ENSOLUM

October 5, 2022

District 1
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Re: Closure Request
Raspberry State Com 001H
Incident Number NAPP2213029810
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this letter to document site assessment and soil sampling activities performed at the Raspberry State Com 001H (Site; Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release on privately owned land. The release was caused by a tank overflowing. Based on assessment activities, excavation activities, and laboratory analytical results from the soil sampling events, COG is reqesting closure for Incident Number NAPP2213029810.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 27, Township 21 South, Range 33 East, in Lea County, New Mexico (32.4435° N, 103.55197° W) and is associated with oil and gas exploration and production operations on privately owned surface managed by the Merchant Livestock Company.

On April 30, 2022, a tank overflowed causing the release of approximately 67 barrels (bbls) of crude oil into the containment. A vacuum truck was dispatched to the location to remove free-standing fluids and successfully recovered 60 bbls of fluids. COG reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on May 1, 2022 and submitted a Release Notification Form C-141 (Form C-141) on May 12, 2022. The release was assigned Incident Number NAPP2213029810.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine application of Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization (Appendix A). Potential site seceptors 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 New Mexico Office of the State Engineer (NMOSE) permitted well

CP 0411 POD1, located approximately 638 southwest of the Site. The groundwater well has a reported depth to groundwater of 800 feet bgs and total depth of 1,149. Ground surface elevation at the groundwater well location is 3,706 feet above mean sea level (amsl), which is approximately 7-feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record are included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 5,589 feet southwest of 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, and wetland. The Site is within 1,000 feet of a freshwater well, but is not near a 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). Site receptors are identified on Figure 1.

Based on the nearby water well, the following NMOCD *Table 1* 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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

INITIAL SITE ASSESSMENT ACTIVITIES

On June 1, 2022, site assessment activities and a liner intergrity inspection were conducted to evaluate the release based on information provided on the Form C-141 and visual observations. Ensolum personnel with experience and training in liner construction and use found the liner was intact. However, the containment overflowed in a few places and a small volume of fluid was released from the lined area on the north and east sides of the containment. Seven preliminary assessment soil samples (SS01 through SS07) were collected within the release area and surrounding the containment at a depth of 0.5 feet bgs, to assess for the presence or absence of impacted soil resulting from the release and to laterally delineate the release.

The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photographic log is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Delineation Soil Sampling

On July 13, 2022, Ensolum personnel returned to the Site to collect additional delineation samples. Vertical delineation samples were collected verify the total depth of impact within the release extent at SS02 and SS03. Soil samples SS02A, SS02B, SS03A, and SS03B were collected with a hand auger between 2 and 3 feet bgs. Samples were handled and analyzed using the same methods described above.

Only July 25, 2022, and August 9, 2022, Ensolum personnel collected additional delineation samples outside the release area to verify the extent of the release laterally and vertically. Soil samples SS07A, SS08, SS08A, SS09, SS09A, SS10, SS10A, and SS11 were collected from depths ranging from 0.5 feet bgs to 2 feet bgs. Delineation soil samples were handled in the same manner described above. Delineation soil samples are depicted on Figure 2.

Analytical Results

Laboratory analytical results for preliminary assessment soil samples SS01, SS02, and SS03 indicated at least one constituent of concern was not compliant with the Site Closure Criteria. Laboratory analytical results for soil samples SS04 through SS07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation standards. In addition, lateral delineation samples SS07A through SS11 were compliant with Site Closure Criteria/reclamation standards. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Appendix D.

EXCAVATION ACTIVITIES

Between June 14, 2022, and July 25, 2022, Ensolum oversaw excavation activities and impacted soil was excavated from the spot-areas outside containment as indicated by visible staining and laboratory analytical results from preliminary sampling. Excavation activities were performed via hand shoveling and back-hoe. To direct excavation activities, soil was field screened for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips. Photographic documentation is included in Appendix C.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation areas. Due to the shallow depth of the excavations, soil from the sidewalls was incorporated into the floor samples. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples were collected from the floor of each excavation from depths ranging between 0.5 feet bgs to 2 feet bgs. The excavation soil samples were handled and analyzed as previously described. The excavation extents and excavation soil samples locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 3.

In total, six (6) small areas were excavated to address soil that was impacted in specific areas where fluids leaked from the containment. The total footprint of the six excavations was approximately 175 square feet. A total of approximately 12 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing where applicable or backfilled.

Analytical Results

Laboratory analytical results for excavation floor samples collected at the terminal depth of each excavation, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride

concentrations were compliant with the Site Closure Criteria, which are the most stringent and equivalent to the reclamation standards. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to inspect the containment liner integrity and assess for the presence or absence of impacted soil resulting from the April 30, 2022, crude oil release. Initial site inspections revealed that the liner within the containment was intact, but fluids escaped the containment, impacting small areas of impacted soil immediately north and east of the containment. Ensolum excavated soil from those spot-areas and excavation confirmation samples indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and reclamation standards. Additionally, delineation samples were collected around the containment. Concentrations of contaminants of concern in soil samples collected on the well pad and in the pasture were compliant with the Site Closure Criteria and reclamation standards.

The lined containment prevented most of the release from impacting soil at the Site. Excavation activities successfully remediated the small hydrocarbon impacts that occurred outside containment. COG believes these remedial actions have been protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2213029810. The Final C-141 is included in Appendix A and required notifications are included as Appendix E.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

Ashley Ager, PG
Program Director

cc: Charles Beauvais, COG Operating, LLC

Attachments:

Figure 1	Site Receptor Map
Figure 2	Preliminary and Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Final C-141
Appendix B	Referenced Well Records
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports
Appendix E	NMOCD Notifications

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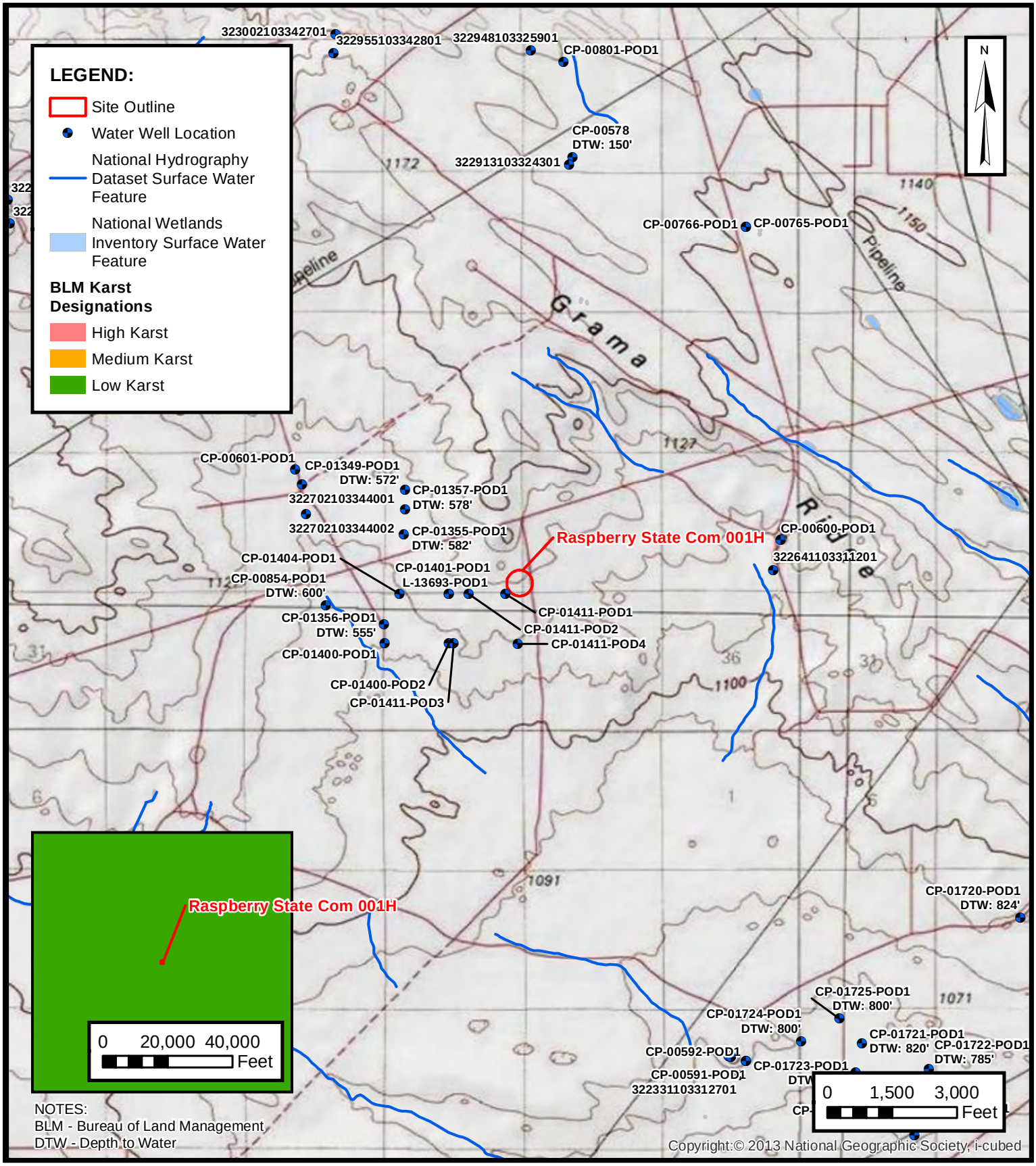
FIGURES



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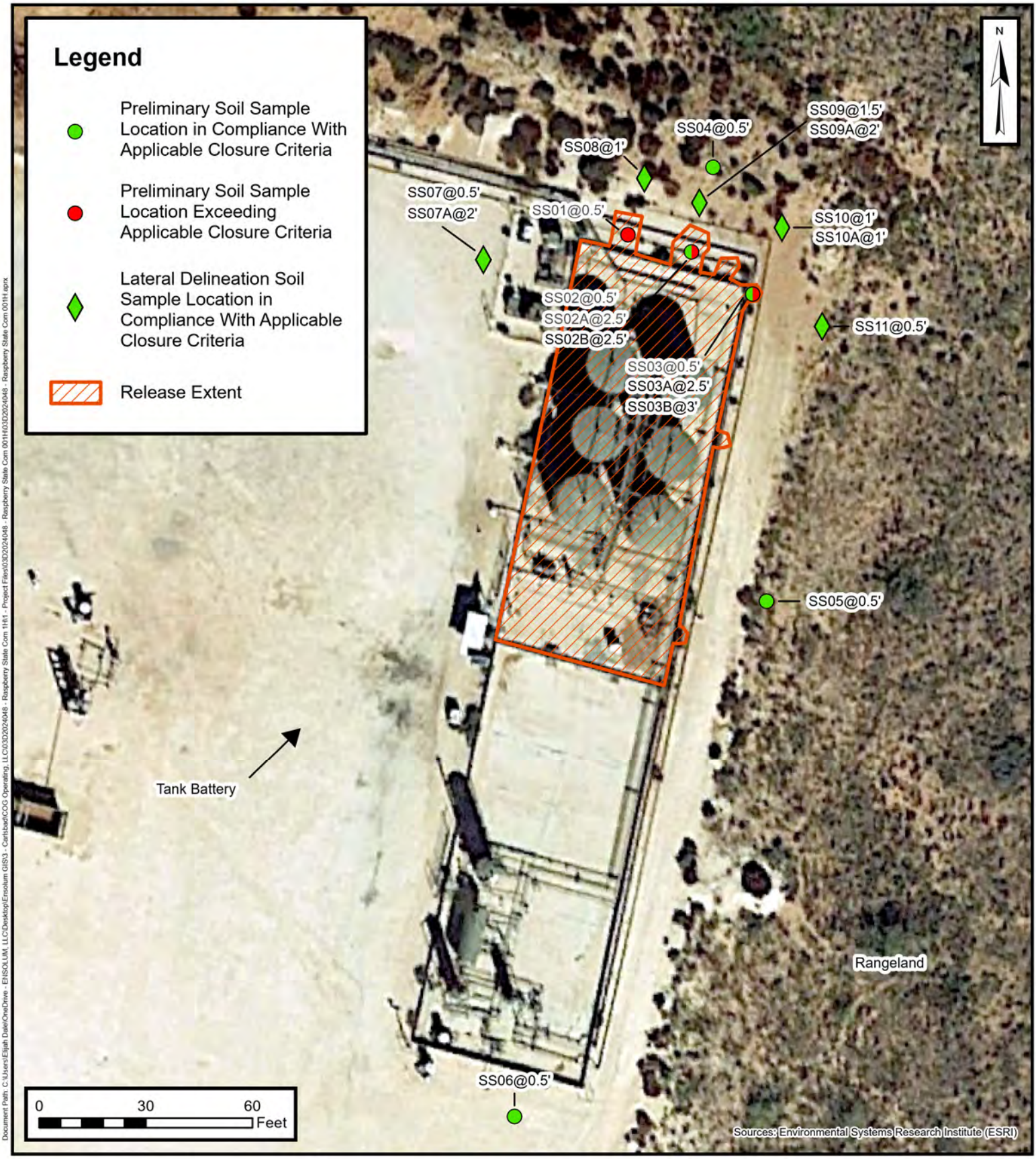
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

COG OPERATING, LLC
RASPBERRY STATE COM 001H
NAPP2213029810
Unit P, Sec 27 T21S R33E
Lea County, New Mexico

FIGURE
1



Document Path: C:\Users\Elijah Dale\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS\3 - Carlsbad\COG Operating, LLC\03D2024048 - Raspberry State Com 1H\1 - Project Files\03D2024048 - Raspberry State Com 001H\03D2024048 - Raspberry State Com 001H.aprx

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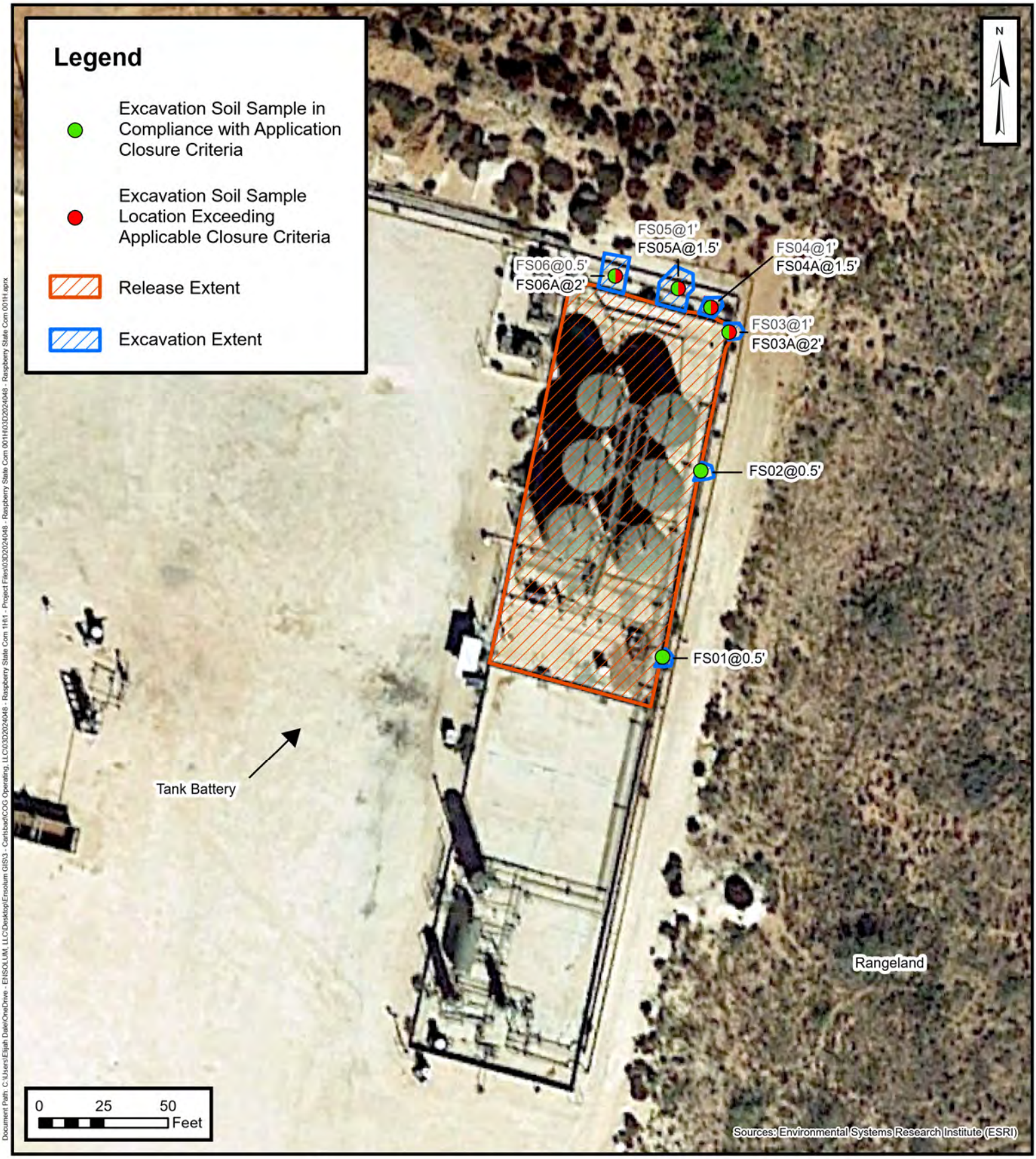
Preliminary and Delineation Soil Sample Locations

Raspberry State Com 001H
COG Operating, LLC
Unit P, Sec 27 T21S R33E
Lea County, NM

Project Number: 03D2024048

FIGURE 2



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Excavation Soil Sample Locations

Raspberry State Com 001H
COG Operating, LLC
Unit P, Sec 27 T21S R33E
Lea County, NM

Project Number: 03D2024048

FIGURE
3

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Raspberry State Com 001H
COG Operating, LLC
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 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Preliminary Assessment Soil Samples										
SS01	06/01/2022	0.5	<0.199	38.7	771	22,700	<250	23,471	**23,500**	**9,880**
SS02	06/01/2022	0.5	0.006	22.6	309	23,000	<250	23,309	**23,300**	**1,270**
SS02A	7/13/2022	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	30.5
SS02B	7/13/2022	2.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	68.7
SS03	06/01/2022	0.5	0.006	1.06	<250	23,600	<250	23,600	**23,600**	**6,350**
SS03A	7/13/2022	2.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	176
SS03B	7/13/2022	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	68.0	41.5
SS04	06/01/2022	0.5	<0.002	0.146	<50.0	<50.0	<50.0	<50.0	<50.0	44.8
SS05	06/01/2022	0.5	<0.002	0.088	<49.9	<49.9	<49.9	<49.9	<49.9	28.1
SS06	06/01/2022	0.5	<0.002	0.145	<49.9	<49.9	<49.9	<49.9	<49.9	225
SS07	06/01/2022	0.5	<0.002	0.161	<50.0	<50.0	<50.0	<50.0	<50.0	54.4
Excavation Soil Samples										
FS01	06/14/2022	0.5	<0.002	<0.004	<50.0	<50.0	<50.0	<50.0	<50.0	400
FS02	06/14/2022	0.5	<0.002	<0.004	<49.9	<49.9	<49.9	<49.9	<49.9	196
FS03	06/14/2022	1	<0.002	<0.004	<50.0	<50.0	<50.0	<50.0	<50.0	**2,630**
FS03A	7/13/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	57.7
FS04	06/14/2022	1	<0.002	<0.004	<49.9	<49.9	<49.9	<49.9	<49.9	**1,130**
FS04A	7/13/2022	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	130
FS05	06/14/2022	1	<0.002	<0.004	<50.0	<50.0	<50.0	<50.0	<50.0	**639**
FS05A	7/13/2022	1.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	112
FS06	06/14/2022	0.5	<0.002	<0.004	<49.9	221	117	221	**338**	380
FS06A	7/13/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	62.6

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Raspberry State Com 001H
COG Operating, LLC
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 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Lateral Delineation Soil Samples										
SS07A	7/25/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	28.2
SS08	7/25/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	24.3
SS08A	7/25/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	23.0
SS09	7/25/2022	1.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	10.2
SS09A	7/25/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	19.3
SS10	7/25/2022	1	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	13.8
SS10A	7/25/2022	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	14.6
SS11	8/9/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	80.8

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
DRO: Diesel Range Organics
GRO: Gasoline Range Organics
NMOCD: New Mexico Oil Conservation Division
Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard for chloride in the top 4 feet is 600 mg/kg
Grey text represents samples that have been excavated

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APPENDIX A

Final C141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 05/12/2022

L48 Spill Volume Estimate Form

Facility Name & Number:	Rasberry state com 1h
Asset Area:	DBE
Release Discovery Date & Time:	30-Apr
Release Type:	Oil
Provide any known details about the event:	TANK OVER FLOW

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	See reference table below
Has it rained at least a half inch in the last 24 hours?	See reference table below

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	70.0	40.0	0.30	8.00%	12.460	0.997
Rectangle B					0.000	0.000
Rectangle C					0.000	0.000
Rectangle D					0.000	0.000
Rectangle E					0.000	0.000
Rectangle F					0.000	0.000
Rectangle G					0.000	0.000
Rectangle H					0.000	0.000
Rectangle I					0.000	0.000
Rectangle J					0.000	0.000
					Total Volume Release:	0.997

L48 Spill Volume Estimate Form

Name:	Rasberry state com 1h
Asset Area:	DBE
Release Discovery Date & Time:	4/30/2022
Release Type:	Oil
Provide any known details about the event:	TANK OVER FLOW

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	100.0	45.0	3.94	4	4500.000	0.082	65.749	0.004	66.019
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
								Total Volume Release:	66.019

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 106240
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	5/12/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2213029810
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2213029810
District RP	
Facility ID	
Application ID	

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 10/06/2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 10/10/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2213029810
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 10/06/2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 10/10/2022

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

Closure Approved by: Jennifer Nobui Date: 10/26/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

APPENDIX B

Referenced Well Record

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01411 POD1	2	2		34	21S	33E	635968	3590386

Driller License: 1723 **Driller Company:** SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.

