TARGA

811 Louisiana, Suite 2100
Houston, TX 77002
713.584.1000
www.targaresources.com

September 13, 2019

Mr. Brad Billings
State of New Mexico Energy Minerals and Natural Resources Department
Oil Conservation Division (OCD) - District IV
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

SUBJECT: Transmittal of Final Closure Request (1RP-2554)
Targa Midstream Services, L.P., Eunice Gas Plant SWD No. 1
Lea County, New Mexico

Dear Mr. Billings:

Targa Midstream Service LP (Targa) has prepared this Final Closure Report (1RP-2554) for the July 29, 2008 gas and produced liquids release from a separator dresser sleeve in the plant condensate handling area at Eunice Gas Plant SWD No. 1 in Lea County, New Mexico. Based on the February 20, 2019 meeting between Targa representatives and the OCD, Targa retained Ensolum to conduct an assessment of the historical release. This documentation is attached and a Final C141 has been prepared. Based on the assessment, closure of 1RP-2554 is requested.

Please do not hesitate to contact me at (713) 584-1396 if you have any questions regarding this submittal.

Sincerely,

Christina M. Higginbotham, P.G. (Texas)
Senior Environmental Specialist

Enclosures

ENSOLUM

September 11, 2019

Targa Resources Partners LP
811 Louisiana Street, Suite 2100
Houston, Texas 77002
Attn: Ms. Christina Higginbotham, P.G.

Re: 1RP-2554 Eunice Gas Plant SWD No. 001
Targa Midstream Services LLC
32.421161 -103.146611, Section 3, Township 21S, Range 37E
Ensolum Project No. 01C1136021

Ms. Higginbotham:

Per your request, this letter provides a summary of the scope, investigation activities and results for the project referred to as 1RP-2554 Eunice Gas Plant SWD No. 001, referred to hereinafter as the "Site". Targa Resource Partners LP (Targa) requested Ensolum, LLC (Ensolum) to conduct an assessment of a historical release south of the Targa Eunice Gas Plant.

Background

In July 2008, during pigging operations, a pig pushed the maximum amount of liquid into a separator and caused overpressure. The dump line was over-pressured and the dresser sleeve on the line separated. The liquid was contained in secondary containment. A vacuum truck removed the liquid, the line was shut in and the dresser sleeve repaired. Based on the New Mexico Oil Conservation Division (NMOCD) Initial C-141 (Attachment A), a track hoe was utilized to removed impacted soil, which was transported to an NMOCD landfarm.

The Initial C-141 was the only historical information that could be located for the release.

Setting

The Site is located in Lea County, on the eastern side of the city of Eunice, New Mexico, specifically at the coordinates 32.421161 -103.146611. The former location of the separator is just south of the Targa Eunice Gas Plant. The Site and surrounding area are comprised of native rangeland with oil and gas pipelines and production facilities in the area. The location appeared to have been disturbed at some point in the past.

Site Activities

On June 19, 2019, Ensolum mobilized to the Site and a five (5) point surface soil composite sample was taken in the immediate vicinity of latitude 32.421161, longitude -103.146611. The composite soil sample was analyzed for benzene, toluene, ethylbenzene and xylene (BTEX) utilizing Environmental Protection Agency (EPA) Method SW-846 #8260, total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015, and chlorides using EPA Method #300.0

A Site Map (Figure 1) is provided in Attachment B with the soil composite locations. Photographic documentation is also provided as Attachment C.

The soil sample was collected in laboratory supplied glass containers, immediately cooled to approximately

4° C, transported under proper chain-of-custody procedures and documentation and submitted to Xenco laboratory in Midland, Texas.

Laboratory results indicated concentrations of BTEX, TPH and Chlorides were below NMOCD Guidelines.

A summary of soil analytical results is provided in Table 1 – Soil Sample Analytical Results in Attachment D. Laboratory analytical reports are provided as Attachment E.

Based on the completed on-Site assessment and historical information, Ensolum recommends that no further assessment or remediation is warranted and that the attached Final C-141 be submitted to the NMOCD.

If you have any questions about this letter or require anything further, please feel free to contact the undersigned at (972) 364-7643.

