

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 April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

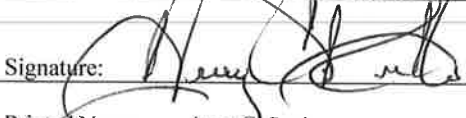
Name of Company: XTO Energy OGRID:4380	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No: 432-221-7331
Facility Name: Sizzler Federal #2H	Facility Type: Exploration and Production
Surface Owner: State	Mineral Owner: State
API No: 30-015-44280	

LOCATION OF RELEASE

Unit Letter O	Section 6	Township 25S	Range 29E	Feet from the 180	North/South Line South	Feet from the 1650	East/West Line East	County Eddy
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Latitude 32.152557 Longitude -104.020787 NAD83

NATURE OF RELEASE

Type of Release Fresh water and chemical (scale inhibitor, PAA, biocide)	Volume of Release 450bbl water, 3 gallons chemical	Volume Recovered 449bbl water, 3 gallons chemical
Source of Release Frac tank	Date and Hour of Occurrence 7/25/2018, AM	Date and Hour of Discovery 7/25/2018, 5:00 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher (NMOCD), Ryan Mann (SLO), Shelly Tucker (BLM)	
By Whom? Amy Ruth	Date and Hour: 7/25/2018, 1:54 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Frac tank overflowed during filling. Valves were closed and flow to tank was stopped.		
Describe Area Affected and Cleanup Action Taken.* Fluid was released into lined containment. Less than one barrel escaped through a hole in the liner. Vacuum truck was dispatched and recovered all fluid from containment. The breach in the liner was patched and containment was cleaned. An environmental contractor has been retained to assist with remediation efforts.		
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: Amy C. Ruth	Approved by Environmental Specialist: Maria Pruett	
Title: Environmental Coordinator	Approval Date: 08/11/18	Expiration Date: N/A
E-mail Address: Amy_Ruth@xtoenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: Rev 8/10/2018 Phone: 575-689-3380	2RP-4913	

* Attach Additional Sheets If Necessary

A#:pMAP1822337557

I#: nMAP1822337753

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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	NMAP1822337753
District RP	2RP-4913
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Garrett Green	Contact Telephone: (575)-200-0729
Contact email: garrett.green@exxonmobil.com	Incident #: 2RP-4913
Contact mailing address: 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude N 32.152557 Longitude W -104.020787
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Sizzler Federal #2H	Site Type: Production Well Facility
Date Release Discovered: 07/25/2018	API# (if applicable): 30-015-44280

Unit Letter	Section	Township	Range	County
O	6	25S	29E	Eddy

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input checked="" type="checkbox"/> Other (describe)	Volume/Weight Released (provide units): 450 bbls of fresh water with chemical additives	Volume/Weight Recovered (provide units): 449 bbls of fresh water with chemical additives

Cause of Release

Frac tank overflowed during filling. Valves were closed and flow to tank was stopped.


Oil Conservation Division

Incident ID	NMAP1822337753
District RP	2RP-4913
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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was greater than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By Amy Ruth to Mike Bratcher (NMOCD), Ryan Mann (SLO), Shelly Tucker (BLM)	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: N/A	
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: <u>Garrett Green</u>	Title: <u>SSHE Coordinator</u>
Signature: <u></u>	Date: <u>6/15/2023</u>
email: <u>garrett.green@exxonmobil.com</u>	Telephone: <u>575-200-0729</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	NMAP1822337753
District RP	2RP-4913
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?	<u><50</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

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Incident ID	NMAP1822337753
District RP	2RP-4913
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Printed Name: Garrett GreenTitle: SSHE CoordinatorSignature: Date: 6/15/2023email: garrett.green@exxonmobil.comTelephone: 575-200-0729**OCD Only**Received by: Jocelyn HarimonDate: 06/16/2023

Incident ID	NMAP1822337753
District RP	2RP-4913
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: Garrett Green

Title: SSHE Coordinator

Signature: 