Driller Name:

Drill Start Date:	10/09/2014	**Drill Finish Date:**	10/14/2014	**Plug Date:**	
Log File Date:	12/26/2014	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	50 GPM
Casing Size:	9.88	**Depth Well:**	1149 feet	**Depth Water:**	

Water Bearing Stratifications:	Top	Bottom	Description
	800	820	Sandstone/Gravel/Conglomerate
	820	1145	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	780	1149

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
COG Operating, LLC
Raspberry State Com 001H
NAPP2213029810

Photograph 1 Date: 6/1/2022
Description: View of the release areas on the north side of the containment

Photograph 2 Date: 7/27/2022
Description: View of the release area near the northeast corner of the containment

Photograph 3 Date: 6/1/2022
Description: View of the release area on the northeast side of the contianment

Photograph 4 Date: 6/1/2022
Description: View of the intact liner within the containment area

ENSOLUM

Photographic Log
COG Operating, LLC
Raspberry State Com 001H
NAPP2213029810

Photograph 5 Date: 6/1/2022
Description: View of the intact liner within the containment area

Photograph 6 Date: 6/14/2022
Description: View of one of the remediation excavations on the north side of the containment

Photograph 7 Date: 6/14/2022
Description: View of the remediation excavations on the northeast side of the containment

Photograph 8 Date: 6/14/2022
Description: View of the remediation excavations on the northeast side of the containment

ENSOLUM

APPENDIX D

Laboratory Analytical Report

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2398-1
Laboratory Sample Delivery Group: 03D2024048
Client Project/Site: Raspberry State 1H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
6/16/2022 11:28:30 AM

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

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

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

Client: Ensolum
Project/Site: Raspberry State 1H

Laboratory Job ID: 890-2398-1
SDG: 03D2024048

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2398-1
Project/Site: Raspberry State 1H SDG: 03D2024048

Qualifiers

GC VOA

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

GC Semi VOA

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

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/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Job ID: 890-2398-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2398-1

Receipt
The samples were received on 6/8/2022 2:43 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 3.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-2398-1), SS02 (890-2398-2) and SS03 (890-2398-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-27306 and analytical batch 880-27440 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-27259 and analytical batch 880-27440 recovered outside control limits for the following analytes: Benzene.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-27259 and analytical batch 880-27440 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.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-2398-1) and SS03 (890-2398-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-27314/2-A), (890-2396-A-1-D) and (890-2396-A-1-E MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-27515 and analytical batch 880-27548 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS01

Lab Sample ID: 890-2398-1
Matrix: Solid
Date Collected: 06/01/22 12:28
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199		mg/Kg		06/10/22 12:47	06/13/22 20:13	100
Toluene	**5.19**		0.199		mg/Kg		06/10/22 12:47	06/13/22 20:13	100
Ethylbenzene	**8.34**		0.199		mg/Kg		06/10/22 12:47	06/13/22 20:13	100
m-Xylene & p-Xylene	**16.9**		0.398		mg/Kg		06/10/22 12:47	06/13/22 20:13	100
o-Xylene	**8.22**		0.199		mg/Kg		06/10/22 12:47	06/13/22 20:13	100
Xylenes, Total	**25.1**		0.398		mg/Kg		06/10/22 12:47	06/13/22 20:13	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*160*	*S1+*	*70 - 130*	*06/10/22 12:47*	*06/13/22 20:13*	*100*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/10/22 12:47*	*06/13/22 20:13*	*100*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**38.7**		0.398		mg/Kg			06/14/22 15:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23500**		250		mg/Kg			06/13/22 09:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**771**		250		mg/Kg		06/10/22 15:08	06/12/22 04:21	5
Diesel Range Organics (Over C10-C28)	**22700**		250		mg/Kg		06/10/22 15:08	06/12/22 04:21	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		06/10/22 15:08	06/12/22 04:21	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*158*	*S1+*	*70 - 130*	*06/10/22 15:08*	*06/12/22 04:21*	*5*
o-Terphenyl	*110*		*70 - 130*	*06/10/22 15:08*	*06/12/22 04:21*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9880**		99.6		mg/Kg			06/15/22 20:04	20

Client Sample ID: SS02

Lab Sample ID: 890-2398-2
Matrix: Solid
Date Collected: 06/01/22 12:33
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00637**		0.00199		mg/Kg		06/10/22 12:47	06/13/22 19:11	1
Toluene	**3.26**		0.101		mg/Kg		06/13/22 17:00	06/14/22 10:23	50
Ethylbenzene	**3.81**		0.101		mg/Kg		06/13/22 17:00	06/14/22 10:23	50
m-Xylene & p-Xylene	**10.7**		0.202		mg/Kg		06/13/22 17:00	06/14/22 10:23	50
o-Xylene	**4.87**		0.101		mg/Kg		06/13/22 17:00	06/14/22 10:23	50
Xylenes, Total	**15.6**		0.202		mg/Kg		06/13/22 17:00	06/14/22 10:23	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*	*06/10/22 12:47*	*06/13/22 19:11*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS02

Lab Sample ID: 890-2398-2
Matrix: Solid
Date Collected: 06/01/22 12:33
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/10/22 12:47*	*06/13/22 19:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**22.6**		0.202		mg/Kg			06/14/22 15:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23300**		250		mg/Kg			06/13/22 09:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**309**		250		mg/Kg		06/10/22 15:08	06/12/22 04:41	5
Diesel Range Organics (Over C10-C28)	**23000**		250		mg/Kg		06/10/22 15:08	06/12/22 04:41	5
OII Range Organics (Over C28-C36)	<250	U	250		mg/Kg		06/10/22 15:08	06/12/22 04:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*06/10/22 15:08*	*06/12/22 04:41*	*5*
o-Terphenyl	*128*		*70 - 130*	*06/10/22 15:08*	*06/12/22 04:41*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1270**		4.95		mg/Kg			06/15/22 20:12	1

Client Sample ID: SS03

Lab Sample ID: 890-2398-3
Matrix: Solid
Date Collected: 06/01/22 12:45
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00573**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 19:32	1
Toluene	**0.346**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 19:32	1
Ethylbenzene	**0.172**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 19:32	1
m-Xylene & p-Xylene	**0.387**		0.00401		mg/Kg		06/10/22 12:47	06/13/22 19:32	1
o-Xylene	**0.147**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 19:32	1
Xylenes, Total	**0.534**		0.00401		mg/Kg		06/10/22 12:47	06/13/22 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*177*	*S1+*	*70 - 130*	*06/10/22 12:47*	*06/13/22 19:32*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*06/10/22 12:47*	*06/13/22 19:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.06**		0.00401		mg/Kg			06/14/22 15:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23600**		250		mg/Kg			06/13/22 09:42	1

Client Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS03

Lab Sample ID: 890-2398-3
Matrix: Solid
Date Collected: 06/01/22 12:45
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		06/10/22 15:08	06/12/22 05:02	5
Diesel Range Organics (Over C10-C28)	**23600**		250		mg/Kg		06/10/22 15:08	06/12/22 05:02	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		06/10/22 15:08	06/12/22 05:02	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*06/10/22 15:08*	*06/12/22 05:02*	*5*
o-Terphenyl	*132*	*S1+*	*70 - 130*	*06/10/22 15:08*	*06/12/22 05:02*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6350**		50.1		mg/Kg			06/16/22 00:16	10

Client Sample ID: SS04

Lab Sample ID: 890-2398-4
Matrix: Solid
Date Collected: 06/01/22 13:40
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/10/22 12:47	06/13/22 19:53	1
Toluene	**0.0136**		0.00201		mg/Kg		06/10/22 12:47	06/13/22 19:53	1
Ethylbenzene	**0.00985**		0.00201		mg/Kg		06/10/22 12:47	06/13/22 19:53	1
m-Xylene & p-Xylene	**0.0989**		0.00402		mg/Kg		06/10/22 12:47	06/13/22 19:53	1
o-Xylene	**0.0235**		0.00201		mg/Kg		06/10/22 12:47	06/13/22 19:53	1
Xylenes, Total	**0.122**		0.00402		mg/Kg		06/10/22 12:47	06/13/22 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*06/10/22 12:47*	*06/13/22 19:53*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/10/22 12:47*	*06/13/22 19:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.146**		0.00402		mg/Kg			06/14/22 15:18	1

Method: 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			06/13/22 09:42	1

Method: 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		06/10/22 15:08	06/12/22 03:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/12/22 03:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/12/22 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*06/10/22 15:08*	*06/12/22 03:00*	*1*
o-Terphenyl	*80*		*70 - 130*	*06/10/22 15:08*	*06/12/22 03:00*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS04

Lab Sample ID: 890-2398-4
Matrix: Solid
Date Collected: 06/01/22 13:40
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.8**		4.98		mg/Kg			06/16/22 00:24	1

Client Sample ID: SS05

Lab Sample ID: 890-2398-5
Matrix: Solid
Date Collected: 06/01/22 13:55
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/10/22 12:47	06/13/22 21:37	1
Toluene	**0.0121**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 21:37	1
Ethylbenzene	**0.00601**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 21:37	1
m-Xylene & p-Xylene	**0.0578**		0.00399		mg/Kg		06/10/22 12:47	06/13/22 21:37	1
o-Xylene	**0.0125**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 21:37	1
Xylenes, Total	**0.0703**		0.00399		mg/Kg		06/10/22 12:47	06/13/22 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*06/10/22 12:47*	*06/13/22 21:37*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/10/22 12:47*	*06/13/22 21:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0884**		0.00399		mg/Kg			06/14/22 15:18	1

Method: 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			06/13/22 09:42	1

Method: 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		06/10/22 15:08	06/12/22 03:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/10/22 15:08	06/12/22 03:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/10/22 15:08	06/12/22 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*06/10/22 15:08*	*06/12/22 03:21*	*1*
o-Terphenyl	*87*		*70 - 130*	*06/10/22 15:08*	*06/12/22 03:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.1**		4.99		mg/Kg			06/16/22 00:32	1

Client Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS06

Lab Sample ID: 890-2398-6
Matrix: Solid
Date Collected: 06/01/22 13:59
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/10/22 12:47	06/13/22 21:58	1
Toluene	**0.0190**		0.00199		mg/Kg		06/10/22 12:47	06/13/22 21:58	1
Ethylbenzene	**0.00802**		0.00199		mg/Kg		06/10/22 12:47	06/13/22 21:58	1
m-Xylene & p-Xylene	**0.0963**		0.00398		mg/Kg		06/10/22 12:47	06/13/22 21:58	1
o-Xylene	**0.0216**		0.00199		mg/Kg		06/10/22 12:47	06/13/22 21:58	1
Xylenes, Total	**0.118**		0.00398		mg/Kg		06/10/22 12:47	06/13/22 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/10/22 12:47*	*06/13/22 21:58*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/10/22 12:47*	*06/13/22 21:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.145**		0.00398		mg/Kg			06/14/22 15:18	1

Method: 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			06/13/22 09:42	1

Method: 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		06/10/22 15:08	06/12/22 03:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/10/22 15:08	06/12/22 03:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/10/22 15:08	06/12/22 03:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*06/10/22 15:08*	*06/12/22 03:41*	*1*
o-Terphenyl	*84*		*70 - 130*	*06/10/22 15:08*	*06/12/22 03:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**225**		4.97		mg/Kg			06/16/22 00:39	1

Client Sample ID: SS07

Lab Sample ID: 890-2398-7
Matrix: Solid
Date Collected: 06/01/22 14:08
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/10/22 12:47	06/13/22 22:19	1
Toluene	**0.0299**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 22:19	1
Ethylbenzene	**0.00819**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 22:19	1
m-Xylene & p-Xylene	**0.102**		0.00401		mg/Kg		06/10/22 12:47	06/13/22 22:19	1
o-Xylene	**0.0205**		0.00200		mg/Kg		06/10/22 12:47	06/13/22 22:19	1
Xylenes, Total	**0.123**		0.00401		mg/Kg		06/10/22 12:47	06/13/22 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*06/10/22 12:47*	*06/13/22 22:19*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS07

Date Collected: 06/01/22 14:08
Date Received: 06/08/22 14:43
Sample Depth: 0.5'

Lab Sample ID: 890-2398-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*06/10/22 12:47*	*06/13/22 22:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.161**		0.00401		mg/Kg			06/14/22 15:18	1

Method: 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			06/13/22 09:42	1

Method: 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		06/10/22 15:08	06/12/22 04:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/12/22 04:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/12/22 04:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*06/10/22 15:08*	*06/12/22 04:01*	*1*
o-Terphenyl	*84*		*70 - 130*	*06/10/22 15:08*	*06/12/22 04:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**54.4**		4.95		mg/Kg			06/16/22 00:47	1

Surrogate Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2376-A-56-D MS	Matrix Spike	96	84
890-2376-A-56-E MSD	Matrix Spike Duplicate	120	90
890-2397-A-1-A MS	Matrix Spike	113	95
890-2397-A-1-B MSD	Matrix Spike Duplicate	96	96
890-2398-1	SS01	160 S1+	93
890-2398-2	SS02	154 S1+	92
890-2398-3	SS03	177 S1+	104
890-2398-4	SS04	96	103
890-2398-5	SS05	81	101
890-2398-6	SS06	90	102
890-2398-7	SS07	92	82
LCS 880-27259/1-A	Lab Control Sample	103	91
LCS 880-27306/1-A	Lab Control Sample	118	97
LCSD 880-27259/2-A	Lab Control Sample Dup	92	106
LCSD 880-27306/2-A	Lab Control Sample Dup	101	100
MB 880-27259/5-A	Method Blank	98	99
MB 880-27306/5-A	Method Blank	91	102

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2396-A-1-E MS	Matrix Spike	78	8 S1-
890-2396-A-1-F MSD	Matrix Spike Duplicate	80	74
890-2398-1	SS01	158 S1+	110
890-2398-2	SS02	129	128
890-2398-3	SS03	105	132 S1+
890-2398-4	SS04	81	80
890-2398-5	SS05	82	87
890-2398-6	SS06	81	84
890-2398-7	SS07	81	84
LCS 880-27314/2-A	Lab Control Sample	93	13 S1-
LCSD 880-27314/3-A	Lab Control Sample Dup	91	87
MB 880-27314/1-A	Method Blank	80	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27259/5-A
Matrix: Solid
Analysis Batch: 27440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27259

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/10/22 09:30	06/14/22 03:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/10/22 09:30	06/14/22 03:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/10/22 09:30	06/14/22 03:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/10/22 09:30	06/14/22 03:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/10/22 09:30	06/14/22 03:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/10/22 09:30	06/14/22 03:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*06/10/22 09:30*	*06/14/22 03:26*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*06/10/22 09:30*	*06/14/22 03:26*	*1*

Lab Sample ID: LCS 880-27259/1-A
Matrix: Solid
Analysis Batch: 27440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27259

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07243		mg/Kg		72	70 - 130		
Toluene			0.100	0.08666		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08391		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1688		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.09442		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: LCSD 880-27259/2-A
Matrix: Solid
Analysis Batch: 27440

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27259

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1076	*1	mg/Kg		108	70 - 130	39	35
Toluene			0.100	0.09612		mg/Kg		96	70 - 130	10	35
Ethylbenzene			0.100	0.08092		mg/Kg		81	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1513		mg/Kg		76	70 - 130	11	35
o-Xylene			0.100	0.08396		mg/Kg		84	70 - 130	12	35

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

Lab Sample ID: 890-2376-A-56-D MS
Matrix: Solid
Analysis Batch: 27440

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27259

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F2 F1 *1	0.0996	0.03597	F1	mg/Kg		36	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

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

Lab Sample ID: 890-2376-A-56-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	<0.00199	U F2 F1	0.0996	0.05113	F1	mg/Kg		51	70 - 130
Ethylbenzene	<0.00199	U F2 F1	0.0996	0.04197	F1	mg/Kg		42	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.199	0.08677	F1	mg/Kg		44	70 - 130
o-Xylene	<0.00199	U F2 F1	0.0996	0.05112	F1	mg/Kg		51	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 890-2376-A-56-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1 *1	0.100	0.06649	F2 F1	mg/Kg		66	70 - 130	60	35
Toluene	<0.00199	U F2 F1	0.100	0.08524	F2	mg/Kg		85	70 - 130	50	35
Ethylbenzene	<0.00199	U F2 F1	0.100	0.08169	F2	mg/Kg		82	70 - 130	64	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1746	F2	mg/Kg		87	70 - 130	67	35
o-Xylene	<0.00199	U F2 F1	0.100	0.09769	F2	mg/Kg		97	70 - 130	63	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 880-27306/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27306**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/10/22 12:47	06/13/22 16:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/10/22 12:47	06/13/22 16:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/10/22 12:47	06/13/22 16:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/10/22 12:47	06/13/22 16:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/10/22 12:47	06/13/22 16:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/10/22 12:47	06/13/22 16:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/10/22 12:47*	*06/13/22 16:45*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/10/22 12:47*	*06/13/22 16:45*	*1*

Lab Sample ID: LCS 880-27306/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27306**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08388		mg/Kg		84	70 - 130
Toluene	0.100	0.1036		mg/Kg		104	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

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

Lab Sample ID: LCS 880-27306/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27306**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylbenzene			0.100	0.1050		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2149		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1181		mg/Kg		118	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-27306/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27306**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08586		mg/Kg		86	70 - 130	2	35
Toluene			0.100	0.09646		mg/Kg		96	70 - 130	7	35
Ethylbenzene			0.100	0.09253		mg/Kg		93	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.1839		mg/Kg		92	70 - 130	16	35
o-Xylene			0.100	0.1006		mg/Kg		101	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2397-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27306**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.0994	0.06177	F1	mg/Kg		62	70 - 130		
Toluene	<0.00201	U	0.0994	0.07783		mg/Kg		77	70 - 130		
Ethylbenzene	<0.00201	U	0.0994	0.07692		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1579		mg/Kg		79	70 - 130		
o-Xylene	<0.00201	U	0.0994	0.08816		mg/Kg		88	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-2397-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27440 — **Prep Batch: 27306**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0998	0.06868	F1	mg/Kg		68	70 - 130	11	35
Toluene	<0.00201	U	0.0998	0.07737		mg/Kg		76	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.07039		mg/Kg		71	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.1387	F1	mg/Kg		69	70 - 130	13	35
o-Xylene	<0.00201	U	0.0998	0.07719		mg/Kg		77	70 - 130	13	35

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

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

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

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

Lab Sample ID: MB 880-27314/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27330 — **Prep Batch: 27314**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/11/22 20:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/11/22 20:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/10/22 15:08	06/11/22 20:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	06/10/22 15:08	06/11/22 20:47	1
o-Terphenyl	87		70 - 130	06/10/22 15:08	06/11/22 20:47	1

Lab Sample ID: LCS 880-27314/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27330 — **Prep Batch: 27314**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	820.3		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1072		mg/Kg		107	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	13	S1-	70 - 130

Lab Sample ID: LCSD 880-27314/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27330 — **Prep Batch: 27314**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	901.7		mg/Kg		90	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	996.4		mg/Kg		100	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	87		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

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

Lab Sample ID: 890-2396-A-1-E MS
Matrix: Solid
Analysis Batch: 27330

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1119		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	90.1		997	797.6		mg/Kg		71	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*78*		*70 - 130*
o-Terphenyl	*8*	*S1-*	*70 - 130*

Lab Sample ID: 890-2396-A-1-F MSD
Matrix: Solid
Analysis Batch: 27330

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1214		mg/Kg		121	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	90.1		1000	801.9		mg/Kg		71	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*80*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27515/1-A
Matrix: Solid
Analysis Batch: 27548

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			06/15/22 20:52	1

Lab Sample ID: LCS 880-27515/2-A
Matrix: Solid
Analysis Batch: 27548

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	267.5		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-27515/3-A
Matrix: Solid
Analysis Batch: 27548

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	249.2		mg/Kg		100	90 - 110	7	20

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-15674-A-1-C MS
Matrix: Solid
Analysis Batch: 27548

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	138		253	405.4		mg/Kg		106	90 - 110

Lab Sample ID: 880-15674-A-1-D MSD
Matrix: Solid
Analysis Batch: 27548

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	138		253	406.2		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-15699-A-4-C MS
Matrix: Solid
Analysis Batch: 27548

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	481	F1	1250	1853		mg/Kg		110	90 - 110

Lab Sample ID: 880-15699-A-4-D MSD
Matrix: Solid
Analysis Batch: 27548

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	481	F1	1250	1885	F1	mg/Kg		113	90 - 110	2	20

