
, _ #Od		(the lab, if réceiv	ived by 4.30pm	<u></u>						H, SO. H.	Na HOeN
SAMPLE RECEIPT	Tegge-Bhnk.	Yes No	Wet Ice:	Yes No.	saaja						H. PO. Hp	
Samples Received Intact:	(Yes No	Thermometer ID:	er IQ.	THE STATE OF THE S		H					NaHSO - NABIS	
Cooler Custody Seals:	Yes No MA	Correction Factor	actor	199	le9	9	5				Na S.O. Maso	
Sample Custody Seals.	Yes No MA	Temperature Reading	e Reading:	S	T		AP.				78 Acetato (NaOH 78	7
Total Containers:	0	Corrected T	Corrected Temperature:	ν 2.2		7 / X 3.	1.19				NaOH+Ascorbic Acid SAPC	zid SAPC
		Date	Time		Grab/ # of		-40					
Sample Identification	Matrix	ιχ	Sampled	Depth Co							Sample Comments	nments
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MW-6 (5)	8		1655	j.	ر ا		X					
MW-6 (10.)	2		1705	.01	ري		×					
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MW-6 (20.)	S	10/8/22	0945	20'	7			_		_	HOLD	
MW-6 (25)	3	>	8560	25'	77						HOLD	
MW-5 (p-1:)	5	10/6/22	1300	0-1	-		X				Hec	
MW-5 (5)	S	10/6/22	1305	5	ر ا		X					THE PERSON NAMED OF THE PE
MW-5 (10')	5	10/10/22	1315	10,	7		X					
Total 200.7 / 6010 2	200.8 / 6020:		RCRA 13PPI	M Texas 1	1 Al Sb	As Ba Be B	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO, Na Sr Tl Sn U V	b Mg Mr	Mo Ni K Se Ag SiO,	Na Sr	II Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed	tal(s) to be an		TCLP / SPI	LP 6010	8RCRA S	o As Ba Be	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Ni Se A	g TI U Hg 1631 /	/ 245 1 /	Hg 1631/2451/7470/7471	
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order	elinquishment of sam	ples constitutes a	valid purchase orde	r from client con	ipany to Eurof	ns Xenco, Its affiliat	from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions	ard terms and	Conditions			
of service. Eurofins Xenco will be liable only for the cost of sappible and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously neartised.	nly for the cost of san \$85.00 will be apple	Aples and shall not d to each project a	assume any respon ind a charge of \$5 fo	sibility for any lo or each sample s	sses or expens ubmitted to Eu	es incurred by the c rofins Xenco, but n	Allent if such losses are due to circumsta ot analyzed. These terms will be enforc	nces beyond t	condutions ne control ously negotiated.			

Revised Date: 08/25/2020 Rev. 2020.2

Date/Time

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Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Envionnent Testing

Curofins Curofins

Xenco

Work Order No: _

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Color Colo	Addriven Aroun ail City, in Aroun ail city, in the day refreewed b		4.0. Dox 23570 Midland 71x 79710	State of Project: A/ M	
tte ZIP- Oct 655a TX 7976 Name Flying M SA # 2 Number Lea Co. NM It t's Name: Lea Co. NM It LERECEIPT Temp Blank: Yes No SReceived Intact: Yes No Thermometer Custody Seals: Yes No N/A Temperature ontainers: Corrected Ten J- S (15) Sample Identification Sample Identification	City,	, 1 _•11	Midland TX 79710		
Name: Flying M SA # 2 Number: Lea Co, NM Is Name: Ling Cain LERECEIPT Temp Blank: Yes No SReceived Intact: Yes No N/A Connection Fair Custody Seals: Yes No N/A Temperature ontainers. Sample Identification Matrix Sampled J-5 (15) S 10/0/22	urn Aroun ve	11	, @ gmail. com	Reporting Level II Level III PST/UST TRRP Level IV	Level IV
thame: Flying M SA # 2 trNumber tLocation Lea Co., NM er's Name: Circly Crain PLE RECEIPT Temp Blank: Yes No es Received Intact: Yes No Trustody Seals: Yes No N/A Temperature Containers. Containers. Sample Identification Matrix Sampled N - 5 (15) S 10/6/22	Turn Around Youtine Date: Date: Starts the day receil lab, if received by 4 et Ice. The starts the day receil lab, if received by 4 ding			Deliverables EDD	
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tLocation Lea Co. NM er's Name: Cardy Crain PLE RECEIPT Temp Blank: Yes No es Received Intact: Yes No Thermometer rCustody Seals: Yes No N/A Temperature Containers. Yes No N/A Temperature Containers. Corrected Ter Sample Identification Matrix Sampled W - 5 (15) S 10/0/22	Date: starts the day recei lab, if received by 4 et Ice* Ves			ON GOON	DI Water H O
er's Name: Licay Crain PLE RECEIPT Es Received Intact: Temp Blank: Yes No Thermometer Toustody Seals: Yes No Thermometer Toustody Seals: Yes No Thermometer Toustody Seals: Toustody Seals: Toustody Seals: Corrected Ter Sample Identification Matrix Matrix Matrix Matrix Matrix Sampled M-5 (15) Sampled	starts the day recei lab, if received by 4 et Ice Yes ding				MOOH WO
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of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated. Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control

Relinquished by: (Signature)	/ Received by: (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	
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Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-20350-1

SDG Number: Lea Co., NM

Login Number: 20350 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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").	True	

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Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Cindy Crain Crain Environmental 2925 E. 17th St. Odessa Texas 79761

Generated 11/17/2022 1:09:28 PM

JOB DESCRIPTION

Flying M SA #2 SDG NUMBER Lea Co, NM

JOB NUMBER

880-21500-1

Eurofins Midland 1211 W. Florida Ave Midland TX 79701



Client: Crain Environmental Laboratory Job ID: 880-21500-1 Project/Site: Flying M SA #2

SDG: Lea Co, NM

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Eurofins Midland

11/17/2022

Definitions/Glossary

Client: Crain Environmental Job ID: 880-21500-1
Project/Site: Flying M SA #2 SDG: Lea Co, NM

Tojectione. I tyling in 5A #2

Qualifiers

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

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	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

Eurofins Midland

Case Narrative

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-21500-1

SDG: Lea Co, NM

Job ID: 880-21500-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-21500-1

Receipt

The sample was received on 11/14/2022 8:03 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 880-39756 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.