Sincerely,
Ensolum, LLC

Elizabeth Scaggs

Elizabeth Scaggs, P.G.
Principal Geoscientist
972.467.0838
lscaggs@ensolum.com

Attachments: **Attachment A:** Initial and Final C-141's
Attachment B: Figure 1- Site Map
Attachment C: Photographic Documentation
Attachment D: Summary Soil Sample Analytical Results
Attachment E: Laboratory Report and Chain of Custody Documentation

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ATTACHMENT A

Initial and Final C-141's

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1RP-2554

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Targa Midstream Services, LLC	Contact: Cindy Klein
Address: 811 Louisiana Street, Suite 2100, Houston, TX 77002	Telephone No. 575-631-7093
Facility Name: Eunice Gas Plant SWD No. 1	Facility Type: Former Separator Area

Surface Owner: Targa Resources	Mineral Owner:	API No. 30-025-21497-00-00

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	3	21S	37E					Lea

Latitude 32° 25' 16" N **Longitude** 103° 08' 47" W

NATURE OF RELEASE

Type of Release: Gas and Produced Liquids	Volume of Release: 20 Barrels	Volume Recovered: 20 Barrels
Source of Release: Dresser sleeve separated on dump line from separator in plant condensate handling area.	Date and Hour of Occurrence: 12:00 AM 7/29/2008	Date and Hour of Discovery: 12:00 AM 7/29/2008
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson OCD in Hobbs by Phone	
By Whom? Don Embrey	Date and Hour: 11:30 AM 7/29/2008	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Pig pushed maximum amount of liquid into separator and caused overpressure of dump line and dresser sleeve on the line separated. Liquid was contained in secondary containment around separator and within the clean up excavation. Vac truck was utilized to recover liquids. Line was shut-in and dresser sleeve was repaired.

Describe Area Affected and Cleanup Action Taken.*
Liquid was contained in secondary containment and within the clean up excavation. Track hoe utilized to remove contaminated soil from the bottom of the excavation. The contaminated soil was reportedly transported to an OCD approved landfarm. The area was sampled to confirm cleanup to OCD Guidelines.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Cindy Klein	Approved by Cindy Klein Bradford Billings	
Title: Sr. Environmental Specialist	Approval Date: 02/24/2020	Expiration Date:
E-mail Address: cklein@targaresources.com	Conditions of Approval:	Attached ☐
Date: Phone 575-631-7093		

* Attach Additional Sheets If Necessary

Bradford Billings (Oil Conservation Division)

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Targa Midstream Services L.P	Contact: James Lingnau 505.394.2534, Chuck Tolson 505.631.6926
Address: PO Box 1909 Eunice, NM 88231	Telephone No. (505) 394-2534
Facility Name: Eunice Gas Plant	Facility Type

Surface Owner: TARGA RESOURCES	Mineral Owner:	Lease No.

LOCATION OF RELEASE

API # 30-025-21497-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	3	21S	37E					Lea

Latitude 32.25.16.9N Longitude 103.08.47.8W

NATURE OF RELEASE

Type of Release: Gas and Produced Liquids	Volume of Release: Approximately 20 barrels of liquid	Volume Recovered: Recovered approximately 20 barrels of liquid.
Source of Release: Dresser Sleeve separated on dump line from Separator in plant condensate handling area.	Date and Hour of Occurrence: 12 Midnight 7/29/2008	Date and Hour of Discovery 12 Midnight 7/29/2008
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson OCD in Hobbs by phone	
By Whom? Don Embrey	Date and Hour 11:30 AM 7/29/2008	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Pig pushed maximum amount of liquid into separator and caused overpressure of dump line and dresser sleeve on line separated. Liquid was contained in containment around separator and clean up excavation. Drip truck was called out and liquid recovered. Line was shut in and dresser sleeve repaired.

Describe Area Affected and Cleanup Action Taken.*
The liquid was contained in containment and clean up excavation. Track hoe brought in to remove contaminated soil in bottom of excavation. The contaminated soil will be taken to an OCD approved landfarm. The area will be sampled to insure cleanup to meet OCD guidelines.