Lab Sample ID: MB 880-27514/1-A
Matrix: Solid
Analysis Batch: 27549

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			06/15/22 16:17	1

Lab Sample ID: LCS 880-27514/2-A
Matrix: Solid
Analysis Batch: 27549

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.0		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-27514/3-A
Matrix: Solid
Analysis Batch: 27549

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	258.5		mg/Kg		103	90 - 110	2	20

Lab Sample ID: 890-2396-A-9-F MS
Matrix: Solid
Analysis Batch: 27549

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	148		249	395.1		mg/Kg		99	90 - 110

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-2396-A-9-G MSD
Matrix: Solid
Analysis Batch: 27549

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	148		249	397.0		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

GC VOA

Prep Batch: 27259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-2	SS02	Total/NA	Solid	5035	
MB 880-27259/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27259/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27259/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2376-A-56-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2376-A-56-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 27306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Total/NA	Solid	5035	
890-2398-2	SS02	Total/NA	Solid	5035	
890-2398-3	SS03	Total/NA	Solid	5035	
890-2398-4	SS04	Total/NA	Solid	5035	
890-2398-5	SS05	Total/NA	Solid	5035	
890-2398-6	SS06	Total/NA	Solid	5035	
890-2398-7	SS07	Total/NA	Solid	5035	
MB 880-27306/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27306/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27306/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2397-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2397-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Total/NA	Solid	8021B	27306
890-2398-2	SS02	Total/NA	Solid	8021B	27306
890-2398-2	SS02	Total/NA	Solid	8021B	27259
890-2398-3	SS03	Total/NA	Solid	8021B	27306
890-2398-4	SS04	Total/NA	Solid	8021B	27306
890-2398-5	SS05	Total/NA	Solid	8021B	27306
890-2398-6	SS06	Total/NA	Solid	8021B	27306
890-2398-7	SS07	Total/NA	Solid	8021B	27306
MB 880-27259/5-A	Method Blank	Total/NA	Solid	8021B	27259
MB 880-27306/5-A	Method Blank	Total/NA	Solid	8021B	27306
LCS 880-27259/1-A	Lab Control Sample	Total/NA	Solid	8021B	27259
LCS 880-27306/1-A	Lab Control Sample	Total/NA	Solid	8021B	27306
LCSD 880-27259/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27259
LCSD 880-27306/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27306
890-2376-A-56-D MS	Matrix Spike	Total/NA	Solid	8021B	27259
890-2376-A-56-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27259
890-2397-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	27306
890-2397-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27306

Analysis Batch: 27527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Total/NA	Solid	Total BTEX	
890-2398-2	SS02	Total/NA	Solid	Total BTEX	
890-2398-3	SS03	Total/NA	Solid	Total BTEX	
890-2398-4	SS04	Total/NA	Solid	Total BTEX	
890-2398-5	SS05	Total/NA	Solid	Total BTEX	
890-2398-6	SS06	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

GC VOA (Continued)

Analysis Batch: 27527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-7	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 27314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Total/NA	Solid	8015NM Prep	
890-2398-2	SS02	Total/NA	Solid	8015NM Prep	
890-2398-3	SS03	Total/NA	Solid	8015NM Prep	
890-2398-4	SS04	Total/NA	Solid	8015NM Prep	
890-2398-5	SS05	Total/NA	Solid	8015NM Prep	
890-2398-6	SS06	Total/NA	Solid	8015NM Prep	
890-2398-7	SS07	Total/NA	Solid	8015NM Prep	
MB 880-27314/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27314/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27314/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2396-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2396-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Total/NA	Solid	8015B NM	27314
890-2398-2	SS02	Total/NA	Solid	8015B NM	27314
890-2398-3	SS03	Total/NA	Solid	8015B NM	27314
890-2398-4	SS04	Total/NA	Solid	8015B NM	27314
890-2398-5	SS05	Total/NA	Solid	8015B NM	27314
890-2398-6	SS06	Total/NA	Solid	8015B NM	27314
890-2398-7	SS07	Total/NA	Solid	8015B NM	27314
MB 880-27314/1-A	Method Blank	Total/NA	Solid	8015B NM	27314
LCS 880-27314/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27314
LCSD 880-27314/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27314
890-2396-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	27314
890-2396-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27314

Analysis Batch: 27387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Total/NA	Solid	8015 NM	
890-2398-2	SS02	Total/NA	Solid	8015 NM	
890-2398-3	SS03	Total/NA	Solid	8015 NM	
890-2398-4	SS04	Total/NA	Solid	8015 NM	
890-2398-5	SS05	Total/NA	Solid	8015 NM	
890-2398-6	SS06	Total/NA	Solid	8015 NM	
890-2398-7	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 27514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Soluble	Solid	DI Leach	
890-2398-2	SS02	Soluble	Solid	DI Leach	
MB 880-27514/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27514/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

HPLC/IC (Continued)

Leach Batch: 27514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-27514/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2396-A-9-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2396-A-9-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 27515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-3	SS03	Soluble	Solid	DI Leach	
890-2398-4	SS04	Soluble	Solid	DI Leach	
890-2398-5	SS05	Soluble	Solid	DI Leach	
890-2398-6	SS06	Soluble	Solid	DI Leach	
890-2398-7	SS07	Soluble	Solid	DI Leach	
MB 880-27515/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27515/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27515/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15674-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15674-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-15699-A-4-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15699-A-4-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 27548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-3	SS03	Soluble	Solid	300.0	27515
890-2398-4	SS04	Soluble	Solid	300.0	27515
890-2398-5	SS05	Soluble	Solid	300.0	27515
890-2398-6	SS06	Soluble	Solid	300.0	27515
890-2398-7	SS07	Soluble	Solid	300.0	27515
MB 880-27515/1-A	Method Blank	Soluble	Solid	300.0	27515
LCS 880-27515/2-A	Lab Control Sample	Soluble	Solid	300.0	27515
LCSD 880-27515/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27515
880-15674-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	27515
880-15674-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27515
880-15699-A-4-C MS	Matrix Spike	Soluble	Solid	300.0	27515
880-15699-A-4-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27515

Analysis Batch: 27549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2398-1	SS01	Soluble	Solid	300.0	27514
890-2398-2	SS02	Soluble	Solid	300.0	27514
MB 880-27514/1-A	Method Blank	Soluble	Solid	300.0	27514
LCS 880-27514/2-A	Lab Control Sample	Soluble	Solid	300.0	27514
LCSD 880-27514/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27514
890-2396-A-9-F MS	Matrix Spike	Soluble	Solid	300.0	27514
890-2396-A-9-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27514

Lab Chronicle

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS01

Lab Sample ID: 890-2398-1
Matrix: Solid
Date Collected: 06/01/22 12:28
Date Received: 06/08/22 14:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	27440	06/13/22 20:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		5			27330	06/12/22 04:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	27514	06/14/22 13:29	SC	XEN MID
Soluble	Analysis	300.0		20			27549	06/15/22 20:04	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-2398-2
Matrix: Solid
Date Collected: 06/01/22 12:33
Date Received: 06/08/22 14:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27440	06/13/22 19:11	MR	XEN MID
Total/NA	Prep	5035			4.95 g	5 mL	27259	06/13/22 17:00	EL	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	27440	06/14/22 10:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		5			27330	06/12/22 04:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	27514	06/14/22 13:29	SC	XEN MID
Soluble	Analysis	300.0		1			27549	06/15/22 20:12	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-2398-3
Matrix: Solid
Date Collected: 06/01/22 12:45
Date Received: 06/08/22 14:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27440	06/13/22 19:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		5			27330	06/12/22 05:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	27515	06/14/22 13:35	SC	XEN MID
Soluble	Analysis	300.0		10			27548	06/16/22 00:16	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS04
Date Collected: 06/01/22 13:40
Date Received: 06/08/22 14:43

Lab Sample ID: 890-2398-4
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			4.98 g	5 mL	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27440	06/13/22 19:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27330	06/12/22 03:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	27515	06/14/22 13:35	SC	XEN MID
Soluble	Analysis	300.0		1			27548	06/16/22 00:24	CH	XEN MID

Client Sample ID: SS05
Date Collected: 06/01/22 13:55
Date Received: 06/08/22 14:43

Lab Sample ID: 890-2398-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27440	06/13/22 21:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27330	06/12/22 03:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27515	06/14/22 13:35	SC	XEN MID
Soluble	Analysis	300.0		1			27548	06/16/22 00:32	CH	XEN MID

Client Sample ID: SS06
Date Collected: 06/01/22 13:59
Date Received: 06/08/22 14:43

Lab Sample ID: 890-2398-6
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			5.03 g	5 mL	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27440	06/13/22 21:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27330	06/12/22 03:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27515	06/14/22 13:35	SC	XEN MID
Soluble	Analysis	300.0		1			27548	06/16/22 00:39	CH	XEN MID

Client Sample ID: SS07
Date Collected: 06/01/22 14:08
Date Received: 06/08/22 14:43

Lab Sample ID: 890-2398-7
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	27306	06/10/22 12:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27440	06/13/22 22:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27527	06/14/22 15:18	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Client Sample ID: SS07

Date Collected: 06/01/22 14:08
Date Received: 06/08/22 14:43

Lab Sample ID: 890-2398-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			27387	06/13/22 09:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27314	06/10/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27330	06/12/22 04:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	27515	06/14/22 13:35	SC	XEN MID
Soluble	Analysis	300.0		1			27548	06/16/22 00:47	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

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	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Raspberry State 1H

Job ID: 890-2398-1
SDG: 03D2024048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2398-1	SS01	Solid	06/01/22 12:28	06/08/22 14:43	0.5'
890-2398-2	SS02	Solid	06/01/22 12:33	06/08/22 14:43	0.5'
890-2398-3	SS03	Solid	06/01/22 12:45	06/08/22 14:43	0.5'
890-2398-4	SS04	Solid	06/01/22 13:40	06/08/22 14:43	0.5'
890-2398-5	SS05	Solid	06/01/22 13:55	06/08/22 14:43	0.5'
890-2398-6	SS06	Solid	06/01/22 13:59	06/08/22 14:43	0.5'
890-2398-7	SS07	Solid	06/01/22 14:08	06/08/22 14:43	0.5'

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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: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State 1H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024048	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.4	
Total Containers:		Corrected Temperature:	3.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	06.01.22	1228	0.5'	G	1		x	x	x
SS02	S	06.01.22	1233	0.5'	G	1		x	x	x
SS03	S	06.01.22	1245	0.5'	G	1		x	x	x
SS04	S	06.01.22	1340	0.5'	G	1		x	x	x
SS05	S	06.01.22	1355	0.5'	G	1		x	x	x
SS06	S	06.01.22	1359	0.5'	G	1		x	x	x
SS07	S	06.01.22	1408	0.5'	G	1		x	x	x

Parameters

890-2398 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

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 Tl 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 Tl 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	Amanda Stuyt	6/8/22 1443	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2398-1
SDG Number: 03D2024048

Login Number: 2398
List Number: 1
Creator: Stutzman, Amanda

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2398-1
SDG Number: 03D2024048

Login Number: 2398
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/10/22 11:28 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2416-1
Laboratory Sample Delivery Group: 03E20240048
Client Project/Site: Rasberry Sate Com 001H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
6/22/2022 12:08:03 PM

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

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

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

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Laboratory Job ID: 890-2416-1
SDG: 03E20240048

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

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
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Job ID: 890-2416-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2416-1

Receipt
The samples were received on 6/15/2022 12:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-27795 and analytical batch 880-27853 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (820-4625-A-1-B MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS05 (890-2416-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-27655 and analytical batch 880-27649 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-27655 and analytical batch 880-27649 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS01

Lab Sample ID: 890-2416-1
Matrix: Solid
Date Collected: 06/14/22 12:55
Date Received: 06/15/22 12:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/17/22 10:04	06/18/22 17:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/17/22 10:04	06/18/22 17:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/17/22 10:04	06/18/22 17:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/17/22 10:04	06/18/22 17:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/17/22 10:04	06/18/22 17:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/17/22 10:04	06/18/22 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/17/22 10:04*	*06/18/22 17:28*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/17/22 10:04*	*06/18/22 17:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/20/22 15:31	1

Method: 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			06/16/22 15:30	1

Method: 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 *1	50.0		mg/Kg		06/16/22 08:31	06/16/22 14:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 14:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*06/16/22 08:31*	*06/16/22 14:27*	*1*
o-Terphenyl	*97*		*70 - 130*	*06/16/22 08:31*	*06/16/22 14:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**400**		25.0		mg/Kg			06/22/22 04:48	5

Client Sample ID: FS02

Lab Sample ID: 890-2416-2
Matrix: Solid
Date Collected: 06/14/22 13:00
Date Received: 06/15/22 12:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 18:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 18:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 18:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/17/22 10:04	06/18/22 18:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 18:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/17/22 10:04	06/18/22 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/17/22 10:04*	*06/18/22 18:34*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS02

Lab Sample ID: 890-2416-2
Matrix: Solid
Date Collected: 06/14/22 13:00
Date Received: 06/15/22 12:26
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*06/17/22 10:04*	*06/18/22 18:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			06/20/22 15:31	1

Method: 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			06/16/22 15:30	1

Method: 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 *1	49.9	mg/Kg		06/16/22 08:31	06/16/22 14:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/16/22 08:31	06/16/22 14:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/16/22 08:31	06/16/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*06/16/22 08:31*	*06/16/22 14:48*	*1*
o-Terphenyl	*98*		*70 - 130*	*06/16/22 08:31*	*06/16/22 14:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**196**		5.04	mg/Kg			06/22/22 05:15	1

Client Sample ID: FS03

Lab Sample ID: 890-2416-3
Matrix: Solid
Date Collected: 06/14/22 14:30
Date Received: 06/15/22 12:26
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/17/22 10:04	06/18/22 18:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/17/22 10:04	06/18/22 18:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/17/22 10:04	06/18/22 18:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/17/22 10:04	06/18/22 18:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/17/22 10:04	06/18/22 18:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/17/22 10:04	06/18/22 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*06/17/22 10:04*	*06/18/22 18:55*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*06/17/22 10:04*	*06/18/22 18:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/20/22 15:31	1

Method: 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			06/16/22 15:30	1

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Client Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS03

Lab Sample ID: 890-2416-3
Matrix: Solid
Date Collected: 06/14/22 14:30
Date Received: 06/15/22 12:26
Sample Depth: 1

Method: 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 *1	50.0		mg/Kg		06/16/22 08:31	06/16/22 15:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 15:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*06/16/22 08:31*	*06/16/22 15:10*	*1*
o-Terphenyl	*95*		*70 - 130*	*06/16/22 08:31*	*06/16/22 15:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2630**		25.0		mg/Kg			06/22/22 05:25	5

Client Sample ID: FS04

Lab Sample ID: 890-2416-4
Matrix: Solid
Date Collected: 06/14/22 14:35
Date Received: 06/15/22 12:26
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/17/22 10:04	06/18/22 19:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/17/22 10:04	06/18/22 19:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/17/22 10:04	06/18/22 19:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/17/22 10:04	06/18/22 19:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/17/22 10:04	06/18/22 19:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/17/22 10:04	06/18/22 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*06/17/22 10:04*	*06/18/22 19:16*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/17/22 10:04*	*06/18/22 19:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/20/22 15:31	1

Method: 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			06/16/22 15:30	1

Method: 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 *1	49.9		mg/Kg		06/16/22 08:31	06/16/22 15:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/16/22 08:31	06/16/22 15:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/16/22 08:31	06/16/22 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*06/16/22 08:31*	*06/16/22 15:32*	*1*
o-Terphenyl	*96*		*70 - 130*	*06/16/22 08:31*	*06/16/22 15:32*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS04

Lab Sample ID: 890-2416-4
Matrix: Solid
Date Collected: 06/14/22 14:35
Date Received: 06/15/22 12:26
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1130		24.9		mg/Kg			06/22/22 05:52	5

Client Sample ID: FS05

Lab Sample ID: 890-2416-5
Matrix: Solid
Date Collected: 06/14/22 14:40
Date Received: 06/15/22 12:26
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/17/22 10:04	06/18/22 19:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/17/22 10:04	06/18/22 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*52*	*S1-*	*70 - 130*	*06/17/22 10:04*	*06/18/22 19:36*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*06/17/22 10:04*	*06/18/22 19:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			06/20/22 15:31	1

Method: 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			06/16/22 15:30	1

Method: 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 *1	50.0		mg/Kg		06/16/22 08:31	06/16/22 16:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 16:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*06/16/22 08:31*	*06/16/22 16:20*	*1*
o-Terphenyl	*94*		*70 - 130*	*06/16/22 08:31*	*06/16/22 16:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	639		5.00		mg/Kg			06/22/22 06:01	1

Client Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS06

Date Collected: 06/14/22 13:25
Date Received: 06/15/22 12:26
Sample Depth: 0.5

Lab Sample ID: 890-2416-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/17/22 10:04	06/18/22 19:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 19:57	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/17/22 10:04	06/18/22 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*06/17/22 10:04*	*06/18/22 19:57*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/17/22 10:04*	*06/18/22 19:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/20/22 15:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**338**		49.9		mg/Kg			06/16/22 15:30	1

Method: 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 *1	49.9		mg/Kg		06/16/22 08:31	06/16/22 16:42	1
Diesel Range Organics (Over C10-C28)	**221**		49.9		mg/Kg		06/16/22 08:31	06/16/22 16:42	1
Oil Range Organics (Over C28-C36)	**117**		49.9		mg/Kg		06/16/22 08:31	06/16/22 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*06/16/22 08:31*	*06/16/22 16:42*	*1*
o-Terphenyl	*87*		*70 - 130*	*06/16/22 08:31*	*06/16/22 16:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		4.99		mg/Kg			06/22/22 06:11	1

Surrogate Summary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
820-4625-A-1-B MS	Matrix Spike	64 S1-	118
820-4625-A-1-C MSD	Matrix Spike Duplicate	109	83
890-2416-1	FS01	90	108
890-2416-2	FS02	90	107
890-2416-3	FS03	94	104
890-2416-4	FS04	94	108
890-2416-5	FS05	52 S1-	104
890-2416-6	FS06	97	103
LCS 880-27795/1-A	Lab Control Sample	95	93
LCSD 880-27795/2-A	Lab Control Sample Dup	101	98
MB 880-27795/5-A	Method Blank	92	105

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)
880-15959-A-5-D MS	Matrix Spike	82	77
880-15959-A-5-E MSD	Matrix Spike Duplicate	82	78
890-2416-1	FS01	91	97
890-2416-2	FS02	91	98
890-2416-3	FS03	88	95
890-2416-4	FS04	90	96
890-2416-5	FS05	89	94
890-2416-6	FS06	87	87
LCS 880-27655/2-A	Lab Control Sample	94	96
LCSD 880-27655/3-A	Lab Control Sample Dup	88	90
MB 880-27655/1-A	Method Blank	84	95

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27795/5-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27795

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 11:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 11:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 11:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/17/22 10:04	06/18/22 11:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 10:04	06/18/22 11:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/17/22 10:04	06/18/22 11:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*06/17/22 10:04*	*06/18/22 11:53*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/17/22 10:04*	*06/18/22 11:53*	*1*

Lab Sample ID: LCS 880-27795/1-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27795

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09798		mg/Kg		98	70 - 130		
Toluene			0.100	0.1110		mg/Kg		111	70 - 130		
Ethylbenzene			0.100	0.09763		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.1901		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.1039		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-27795/2-A
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27795

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09689		mg/Kg		97	70 - 130	1	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	6	35
Ethylbenzene			0.100	0.09757		mg/Kg		98	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1966		mg/Kg		98	70 - 130	3	35
o-Xylene			0.100	0.1088		mg/Kg		109	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 820-4625-A-1-B MS
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F2 F1	0.0998	0.09872		mg/Kg		99	70 - 130		
Toluene	<0.00200	U	0.0998	0.08032		mg/Kg		80	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

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

Lab Sample ID: 820-4625-A-1-B MS
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0998	0.05492	F1	mg/Kg		55	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.200	0.1005	F1	mg/Kg		50	70 - 130
o-Xylene	<0.00200	U F1	0.0998	0.05611	F1	mg/Kg		56	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*64*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: 820-4625-A-1-C MSD
Matrix: Solid
Analysis Batch: 27853

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0994	0.05702	F2 F1	mg/Kg		57	70 - 130	54	35
Toluene	<0.00200	U	0.0994	0.07275		mg/Kg		73	70 - 130	10	35
Ethylbenzene	<0.00200	U F1	0.0994	0.06123	F1	mg/Kg		62	70 - 130	11	35
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.1232	F1	mg/Kg		61	70 - 130	20	35
o-Xylene	<0.00200	U F1	0.0994	0.06770	F1	mg/Kg		68	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*

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

Lab Sample ID: MB 880-27655/1-A
Matrix: Solid
Analysis Batch: 27649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27655

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 10:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 10:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/16/22 08:31	06/16/22 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/16/22 08:31*	*06/16/22 10:25*	*1*
o-Terphenyl	*95*		*70 - 130*	*06/16/22 08:31*	*06/16/22 10:25*	*1*

Lab Sample ID: LCS 880-27655/2-A
Matrix: Solid
Analysis Batch: 27649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27655

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1101		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)			1000	974.5		mg/Kg		97	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