Date: 6/15/2023

email: garrett.green@exxonmobil.com


Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon

Date: 06/16/2023

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

Closure Approved by: 

Date: 7/6/2023

Printed Name: Brittany Hall

Title: Environmental Specialist



June 15, 2023

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

**Re: Closure Request Addendum
Sizzler Federal #2H
Incident Number NMAP1822337753
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following addendum to the original *Closure Request* submitted on October 4, 2019. This addendum provides an update to the soil sampling activities completed at the Sizzler Federal #2H (Site) in response to the denial of the October 4, 2019 *Closure Request* by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD indicated that the soil sampling activities were not sufficient. Based on the additional soil sampling activities described below, XTO is submitting this *Closure Request Addendum* and requesting closure for Incident Number NMAP1822337753.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 6, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.152557°, -104.020787°) and is associated with oil and gas exploration and production operations on State land managed by the New Mexico State Land Office (SLO).

On July 25, 2018, hydraulic fracturing tanks overflowed during filling. Approximately 450 barrels (bbls) of fresh water with 3 gallons of chemical additives were released within the impermeable lined containment around the tanks. Valves were closed to stop flow to the tanks. A vacuum truck was dispatched to the Site to recover the free-standing fluid; approximately 449 bbls of fluid were recovered. A hole in the liner was identified and approximately 1 bbl of fresh water escaped the liner onto the surface of the caliche well pad. The liner was repaired, and the containment was cleaned. XTO reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on August 10, 2018. The release was assigned Remediation Permit (RP) Number 2RP-4913 and Incident Number NMAP1822337753.

BACKGROUND

The original *Closure Request* detailed site characterization according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the site characterization are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

XTO Energy, Inc.
Closure Request Addendum
Sizzler Federal #2H

Based on the results of the Site Characterization, the following Table I Closure Criteria (Closure Criteria) were applied:

- 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

During January 2019, Site assessment activities were conducted to assess for the presence or absence of impacted soil resulting from the July 25, 2018, release of fresh water with chemical additives at the Site. Six potholes (PH01 through PH06) were advanced around the hydraulic fracturing tank containment to assess for potential soil impacts. Delineation soil samples were collected from each pothole from depths ranging from 0.5 feet to 2 feet below ground surface (bgs). Laboratory analytical results for the delineation soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Additional details regarding the delineation soil sampling activities can be referenced in the original October 4, 2019 *Closure Request*. Laboratory analytical results from the soil sampling activities are summarized in Table I and the soil sample locations are depicted on Figure 2. Based on the laboratory analytical results, no further remediation was warranted and a *Closure Request* was submitted to the NMOCD on October 4, 2019.

On March 16, 2023, NMOCD denied the *Closure Request* for Incident Number NMAP1822337753 for the following reasons:

- *No samples were collected from beneath the containment once it was removed.*
- *The chemical additive needs to be identified and sampled in accordance with 19.15.29.11 A. (5)(e).*

ADDITIONAL SOIL SAMPLING ACTIVITIES

Ensolum personnel were at the Site on May 19, 2023, to complete additional soil sampling activities. One pothole (PH07) was advanced via backhoe to a depth of 4 feet bgs at the location of the former hydraulic fracturing tank containment to confirm the absence of impacted soil resulting from the July 25, 2018, fresh water release. Soil from the pothole was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Discrete delineation soil samples PH07 and PH07A were collected from the pothole at depths of 1-foot and 4 feet bgs. The pothole location is presented on Figure 2.

The delineation soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation was completed during the Site visit. A photographic log is included in Appendix A.

Laboratory analytical results for soil samples PH07 and PH07A indicated that all COC concentrations were compliant with the Site Closure Criteria. The soil sample analytical results are summarized on Table I and the laboratory analytical report is included as Appendix B.

XTO Energy, Inc.
Closure Request Addendum
Sizzler Federal #2H

CHEMICAL ADDITIVE REVIEW

The chemical additives listed on the Form C-141 included scale inhibitor, poly acrylic acid (PAA), and biocide. Chemicals listed in these additives were not identified on Table 1 of 40 C.F.R. 261.24(b) or the New Mexico environment department's Risk Assessment Guidance for Site Investigations and Remediation Volumes I and II. The Safety Data Sheets for the chemical additives are provided in Appendix C.

