



April 10, 2024

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Closure Request
Perla Verde 31 St Battery
Incident Number nAPP2335243694
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc (XTO), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the Perla Verde 31 St Battery (Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a release of produced water within the lined containment at the Site. Based on field observations, field screening activities, and laboratory analytical results, XTO is submitting this *Closure Request* and requesting closure for Incident Number nAPP2335243694.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J, Section 31, Township 19 South, Range 35 East, in Lea County, New Mexico (32.61343°, -103.49612°) and is associated with oil and gas exploration and production operations on New Mexico State Trust Land managed by the New Mexico State Land Office (NMSLO).

On December 12, 2023, transfer pumps at the Site did not engage as programmed, causing 180 barrels (bbls) of produced water to release into the lined containment. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; all 180 bbls of produced water were recovered. XTO reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on December 13, 2023, and subsequently submitted a Form C-141 Application (Form C-141) on December 18, 2023. The release was assigned Incident Number nAPP2335243694. A liner integrity inspection notification was submitted to the NMOCD on December 18, 2023, and attempted by XTO personnel on December 20, 2023; however, construction at the Site to install additional production equipment was ongoing. The tanks, liner, and containment had been replaced between the time of fluid recovery and the attempted liner inspection. As such the liner inspection could not be completed properly.

Since the release remained on pad and inside the lined containment area, the Site is exempt from the Cultural Properties Protection Rule (CPP). As such no additional cultural resource surveys were completed in connection with this release.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC).

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Results from the characterization desktop review are presented below. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is a commercial water well L-14552 POD3, located approximately 0.55 miles southeast of the Site. The groundwater well has a reported depth to groundwater of 553 feet bgs and a total depth of 1,389 feet bgs. The well record is included in Appendix A and is presented on Figure 1.

The closest continuously flowing or significant watercourse is greater than 300 feet from the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, significant water course, or wetland. The Site is greater than 1,000 feet from a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the closest depth to groundwater data exceeding a distance of 0.5 miles from the Site, as preferred by the NMOCD, the following Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

DELINEATION SOIL SAMPLING ACTIVITIES

On February 15 and February 29, 2024, delineation activities were conducted to evaluate the presence or absence of impacted soil resulting from the release. Four delineation soil samples, SS01 through SS04, were collected immediately surrounding the lined containment at a depth of 0.5 feet bgs to confirm the release did not leave the lined containment. As noted during the liner inspection, the tanks, liner, and containment had been replaced between the time of fluid recovery and the liner inspection. As such delineation was completed throughout the containment area to confirm the presence or absence of impacted soil beneath the newly installed liner. Six discrete delineation boreholes, BH01 through BH06, were advanced through the competent liner to a maximum depth of 1-foot bgs, where auger refusal was encountered. Discrete soil samples were collected from each borehole at depths of 0.5 feet and 1-foot bgs. Soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations from the boreholes were documented on a lithologic/soil sampling log, which is included as Appendix B. The boreholes were backfilled with the soil removed and XTO repaired the delineation holes in the liner. The borehole and soil sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit and is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

LABORATORY ANALYTICAL RESULTS



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Laboratory analytical results for delineation soil samples SS01 through SS04 and BH01 through BH06, collected at depths ranging from 0.5 feet to 1-foot bgs, indicated all COC concentrations were compliant with the Closure Criteria. The laboratory analytical results for delineation soil samples SS01 through SS04 confirm the lateral extent of the release within the containment walls and laboratory analytical results for delineation soil samples BH01 through BH06 confirm the release did not impact soil beneath the containment liner. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Because the liner in the containment was replaced following fluid recovery and prior to installation of a new liner, Ensolum personnel advanced six boreholes BH01 through BH06 inside the lined containment to assess for the presence or absence of impacted soil resulting from the December 2023 produced water release. Two delineation soil samples were collected from boreholes BH01 through BH06, at depths of approximately 0.5 feet and 1-foot bgs and four delineation soil samples (SS01 through SS04) were collected at a depth of 0.5 feet bgs around the containment. Laboratory analytical results for all delineation soil samples indicated all COC concentrations were compliant with the Closure Criteria. The release was contained vertically and laterally by the lined containment and all release fluids were recovered during initial response activities.

The release remained on the well pad and within the containment area that is currently in operation for oil and gas production purposes. As such, the release area is not expected to be reclaimed until the oil and gas well is plugged and abandoned (P&A'd) and the well pad is reclaimed. The Reclamation Plan for this release will default to the NMSLO-approved Reclamation Plan for the well pad per 19.2.100.67 NMAC.

Based on initial response efforts and soil sample laboratory analytical results compliant with the Closure Criteria, remedial actions completed at the Site appears to have been protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number nAPP2335243694. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Mariaha O'Dell

Mariaha O'Dell
Staff Geologist



Daniel Moir PG
Senior Managing Geologist

cc: Amy Ruth, XTO
Amanda Garcia, XTO
NMSLO

Appendices:

Figure 1 Site Receptor Map
Figure 2 Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Well Record and Log

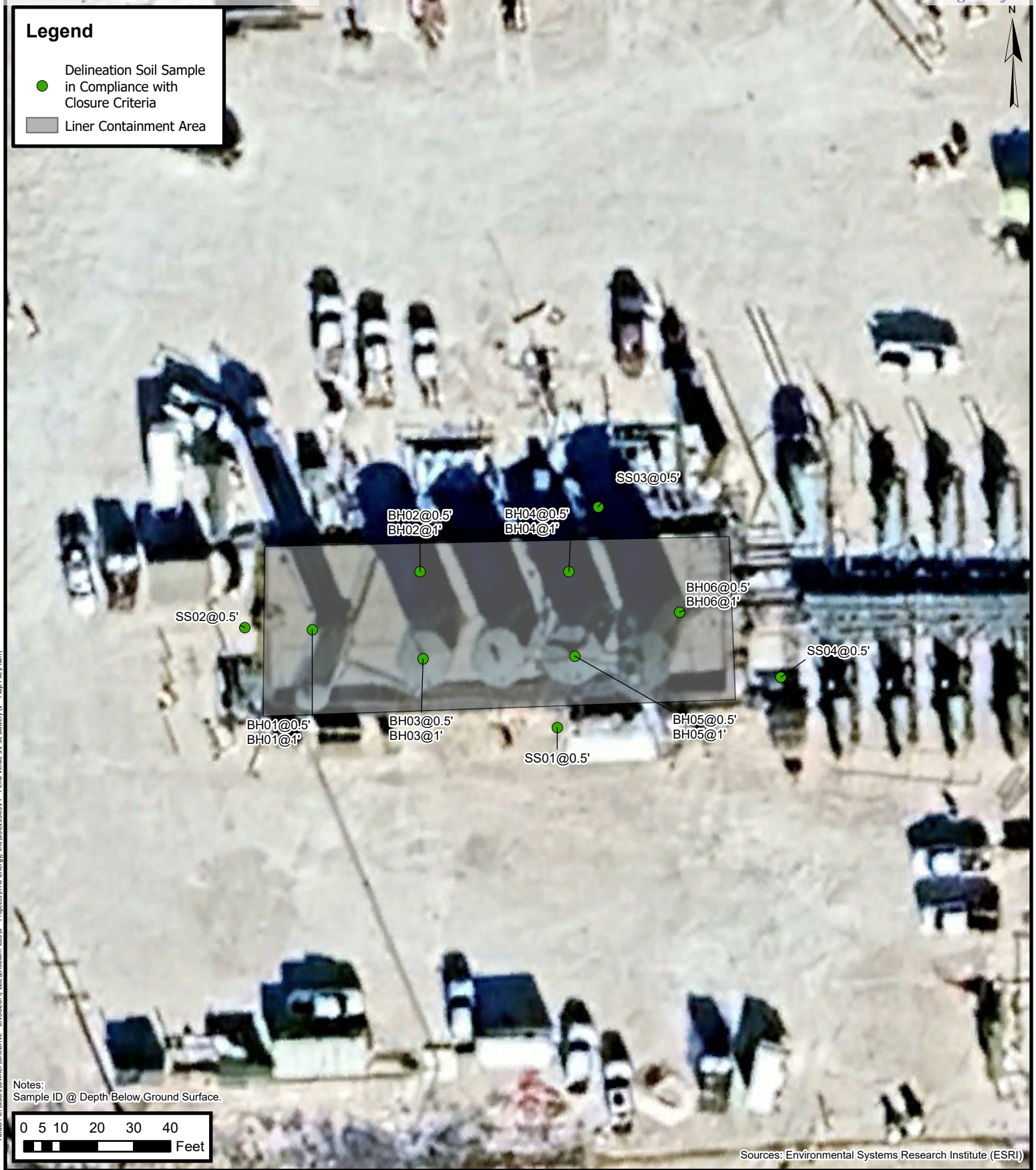


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Appendix B Lithologic / Soil Sampling Log
Appendix C Photographic Log
Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation



FIGURES



Delineation Soil Sample Locations

XTO Energy, Inc
Perla Verde 31 St Battery
Incident Number: nAPP2335243694
Unit J, S31, T19S, R35E
Lea County, New Mexico

FIGURE
2



TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Perla Verde 31 ST Battery
 XTO Energy, Inc
 Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
SS01	02/15/2024	0.5	<0.00200	<0.00400	<50.3	<50.3	<50.3	<50.3	<50.3	291
SS02	02/15/2024	0.5	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	239
SS03	02/15/2024	0.5	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	176
SS04	02/15/2024	0.5	<0.00202	<0.00403	<50.5	<50.5	<50.5	<50.5	<50.5	170
BH01	02/29/2024	0.5	<0.00200	<0.00399	<50.1	57.4	<50.1	57.4	57.4	79.9
BH01A	02/29/2024	1	<0.00198	<0.00397	<50.5	51.0	<50.5	51.0	51.0	72.9
BH02	02/29/2024	0.5	<0.00200	<0.00400	<49.7	<49.7	<49.7	<49.7	<49.7	185
BH02A	02/29/2024	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	159
BH03	02/29/2024	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	174
BH03A	02/29/2024	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	163
BH04	02/29/2024	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	149
BH04A	02/29/2024	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	117
BH05	02/29/2024	0.5	<0.00200	<0.00400	<50.5	<50.5	<50.5	<50.5	<50.5	61.3
BH05A	02/29/2024	1	<0.00198	<0.00397	<49.6	<49.6	<49.6	<49.6	<49.6	71.0
BH06	02/29/2024	0.5	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	121
BH06A	02/29/2024	1	<0.00198	<0.00397	<50.4	<50.4	<50.4	<50.4	<50.4	134

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER


www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD12		WELL TAG ID NO.		OSE FILE NO(S). L 14552		2019 APR 11 PM 4:14		STATE ENGINEER OFFICE ROSWELL NEW MEXICO	
	WELL OWNER NAME(S) NuWater Resources, LLC - Roger Perry (John Shomaker & Associates Inc)					PHONE (OPTIONAL) 505-345-3407				
	WELL OWNER MAILING ADDRESS 514 Via De La Valle, Suite 302					CITY Solana Beach		STATE CA		ZIP 92075
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 36	SECONDS 16.7	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND				
	LONGITUDE 103	27	34.9	W	* DATUM REQUIRED: WGS 84					
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE1/4 SW1/4 NE1/4 of Section 04, T20S, R35E										
2. DRILLING & CASING INFORMATION	LICENSE NO. WD-767		NAME OF LICENSED DRILLER Bruce J. Reichmuth			NAME OF WELL DRILLING COMPANY Hydro Resources Mid Continent, Inc				
	DRILLING STARTED February 13, 2019		DRILLING ENDED Feb. 27, 2019		DEPTH OF COMPLETED WELL (FT) 1389		BORE HOLE DEPTH (FT) 1390		DEPTH WATER FIRST ENCOUNTERED (FT)	
	COMPLETED WELL IS: <input checked="" type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)								STATIC WATER LEVEL IN COMPLETED WELL (FT) 553	
	DRILLING FLUID: <input type="checkbox"/> AIR <input checked="" type="checkbox"/> MUD ADDITIVES - SPECIFY:									
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Reverse Rotary									
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)		
	FROM	TO								
	0	30	24	18" OD Steel, ASTM A53 Grade B	None	17.25	.375			
	0	920	16	10.75" OD, J55 API Casing	Threaded	10.05	.350			
	-2	916	9 7/8	7" OD J55 API Casing	Threaded	6.37	.317			
916	1379	9 7/8	7" OD J55 API Perforated Casing	Threaded	6.37	.317	.100			
1379	1389	9 7/8	7" OD J55 API Casing	Threaded	6.37	.317				
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT				
	FROM	TO								
	0	30	24	Cement	54	Tremie				
	0	920	16	Cement	1015	Pressure				

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	L-14552	POD NO.	12	TRN NO.	637545
LOCATION	322 T20S R35 Sec 4	WELL TAG ID NO.	NA	PAGE 1 OF 2	

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)		ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO					
4. HYDROGEOLOGIC LOG OF WELL				See attached Report	Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED	
<input checked="" type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY: _____					WELL YIELD (gpm): 0.00		
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.					
	MISCELLANEOUS INFORMATION: A set of 3 - K-Packers seal the 7" OD casing inside the 10" casing near the bottom of the 10" casing string.						
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Miguel Camarena						
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:						
	 _____ SIGNATURE OF DRILLER / PRINT SIGNEE NAME					3/30/2019 DATE	

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	L-14552	POD NO.	12
LOCATION		TRN NO.	637545
322 T205 R35 Sec 4		WELL TAG ID NO.	NA
		PAGE 2 OF 2	

Bruce Reichmuth

From: Sherry Fritz <sfritz@shomaker.com>
Sent: Sunday, March 17, 2019 7:40 PM
To: Bruce Reichmuth
Subject: Lith for K1-17