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

Lab Sample ID: LCS 880-27655/2-A
Matrix: Solid
Analysis Batch: 27649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27655

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-27655/3-A
Matrix: Solid
Analysis Batch: 27649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27655

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	837.8	*1	mg/Kg		84	70 - 130	27	20
Diesel Range Organics (Over C10-C28)			1000	927.3		mg/Kg		93	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 880-15959-A-5-D MS
Matrix: Solid
Analysis Batch: 27649

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	998	791.6		mg/Kg		75	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	707.8	F1	mg/Kg		69	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	77		70 - 130

Lab Sample ID: 880-15959-A-5-E MSD
Matrix: Solid
Analysis Batch: 27649

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	999	786.2		mg/Kg		74	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	723.6		mg/Kg		70	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	78		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27812/1-A
Matrix: Solid
Analysis Batch: 28044

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			06/22/22 02:11	1

Lab Sample ID: LCS 880-27812/2-A
Matrix: Solid
Analysis Batch: 28044

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	263.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-27812/3-A
Matrix: Solid
Analysis Batch: 28044

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	265.9		mg/Kg		106	90 - 110	1	20

Lab Sample ID: 890-2416-1 MS
Matrix: Solid
Analysis Batch: 28044

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	400		1250	1644		mg/Kg		99	90 - 110		

Lab Sample ID: 890-2416-1 MSD
Matrix: Solid
Analysis Batch: 28044

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	400		1250	1638		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

GC VOA

Prep Batch: 27795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Total/NA	Solid	5035	
890-2416-2	FS02	Total/NA	Solid	5035	
890-2416-3	FS03	Total/NA	Solid	5035	
890-2416-4	FS04	Total/NA	Solid	5035	
890-2416-5	FS05	Total/NA	Solid	5035	
890-2416-6	FS06	Total/NA	Solid	5035	
MB 880-27795/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27795/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27795/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-4625-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
820-4625-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Total/NA	Solid	8021B	27795
890-2416-2	FS02	Total/NA	Solid	8021B	27795
890-2416-3	FS03	Total/NA	Solid	8021B	27795
890-2416-4	FS04	Total/NA	Solid	8021B	27795
890-2416-5	FS05	Total/NA	Solid	8021B	27795
890-2416-6	FS06	Total/NA	Solid	8021B	27795
MB 880-27795/5-A	Method Blank	Total/NA	Solid	8021B	27795
LCS 880-27795/1-A	Lab Control Sample	Total/NA	Solid	8021B	27795
LCSD 880-27795/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27795
820-4625-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	27795
820-4625-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27795

Analysis Batch: 27972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Total/NA	Solid	Total BTEX	
890-2416-2	FS02	Total/NA	Solid	Total BTEX	
890-2416-3	FS03	Total/NA	Solid	Total BTEX	
890-2416-4	FS04	Total/NA	Solid	Total BTEX	
890-2416-5	FS05	Total/NA	Solid	Total BTEX	
890-2416-6	FS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 27649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Total/NA	Solid	8015B NM	27655
890-2416-2	FS02	Total/NA	Solid	8015B NM	27655
890-2416-3	FS03	Total/NA	Solid	8015B NM	27655
890-2416-4	FS04	Total/NA	Solid	8015B NM	27655
890-2416-5	FS05	Total/NA	Solid	8015B NM	27655
890-2416-6	FS06	Total/NA	Solid	8015B NM	27655
MB 880-27655/1-A	Method Blank	Total/NA	Solid	8015B NM	27655
LCS 880-27655/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27655
LCSD 880-27655/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27655
880-15959-A-5-D MS	Matrix Spike	Total/NA	Solid	8015B NM	27655
880-15959-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27655

QC Association Summary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

GC Semi VOA

Prep Batch: 27655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Total/NA	Solid	8015NM Prep	
890-2416-2	FS02	Total/NA	Solid	8015NM Prep	
890-2416-3	FS03	Total/NA	Solid	8015NM Prep	
890-2416-4	FS04	Total/NA	Solid	8015NM Prep	
890-2416-5	FS05	Total/NA	Solid	8015NM Prep	
890-2416-6	FS06	Total/NA	Solid	8015NM Prep	
MB 880-27655/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27655/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27655/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15959-A-5-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15959-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Total/NA	Solid	8015 NM	
890-2416-2	FS02	Total/NA	Solid	8015 NM	
890-2416-3	FS03	Total/NA	Solid	8015 NM	
890-2416-4	FS04	Total/NA	Solid	8015 NM	
890-2416-5	FS05	Total/NA	Solid	8015 NM	
890-2416-6	FS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 27812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Soluble	Solid	DI Leach	
890-2416-2	FS02	Soluble	Solid	DI Leach	
890-2416-3	FS03	Soluble	Solid	DI Leach	
890-2416-4	FS04	Soluble	Solid	DI Leach	
890-2416-5	FS05	Soluble	Solid	DI Leach	
890-2416-6	FS06	Soluble	Solid	DI Leach	
MB 880-27812/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27812/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27812/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2416-1 MS	FS01	Soluble	Solid	DI Leach	
890-2416-1 MSD	FS01	Soluble	Solid	DI Leach	

Analysis Batch: 28044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2416-1	FS01	Soluble	Solid	300.0	27812
890-2416-2	FS02	Soluble	Solid	300.0	27812
890-2416-3	FS03	Soluble	Solid	300.0	27812
890-2416-4	FS04	Soluble	Solid	300.0	27812
890-2416-5	FS05	Soluble	Solid	300.0	27812
890-2416-6	FS06	Soluble	Solid	300.0	27812
MB 880-27812/1-A	Method Blank	Soluble	Solid	300.0	27812
LCS 880-27812/2-A	Lab Control Sample	Soluble	Solid	300.0	27812
LCSD 880-27812/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27812
890-2416-1 MS	FS01	Soluble	Solid	300.0	27812
890-2416-1 MSD	FS01	Soluble	Solid	300.0	27812

Lab Chronicle

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS01

Lab Sample ID: 890-2416-1

Date Collected: 06/14/22 12:55
Matrix: Solid
Date Received: 06/15/22 12:26

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	27795	06/17/22 10:04	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 17:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27972	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27719	06/16/22 15:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27655	06/16/22 08:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27649	06/16/22 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	27812	06/17/22 11:57	SC	XEN MID
Soluble	Analysis	300.0		5			28044	06/22/22 04:48	CH	XEN MID

Client Sample ID: FS02

Lab Sample ID: 890-2416-2

Date Collected: 06/14/22 13:00
Matrix: Solid
Date Received: 06/15/22 12:26

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	27795	06/17/22 10:04	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 18:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27972	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27719	06/16/22 15:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27655	06/16/22 08:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27649	06/16/22 14:48	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	27812	06/17/22 11:57	SC	XEN MID
Soluble	Analysis	300.0		1			28044	06/22/22 05:15	CH	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-2416-3

Date Collected: 06/14/22 14:30
Matrix: Solid
Date Received: 06/15/22 12:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	27795	06/17/22 10:04	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 18:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27972	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27719	06/16/22 15:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27655	06/16/22 08:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27649	06/16/22 15:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27812	06/17/22 11:57	SC	XEN MID
Soluble	Analysis	300.0		5			28044	06/22/22 05:25	CH	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-2416-4

Date Collected: 06/14/22 14:35
Matrix: Solid
Date Received: 06/15/22 12:26

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	27795	06/17/22 10:04	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 19:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27972	06/20/22 15:31	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Client Sample ID: FS04

Date Collected: 06/14/22 14:35
Date Received: 06/15/22 12:26

Lab Sample ID: 890-2416-4
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			27719	06/16/22 15:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27655	06/16/22 08:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27649	06/16/22 15:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27812	06/17/22 11:57	SC	XEN MID
Soluble	Analysis	300.0		5			28044	06/22/22 05:52	CH	XEN MID

Client Sample ID: FS05

Date Collected: 06/14/22 14:40
Date Received: 06/15/22 12:26

Lab Sample ID: 890-2416-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	27795	06/17/22 10:04	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 19:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27972	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27719	06/16/22 15:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27655	06/16/22 08:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27649	06/16/22 16:20	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	27812	06/17/22 11:57	SC	XEN MID
Soluble	Analysis	300.0		1			28044	06/22/22 06:01	CH	XEN MID

Client Sample ID: FS06

Date Collected: 06/14/22 13:25
Date Received: 06/15/22 12:26

Lab Sample ID: 890-2416-6
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			4.99 g	5 mL	27795	06/17/22 10:04	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	27853	06/18/22 19:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27972	06/20/22 15:31	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27719	06/16/22 15:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27655	06/16/22 08:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27649	06/16/22 16:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27812	06/17/22 11:57	SC	XEN MID
Soluble	Analysis	300.0		1			28044	06/22/22 06:11	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

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	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Rasberry Sate Com 001H

Job ID: 890-2416-1
SDG: 03E20240048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2416-1	FS01	Solid	06/14/22 12:55	06/15/22 12:26	0.5
890-2416-2	FS02	Solid	06/14/22 13:00	06/15/22 12:26	0.5
890-2416-3	FS03	Solid	06/14/22 14:30	06/15/22 12:26	1
890-2416-4	FS04	Solid	06/14/22 14:35	06/15/22 12:26	1
890-2416-5	FS05	Solid	06/14/22 14:40	06/15/22 12:26	1
890-2416-6	FS06	Solid	06/14/22 13:25	06/15/22 12:26	0.5

Chain of Custody

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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: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☒ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State Com 001H	Turn Around	
Project Number:	03E20240048	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	CF: -0.2	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	5.2/5.0	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1-NM-007	
Total Containers:		Corrected Temperature:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS01	s	06.14.22	1255	0.5'	C	1	x	x	x	NAPP2213029810
FS02	s	06.14.22	1300	0.5'	C	1	x	x	x	
FS03	s	06.14.22	1430	1'	C	1	x	x	x	
FS04	s	06.14.22	1435	1'	C	1	x	x	x	
FS05	s	06.14.22	1440	1'	C	1	x	x	x	
FS06	s	06.14.22	1325	0.5'	C	1	x	x	x	

890-2416 Chain of Custody

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2S0_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

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 Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6.15.22 1226	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2416-1
SDG Number: 03E20240048

Login Number: 2416
List Number: 1
Creator: Clifton, Cloe

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2416-1
SDG Number: 03E20240048

Login Number: 2416
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/16/22 11:11 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2559-1
Laboratory Sample Delivery Group: 03E20240048
Client Project/Site: Rasberry State Com 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/21/2022 9:53:13 AM

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

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

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

Client: Ensolum
Project/Site: Rasberry State Com 1

Laboratory Job ID: 890-2559-1
SDG: 03E20240048

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2559-1
Project/Site: Rasberry State Com 1 SDG: 03E20240048

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Job ID: 890-2559-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2559-1

Receipt
The samples were received on 7/15/2022 10:09 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-29891/2-A) and (MB 880-29891/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-29891 and analytical batch 880-30026 contained Gasoline Range Organics (GRO)-C6-C10, OII Range Organics (Over C28-C36) and Total TPH above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) for preparation batch 880-29891 and analytical batch 880-30026 recovered outside control limits for the following analytes: <AffectedAnalytes>. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Client Sample ID: FS03A

Lab Sample ID: 890-2559-1
Matrix: Solid
Date Collected: 07/13/22 10:55
Date Received: 07/15/22 10:09
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 06:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 06:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 06:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/20/22 15:07	07/21/22 06:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 06:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/20/22 15:07	07/21/22 06:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/20/22 15:07*	*07/21/22 06:49*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*07/20/22 15:07*	*07/21/22 06:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/21/22 08:55	1

Method: 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			07/20/22 10:23	1

Method: 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		07/18/22 08:34	07/19/22 20:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		07/18/22 08:34	07/19/22 20:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*07/18/22 08:34*	*07/19/22 20:12*	*1*
o-Terphenyl	*110*		*70 - 130*	*07/18/22 08:34*	*07/19/22 20:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.7**		4.99		mg/Kg			07/20/22 22:23	1

Client Sample ID: FS04A

Lab Sample ID: 890-2559-2
Matrix: Solid
Date Collected: 07/13/22 11:10
Date Received: 07/15/22 10:09
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/20/22 15:07	07/21/22 07:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:09	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/20/22 15:07	07/21/22 07:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 15:07*	*07/21/22 07:09*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Client Sample ID: FS04A

Lab Sample ID: 890-2559-2
Matrix: Solid

Date Collected: 07/13/22 11:10
Date Received: 07/15/22 10:09
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*07/20/22 15:07*	*07/21/22 07:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			07/21/22 08:55	1

Method: 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			07/20/22 10:23	1

Method: 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		07/18/22 08:34	07/19/22 20:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		07/18/22 08:34	07/19/22 20:34	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/18/22 08:34	07/19/22 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*07/18/22 08:34*	*07/19/22 20:34*	*1*
o-Terphenyl	*116*		*70 - 130*	*07/18/22 08:34*	*07/19/22 20:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		5.00		mg/Kg			07/20/22 22:50	1

Client Sample ID: FS05A

Lab Sample ID: 890-2559-3
Matrix: Solid

Date Collected: 07/13/22 11:15
Date Received: 07/15/22 10:09
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:29	1
Toluene	**0.00225**		0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:29	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/20/22 15:07	07/21/22 07:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 07:29	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/20/22 15:07	07/21/22 07:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 15:07*	*07/21/22 07:29*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*07/20/22 15:07*	*07/21/22 07:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/21/22 08:55	1

Method: 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			07/20/22 10:23	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Client Sample ID: FS05A

Lab Sample ID: 890-2559-3
Matrix: Solid
Date Collected: 07/13/22 11:15
Date Received: 07/15/22 10:09
Sample Depth: 1.5

Method: 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		07/18/22 08:34	07/19/22 20:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		07/18/22 08:34	07/19/22 20:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*07/18/22 08:34*	*07/19/22 20:57*	*1*
o-Terphenyl	*100*		*70 - 130*	*07/18/22 08:34*	*07/19/22 20:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**112**		4.97		mg/Kg			07/20/22 23:00	1

Client Sample ID: FS06A

Lab Sample ID: 890-2559-4
Matrix: Solid
Date Collected: 07/13/22 11:20
Date Received: 07/15/22 10:09
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/20/22 15:07	07/21/22 07:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/20/22 15:07	07/21/22 07:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/20/22 15:07	07/21/22 07:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/20/22 15:07	07/21/22 07:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/20/22 15:07	07/21/22 07:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/20/22 15:07	07/21/22 07:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*07/20/22 15:07*	*07/21/22 07:50*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*07/20/22 15:07*	*07/21/22 07:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/21/22 08:55	1

Method: 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			07/20/22 10:23	1

Method: 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		07/18/22 08:34	07/19/22 21:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		07/18/22 08:34	07/19/22 21:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*07/18/22 08:34*	*07/19/22 21:19*	*1*
o-Terphenyl	*101*		*70 - 130*	*07/18/22 08:34*	*07/19/22 21:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Client Sample ID: FS06A
Date Collected: 07/13/22 11:20
Date Received: 07/15/22 10:09
Sample Depth: 1

Lab Sample ID: 890-2559-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		4.95		mg/Kg			07/20/22 23:27	1

Surrogate Summary

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-16986-A-1-E MS	Matrix Spike	108	97										
880-16986-A-1-F MSD	Matrix Spike Duplicate	109	88										
890-2559-1	FS03A	107	90										
890-2559-2	FS04A	96	85										
890-2559-3	FS05A	96	102										
890-2559-4	FS06A	90	112										
LCS 880-30163/1-A	Lab Control Sample	101	97										
LCSD 880-30163/2-A	Lab Control Sample Dup	108	89										
MB 880-29817/5-A	Method Blank	98	96										
MB 880-30163/5-A	Method Blank	99	91										

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)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-16985-A-1-E MS	Matrix Spike	86	85										
880-16985-A-1-F MSD	Matrix Spike Duplicate	88	85										
890-2559-1	FS03A	94	110										
890-2559-2	FS04A	99	116										
890-2559-3	FS05A	85	100										
890-2559-4	FS06A	86	101										
LCS 880-29891/2-A	Lab Control Sample	133 S1+	137 S1+										
LCSD 880-29891/3-A	Lab Control Sample Dup	123	126										
MB 880-29891/1-A	Method Blank	129	157 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29817/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*

Lab Sample ID: MB 880-30163/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30163

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/20/22 15:07	07/21/22 00:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*07/20/22 15:07*	*07/21/22 00:45*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/20/22 15:07*	*07/21/22 00:45*	*1*

Lab Sample ID: LCS 880-30163/1-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09760		mg/Kg		98	70 - 130		
Toluene			0.100	0.09147		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09166		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1917		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-30163/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08114		mg/Kg		81	70 - 130	18	35

QC Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

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

Lab Sample ID: LCSD 880-30163/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08827		mg/Kg		88	70 - 130	4	35
Ethylbenzene			0.100	0.08806		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1900		mg/Kg		95	70 - 130	1	35
o-Xylene			0.100	0.1016		mg/Kg		102	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-16986-A-1-E MS
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 30163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.07298		mg/Kg		73	70 - 130
Toluene	<0.00199	U	0.0998	0.07635		mg/Kg		76	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.07801		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1671		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09155		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-16986-A-1-F MSD
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 30163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07246		mg/Kg		72	70 - 130	1	35
Toluene	<0.00199	U	0.100	0.08286		mg/Kg		82	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.100	0.08532		mg/Kg		84	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1839		mg/Kg		91	70 - 130	10	35
o-Xylene	<0.00199	U	0.100	0.1004		mg/Kg		100	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 14:19	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

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

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 14:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 14:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*
o-Terphenyl	*157*	*S1+*	*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1227		mg/Kg		123	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1345	*+	mg/Kg		135	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*
o-Terphenyl	*137*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-29891/3-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1141		mg/Kg		114	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1241		mg/Kg		124	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: 880-16985-A-1-E MS
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29891

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1013		mg/Kg		99	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U *+	1000	875.1		mg/Kg		88	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

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

Lab Sample ID: 880-16985-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30026 — **Prep Batch: 29891**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1034		mg/Kg		101	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	865.2		mg/Kg		87	70 - 130	1	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29896/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/20/22 19:46	1

Lab Sample ID: LCS 880-29896/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.2		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-29896/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-2559-1 MS — **Client Sample ID: FS03A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	57.7		250	315.3		mg/Kg		103	90 - 110		

Lab Sample ID: 890-2559-1 MSD — **Client Sample ID: FS03A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	57.7		250	315.5		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

GC VOA

Prep Batch: 29817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29817/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 30096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Total/NA	Solid	8021B	30163
890-2559-2	FS04A	Total/NA	Solid	8021B	30163
890-2559-3	FS05A	Total/NA	Solid	8021B	30163
890-2559-4	FS06A	Total/NA	Solid	8021B	30163
MB 880-29817/5-A	Method Blank	Total/NA	Solid	8021B	29817
MB 880-30163/5-A	Method Blank	Total/NA	Solid	8021B	30163
LCS 880-30163/1-A	Lab Control Sample	Total/NA	Solid	8021B	30163
LCSD 880-30163/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30163
880-16986-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	30163
880-16986-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30163

Prep Batch: 30163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Total/NA	Solid	5035	
890-2559-2	FS04A	Total/NA	Solid	5035	
890-2559-3	FS05A	Total/NA	Solid	5035	
890-2559-4	FS06A	Total/NA	Solid	5035	
MB 880-30163/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30163/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30163/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16986-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-16986-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 30202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Total/NA	Solid	Total BTEX	
890-2559-2	FS04A	Total/NA	Solid	Total BTEX	
890-2559-3	FS05A	Total/NA	Solid	Total BTEX	
890-2559-4	FS06A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Total/NA	Solid	8015NM Prep	
890-2559-2	FS04A	Total/NA	Solid	8015NM Prep	
890-2559-3	FS05A	Total/NA	Solid	8015NM Prep	
890-2559-4	FS06A	Total/NA	Solid	8015NM Prep	
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16985-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16985-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Total/NA	Solid	8015B NM	29891

QC Association Summary

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

GC Semi VOA (Continued)

Analysis Batch: 30026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-2	FS04A	Total/NA	Solid	8015B NM	29891
890-2559-3	FS05A	Total/NA	Solid	8015B NM	29891
890-2559-4	FS06A	Total/NA	Solid	8015B NM	29891
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015B NM	29891
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29891
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29891
880-16985-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	29891
880-16985-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29891

Analysis Batch: 30108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Total/NA	Solid	8015 NM	
890-2559-2	FS04A	Total/NA	Solid	8015 NM	
890-2559-3	FS05A	Total/NA	Solid	8015 NM	
890-2559-4	FS06A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Soluble	Solid	DI Leach	
890-2559-2	FS04A	Soluble	Solid	DI Leach	
890-2559-3	FS05A	Soluble	Solid	DI Leach	
890-2559-4	FS06A	Soluble	Solid	DI Leach	
MB 880-29896/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2559-1 MS	FS03A	Soluble	Solid	DI Leach	
890-2559-1 MSD	FS03A	Soluble	Solid	DI Leach	