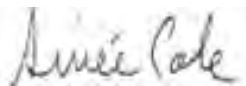
The 450 bbls of fresh water released contained only three gallons of chemical additives (0.016% of the solution). The majority of the released fluids were contained within the lined containment and all but one barrel of fresh water was recovered during initial response activities. The fresh water release with limited chemical additives occurred almost 5 years ago; residual impact from the chemical additives is very unlikely. As such, XTO does not believe additional laboratory analysis for the chemical additives is warranted.

CLOSURE REQUEST

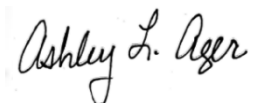
Soil sampling activities were completed at the Site to assess for the presence or absence of impacts to soil resulting from the July 25, 2018, fresh water release within lined containment. Based on laboratory analytical results compliant with the Site Closure Criteria in all delineation soil samples, no further remediation was required. Based on visual observations, field screening activities, and laboratory analytical results, no impacted soil was identified as a result of the release. XTO respectfully requests closure for Incident Number NMAP1822337753.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



Aimee Cole
Senior Managing Scientist



Ashley Ager, P.G.
Program Director

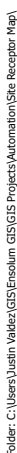
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

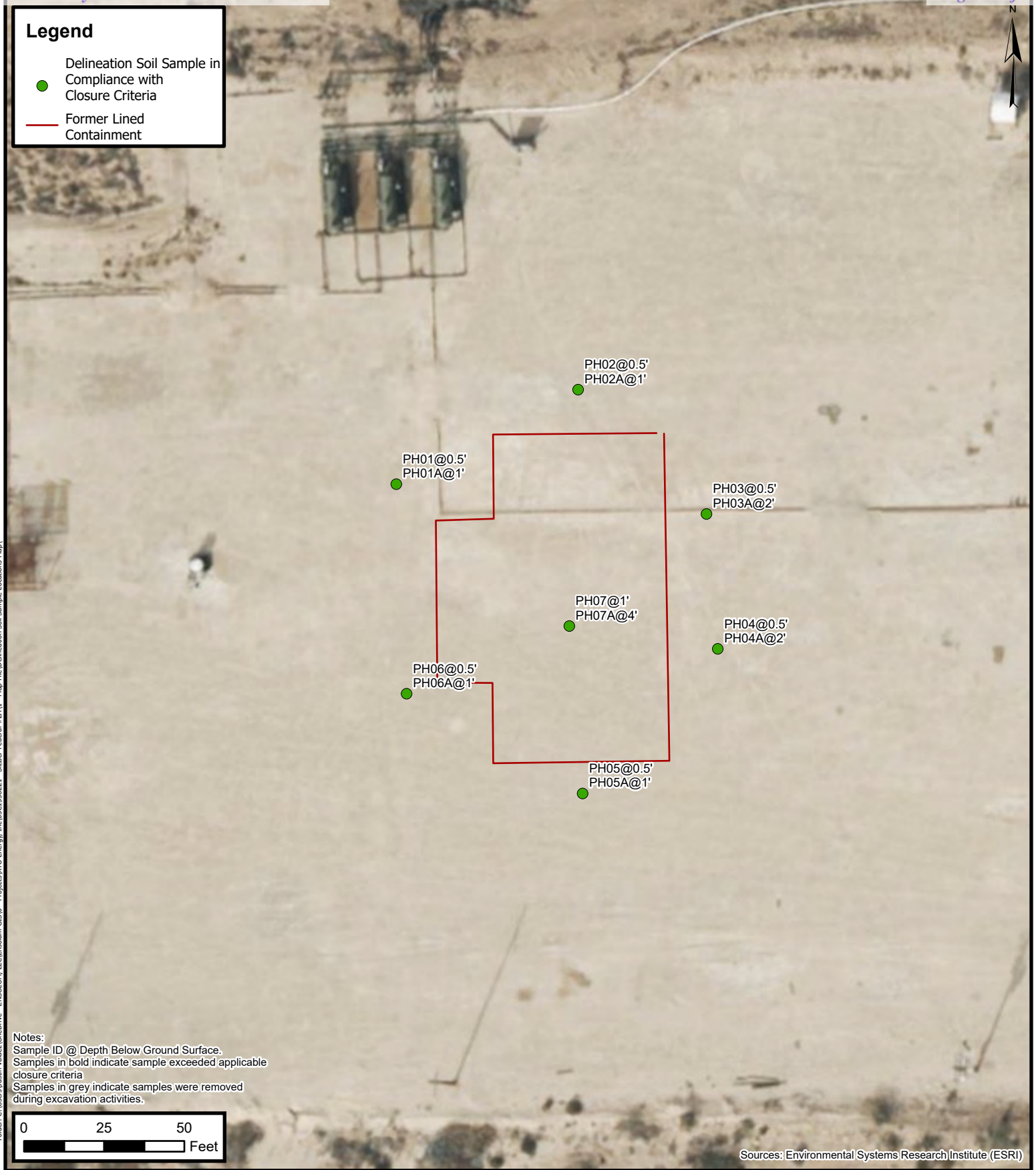
Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Laboratory Analytical Reports & Chain-of-Custody Documentation (2023)
Appendix C	Safety Data Sheets
Appendix D	NMOCD Notifications