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Client Sample Results

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-21500-1
SDG: Lea Co, NM

Client Sample ID: MW-6 Lab Sample ID: 880-21500-1

Date Collected: 11/10/22 14:25

Date Received: 11/14/22 08:03

Matrix: Water

Method: MCAWW 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1910	F1	25.0	17.3	mg/L			11/16/22 23:00	50

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Client: Crain Environmental Job ID: 880-21500-1 Project/Site: Flying M SA #2 SDG: Lea Co, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39756/3

Matrix: Water

Analysis Batch: 39756

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

Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Chloride <0.346 U 0.500 0.346 mg/L 11/16/22 22:38

Lab Sample ID: LCS 880-39756/4 Client Sample ID: Lab Control Sample **Matrix: Water**

Prep Type: Total/NA

Analysis Batch: 39756

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 25.0 25.65 mg/L 103 90 - 110

мв мв

Lab Sample ID: LCSD 880-39756/5 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 39756

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 25.0 25.68 103 90 - 110 mg/L

Lab Sample ID: 880-21500-1 MS Client Sample ID: MW-6 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 39756

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 1250 4322 F1 Chloride 1910 F1 193 90 - 110 mg/L

Lab Sample ID: 880-21500-1 MSD

Matrix: Water

Analysis Batch: 39756

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 1910 F1 1250 4335 F1 mg/L 194 90 - 110 0 20

Client Sample ID: MW-6

Prep Type: Total/NA

QC Association Summary

Client: Crain Environmental Job ID: 880-21500-1
Project/Site: Flying M SA #2 SDG: Lea Co, NM

HPLC/IC

Analysis Batch: 39756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21500-1	MW-6	Total/NA	Water	300.0	
MB 880-39756/3	Method Blank	Total/NA	Water	300.0	
LCS 880-39756/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-39756/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-21500-1 MS	MW-6	Total/NA	Water	300.0	
880-21500-1 MSD	MW-6	Total/NA	Water	300 0	

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Lab Chronicle

Client: Crain Environmental Job ID: 880-21500-1 Project/Site: Flying M SA #2 SDG: Lea Co, NM

Client Sample ID: MW-6 Lab Sample ID: 880-21500-1 Date Collected: 11/10/22 14:25

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			39756	11/16/22 23:00	CH	EET MID

Laboratory References:

Date Received: 11/14/22 08:03

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

Eurofins Midland

Accreditation/Certification Summary

Client: Crain Environmental Job ID: 880-21500-1
Project/Site: Flying M SA #2 SDG: Lea Co, NM

Laboratory: Eurofins Midland

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

Authority Texas		Program	Identification Number	Expiration Date
Texas		IELAP	T104704400-22-24	06-30-23
The following analytes the agency does not of		out the laboratory is not certific	ed by the governing authority. This list ma	y include analytes for whi
and agoney adde not of	ier ceruncation.			
Analysis Method	Prep Method	Matrix	Analyte	

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Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-21500-1

SDG: Lea Co, NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-21500-1

SDG: Lea Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-21500-1	MW-6	Water	11/10/22 14:25	11/14/22 08:03

City, State ZIP-

Company Name:

Covitor mental

Company Name: Bill to: (if different)

Lasa

79761

City, State ZIP-

Midlard, P.O. Box

79710

Reporting Level II 🔲 Level III 🗎

PST/UST []

TRRP

Level IV

State of Project: NH

53570

Hobbs NM (575) 392 7550, Carlsbad, NM (575) 988-3199	EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Chain of Custody

			99
Program:			
IIST/PST PRP R	Work Order Comments	www.xenco.com	
Program: UST/PST PRP Rrownfields PRC Supplemental	omments	n Page of	•
			-

Work Order No: 21500

Name Elyting N SA # 2 Turn Around Section			6						
Preservative None NO Cool Cool HCL-HC H ₂ S0 ₄ H ₂ H ₃ PO ₄ HP NaHSO 4 NABIS Na ₂ S ₂ O ₃ NASO 3 Zn Acetate+NaOH NaOH+Ascorbic Ac Sample Con Sample Con Hg 1631 / 245 1 / 7470 / 7471 Received by (Signature) Date			803	11.0					0
Preservative None NO Cool Cool H ₂ S0 ₄ H ₂ H ₃ PO ₄ HP NaHSO 4 NABIS Na ₇ S ₂ O ₃ NaSO 3 Zn Acetate+NaOH NaOH+Ascorbic Ac Sample Con B80-21500 Chain of Custody Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Hg 1631 / 245 1 / 7470 / 7471 Received by (Signature) Date Preservative None NO Cool Cool H ₃ PO ₄ HP NaOH+Ascorbic Ac Sample Con Variable Con Sample Con Date Received by (Signature) Date			232						Jan Jan
Preservative None NO Cool Cool HCL HC H ₂ S0 ₄ H ₂ H ₃ PO ₄ HP NaHSO 4 NABIS Na ₂ S ₂ O ₃ NaSO 3 Zn Acetate+NaOH NaOH+Ascorbic Ac Sample Con 880-21500 Chain of Custody Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Hg 1631 / 245 1 / 7470 / 7471		Received by: (Signature)	Relinquished by (Signature)	Date/Time		y (Signature)	Received b	gnature)	Relinfallished by (Sit
Preservative None NO Cool Cool H ₂ SO ₄ H ₂ H ₃ PO ₄ HP NaHSO ₄ NABIS Na ₂ S ₂ O ₃ NASO ₃ Zn Acetate+NaOH NaOH+Ascorbic Ac Sample Con 880-21500 Chain of Custody II K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Hg 1631/2451/7470/7471		d conditions the control fously negotiated.	filiates and subcontractors. It assigns standard terms and the client if such losses are due to circumstances beyond t at not analyzed. These terms will be enforced unless prev	o Eurofins Xenco, its affi expenses incurred by the d to Eurofins Xenco, bu	from client company tability for any losses or reach sample submitte	alid purchase order assume any respons and a charge of \$5 fo	les constitutes a v ples and shall not : to each project ar	It and relinquishment of samp liable only for the cost of samp liarge of \$85.00 will be applied	rvice. Eurofins Xenco will be urofins Xenco. A minimum ch
Name Flying N SA # 2	/7470 /7471	Hg 1631,	e Cd Cr Co Cu Pb Mn Mo Ni Se A	'A Sb As Ba Bı	LP 6010 8RCR	TCLP / SP	ilyzed	d Metal(s) to be ana	cle Method(s) and
Name Flying M SA # 2 Tum Anual Preservative Number Number Preservative Number Number Preservative Number	TI Sn II V 7n		B Cd Ca	As Ba Be	1 Texas 11 A)]	8F	200.8 / 6020:	otal 200.7 / 6010
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Name Flying M SA # 2 Turn hound Preservative Location Lea Co NH Due Date Location Lea Co NH Lat starts the day received by 4 slipm the lab, if received by	- Louy								
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Name: Elying M SA # 2 Turn Around ANALYSIS REQUEST Preservative Color Color Color Color Color									
Name: Flying M SA # 2 Trum Around ANALYSIS REQUEST Preservative None NO Location. Lea Co NIM Due Date: Tamp Blank. Vas (No) Wet kee: We have free weed by 4.30pm The momenter ID: Custody Seals. Vas No (No) Correction Factor Custody Seals. Vas No (No) Corrected Temperature: Corrected Temperature: Sample Identification Matrix Sampled Sampled Sampled Sampled Sampled Sample Con Sample Co									
Name: Flying M SA # 2 Tum Around ANALYSIS REQUEST ANALYSIS REQUEST Preservative None NO Lea Co NH Total starts the day received by the lab if received by 4.30pm ILE RECEIPT Temp Blank. Ves (No) Starts No Thermometer ID. Custody Seals. Ves No Corrected Temperature: Co-1 Sample Identification Matrix Sampled Sampled Sampled Sampled Sample Con Sam									
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative Routine						1 1			
Name: Flying Fly				Z				6W	N- 6
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative None NO Location. Lea Co NM Due Date: Lea Co NM Due Date: TAT starts the day received by 4.30pm The lab, if received by 4.30pm LE RECEIPT Temp Blank. Yes (No) Wet Ice: (vg) No s Received Intact: (vg) s No (N/A) Correction Factor (V, 2) Custody Seals: Yes No (N/A) Correction Factor (V, 2) Custody Seals: Yes No (N/A) Corrected Temperature: (V, 2) Corrected Temperature: (V, 2) ANALYSIS REQUEST ANALYSIS REQUEST None NO None NO Cool Cool HCL HC H₂SO₄ H₂ H₂SO₄ H₂ NaHSO₄ NABIS Na 52 23 NaSO₃ Zn Acetate+NaOH NaOH+Ascorbic Ac NaDH-Ascorbic Ac NaOH+Ascorbic A	Sample Comments				Grab/		_		Sample Identifica
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative tNumber: Manue: Cran NM Due Date: Rush Cool Cool r's Name: Cran NM Due Date: Temp Blank. Pres No N/A Correction Factor Co. A Net Ice: No N/A Correction Factor Name No No N/A Temperature Reading Co. A N/A N/A N/A N/A N/A N/A N/A N/A N/A N	NaOH+Ascorbic Acid SAPC			l for,	0.1	emperature:	Corrected To		l Containers.
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative Location. Lea Co NM Due Date: Tat starts the day received by 4.30pm Tat starts the day received by 4.30pm ILERECEIPT Temp Blank. Ves (No) Wet Ice: Wet Ice: Wet Ice: Name: Name: Name: Temp Blank. Ves (No) Wet Ice: Wet Ice: Name: Na	Zn Acetate+NaOH Zn			idl	0 %0	e Reading	Temperature	1	ple Custody Seals:
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative I None NO Location. Lea Co NM Due Date: Tat starts the day received by the lab, if received by 4.30pm ILE RECEIPT Temp Blank. Yes (No) Wet kee: Wet kee: None No Cool Cool H ₂ SO ₄ H ₂ H ₃ PO ₄ HP NaHSO ₄ NABIS	Na 2S 2O3 NaSO 3				19.5	actor	Correction F	Yes No N/A	ler Custody Seals.
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative ANALYSIS REQUEST Preservative Analysis Request An	NaHSO , NABIS				300	Ď	Thermomete	() es No	ples Received Intact:
Name: Flying M SA # 2 Turn Around ANALYSIS REQUEST Preservative None No Lea Co, NM Due Date: Cool Cool Pris Name: Circle Coin TAT starts the day received by 4.30pm The lab, if received by 4.30pm				eter	1	Wet Ice:	Yes (No	Temp Blank.	MPLE RECEIPT
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Name: Flying M SA # 2 Tum Around ANALYSIS REQUEST Preservative (Number: - MRoutine Rush Pres. ANALYSIS REQUEST None NO Location. Lea Co. NM Due Date: Cool Cool					ay received by	TAT starts the o		1	Ļ
Name: Flying M SA # 2 Tum Around ANALYSIS REQUEST Preservative						Due Date		1	ect Location.
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Table Call Call Call Call Call Call Call Ca	Preservative Codes	The second secon	ANALYSIS REQUEST		round	Tum A	# 2	Jying M SA	
DELIVERADIES ENTER A LABOR DELIVERADIES DELIVERAD	Otner.	Deliverables, CDD [_] ADAP i		MILLIA ALLIN	CHIMY: LL	Filloil	7	71 /017	