Analysis Batch: 29940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2559-1	FS03A	Soluble	Solid	300.0	29896
890-2559-2	FS04A	Soluble	Solid	300.0	29896
890-2559-3	FS05A	Soluble	Solid	300.0	29896
890-2559-4	FS06A	Soluble	Solid	300.0	29896
MB 880-29896/1-A	Method Blank	Soluble	Solid	300.0	29896
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	300.0	29896
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29896
890-2559-1 MS	FS03A	Soluble	Solid	300.0	29896
890-2559-1 MSD	FS03A	Soluble	Solid	300.0	29896

Lab Chronicle

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Client Sample ID: FS03A
Date Collected: 07/13/22 10:55
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2559-1
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			5.03 g	5 mL	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 06:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30202	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30108	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30026	07/19/22 20:12	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1			29940	07/20/22 22:23	CH	XEN MID

Client Sample ID: FS04A
Date Collected: 07/13/22 11:10
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2559-2
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			4.99 g	5 mL	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 07:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30202	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30108	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30026	07/19/22 20:34	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1			29940	07/20/22 22:50	CH	XEN MID

Client Sample ID: FS05A
Date Collected: 07/13/22 11:15
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2559-3
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			5.01 g	5 mL	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 07:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30202	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30108	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30026	07/19/22 20:57	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1			29940	07/20/22 23:00	CH	XEN MID

Client Sample ID: FS06A
Date Collected: 07/13/22 11:20
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2559-4
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			4.97 g	5 mL	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 07:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30202	07/21/22 08:55	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Client Sample ID: FS06A

Date Collected: 07/13/22 11:20
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2559-4

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			30108	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30026	07/19/22 21:19	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1			29940	07/20/22 23:27	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

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	T104704400-22-24	06-30-23

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: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Rasberry State Com 1

Job ID: 890-2559-1
SDG: 03E20240048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2559-1	FS03A	Solid	07/13/22 10:55	07/15/22 10:09	2
890-2559-2	FS04A	Solid	07/13/22 11:10	07/15/22 10:09	2
890-2559-3	FS05A	Solid	07/13/22 11:15	07/15/22 10:09	1.5
890-2559-4	FS06A	Solid	07/13/22 11:20	07/15/22 10:09	1

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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: _____

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Project Manager:	Kaleb Jennings	Bill to: (if different)	
Company Name:	Eastham	Company Name:	
Address:	3122 NAT. PARK HWY.	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	5176832503	Email:	kjennings@eastham.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State com 1	Turn Around	
Project Number:	OBF202200Y	Routine ☐ Rush	
Project Location:	Lea County NM	Due Date:	5 day tat
Sampler's Name:	Liz Chell	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TRM_007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.0	
Total Containers:		Corrected Temperature:	4.8	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: btex	tph	Chloride
FS03 A	S	7/13/22	1055	2'	G	1		↓	↓	↓
FS04 A	S	↓	1110	2'	↓	↓				
FS05 A			1115	1.5'						
FS06 A	↓	↓	1120	1'	↓	↓				

890-2559 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

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 Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Kyle Hurd	Clae Cyp	7.15.22 1009			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2559-1
SDG Number: 03E20240048

Login Number: 2559
List Number: 1
Creator: Clifton, Cloe

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2559-1
SDG Number: 03E20240048

Login Number: 2559
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 07/18/22 08:47 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2561-1
Laboratory Sample Delivery Group: 03E20240048
Client Project/Site: RASPBERRY STATE COM #1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/25/2022 10:03:19 AM

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

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

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

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Laboratory Job ID: 890-2561-1
SDG: 03E20240048

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2561-1
Project/Site: RASPBERRY STATE COM #1 SDG: 03E20240048

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

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/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Job ID: 890-2561-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2561-1

Receipt
The samples were received on 7/15/2022 10:06 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-29925 and analytical batch 880-29927 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS03B (890-2561-2). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-29891/2-A) and (MB 880-29891/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-29891 and analytical batch 880-30026 contained Gasoline Range Organics (GRO)-C6-C10, OII Range Organics (Over C28-C36) and Total TPH above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) for preparation batch 880-29891 and analytical batch 880-30026 recovered outside control limits for the following analytes: <AffectedAnalytes>. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-29891/1-A). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Client Sample ID: SS03A

Lab Sample ID: 890-2561-1
Matrix: Solid
Date Collected: 07/13/22 12:40
Date Received: 07/15/22 10:06
Sample Depth: 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 08:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 08:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 08:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/20/22 15:07	07/21/22 08:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 08:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/20/22 15:07	07/21/22 08:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*07/20/22 15:07*	*07/21/22 08:10*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/20/22 15:07*	*07/21/22 08:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/21/22 08:55	1

Method: 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			07/19/22 09:52	1

Method: 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		07/18/22 10:51	07/18/22 18:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/18/22 10:51	07/18/22 18:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 10:51	07/18/22 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*07/18/22 10:51*	*07/18/22 18:28*	*1*
o-Terphenyl	*103*		*70 - 130*	*07/18/22 10:51*	*07/18/22 18:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**176**		4.99		mg/Kg			07/21/22 00:23	1

Client Sample ID: SS03B

Lab Sample ID: 890-2561-2
Matrix: Solid
Date Collected: 07/13/22 12:45
Date Received: 07/15/22 10:06
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/20/22 15:07	07/21/22 09:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/20/22 15:07	07/21/22 09:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*07/20/22 15:07*	*07/21/22 09:45*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Client Sample ID: SS03B

Lab Sample ID: 890-2561-2
Matrix: Solid
Date Collected: 07/13/22 12:45
Date Received: 07/15/22 10:06
Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*07/20/22 15:07*	*07/21/22 09:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**68.0**		50.0		mg/Kg			07/19/22 09:52	1

Method: 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		07/18/22 10:51	07/18/22 18:49	1
Diesel Range Organics (Over C10-C28)	**68.0**		50.0		mg/Kg		07/18/22 10:51	07/18/22 18:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 10:51	07/18/22 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*98*		*70 - 130*	*07/18/22 10:51*	*07/18/22 18:49*	*1*
o-Terphenyl	*0.03*	*S1-*	*70 - 130*	*07/18/22 10:51*	*07/18/22 18:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.5**		5.01		mg/Kg			07/20/22 01:49	1

Client Sample ID: SS02A

Lab Sample ID: 890-2561-3
Matrix: Solid
Date Collected: 07/13/22 12:50
Date Received: 07/15/22 10:06
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:04	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/20/22 15:07	07/21/22 09:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 09:04	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/20/22 15:07	07/21/22 09:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*07/20/22 15:07*	*07/21/22 09:04*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*07/20/22 15:07*	*07/21/22 09:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			07/21/22 08:55	1

Method: 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			07/19/22 09:52	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Client Sample ID: SS02A

Lab Sample ID: 890-2561-3
Matrix: Solid
Date Collected: 07/13/22 12:50
Date Received: 07/15/22 10:06
Sample Depth: 2

Method: 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		07/18/22 10:51	07/18/22 19:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/18/22 10:51	07/18/22 19:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 10:51	07/18/22 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*07/18/22 10:51*	*07/18/22 19:32*	*1*
o-Terphenyl	*110*		*70 - 130*	*07/18/22 10:51*	*07/18/22 19:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.5**		4.98		mg/Kg			07/20/22 02:16	1

Client Sample ID: SS02B

Lab Sample ID: 890-2561-4
Matrix: Solid
Date Collected: 07/13/22 12:55
Date Received: 07/15/22 10:06
Sample Depth: 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 09:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 09:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 09:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/20/22 15:07	07/21/22 09:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/20/22 15:07	07/21/22 09:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/20/22 15:07	07/21/22 09:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*07/20/22 15:07*	*07/21/22 09:25*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*07/20/22 15:07*	*07/21/22 09:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/21/22 08:55	1

Method: 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			07/19/22 09:52	1

Method: 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		07/18/22 08:34	07/19/22 23:33	1
Diesel Range Organics (Over C10-C28)	<49.8	U *+	49.8		mg/Kg		07/18/22 08:34	07/19/22 23:33	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/18/22 08:34	07/19/22 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*07/18/22 08:34*	*07/19/22 23:33*	*1*
o-Terphenyl	*103*		*70 - 130*	*07/18/22 08:34*	*07/19/22 23:33*	*1*

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Client Sample ID: SS02B
Date Collected: 07/13/22 12:55
Date Received: 07/15/22 10:06
Sample Depth: 2.5

Lab Sample ID: 890-2561-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.7		5.05		mg/Kg			07/20/22 02:25	1

Surrogate Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-16986-A-1-E MS	Matrix Spike	108	97
880-16986-A-1-F MSD	Matrix Spike Duplicate	109	88
890-2561-1	SS03A	116	91
890-2561-2	SS03B	106	90
890-2561-3	SS02A	108	86
890-2561-4	SS02B	109	94
LCS 880-30163/1-A	Lab Control Sample	101	97
LCSD 880-30163/2-A	Lab Control Sample Dup	108	89
MB 880-29817/5-A	Method Blank	98	96
MB 880-30163/5-A	Method Blank	99	91

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-16985-A-1-E MS	Matrix Spike	86	85
880-16985-A-1-F MSD	Matrix Spike Duplicate	88	85
880-17002-A-2-D MS	Matrix Spike	80	87
880-17002-A-2-E MSD	Matrix Spike Duplicate	80	87
890-2561-1	SS03A	97	103
890-2561-2	SS03B	98	0.03 S1-
890-2561-3	SS02A	96	110
890-2561-4	SS02B	89	103
LCS 880-29891/2-A	Lab Control Sample	113	125
LCS 880-29891/2-A	Lab Control Sample	133 S1+	137 S1+
LCSD 880-29891/3-A	Lab Control Sample Dup	101	115
LCSD 880-29891/3-A	Lab Control Sample Dup	123	126
MB 880-29891/1-A	Method Blank	133 S1+	156 S1+
MB 880-29891/1-A	Method Blank	129	157 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29817/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*

Lab Sample ID: MB 880-30163/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30163

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/20/22 15:07	07/21/22 00:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*07/20/22 15:07*	*07/21/22 00:45*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/20/22 15:07*	*07/21/22 00:45*	*1*

Lab Sample ID: LCS 880-30163/1-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09760		mg/Kg		98	70 - 130		
Toluene			0.100	0.09147		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09166		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1917		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-30163/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08114		mg/Kg		81	70 - 130	18	35

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

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

Lab Sample ID: LCSD 880-30163/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08827		mg/Kg		88	70 - 130	4	35
Ethylbenzene			0.100	0.08806		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1900		mg/Kg		95	70 - 130	1	35
o-Xylene			0.100	0.1016		mg/Kg		102	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-16986-A-1-E MS
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 30163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.07298		mg/Kg		73	70 - 130
Toluene	<0.00199	U	0.0998	0.07635		mg/Kg		76	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.07801		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1671		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09155		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-16986-A-1-F MSD
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 30163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07246		mg/Kg		72	70 - 130	1	35
Toluene	<0.00199	U	0.100	0.08286		mg/Kg		82	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.100	0.08532		mg/Kg		84	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1839		mg/Kg		91	70 - 130	10	35
o-Xylene	<0.00199	U	0.100	0.1004		mg/Kg		100	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 29927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/18/22 23:06	1

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

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

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 29927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/18/22 23:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/18/22 23:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*07/18/22 08:34*	*07/18/22 23:06*	*1*
o-Terphenyl	*156*	*S1+*	*70 - 130*	*07/18/22 08:34*	*07/18/22 23:06*	*1*

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 14:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 14:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/22 08:34	07/19/22 14:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*
o-Terphenyl	*157*	*S1+*	*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 29927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1079		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	953.3		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1227		mg/Kg		123	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1345	*+	mg/Kg		135	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

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

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	137	S1+	70 - 130

Lab Sample ID: LCSD 880-29891/3-A
Matrix: Solid
Analysis Batch: 29927

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	924.7		mg/Kg		92	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: LCSD 880-29891/3-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1141		mg/Kg		114	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1241		mg/Kg		124	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: 880-16985-A-1-E MS
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29891

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1013		mg/Kg		99	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U *+	1000	875.1		mg/Kg		88	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

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

Lab Sample ID: 880-16985-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30026 — **Prep Batch: 29891**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1034		mg/Kg		101	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	865.2		mg/Kg		87	70 - 130	1	20

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

Lab Sample ID: 880-17002-A-2-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 29927 — **Prep Batch: 29925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1111		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	89.1	F1	1000	730.6	F1	mg/Kg		64	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*80*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: 880-17002-A-2-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 29927 — **Prep Batch: 29925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1064		mg/Kg		106	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	89.1	F1	999	723.2	F1	mg/Kg		63	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*80*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29896/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/20/22 19:46	1

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-29896/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.2		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-29896/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-2559-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	57.7		250	315.3		mg/Kg		103	90 - 110		

Lab Sample ID: 890-2559-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29940

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	57.7		250	315.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: MB 880-29901/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29941

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/20/22 01:21	1

Lab Sample ID: LCS 880-29901/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29941

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.1		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-29901/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29941

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	267.3		mg/Kg		107	90 - 110	2	20

Lab Sample ID: 890-2561-2 MS — **Client Sample ID: SS03B**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29941

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	41.5		251	310.7		mg/Kg		107	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-2561-2 MSD
Matrix: Solid
Analysis Batch: 29941

Client Sample ID: SS03B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	41.5		251	312.0		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

GC VOA

Prep Batch: 29817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29817/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 30096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Total/NA	Solid	8021B	30163
890-2561-2	SS03B	Total/NA	Solid	8021B	30163
890-2561-3	SS02A	Total/NA	Solid	8021B	30163
890-2561-4	SS02B	Total/NA	Solid	8021B	30163
MB 880-29817/5-A	Method Blank	Total/NA	Solid	8021B	29817
MB 880-30163/5-A	Method Blank	Total/NA	Solid	8021B	30163
LCS 880-30163/1-A	Lab Control Sample	Total/NA	Solid	8021B	30163
LCSD 880-30163/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30163
880-16986-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	30163
880-16986-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30163

Prep Batch: 30163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Total/NA	Solid	5035	
890-2561-2	SS03B	Total/NA	Solid	5035	
890-2561-3	SS02A	Total/NA	Solid	5035	
890-2561-4	SS02B	Total/NA	Solid	5035	
MB 880-30163/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30163/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30163/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16986-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-16986-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 30203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Total/NA	Solid	Total BTEX	
890-2561-2	SS03B	Total/NA	Solid	Total BTEX	
890-2561-3	SS02A	Total/NA	Solid	Total BTEX	
890-2561-4	SS02B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-4	SS02B	Total/NA	Solid	8015NM Prep	
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16985-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16985-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 29925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Total/NA	Solid	8015NM Prep	
890-2561-2	SS03B	Total/NA	Solid	8015NM Prep	
890-2561-3	SS02A	Total/NA	Solid	8015NM Prep	
880-17002-A-2-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

GC Semi VOA (Continued)

Prep Batch: 29925 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-17002-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Total/NA	Solid	8015B NM	29925
890-2561-2	SS03B	Total/NA	Solid	8015B NM	29925
890-2561-3	SS02A	Total/NA	Solid	8015B NM	29925
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015B NM	29891
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29891
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29891
880-17002-A-2-D MS	Matrix Spike	Total/NA	Solid	8015B NM	29925
880-17002-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29925

Analysis Batch: 30026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-4	SS02B	Total/NA	Solid	8015B NM	29891
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015B NM	29891
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29891
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29891
880-16985-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	29891
880-16985-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29891

Analysis Batch: 30040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Total/NA	Solid	8015 NM	
890-2561-2	SS03B	Total/NA	Solid	8015 NM	
890-2561-3	SS02A	Total/NA	Solid	8015 NM	
890-2561-4	SS02B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Soluble	Solid	DI Leach	
MB 880-29896/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2559-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2559-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 29901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-2	SS03B	Soluble	Solid	DI Leach	
890-2561-3	SS02A	Soluble	Solid	DI Leach	
890-2561-4	SS02B	Soluble	Solid	DI Leach	
MB 880-29901/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29901/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29901/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2561-2 MS	SS03B	Soluble	Solid	DI Leach	
890-2561-2 MSD	SS03B	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

HPLC/IC

Analysis Batch: 29940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-1	SS03A	Soluble	Solid	300.0	29896
MB 880-29896/1-A	Method Blank	Soluble	Solid	300.0	29896
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	300.0	29896
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29896
890-2559-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	29896
890-2559-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29896

Analysis Batch: 29941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2561-2	SS03B	Soluble	Solid	300.0	29901
890-2561-3	SS02A	Soluble	Solid	300.0	29901
890-2561-4	SS02B	Soluble	Solid	300.0	29901
MB 880-29901/1-A	Method Blank	Soluble	Solid	300.0	29901
LCS 880-29901/2-A	Lab Control Sample	Soluble	Solid	300.0	29901
LCSD 880-29901/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29901
890-2561-2 MS	SS03B	Soluble	Solid	300.0	29901
890-2561-2 MSD	SS03B	Soluble	Solid	300.0	29901

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Client Sample ID: SS03A

Lab Sample ID: 890-2561-1

Date Collected: 07/13/22 12:40

Matrix: Solid

Date Received: 07/15/22 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 08:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30203	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30040	07/19/22 09:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29925	07/18/22 10:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29927	07/18/22 18:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1			29940	07/21/22 00:23	CH	XEN MID

Client Sample ID: SS03B

Lab Sample ID: 890-2561-2

Date Collected: 07/13/22 12:45

Matrix: Solid

Date Received: 07/15/22 10:06

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	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 09:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30203	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30040	07/19/22 09:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29925	07/18/22 10:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29927	07/18/22 18:49	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	29901	07/18/22 08:57	KS	XEN MID
Soluble	Analysis	300.0		1			29941	07/20/22 01:49	CH	XEN MID

Client Sample ID: SS02A

Lab Sample ID: 890-2561-3

Date Collected: 07/13/22 12:50

Matrix: Solid

Date Received: 07/15/22 10:06

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	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 09:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30203	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30040	07/19/22 09:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29925	07/18/22 10:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29927	07/18/22 19:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29901	07/18/22 08:57	KS	XEN MID
Soluble	Analysis	300.0		1			29941	07/20/22 02:16	CH	XEN MID

Client Sample ID: SS02B

Lab Sample ID: 890-2561-4

Date Collected: 07/13/22 12:55

Matrix: Solid

Date Received: 07/15/22 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/21/22 09:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30203	07/21/22 08:55	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Client Sample ID: SS02B

Date Collected: 07/13/22 12:55
Date Received: 07/15/22 10:06

Lab Sample ID: 890-2561-4

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			30040	07/19/22 09:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30026	07/19/22 23:33	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	29901	07/18/22 08:57	KS	XEN MID
Soluble	Analysis	300.0		1			29941	07/20/22 02:25	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

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	T104704400-22-24	06-30-23

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: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #1

Job ID: 890-2561-1
SDG: 03E20240048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2561-1	SS03A	Solid	07/13/22 12:40	07/15/22 10:06	2.5
890-2561-2	SS03B	Solid	07/13/22 12:45	07/15/22 10:06	3
890-2561-3	SS02A	Solid	07/13/22 12:50	07/15/22 10:06	2
890-2561-4	SS02B	Solid	07/13/22 12:55	07/15/22 10:06	2.5

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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 1

Project Manager:	Kaki Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	3122 Nath. Parks Hwy.	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	8176832503	Email:	kjennings@ensolum

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State Com #1	Turn Around	
Project Number:	03E2024004B	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	5 day tat
Sampler's Name:	Liz Chelf	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.0	
Total Containers:		Corrected Temperature:	4.8	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: btex	tph	Chloride	Sample Comments
SS03 A	S	7/13/22	1240	2.5'	G	1					
SS03 B			1245	3'							
SS02 A			1250	2'							
SS02 B			1255	2.5'							

890-2561 Chain of Custody

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 Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Kyle Flores	Ale Cup	7-15-22 1000	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2561-1
SDG Number: 03E20240048

Login Number: 2561
List Number: 1
Creator: Clifton, Cloe

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2561-1
SDG Number: 03E20240048

Login Number: 2561
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 07/18/22 08:47 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2564-1
Laboratory Sample Delivery Group: 03E20240048
Client Project/Site: RASPBERRY STATE COM#1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/9/2022 2:28:36 PM

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

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

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

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Laboratory Job ID: 890-2564-1
SDG: 03E20240048

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2564-1
Project/Site: RASPBERRY STATE COM#1 SDG: 03E20240048

Qualifiers

Metals

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/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Job ID: 890-2564-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2564-1

Receipt

The sample was received on 7/15/2022 10:09 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

Metals

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

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Client Sample ID: BACKGROUND 1
Date Collected: 07/13/22 11:05
Date Received: 07/15/22 10:09
Sample Depth: 0.5

Lab Sample ID: 890-2564-1
Matrix: Solid

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	9.48		0.500		mg/L		07/29/22 10:00	07/30/22 01:20	1
Ca	28.8		0.200		mg/L		07/29/22 10:00	07/30/22 01:20	1
Mg	1.73		0.400		mg/L		07/29/22 10:00	07/30/22 01:20	1
K	8.83		0.500		mg/L		07/29/22 10:00	07/30/22 01:20	1
Sodium Adsorption Ratio	0.463		0.100		NONE		07/29/22 10:00	08/09/22 15:13	1

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Method: 29B SAR - Sodium Adsorption Ratio