0 - 40	<u>sand</u> : overall tan, fine grained, some caliche
40 - 50	<u>silt</u> : overall tan with areas of more yellowish-tan and areas of more reddish-tan, clay present
50 - 330	<u>clays and silts</u> : overall reddish-brown and maroon-brown, high plasticity, some sticky, very soft, silty
330 - 370	<u>silty clay to clay stone</u> : orange-reddish-brown, silty, some is more indurated
370 - 420	<u>clayey silt</u> : slightly orange-reddish-brown, very clayey, soft, more indurated pieces are friable, platy, also present are more indurated pieces of maroon-brown
420 - 430	<u>silty clay</u> : orange-reddish-brown, soft, low plasticity, some greenish-gray spots, some more indurated spots
430 - 440	<u>silt to siltstone</u> : orange-reddish-brown; siltstone is reddish-brown, more indurated, dry inside, breaks with moderate force
440 - 490	<u>silt and clays</u> : reddish-brown, clayey, soft to slightly indurated; greenish-gray spots of silt, some more indurated; maroon-brown spots of silt more indurated
490 - 510	<u>silt to siltstone</u> : brown & gray, clayey, silty; siltstone is brown, indurated, chips up to 30 mm, pieces break apart with force; greenish-gray siltstone chips
510 - 520	<u>clay to claystone</u> : overall gray, very soft, low plasticity, silty, slick, sticky; indurated pieces up to 20 mm, break apart easily
520 - 580	<u>sandstone and silt</u> : overall gray, sandstone chips are up to 40 mm, rounded, break apart with force; silt is gray, sandy; maroon-brown silt
580 - 590	<u>sandstone and silt</u> : silt is brown, clayey; sandstone chips are up to 40 mm, subrounded, break apart with force; gray silt
590 - 650	<u>silt</u> : brown to reddish-brown, clayey; maroon-brown silt is more indurated, breaks apart easily; greenish-gray silt, up to slightly indurated
650 - 660	<u>silt to siltstone</u> : reddish-brown overall, clayey; maroon-brown silt present, indurated pieces up to 20 mm, pieces break apart easily; greenish-gray silt present
660 - 720	<u>silt and silty clay</u> : reddish-brown and maroon-brown overall, clay is soft, high plasticity, silty, some pieces more indurated; greenish-gray silt very soft to slightly indurated
720 - 750	<u>clay</u> : brown to orange-brown, soft to medium stiff, low to medium plasticity, slick, silty in spots, some pieces more indurated up to 10 mm pieces that break apart easily; greenish-gray silt to siltstone present; maroon-brown silt to siltstone present
750 - 760	<u>silt</u> : overall reddish-brown, clayey; greenish-gray silt present, some with slight induration; maroon-brown pieces present that are more indurated than the greenish-gray, yet still break apart easily

STATE POWER OFFICE
 ROSWELL, NEW MEXICO

760 - 780	<u>clayey silt</u> : overall reddish brown, clayey, greenish-gray silt present, some with slight induration; maroon-brown pieces present up to 10 mm that are more indurated, break apart easily
780 - 790	<u>silt</u> : overall reddish-brown, clayey; greenish-gray spots present; maroon-brown pieces up to 10 mm present
790 - 810	<u>clay</u> : overall reddish-brown, soft, medium to high plasticity, silty, sticky, sticky; greenish-gray silt present; maroon-brown pieces of silt present up to 10 mm
810 - 820	<u>clayey silt</u> : reddish-brown, clayey; greenish-gray pieces up to 10 mm that break apart with force; maroon-brown pieces up to 45 mm that break apart easily
820 - 830	<u>silt</u> : reddish-brown, clayey; greenish-gray areas; maroon-brown pieces up to 10 mm present, break easily
830 - 870	<u>silty clay</u> : reddish-brown, soft to medium stiff, medium to high plasticity; greenish-gray silt present; maroon-brown pieces up to 10 mm present, break easily
870 - 880	<u>clayey silt</u> : reddish-brown, clayey; greenish-gray pieces up to 20 mm, very soft; maroon-brown pieces up to 20 mm, break apart easily
880 - 910	<u>silt</u> : reddish-brown, clayey; greenish-gray present; maroon-brown present
910 - 920	<u>silty clay</u> : reddish-brown, up to medium stiff, high plasticity, silty; maroon-brown pieces up to 20 mm, breaks easily; greenish-gray present
920 - 930	<u>clayey silt</u> : reddish-brown, clayey; greenish-gray present; maroon-brown pieces up to 10 mm present. NOTE : at 925 started to see light gray to white pieces, angular, blocky, hard, could not break apart, siltstone to sandstone
930 - 960	<u>clayey silt to siltstone</u> : overall reddish-brown, clayey; siltstone to sandstone present, up to 15 mm
960 - 990	<u>sand and silt</u> : overall reddish-brown, silt is reddish-brown, clayey; sand is light gray to white, pieces up to 10 mm that are up to slightly indurated; sand is maroon-brown pieces up to 40 mm
990 - 1,000	<u>silty clay</u> : reddish-brown, soft, low to medium plasticity, silty, sticky; silt, greenish-gray to gray
1,000 - 1,130	<u>silt</u> : reddish-brown, clayey; greenish-gray, pieces up to 20 mm, break apart easily, some maroon-brown pieces present, some parts clayey
1,130 - 1,160	<u>sandy silt</u> : brown silt, clayey; white silt; greenish-gray sand, pieces up to 30 mm, break apart easily; maroon-brown pieces present, up to 5 mm, break easily
1,160 - 1,180	<u>clayey silt</u> : brown, clayey
1,180 - 1,310	<u>silt</u> : brown to reddish brown, clayey in spots, sandy in spots
1,310 - 1,320	<u>sandy silty clay</u> : red, very fine to fine; silt, brown; clay, red, sticky, medium plasticity, soft
1,320 - 1,330	<u>silty sand</u> : gray; sand very fine to fine; silt, brown
1,330 - 1,340	<u>clayey sand</u> : gray; sand very fine to fine; clay, red, sticky, medium plasticity, soft
1,340 - 1,390	<u>clayey silt</u> : red, sticky, clayey

STATE POWER OFFICE
ROSMET, NEW MEXICO

2019 APR 11 PM 4:14

Sherry Fritz
Project Hydrogeologist

AQUIFER TEST

NAME Nuwater ResourcesDATE 3/8/19

OBSERVED WELL _____

PUMPING WELL _____

DISTANCE AND DIRECTION FROM PUMPING WELL _____

MEASURING POINT: Top of 1 1/4" PVC pipe 22 3/8 FEET ABOVE GROUND LEVEL

DATE	TIME OF DAY	ELAPSED TIME IN MINUTES	TAPE READING	WATER LEVEL BELOW MEASURING POINT	DRAWDOWN IN FEET	PUMPING RATE OF TEST WELL
3/8/19	11:00am	SWL	553' 0"			
		0				
	11:01	1	559' 0"			56 GPM
	11:02	2	578' 9"			56
	11:03	3	589' 6"			56
	11:04	4	599' 0"			55
	11:05	5	610' 1"			53
	11:07	7	622' 0"			54
	11:09	9	633' 7"			54
	11:11	11	645' 1"			54
	11:15	15	657' 5"			53
	11:20	20	667' 0"			56
	11:25	25	673' 11"			55
	11:30	30	678' 8"			54
	11:35	35	681' 11"			55
	11:40	40	684' 3"			54
	11:45	45	685' 10"			54
	11:50am	50	687' 4"			54
	12:00pm	60	689' 6"			54
	12:10	70	691' 5"			54
	12:20	80	693			54
	12:30	90	696' 7"			56
	12:40	100	698			55
	1:00	120	700' 2"			56
	1:30	150	702' 2"			55
	2:00	180	704' 0"			55
- Gas	2:30	210	704' 7"			55
	3:00	240	707' 0"			55
	3:30	270	708' 0"			55
	4:00	300	709			55
	4:30	330	710			55
- Gas	5:00	360	710' 3"			55
	6:00	420	711' 8"			55
	7:00	480	712' 10"			53
- Gas	8:00	540	713' 16"			54
	9:00	600	714' 8"			52 - 57 Adjust
	10:00	660	719' 1			55
- Gas	11:00pm	720	720' 2			55
3/9/19	12:00am	780	720' 11	69 PSI		54
	1:00	840	721' 6			54
	2:00	900	722' 2			54
	3:00	960	722' 9"			53
	4:00	1020	723' 2"			53
	5:00	1080	723' 8"	70 PSI		54
	6:00	1140	723' 11			55
	7:00	1200	724' 3"			55 GPM
	8:00	1260	725' 0"			55
	9:00	1320	725' 4"			55 GPM
	10:00	1380	725' 8"			55
	11:00am	1440	726' 3"			55 GPM
	12:00pm					

TEST PERFORMED BY

Flowmeter 000011000

72 hours Test

2 of 2 Page 16 of 111

NAME Nuwater Resources

AQUIFER TEST

DATE 3/8/19

OBSERVED WELL _____

PUMPING WELL _____

DISTANCE AND DIRECTION FROM PUMPING WELL _____

MEASURING POINT: Top of 1 1/4" PVC pipe 22" 3/8 FEET ABOVE GROUND LEVEL

DATE	TIME OF DAY	ELAPSED TIME IN MINUTES	TAPE READING	WATER LEVEL BELOW MEASURING POINT	DRAWDOWN IN FEET	PUMPING RATE OF TEST WELL
3/9/19		SWL				
	12:00pm	1500	727' 0"			55 GPM
	1:00	1560	727' 6"			55 GPM
	2:00	1620	727' 9"			55 GPM
	3:00	1680	728' 0"			55 GPM
	4:00	1740	728' 4"			55 GPM
	5:00	1800	728' 5"			55 GPM
	6:00	1860	728' 7"			55 GPM
	7:00	1920	728' 8"			55 GPM
	8:00	1980	728' 10"			55 GPM
	9:00	2040	728' 10"			55 GPM
	10:00	2100	729			54 GPM
	11:00	2160	729.2"			54 GPM
3/10/19	12:00am	2220	729.4"			55 GPM
	1:00	2280	729.7"			55 GPM
	2:00	2340	729.9"			55
	3:00	2400	730			55
	4:00	2460	730.2			55
	5:00	2520	730.4			53
	6:00	2580	730.6			53
	7:00	2640	730' 8"			54
	8:00	2700	730' 10"			54 GPM
	9:00	2760	731' 0"			54
	10:00	2820	731' 4"			54
	11:00	2880	731' 10"			54
	12:00pm	2940	732' 0"			54
	1:00	3000	732.4"			54
	2:00	3060	732' 0"			54
	3:00	3120	735.2"			56
	4:00	3180	735' 9"			56
	5:00	3240	736' 0"			56
	6:00	3300	736.3			55
	7:00	3360	736.5			55
	8:00	3420	736.8			56
	9:00	3480	736.10			55
	10:00	3540	736.11			55
	11:00	3600	737.1			55
3/11/19	12:00am	3660	737.3			55
	1:00am	3720	737.3			55
	2:00	3780	737.3			55
	3:00	3840	737.5			55
	4:00	3900	737.7			55
	5:00	3960	737.8			55
	6:00	4020	737.8			55
	7:00	4080	737.9			55
	8:00	4140	738' 0"			55
	9:00	4200	738' 2"			55
	10:00	4260	738' 5"			55
	11:00	4320	738' 8"			55 GPM

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STATE OF NEW MEXICO
ROSELLE, NEW MEXICO



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

John T. Romero, P.E.
Acting State Engineer

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623-8559

February 1, 2019

NuWater Resources
c/o Roger Peery, John Shomaker & Associates Inc.
514 Via De La Valle, Suite 302,
Solana Beach, CA 92075

RE: *Artesian Well Plan of Operations* for Limestone Basin Properties Ranch LLC, L-14552-
POD3

Greetings:

Attached is your copy of the Artesian Plan of Operations for the above described project.

The proposed method of operations for the subject well is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer subject to the following Conditions of Approval:

1. It is the applicant's responsibility to ensure that the well shall be solely completed into the Santa Rosa Formation.
2. As per NMAC 19.27.4.29.O – The well driller shall furnish lithographic samples ("drill cuttings") of the hydrogeologic units penetrated during drilling operations. The method of sampling, interval of sampling and the quantities required will be specified by the State Engineer.
3. In accordance with O.S.E regulations, the casing shall be inspected by an O.S.E. representative prior to installation.
4. Notify the O.S.E. District II Office of the anticipated schedule for cementing and pressure test events 48 hours in advance so that an O.S.E. representative may witness the procedures.
5. Any deviation from this plan must obtain an approved variance from this office prior to implementation.

If you have any questions, or if you have concerns regarding identification of contacts, please contact the Office of the State Engineer.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Parekh", written over a horizontal line.

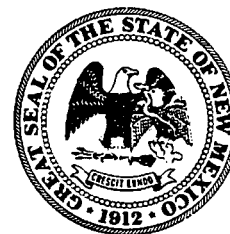
Kashyap Parekh

Water Resources Professional II



ARTESIAN WELL PLAN OF OPERATIONS

(for new well construction and repairs)



An Artesian Well Plan of Operations shall be filed with and approved by the Office of the State Engineer prior to commencing the drilling or repairing of an artesian well.

A detailed diagram of the proposed artesian well shall be attached to this plan.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP:

Office of the State Engineer POD Number (Well Number) for well (if known): L-14552-POD3

Name of well owner: NuWater Resources, LLC (agent: Roger Peery, John Shomaker & Associates, Inc.)

Mailing address: 514 Via De La Valle, Suite 302

City: Solana Beach State: CA Zip code: 92075

Phone number: 505-345-3407 E-mail: rpeery@shomaker.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide drilling services: Hydro Resources Mid-Continent, Inc.

New Mexico Well Driller License No.: WD-767 Expiration Date: 6/30/2020

IV. WELL INFORMATION:

- 1) Will this well be used for any type of monitoring program? No If yes, please describe in section V; applicant should be familiar with the need for specialty materials or design required for the monitoring program.
- 2) Will the well tap or penetrate brackish, saline, or otherwise poor quality water? No If yes, please provide additional detail in section V.
- 3) Depth of top of the anticipated artesian aquifer: 980 feet below ground level (bgl).
- 4) Is a flowing artesian head anticipated? No
- 5) Will a pitless adapter be installed in the well? No
- 6) GPS Well Location: Latitude: 32 deg, 36 min, 30.2 sec
Longitude: 103 deg, 29 min, 16.5 sec, NAD 83
- 7) Will permanent surface casing be installed? Yes If yes, provide details below. (Note: surface casing is shallow casing generally set above the confining unit overlying the artesian aquifer and is considered optional).
 - a) Diameter of borehole to be drilled for the surface casing: 24 inches.
 - b) Proposed surface casing depth: 30 feet below ground level.