Login Sample Receipt Checklist

Client: Crain Environmental Job Number: 880-21500-1 SDG Number: Lea Co, NM

Login Number: 21500 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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	

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Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated 11/17/2022 1:09:28 PM

Authorized for release by Jessica Kramer, Project Manager Jessica.Kramer@et.eurofinsus.com (432)704-5440

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Cindy Crain Crain Environmental 2925 E. 17th St. Odessa, Texas 79761

Generated 3/26/2023 7:41:12 AM

JOB DESCRIPTION

Flying M SA #2 SDG NUMBER Lea Co., NM

JOB NUMBER

880-25907-1

Eurofins Midland 1211 W. Florida Ave Midland TX 79701

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated 3/26/2023 7:41:12 AM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440

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Client: Crain Environmental
Project/Site: Flying M SA #2
Laboratory Job ID: 880-25907-1
SDG: Lea Co., NM

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Definitions/Glossary

Client: Crain Environmental Job ID: 880-25907-1 Project/Site: Flying M SA #2 SDG: Lea Co., NM

Qualifiers

HPLC/IC

Qualifier **Qualifier Description**

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

Percent Recovery %R CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE) DL

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)

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL 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

Eurofins Midland

Case Narrative

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-25907-1

SDG: Lea Co., NM

Job ID: 880-25907-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-25907-1

Receipt

The samples were received on 3/14/2023 2:42 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 5.3°C

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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Job ID: 880-25907-1

SDG: Lea Co., NM

Client Sample ID: MW-1

Lab Sample ID: 880-25907-1

Matrix: Water

Matrix: Water

Matrix: Water

Date Collected: 03/13/23 12:45 Date Received: 03/14/23 14:42

Client: Crain Environmental

Project/Site: Flying M SA #2

Method: EPA 300.0 - Anions, Ion C	hromatograph	าง							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1330		25.0	17.3	mg/L			03/18/23 20:03	50

Lab Sample ID: 880-25907-2 Client Sample ID: MW-2 **Matrix: Water**

Date Collected: 03/13/23 11:05

Date Received: 03/14/23 14:42

Method: EPA 300.0 - Anions, Ion Cl	nromatography						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2000	25.0	17.3 mg/L			03/18/23 20:19	50

Client Sample ID: MW-3 Lab Sample ID: 880-25907-3

Date Collected: 03/13/23 13:30

Date Received: 03/14/23 14:42

Method: EPA 300.0 - Anions, Ion Ch	romatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	207		5.00	3.46	mg/L			03/18/23 20:24	10

Client Sample ID: MW-4 Lab Sample ID: 880-25907-4 **Matrix: Water**

Date Collected: 03/13/23 10:00

Date Received: 03/14/23 14:42

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	273		5.00	3.46	mg/L			03/18/23 20:29	10

Client Sample ID: MW-6 Lab Sample ID: 880-25907-5

Date Collected: 03/13/23 14:10

Date Received: 03/14/23 14:42

Method: EPA 300.0 - Anions, Ion C	hromatography						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	234	2.50	1.73 mg/L			03/18/23 20:34	5

Eurofins Midland

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: MW-1

Client Sample ID: MW-1
Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-25907-1

SDG: Lea Co., NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48893/3

Matrix: Water

Analysis Batch: 48893

мв мв

 Analyte
 Result Chloride
 Qualifier
 RL Unit
 MDL mg/L
 Unit
 D mg/L
 Prepared
 Analyzed Malyzed
 Dil Fac Dil F

Lab Sample ID: LCS 880-48893/4

Matrix: Water

Analysis Batch: 48893

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 25.0 26.22 mg/L 105 90 - 110

Lab Sample ID: LCSD 880-48893/5

Matrix: Water

Analysis Batch: 48893

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 25.0 26.00 90 - 110 20 mg/L 104

Lab Sample ID: 880-25907-1 MS

Matrix: Water

Analysis Batch: 48893

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Qualifier Unit %Rec Result Limits 1330 1250 Chloride 2579 100 90 - 110 mg/L

Lab Sample ID: 880-25907-1 MSD

Matrix: Water

Analysis Batch: 48893

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 1250 1330 2570 mg/L 99 90 - 110 0 20

Eurofins Midland

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QC Association Summary

Client: Crain Environmental
Project/Site: Flying M SA #2
Job ID: 880-25907-1
SDG: Lea Co., NM