FIGURES





Delineation Soil Sample Locations

XTO Energy, Inc
Sizzler Federal #2H
Incident Number: NMAP1822337753
Unit O Sec 6 Township 25 South Range 29 East
Eddy County, New Mexico

FIGURE
2



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Sizzler Federal #2H
 XTO Energy, Inc.
 Eddy 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	50	100	600
Delineation Soil Samples										
PH01	01/02/2019	0.5	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	59.8
PH01A	01/02/2019	1	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	59.4
PH02	01/02/2019	0.5	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	392
PH02A	01/02/2019	1	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	355
PH03	01/02/2019	0.5	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	286
PH03A	01/02/2019	2	<0.00200	<0.00200	15.3	<15.0	<15.0	15.3	15.3	505
PH04	01/02/2019	0.5	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	350
PH04A	01/02/2019	2	<0.00202	<0.00202	19.9	<15.0	<15.0	19.9	19.9	67.8
PH05	01/02/2019	0.5	<0.00199	<0.00199	16.3	<15.0	<15.0	16.3	16.3	39.1
PH05A	01/02/2019	1	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	98.7
PH06	01/02/2019	0.5	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	399
PH06A	01/02/2019	1	<0.00201	<0.00201	26.0	<15.0	<15.0	26.0	26.0	348
PH07	05/19/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	216
PH07A	05/19/2023	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	50.3

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code



APPENDIX A

Photographic Log



Photographic Log

XTO Energy, Inc
Sizzler Federal #2H
NMAP1822337753



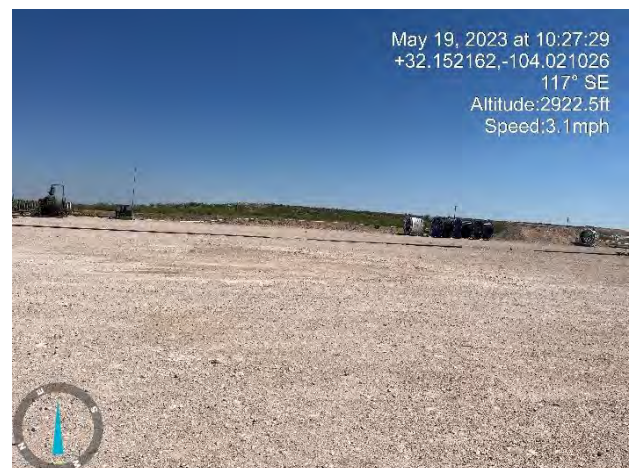
Photograph 1 Date: 05/12/2023
Description: Pad layout
View: Southeast