Lab Sample ID: MB 860-62952/1-A
Matrix: Solid
Analysis Batch: 63045

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 62952

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	<0.500	U	0.500		mg/L		07/29/22 11:35	07/30/22 01:16	1
Ca	<0.200	U	0.200		mg/L		07/29/22 11:35	07/30/22 01:16	1
Mg	<0.400	U	0.400		mg/L		07/29/22 11:35	07/30/22 01:16	1
K	<0.500	U	0.500		mg/L		07/29/22 11:35	07/30/22 01:16	1

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Metals

Prep Batch: 62945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2564-1	BACKGROUND 1	Total/NA	Solid	29B	62952

Prep Batch: 62952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2564-1	BACKGROUND 1	Total/NA	Solid	29B	
MB 860-62952/1-A	Method Blank	Soluble	Solid	29B	

Analysis Batch: 63045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2564-1	BACKGROUND 1	Total/NA	Solid	29B SAR	62945
MB 860-62952/1-A	Method Blank	Soluble	Solid	29B SAR	62952

Analysis Batch: 64216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2564-1	BACKGROUND 1	Total/NA	Solid	29B SAR	62945

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Client Sample ID: BACKGROUND 1

Date Collected: 07/13/22 11:05
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2564-1

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	29B			100.08 g	100 g	62945	07/29/22 10:00	AGR	EETSC HOU
Total/NA	Prep	29B			100.08 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			63045	07/30/22 01:20	DP	EETSC HO
Total/NA	Prep	29B			100.08 g	100 g	62945	07/29/22 10:00	AGR	EETSC HO
Total/NA	Prep	29B			100.08 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC HO

Laboratory References:

EETSC HOU = Eurofins Houston, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

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
29B SAR	29B	Solid	Ca
29B SAR	29B	Solid	K
29B SAR	29B	Solid	Mg
29B SAR	29B	Solid	Na
29B SAR	29B	Solid	Sodium Adsorption Ratio

Method Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Method	Method Description	Protocol	Laboratory
29B SAR	Sodium Adsorption Ratio	LA	EETSC HOU
29B	Preparation, Dry, Grind and Sieve	LA	EETSC HOU
29B	Preparation, Sodium Absorption Ratio	LA	EETSC HOU

Protocol References:

LA = Statewide Order No. 29-B, State Of Louisianna

Laboratory References:

EETSC HOU = Eurofins Houston, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM#1

Job ID: 890-2564-1
SDG: 03E20240048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2564-1	BACKGROUND 1	Solid	07/13/22 11:05	07/15/22 10:09	0.5

Chain of Custody

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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 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	3122 Nath. Paris Hwy	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	8176832503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State Com #1	Turn Around	
Project Number:	03E2024006U8	☑ Routine ☐ Rush	
Project Location:	Lea County NM	Due Date:	5day tat
Sampler's Name:	Liz Cheli	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.0
Total Containers:		Corrected Temperature:	4.8

ANALYSIS REQUEST

Parameters: SAR

890-2564 Chain of Custody

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	SAR	Sample Comments
Background 1	S	7/13/22	1105	0.5	C	1	X	

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 Tl 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 Tl 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		7-15-22 1009	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone: 575-988-3199 Fax: 575-988-[illegible]

Temp: 3.0 C/F +1.4 IR ID:HOU-338
Corrected Temp. 4.4

Chain of Custody Record

Eurofins | Environment Testing America

890-2564 Chain of Custody

8/9/2022

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	6.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica.Kramer@et.eurofinsus.com	New Mexico / Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas	Job #: 890-2564-1
Address: 4147 Greenbriar Dr	Due Date Requested: 7/21/2022		
City: Stafford	TAT Requested (days):		
State, Zip: TX, 77477			
Phone: 281-240-4200(Tel)	PO #:		
Email:	WO #:		
Project Name: RASPBERRY STATE COM#1	Project #: 89000094		
Site:	SSOW#:		

Preservation Codes:

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Y	Trizma
		Z	other (specify)

Other:

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	29B_SAR_Calc/29B_Prep_Solid (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
BACKGROUND 1 (890-2564-1)	7/13/22	11 05 Mountain		Solid			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements.
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by: [signature]	Date/Time:	Company	Received by: [signature]	Date/Time: 7/16/22 9:13	Company Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

After printing this label
1 Use the 'Print' button on this page to print your label to your laser or inkjet printer
2 Fold the printed page along the horizontal line
3 Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned

Warning *IMPORTANT: TRANSMIT YOUR SHIPPING DATA AND PRINT A MANIFEST:*
At the end of each shipping day you should perform the FedEx Ground End of Day Close procedure to transmit your shipping data to FedEx To do so, click on the Ground End of Day Close Button If required print the pickup manifest that appears. A printed manifest is required to be tendered along with your packages if they are being picked up by FedEx Ground If you are dropping your packages off at a FedEx drop off location the manifest is not required

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2564-1
SDG Number: 03E20240048

Login Number: 2564
List Number: 1
Creator: Clifton, Cloe

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2564-1
SDG Number: 03E20240048

Login Number: 2564
List Number: 2
Creator: Torres, Sandra

List Source: Eurofins Houston
List Creation: 07/16/22 12:35 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	4.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2565-1
Laboratory Sample Delivery Group: 03E20204004D
Client Project/Site: RASPBERRY STATE COM #001

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/9/2022 2:28:36 PM

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

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

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

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Laboratory Job ID: 890-2565-1
SDG: 03E20204004D

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2565-1
Project/Site: RASPBERRY STATE COM #001 SDG: 03E20204004D

Qualifiers

Metals

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/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Job ID: 890-2565-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2565-1

Receipt

The samples were received on 7/15/2022 10:09 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

Metals

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

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Client Sample ID: FS03
Lab Sample ID: 890-2565-1
Date Collected: 07/13/22 10:55
Matrix: Solid
Date Received: 07/15/22 10:09
Sample Depth: 2

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	148		0.500		mg/L		07/29/22 10:00	07/30/22 01:24	1
Ca	50.1		0.200		mg/L		07/29/22 10:00	07/30/22 01:24	1
Mg	3.63		0.400		mg/L		07/29/22 10:00	07/30/22 01:24	1
K	5.31		0.500		mg/L		07/29/22 10:00	07/30/22 01:24	1
Sodium Adsorption Ratio	5.44		0.100		NONE		07/29/22 10:00	08/09/22 15:13	1

Client Sample ID: FS04
Lab Sample ID: 890-2565-2
Date Collected: 07/13/22 11:10
Matrix: Solid
Date Received: 07/15/22 10:09
Sample Depth: 2

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	249		25.0		mg/L		07/29/22 10:00	07/30/22 01:46	50
Ca	21.8		0.200		mg/L		07/29/22 10:00	07/30/22 01:27	1
Mg	1.75		0.400		mg/L		07/29/22 10:00	07/30/22 01:27	1
K	2.82		0.500		mg/L		07/29/22 10:00	07/30/22 01:27	1
Sodium Adsorption Ratio	13.8		0.100		NONE		07/29/22 10:00	08/09/22 15:13	1

Client Sample ID: FS05
Lab Sample ID: 890-2565-3
Date Collected: 07/13/22 11:15
Matrix: Solid
Date Received: 07/15/22 10:09
Sample Depth: 1.5

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	179		0.500		mg/L		07/29/22 10:00	07/30/22 01:31	1
Ca	41.1		0.200		mg/L		07/29/22 10:00	07/30/22 01:31	1
Mg	1.25		0.400		mg/L		07/29/22 10:00	07/30/22 01:31	1
K	7.62		0.500		mg/L		07/29/22 10:00	07/30/22 01:31	1
Sodium Adsorption Ratio	7.51		0.100		NONE		07/29/22 10:00	08/09/22 15:13	1

Client Sample ID: FS06
Lab Sample ID: 890-2565-4
Date Collected: 07/13/22 11:20
Matrix: Solid
Date Received: 07/15/22 10:09
Sample Depth: 2

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	109		1.00		mg/L		07/29/22 10:00	07/30/22 01:35	2
Ca	14.4		0.400		mg/L		07/29/22 10:00	07/30/22 01:35	2
Mg	2.16		0.800		mg/L		07/29/22 10:00	07/30/22 01:35	2
K	3.97		1.00		mg/L		07/29/22 10:00	07/30/22 01:35	2
Sodium Adsorption Ratio	7.06		0.100		NONE		07/29/22 10:00	08/09/22 15:13	1

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Method: 29B SAR - Sodium Adsorption Ratio

Lab Sample ID: MB 860-62952/1-A
Matrix: Solid
Analysis Batch: 63045

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 62952

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	<0.500	U	0.500		mg/L		07/29/22 11:35	07/30/22 01:16	1
Ca	<0.200	U	0.200		mg/L		07/29/22 11:35	07/30/22 01:16	1
Mg	<0.400	U	0.400		mg/L		07/29/22 11:35	07/30/22 01:16	1
K	<0.500	U	0.500		mg/L		07/29/22 11:35	07/30/22 01:16	1

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Metals

Prep Batch: 62945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2565-1	FS03	Total/NA	Solid	29B	62952
890-2565-2	FS04	Total/NA	Solid	29B	62952
890-2565-3	FS05	Total/NA	Solid	29B	62952
890-2565-4	FS06	Total/NA	Solid	29B	62952

Prep Batch: 62952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2565-1	FS03	Total/NA	Solid	29B	
890-2565-2	FS04	Total/NA	Solid	29B	
890-2565-3	FS05	Total/NA	Solid	29B	
890-2565-4	FS06	Total/NA	Solid	29B	
MB 860-62952/1-A	Method Blank	Soluble	Solid	29B	

Analysis Batch: 63045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2565-1	FS03	Total/NA	Solid	29B SAR	62945
890-2565-2	FS04	Total/NA	Solid	29B SAR	62945
890-2565-2	FS04	Total/NA	Solid	29B SAR	62945
890-2565-3	FS05	Total/NA	Solid	29B SAR	62945
890-2565-4	FS06	Total/NA	Solid	29B SAR	62945
MB 860-62952/1-A	Method Blank	Soluble	Solid	29B SAR	62952

Analysis Batch: 64216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2565-1	FS03	Total/NA	Solid	29B SAR	62945
890-2565-2	FS04	Total/NA	Solid	29B SAR	62945
890-2565-3	FS05	Total/NA	Solid	29B SAR	62945
890-2565-4	FS06	Total/NA	Solid	29B SAR	62945

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Client Sample ID: FS03
Date Collected: 07/13/22 10:55
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2565-1
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	29B			100.18 g	100 g	62945	07/29/22 10:00	AGR	EETSC HOU
Total/NA	Prep	29B			100.18 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			63045	07/30/22 01:24	DP	EETSC HO
Total/NA	Prep	29B			100.18 g	100 g	62945	07/29/22 10:00	AGR	EETSC HO
Total/NA	Prep	29B			100.18 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC HO

Client Sample ID: FS04
Date Collected: 07/13/22 11:10
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2565-2
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	29B			100.01 g	100 g	62945	07/29/22 10:00	AGR	EETSC HOU
Total/NA	Prep	29B			100.01 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			63045	07/30/22 01:27	DP	EETSC HO
Total/NA	Prep	29B			100.01 g	100 g	62945	07/29/22 10:00	AGR	EETSC HO
Total/NA	Prep	29B			100.01 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		50			63045	07/30/22 01:46	DP	EETSC HO
Total/NA	Prep	29B			100.01 g	100 g	62945	07/29/22 10:00	AGR	EETSC HO
Total/NA	Prep	29B			100.01 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC HO

Client Sample ID: FS05
Date Collected: 07/13/22 11:15
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2565-3
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	29B			99.74 g	100 g	62945	07/29/22 10:00	AGR	EETSC HOU
Total/NA	Prep	29B			99.74 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			63045	07/30/22 01:31	DP	EETSC HO
Total/NA	Prep	29B			99.74 g	100 g	62945	07/29/22 10:00	AGR	EETSC HO
Total/NA	Prep	29B			99.74 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC HO

Client Sample ID: FS06
Date Collected: 07/13/22 11:20
Date Received: 07/15/22 10:09

Lab Sample ID: 890-2565-4
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	29B			100.3 g	100 g	62945	07/29/22 10:00	AGR	EETSC HOU
Total/NA	Prep	29B			100.30 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		2			63045	07/30/22 01:35	DP	EETSC HO
Total/NA	Prep	29B			100.3 g	100 g	62945	07/29/22 10:00	AGR	EETSC HO
Total/NA	Prep	29B			100.30 g	100 g	62952	07/29/22 11:35	PB	EETSC HO
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC HO

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Laboratory References:

EETSC HOU = Eurofins Houston, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

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
29B SAR	29B	Solid	Ca
29B SAR	29B	Solid	K
29B SAR	29B	Solid	Mg
29B SAR	29B	Solid	Na
29B SAR	29B	Solid	Sodium Adsorption Ratio

Method Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Method	Method Description	Protocol	Laboratory
29B SAR	Sodium Adsorption Ratio	LA	EETSC HOU
29B	Preparation, Dry, Grind and Sieve	LA	EETSC HOU
29B	Preparation, Sodium Absorption Ratio	LA	EETSC HOU

Protocol References:

LA = Statewide Order No. 29-B, State Of Louisianna

Laboratory References:

EETSC HOU = Eurofins Houston, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM #001

Job ID: 890-2565-1
SDG: 03E20204004D

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2565-1	FS03	Solid	07/13/22 10:55	07/15/22 10:09	2
890-2565-2	FS04	Solid	07/13/22 11:10	07/15/22 10:09	2
890-2565-3	FS05	Solid	07/13/22 11:15	07/15/22 10:09	1.5
890-2565-4	FS06	Solid	07/13/22 11:20	07/15/22 10:09	2

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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 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	3122 Nath Parks Hwy	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	8176832503 Email:	kjennings@ensolum.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State Com #001	Turn Around	
Project Number:	03E2024001MD	☒ Routine ☐ Rush	
Project Location:	Lea County NM	Due Date:	3 day tat
Sampler's Name:	Liz Chen	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM_007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.0	
Total Containers:		Corrected Temperature:	4.8	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: SAR	Sample Comments
FS03	S	7/15/22	1055	2'	C	1			
FS04			1110	2'					
FS05			1115	1.5'					
FS06			1120	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 Tl 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 Tl 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	Kyla Thiel	Cloe Cuff	7.15.22 1009			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Temp: 3.0 IR ID:HOU-338
C/F:+1.4
Corrected Temp: 4.4

Chain of Custody Record

890-2565 Chain of Custody

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8/9/2022

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	.6.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: New Mexico
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas	Page: Page 1 of 1
Address: 4147 Greenbriar Dr	Due Date Requested: 7/21/2022		Job #: 890-2565-1
City: Stafford	TAT Requested (days):		
State, Zip: TX, 77477			
Phone: 281-240-4200(Tel)	PO #:		
Email:	WO #:		
Project Name: RASPBERRY STATE COM #001	Project #: 89000094		
Site:	SSOW#:		

Analysis Requested

Preservation Codes.

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Y	Trizma
		Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	29B_SAR_Calc/29B_Prep_Solid (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FS03 (890-2565-1)	7/13/22	10:55 Mountain		Solid			X	1	
FS04 (890-2565-2)	7/13/22	11:10 Mountain		Solid			X	1	
FS05 (890-2565-3)	7/13/22	11:15 Mountain		Solid			X	1	
FS06 (890-2565-4)	7/13/22	11:20 Mountain		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification Unconfirmed	**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by: Amanda Stafford	Date/Time:	Company	Received by: Santa Jones	Date/Time: 7/16/22 9:13	Company: Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2565-1
SDG Number: 03E20204004D

Login Number: 2565
List Number: 1
Creator: Clifton, Cloe

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2565-1
SDG Number: 03E20204004D

Login Number: 2565
List Number: 2
Creator: Torres, Sandra

List Source: Eurofins Houston
List Creation: 07/16/22 12:32 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	4.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2646-1
Laboratory Sample Delivery Group: Eddy County
Client Project/Site: RASPBERRY STATE COM 1
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Josh Adams

JKramer

Authorized for release by:
8/9/2022 3:47:59 PM

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

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

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

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Laboratory Job ID: 890-2646-1
SDG: Eddy County

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery 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
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.

Metals

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/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Job ID: 890-2646-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2646-1

REVISION

The report being provided is a revision of the original report sent on 8/4/2022. The report (revision 1) is being revised due to Final report to include SAR data.

Report revision history

Receipt
The samples were received on 7/25/2022 3:50 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 21.4°C

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

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS07A 2
Date Collected: 07/25/22 11:25
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 16:21	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 16:21	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 16:21	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/04/22 08:51	08/04/22 16:21	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 16:21	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/04/22 08:51	08/04/22 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*08/04/22 08:51*	*08/04/22 16:21*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*08/04/22 08:51*	*08/04/22 16:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 20:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/29/22 08:50	07/30/22 20:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/29/22 08:50	07/30/22 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*07/29/22 08:50*	*07/30/22 20:55*	*1*
o-Terphenyl	*108*		*70 - 130*	*07/29/22 08:50*	*07/30/22 20:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.2**		4.99		mg/Kg			07/31/22 14:37	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	**11.3**		0.500		mg/L		08/08/22 11:52	08/09/22 04:21	1
Ca	**25.5**		0.200		mg/L		08/08/22 11:52	08/09/22 04:21	1
Mg	**1.36**		0.400		mg/L		08/08/22 11:52	08/09/22 04:21	1
K	**3.58**		0.500		mg/L		08/08/22 11:52	08/09/22 04:21	1
Sodium Adsorption Ratio	**0.590**		0.100		NONE		08/08/22 11:52	08/09/22 15:13	1

Client Sample ID: SS08 1
Date Collected: 07/25/22 11:30
Date Received: 07/25/22 15:50
Sample Depth: 1

Lab Sample ID: 890-2646-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 16:42	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS08 1

Date Collected: 07/25/22 11:30
Date Received: 07/25/22 15:50
Sample Depth: 1

Lab Sample ID: 890-2646-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 16:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 16:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/04/22 08:51	08/04/22 16:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 16:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/04/22 08:51	08/04/22 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*08/04/22 08:51*	*08/04/22 16:42*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/04/22 08:51*	*08/04/22 16:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 21:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/29/22 08:50	07/30/22 21:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/29/22 08:50	07/30/22 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*07/29/22 08:50*	*07/30/22 21:58*	*1*
o-Terphenyl	*99*		*70 - 130*	*07/29/22 08:50*	*07/30/22 21:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.3**		4.98		mg/Kg			07/31/22 14:47	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	**16.2**		0.500		mg/L		08/08/22 11:52	08/09/22 04:28	1
Ca	**37.6**		0.200		mg/L		08/08/22 11:52	08/09/22 04:28	1
Mg	**2.22**		0.400		mg/L		08/08/22 11:52	08/09/22 04:28	1
K	**10.1**		0.500		mg/L		08/08/22 11:52	08/09/22 04:28	1
Sodium Adsorption Ratio	**0.694**		0.100		NONE		08/08/22 11:52	08/09/22 15:13	1

Client Sample ID: SS08 2

Date Collected: 07/25/22 11:45
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 17:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 17:02	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS08 2

Date Collected: 07/25/22 11:45
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 17:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/04/22 08:51	08/04/22 17:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 17:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/04/22 08:51	08/04/22 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*08/04/22 08:51*	*08/04/22 17:02*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/04/22 08:51*	*08/04/22 17:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 22:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 22:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*07/29/22 08:50*	*07/30/22 22:20*	*1*
o-Terphenyl	*93*		*70 - 130*	*07/29/22 08:50*	*07/30/22 22:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.0**		5.00		mg/Kg			07/31/22 14:56	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	**14.5**		0.500		mg/L		08/08/22 11:52	08/09/22 04:32	1
Ca	**33.2**		0.200		mg/L		08/08/22 11:52	08/09/22 04:32	1
Mg	**2.26**		0.400		mg/L		08/08/22 11:52	08/09/22 04:32	1
K	**9.78**		0.500		mg/L		08/08/22 11:52	08/09/22 04:32	1
Sodium Adsorption Ratio	**0.658**		0.100		NONE		08/08/22 11:52	08/09/22 15:13	1

Client Sample ID: SS09 1.5

Date Collected: 07/25/22 12:05
Date Received: 07/25/22 15:50
Sample Depth: 1.5

Lab Sample ID: 890-2646-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 17:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 17:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 17:23	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS09 1.5

Date Collected: 07/25/22 12:05
Date Received: 07/25/22 15:50
Sample Depth: 1.5

Lab Sample ID: 890-2646-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/04/22 08:51	08/04/22 17:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 17:23	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/04/22 08:51	08/04/22 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*08/04/22 08:51*	*08/04/22 17:23*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*08/04/22 08:51*	*08/04/22 17:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 22:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/29/22 08:50	07/30/22 22:41	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/29/22 08:50	07/30/22 22:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*07/29/22 08:50*	*07/30/22 22:41*	*1*
o-Terphenyl	*100*		*70 - 130*	*07/29/22 08:50*	*07/30/22 22:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.2**		5.05		mg/Kg			07/31/22 15:05	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	**8.44**		0.500		mg/L		08/08/22 11:52	08/09/22 04:58	1
Ca	**25.6**		0.200		mg/L		08/08/22 11:52	08/09/22 04:58	1
Mg	**1.53**		0.400		mg/L		08/08/22 11:52	08/09/22 04:58	1
K	**11.7**		0.500		mg/L		08/08/22 11:52	08/09/22 04:58	1
Sodium Adsorption Ratio	**0.438**		0.100		NONE		08/08/22 11:52	08/09/22 15:13	1