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

Signature: Don Embrey	OIL CONSERVATION DIVISION	
Printed Name: Don Embrey	ENV ENGINEER: Approved by ~~District Supervisor~~: Jeffrey Johnson	
Title: Advisor	Approval Date: 06/08/10	Expiration Date: 08/09/10
E-mail Address: dembrey@targaresources.com	Conditions of Approval: SUBMIT FINAL C-141 BY 08/09/10	Attached ☐ IRP-10-6-2554
Date: July 29, 2008 Phone: (432) 688-0546		

* Attach Additional Sheets If Necessary

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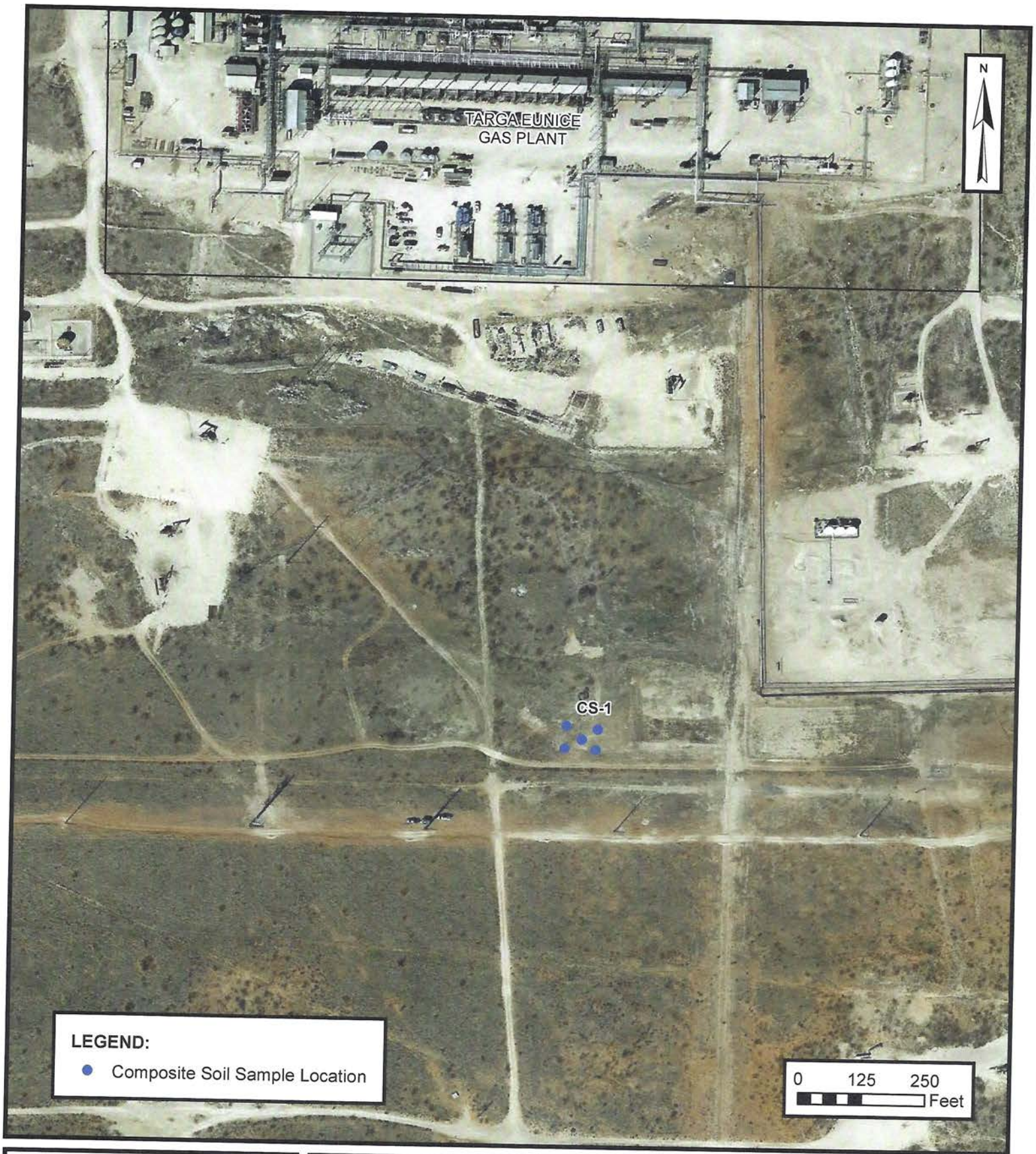
ATTACHMENT B