Photograph 2 Date: 05/19/2023
Description: Marked electrical line through one call area
View: Southwest



Photograph 3 Date: 05/19/2023
Description: Pothole PH07
View: Southeast



Photograph 4 Date: 05/19/2023
Description: PH07 post-backfill
View: Northeast



APPENDIX B

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/24/2023 12:51:27 PM

JOB DESCRIPTION

Sizzler 2H
SDG NUMBER 32.152557,-109.020787

JOB NUMBER

890-4693-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Client: Ensolum
Project/Site: Sizzler 2H

Laboratory Job ID: 890-4693-1
SDG: 32.152557,-109.020787

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Definitions/Glossary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Job ID: 890-4693-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4693-1

Receipt

The samples were received on 5/19/2023 11:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH07 (890-4693-1) and PH07A (890-4693-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-53847 and analytical batch 880-53828 was outside the upper control limits.

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Client Sample ID: PH07

Lab Sample ID: 890-4693-1

Date Collected: 05/19/23 09:45

Matrix: Solid

Date Received: 05/19/23 11:40

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/23/23 09:51	05/23/23 20:58	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/23/23 09:51	05/23/23 20:58	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/23/23 09:51	05/23/23 20:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/23/23 09:51	05/23/23 20:58	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/23/23 09:51	05/23/23 20:58	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/23/23 09:51	05/23/23 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	05/23/23 09:51	05/23/23 20:58	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/23/23 09:51	05/23/23 20:58	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/24/23 11:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/23/23 10:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/22/23 09:25	05/22/23 14:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/22/23 09:25	05/22/23 14:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/22/23 09:25	05/22/23 14:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	05/22/23 09:25	05/22/23 14:02	1
o-Terphenyl	124		70 - 130	05/22/23 09:25	05/22/23 14:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	216		24.9	mg/Kg			05/23/23 15:28	5

Client Sample ID: PH07A

Lab Sample ID: 890-4693-2

Date Collected: 05/19/23 10:00

Matrix: Solid

Date Received: 05/19/23 11:40

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 21:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 21:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 21:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		05/23/23 09:51	05/23/23 21:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 21:18	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		05/23/23 09:51	05/23/23 21:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	05/23/23 09:51	05/23/23 21:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Client Sample ID: PH07A

Lab Sample ID: 890-4693-2

Date Collected: 05/19/23 10:00

Matrix: Solid

Date Received: 05/19/23 11:40

Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130	05/23/23 09:51	05/23/23 21:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			05/24/23 11:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/23/23 10:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/22/23 09:25	05/22/23 14:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/22/23 09:25	05/22/23 14:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/22/23 09:25	05/22/23 14:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			05/22/23 09:25	05/22/23 14:24	1
o-Terphenyl	123		70 - 130			05/22/23 09:25	05/22/23 14:24	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.3		5.01	mg/Kg			05/23/23 15:44	1

Surrogate Summary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

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)
890-4690-A-1-C MS	Matrix Spike	93	95
890-4690-A-1-D MSD	Matrix Spike Duplicate	91	105
890-4693-1	PH07	102	95
890-4693-2	PH07A	101	100
LCS 880-53960/1-A	Lab Control Sample	83	123
LCSD 880-53960/2-A	Lab Control Sample Dup	97	112
MB 880-53960/5-A	Method Blank	85	100
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)
890-4682-A-1-D MS	Matrix Spike	121	127
890-4682-A-1-E MSD	Matrix Spike Duplicate	105	115
890-4693-1	PH07	101	124
890-4693-2	PH07A	100	123
LCS 880-53847/2-A	Lab Control Sample	96	106
LCSD 880-53847/3-A	Lab Control Sample Dup	111	124
MB 880-53847/1-A	Method Blank	179 S1+	218 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-53960/5-A