ID STATE ENGINEER OFFICE
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- c) Surface casing material, grade: steel, ASTM A-53 grade B
- d) Inside diameter (ID): 17 1/4 inches.
- e) Outside diameter (OD): 18 inches.
- f) Wall thickness: 0.375 inches.
- g) Casing joint connection type (note whether welded, glued, coupled, etc. If coupled, include outside diameter OD and the length in inches, and also the number of threads per inch.):
welded
- h) Interval of proposed surface casing annular sanitary seal: 0 to 30 feet below ground level.
- i) Surface casing sanitary seal material:
neat cement or sand cement grout (grout density shall be at least 15.6 lbs/gal (117 lbs/ft3))

8) Artesian casing (Note: artesian casing shall be set adequately into the confining unit overlying the artesian aquifer; in some designs this may also be the production casing; NMOSE inspection requirements apply to installing, grouting and testing the artesian casing):

- a) Diameter of borehole to be drilled for the artesian casing: 16 inches.
- b) Proposed artesian casing depth: 980 feet below ground level.
- c) Artesian casing material, grade: API T&C casing, J-55, 40.5 lb/ft
- d) Inside diameter (ID): 10.05 inches.
- e) Outside diameter (OD): 10 3/4 inches.
- f) Wall thickness: 0.35 inches.
- g) Casing joint connection type (note whether welded, glued, coupled, etc. If coupled, include outside diameter (OD) and the length in inches, and also the number of threads per inch.)
threaded and coupled, OD 11 3/4 inches, length 8 inches, 8 threads per inch
- h) Type and spacing of artesian casing centralizers:
2 inch x 1/4 inch x 2-ft rigid steel bars, spaced 80 ft apart
- i) Manufacturer and model of float shoe: Float shoe acceptable to NMOSE will be used
- j) Method of annular grout placement: check one Pressure Grout ☒ Tremmie Pipe ☐
- k) Interval of proposed annular grout: 5 to 980 feet below ground level.
- l) Proposed annular grout mix: 5 gallons of water per 94 pound sack of Portland cement.
- m) Cement type proposed: neat cement grout
- n) Theoretical volume of annular grout required: 747 ft3
- o) Will the grout be: ☐ batch-mixed and delivered to the site
☒ mixed on site
- p) Grout additives requested, and percent by dry weight relative to cement: (See AWWA Standard A100-06 or Halliburton red book; common additives: calcium chloride, bentonite solution, pozzolan ash):

Cement material is based on a 30% excess Class C Cement. The lead cement is to be 14.8 ppg with 2% CaCl and 0.25 pps Celloflake. Tail cement will be 13.5 ppg, with 4% gel, and 2% CaCl.

STATE OF TEXAS
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q) Additional notes and calculations:

Neat cement grout shall be provided and installed by a qualified company specializing in the placement of annular grout seals using the pump and plug method.

9) Production casing (set through the artesian casing and into the artesian aquifer; may not be necessary if the artesian casing is used as the production casing):

a) Will you be using a production casing within the artesian casing? Yes If yes, provide a description of the following in section V:

- i. Diameter of borehole to be drilled for production casing; casing joint connection type - note whether coupled, welded, glued, etc.; proposed production casing depth; and inside diameter, outside diameter, wall thickness, casing material, and casing material grade of production casing.
- ii. List the proposed screened/ perforated interval(s) if you plan to use well screen or perforated casing.
- iii. List the vertical intervals and seal or fill material if the annulus between the production casing and artesian casing/borehole is to be sealed/ filled.

V. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

9 7/8 inch borehole to be drilled from 980 to 1,400 ft. Well assembly will consist of 7-inch OD, API T&C, J-55, 23 lb/ft well casing (980 ft), plus 7-inch OD, API T&C, J-55, 23 lb/ft, mill slotted screen (410 ft), plus 7-inch OD, API T&C, J-55, 23 lb/ft sump (10 ft). 7-inch casing ID 6.366 inches, wall thickness 0.317 inches. Screen shall have a minimum open area of 8 square-inches per ft.

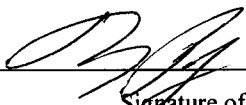
Up to 7 days of pumping tests may include step-drawdown test and constant-rate test with associated recovery measurements.

See attached letter from L&K Ranch, LLC, authorizing NuWater Resources, LLC to drill and test well on L&K Ranch, LLC property.

STATE ENGINEER OFFICE
ROSEBURY, CALIFORNIA
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VI. SIGNATURE:

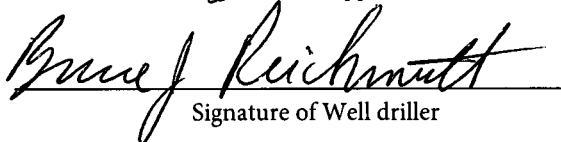
I, Roger Peery, John Shomaker & Associates, Inc., say that I have carefully read the foregoing Artesian Well Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Artesian Well Plan of Operations and attachments are true to the best of my knowledge and belief.



Signature of Applicant

Jan. 14, 2019

Date



Signature of Well driller

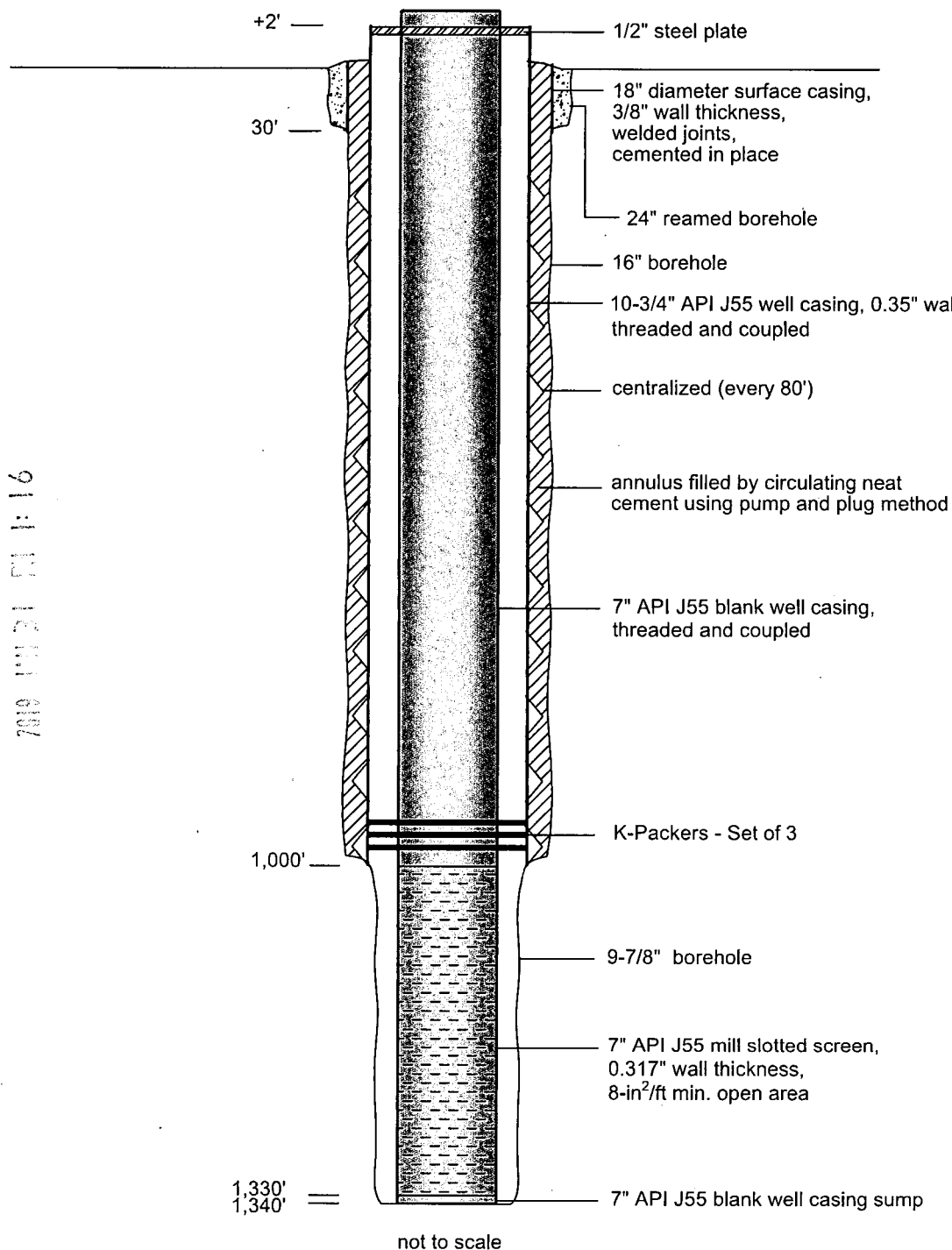
1/11/19

Date

VII. ACTION OF THE STATE ENGINEER:

This Artesian Well Plan of Operations is:

☒ Approved subject to the attached conditions.☐ Not approved for the reasons provided on the attached letter.Witness my hand and official seal this 15th day of FEBRUARY, 2019for JOHN T. ROMERO P.E. AI, State EngineerBy: K. ParekhKASHYAP PAREKH
WATER RESOURCESSTATE ENGINEER OFFICE
ROSEMEAD, CALIFORNIA
2019 JAN 15 PM 1:29



Proposed well completion diagram for NuWater Resources, LLC Santa Rosa Sandstone well (CP-1746-POD5), Lea County, New Mexico.

JOHN SHOMAKER & ASSOCIATES, INC.

01/31/2019

Parekh, Kashyap, OSE

From: amccoy@shomaker.com
Sent: Thursday, January 31, 2019 11:39 AM
To: Rappuhn, Doug H., OSE
Cc: rpeery@shomaker.com; 'Jack Donohue'; Parekh, Kashyap, OSE; sgalemore@shomaker.com
Subject: [EXT] NuWater - well diagrams, completion details
Attachments: CP-1746-POD5.pdf; L-14552-POD3.pdf; L-14552-POD11.pdf; L-14552-POD12.pdf

Hi,

Hope your week is going well. I've attached the well completion diagrams for NuWater Resources, LLC, apologies for the delay. Also the additional details from Hydro Resources as requested:

- Final disposition of 7" casing: The 7" casing will be hung from the top of the 10" casing with a reinforce donut plate between the 7" casing and 10" casing.
- Centralizers: Doug, you are correct, these are the slightly-flexed steel slats welded to casing at each end of slat. The centering guide is made of 3/16" x 1 1/2" flat bar. The stand off or flex is approx. 2". There will be 3 bars around the casing space 120 deg apart.
- Cement volume: 30% excess of the theoretical volume will be on site for the cementing and used as required to get cement circulation back to the surface. With the proposed reverse circulation drilling method, 30% excess is usually more than enough.
- Lead and tail cement mixes: Doug, you are correct. The tail cement is the heavier cement. The description should read: "The lead cement is to be 13.5 ppg, with 4% gel, and 2% CaCl. Tail cement will be 14.8 ppg, with 2% CaCl and 0.25 pps Celloflake."

I am available here in Santa Fe until about 2:30 pm today if you would like me to print the signed POOs, make and initial the edits/additions in the margins, and bring them to your office. Just let me know.

Thanks! Annie

Annie McCoy
 Senior Hydrogeologist
 John Shomaker & Associates, Inc.
 505-280-1713 cell

From: Rappuhn, Doug H., OSE [mailto:doug.rappuhn@state.nm.us]
Sent: Tuesday, January 29, 2019 11:12 AM
To: Roger Peery; Musharrafieh, Ghassan R., OSE; Parekh, Kashyap, OSE
Subject: Re: [EXT] NuWater/L&K Ranch POO's

Hi Roger -

Kashyap may be tied-up with other work at the moment. Here was my response to him upon receipt of the artesian plan review request yesterday. I wasn't sure whether he had additional detail which would have addressed my questions, but your responses should help move the permits along should this information not already be on file with NMOSE-D2. Thanks.

Doug

From: Rappuhn, Doug H., OSE
Sent: Monday, January 28, 2019 12:18 PM
To: Parekh, Kashyap, OSE
Cc: Musharrafieh, Ghassan R., OSE; Morley, Andy V., OSE; Hernandez, Juan L., OSE
Subject: FW: RE: Request for OSE Hydrology review (Artesian Well Plan of Operations)
Importance: High

Hi Kashyap –

Friday's e-mail correspondence between Roger Peery, you, and me suggested there may be more helpful detail available on this well project than what is offered in the artesian plans alone, but having only received the artesian plans, these are my review comments, applicable to each of the 4 plans tendered:

- Detailed diagram of the proposed artesian well shall be attached to the plan (specified near beginning of form). It would be helpful to better see the final disposition of the 7" string of pipe (Will it be hung from the top of 10.75" OD casing or well head as a liner, or secured in some other fashion?).
- Item IV.8)h): A little more detail on the centralizers would be good. Are these the slightly-flexed steel slats that are welded to casing at each end of the slat? How many are attached at the location of centralization?
- Item IV.8)p): Volume of annular cement reported in Item IV.8)n) is a correct theoretical cement volume for intervals stated on the individual plans, rather than a volume 30% in excess of theoretical as suggested in this response.
- Item IV.8)p): It appears labeling of lead and tail cement mixes are backwards. If not, additional discussion is warranted.

Please let me know if you need assistance with writing conditions for these permits, and whether I will need to sign the approved artesian plans once corrections are noted. I leave mid-day today for overnight field work, and may not be back in the office until Wednesday.

From: Roger Peery <rpeery@shomaker.com>

Sent: Monday, January 28, 2019 4:00 PM

To: Rappuhn, Doug H., OSE; Musharrafieh, Ghassan R., OSE; Parekh, Kashyap, OSE

Subject: [EXT] NuWater/L&K Ranch POO's

Good afternoon.

Thanks for the communication last week.

I'm still wondering about the status of the POO's with respect to the review process and estimated review time.

Any assistance or update you can provide is greatly appreciated.

Roger

Roger Peery, CPG, PG
CEO/Principal Hydrogeologist
JOHN SHOMAKER & ASSOCIATES, INC.
Water-Resource and Environmental Consultants
2611 Broadbent Parkway NE
Albuquerque, New Mexico 87107
505-345-3407 office
505-318-3822 direct
505-345-9920 FAX
505-280-1994 cell
www.shomaker.com

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<CP1746POD5-Expl and POO 14Jan2019.pdf>

<L14552POD3-Expl App and POO 14Jan2019.pdf>

<L14552POD11-Expl App and POO 14Jan2019.pdf>

<L14552POD12-Expl App and POO 14Jan2019.pdf>

Romero, Alan

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Friday, April 12, 2024 8:08 AM
To: Romero, Alan
Cc: Ruth, Amy; Garcia, Amanda; Wells, Shelly, EMNRD; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD
Subject: RE: XTO- Extension Request- Perla Verde 31 ST Battery- Incident Number NAPP2335243694

External Email - Think Before You Click

Actually, the correct Incident Number is: Incident **#NAPP2335243694**

Alan,

Your request for a 90-day extension to **July 11th, 2024**, is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | robert.hamlet@state.nm.us

<http://www.emnrd.state.nm.us/OCD/>



From: Hamlet, Robert, EMNRD
Sent: Friday, April 12, 2024 7:49 AM
To: Romero, Alan <alan.romero1@exxonmobil.com>
Cc: Ruth, Amy <amy.ruth@exxonmobil.com>; Garcia, Amanda <amanda.garcia@exxonmobil.com>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: XTO- Extension Request- Perla Verde 31 ST Battery- Incident Number NAPP2335243694

The extension should be requested before the Remediation Closure Report deadline. I appreciate your honesty in letting us know what happened. I'm assuming that you are still requesting the extension. In the future, please make sure the extension is requested before the deadline arrives.