HPLC/IC

Analysis Batch: 48893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25907-1	MW-1	Total/NA	Water	300.0	
880-25907-2	MW-2	Total/NA	Water	300.0	
880-25907-3	MW-3	Total/NA	Water	300.0	
880-25907-4	MW-4	Total/NA	Water	300.0	
880-25907-5	MW-6	Total/NA	Water	300.0	
MB 880-48893/3	Method Blank	Total/NA	Water	300.0	
LCS 880-48893/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-48893/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-25907-1 MS	MW-1	Total/NA	Water	300.0	
880-25907-1 MSD	MW-1	Total/NA	Water	300.0	

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1:

Job ID: 880-25907-1

SDG: Lea Co., NM

Client Sample ID: MW-1

Client: Crain Environmental

Project/Site: Flying M SA #2

Date Collected: 03/13/23 12:45 Date Received: 03/14/23 14:42

Lab Sample ID: 880-25907-1

Matrix: Water

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50	10 mL	10 mL	48893	03/18/23 20:03	SMC	EET MID

Client Sample ID: MW-2

Date Collected: 03/13/23 11:05 Date Received: 03/14/23 14:42

Lab Sample ID: 880-25907-2

Matrix: Water

Batch Batch Dil Initial Final Batch Prepared Prep Type Method Factor Amount Amount Number or Analyzed Туре Run Analyst Lab Total/NA 300.0 50 48893 03/18/23 20:19 SMC EET MID Analysis 10 mL 10 mL

Client Sample ID: MW-3 Lab Sample ID: 880-25907-3 Date Collected: 03/13/23 13:30

Date Received: 03/14/23 14:42

Matrix: Water

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 300.0 10 48893 03/18/23 20:24 SMC EET MID Analysis 10 mL 10 mL

Lab Sample ID: 880-25907-4 Client Sample ID: MW-4

Date Collected: 03/13/23 10:00 **Matrix: Water** Date Received: 03/14/23 14:42

Dil Initial Final Batch Batch Batch Prepared Method Prep Type Type Run Factor Amount Amount Number or Analyzed Analyst Lab 300.0 EET MID 10 48893 03/18/23 20:29 SMC Total/NA Analysis 10 mL 10 mL

Client Sample ID: MW-6 Lab Sample ID: 880-25907-5

Date Collected: 03/13/23 14:10 Date Received: 03/14/23 14:42

Released to Imaging: 3/4/2024 3:21:36 PM

Matrix: Water

Batch Batch Dil Initial Batch Final Prepared **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 300.0 5 10 mL 10 mL 48893 03/18/23 20:34 SMC EET MID

Laboratory References:

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

Eurofins Midland

Accreditation/Certification Summary

Client: Crain Environmental

Project/Site: Flying M SA #2

Job ID: 880-25907-1

SDG: Lea Co., NM

Laboratory: Eurofins Midland

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

Authority	P	rogram	Identification Number	Expiration Date
Texas	N	IELAP	T104704400-22-25	06-30-23
The following analytes the agency does not of	• •	out the laboratory is not certific	ed by the governing authority. This list ma	ay include analytes for whi
the agency does not of	iei ceruncauori.			
Analysis Method	Prep Method	Matrix	Analyte	

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Method Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-25907-1

SDG: Lea Co., NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Eurofins Midland

Sample Summary

Client: Crain Environmental Project/Site: Flying M SA #2 Job ID: 880-25907-1

שו מטע.	000-	-2590) / - I
SDG:	Lea	Co.,	NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-25907-1	MW-1	Water	03/13/23 12:45	03/14/23 14:42
880-25907-2	MW-2	Water	03/13/23 11:05	03/14/23 14:42
880-25907-3	MW-3	Water	03/13/23 13:30	03/14/23 14:42
880-25907-4	MW-4	Water	03/13/23 10:00	03/14/23 14:42
880-25907-5	MW-6	Water	03/13/23 14:10	03/14/23 14:42

Revised Date: 08/25/2020 Rev 2020.2

Date/Time

Received by (Signature)

submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotlated.

Relinquished by (Signature)

Date/Time

Received by (Signature)

Relinguished by: (Signature)

otice. Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control

of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each

Chain of Custody

Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392 7550 Carlsbad, NM (575) 988-3199 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300

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Xenco

Work Order No: 3590

Z				www.xenco.com Page	of
Project Manager (indy (re	المناهن	Bill to: (if different)	Leasa Hale	Work Order Comments	
Company Name: Crain Cov	Covironmental	Company Name	Southwest Royalties	Program UST/PST PRP Brownfields RRC	RRC Superfund
Address. 2925 E. 17th St.	おき	Address	P.O. Box 53570	State of Project: NM	
City, State ZIP: 0005528	TX 79761	City, State ZIP-	Midland, 7X 79710	Reporting Level II Level III PST/UST TRRP Level IV	TRRP Level IV
Phone: (575) 44). 7244	· 7244 Email	—	Cindy. Crain @ 4 mail com	Deliverables. EDD	Other:
Project Name: Flying M SA #2		Turn Around	ANALYSIS REQUEST		Preservative Codes
Project Number:	Moutine	e Rush <mark>Pres.</mark>	S.	None NO	DI Water H,O
Project Location: LEA Co., N	N M Due Date	3/21/23		Cool	MeOH Me
Sampler's Name: Cindy Crain		TAT starts the day received by		HCL. HC	HNO HN
PO#	the lab, ii	the lab, if received by 4.30pm		H,504 H,	
SAMPLE RECEIPT Temp Blank.	Jk. Ye Ng Wet Ice:	: (Yes) No.	CIDIC	dH 'Cd'H	
Samples Received Intact: (Yes) No.	Thermometer ID:	6		NaHSO , NABIS	AABIS
Cooler Custody Seals. Yes No (W	WA Correction Factor	8,1		, Osav , O., S., O., NaSo	VaSO 3
Sample Custody Seals. Yes No (N/A		5,5	70	Zn Acetate	Zn Acetate+NaOH Zn
Total Containers.	Corrected Temperature:	e 6.3	1301	NaOH+Asc	NaOH+Ascorbic Acid SAPC
Sample Identification A	Matrix Sampled Sampled	Depth Grab/ # of Cont	'YV	Sam	Sample Comments
MW - 1	6W 3/13/25 1245	1	X		
Mx - 2	8011 WD		X		
MM - 3	6W 1330	, 1			
MW-4	GW 1000	1	X		
MW-LO	BW V 1410	,	X		
				080-25907 Chain of Custod	
					(Don
Total 200.7 / 6010 200.8 / 6020:	20: 8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO. Na Sr Tl Sp 11 V 7n	Mn Mo Ni K Se Ag SiO, Na Sr TI Sp 11	V 7n
Circle Method(s) and Metal(s) to be analyzed		P 6010 8R	TCLP/SPLP6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	e Ag TI U Hq 1631/2451/7470 /7471	471

Login Sample Receipt Checklist

Client: Crain Environmental Job Number: 880-25907-1 SDG Number: Lea Co., NM

Login Number: 25907 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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	

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Appendix D: Soil Boring Logs