Matrix: Solid

Analysis Batch: 53967

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 53960

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 13:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 13:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 13:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/23/23 09:51	05/23/23 13:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/23/23 09:51	05/23/23 13:32	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/23/23 09:51	05/23/23 13:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	05/23/23 09:51	05/23/23 13:32	1
1,4-Difluorobenzene (Surr)	100		70 - 130	05/23/23 09:51	05/23/23 13:32	1

Lab Sample ID: LCS 880-53960/1-A

Matrix: Solid

Analysis Batch: 53967

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 53960

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1231		mg/Kg		123	70 - 130
Toluene	0.100	0.09465		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.09213		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	0.200	0.1784		mg/Kg		89	70 - 130
o-Xylene	0.100	0.07972		mg/Kg		80	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: LCSD 880-53960/2-A

Matrix: Solid

Analysis Batch: 53967

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 53960

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1212		mg/Kg		121	70 - 130	1	35
Toluene	0.100	0.1039		mg/Kg		104	70 - 130	9	35
Ethylbenzene	0.100	0.1028		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2107		mg/Kg		105	70 - 130	17	35
o-Xylene	0.100	0.09677		mg/Kg		97	70 - 130	19	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-4690-A-1-C MS

Matrix: Solid

Analysis Batch: 53967

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 53960

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.101	0.1221		mg/Kg		121	70 - 130
Toluene	<0.00200	U	0.101	0.1138		mg/Kg		113	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

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

Lab Sample ID: 890-4690-A-1-C MS

Matrix: Solid

Analysis Batch: 53967

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 53960

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.101	0.1113		mg/Kg		110	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.202	0.2251		mg/Kg		112	70 - 130
o-Xylene	<0.00200	U	0.101	0.1004		mg/Kg		100	70 - 130

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

Lab Sample ID: 890-4690-A-1-D MSD

Matrix: Solid

Analysis Batch: 53967

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 53960

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.1258		mg/Kg		127	70 - 130	3	35
Toluene	<0.00200	U	0.0990	0.1112		mg/Kg		112	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.0990	0.1032		mg/Kg		104	70 - 130	8	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.2053		mg/Kg		104	70 - 130	9	35
o-Xylene	<0.00200	U	0.0990	0.09190		mg/Kg		93	70 - 130	9	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-53847/1-A

Matrix: Solid

Analysis Batch: 53828

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 53847

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		05/22/23 08:00	05/22/23 08:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/22/23 08:00	05/22/23 08:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/22/23 08:00	05/22/23 08:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	179	S1+	70 - 130	05/22/23 08:00	05/22/23 08:26	1
o-Terphenyl	218	S1+	70 - 130	05/22/23 08:00	05/22/23 08:26	1

Lab Sample ID: LCS 880-53847/2-A

Matrix: Solid

Analysis Batch: 53828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 53847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	899.0		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	1000	884.1		mg/Kg		88	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

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

Lab Sample ID: LCS 880-53847/2-A
Matrix: Solid
Analysis Batch: 53828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53847

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-53847/3-A
Matrix: Solid
Analysis Batch: 53828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	999.0		mg/Kg		100	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	1018		mg/Kg		102	70 - 130	14	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: 890-4682-A-1-D MS
Matrix: Solid
Analysis Batch: 53828

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 53847

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1131		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)	104		998	1181		mg/Kg		108	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: 890-4682-A-1-E MSD
Matrix: Solid
Analysis Batch: 53828

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 53847

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	940.5		mg/Kg		89	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	104		999	1032		mg/Kg		93	70 - 130	13	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	115		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-53878/1-A

Matrix: Solid

Analysis Batch: 53996

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			05/23/23 13:34	1

Lab Sample ID: LCS 880-53878/2-A

Matrix: Solid

Analysis Batch: 53996

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.1		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-53878/3-A

Matrix: Solid

Analysis Batch: 53996

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	248.9		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-4690-A-2-C MS

Matrix: Solid

Analysis Batch: 53996

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	101		249	326.4		mg/Kg		91	90 - 110

Lab Sample ID: 890-4690-A-2-D MSD

Matrix: Solid

Analysis Batch: 53996

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	101		249	325.7		mg/Kg		90	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