RE: Incident **#NCE2003752717**

Alan,

Your request for a 90-day extension to **July 11th, 2024**, is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Romero, Alan <alan.romero1@exxonmobil.com>
Sent: Thursday, April 11, 2024 1:43 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Ruth, Amy <amy.ruth@exxonmobil.com>; Garcia, Amanda <amanda.garcia@exxonmobil.com>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Subject: [EXTERNAL] XTO- Extension Request- Perla Verde 31 ST Battery- Incident Number NAPP2335243694

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

Good Afternoon Robert,

I had a draft sitting in my email from March 8 to request an extension for this incident once we received samples back as the closure was due March 11. However, I never sent the email and am now ready to submit the closure. Would you be able to offer an guidance as to what I can do?

Thank you sir.

XTO is requesting an extension for the current deadline for submitting a remediation work plan required in 19.15.29.12.B.(1) NMAC at the Perla Verde 31 ST Battery (Incident Number NAPP2335243694). A produced water release was discovered on December 12, 2023, and occurred within a lined containment, all fluids were recovered. A liner inspection was attempted, following notification, however construction on the battery was ongoing and the liner inspection could not be completed. Following the completion of ongoing construction at the Site, delineation activities were completed as soon as the area was accessible. Laboratory analytical results from the delineation activities were received March 8, 2024. In order to finalize a review of laboratory analytical results and draft a Closure Report or Remediation Work Plan, XTO requests a 30-day extension until July 10, 2024.

Alan Romero
Environmental Advisor
Permian BU – New Mexico-Delaware
ExxonMobil Upstream Oil & Gas Unconventional
Direct: (575) 988-3383
alan.romero1@exxonmobil.com

XTO ENERGY, INC. – An ExxonMobil Subsidiary

3104 E. Greene Street | Carlsbad, New Mexico 88220





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APPENDIX B


Lithologic Soil Sampling Logs


					Sample Name: BH01		Date: 2/29/2024	
					Site Name: Perla Verde 31 ST Battery			
					Incident Number: NAPP2335243694			
					Job Number: 03C1558314			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: M. O'Dell		Method: Hand Auger	
Coordinates: 32.613481, -103.496208					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<162.4	0	N	BH01	0.5	0	CCHE	CCHE. Pad material.
D	<162.4	0	N	BH01A	1	1		
Total Depth at 1' bgs. (Auger refusal)								

					Sample Name: BH02		Date: 2/29/2024	
					Site Name: Perla Verde 31 ST Battery			
					Incident Number: NAPP2335243694			
					Job Number: 03C1558314			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: M. O'Dell		Method: Hand Auger	
Coordinates: 32.613524, -103.496111					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<162.4	0	N	BH02	0.5	0	CCHE	CCHE. Pad material.
D	<162.4	0	N	BH02A	1	1		
Total Depth at 1' bgs. (Auger refusal)								

					Sample Name: BH03		Date: 2/29/2024	
					Site Name: Perla Verde 31 ST Battery			
					Incident Number: NAPP2335243694			
					Job Number: 03C1558314			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: M. O'Dell		Method: Hand Auger	
Coordinates: 32.613458, -103.496110					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<162.4	0	N	BH03	0.5	0	CCHE	CCHE. Pad material.
D	<162.4	0	N	BH03A	1	1		
Total Depth at 1' bgs. (Auger refusal)								

					Sample Name: BH04		Date: 2/29/2024	
					Site Name: Perla Verde 31 ST Battery			
					Incident Number: NAPP2335243694			
					Job Number: 03C1558314			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: M. O'Dell		Method: Hand Auger	
Coordinates: 32.613522, -103.495979					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<162.4	0	N	BH04	0.5	0	CCHE	CCHE. Pad material.
D	<162.4	0	N	BH04A	1	1		
Total Depth at 1' bgs. (Auger refusal)								

					Sample Name: BH05		Date: 2/29/2024	
					Site Name: Perla Verde 31 ST Battery			
					Incident Number: NAPP2335243694			
					Job Number: 03C1558314			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: M. O'Dell		Method: Hand Auger	
Coordinates: 32.613458, -103.495975					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<162.4	0	N	BH05	0.5	0	CCHE	CCHE. Pad material.
D	<162.4	0	N	BH05A	1	1		
Total Depth at 1' bgs. (Auger refusal)								

					Sample Name: BH06		Date: 2/29/2024	
					Site Name: Perla Verde 31 ST Battery			
					Incident Number: NAPP2335243694			
					Job Number: 03C1558314			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: M. O'Dell		Method: Hand Auger	
Coordinates: 32.613490, -103.4959882					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<162.4	0	N	BH06	0.5	0	CCHE	CCHE. Pad material.
D	<162.4	0	N	BH06A	1	1		
Total Depth at 1' bgs. (Auger refusal)								



APPENDIX C

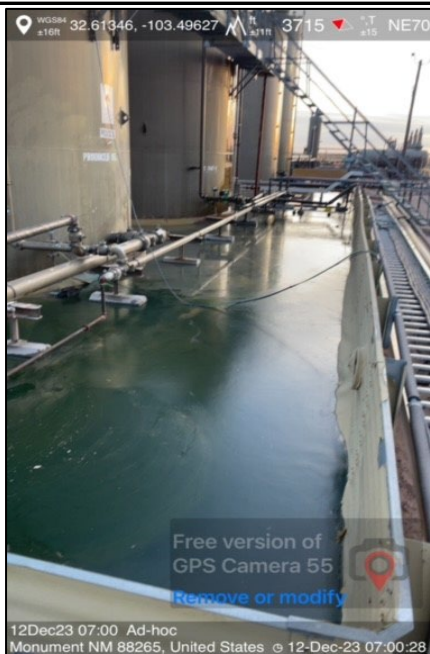
Photographic Log

**Photographic Log**

XTO Energy, Inc

Perla Verde 31 ST Battery

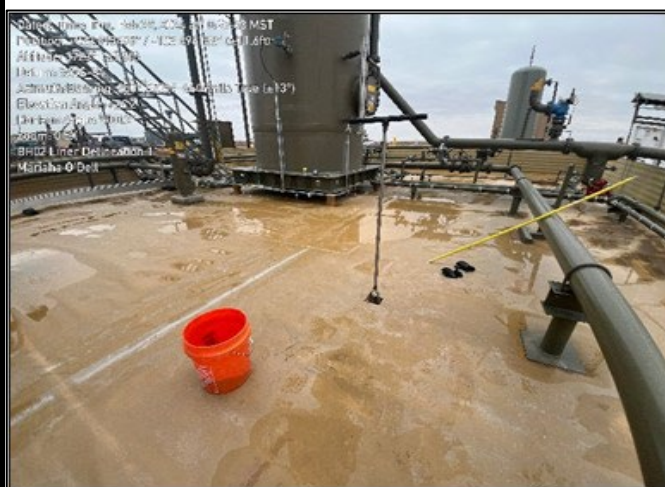
Incident Number NAPP2335243694



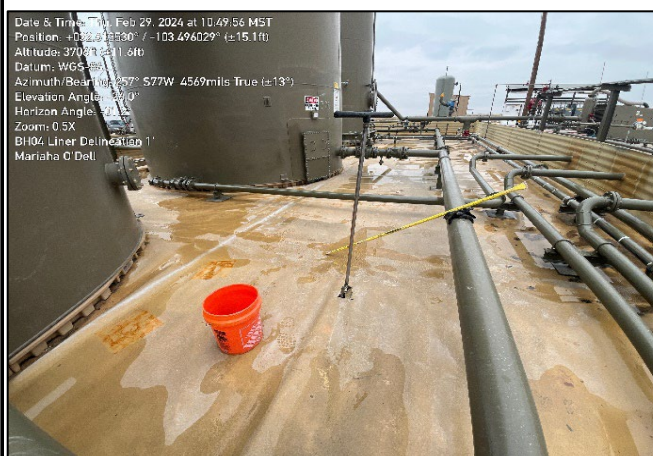
Photograph: 1 Date: 12/12/2023
Description: Lined containment following release.
View: East



Photograph: 2 Date: 2/15/2024
Description: Site assessment, lined containment.
View: West



Photograph: 3 Date: 2/29/2024
Description: Liner delineation activities, BH02.
View: Southwest



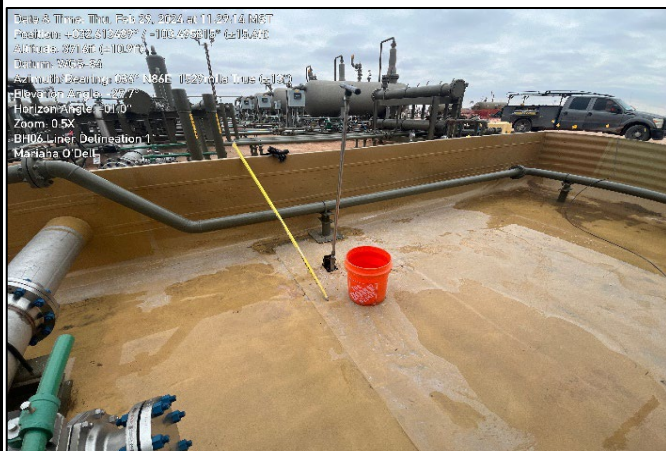
Photograph: 4 Date: 2/29/2024
Description: Liner delineation activities, BH04.
View: West

**Photographic Log**

XTO Energy, Inc

Perla Verde 31 ST Battery

Incident Number NAPP2335243694



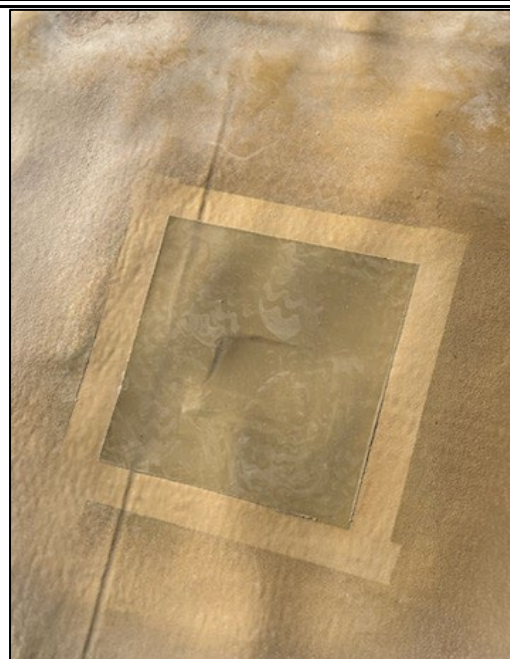
Photograph: 5 Date: 2/29/2024
 Description: Liner delineation activities, BH06.
 View: Northeast



Photograph: 6 Date: 3/1/2024
 Description: Patched liner.
 View: N/A



Photograph: 7 Date: 3/1/2024
 Description: Patched liner.
 View: N/A



Photograph: 8 Date: 3/1/2024
 Description: Patched liner.
 View: N/A



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/26/2024 3:24:05 PM

JOB DESCRIPTION

PERLA VERDE 31 ST BATTERY
03C1558314

JOB NUMBER

890-6204-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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
2/26/2024 3:24:05 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Laboratory Job ID: 890-6204-1
SDG: 03C1558314

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Definitions/Glossary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1

Job ID: 890-6204-1

Eurofins Carlsbad

Job Narrative 890-6204-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/16/2024 1:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS 01 (890-6204-1), SS 02 (890-6204-2), SS 03 (890-6204-3) and SS 04 (890-6204-4).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS 03 (890-6204-3) and SS 04 (890-6204-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73795 and analytical batch 880-73826 was outside the upper control limits.

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73608 and analytical batch 880-73693 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: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Client Sample ID: SS 01

Lab Sample ID: 890-6204-1

Date Collected: 02/15/24 13:55

Matrix: Solid

Date Received: 02/16/24 13:00

Sample Depth: .5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 07:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 07:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 07:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/24 14:04	02/24/24 07:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 07:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/21/24 14:04	02/24/24 07:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			02/21/24 14:04	02/24/24 07:18	1
1,4-Difluorobenzene (Surr)	102		70 - 130			02/21/24 14:04	02/24/24 07:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/24/24 07:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/20/24 18:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/19/24 15:17	02/20/24 18:27	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/19/24 15:17	02/20/24 18:27	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/19/24 15:17	02/20/24 18:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			02/19/24 15:17	02/20/24 18:27	1
o-Terphenyl	91		70 - 130			02/19/24 15:17	02/20/24 18:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	291		5.02	mg/Kg			02/21/24 03:15	1

Client Sample ID: SS 02

Lab Sample ID: 890-6204-2

Date Collected: 02/15/24 14:05

Matrix: Solid

Date Received: 02/16/24 13:00

Sample Depth: .5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/21/24 14:04	02/24/24 07:39	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/21/24 14:04	02/24/24 07:39	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/21/24 14:04	02/24/24 07:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/21/24 14:04	02/24/24 07:39	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/21/24 14:04	02/24/24 07:39	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/21/24 14:04	02/24/24 07:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			02/21/24 14:04	02/24/24 07:39	1

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Client Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Client Sample ID: SS 02

Lab Sample ID: 890-6204-2

Date Collected: 02/15/24 14:05

Matrix: Solid

Date Received: 02/16/24 13:00

Sample Depth: .5

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	110		70 - 130	02/21/24 14:04	02/24/24 07:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/24/24 07:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/20/24 18:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/19/24 15:17	02/20/24 18:51	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/19/24 15:17	02/20/24 18:51	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/19/24 15:17	02/20/24 18:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/19/24 15:17	02/20/24 18:51	1
o-Terphenyl	81		70 - 130			02/19/24 15:17	02/20/24 18:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	239		5.04	mg/Kg			02/20/24 18:56	1

Client Sample ID: SS 03

Lab Sample ID: 890-6204-3

Date Collected: 02/15/24 14:15

Matrix: Solid

Date Received: 02/16/24 13:00

Sample Depth: .5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/21/24 14:04	02/24/24 07:59	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/21/24 14:04	02/24/24 07:59	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/21/24 14:04	02/24/24 07:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/21/24 14:04	02/24/24 07:59	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/21/24 14:04	02/24/24 07:59	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/21/24 14:04	02/24/24 07:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	165	S1+	70 - 130			02/21/24 14:04	02/24/24 07:59	1
1,4-Difluorobenzene (Surr)	119		70 - 130			02/21/24 14:04	02/24/24 07:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/24/24 07:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/20/24 19:15	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Client Sample ID: SS 03