Site Map



ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP

TARGA MIDSTREAM SERVICES LP
EUNICE GAS PLANT SWD NO. 001, 1RP-2554
Eunice, Lea County, New Mexico
32.421161° N, 103.146611° W

PROJECT NUMBER: 01C1136021

FIGURE
1

ENSOLUM

ATTACHMENT C

Photographic Documentation

Looking north at area of interest. The disturbed area is to the left and toward the south from the black plastic.

Looking northeast at area of interest.

Looking east just south of the area of interest.

Looking north from south of the area of interest.

Looking east, note monitoring well east of the area of interest.

Looking south from the area of interest.

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ATTACHMENT D

Table

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Targa Midstream Services, LLC - 1RP-2554
Eunice Gas Plant
Lea County, New Mexico

Ensolum Project No. 01C1136021

Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
10	NE	NE	NE	50	NE	NE	NE	100	600
Confirmation Soil Sample Analytical Results									
<0.000192	<0.000129	<0.0000953	<0.000229	<0.0000953	<7.97	11.1 J	<8.10	11.1 J	<0.585

ation limit and above the detection limit.

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ATTACHMENT E

Laboratory Analytical Reports & Chain-of-Custody Documentation

Analytical Report 628483

for

Ensolum

Project Manager: Liz Scaggs

NMOCD Compliance

01C1136021

26-JUN-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Table of Contents

26-JUN-19

Project Manager: **Liz Scaggs**
Ensolum
2351 W Northwest Highway
Suite 1203
Dallas, TX 75220

Reference: XENCO Report No(s): **628483**
NMOCD Compliance
Project Address: IRP-2254

Liz Scaggs:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 628483. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 628483 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kalei Stout

Kalei Stout
Midland Laboratory Director

Sample Cross Reference 628483

Ensolum, Dallas, TX

NMOCD Compliance

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
1RP-2554CS	S	06-19-19 09:40	0 - 6 In	628483-001

CASE NARRATIVE

Client Name: Ensolum
Project Name: NMOCD Compliance

Project ID: *01C1136021*
Work Order Number(s): *628483*

Report Date: *26-JUN-19*
Date Received: *06/20/2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3093520 Chloride by EPA 300
Lab Sample ID 628483-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 628483-001.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results
628483

Ensolum, Dallas, TX
NMOCD Compliance

Sample Id: **1RP-2554CS**
Lab Sample Id: 628483-001
Matrix: Soil
Date Collected: 06.19.19 09.40
Sample Depth: 0 - 6 In
Date Received: 06.20.19 11.53

Analytical Method: Chloride by EPA 300
Analyst: CHE
Seq Number: 3093520
% Moist:
Date Prep: 06.25.19 13.30
Prep seq: 7680688
Prep Method: E300P
Tech: CHE

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	06.25.19 20:20	UX	1

Analytical Method: TPH by SW8015 Mod
Analyst: ARM
Seq Number: 3093578
% Moist:
Date Prep: 06.25.19 12.00
Prep seq: 7680769
Prep Method: 1005
Tech: ARM

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.97	14.9	7.97	mg/kg	06.25.19 20:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**11.1**	14.9	8.10	mg/kg	06.25.19 20:17	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.10	14.9	8.10	mg/kg	06.25.19 20:17	U	1
Total TPH	PHC635	**11.1**		7.97	mg/kg	06.25.19 20:17	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	77	70 - 135	%		

Certificate of Analytical Results
628483

Ensolum, Dallas, TX
NMOCD Compliance

Sample Id: **1RP-2554CS**
Lab Sample Id: 628483-001
Analytical Method: BTEX by SW 8260C
Analyst: HOP
Seq Number: 3093363
Subcontractor: SUB: T104704215-19-29