Client Sample ID: SS09 2

Date Collected: 07/25/22 12:15
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 17:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 17:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 17:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/04/22 08:51	08/04/22 17:43	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS09 2

Date Collected: 07/25/22 12:15
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/04/22 08:51	08/04/22 17:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/04/22 08:51	08/04/22 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*08/04/22 08:51*	*08/04/22 17:43*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*08/04/22 08:51*	*08/04/22 17:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 23:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 23:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 23:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*07/29/22 08:50*	*07/30/22 23:02*	*1*
o-Terphenyl	*97*		*70 - 130*	*07/29/22 08:50*	*07/30/22 23:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.3**		4.99		mg/Kg			07/31/22 15:14	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	**9.57**		0.500		mg/L		08/08/22 11:52	08/09/22 05:01	1
Ca	**26.2**		0.200		mg/L		08/08/22 11:52	08/09/22 05:01	1
Mg	**1.42**		0.400		mg/L		08/08/22 11:52	08/09/22 05:01	1
K	**9.75**		0.500		mg/L		08/08/22 11:52	08/09/22 05:01	1
Sodium Adsorption Ratio	**0.493**		0.100		NONE		08/08/22 11:52	08/09/22 15:13	1

Client Sample ID: SS10 1

Date Collected: 07/25/22 12:20
Date Received: 07/25/22 15:50
Sample Depth: 1

Lab Sample ID: 890-2646-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/04/22 08:51	08/04/22 18:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/04/22 08:51	08/04/22 18:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/04/22 08:51	08/04/22 18:04	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		08/04/22 08:51	08/04/22 18:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/04/22 08:51	08/04/22 18:04	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS10 1

Date Collected: 07/25/22 12:20
Date Received: 07/25/22 15:50
Sample Depth: 1

Lab Sample ID: 890-2646-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		08/04/22 08:51	08/04/22 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*08/04/22 08:51*	*08/04/22 18:04*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*08/04/22 08:51*	*08/04/22 18:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 23:23	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/29/22 08:50	07/30/22 23:23	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/29/22 08:50	07/30/22 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*07/29/22 08:50*	*07/30/22 23:23*	*1*
o-Terphenyl	*101*		*70 - 130*	*07/29/22 08:50*	*07/30/22 23:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.8**		5.04		mg/Kg			07/31/22 15:23	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Na	**10.6**		0.500		mg/L		08/08/22 11:52	08/09/22 05:05	1
Ca	**35.2**		0.200		mg/L		08/08/22 11:52	08/09/22 05:05	1
Mg	**2.08**		0.400		mg/L		08/08/22 11:52	08/09/22 05:05	1
K	**9.19**		0.500		mg/L		08/08/22 11:52	08/09/22 05:05	1
Sodium Adsorption Ratio	**0.468**		0.100		NONE		08/08/22 11:52	08/09/22 15:13	1

Client Sample ID: SS10 2

Date Collected: 07/25/22 12:30
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 18:24	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 18:24	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 18:24	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/04/22 08:51	08/04/22 18:24	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/04/22 08:51	08/04/22 18:24	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/04/22 08:51	08/04/22 18:24	1

Client Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS10 2

Date Collected: 07/25/22 12:30
Date Received: 07/25/22 15:50
Sample Depth: 2

Lab Sample ID: 890-2646-7

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*08/04/22 08:51*	*08/04/22 18:24*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/04/22 08:51*	*08/04/22 18:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/04/22 19:50	1

Method: 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			07/31/22 10:38	1

Method: 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		07/29/22 08:50	07/30/22 23:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/29/22 08:50	07/30/22 23:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/29/22 08:50	07/30/22 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*07/29/22 08:50*	*07/30/22 23:43*	*1*
o-Terphenyl	*88*		*70 - 130*	*07/29/22 08:50*	*07/30/22 23:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.7**		5.00		mg/Kg			07/31/22 15:33	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Na	**10.6**		0.500	mg/L		08/08/22 11:52	08/09/22 05:08	1
Ca	**34.4**		0.200	mg/L		08/08/22 11:52	08/09/22 05:08	1
Mg	**1.91**		0.400	mg/L		08/08/22 11:52	08/09/22 05:08	1
K	**7.37**		0.500	mg/L		08/08/22 11:52	08/09/22 05:08	1
Sodium Adsorption Ratio	**0.474**		0.100	NONE		08/08/22 11:52	08/09/22 15:13	1

Surrogate Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-17728-A-1-A MS	Matrix Spike	105	97
880-17728-A-1-B MSD	Matrix Spike Duplicate	102	97
890-2646-1	SS07A 2	110	96
890-2646-2	SS08 1	114	95
890-2646-3	SS08 2	116	95
890-2646-4	SS09 1.5	115	97
890-2646-5	SS09 2	124	94
890-2646-6	SS10 1	113	94
890-2646-7	SS10 2	109	95
890-2675-A-1-E MS	Matrix Spike	50 S1-	103
890-2675-A-1-F MSD	Matrix Spike Duplicate	99	96
LCS 880-31415/1-A	Lab Control Sample	95	97
LCS 880-31465/1-A	Lab Control Sample	103	94
LCSD 880-31415/2-A	Lab Control Sample Dup	103	100
LCSD 880-31465/2-A	Lab Control Sample Dup	106	97
MB 880-31415/5-A	Method Blank	98	90
MB 880-31465/5-A	Method Blank	100	91

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)
890-2646-1	SS07A 2	93	108
890-2646-1 MS	SS07A 2	87	84
890-2646-1 MSD	SS07A 2	87	84
890-2646-2	SS08 1	91	99
890-2646-3	SS08 2	89	93
890-2646-4	SS09 1.5	90	100
890-2646-5	SS09 2	85	97
890-2646-6	SS10 1	90	101
890-2646-7	SS10 2	82	88
LCS 880-30965/2-A	Lab Control Sample	101	102
LCSD 880-30965/3-A	Lab Control Sample Dup	93	93
MB 880-30965/1-A	Method Blank	91	101

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31415/5-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31415

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/03/22 11:47	08/04/22 22:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/03/22 11:47	08/04/22 22:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/03/22 11:47	08/04/22 22:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/03/22 11:47	08/04/22 22:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/03/22 11:47	08/04/22 22:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/03/22 11:47	08/04/22 22:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*08/03/22 11:47*	*08/04/22 22:09*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*08/03/22 11:47*	*08/04/22 22:09*	*1*

Lab Sample ID: LCS 880-31415/1-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31415

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07415		mg/Kg		74	70 - 130		
Toluene			0.100	0.08000		mg/Kg		80	70 - 130		
Ethylbenzene			0.100	0.08374		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1516		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.09408		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-31415/2-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31415

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09442		mg/Kg		94	70 - 130	24	35
Toluene			0.100	0.09278		mg/Kg		93	70 - 130	15	35
Ethylbenzene			0.100	0.09278		mg/Kg		93	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.1873		mg/Kg		94	70 - 130	21	35
o-Xylene			0.100	0.1101		mg/Kg		110	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2675-A-1-E MS
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31415

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09578		mg/Kg		95	70 - 130		
Toluene	<0.00201	U	0.100	0.09337		mg/Kg		93	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

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

Lab Sample ID: 890-2675-A-1-E MS
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31415

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09244		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1855		mg/Kg		92	70 - 130
o-Xylene	<0.00201	U	0.100	0.1073		mg/Kg		107	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*50*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2675-A-1-F MSD
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 31415

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.08952		mg/Kg		90	70 - 130	7	35
Toluene	<0.00201	U	0.0998	0.08599		mg/Kg		86	70 - 130	8	35
Ethylbenzene	<0.00201	U	0.0998	0.08552		mg/Kg		86	70 - 130	8	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1709		mg/Kg		86	70 - 130	8	35
o-Xylene	<0.00201	U	0.0998	0.09674		mg/Kg		97	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 880-31465/5-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31465

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 10:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 10:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 10:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/04/22 08:51	08/04/22 10:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/04/22 08:51	08/04/22 10:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/04/22 08:51	08/04/22 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*08/04/22 08:51*	*08/04/22 10:53*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*08/04/22 08:51*	*08/04/22 10:53*	*1*

Lab Sample ID: LCS 880-31465/1-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09988		mg/Kg		100	70 - 130
Toluene	0.100	0.1006		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1038		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.2107		mg/Kg		105	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-31465/1-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31465

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1145		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-31465/2-A
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31465

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09085		mg/Kg		91	70 - 130	9	35
Toluene			0.100	0.08782		mg/Kg		88	70 - 130	14	35
Ethylbenzene			0.100	0.09053		mg/Kg		91	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.1832		mg/Kg		92	70 - 130	14	35
o-Xylene			0.100	0.1004		mg/Kg		100	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-17728-A-1-A MS
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 31465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.08136		mg/Kg		81	70 - 130		
Toluene	<0.00200	U	0.100	0.07618		mg/Kg		76	70 - 130		
Ethylbenzene	<0.00200	U F1	0.100	0.07372		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1469		mg/Kg		73	70 - 130		
o-Xylene	<0.00200	U	0.100	0.07974		mg/Kg		80	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-17728-A-1-B MSD
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 31465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0998	0.08732		mg/Kg		87	70 - 130	7	35
Toluene	<0.00200	U	0.0998	0.07748		mg/Kg		78	70 - 130	2	35
Ethylbenzene	<0.00200	U F1	0.0998	0.06936	F1	mg/Kg		69	70 - 130	6	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1380	F1	mg/Kg		69	70 - 130	6	35
o-Xylene	<0.00200	U	0.0998	0.07575		mg/Kg		76	70 - 130	5	35

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

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

Lab Sample ID: 880-17728-A-1-B MSD
Matrix: Solid
Analysis Batch: 31452

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 31465

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-30965/1-A
Matrix: Solid
Analysis Batch: 31053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30965

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 19:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 19:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/29/22 08:50	07/30/22 19:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	07/29/22 08:50	07/30/22 19:51	1
o-Terphenyl	101		70 - 130	07/29/22 08:50	07/30/22 19:51	1

Lab Sample ID: LCS 880-30965/2-A
Matrix: Solid
Analysis Batch: 31053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30965

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1058		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1040		mg/Kg		104	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-30965/3-A
Matrix: Solid
Analysis Batch: 31053

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30965

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	949.7		mg/Kg		95	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	972.0		mg/Kg		97	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	93		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

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

Lab Sample ID: 890-2646-1 MS
Matrix: Solid
Analysis Batch: 31053

Client Sample ID: SS07A 2
Prep Type: Total/NA
Prep Batch: 30965

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1211		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	846.5		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: 890-2646-1 MSD
Matrix: Solid
Analysis Batch: 31053

Client Sample ID: SS07A 2
Prep Type: Total/NA
Prep Batch: 30965

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1295		mg/Kg		125	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	863.7		mg/Kg		86	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-30809/1-A
Matrix: Solid
Analysis Batch: 30989

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			07/31/22 10:56	1

Lab Sample ID: LCS 880-30809/2-A
Matrix: Solid
Analysis Batch: 30989

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	262.1		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-30809/3-A
Matrix: Solid
Analysis Batch: 30989

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	262.0		mg/Kg		105	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2645-A-4-B MS
Matrix: Solid
Analysis Batch: 30989

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	630		251	854.7		mg/Kg		90	90 - 110		

Lab Sample ID: 890-2645-A-4-C MSD
Matrix: Solid
Analysis Batch: 30989

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	630		251	854.3		mg/Kg		90	90 - 110	0	20

Method: 29B SAR - Sodium Adsorption Ratio

Lab Sample ID: 890-2646-1 DU
Matrix: Solid
Analysis Batch: 64191

Client Sample ID: SS07A 2
Prep Type: Total/NA
Prep Batch: 63989

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Na	<25.0	U		<25.0	U	mg/L				NC	
Ca	25.9			26.31		mg/L				1	
Mg	<20.0	U		<20.0	U	mg/L				NC	
K	<25.0	U		<25.0	U	mg/L				NC	

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

GC VOA

Prep Batch: 31415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31415/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31415/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31415/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2675-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2675-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 31452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	8021B	31465
890-2646-2	SS08 1	Total/NA	Solid	8021B	31465
890-2646-3	SS08 2	Total/NA	Solid	8021B	31465
890-2646-4	SS09 1.5	Total/NA	Solid	8021B	31465
890-2646-5	SS09 2	Total/NA	Solid	8021B	31465
890-2646-6	SS10 1	Total/NA	Solid	8021B	31465
890-2646-7	SS10 2	Total/NA	Solid	8021B	31465
MB 880-31415/5-A	Method Blank	Total/NA	Solid	8021B	31415
MB 880-31465/5-A	Method Blank	Total/NA	Solid	8021B	31465
LCS 880-31415/1-A	Lab Control Sample	Total/NA	Solid	8021B	31415
LCS 880-31465/1-A	Lab Control Sample	Total/NA	Solid	8021B	31465
LCSD 880-31415/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31415
LCSD 880-31465/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31465
880-17728-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	31465
880-17728-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31465
890-2675-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	31415
890-2675-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31415

Prep Batch: 31465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	5035	
890-2646-2	SS08 1	Total/NA	Solid	5035	
890-2646-3	SS08 2	Total/NA	Solid	5035	
890-2646-4	SS09 1.5	Total/NA	Solid	5035	
890-2646-5	SS09 2	Total/NA	Solid	5035	
890-2646-6	SS10 1	Total/NA	Solid	5035	
890-2646-7	SS10 2	Total/NA	Solid	5035	
MB 880-31465/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31465/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31465/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17728-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-17728-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 31530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	Total BTEX	
890-2646-2	SS08 1	Total/NA	Solid	Total BTEX	
890-2646-3	SS08 2	Total/NA	Solid	Total BTEX	
890-2646-4	SS09 1.5	Total/NA	Solid	Total BTEX	
890-2646-5	SS09 2	Total/NA	Solid	Total BTEX	
890-2646-6	SS10 1	Total/NA	Solid	Total BTEX	
890-2646-7	SS10 2	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

GC Semi VOA

Prep Batch: 30965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	8015NM Prep	
890-2646-2	SS08 1	Total/NA	Solid	8015NM Prep	
890-2646-3	SS08 2	Total/NA	Solid	8015NM Prep	
890-2646-4	SS09 1.5	Total/NA	Solid	8015NM Prep	
890-2646-5	SS09 2	Total/NA	Solid	8015NM Prep	
890-2646-6	SS10 1	Total/NA	Solid	8015NM Prep	
890-2646-7	SS10 2	Total/NA	Solid	8015NM Prep	
MB 880-30965/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30965/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30965/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2646-1 MS	SS07A 2	Total/NA	Solid	8015NM Prep	
890-2646-1 MSD	SS07A 2	Total/NA	Solid	8015NM Prep	

Analysis Batch: 31053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	8015B NM	30965
890-2646-2	SS08 1	Total/NA	Solid	8015B NM	30965
890-2646-3	SS08 2	Total/NA	Solid	8015B NM	30965
890-2646-4	SS09 1.5	Total/NA	Solid	8015B NM	30965
890-2646-5	SS09 2	Total/NA	Solid	8015B NM	30965
890-2646-6	SS10 1	Total/NA	Solid	8015B NM	30965
890-2646-7	SS10 2	Total/NA	Solid	8015B NM	30965
MB 880-30965/1-A	Method Blank	Total/NA	Solid	8015B NM	30965
LCS 880-30965/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30965
LCSD 880-30965/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30965
890-2646-1 MS	SS07A 2	Total/NA	Solid	8015B NM	30965
890-2646-1 MSD	SS07A 2	Total/NA	Solid	8015B NM	30965

Analysis Batch: 31121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	8015 NM	
890-2646-2	SS08 1	Total/NA	Solid	8015 NM	
890-2646-3	SS08 2	Total/NA	Solid	8015 NM	
890-2646-4	SS09 1.5	Total/NA	Solid	8015 NM	
890-2646-5	SS09 2	Total/NA	Solid	8015 NM	
890-2646-6	SS10 1	Total/NA	Solid	8015 NM	
890-2646-7	SS10 2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 30809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Soluble	Solid	DI Leach	
890-2646-2	SS08 1	Soluble	Solid	DI Leach	
890-2646-3	SS08 2	Soluble	Solid	DI Leach	
890-2646-4	SS09 1.5	Soluble	Solid	DI Leach	
890-2646-5	SS09 2	Soluble	Solid	DI Leach	
890-2646-6	SS10 1	Soluble	Solid	DI Leach	
890-2646-7	SS10 2	Soluble	Solid	DI Leach	
MB 880-30809/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-30809/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

HPLC/IC (Continued)

Leach Batch: 30809 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-30809/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2645-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2645-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 30989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Soluble	Solid	300.0	30809
890-2646-2	SS08 1	Soluble	Solid	300.0	30809
890-2646-3	SS08 2	Soluble	Solid	300.0	30809
890-2646-4	SS09 1.5	Soluble	Solid	300.0	30809
890-2646-5	SS09 2	Soluble	Solid	300.0	30809
890-2646-6	SS10 1	Soluble	Solid	300.0	30809
890-2646-7	SS10 2	Soluble	Solid	300.0	30809
MB 880-30809/1-A	Method Blank	Soluble	Solid	300.0	30809
LCS 880-30809/2-A	Lab Control Sample	Soluble	Solid	300.0	30809
LCSD 880-30809/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	30809
890-2645-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	30809
890-2645-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30809

Metals

Prep Batch: 63989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	29B	
890-2646-2	SS08 1	Total/NA	Solid	29B	
890-2646-3	SS08 2	Total/NA	Solid	29B	
890-2646-4	SS09 1.5	Total/NA	Solid	29B	
890-2646-5	SS09 2	Total/NA	Solid	29B	
890-2646-6	SS10 1	Total/NA	Solid	29B	
890-2646-7	SS10 2	Total/NA	Solid	29B	
890-2646-1 DU	SS07A 2	Total/NA	Solid	29B	

Prep Batch: 63996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	29B	63989
890-2646-2	SS08 1	Total/NA	Solid	29B	63989
890-2646-3	SS08 2	Total/NA	Solid	29B	63989
890-2646-4	SS09 1.5	Total/NA	Solid	29B	63989
890-2646-5	SS09 2	Total/NA	Solid	29B	63989
890-2646-6	SS10 1	Total/NA	Solid	29B	63989
890-2646-7	SS10 2	Total/NA	Solid	29B	63989
890-2646-1 DU	SS07A 2	Total/NA	Solid	29B	63989

Analysis Batch: 64191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	29B SAR	63996
890-2646-2	SS08 1	Total/NA	Solid	29B SAR	63996
890-2646-3	SS08 2	Total/NA	Solid	29B SAR	63996
890-2646-4	SS09 1.5	Total/NA	Solid	29B SAR	63996
890-2646-5	SS09 2	Total/NA	Solid	29B SAR	63996
890-2646-6	SS10 1	Total/NA	Solid	29B SAR	63996

QC Association Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Metals (Continued)

Analysis Batch: 64191 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-7	SS10 2	Total/NA	Solid	29B SAR	63996
890-2646-1 DU	SS07A 2	Total/NA	Solid	29B SAR	63996

Analysis Batch: 64216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2646-1	SS07A 2	Total/NA	Solid	29B SAR	63996
890-2646-2	SS08 1	Total/NA	Solid	29B SAR	63996
890-2646-3	SS08 2	Total/NA	Solid	29B SAR	63996
890-2646-4	SS09 1.5	Total/NA	Solid	29B SAR	63996
890-2646-5	SS09 2	Total/NA	Solid	29B SAR	63996
890-2646-6	SS10 1	Total/NA	Solid	29B SAR	63996
890-2646-7	SS10 2	Total/NA	Solid	29B SAR	63996

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS07A 2
Date Collected: 07/25/22 11:25
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-1
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			4.97 g	5 mL	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 16:21	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	30965	07/29/22 08:50	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31053	07/30/22 20:55	AJ	EETSC M
Soluble	Leach	DI Leach			5.01 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 14:37	SMC	EETSC M
Total/NA	Prep	29B			100.18 g	100 g	63989	08/08/22 11:52	PB	EETSC H
Total/NA	Prep	29B			100.18 g	100 mL	63996	08/08/22 12:05	PB	EETSC H
Total/NA	Analysis	29B SAR		1			64191	08/09/22 04:21	DP	EETSC H
Total/NA	Prep	29B			100.18 g	100 g	63989	08/08/22 11:52	PB	EETSC H
Total/NA	Prep	29B			100.18 g	100 mL	63996	08/08/22 12:05	PB	EETSC H
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC H

Client Sample ID: SS08 1
Date Collected: 07/25/22 11:30
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-2
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			5.03 g	5 mL	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 16:42	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	30965	07/29/22 08:50	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31053	07/30/22 21:58	AJ	EETSC M
Soluble	Leach	DI Leach			5.02 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 14:47	SMC	EETSC M
Total/NA	Prep	29B			100.11 g	100 g	63989	08/08/22 11:52	PB	EETSC H
Total/NA	Prep	29B			100.11 g	100 mL	63996	08/08/22 12:05	PB	EETSC H
Total/NA	Analysis	29B SAR		1			64191	08/09/22 04:28	DP	EETSC H
Total/NA	Prep	29B			100.11 g	100 g	63989	08/08/22 11:52	PB	EETSC H
Total/NA	Prep	29B			100.11 g	100 mL	63996	08/08/22 12:05	PB	EETSC H
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC H