Lab Sample ID: 890-6204-3

Date Collected: 02/15/24 14:15

Matrix: Solid

Date Received: 02/16/24 13:00

Sample Depth: .5

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/19/24 15:17	02/20/24 19:15	1	
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/19/24 15:17	02/20/24 19:15	1	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/19/24 15:17	02/20/24 19:15	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	114		70 - 130			02/19/24 15:17	02/20/24 19:15	1	
o-Terphenyl	100		70 - 130			02/19/24 15:17	02/20/24 19:15	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	176		5.02	mg/Kg			02/20/24 19:03	1	

Client Sample ID: SS 04

Lab Sample ID: 890-6204-4

Date Collected: 02/15/24 14:20

Matrix: Solid

Date Received: 02/16/24 13:00

Sample Depth: .5

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00202	U	0.00202	mg/Kg		02/21/24 14:04	02/24/24 08:20	1	
Toluene	<0.00202	U	0.00202	mg/Kg		02/21/24 14:04	02/24/24 08:20	1	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/21/24 14:04	02/24/24 08:20	1	
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/21/24 14:04	02/24/24 08:20	1	
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/21/24 14:04	02/24/24 08:20	1	
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/21/24 14:04	02/24/24 08:20	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	157	S1+	70 - 130			02/21/24 14:04	02/24/24 08:20	1	
1,4-Difluorobenzene (Surr)	83		70 - 130			02/21/24 14:04	02/24/24 08:20	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/24/24 08:20	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.5	U	50.5	mg/Kg			02/20/24 19:40	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/19/24 15:17	02/20/24 19:40	1	
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/19/24 15:17	02/20/24 19:40	1	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/19/24 15:17	02/20/24 19:40	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	118		70 - 130			02/19/24 15:17	02/20/24 19:40	1	
o-Terphenyl	95		70 - 130			02/19/24 15:17	02/20/24 19:40	1	

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Client Sample ID: SS 04
Date Collected: 02/15/24 14:20
Date Received: 02/16/24 13:00
Sample Depth: .5

Lab Sample ID: 890-6204-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	170		5.01	mg/Kg			02/20/24 19:09	1	

Surrogate Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-6201-A-1-C MS	Matrix Spike	129	104
890-6201-A-1-D MSD	Matrix Spike Duplicate	113	97
890-6204-1	SS 01	88	102
890-6204-2	SS 02	113	110
890-6204-3	SS 03	165 S1+	119
890-6204-4	SS 04	157 S1+	83
LCS 880-73795/1-A	Lab Control Sample	104	99
LCSD 880-73795/2-A	Lab Control Sample Dup	108	103
MB 880-73777/5-A	Method Blank	124	123
MB 880-73795/5-A	Method Blank	135 S1+	126
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6198-A-1-D MS	Matrix Spike	119	98
890-6198-A-1-E MSD	Matrix Spike Duplicate	117	91
890-6204-1	SS 01	113	91
890-6204-2	SS 02	98	81
890-6204-3	SS 03	114	100
890-6204-4	SS 04	118	95
LCS 880-73547/2-A	Lab Control Sample	122	129
LCSD 880-73547/3-A	Lab Control Sample Dup	110	108
MB 880-73547/1-A	Method Blank	130	117
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73777/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73826						Prep Batch: 73777		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/21/24 12:24	02/23/24 14:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/24 12:24	02/23/24 14:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/24 12:24	02/23/24 14:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/24 12:24	02/23/24 14:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/24 12:24	02/23/24 14:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/21/24 12:24	02/23/24 14:14	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			02/21/24 12:24	02/23/24 14:14	1
1,4-Difluorobenzene (Surr)	123		70 - 130			02/21/24 12:24	02/23/24 14:14	1

Lab Sample ID: MB 880-73795/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73826						Prep Batch: 73795		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 01:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 01:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 01:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/24 14:04	02/24/24 01:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/24 14:04	02/24/24 01:55	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/21/24 14:04	02/24/24 01:55	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130			02/21/24 14:04	02/24/24 01:55	1
1,4-Difluorobenzene (Surr)	126		70 - 130			02/21/24 14:04	02/24/24 01:55	1

Lab Sample ID: LCS 880-73795/1-A						Client Sample ID: Lab Control Sample		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73826						Prep Batch: 73795		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.1249		mg/Kg		125	70 - 130	
Toluene	0.100	0.1028		mg/Kg		103	70 - 130	
Ethylbenzene	0.100	0.1129		mg/Kg		113	70 - 130	
m-Xylene & p-Xylene	0.200	0.2038		mg/Kg		102	70 - 130	
o-Xylene	0.100	0.1059		mg/Kg		106	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	104		70 - 130					
1,4-Difluorobenzene (Surr)	99		70 - 130					

Lab Sample ID: LCSD 880-73795/2-A						Client Sample ID: Lab Control Sample Dup				
Matrix: Solid						Prep Type: Total/NA				
Analysis Batch: 73826						Prep Batch: 73795				
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Benzene	0.100	0.1249		mg/Kg		125	70 - 130	0	35	

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QC Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

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

Lab Sample ID: LCSD 880-73795/2-A

Matrix: Solid

Analysis Batch: 73826

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73795

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Toluene	0.100	0.1061		mg/Kg		106	70 - 130		3	35
Ethylbenzene	0.100	0.1195		mg/Kg		119	70 - 130		6	35
m-Xylene & p-Xylene	0.200	0.2261		mg/Kg		113	70 - 130		10	35
o-Xylene	0.100	0.1091		mg/Kg		109	70 - 130		3	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-6201-A-1-C MS

Matrix: Solid

Analysis Batch: 73826

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 73795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Benzene	<0.00199	U	0.101	0.09997		mg/Kg		99	70 - 130	
Toluene	<0.00199	U	0.101	0.08753		mg/Kg		87	70 - 130	
Ethylbenzene	<0.00199	U	0.101	0.1009		mg/Kg		100	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2151		mg/Kg		107	70 - 130	
o-Xylene	<0.00199	U	0.101	0.1058		mg/Kg		104	70 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-6201-A-1-D MSD

Matrix: Solid

Analysis Batch: 73826

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 73795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits			
Benzene	<0.00199	U	0.100	0.1010		mg/Kg		101	70 - 130		1	35
Toluene	<0.00199	U	0.100	0.08910		mg/Kg		89	70 - 130		2	35
Ethylbenzene	<0.00199	U	0.100	0.09544		mg/Kg		95	70 - 130		6	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2031		mg/Kg		102	70 - 130		6	35
o-Xylene	<0.00199	U	0.100	0.09952		mg/Kg		99	70 - 130		6	35

Surrogate	MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-73547/1-A

Matrix: Solid

Analysis Batch: 73598

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73547

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/19/24 15:17	02/20/24 08:02	1

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QC Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

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

Lab Sample ID: MB 880-73547/1-A
Matrix: Solid
Analysis Batch: 73598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73547

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/19/24 15:17	02/20/24 08:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/19/24 15:17	02/20/24 08:02	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	130		70 - 130			02/19/24 15:17	02/20/24 08:02	1
o-Terphenyl	117		70 - 130			02/19/24 15:17	02/20/24 08:02	1

Lab Sample ID: LCS 880-73547/2-A
Matrix: Solid
Analysis Batch: 73598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73547

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits	
		Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	1000	1030		mg/Kg		103	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1035		mg/Kg		104	70 - 130	
Surrogate		LCS	LCS			%Recovery	Qualifier	Limits
		%Recovery						
1-Chlorooctane		122						70 - 130
o-Terphenyl		129						70 - 130

Lab Sample ID: LCSD 880-73547/3-A
Matrix: Solid
Analysis Batch: 73598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73547

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	1000	955.9		mg/Kg		96	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	950.5		mg/Kg		95	70 - 130	9	20
Surrogate		LCSD	LCSD			%Recovery	Qualifier	Limits	
		%Recovery							
1-Chlorooctane		110						70 - 130	
o-Terphenyl		108						70 - 130	

Lab Sample ID: 890-6198-A-1-D MS
Matrix: Solid
Analysis Batch: 73598

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73547

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier		Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	1010	1085		mg/Kg		106	70 - 130	
Diesel Range Organics (Over C10-C28)	60.4		1010	1058		mg/Kg		99	70 - 130	
Surrogate	MS	MS	Limits					%Recovery	Qualifier	
	%Recovery									
1-Chlorooctane	119		70 - 130							
o-Terphenyl	98		70 - 130							

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QC Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

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

Lab Sample ID: 890-6198-A-1-E MSD

Matrix: Solid

Analysis Batch: 73598

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 73547

	Sample	Sample	Spike	MSD	MSD			%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	1010	1102		mg/Kg		107	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	60.4		1010	997.3		mg/Kg		93	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	91		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73544/1-A

Matrix: Solid

Analysis Batch: 73636

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			02/20/24 16:00	1

Lab Sample ID: LCS 880-73544/2-A

Matrix: Solid

Analysis Batch: 73636

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	260.4		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-73544/3-A

Matrix: Solid

Analysis Batch: 73636

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Chloride			250	263.2		mg/Kg		105	90 - 110	1	20

Lab Sample ID: 880-39530-A-3-C MS

Matrix: Solid

Analysis Batch: 73636

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits			
Chloride	49.3		251	306.2		mg/Ka		102	90 - 110		

Lab Sample ID: 880-39530-A-3-D MSD

Matrix: Solid

Analysis Batch: 73636

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	49.3		251	306.2		mg/Kg		102	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-73608/1-A Matrix: Solid Analysis Batch: 73693										Client Sample ID: Method Blank Prep Type: Soluble	
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	<5.00	U	5.00	mg/Kg			02/20/24 23:53	1			

Lab Sample ID: LCS 880-73608/2-A Matrix: Solid Analysis Batch: 73693										Client Sample ID: Lab Control Sample Prep Type: Soluble	
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251.7		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-73608/3-A Matrix: Solid Analysis Batch: 73693										Client Sample ID: Lab Control Sample Dup Prep Type: Soluble	
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	258.8		mg/Kg		104	90 - 110	3	20

Lab Sample ID: 880-39529-A-49-B MS Matrix: Solid Analysis Batch: 73693										Client Sample ID: Matrix Spike Prep Type: Soluble	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	728	F1	248	927.3	F1	mg/Kg		80	90 - 110		

Lab Sample ID: 880-39529-A-49-C MSD Matrix: Solid Analysis Batch: 73693										Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	728	F1	248	939.7	F1	mg/Kg		85	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

GC VOA

Prep Batch: 73777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73777/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Total/NA	Solid	5035	
890-6204-2	SS 02	Total/NA	Solid	5035	
890-6204-3	SS 03	Total/NA	Solid	5035	
890-6204-4	SS 04	Total/NA	Solid	5035	
MB 880-73795/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73795/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73795/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6201-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-6201-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Total/NA	Solid	8021B	73795
890-6204-2	SS 02	Total/NA	Solid	8021B	73795
890-6204-3	SS 03	Total/NA	Solid	8021B	73795
890-6204-4	SS 04	Total/NA	Solid	8021B	73795
MB 880-73777/5-A	Method Blank	Total/NA	Solid	8021B	73777
MB 880-73795/5-A	Method Blank	Total/NA	Solid	8021B	73795
LCS 880-73795/1-A	Lab Control Sample	Total/NA	Solid	8021B	73795
LCSD 880-73795/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73795
890-6201-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	73795
890-6201-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73795

Analysis Batch: 74092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Total/NA	Solid	Total BTEX	
890-6204-2	SS 02	Total/NA	Solid	Total BTEX	
890-6204-3	SS 03	Total/NA	Solid	Total BTEX	
890-6204-4	SS 04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Total/NA	Solid	8015NM Prep	
890-6204-2	SS 02	Total/NA	Solid	8015NM Prep	
890-6204-3	SS 03	Total/NA	Solid	8015NM Prep	
890-6204-4	SS 04	Total/NA	Solid	8015NM Prep	
MB 880-73547/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73547/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73547/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6198-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6198-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Total/NA	Solid	8015B NM	73547

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QC Association Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

GC Semi VOA (Continued)

Analysis Batch: 73598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-2	SS 02	Total/NA	Solid	8015B NM	73547
890-6204-3	SS 03	Total/NA	Solid	8015B NM	73547
890-6204-4	SS 04	Total/NA	Solid	8015B NM	73547
MB 880-73547/1-A	Method Blank	Total/NA	Solid	8015B NM	73547
LCS 880-73547/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73547
LCSD 880-73547/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73547
890-6198-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73547
890-6198-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73547

Analysis Batch: 73763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Total/NA	Solid	8015 NM	
890-6204-2	SS 02	Total/NA	Solid	8015 NM	
890-6204-3	SS 03	Total/NA	Solid	8015 NM	
890-6204-4	SS 04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-2	SS 02	Soluble	Solid	DI Leach	
890-6204-3	SS 03	Soluble	Solid	DI Leach	
890-6204-4	SS 04	Soluble	Solid	DI Leach	
MB 880-73544/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73544/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73544/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39530-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39530-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 73608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Soluble	Solid	DI Leach	
MB 880-73608/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73608/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73608/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39529-A-49-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39529-A-49-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-2	SS 02	Soluble	Solid	300.0	73544
890-6204-3	SS 03	Soluble	Solid	300.0	73544
890-6204-4	SS 04	Soluble	Solid	300.0	73544
MB 880-73544/1-A	Method Blank	Soluble	Solid	300.0	73544
LCS 880-73544/2-A	Lab Control Sample	Soluble	Solid	300.0	73544
LCSD 880-73544/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73544
880-39530-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	73544
880-39530-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73544

QC Association Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

HPLC/IC

Analysis Batch: 73693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6204-1	SS 01	Soluble	Solid	300.0	73608
MB 880-73608/1-A	Method Blank	Soluble	Solid	300.0	73608
LCS 880-73608/2-A	Lab Control Sample	Soluble	Solid	300.0	73608
LCSD 880-73608/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73608
880-39529-A-49-B MS	Matrix Spike	Soluble	Solid	300.0	73608
880-39529-A-49-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73608

Lab Chronicle

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Client Sample ID: SS 01

Date Collected: 02/15/24 13:55

Date Received: 02/16/24 13:00

Lab Sample ID: 890-6204-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73795	02/21/24 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73826	02/24/24 07:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74092	02/24/24 07:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			73763	02/20/24 18:27	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 18:27	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73608	02/20/24 08:04	SA	EET MID
Soluble	Analysis	300.0		1			73693	02/21/24 03:15	CH	EET MID