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Borin	g/Well N	Number	:			Permit 1	Number:						
			3H-1					IOSE File Nbr: L 152					
Site N	lame: So	outhwes	st Royalti	es, Inc.		Boreho	le Start D	ate: 03/24/22	Borehole Start	Time: 1	520		AM 🗹 PM
	Flying I	M SA l	Jnit 4" T	runk Lir	ne		End Da		End 7	Гіте:		☐ A	AM PM
Envir	onmenta					Geolog	ist's Nam			Environment			n's Name:
D ::::			nvironme	ntal	l _D			Cindy Crain		 		None	(C)
Drillii	ng Comp	oany: Гаlon L	DE		Paveme		cness (inc	hes): Borehole Dian	neter (inches): 6	Bor	enole l	Depth	(feet): 5 7
Drillin	ng Meth		_, _	Apparen	t Boreho	le DTW (Measured Well DTW		OVA (list m	odel ar		
L	-	Rotary				ire conten							FID PID
Dispo	sition of	Drill (Cuttings [check m	ethod(s))]:		Drum	☐ Backfill	✓ Stock	xpile		Other
(descr	ribe if ot	her or i	multiple i	tems are	checke	d):							
Boreh	ole Con	npletion	ı (check o	one):		Well	☐ Gro	ut 🔲 Bentonite	✓ Backfil	1 🗹 0	Other (d	lescribe	e)
Groundwater was encountered and a sample collected. The boring will be						ne boring will be filled	I with bentonite	when lab re	esults	are re	ceived.		
70	T S	Saı	R F								٦	Mo	Lab Soil and
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)				USCS Symbol	Moisture	Groundwater Samples (list
ole T	le D	ple Reco	Chlong (1				h (fe	Sample	Description		Syr		sample number
уре	epth feet)	ovei	oride opm)				et)				nbol	Content	and depth or temporary screen
		СУ) °					Pakt and a Pakt	and Fig. 1	P	Ź	nt	interval)
							1	Light red, well sorted s No odors or staining. D		uum grained.	SW	D	
							_ 1						
							2						
							_						
							3						
							4						
SS	4.5-5	18	1,636					Light red, well sorted s No odors or staining. D		dium grained.	SW	D	
							5		•				
							6						
							7						
							8						
							9						
DC	9-10	18	2,493					Light red, well sorted s No odors or staining. D		dium grained.	SW	D	
			_,				10						
								Light tan to white, fine hard. No odors or stain		andstone,	SS	D	
							11						
							12						



Page 2 of

Borin	g/Well N	Number	::	Permit	Number:	L 1527	8		Site Name: Southwest Royalties	Borehole	Start D	ate:	03/24/22
	В	H-1							Flying M SA Unit 4" Trunkline]	End Da	ite:	03/24/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC	19-20	ery 18	n) 4,059				13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	Light ta hard. N	in to white, fine grained, brittle sand lo odors or staining. Dry. In to white, fine grained, brittle sand lo odor or staining. Dry. In green, clayey sand, well sorted. No.	Istone,	ol SS SS SC		
DC	29-30	18	1,016				29 30	Grayish staining	n green, clayey sand, well sorted. N g. Dry.	o odor or	SC	D	



												Page 3	3 of	4
Borin	g/Well N	Number	:	Permit 1	Number:	L 1527	8		Site Name: Southwes	t Royalties	Borehole	Start I	Date:	03/24/22
	В	H-1							Flying M SA Unit 4	" Trunkline		End D	ate:	03/24/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Desc	ription		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC	39-40	18	<279				31 32 33 34 35 36 37 38 39 40 41	stainino	h green, clayey sand, v g. Moist. ish red, well sorted san			sc	М	
							42 43 44 45 46 47 48		to Water (3/29/22) = 42 lly, medium sorted, silty g. Dry.		lor or	SP	D	



Rorin	g/Well N	Jumbo	. .	Dermit	Number	: L 15278	Q	Site Name: Southwest Royalties Borehole		ge 4 of	03/24/22
DOIII		H-1	١.	I CITIII	Number	. L 13270	0	•	End D		03/24/22
Sample Type	Sa In	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)	Sample Description	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC	49-50	18	<279				49 50 51 52	Gravelly, medium sorted, silty sand. No odor or staining. Dry.	SP	D	
							53 54 55 56	Dark red, silty clay. Non-plastic. No odor or staining. Dry Total Depth of Boring	CL	D	

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; DC = Dry; DC = Saturated

											1 42	ge i oi	4
Boring	g/Well N	Number	r:			Permit 1	Number:						
		F	BH-2				NM	IOSE File Nbr: L 152	78				
Site N	ame: So	outhwes	st Royalti	es, Inc.		Borehol	le Start Da	ate: 05/05/22	Borehole Start	Time: 1	030		АМ 🗌 РМ
Ì	Flying I	M SA I	Unit 4" T	runk Lir	ıe		End Da	ate: 05/05/22	End 7	Γime: 1	230	\Box A	AM PM
Enviro	onmenta					Geologi	ist's Name			Environmen			ı's Name:
~			nvironme		<u> </u>			Cindy Crain		 		None	
Drillin	ng Comp	pany: Talon L	DE	ľ	Paveme		kness (incl .00	hes): Borehole Dian	neter (inches): 6	Boi	ehole I	Depth ((feet):
Drillin	ng Metho			Apparen	t Boreho!	le DTW (i		Measured Well DTW		OVA (list m	odel ar		
	-	Rotary				ire conten							FID PID
Dispos	sition of	f Drill (Cuttings [check m	ethod(s)]:		rum Spread	Backfill	▼ Stocl	cpile		Other
(descr	ibe if ot	her or	multiple i	items are	: checked	d):							
			n (check o			Well	☐ Grou	ut 🔲 Bentonite	▼ Backfi		Other (d	describe	e)
		-			d a sam	ple coll	ected. Tr	ne boring will be eithe	er plugged or c	ompleted as	a MW	<i>/</i> .	
								<u> </u>	1 00	· .			Lab Soil and
San	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Dej				USCS Symbol	Moisture Content	Groundwater
Sample Type	Sample Depth Interval (feet)	ple Reco (inches)	l Ch ling				Depth (feet)	Sample	e Description		is S.	ure (Samples (list sample number
Тур	Dept (fee	ecov es)	loric (pp:				[feet]		_		ymb	Cont	and depth or
Эе	Ů H	ery	de m)								ol	tent	temporary screen interval)
								Light red, well sorted s		dium grained.	CW		,
							1	No odors or staining. D	ry.		SW	D	
							2						
							3						
							4						
							_ 4						
							5						
							_						
							6						
							7						
							8						
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							10						
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							11						
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							12						

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Borin	g/Well l	Numbei	r:	Permit 1	Number	: L 1527	8		Site Name: Southwest Royalties	Borehole	Start D	Pate:	05/05/22
	В	H-2							Flying M SA Unit 4" Trunkline		End Da	ate:	05/05/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							13		d, well sorted sand. Fine to mediur rs or staining. Dry.	n grained.	SS	D	
							14		n to white, fine grained, brittle sand	dstone,			
							15	hard. N	o odor or staining. Dry.				
							16						
							17 18						
							19						
							20				SS	D	
							21						
							22						
							23		n green, clayey sand, well sorted. N g. Dry.	lo odor or	sc	D	
							24		•				
							25						
							27						
							28	Oron ='	sh rod woll gorted cond. No education	r otolola a			
							29	Orangis Dry.	sh red, well sorted sand. No odor o	r staining.	SC	М	
							30						