Client Sample ID: SS08 2
Date Collected: 07/25/22 11:45
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-3
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	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 17:02	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS08 2
Date Collected: 07/25/22 11:45
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-3
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	8015NM Prep			10.01 g	10 mL	30965	07/29/22 08:50	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31053	07/30/22 22:20	AJ	EETSC M
Soluble	Leach	DI Leach			5 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 14:56	SMC	EETSC M
Total/NA	Prep	29B			100.14 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.14 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64191	08/09/22 04:32	DP	EETSC H(
Total/NA	Prep	29B			100.14 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.14 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC H(

Client Sample ID: SS09 1.5
Date Collected: 07/25/22 12:05
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-4
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			4.99 g	5 mL	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 17:23	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	30965	07/29/22 08:50	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31053	07/30/22 22:41	AJ	EETSC M
Soluble	Leach	DI Leach			4.95 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 15:05	SMC	EETSC M
Total/NA	Prep	29B			100.09 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.09 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64191	08/09/22 04:58	DP	EETSC H(
Total/NA	Prep	29B			100.09 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.09 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC H(

Client Sample ID: SS09 2
Date Collected: 07/25/22 12:15
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 17:43	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	30965	07/29/22 08:50	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31053	07/30/22 23:02	AJ	EETSC M
Soluble	Leach	DI Leach			5.01 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 15:14	SMC	EETSC M

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS09 2
Date Collected: 07/25/22 12:15
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-5
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	29B			100.014 g	100 g	63989	08/08/22 11:52	PB	EETSC HOI
Total/NA	Prep	29B			100.14 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64191	08/09/22 05:01	DP	EETSC H(
Total/NA	Prep	29B			100.014 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.14 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC H(

Client Sample ID: SS10 1
Date Collected: 07/25/22 12:20
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-6
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			5.04 g	5 mL	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 18:04	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	30965	07/29/22 08:50	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31053	07/30/22 23:23	AJ	EETSC M
Soluble	Leach	DI Leach			4.96 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 15:23	SMC	EETSC M
Total/NA	Prep	29B			100.08 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.08 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64191	08/09/22 05:05	DP	EETSC H(
Total/NA	Prep	29B			100.08 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.08 g	100 mL	63996	08/08/22 12:05	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC H(

Client Sample ID: SS10 2
Date Collected: 07/25/22 12:30
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-7
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			4.97 g	5 mL	31465	08/04/22 08:51	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31452	08/04/22 18:24	MR	EETSC M
Total/NA	Analysis	Total BTEX		1			31530	08/04/22 19:50	AJ	EETSC M
Total/NA	Analysis	8015 NM		1			31121	07/31/22 10:38	AJ	EETSC M
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	30965	07/29/22 08:50	DM	EETSC M
Total/NA	Analysis	8015B NM		1			31053	07/30/22 23:43	AJ	EETSC M
Soluble	Leach	DI Leach			5 g	50 mL	30809	07/27/22 12:54	SMC	EETSC M
Soluble	Analysis	300.0		1			30989	07/31/22 15:33	SMC	EETSC M
Total/NA	Prep	29B			100.08 g	100 g	63989	08/08/22 11:52	PB	EETSC H(
Total/NA	Prep	29B			100.08 g	100 mL	63996	08/08/22 12:06	PB	EETSC H(
Total/NA	Analysis	29B SAR		1			64191	08/09/22 05:08	DP	EETSC H(

Lab Chronicle

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Client Sample ID: SS10 2

Date Collected: 07/25/22 12:30
Date Received: 07/25/22 15:50

Lab Sample ID: 890-2646-7

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	29B			100.08 g	100 g	63989	08/08/22 11:52	PB	EETSC HOU
Total/NA	Prep	29B			100.08 g	100 mL	63996	08/08/22 12:06	PB	EETSC HOU
Total/NA	Analysis	29B SAR		1			64216	08/09/22 15:13	DP	EETSC HOU

Laboratory References:

EETSC HOU = Eurofins Houston, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

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
29B SAR	29B	Solid	Ca
29B SAR	29B	Solid	K
29B SAR	29B	Solid	Mg
29B SAR	29B	Solid	Na
29B SAR	29B	Solid	Sodium Adsorption Ratio

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	T104704400-22-24	06-30-23

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: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EETSC MID
Total BTEX	Total BTEX Calculation	TAL SOP	EETSC MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EETSC MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EETSC MID
300.0	Anions, Ion Chromatography	MCAWW	EETSC MID
29B SAR	Sodium Adsorption Ratio	LA	EETSC HOU
29B	Preparation, Dry, Grind and Sieve	LA	EETSC HOU
29B	Preparation, Sodium Absorption Ratio	LA	EETSC HOU
5035	Closed System Purge and Trap	SW846	EETSC MID
8015NM Prep	Microextraction	SW846	EETSC MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EETSC MID

Protocol References:

ASTM = ASTM International
LA = Statewide Order No. 29-B, State Of Louisianna
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EETSC HOU = Eurofins Houston, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200
EETSC MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: RASPBERRY STATE COM 1

Job ID: 890-2646-1
SDG: Eddy County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2646-1	SS07A 2	Solid	07/25/22 11:25	07/25/22 15:50	2
890-2646-2	SS08 1	Solid	07/25/22 11:30	07/25/22 15:50	1
890-2646-3	SS08 2	Solid	07/25/22 11:45	07/25/22 15:50	2
890-2646-4	SS09 1.5	Solid	07/25/22 12:05	07/25/22 15:50	1.5
890-2646-5	SS09 2	Solid	07/25/22 12:15	07/25/22 15:50	2
890-2646-6	SS10 1	Solid	07/25/22 12:20	07/25/22 15:50	1
890-2646-7	SS10 2	Solid	07/25/22 12:30	07/25/22 15:50	2

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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 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum	Company Name:	
Address:	Ensolum 3122 Natl. Parks Hwy	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	3035178437 Email:	Jadams@ensolum.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State Com 1	Turn Around	
Project Number:	03E2024008	☒ Routine ☐ Rush	
Project Location:	Eddy County	Due Date:	
Sampler's Name:	Liz Chell	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	N/A		

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	21.6
Total Containers:		Corrected Temperature:	21.4

ANALYSIS REQUEST

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
ICL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: btex	tph	Chloride	SAR	Sample Comments
SS07 @ 2'	S	7/25/22	1125	2'	G	2						napp2213022
SS08 @ 1'			1130	1'								9810
SS08 @ 2'			1145	2'								
SS09 @ 1.5'			1205	1.5'								cost center:
SS09 @ 2'			1215	2'								A760291SM
SS10 @ 1'			1220	1'								
SS10 @ 2'			1230	2'								

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 Tl 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 Tl 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		7.25.22 1550			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2646-1
SDG Number: Eddy County

Login Number: 2646
List Number: 1
Creator: Clifton, Cloe

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2646-1
SDG Number: Eddy County

Login Number: 2646
List Number: 3
Creator: Milone, Jeancarlo

List Source: Eurofins Houston
List Creation: 07/27/22 02:25 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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2646-1
SDG Number: Eddy County

Login Number: 2646
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 07/27/22 10:48 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2794-1
Laboratory Sample Delivery Group: 03D2024048
Client Project/Site: Raspberry State Com
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Josh Adams

JKramer

Authorized for release by:
9/9/2022 4:02:00 PM

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

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

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

Client: Ensolum
Project/Site: Raspberry State Com

Laboratory Job ID: 890-2794-1
SDG: 03D2024048

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Job ID: 890-2794-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2794-1

Receipt
The sample was received on 8/19/2022 3:53 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 16.0°C

Receipt Exceptions
The following sample was collected in an improper container: SS11 (890-2794-1). The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.
890-2794
Only received a 2 oz jar for TPH, BTEX, Chloride and SAR- this 2 oz jar will only be enough for TPH, BTEX, Chloride- the client needs to be contacted Sample sent to Midland

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33466 and analytical batch 880-33557 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

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

Narrative

Job Narrative
890-2794-2

Receipt
The sample was received on 8/19/2022 3:53 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 16.0°C

Receipt Exceptions
The following sample was collected in an improper container: SS11 (890-2794-1). The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.
890-2794
Only received a 2 oz jar for TPH, BTEX, Chloride and SAR- this 2 oz jar will only be enough for TPH, BTEX, Chloride- the client needs to be contacted Sample sent to Midland

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

Client Sample Results

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Client Sample ID: SS11

Date Collected: 08/19/22 08:20
Date Received: 08/19/22 15:53
Sample Depth: 0.5

Lab Sample ID: 890-2794-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/31/22 14:40	09/01/22 19:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/31/22 14:40	09/01/22 19:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/31/22 14:40	09/01/22 19:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/31/22 14:40	09/01/22 19:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/31/22 14:40	09/01/22 19:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/31/22 14:40	09/01/22 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*08/31/22 14:40*	*09/01/22 19:30*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*08/31/22 14:40*	*09/01/22 19:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/02/22 11:24	1

Method: 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			08/24/22 17:10	1

Method: 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		08/24/22 08:40	08/24/22 11:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:40	08/24/22 11:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:40	08/24/22 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/24/22 08:40*	*08/24/22 11:46*	*1*
o-Terphenyl	*94*		*70 - 130*	*08/24/22 08:40*	*08/24/22 11:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.8**		5.02		mg/Kg			08/24/22 16:52	1

Method: 29B SAR - Sodium Adsorption Ratio

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	**0.168**		0.100		NONE		09/05/22 18:35	09/09/22 15:16	1

Surrogate Summary

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

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)
890-2791-A-2-H MS	Matrix Spike	94	109
890-2791-A-2-I MSD	Matrix Spike Duplicate	93	108
890-2794-1	SS11	89	104
LCS 880-33466/1-A	Lab Control Sample	94	99
LCSD 880-33466/2-A	Lab Control Sample Dup	96	101
MB 880-33466/5-A	Method Blank	78	116

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)
890-2794-1	SS11	91	94
890-2794-1 MS	SS11	101	94
890-2794-1 MSD	SS11	87	83
LCS 880-32817/2-A	Lab Control Sample	81	97
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94
MB 880-32817/1-A	Method Blank	95	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33466/5-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33466

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/31/22 14:40	09/01/22 18:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/31/22 14:40	09/01/22 18:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/31/22 14:40	09/01/22 18:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/31/22 14:40	09/01/22 18:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/31/22 14:40	09/01/22 18:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/31/22 14:40	09/01/22 18:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*08/31/22 14:40*	*09/01/22 18:00*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*08/31/22 14:40*	*09/01/22 18:00*	*1*

Lab Sample ID: LCS 880-33466/1-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33466

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1098		mg/Kg		110	70 - 130		
Toluene			0.100	0.1103		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.1076		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.1975		mg/Kg		99	70 - 130		
o-Xylene			0.100	0.1037		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-33466/2-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33466

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1142		mg/Kg		114	70 - 130	4	35
Toluene			0.100	0.1143		mg/Kg		114	70 - 130	4	35
Ethylbenzene			0.100	0.1120		mg/Kg		112	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2059		mg/Kg		103	70 - 130	4	35
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-2791-A-2-H MS
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 33466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0998	0.09295		mg/Kg		93	70 - 130		
Toluene	<0.00200	U	0.0998	0.06941		mg/Kg		70	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

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

Lab Sample ID: 890-2791-A-2-H MS
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 33466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0998	0.04751	F1	mg/Kg		48	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.08400	F1	mg/Kg		42	70 - 130
o-Xylene	<0.00200	U F1	0.0998	0.04484	F1	mg/Kg		45	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-2791-A-2-I MSD
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 33466

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.09702		mg/Kg		98	70 - 130	4	35
Toluene	<0.00200	U	0.0994	0.07575		mg/Kg		76	70 - 130	9	35
Ethylbenzene	<0.00200	U F1	0.0994	0.05323	F1	mg/Kg		54	70 - 130	11	35
m-Xylene & p-Xylene	<0.00399	U F1	0.199	0.09324	F1	mg/Kg		47	70 - 130	10	35
o-Xylene	<0.00200	U F1	0.0994	0.05060	F1	mg/Kg		51	70 - 130	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

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

Lab Sample ID: MB 880-32817/1-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	979.2		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.3		mg/Kg		79	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

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

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-32817/3-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	930.0		mg/Kg		93	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	765.3		mg/Kg		77	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-1 MS
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: SS11
Prep Type: Total/NA
Prep Batch: 32817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1138		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	853.2		mg/Kg		85	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-1 MSD
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: SS11
Prep Type: Total/NA
Prep Batch: 32817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	956.7		mg/Kg		96	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32736/1-A
Matrix: Solid
Analysis Batch: 32797

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			08/24/22 12:02	1

Lab Sample ID: LCS 880-32736/2-A
Matrix: Solid
Analysis Batch: 32797

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	243.9		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-32736/3-A
Matrix: Solid
Analysis Batch: 32797

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	243.8		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-2791-A-2-B MS
Matrix: Solid
Analysis Batch: 32797

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	686		251	919.6		mg/Kg		93	90 - 110		

Lab Sample ID: 890-2791-A-2-C MSD
Matrix: Solid
Analysis Batch: 32797

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	686		251	918.4		mg/Kg		93	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

GC VOA

Prep Batch: 33466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	5035	
MB 880-33466/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33466/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33466/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2791-A-2-H MS	Matrix Spike	Total/NA	Solid	5035	
890-2791-A-2-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 33557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	8021B	33466
MB 880-33466/5-A	Method Blank	Total/NA	Solid	8021B	33466
LCS 880-33466/1-A	Lab Control Sample	Total/NA	Solid	8021B	33466
LCSD 880-33466/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33466
890-2791-A-2-H MS	Matrix Spike	Total/NA	Solid	8021B	33466
890-2791-A-2-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33466

Analysis Batch: 33638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-1 MS	SS11	Total/NA	Solid	8015B NM	32817
890-2794-1 MSD	SS11	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-1 MS	SS11	Total/NA	Solid	8015NM Prep	
890-2794-1 MSD	SS11	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Soluble	Solid	DI Leach	
MB 880-32736/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32736/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32736/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

HPLC/IC (Continued)

Leach Batch: 32736 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2791-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2791-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Soluble	Solid	300.0	32736
MB 880-32736/1-A	Method Blank	Soluble	Solid	300.0	32736
LCS 880-32736/2-A	Lab Control Sample	Soluble	Solid	300.0	32736
LCSD 880-32736/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32736
890-2791-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	32736
890-2791-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32736

Metals

Prep Batch: 67856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	29B	

Prep Batch: 68370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	29B	67856

Analysis Batch: 68491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2794-1	SS11	Total/NA	Solid	29B SAR	68370

Lab Chronicle

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Client Sample ID: SS11
Date Collected: 08/19/22 08:20
Date Received: 08/19/22 15:53

Lab Sample ID: 890-2794-1
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			5.02 g	5 mL	33466	08/31/22 14:40	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33557	09/01/22 19:30	EL	EET MID
Total/NA	Analysis	Total BTEX		1			33638	09/02/22 11:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			32870	08/24/22 17:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 11:46	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32736	08/23/22 09:11	KS	EET MID
Soluble	Analysis	300.0		1			32797	08/24/22 16:52	SMC	EET MID
Total/NA	Prep	29B			100.05 g	100 g	67856	09/05/22 18:35	PB	EET HOU
Total/NA	Prep	29B			100.05 g	100 mL	68370	09/08/22 19:15	PB	EET HOU
Total/NA	Analysis	29B SAR		1			68491	09/09/22 15:16	DP	EET HOU

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-22-47	06-30-23

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

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	T104704400-22-24	06-30-23

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: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
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
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Raspberry State Com

Job ID: 890-2794-1
SDG: 03D2024048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2794-1	SS11	Solid	08/19/22 08:20	08/19/22 15:53	0.5

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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: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Josh Adams
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	303-887-2946	Email:	jadams@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Raspberry State Com	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024048	Due Date:	
Project Location:	32.4435,-103.55197	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Kase Parker		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	~~Yes~~ No	Wet Ice:	~~Yes~~ No
Samples Received Intact:	Yes No	Thermometer ID:	Thm-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	16.2
Total Containers:		Corrected Temperature:	16.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	SAR
SS11	S	8/19/2022	8:20	0.5				x	x	x	x

890-2794 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident ID:
NAPP2213029810
Cost Center:
A760291SM
AFE:

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 Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stat	8/19/22 1553	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-898.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas		Job #: 890-2794-1
Address: 4145 Greenbriar Dr	Due Date Requested: 8/25/2022			
City: Stafford	TAT Requested (days):			
State, Zip: TX, 77477				
Phone: 281-240-4200(Tel)	PO #:			
Email:	WO #:			
Project Name: Raspberry State Com	Project #: 89000115			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	29B_SAR_Calc/29B_Prep_Solid (MOD)_Local Method (Hold)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ss11 (890-2794-1)	8/19/22	08:20 Mountain		Solid			X	1	

Temp: 5.6 IR ID: HOU-343
C/F +0.3
Corrected Temp: 5.9

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/27/22 917	Company E
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks:

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2794-1
SDG Number: 03D2024048

Login Number: 2794
List Number: 1
Creator: Clifton, Cloe

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.	False	Did not receive all required containers.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2794-1
SDG Number: 03D2024048

Login Number: 2794
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/23/22 10:32 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	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Kalei Jennings
To: Josh Adams
Subject: FW: COP- Sampling Notification (Week of 07/25/22-07/29/22)
Date: Thursday, September 22, 2022 1:19:15 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

From: Kalei Jennings
Sent: Wednesday, July 20, 2022 6:10 PM
To: ocd.enviro@state.nm.us
Subject: COP- Sampling Notification (Week of 07/25/22-07/29/22)

All,

COP plans to complete final sampling activities at the following sites the week of July 25, 2022.

Monday:

- Raspberry State Com 001H / NAPP2213029810
- King Tut Federal Com 001H / NAPP2127234076

Tuesday:

Wednesday:

Thursday:

- Zia Hills 1A/B BTF / NAPP2216037138

Friday:

- Zia Hills 1A/B BTF / NAPP2216037138

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

Josh Adams

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Sent: Tuesday, July 26, 2022 10:29 AM
To: Kalei Jennings
Subject: FW: [EXTERNAL] Extension Request- Raspberry State Com 001H (Incident Number NAPP2213029810)
Attachments: Raspberry State Com 001H- NAPP2213029810.pdf

[**EXTERNAL EMAIL**]

Kalei,

FYI

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Tuesday, July 26, 2022 9:32 AM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>
Subject: FW: [EXTERNAL] Extension Request- Raspberry State Com 001H (Incident Number NAPP2213029810)

CAUTION:This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Charles,

Your request for a 90-day extension to **October 28th, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Thanks
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Tuesday, July 26, 2022 8:00 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] Extension Request- Raspberry State Com 001H (Incident Number NAPP2213029810)

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Sent: Monday, July 25, 2022 3:17 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Esparza, Brittany

<Brittany.Esparza@conocophillips.com>
Subject: [EXTERNAL] Extension Request- Raspberry State Com 001H (Incident Number NAPP2213029810)

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

To Whom It May Concern,

COG Operating, LLC (COG) is requesting an extension for the current deadline of July 29, 2022, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the Raspberry State Com 001H (Incident Number NAPP2213029810). The release was discovered on April 30, 2022, and initial site assessment activities are complete. The most recent laboratory analytical results indicate that additional remediation activities are required. In order to complete additional remediation activities and submit a remediation work plan or closure report, COP requests a 90-day extension of this deadline until October 27, 2022.

Respectfully,

Charles R. Beauvais II
Senior Environmental Engineer | Environmental Operations | **ConocoPhillips**
(M) 575-988-2043
Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.

ConocoPhillips

Josh Adams

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Friday, July 8, 2022 8:18 AM
To: Kalei Jennings
Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP-Sampling Notification (Week of 07/11/22-07/15/22)

[**EXTERNAL EMAIL**]

Kalei

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Friday, July 8, 2022 8:13 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: Fw: [EXTERNAL] COP-Sampling Notification (Week of 07/11/22-07/15/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, July 7, 2022 2:16 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] COP-Sampling Notification (Week of 07/11/22-07/15/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of July 11, 2022.

Monday:

Tuesday:

Wednesday:
- Raspberry State Com 001H / NAPP2213029810

Thursday:
- Zia Hills 19-1 / NAPP2215827276

Friday:

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

Josh Adams

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Wednesday, June 8, 2022 4:31 PM
To: Kalei Jennings
Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

[**EXTERNAL EMAIL**]

Kalei

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Wednesday, June 8, 2022 4:21 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>
Subject: Fw: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, June 8, 2022 4:11 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of June 13, 2022.

Monday
- Columbus Fed 021 & 022H CTB / NAPP2203830124

Tuesday
- Battle Axe Federal Com 002H / NAPP2134740531
- Broadcaster 29 Federal 3H / NAPP2201938653 & NAPP2132773092
- Super Cobra State Com #001H / NAPP2211531225
- Raspberry State Com 001H / NAPP2213029810

Wednesday
- Raspberry State Com 001H / NAPP2213029810

- Jaguar 18 State Com 002H & 003H / NAPP2213643210
-

Thursday

Friday

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 149797

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 149797
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	10/26/2022