Client Sample ID: SS 02

Date Collected: 02/15/24 14:05

Date Received: 02/16/24 13:00

Lab Sample ID: 890-6204-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	73795	02/21/24 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73826	02/24/24 07:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74092	02/24/24 07:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			73763	02/20/24 18:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 18:51	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73544	02/19/24 14:31	SA	EET MID
Soluble	Analysis	300.0		1			73636	02/20/24 18:56	CH	EET MID

Client Sample ID: SS 03

Date Collected: 02/15/24 14:15

Date Received: 02/16/24 13:00

Lab Sample ID: 890-6204-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73795	02/21/24 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73826	02/24/24 07:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74092	02/24/24 07:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			73763	02/20/24 19:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 19:15	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73544	02/19/24 14:31	SA	EET MID
Soluble	Analysis	300.0		1			73636	02/20/24 19:03	CH	EET MID

Client Sample ID: SS 04

Date Collected: 02/15/24 14:20

Date Received: 02/16/24 13:00

Lab Sample ID: 890-6204-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73795	02/21/24 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73826	02/24/24 08:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74092	02/24/24 08:20	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Client Sample ID: SS 04

Date Collected: 02/15/24 14:20

Date Received: 02/16/24 13:00

Lab Sample ID: 890-6204-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			73763	02/20/24 19:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73547	02/19/24 15:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73598	02/20/24 19:40	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73544	02/19/24 14:31	SA	EET MID
Soluble	Analysis	300.0		1			73636	02/20/24 19:09	CH	EET MID

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- 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

Sample Summary

Client: Ensolum
Project/Site: PERLA VERDE 31 ST BATTERY

Job ID: 890-6204-1
SDG: 03C1558314

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6204-1	SS 01	Solid	02/15/24 13:55	02/16/24 13:00	.5
890-6204-2	SS 02	Solid	02/15/24 14:05	02/16/24 13:00	.5
890-6204-3	SS 03	Solid	02/15/24 14:15	02/16/24 13:00	.5
890-6204-4	SS 04	Solid	02/15/24 14:20	02/16/24 13:00	.5

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6204-1

SDG Number: 03C1558314

Login Number: 6204
List Number: 1
Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6204-1
SDG Number: 03C1558314

Login Number: 6204
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/19/24 08:27 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 3/7/2024 6:18:25 PM

JOB DESCRIPTION

Perla Verde 31 ST Battery
03C1558314

JOB NUMBER

890-6289-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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



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3/7/2024 6:18:25 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Laboratory Job ID: 890-6289-1
SDG: 03C1558314

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Definitions/Glossary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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.
¤	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: Ensolum
Project: Perla Verde 31 ST Battery

Job ID: 890-6289-1

Job ID: 890-6289-1

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Job Narrative
890-6289-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/29/2024 2:27 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 2.4°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH 01 (890-6289-1), BH 01A (890-6289-2), BH 02 (890-6289-3), BH 02A (890-6289-4), BH 04 (890-6289-5), BH 04A (890-6289-6), BH 06 (890-6289-7), BH 06A (890-6289-8), BH 05 (890-6289-9), BH 05A (890-6289-10), BH 03 (890-6289-11) and BH 03A (890-6289-12).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-74638 and analytical batch 880-74555 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: <The continuing calibration verification (CCV) associated with batch 880-74555 recovered under the lower control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH 04 (890-6289-5), BH 05 (890-6289-9) and BH 03A (890-6289-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-74561 and analytical batch 880-74555 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.

Method 8021B: The method blank for preparation batch 880-74561 and 880-74638 and analytical batch 880-74555 contained Benzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-74822 and analytical batch 880-74778 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH 01 (890-6289-1), BH 02 (890-6289-3), BH 05A (890-6289-10), BH 03 (890-6289-11) and BH 03A (890-6289-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-74822/2-A). Evidence of matrix interferences is not obvious.

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Case Narrative

Client: Ensolum
Project: Perla Verde 31 ST Battery

Job ID: 890-6289-1

Job ID: 890-6289-1 (Continued) **Eurofins Carlsbad**

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: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 01
Date Collected: 02/29/24 09:40
Date Received: 02/29/24 14:27
Sample Depth: 0.5'

Lab Sample ID: 890-6289-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:16	1	
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:16	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:16	1	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/04/24 14:00	03/04/24 17:16	1	
o-Xylene	0.00296		0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:16	1	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/04/24 14:00	03/04/24 17:16	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		70 - 130			03/04/24 14:00	03/04/24 17:16	1	
1,4-Difluorobenzene (Surr)	81		70 - 130			03/04/24 14:00	03/04/24 17:16	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00399	U	0.00399	mg/Kg			03/04/24 17:16	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	57.4		50.1	mg/Kg			03/05/24 22:12	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		03/05/24 14:08	03/05/24 22:12	1	
Diesel Range Organics (Over C10-C28)	57.4		50.1	mg/Kg		03/05/24 14:08	03/05/24 22:12	1	
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		03/05/24 14:08	03/05/24 22:12	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	136	S1+	70 - 130			03/05/24 14:08	03/05/24 22:12	1	
o-Terphenyl	151	S1+	70 - 130			03/05/24 14:08	03/05/24 22:12	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	79.9		4.95	mg/Kg			03/07/24 14:40	1	

Client Sample ID: BH 01A
Date Collected: 02/29/24 09:45
Date Received: 02/29/24 14:27
Sample Depth: 1'

Lab Sample ID: 890-6289-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 17:36	1	
Toluene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 17:36	1	
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 17:36	1	
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		03/04/24 14:00	03/04/24 17:36	1	
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 17:36	1	
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/04/24 14:00	03/04/24 17:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	95		70 - 130			03/04/24 14:00	03/04/24 17:36	1	

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 01A

Lab Sample ID: 890-6289-2

Date Collected: 02/29/24 09:45

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	76		70 - 130	03/04/24 14:00	03/04/24 17:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/04/24 17:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.0		50.5	mg/Kg			03/05/24 23:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/05/24 23:19	1
Diesel Range Organics (Over C10-C28)	51.0		50.5	mg/Kg		03/05/24 14:08	03/05/24 23:19	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/05/24 23:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			03/05/24 14:08	03/05/24 23:19	1
o-Terphenyl	120		70 - 130			03/05/24 14:08	03/05/24 23:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72.9		5.04	mg/Kg			03/07/24 14:47	1

Client Sample ID: BH 02

Lab Sample ID: 890-6289-3

Date Collected: 02/29/24 10:10

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 0.5'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 14:00	03/04/24 17:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 17:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 14:00	03/04/24 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	03/04/24 14:00	03/04/24 17:57	1
1,4-Difluorobenzene (Surr)	79		70 - 130	03/04/24 14:00	03/04/24 17:57	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			03/04/24 17:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			03/05/24 23:42	1

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 02
Date Collected: 02/29/24 10:10
Date Received: 02/29/24 14:27
Sample Depth: 0.5'

Lab Sample ID: 890-6289-3
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		03/05/24 14:08	03/05/24 23:42	1	
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		03/05/24 14:08	03/05/24 23:42	1	
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		03/05/24 14:08	03/05/24 23:42	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	121		70 - 130			03/05/24 14:08	03/05/24 23:42	1	
o-Terphenyl	134	S1+	70 - 130			03/05/24 14:08	03/05/24 23:42	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	185		5.02	mg/Kg			03/07/24 14:55	1	

Client Sample ID: BH 02A
Date Collected: 02/29/24 10:15
Date Received: 02/29/24 14:27
Sample Depth: 1'

Lab Sample ID: 890-6289-4
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 18:17	1	
Toluene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 18:17	1	
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 18:17	1	
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/04/24 14:00	03/04/24 18:17	1	
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:00	03/04/24 18:17	1	
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/04/24 14:00	03/04/24 18:17	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	94		70 - 130			03/04/24 14:00	03/04/24 18:17	1	
1,4-Difluorobenzene (Surr)	74		70 - 130			03/04/24 14:00	03/04/24 18:17	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00396	U	0.00396	mg/Kg			03/04/24 18:17	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			03/06/24 00:04	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 00:04	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 00:04	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 00:04	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	95		70 - 130			03/05/24 14:08	03/06/24 00:04	1	
o-Terphenyl	107		70 - 130			03/05/24 14:08	03/06/24 00:04	1	

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 02A
Date Collected: 02/29/24 10:15
Date Received: 02/29/24 14:27
Sample Depth: 1'

Lab Sample ID: 890-6289-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	159		5.00	mg/Kg			03/07/24 15:03	1	

Client Sample ID: BH 04
Date Collected: 02/29/24 10:35
Date Received: 02/29/24 14:27
Sample Depth: 0.5'

Lab Sample ID: 890-6289-5
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:00	03/04/24 18:37	1	
Toluene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:00	03/04/24 18:37	1	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:00	03/04/24 18:37	1	
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/04/24 14:00	03/04/24 18:37	1	
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:00	03/04/24 18:37	1	
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/04/24 14:00	03/04/24 18:37	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	93		70 - 130			03/04/24 14:00	03/04/24 18:37	1	
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130			03/04/24 14:00	03/04/24 18:37	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/04/24 18:37	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			03/06/24 00:27	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 00:27	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 00:27	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 00:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	112		70 - 130			03/05/24 14:08	03/06/24 00:27	1	
o-Terphenyl	124		70 - 130			03/05/24 14:08	03/06/24 00:27	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	149		5.03	mg/Kg			03/07/24 15:11	1	

Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 04A

Lab Sample ID: 890-6289-6

Date Collected: 02/29/24 10:40

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:00	03/04/24 18:58	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:00	03/04/24 18:58	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:00	03/04/24 18:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/24 14:00	03/04/24 18:58	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:00	03/04/24 18:58	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/24 14:00	03/04/24 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	03/04/24 14:00	03/04/24 18:58	1
1,4-Difluorobenzene (Surr)	73		70 - 130	03/04/24 14:00	03/04/24 18:58	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/04/24 18:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			03/06/24 00:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/05/24 14:08	03/06/24 00:49	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/05/24 14:08	03/06/24 00:49	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/05/24 14:08	03/06/24 00:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	03/05/24 14:08	03/06/24 00:49	1
o-Terphenyl	127		70 - 130	03/05/24 14:08	03/06/24 00:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		5.00	mg/Kg			03/07/24 15:34	1

Client Sample ID: BH 06

Lab Sample ID: 890-6289-7

Date Collected: 02/29/24 11:15

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 0.5'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 19:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 19:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 19:18	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/04/24 14:00	03/04/24 19:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:00	03/04/24 19:18	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/04/24 14:00	03/04/24 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	03/04/24 14:00	03/04/24 19:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 06

Lab Sample ID: 890-6289-7

Date Collected: 02/29/24 11:15

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 0.5'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	73		70 - 130	03/04/24 14:00	03/04/24 19:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/04/24 19:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			03/06/24 01:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		03/05/24 14:08	03/06/24 01:11	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		03/05/24 14:08	03/06/24 01:11	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		03/05/24 14:08	03/06/24 01:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			03/05/24 14:08	03/06/24 01:11	1
o-Terphenyl	130		70 - 130			03/05/24 14:08	03/06/24 01:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		5.05	mg/Kg			03/07/24 15:42	1

Client Sample ID: BH 06A

Lab Sample ID: 890-6289-8

Date Collected: 02/29/24 11:20

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 04:50	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 04:50	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 04:50	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		03/04/24 13:12	03/05/24 04:50	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 04:50	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/04/24 13:12	03/05/24 04:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	03/04/24 13:12	03/05/24 04:50	1
1,4-Difluorobenzene (Surr)	77		70 - 130	03/04/24 13:12	03/05/24 04:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/05/24 04:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			03/06/24 01:34	1

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 06A

Lab Sample ID: 890-6289-8

Date Collected: 02/29/24 11:20

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		03/05/24 14:08	03/06/24 01:34	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		03/05/24 14:08	03/06/24 01:34	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		03/05/24 14:08	03/06/24 01:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			03/05/24 14:08	03/06/24 01:34	1
o-Terphenyl	125		70 - 130			03/05/24 14:08	03/06/24 01:34	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		5.04	mg/Kg			03/07/24 16:05	1

Client Sample ID: BH 05

Lab Sample ID: 890-6289-9

Date Collected: 02/29/24 11:35

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 0.5'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/05/24 05:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/05/24 05:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/05/24 05:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 13:12	03/05/24 05:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/05/24 05:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 13:12	03/05/24 05:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	58	S1-	70 - 130			03/04/24 13:12	03/05/24 05:11	1
1,4-Difluorobenzene (Surr)	92		70 - 130			03/04/24 13:12	03/05/24 05:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			03/05/24 05:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			03/06/24 01:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/06/24 01:56	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/06/24 01:56	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/06/24 01:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130			03/05/24 14:08	03/06/24 01:56	1
o-Terphenyl	128		70 - 130			03/05/24 14:08	03/06/24 01:56	1

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 05

Lab Sample ID: 890-6289-9

Date Collected: 02/29/24 11:35

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61.3		4.97	mg/Kg			03/07/24 16:13	1

Client Sample ID: BH 05A

Lab Sample ID: 890-6289-10

Date Collected: 02/29/24 11:40

Matrix: Solid

Date Received: 02/29/24 14:27

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 05:31	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 05:31	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 05:31	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		03/04/24 13:12	03/05/24 05:31	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 13:12	03/05/24 05:31	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/04/24 13:12	03/05/24 05:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130			03/04/24 13:12	03/05/24 05:31	1
1,4-Difluorobenzene (Surr)	79		70 - 130			03/04/24 13:12	03/05/24 05:31	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/05/24 05:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			03/06/24 02:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		03/05/24 14:08	03/06/24 02:18	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		03/05/24 14:08	03/06/24 02:18	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		03/05/24 14:08	03/06/24 02:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			03/05/24 14:08	03/06/24 02:18	1
o-Terphenyl	142	S1+	70 - 130			03/05/24 14:08	03/06/24 02:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.0		4.96	mg/Kg			03/07/24 16:21	1

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 03
Date Collected: 02/29/24 11:55
Date Received: 02/29/24 14:27
Sample Depth: 0.5'

Lab Sample ID: 890-6289-11
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 05:51	1	
Toluene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 05:51	1	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 05:51	1	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/24 13:12	03/05/24 05:51	1	
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 05:51	1	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/24 13:12	03/05/24 05:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	91		70 - 130			03/04/24 13:12	03/05/24 05:51	1	
1,4-Difluorobenzene (Surr)	80		70 - 130			03/04/24 13:12	03/05/24 05:51	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/05/24 05:51	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.8	U	49.8	mg/Kg			03/06/24 03:03	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/05/24 14:08	03/06/24 03:03	1	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/05/24 14:08	03/06/24 03:03	1	
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/05/24 14:08	03/06/24 03:03	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	136	S1+	70 - 130			03/05/24 14:08	03/06/24 03:03	1	
o-Terphenyl	145	S1+	70 - 130			03/05/24 14:08	03/06/24 03:03	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	174		4.99	mg/Kg			03/07/24 16:29	1	