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Borin	g/Well l	Number	:	Permit 1	Number:	L 1527	8	Site Name: Southwest	Royalties	Borehole	Start D	ate:	05/05/22
	В	H-2						Flying M SA Unit 4"	' Trunkline		End Da	ate:	05/05/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)	Sample Descr			USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							31	Orangish red, well sorted sand Ory.	d. No odor o	r staining.	SC	М	
							32						
							33						
							35						
							36 37						
							38						
							— 39 40				sw	M	
							41	ight tan, well sorted sand. No Damp.	odor or sta	ining.			
							42						
							43 44						
							45	Depth to Water (5/19/22) = 46.	.30'				
							46						
							48						

Page 4 of _____4

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Boring	g/Well N	Number	r:	Permit	Number	L 1527	8		Site Name: Southwest Royalties	Borehole	Start I	Date:	05/05/22
	В	H-2							Flying M SA Unit 4" Trunkline		End D	ate:	05/05/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							49	Light ta Moist.	an, well sorted sand. No odor or stai	ning.			
							50	Gravell staining	y, medium sorted, silty sand. No od g. Dry.	or or	SP	D	
							51						
							52		ed, silty clay. Non-plastic. No odor o	r staining.	O.	1	
							53	Dry Total D	epth of Boring = 53'		CL	D	
							54	Total D	op 5. 26111g = 66				
							55						
							56						
							57						

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings Moisture Content Codes: $\mathbf{D} = \text{Dry}$; $\mathbf{M} = \text{Moist}$; $\mathbf{W} = \text{Wet}$; $\mathbf{S} = \text{Saturated}$

												Pag	ge 1 of	4
Boring/	/Well N	Jumber	r:			Permit !	Number:							
			BH-3			<u> </u>			ile Nbr: L 152					
Site Na	me: So	uthwes	st Royaltie	es, Inc.	l	Boreho	le Start Da	ate:	05/05/22	Borehole Start	Γime:	1320		AM PM
			Unit 4" Tr	runk Lin	ıe		End Da		05/05/22	End T		1520		
Enviror				.4-1	ļ	Geologi	ist's Name		L. Oralin	I	Environmen			ı's Name:
Drilling			nvironme		Daveme	ent Thiel	kness (incl		ndy Crain Borehole Diam	notor (inches):	l IBo	rehole l	None Depth ((faat):
غىسى	-	pany. Talon L	LPE	!	ravenic		.00	168).	DUICHUIC DIan	6	150	Tenore	-	(1eet). 57
Drilling				Apparen	t Boreho!	le DTW (i		Mea	asured Well DTW	V (in feet after	OVA (list m	nodel ar		
	Air F	Rotary		from so	oil moistu	ire conten	nt): 44	w	vater recharges in	well): 48.33	<u> </u>		☐ FID ☐ P	
Disposi	ition of	Drill (Cuttings [c	check m	ethod(s)	<i>i</i>]:		Orum	Spread	☐ Backfill	▼ Stoc	kpile		Other
(descril	be if ot	her or 1	multiple it	tems are	checked	d):								
Boreho	le Con	pletion	n (check o	one):		Well	Grou	at	Bentonite	▼ Backfil		Other (d	lescrib	e)
Ground	dwater	r was e	encounte	red and	a sam	ple coll	ected. Tr	ne borir	ng will be eithe	er plugged or co	ompleted as	a MW	<i>l</i>	
	- 70	Sa	Z Z										M	Lab Soil and
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Dep	l				USCS Symbol	Moisture Content	Groundwater Samples (list
ple	ole D val /	ple Reco	Chl.		'		Depth (feet)	l	Sample	e Description		SSy	re C	sample number
Гуре)eptl (feet	cove :s)	orid	'	'		eet)	l				mbo	ont	and depth or temporary screen
	<u>.</u>	тy	e 1)					<u> </u>					ent	interval)
			<u> </u>						ed, well sorted sa ers or staining. D	and. Fine to med Dry.	lium grained.	sw	D	
	ļ						_ 1		10 0. 0.0	.,.			'	
	ļ					l		l					'	
	ļ						_ 2	l					'	
	ļ					l	3	l					'	
	ļ									grained, brittle sa	andstone,		_ '	
	ļ						4	hard. N	lo odors or stain	ing. Dry.		SS	D	
	ļ							l					'	
	ļ						5	l					'	
	ļ							l					'	
	ļ						_ 6	l					'	
	ļ						7	l					'	
	ļ						— ' I	l					'	
	ļ						8	l					'	
	ļ						<u> </u>	l					'	
	ļ						9	l					'	
	ļ							l					'	
	ļ						10	l					'	
	ļ							l					'	
	ļ						11	l					'	
			'				12	1						

Page 2 of

Borin	g/Well l	Numbei	:	Permit 1	Number	L 1527	8		Site Name: Southwest Royalties	Borehole	Start D	Date:	05/05/22
	В	H-3							Flying M SA Unit 4" Trunkline		End Da	ate:	05/05/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							13		in to white, fine grained, brittle sand lo odor or staining. Dry.	dstone,	SS	D	
							13						
							15						
							16						
							17						
							18						
							19						
							20				SS	D	
							21						
							22						
							23	Orangis	sh red, well sorted sand. No odor o	r staining.			
							24	Dry.	,	· · · · · · · · · · · · · · · · · · ·	SC	М	
							25						
							26						
							27						
							28						
							29						
							30						

Page 3 of _____4

Borin	g/Well l	Number	:	Permit	Number:	L 1527	8		Site Name: Southwe	est Royalties	Borehole	Start D	Date:	05/05/22
BH-3							Flying M SA Unit	4" Trunkline		End Da	ate:	05/05/22		
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Des			USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							31	Orangi Dry.	ish red, well sorted sa	ind. No odor or	staining.	sc	М	
							32							
							33							
							34							
							35							
							36							
							37							
							38 39							
							40							
							41							
							42							
							43							
							44	Damp						
							45							
							46							
							47							
							48							

ъ			
Page	4	ot .	

Boring/Well Number:			Permit	Number	: L 1527	8		Site Name: Southwest Royalties	Borehole	Start I	Date:	05/05/22	
BH-3							Flying M SA Unit 4" Trunkline En				ate:	05/05/22	
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							49 50		sh, silty sand. No odor or staining. D 5/19/22) = 48.33'	epth to	SC	М	
							51 52 53	Dark re Dry	ed, silty clay. Non-plastic. No odor or	staining.	CL	D	
							54 55 56	Total D	epth of Boring = 57'				
							57						