Matrix: Soil
Date Collected: 06.19.19 09.40
% Moist:
Date Prep: 06.24.19 11.30
Prep seq: 7680619

Sample Depth: 0 - 6 In
Date Received: 06.20.19 11.53
Prep Method: 5035A
Tech: HOP

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000192	0.000998	0.000192	mg/kg	06.24.19 15:04	U	1
Toluene	108-88-3	<0.000129	0.000998	0.000129	mg/kg	06.24.19 15:04	U	1
Ethylbenzene	100-41-4	<0.0000953	0.000998	0.0000953	mg/kg	06.24.19 15:04	U	1
m,p-Xylenes	179601-23-1	<0.000361	0.00200	0.000361	mg/kg	06.24.19 15:04	U	1
o-Xylene	95-47-6	<0.000229	0.000998	0.000229	mg/kg	06.24.19 15:04	U	1
Total Xylenes	1330-20-7	<0.000229		0.000229	mg/kg	06.24.19 15:04	U	
Total BTEX		<0.0000953		0.0000953	mg/kg	06.24.19 15:04	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	74 - 126	%		
1,2-Dichloroethane-D4	113	80 - 120	%		
Toluene-D8	96	73 - 132	%		
4-Bromofluorobenzene	94	58 - 152	%		

Final 1.000

Certificate of Analytical Results
628483

Ensolum, Dallas, TX
NMOCD Compliance

Sample Id: **7680619-1-BLK**
Lab Sample Id: 7680619-1-BLK
Analytical Method: BTEX by SW 8260C
Analyst: HOP
Seq Number: 3093363
Subcontractor: SUB: T104704215-19-29

Matrix: Solid
Date Collected:
% Moist:
Date Prep: 06.24.19 10.30
Prep seq: 7680619

Sample Depth:
Date Received:
Prep Method: 5035A
Tech: HOP

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000192	0.00100	0.000192	mg/kg	06.24.19 11:45	U	1
Toluene	108-88-3	<0.000129	0.00100	0.000129	mg/kg	06.24.19 11:45	U	1
Ethylbenzene	100-41-4	<0.0000955	0.00100	0.0000955	mg/kg	06.24.19 11:45	U	1
m,p-Xylenes	179601-23-1	<0.000362	0.00200	0.000362	mg/kg	06.24.19 11:45	U	1
o-Xylene	95-47-6	<0.000229	0.00100	0.000229	mg/kg	06.24.19 11:45	U	1
Total Xylenes	1330-20-7	<0.000229		0.000229	mg/kg	06.24.19 11:45	U	
Total BTEX		<0.0000955		0.0000955	mg/kg	06.24.19 11:45	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	97	74 - 126	%		
1,2-Dichloroethane-D4	97	80 - 120	%		
Toluene-D8	99	73 - 132	%		
4-Bromofluorobenzene	91	58 - 152	%		

Sample Id: **7680688-1-BLK**
Lab Sample Id: 7680688-1-BLK
Analytical Method: Chloride by EPA 300
Analyst: CHE
Seq Number: 3093520

Matrix: Solid
Date Collected:
% Moist:
Date Prep: 06.25.19 13.30
Prep seq: 7680688

Sample Depth:
Date Received:
Prep Method: E300P
Tech: CHE

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	06.25.19 18:43	U	1

Final 1.000

Certificate of Analytical Results
628483

Ensolum, Dallas, TX
NMOCD Compliance

Sample Id: **7680769-1-BLK**

Lab Sample Id: 7680769-1-BLK

Analytical Method: TPH by SW8015 Mod

Analyst: ARM

Seq Number: 3093578

Matrix: Solid

Date Collected:

% Moist:

Date Prep: 06.25.19 12.00

Prep seq: 7680769

Sample Depth:

Date Received:

Prep Method: 1005

Tech: ARM

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	06.25.19 14:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	06.25.19 14:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.13	15.0	8.13	mg/kg	06.25.19 14:15	U	1
Total TPH	PHC635	<8.00		8.00	mg/kg	06.25.19 14:15	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	111	70 - 135	%		
o-Terphenyl	103	70 - 135	%		