Client Sample ID: BH 03A
Date Collected: 02/29/24 12:00
Date Received: 02/29/24 14:27
Sample Depth: 1'

Lab Sample ID: 890-6289-12
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 06:12	1	
Toluene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 06:12	1	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 06:12	1	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/24 13:12	03/05/24 06:12	1	
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/24 13:12	03/05/24 06:12	1	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/24 13:12	03/05/24 06:12	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130			03/04/24 13:12	03/05/24 06:12	1	

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Client Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 03A
Date Collected: 02/29/24 12:00
Date Received: 02/29/24 14:27
Sample Depth: 1'

Lab Sample ID: 890-6289-12
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)									
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,4-Difluorobenzene (Surr)	86		70 - 130			03/04/24 13:12	03/05/24 06:12	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/05/24 06:12	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			03/06/24 03:25	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 03:25	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 03:25	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 03:25	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	133	S1+	70 - 130			03/05/24 14:08	03/06/24 03:25	1	
o-Terphenyl	144	S1+	70 - 130			03/05/24 14:08	03/06/24 03:25	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	163		5.01	mg/Kg			03/07/24 16:36	1	

Surrogate Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
880-40092-A-1-D MS	Matrix Spike	102	103				
880-40092-A-1-E MSD	Matrix Spike Duplicate	122	105				
890-6289-1	BH 01	86	81				
890-6289-2	BH 01A	95	76				
890-6289-3	BH 02	97	79				
890-6289-4	BH 02A	94	74				
890-6289-5	BH 04	93	68 S1-				
890-6289-6	BH 04A	92	73				
890-6289-7	BH 06	94	73				
890-6289-8	BH 06A	85	77				
890-6289-9	BH 05	58 S1-	92				
890-6289-10	BH 05A	80	79				
890-6289-11	BH 03	91	80				
890-6289-12	BH 03A	69 S1-	86				
890-6297-A-21-D MS	Matrix Spike	114	107				
890-6297-A-21-E MSD	Matrix Spike Duplicate	103	81				
LCS 880-74561/1-A	Lab Control Sample	102	108				
LCS 880-74638/1-A	Lab Control Sample	123	91				
LCSD 880-74561/2-A	Lab Control Sample Dup	115	107				
LCSD 880-74638/2-A	Lab Control Sample Dup	121	90				
MB 880-74561/5-A	Method Blank	74	93				
MB 880-74638/5-A	Method Blank	78	82				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-6289-1	BH 01	136 S1+	151 S1+				
890-6289-1 MS	BH 01	126	128				
890-6289-1 MSD	BH 01	118	120				
890-6289-2	BH 01A	108	120				
890-6289-3	BH 02	121	134 S1+				
890-6289-4	BH 02A	95	107				
890-6289-5	BH 04	112	124				
890-6289-6	BH 04A	114	127				
890-6289-7	BH 06	119	130				
890-6289-8	BH 06A	112	125				
890-6289-9	BH 05	116	128				
890-6289-10	BH 05A	130	142 S1+				
890-6289-11	BH 03	136 S1+	145 S1+				
890-6289-12	BH 03A	133 S1+	144 S1+				
LCS 880-74822/2-A	Lab Control Sample	102	133 S1+				
LCSD 880-74822/3-A	Lab Control Sample Dup	95	118				
MB 880-74822/1-A	Method Blank	132 S1+	146 S1+				

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Surrogate Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

1
2
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14

QC Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-74561/5-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 74555					Prep Batch: 74561				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 08:53	03/04/24 11:16	1	
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 08:53	03/04/24 11:16	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 08:53	03/04/24 11:16	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 08:53	03/04/24 11:16	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 08:53	03/04/24 11:16	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 08:53	03/04/24 11:16	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	74		70 - 130			03/04/24 08:53	03/04/24 11:16	1	
1,4-Difluorobenzene (Surr)	93		70 - 130			03/04/24 08:53	03/04/24 11:16	1	

Lab Sample ID: LCS 880-74561/1-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 74555					Prep Batch: 74561				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec		
							Limits		
Benzene	0.100	0.09234		mg/Kg		92	70 - 130		
Toluene	0.100	0.09899		mg/Kg		99	70 - 130		
Ethylbenzene	0.100	0.1007		mg/Kg		101	70 - 130		
m-Xylene & p-Xylene	0.200	0.2002		mg/Kg		100	70 - 130		
o-Xylene	0.100	0.1048		mg/Kg		105	70 - 130		
Surrogate	LCS	LCS	Limits						
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	102		70 - 130						
1,4-Difluorobenzene (Surr)	108		70 - 130						

Lab Sample ID: LCSD 880-74561/2-A						Client Sample ID: Lab Control Sample Dup				
Matrix: Solid						Prep Type: Total/NA				
Analysis Batch: 74555						Prep Batch: 74561				
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene		0.100	0.07741		mg/Kg		77	70 - 130	18	35
Toluene		0.100	0.08769		mg/Kg		88	70 - 130	12	35
Ethylbenzene		0.100	0.09970		mg/Kg		100	70 - 130	1	35
m-Xylene & p-Xylene		0.200	0.1968		mg/Kg		98	70 - 130	2	35
o-Xylene		0.100	0.1023		mg/Kg		102	70 - 130	2	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
4-Bromofluorobenzene (Surr)	115		70 - 130							
1,4-Difluorobenzene (Surr)	107		70 - 130							

Lab Sample ID: 890-6297-A-21-D MS						Client Sample ID: Matrix Spike			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 74555						Prep Batch: 74561			
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1 F2	0.101	0.05260	F1	mg/Kg		51	70 - 130
Toluene	<0.00199	U F1	0.101	0.06065	F1	mg/Kg		60	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

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

Lab Sample ID: 890-6297-A-21-D MS

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 74561

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.101	0.05648	F1	mg/Kg		56	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.202	0.1355	F1	mg/Kg		67	70 - 130
o-Xylene	<0.00199	U F1 F2	0.101	0.07146		mg/Kg		71	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-6297-A-21-E MSD

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 74561

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.100	0.03286	F1 F2	mg/Kg		32	70 - 130	46	35
Toluene	<0.00199	U F1	0.100	0.04401	F1	mg/Kg		43	70 - 130	32	35
Ethylbenzene	<0.00199	U F1	0.100	0.04688	F1	mg/Kg		47	70 - 130	19	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.201	0.08641	F1 F2	mg/Kg		42	70 - 130	44	35
o-Xylene	<0.00199	U F1 F2	0.100	0.04424	F1 F2	mg/Kg		44	70 - 130	47	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: MB 880-74638/5-A

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 74638

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/04/24 22:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/04/24 22:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/04/24 22:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 13:12	03/04/24 22:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:12	03/04/24 22:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 13:12	03/04/24 22:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	03/04/24 13:12	03/04/24 22:20	1
1,4-Difluorobenzene (Surr)	82		70 - 130	03/04/24 13:12	03/04/24 22:20	1

Lab Sample ID: LCS 880-74638/1-A

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 74638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07320		mg/Kg		73	70 - 130
Toluene	0.100	0.08160		mg/Kg		82	70 - 130
Ethylbenzene	0.100	0.1165		mg/Kg		116	70 - 130
m-Xylene & p-Xylene	0.200	0.2234		mg/Kg		112	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

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

Lab Sample ID: LCS 880-74638/1-A

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 74638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1163		mg/Kg		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: LCSD 880-74638/2-A

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 74638

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08105		mg/Kg		81	70 - 130	10	35
Toluene	0.100	0.1024		mg/Kg		102	70 - 130	23	35
Ethylbenzene	0.100	0.1247		mg/Kg		125	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2430		mg/Kg		122	70 - 130	8	35
o-Xylene	0.100	0.1246		mg/Kg		125	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-40092-A-1-D MS

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 74638

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0996	0.07209		mg/Kg		72	70 - 130
Toluene	<0.00202	U	0.0996	0.07065		mg/Kg		71	70 - 130
Ethylbenzene	<0.00202	U F1	0.0996	0.06467	F1	mg/Kg		65	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.199	0.1169	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00202	U F1 F2	0.0996	0.05891	F1	mg/Kg		59	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-40092-A-1-E MSD

Matrix: Solid

Analysis Batch: 74555

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 74638

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.101	0.07742		mg/Kg		76	70 - 130	7	35
Toluene	<0.00202	U	0.101	0.07646		mg/Kg		76	70 - 130	8	35
Ethylbenzene	<0.00202	U F1	0.101	0.07659		mg/Kg		76	70 - 130	17	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.202	0.1755	F2	mg/Kg		87	70 - 130	40	35
o-Xylene	<0.00202	U F1 F2	0.101	0.08630	F2	mg/Kg		86	70 - 130	38	35

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QC Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

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

Lab Sample ID: 880-40092-A-1-E MSD				Client Sample ID: Matrix Spike Duplicate			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 74555				Prep Batch: 74638			
	MSD	MSD					
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	122		70 - 130				
1,4-Difluorobenzene (Surr)	105		70 - 130				

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

Lab Sample ID: MB 880-74822/1-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 74778						Prep Batch: 74822		
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/05/24 21:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/05/24 21:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/05/24 21:07	1
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130			03/05/24 14:08	03/05/24 21:07	1
o-Terphenyl	146	S1+	70 - 130			03/05/24 14:08	03/05/24 21:07	1

Lab Sample ID: LCS 880-74822/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 74778					Prep Batch: 74822				
Analyte			Spike	LCS	LCS			%Rec	
			Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1143		mg/Kg		114	70 - 130
Diesel Range Organics (Over C10-C28)			1000	855.1		mg/Kg		86	70 - 130
									</

Lab Sample ID: LCSD 880-74822/3-A						Client Sample ID: Lab Control Sample Dup					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 74778						Prep Batch: 74822					
			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1055		mg/Kg		106	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	797.0		mg/Kg		80	70 - 130	7	20
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	118		70 - 130								

QC Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

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

Lab Sample ID: 890-6289-1 MS

Matrix: Solid

Analysis Batch: 74778

Client Sample ID: BH 01

Prep Type: Total/NA

Prep Batch: 74822

[illegible]

Lab Sample ID: 890-6289-1 MSD

Matrix: Solid

Analysis Batch: 74778

Client Sample ID: BH 01

Prep Type: Total/NA

Prep Batch: 74822

	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	<50.1	U	1010	958.7		mg/Kg		90	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	57.4		1010	932.9		mg/Kg		87	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	118		70 - 130								
o-Terphenyl	120		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-74617/1-A

Matrix: Solid

Analysis Batch: 74746

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			03/07/24 12:59	1

Lab Sample ID: LCS 880-74617/2-A

Matrix: Solid

Analysis Batch: 74746

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Chloride	250	237.2		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-74617/3-A

Matrix: Solid

Analysis Batch: 74746

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limits
Chloride			250	237.7		mg/Kg		95	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-6289-5 MS											Client Sample ID: BH 04		
Matrix: Solid											Prep Type: Soluble		
Analysis Batch: 74746													
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride	149		252	409.5		mg/Kg		104	90 - 110				

Lab Sample ID: 890-6289-5 MSD											Client Sample ID: BH 04		
Matrix: Solid											Prep Type: Soluble		
Analysis Batch: 74746													
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	149		252	396.5		mg/Kg		99	90 - 110	3	20		

QC Association Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

GC VOA

Analysis Batch: 74555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Total/NA	Solid	8021B	74561
890-6289-2	BH 01A	Total/NA	Solid	8021B	74561
890-6289-3	BH 02	Total/NA	Solid	8021B	74561
890-6289-4	BH 02A	Total/NA	Solid	8021B	74561
890-6289-5	BH 04	Total/NA	Solid	8021B	74561
890-6289-6	BH 04A	Total/NA	Solid	8021B	74561
890-6289-7	BH 06	Total/NA	Solid	8021B	74561
890-6289-8	BH 06A	Total/NA	Solid	8021B	74638
890-6289-9	BH 05	Total/NA	Solid	8021B	74638
890-6289-10	BH 05A	Total/NA	Solid	8021B	74638
890-6289-11	BH 03	Total/NA	Solid	8021B	74638
890-6289-12	BH 03A	Total/NA	Solid	8021B	74638
MB 880-74561/5-A	Method Blank	Total/NA	Solid	8021B	74561
MB 880-74638/5-A	Method Blank	Total/NA	Solid	8021B	74638
LCS 880-74561/1-A	Lab Control Sample	Total/NA	Solid	8021B	74561
LCS 880-74638/1-A	Lab Control Sample	Total/NA	Solid	8021B	74638
LCSD 880-74561/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74561
LCSD 880-74638/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74638
880-40092-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	74638
880-40092-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	74638
890-6297-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	74561
890-6297-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	74561

Prep Batch: 74561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Total/NA	Solid	5035	
890-6289-2	BH 01A	Total/NA	Solid	5035	
890-6289-3	BH 02	Total/NA	Solid	5035	
890-6289-4	BH 02A	Total/NA	Solid	5035	
890-6289-5	BH 04	Total/NA	Solid	5035	
890-6289-6	BH 04A	Total/NA	Solid	5035	
890-6289-7	BH 06	Total/NA	Solid	5035	
MB 880-74561/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74561/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74561/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6297-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
890-6297-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 74638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-8	BH 06A	Total/NA	Solid	5035	
890-6289-9	BH 05	Total/NA	Solid	5035	
890-6289-10	BH 05A	Total/NA	Solid	5035	
890-6289-11	BH 03	Total/NA	Solid	5035	
890-6289-12	BH 03A	Total/NA	Solid	5035	
MB 880-74638/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74638/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74638/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-40092-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-40092-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