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

											1 42	ge i oi	
Boring/	Well N	lumber				Permit 1	Number:						
			/IW-4					OSE File Nbr: L 152					
Site Na	me: So	uthwes	st Royaltie	es, Inc.	ļ	Borehol	le Start Da	ate: 10/06/22	Borehole Start	Time: 1	024	▼ A	
			Unit 4" Tı	runk Lin	ie		End Da		End T		240		
Environ						Geologi	ist's Name			Environment			n's Name:
Dailling			nvironme		Davioni	- at Thiol	Cindy Crain None						(f- 24).
Drilling		pany: Falon L	PF	ļ	Paveme		hickness (inches): Borehole Diameter (inches): Borehole Depth (feet): 0.00 6 55						
Drilling				Apparen	t Boreho!	le DTW (i		Measured Well DTW		OVA (list m	odel ar		
<u> </u>		Rotary		from sc	oil moistu	are conten	nt): 25	water recharges in	well): 41.60				FID PID
Disposi	tion of	Drill (Cuttings [check m	ethod(s))]:	□ D	Drum Spread	☐ Backfill	▼ Stock	cpile		Other
(describ	be if otl	her or 1	multiple i	items are	checked	d):							
Borehol	le Com	pletior	n (check o	one):		Well	Grou	ut Bentonite	☐ Backfil	1 🗆 С	Other (d	lescribe	e)
I													
		Š										3	Lab Soil and
San	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)		1 1		Der				USCS Symbol	Moisture Content	Groundwater
Sample Type	ple l rval	ple Reco	l Chi		1 1		Depth (feet)	Sample	e Description		S S	are (Samples (list sample number
Тур	Dept (fee	es)	lorid (ppr		1 1		feet)				mbo	Cont	and depth or
e	C +	ery	le n)		1 1		-				01	ent	temporary screen interval)
								Light red, well sorted s		lium grained.	SW	D	
		ı	 				1	No odors or staining. D	ry.		300		
		ı	 				ļ						
		,	 				_ 2						
		,											
		,					_ 3						
		ı	 				4						
		ı	 				<u></u>	Light tan to white, fine	grained, brittle sa	andstone,			
							5	hard. No odors or stain			SS	D	
		,											
		,					6						
		,											
		,					7						
		,											
		,					8						
		,											
		ı	 				_ 9						
		,	 				10						
		,					_ 10						
		ı	 				11						
		ı	 										
		ı			1		12			ļ	1		

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Boring/Well Number:			:	Permit Number: L 15278					Site Name: Southwest Royalties Borehole Start Date:			Date:	10/06/22
MW-4							Flying M SA Unit 4" Trunkline			End Date:		10/06/22	
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							13		n to white, fine grained, brittle sand o odor or staining. Dry.	dstone,	SS	D	
							14						
							15						
							16						
							17						
							18						
							19						
							20						
							21	Reddisl	h brown, poorly sorted silty sand. N	lo odor or			
							22		g. Damp at 25'.	o dudi di	SC	М	
							23						
							24						
							25						
							26						
							27		yellow, moderately well sorted, silt	y sand.	00		
							28	Dry.			SC	D	
							29						
							30						

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Borin	g/Well l	Numbei	r:	Permit Num	ber: L 1527	8	Site Name: Southwest Royalties Borehole	Start I	Date:	10/06/22
	М	W-4					Flying M SA Unit 4" Trunkline	End D	ate:	10/06/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)			Depth (feet)	Sample Description	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
						31	Gray to yellow, moderately well sorted, silty sand. Dry.	sc	D	
						32 33 34 35 36 37 38 39	Reddish sand, well sorted, dry. White, fine grained, brittle sandstone, hard. No odor or staining. Dry.	sw	D	
						40 41 42 43 44 45 46 47 48	Depth to water (10/7/22) = 41.60' bgs Dark brown sand, well sorted, dry.	SW	D	

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Borin	g/Well N	Numbei	r:	Permit 1	Number	: L 1527	8		Site Name: Southwest Royalties	Borehole	Start I	Date:	10/06/22
		W-4							Flying M SA Unit 4" Trunkline		End Date:		10/06/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)	Sample Description			USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							49 50 51 52 53 54 55	Dark re Dry	rown sand, well sorted, moist. ed, silty clay. Non-plastic. No odor or Depth of Boring = 55'	staining.	SW	M D	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings Moisture Content Codes: $\mathbf{D} = \text{Dry}$; $\mathbf{M} = \text{Moist}$; $\mathbf{W} = \text{Wet}$; $\mathbf{S} = \text{Saturated}$

								Paş	ge 1 of	6	
Boring/Well Number:		Permit	Number:								
BH-5		<u> </u>			ile Nbr: L 152						
Site Name: Southwest Royalties, In	<i>.</i> .	Boreho	ole Start Da	ate:	10/06/22	Borehole Start	Γime: 1	1300		AM PM	
Flying M SA Unit 4" Trunk	_ine		End Da		10/07/22	End T		1535			
Environmental Contractor:		Geolog	gist's Name				Environmen	Environmental Technician's Name:			
Crain Environmental Drilling Company:	T _{Dover}	ant Thic	kness (incl		ndy Crain Borehole Diam	actor (inches):	IR _O	rehole l	None Depth	(faat):	
Talon LPE	Favein		kness (inci .00	ies).	Boreliole Dian	6	DO	renoie i	-	(1eet): 95	
	rent Boreho			Mea	Lasured Well DTW		OVA (list m	odel ar			
Air Rotary from	soil moist	ure conter	nt): DR	Yw	ater recharges in	well): DRY				FID PID	
Disposition of Drill Cuttings [check	method(s	,)]:	□ D	rum	Spread	☐ Backfill	▼ Stocl	kpile		Other	
(describe if other or multiple items	ır <u>e check</u> e	?d):									
Borehole Completion (check one):		Well	Grou	ıt	Bentonite	☐ Backfil	1 (Other (d	lescribe	e)	
The boring was allowed to rema	n open to	check	for prese	nce of	water. The bo	ring will be plug	gged if no w	/ater is	prese	ent.	
Salar	T								ĭ	Lab Soil and	
Field Chloride Reading (ppm) Sample Recovery (inches) Sample Depth Interval (feet) Sample Type	Dep Dep Sam							USCS Symbol	Moisture Content	Groundwater Samples (list	
Id Chloriding (pile Reco			Depth (feet)		Sample	e Description		S Sy	ıre (samples (list sample number	
orid ppn ppn cove cove s) Dept feet			eet)					mbe	ont	and depth or	
le le ery ery									ent	temporary screen interval)	
				Light red, well sorted sand. Fine to medi No odors or staining. Dry.			lium grained.	sw	D		
			1	140 000	10 01 0tang	ny.		•	-		
									'		
			2						'		
			3						'		
			_			grained, brittle sa	andstone,		_		
			4	hard. N	lo odors or stain	ing. Dry.		SS	D		
									'		
			5						'		
									'		
			6						'		
			7						'		
			<u> </u>						'		
			8						'		
			<u> </u>						'		
			9						'		
									'		
			10						'		
									'		
			11						'		
			12						'		

Page 2 of

Borin	Boring/Well Number:			Permit Number: L 15278					Site Name: Southwest Royalties Borehole			e Start Date:		10/06/22
	В	H-5							Flying M SA Unit 4"	Trunkline		End Date:		10/07/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)	
							13 14 15 16		an to white, fine grained, lo odor or staining. Dry.		stone,	SS	D	
							17 18 19							
							20 21 22 23 24	Reddisl staining	h brown, poorly sorted s g.	silty sand. N	o odor or	SC	D	
							25 26 27 28 29 30	Gray to Dry.	o yellow, moderately wel	ll sorted, silty	y sand.	SC	D	

Page 3 of

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Bor	Boring/Well Number:			Permit Number: L 15278				Site Name: Southwest Royalties Borehole	e Start Date:		10/06/22
	В	H-5						Flying M SA Unit 4" Trunkline	End Da	ate:	10/07/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)	Sample Description	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							31	Gray to yellow, moderately well sorted, silty sand. Dry.	sc	D	
							32				
							34 35 36				
							37 38	Reddish sand, well sorted, dry.	SW	D	
							39	White, fine grained, brittle sandstone, hard. No odor or staining. Dry.	SS	D	
							41 42	Dark brown sand, well sorted, dry.	SW	D	
							43 44 45		344	ט	
							46				
							48				