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: NMOCD Compliance

Work Orders : 628483,

Project ID: 01C1136021

Lab Batch #: 3093363 **Sample:** 7680619-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/24/19 10:04

BTEX by SW 8260C	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0495	0.0500	99	74-126	
1,2-Dichloroethane-D4	0.0496	0.0500	99	80-120	
Toluene-D8	0.0466	0.0500	93	73-132	
4-Bromofluorobenzene	0.0544	0.0500	109	58-152	

Lab Batch #: 3093363 **Sample:** 7680619-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/24/19 10:24

BTEX by SW 8260C	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0474	0.0500	95	74-126	
1,2-Dichloroethane-D4	0.0499	0.0500	100	80-120	
Toluene-D8	0.0483	0.0500	97	73-132	
4-Bromofluorobenzene	0.0540	0.0500	108	58-152	

Lab Batch #: 3093363 **Sample:** 628357-012 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/24/19 10:45

BTEX by SW 8260C	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0529	0.0500	106	74-126	
1,2-Dichloroethane-D4	0.0521	0.0500	104	80-120	
Toluene-D8	0.0468	0.0500	94	73-132	
4-Bromofluorobenzene	0.0531	0.0500	106	58-152	

Lab Batch #: 3093363 **Sample:** 7680619-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/24/19 11:45

BTEX by SW 8260C	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0483	0.0500	97	74-126	
1,2-Dichloroethane-D4	0.0485	0.0500	97	80-120	
Toluene-D8	0.0495	0.0500	99	73-132	
4-Bromofluorobenzene	0.0457	0.0500	91	58-152	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: NMOCD Compliance

Work Orders : 628483,

Project ID: 01C1136021

Lab Batch #: 3093578 **Sample:** 7680769-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/25/19 14:15

TPH by SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	51.4	50.0	103	70-135	

Lab Batch #: 3093578 **Sample:** 7680769-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/25/19 14:40

TPH by SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.4	100	93	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

Lab Batch #: 3093578 **Sample:** 7680769-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/25/19 15:06

TPH by SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.3	100	94	70-135	
o-Terphenyl	49.9	50.0	100	70-135	

Lab Batch #: 3093578 **Sample:** 628413-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/25/19 15:57

TPH by SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.2	99.9	93	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

Lab Batch #: 3093578 **Sample:** 628413-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/25/19 16:22

TPH by SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.6	99.6	90	70-135	
o-Terphenyl	46.7	49.8	94	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: NMOCD Compliance

Work Order #: 628483

Analyst: HOP

Date Prepared: 06/24/2019

Project ID

Lab Batch ID: 3093363

Sample: 7680619-1-BKS

Batch #: 1

Date Analyze

Units: mg/kg

Matri

BTEX by SW 8260C	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECC							
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %
Benzene	<0.000192	0.0500	0.0491	98	0.0500	0.0494	99	1
Toluene	<0.000129	0.0500	0.0499	100	0.0500	0.0527	105	5
Ethylbenzene	<0.0000955	0.0500	0.0509	102	0.0500	0.0538	108	6
m,p-Xylenes	<0.000362	0.100	0.100	100	0.100	0.108	108	8
o-Xylene	<0.000229	0.0500	0.0494	99	0.0500	0.0503	101	2

Analyst: CHE

Date Prepared: 06/25/2019

Date Analyze

Lab Batch ID: 3093520

Sample: 7680688-1-BKS

Batch #: 1

Matri

Units: mg/kg

Chloride by EPA 300	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECC							
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %
Chloride	<0.858	250	268	107	250	269	108	0

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: NMOCD Compliance

Work Order #: 628483

Analyst: ARM

Lab Batch ID: 3093578 **Sample:** 7680769-1-BKS

Units: mg/kg

Date Prepared: 06/25/2019 **Batch #:** 1

Project ID

Date Analyze

Matri

TPH by SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECC							
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1090	109	1000	1060	106	3
Diesel Range Organics (DRO)	<8.13	1000	1110	111	1000	1110	111	0