GC VOA

Analysis Batch: 74756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Total/NA	Solid	Total BTEX	
890-6289-2	BH 01A	Total/NA	Solid	Total BTEX	
890-6289-3	BH 02	Total/NA	Solid	Total BTEX	
890-6289-4	BH 02A	Total/NA	Solid	Total BTEX	
890-6289-5	BH 04	Total/NA	Solid	Total BTEX	
890-6289-6	BH 04A	Total/NA	Solid	Total BTEX	
890-6289-7	BH 06	Total/NA	Solid	Total BTEX	
890-6289-8	BH 06A	Total/NA	Solid	Total BTEX	
890-6289-9	BH 05	Total/NA	Solid	Total BTEX	
890-6289-10	BH 05A	Total/NA	Solid	Total BTEX	
890-6289-11	BH 03	Total/NA	Solid	Total BTEX	
890-6289-12	BH 03A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 74778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Total/NA	Solid	8015B NM	74822
890-6289-2	BH 01A	Total/NA	Solid	8015B NM	74822
890-6289-3	BH 02	Total/NA	Solid	8015B NM	74822
890-6289-4	BH 02A	Total/NA	Solid	8015B NM	74822
890-6289-5	BH 04	Total/NA	Solid	8015B NM	74822
890-6289-6	BH 04A	Total/NA	Solid	8015B NM	74822
890-6289-7	BH 06	Total/NA	Solid	8015B NM	74822
890-6289-8	BH 06A	Total/NA	Solid	8015B NM	74822
890-6289-9	BH 05	Total/NA	Solid	8015B NM	74822
890-6289-10	BH 05A	Total/NA	Solid	8015B NM	74822
890-6289-11	BH 03	Total/NA	Solid	8015B NM	74822
890-6289-12	BH 03A	Total/NA	Solid	8015B NM	74822
MB 880-74822/1-A	Method Blank	Total/NA	Solid	8015B NM	74822
LCS 880-74822/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74822
LCSD 880-74822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74822
890-6289-1 MS	BH 01	Total/NA	Solid	8015B NM	74822
890-6289-1 MSD	BH 01	Total/NA	Solid	8015B NM	74822

Prep Batch: 74822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Total/NA	Solid	8015NM Prep	
890-6289-2	BH 01A	Total/NA	Solid	8015NM Prep	
890-6289-3	BH 02	Total/NA	Solid	8015NM Prep	
890-6289-4	BH 02A	Total/NA	Solid	8015NM Prep	
890-6289-5	BH 04	Total/NA	Solid	8015NM Prep	
890-6289-6	BH 04A	Total/NA	Solid	8015NM Prep	
890-6289-7	BH 06	Total/NA	Solid	8015NM Prep	
890-6289-8	BH 06A	Total/NA	Solid	8015NM Prep	
890-6289-9	BH 05	Total/NA	Solid	8015NM Prep	
890-6289-10	BH 05A	Total/NA	Solid	8015NM Prep	
890-6289-11	BH 03	Total/NA	Solid	8015NM Prep	
890-6289-12	BH 03A	Total/NA	Solid	8015NM Prep	
MB 880-74822/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74822/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

GC Semi VOA (Continued)

Prep Batch: 74822 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-74822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6289-1 MS	BH 01	Total/NA	Solid	8015NM Prep	
890-6289-1 MSD	BH 01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 74891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Total/NA	Solid	8015 NM	
890-6289-2	BH 01A	Total/NA	Solid	8015 NM	
890-6289-3	BH 02	Total/NA	Solid	8015 NM	
890-6289-4	BH 02A	Total/NA	Solid	8015 NM	
890-6289-5	BH 04	Total/NA	Solid	8015 NM	
890-6289-6	BH 04A	Total/NA	Solid	8015 NM	
890-6289-7	BH 06	Total/NA	Solid	8015 NM	
890-6289-8	BH 06A	Total/NA	Solid	8015 NM	
890-6289-9	BH 05	Total/NA	Solid	8015 NM	
890-6289-10	BH 05A	Total/NA	Solid	8015 NM	
890-6289-11	BH 03	Total/NA	Solid	8015 NM	
890-6289-12	BH 03A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 74617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Soluble	Solid	DI Leach	
890-6289-2	BH 01A	Soluble	Solid	DI Leach	
890-6289-3	BH 02	Soluble	Solid	DI Leach	
890-6289-4	BH 02A	Soluble	Solid	DI Leach	
890-6289-5	BH 04	Soluble	Solid	DI Leach	
890-6289-6	BH 04A	Soluble	Solid	DI Leach	
890-6289-7	BH 06	Soluble	Solid	DI Leach	
890-6289-8	BH 06A	Soluble	Solid	DI Leach	
890-6289-9	BH 05	Soluble	Solid	DI Leach	
890-6289-10	BH 05A	Soluble	Solid	DI Leach	
890-6289-11	BH 03	Soluble	Solid	DI Leach	
890-6289-12	BH 03A	Soluble	Solid	DI Leach	
MB 880-74617/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-74617/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-74617/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6289-5 MS	BH 04	Soluble	Solid	DI Leach	
890-6289-5 MSD	BH 04	Soluble	Solid	DI Leach	

Analysis Batch: 74746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-1	BH 01	Soluble	Solid	300.0	74617
890-6289-2	BH 01A	Soluble	Solid	300.0	74617
890-6289-3	BH 02	Soluble	Solid	300.0	74617
890-6289-4	BH 02A	Soluble	Solid	300.0	74617
890-6289-5	BH 04	Soluble	Solid	300.0	74617
890-6289-6	BH 04A	Soluble	Solid	300.0	74617
890-6289-7	BH 06	Soluble	Solid	300.0	74617
890-6289-8	BH 06A	Soluble	Solid	300.0	74617

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QC Association Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

HPLC/IC (Continued)

Analysis Batch: 74746 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6289-9	BH 05	Soluble	Solid	300.0	74617
890-6289-10	BH 05A	Soluble	Solid	300.0	74617
890-6289-11	BH 03	Soluble	Solid	300.0	74617
890-6289-12	BH 03A	Soluble	Solid	300.0	74617
MB 880-74617/1-A	Method Blank	Soluble	Solid	300.0	74617
LCS 880-74617/2-A	Lab Control Sample	Soluble	Solid	300.0	74617
LCSD 880-74617/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	74617
890-6289-5 MS	BH 04	Soluble	Solid	300.0	74617
890-6289-5 MSD	BH 04	Soluble	Solid	300.0	74617

Lab Chronicle

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 01
Date Collected: 02/29/24 09:40
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 17:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 17:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/05/24 22:12	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/05/24 22:12	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 14:40	CH	EET MID

Client Sample ID: BH 01A
Date Collected: 02/29/24 09:45
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 17:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 17:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/05/24 23:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/05/24 23:19	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 14:47	CH	EET MID

Client Sample ID: BH 02
Date Collected: 02/29/24 10:10
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 17:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 17:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/05/24 23:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/05/24 23:42	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 14:55	CH	EET MID

Client Sample ID: BH 02A
Date Collected: 02/29/24 10:15
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 18:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 18:17	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 02A
Date Collected: 02/29/24 10:15
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			74891	03/06/24 00:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 00:04	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 15:03	CH	EET MID

Client Sample ID: BH 04
Date Collected: 02/29/24 10:35
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 18:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 18:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 00:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 00:27	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 15:11	CH	EET MID

Client Sample ID: BH 04A
Date Collected: 02/29/24 10:40
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 18:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 18:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 00:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 00:49	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 15:34	CH	EET MID

Client Sample ID: BH 06
Date Collected: 02/29/24 11:15
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74561	03/04/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/04/24 19:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/04/24 19:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 01:11	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 01:11	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 06
Date Collected: 02/29/24 11:15
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 15:42	CH	EET MID

Client Sample ID: BH 06A
Date Collected: 02/29/24 11:20
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	74638	03/04/24 13:12	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/05/24 04:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/05/24 04:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 01:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 01:34	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 16:05	CH	EET MID

Client Sample ID: BH 05
Date Collected: 02/29/24 11:35
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	74638	03/04/24 13:12	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/05/24 05:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/05/24 05:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 01:56	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 01:56	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 16:13	CH	EET MID

Client Sample ID: BH 05A
Date Collected: 02/29/24 11:40
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	74638	03/04/24 13:12	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/05/24 05:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/05/24 05:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 02:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 02:18	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 16:21	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Client Sample ID: BH 03
Date Collected: 02/29/24 11:55
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	74638	03/04/24 13:12	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/05/24 05:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/05/24 05:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 03:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 03:03	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 16:29	CH	EET MID

Client Sample ID: BH 03A
Date Collected: 02/29/24 12:00
Date Received: 02/29/24 14:27

Lab Sample ID: 890-6289-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	74638	03/04/24 13:12	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74555	03/05/24 06:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74756	03/05/24 06:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			74891	03/06/24 03:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 03:25	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74617	03/04/24 11:16	SMC	EET MID
Soluble	Analysis	300.0		1			74746	03/07/24 16:36	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

Sample Summary

Client: Ensolum
Project/Site: Perla Verde 31 ST Battery

Job ID: 890-6289-1
SDG: 03C1558314

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6289-1	BH 01	Solid	02/29/24 09:40	02/29/24 14:27	0.5'
890-6289-2	BH 01A	Solid	02/29/24 09:45	02/29/24 14:27	1'
890-6289-3	BH 02	Solid	02/29/24 10:10	02/29/24 14:27	0.5'
890-6289-4	BH 02A	Solid	02/29/24 10:15	02/29/24 14:27	1'
890-6289-5	BH 04	Solid	02/29/24 10:35	02/29/24 14:27	0.5'
890-6289-6	BH 04A	Solid	02/29/24 10:40	02/29/24 14:27	1'
890-6289-7	BH 06	Solid	02/29/24 11:15	02/29/24 14:27	0.5'
890-6289-8	BH 06A	Solid	02/29/24 11:20	02/29/24 14:27	1'
890-6289-9	BH 05	Solid	02/29/24 11:35	02/29/24 14:27	0.5'
890-6289-10	BH 05A	Solid	02/29/24 11:40	02/29/24 14:27	1'
890-6289-11	BH 03	Solid	02/29/24 11:55	02/29/24 14:27	0.5'
890-6289-12	BH 03A	Solid	02/29/24 12:00	02/29/24 14:27	1'



Environment Testing

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

Work Order No: _____

www.xenco.com Page 1 of 2



Project Manager:	Ben Belli	Bill to: (if different)	Amy Ruth
Company Name:	Ensolum LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(989) 854-0852	Email:	Amy.Ruth@ExxonMobil.com

Work Order Comments				
Program:	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/>	RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:				
Reporting:	Level II <input type="checkbox"/>	Level III <input type="checkbox"/>	PST/UST <input type="checkbox"/>	TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/>	ADaPT <input type="checkbox"/>	Other:	

Project Name:		Turn Around		ANALYSIS REQUEST										Preservative Codes									
Project Number:		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush												None: NO DI Water: H ₂ O									
Project Location:		Due Date:												Cool: Cool MeOH: Me									
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm												HCL: HC HNO ₃ : HN									
P.O. #:														H ₂ SO ₄ : H ₂ NaOH: Na									
SAMPLE RECEIPT				Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		 890-6289 Chain of Custody										H ₃ PO ₄ : HP	
Samples Received Intact:				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:		Tm607														NaHSO ₄ : NABIS	
Cooler Custody Seals:				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Correction Factor:		0.1														Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Temperature Reading:		2.6														Zn Acetate+NaOH: Zn	
Total Containers:						Corrected Temperature:		2.4														NaOH+Ascorbic Acid: SAPC	
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters										Sample Comments					
BH01		S	2/29/24	9:40	0.5'	G	1	Chlorides	TPH	BTEX											Incident #:		
BH01A				9:45	1'																NA PP23352436		
BH02				10:10	0.5'																Cost center per		
BH02A				10:15	1'																		
BH04				10:35	0.5'																Ben Belili:		
BH04A				10:40	1'																bbelili@enslur		
BH06				11:15	0.5'																		
BH06A				11:20	1'																		
BH05				11:35	0.5'																		
BH05A				11:40	1'																		

Total 200.7/6010	200.8/6020:	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 ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP/SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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 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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2/29 11:27			
3						
5						

Revised Date: 08/25/2020 Rev. 2020.2



Environment Testing
Xenco

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Ben Belil	Bill to: (if different)	Amy Ruth
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(989) 854-0852	Email:	Amy.Ruth@ExxonMobil.com

Work Order Comments				
Program:	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/>	RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:				
Reporting:	Level II <input type="checkbox"/>	Level III <input type="checkbox"/>	PST/UST <input type="checkbox"/>	TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/>	ADaPT <input type="checkbox"/>	Other:	

Project Name:	Perla Verde 31ST Battery	Turn Around		ANALYSIS REQUEST												Preservative Codes		
Project Number:	03C1558314	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code														None: NO	DI Water: H ₂ O
Project Location:	32-01343-103.49012	Due Date:															Cool: Cool	MeOH: Me
Sampler's Name:	Mariah O'Dell	TAT starts the day received by the lab, if received by 4:30pm															HCL: HC	HNO ₃ : HN
PO #:																	H ₂ SO ₄ : H ₂	NaOH: Na

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Parameters:

PH
STEX

H₃PO₄: HP

NaHSO₄: NABIS

Na₂S₂O₃: NaSO₃



Zn Acetate+NaOH: Zn

NaOH+Ascorbic Acid: SAPC

[illegible]

Total 200.7/6010	200.8/6020:	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 ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP/SPLP6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631/245.1/7470/7471

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 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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2/29 11:27			
3						
5						

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6289-1

SDG Number: 03C1558314

Login Number: 6289

List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6289-1

SDG Number: 03C1558314

Login Number: 6289
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/04/24 12:22 PM

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 333733

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 333733
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335243694
Incident Name	NAPP2335243694 PERLA VERDE 31 ST BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

Location of Release Source

Please answer all the questions in this group.

Site Name	Perla Verde 31 ST Battery
Date Release Discovered	12/12/2023
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Liquids Unloading Tank (Any) Crude Oil Released: 0 BBL Recovered: 0 BBL Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Liquids Unloading Tank (Any) Produced Water Released: 180 BBL Recovered: 180 BBL Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS (continued)

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Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Melanie Collins Title: Regulatory Analyst Email: Melanie.Collins@exxonmobil.com Date: 12/21/2023
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QUESTIONS (continued)

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QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 500 and 1000 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	02/15/2024
On what date will (or did) the final sampling or liner inspection occur	02/29/2024
On what date will (or was) the remediation complete(d)	02/29/2024
What is the estimated surface area (in square feet) that will be remediated	8660
What is the estimated volume (in cubic yards) that will be remediated	0
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS (continued)

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QUESTIONS**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

Is (or was) there affected material present needing to be removed	No
Is (or was) there a power wash of the lined containment area (to be) performed	Yes
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 04/16/2024
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS (continued)

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QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	295721
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	12/20/2023
Was all the impacted materials removed from the liner	Yes
What was the liner inspection surface area in square feet	8660

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
What was the total surface area (in square feet) remediated	8660
What was the total volume (cubic yards) remediated	0
Summarize any additional remediation activities not included by answers (above)	Site assessment, delineation, and excavation activities were conducted at the Site to address the July 13, 2023, release of friction reducer. Laboratory analytical results for excavation soil samples collected from the final excavation extent indicated that all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement. Based on laboratory analytical results, no further remediation is required. The excavation was backfilled on January 4, 2024, with caliche material purchased locally and the area and recontoured to match pre-existing Site conditions.

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 (in .pdf format) 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.

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

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 04/16/2024
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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	None	5/13/2024