BORING LOG

Page 4 of Boring/Well Number: Borehole Start Date: Permit Number: L 15278 Site Name: Southwest Royalties 10/06/22 BH-5 Flying M SA Unit 4" Trunkline End Date: 10/07/22 Lab Soil and Moisture Content Sample Recovery Field Chloride Reading (ppm) Sample Depth Interval (feet) **USCS Symbol** Sample Type Groundwater Depth (feet) Samples (list **Sample Description** sample number and depth or temporary screen interval) Dark brown sand, well sorted, dry. SW 49

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings Moisture Content Codes: D = Dry; DC = Dry; DC = Saturated

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BORING LOG

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													ge 5 of	6
Borin	g/Well N		•	Permit Number: L 15278					Site Name: Southwest	-	Borehole Start Date:			10/06/22
	В	H-5							Flying M SA Unit 4"	Trunkline		End Da	ate:	10/07/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)		Sample Descr			USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								Dark bi	rown sand, well sorted,	dry.		SW	D	
							67 68					5 VV	D	
							69							
							70							
							71							
							72							
							73							
							74							
							75							
							76							
							77							
							78							
							79							
							80							
							81							
							82							
							83							
							84							

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Page 6 of	6
le Start Date:	10/06/2

											ge 6 of	6
Bori	ng/Well	Number	r:	Permit Nun	mber: L 15	278		Site Name: Southwest Royalties Borehold				10/06/22
	<u> </u>	3H-5						Flying M SA Unit 4" Trunkline	·	End Date:		10/07/22
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)			Depth (feet)		Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							Dark br	rown sand, well sorted, dry.		0)4/	,	
						85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101	Dark re Dry	own sand, well sorted, dry. d, silty clay. Non-plastic. No odor of	r staining.	SW	О	mici vai)
						102						

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings Moisture Content Codes: $\mathbf{D} = \text{Dry}$; $\mathbf{M} = \text{Moist}$; $\mathbf{W} = \text{Wet}$; $\mathbf{S} = \text{Saturated}$

											Pag	ge 1 of	4
Boring/Well	Number	r:			Permit 1	Number:							
		BH-6			<u> </u>			ile Nbr: L 152					
Site Name: S	outhwes	st Royaltie	es, Inc.	ļ	Borehol	le Start Da	ate:	10/07/22	Borehole Start	Γime: 1	1650		AM PM
		Unit 4" Tr	runk Lin	ıe	<u> </u>	End Da		10/08/22	End T		1045		AM PM
Environment			-		Geologi	ist's Name				Environmen	Environmental Technician's Name:		
Drilling Con		nvironme		Daveme	ent Thiel	kness (incl		ndy Crain Borehole Dian	notar (inchas):	IR _O	rehole	None Depth	(faat):
_	npany: Talon I	LPE	I	Paveme		kness (inci .00	ies).	Borellole Dian	6	BO.	renoie	-	(1eet): 65
Drilling Met			Apparen	t Boreho!	le DTW (i		Mea	asured Well DTW		OVA (list m	odel ar		
Air	Rotary		from so	oil moistu	ire conten	nt): 45	; w	ater recharges in	well): 63.6				FID PID
Disposition of	of Drill (_ Cuttings [check m	ethod(s))]:	_ D	rum	Spread	☐ Backfill	▼ Stocl	kpile		Other
(describe if o	the <u>r</u> or	multiple i	tem <u>s</u> are	ch <u>ecke</u>	d):								
Borehole Co	mpletion	n (check c	one):		Well	Grou	ıt	☐ Bentonite	☐ Backfil	1 (Other (d	lescribe	e)
A groundwa	at <u>er san</u>	n <u>ple was</u>	collect	ed from	the bor	ring, and	the bor	ring will be co	nverted to a mo	onitor well.			
	Sa	E E										ĭ	Lab Soil and
Sample Depth Interval (feet) Sample Type	Sam fire							USCS Symbol	Moisture Content	Groundwater Samples (list			
ple D val (ple '	Sample Recovery (inches)	Field Chloride Reading (ppm)	'	1 1		Depth (feet)		Sample	e Description		Sy	ire C	sample number
)eptl (feet Typ:	cove	orid	'	1 1		eet)					mbo	ont	and depth or temporary screen
, , ,	тy	e 1)	<u> </u>	<u> </u>	<u> </u>						·	ent	interval)
	T						Light red, well sorted sand. Fine to medion No odors or staining. Dry.			ium grained.	sw	D	
						_ 1	TWO Odors of Staining. Dry.						
						,							
						_ 2							
						3							
									grained, brittle sa	andstone,	20		
						4	hard. N	lo odors or stain	ing. Dry.		SS	D	
						5							
						_ 6							
						7							
						_ ′							
						8							
						_							
						9							
						10							
						11							
		'				12							

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Boring/Well Number:		Permit Number: L 15278				Site Name: Southwest Royalties Borehole Start Date:			Date:	10/07/22	
E	BH-6						Flying M SA Unit 4" Trunkline		End Date:		10/08/22
Sample Depth Interval (feet) Sample Type	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)	Sample Description		USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
						13 14 15 16 17	n to white, fine grained, brittle sand o odor or staining. Dry.	Istone,	88	D	
						18 19 20 21 22 23 24 25 26 27 28 29	to light tan, moderately well sorted, lo oder or staining. Dry	silty	SC	D	

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Boring/Well Number:		Permit Number: L 15278			8	Site Name: Southwest Royalties Borehole		Date:	10/07/22		
BH-6						Flying M SA Unit 4" Trunkline	End D	ate:	10/08/22		
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	Field Chloride Reading (ppm)				Depth (feet)	Sample Description	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							31	Yellow to light tan, moderately well sorted, silty sand. No oder or staining. Dry	sc	D	
							32				
							33				
							34				
							35				
							36 37				
							38				
							39				
							40				
							41				
							42				
							43				
							44	Damp at 45'			
							45 46				
							40 47	Dark reddish brown, moderately well sorted, silty sand. No odor of staining. Dry.	SC	D	
							48				

BORING LOG

Pag	e 4	of

Page 4 of							4
Boring/Well Numb	ber:	Permit Number: L 15278		Site Name: Southwest Royalties Borehole	Start I	Date:	10/07/22
BH-6			Flying M SA Unit 4" Trunkline			End Date: 10/08/	
(inches) Sample Depth Interval (feet) Sample Type	Field Chloride Reading (ppm) Sample Recovery		Depth (feet)	Sample Description	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
	y v		- 49 56 - 50 - 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 - 60 - 61 - 62 - 63 D D D D D D D D D	Park reddish brown, moderately well sorted, silty and. No odor of staining. Dry. Depth to water (10/8/22) = 63.6' bgs Dark red, silty clay. Non-plastic. No odor or staining. Dry. Total Depth of Boring = 65'	SW		interval)

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 207932

CONDITIONS

Operator:	OGRID:
SOUTHWEST ROYALTIES INC	21355
P O BOX 53570	Action Number:
Midland, TX 79710	207932
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Groundwater Investigation Report has been received for Flying M SA Unit 4 Trunkline: Content Satisfactory 1. Continue to monitor groundwater and collect samples for analysis until eight (8) consecutive quarterly events have demonstrated below the allowable concentrations in NM WQCC and 19.15.30 of the NMAC. 2. Submit a Stage 1 Abatement Plan as per 19.15.30 of the NMAC for OCD review 3. Submit an Annual Groundwater Monitoring Report for 2023 by April 1, 2024.	3/4/2024