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: NMOCD Compliance

Work Order #: 628483

Lab Batch #: 3093363

Date Analyzed: 06/24/2019

QC- Sample ID: 628357-012 S

Reporting Units: mg/kg

Date Prepared: 06/24/2019

Batch #: 1

Project ID: 01C1136021

Analyst: HOP

Matrix: Soil

BTEX by SW 8260C	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	<0.000172	0.0447	0.0429	96	62-132	
Toluene	<0.000116	0.0447	0.0425	95	66-124	
Ethylbenzene	<0.0000854	0.0447	0.0434	97	71-134	
m,p-Xylenes	<0.000323	0.0894	0.0864	97	69-128	
o-Xylene	<0.000205	0.0447	0.0433	97	72-131	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: NMOCD Compliance

Work Order # : 628483
Lab Batch ID: 3093520
Date Analyzed: 06/25/2019
Reporting Units: mg/kg

Project ID: 01C11360
QC- Sample ID: 628481-001 S
Batch #: 1 **Matrix:** Soil
Date Prepared: 06/25/2019
Analyst: CHE

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOV

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	F
Chloride	32.5	250	328	118	250	324	117	

Lab Batch ID: 3093520
Date Analyzed: 06/25/2019
Reporting Units: mg/kg

QC- Sample ID: 628483-001 S
Batch #: 1 **Matrix:** Soil
Date Prepared: 06/25/2019
Analyst: CHE

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOV

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	F
Chloride	<0.858	250	278	111	250	274	110	

Lab Batch ID: 3093578
Date Analyzed: 06/25/2019
Reporting Units: mg/kg

QC- Sample ID: 628413-001 S
Batch #: 1 **Matrix:** Soil
Date Prepared: 06/25/2019
Analyst: ARM

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOV

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	F
Gasoline Range Hydrocarbons (GRO)	<7.99	999	983	98	996	941	94	
Diesel Range Organics (DRO)	9.05	999	1060	105	996	1080	108	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 628493

www.xenco.com Page 1 of 1

Project Manager:	Liz Scaggs	Bill to: (If different)	
Company Name:	ENSOLUM	Company Name:	
Address:	2351 W. NW Hwy Ste 1203	Address:	
City, State ZIP:	Dallas, TX 75220	City, State ZIP:	
Phone:	972.467.0838 Email:	lscaggs@ensolum.com	

Work Order Comments

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

Project Name:	NMOCD Compliance	Turn Around	
Project Number:	01C1136021	Routine	☒
Project Location	IRP-2254	Rush:	
Sampler's Name:	Liz Scaggs	Due Date:	
PO #:	01C1136021	Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	0.5/0.3	Temp Blank:	Yes (No)
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID	D8
Sample Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
		Total Containers:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX 8260	TPH 8015 (G,D,M)	Chlorides 300
	IRP-2554CS	S	6.19.19	0940	0-6"	1		✓	✓	✓

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

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 SiO2 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 **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/20/19 1153	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number : 41890

Date/Time: 06.20.2019 12:15
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 775529738140

Please send report to: Kalei Stout
Address: 1211 W. Flori
E-Mail: kalei.stout@x

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	I
628483-001	S	1RP-2554CS	06.19.2019 09:40	SW8260CBTEX	BTEX by SW 8260C	06.26.2019	07.03.2019	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 06.20.2019

Received By: Ashly Kov

Date Received: 06.21.201

Cooler Temperature: 3.0

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 41890

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-068

Sent By: Brianna Teel **Date Sent:** 06.20.2019 12.15 PM

Received By: Ashly Kowalski **Date Received:** 06.21.2019 09.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 *Custody Seals Signed and dated for Containers/coolers	Yes	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	Yes	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	Yes	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 06.21.2019

Ashly Kowalski

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Ensolum

Date/ Time Received: 06/20/2019 11:53:00 AM

Work Order #: 628483

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

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6*Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford-BTEX
#18 Water VOC samples have zero headspace?	N/A	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel
Brianna Teel
Date: 06/20/2019

Checklist reviewed by: Kalei Stout
Kalei Stout
Date: 06/23/2019