GC VOA

Prep Batch: 53960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Total/NA	Solid	5035	
890-4693-2	PH07A	Total/NA	Solid	5035	
MB 880-53960/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-53960/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-53960/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4690-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4690-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 53967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Total/NA	Solid	8021B	53960
890-4693-2	PH07A	Total/NA	Solid	8021B	53960
MB 880-53960/5-A	Method Blank	Total/NA	Solid	8021B	53960
LCS 880-53960/1-A	Lab Control Sample	Total/NA	Solid	8021B	53960
LCSD 880-53960/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	53960
890-4690-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	53960
890-4690-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	53960

Analysis Batch: 54069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Total/NA	Solid	Total BTEX	
890-4693-2	PH07A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 53828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Total/NA	Solid	8015B NM	53847
890-4693-2	PH07A	Total/NA	Solid	8015B NM	53847
MB 880-53847/1-A	Method Blank	Total/NA	Solid	8015B NM	53847
LCS 880-53847/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	53847
LCSD 880-53847/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	53847
890-4682-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	53847
890-4682-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	53847

Prep Batch: 53847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Total/NA	Solid	8015NM Prep	
890-4693-2	PH07A	Total/NA	Solid	8015NM Prep	
MB 880-53847/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-53847/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-53847/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4682-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4682-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 53975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Total/NA	Solid	8015 NM	
890-4693-2	PH07A	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

HPLC/IC

Leach Batch: 53878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Soluble	Solid	DI Leach	
890-4693-2	PH07A	Soluble	Solid	DI Leach	
MB 880-53878/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-53878/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-53878/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4690-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4690-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 53996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4693-1	PH07	Soluble	Solid	300.0	53878
890-4693-2	PH07A	Soluble	Solid	300.0	53878
MB 880-53878/1-A	Method Blank	Soluble	Solid	300.0	53878
LCS 880-53878/2-A	Lab Control Sample	Soluble	Solid	300.0	53878
LCSD 880-53878/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	53878
890-4690-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	53878
890-4690-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	53878

Lab Chronicle

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Client Sample ID: PH07
Date Collected: 05/19/23 09:45
Date Received: 05/19/23 11:40

Lab Sample ID: 890-4693-1
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	53960	05/23/23 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53967	05/23/23 20:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54069	05/24/23 11:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			53975	05/23/23 10:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	53847	05/22/23 09:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53828	05/22/23 14:02	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	53878	05/22/23 12:16	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53996	05/23/23 15:28	SMC	EET MID

Client Sample ID: PH07A
Date Collected: 05/19/23 10:00
Date Received: 05/19/23 11:40

Lab Sample ID: 890-4693-2
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			5.01 g	5 mL	53960	05/23/23 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53967	05/23/23 21:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54069	05/24/23 11:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			53975	05/23/23 10:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	53847	05/22/23 09:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53828	05/22/23 14:24	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	53878	05/22/23 12:16	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	53996	05/23/23 15:44	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

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	T104704400-22-25	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

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

Method Summary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Sizzler 2H

Job ID: 890-4693-1
SDG: 32.152557,-109.020787

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4693-1	PH07	Solid	05/19/23 09:45	05/19/23 11:40	1'
890-4693-2	PH07A	Solid	05/19/23 10:00	05/19/23 11:40	4'

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



Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

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Project Manager:	Tecora Morrissey	Bill to: (if different)	Barrett Green
Company Name:	Enxium, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	337.257.8307	Email:	tmorrissey@enxium.com

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

Project Name:	Site 2H	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C155B221	Due Date:			
Project Location:	32.152557-104.010787	TAT starts the day received by the lab. If received by 4:30pm			
Sampler's Name:	Meredith Robert				
P.O. #:					
SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	710003		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	1.2		
Total Containers:		Corrected Temperature:	1.0		



890-4693 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
PH07	S	5/19/23	0945	1'	G	1	X	BTEX		Incident #: NMAP1822337753
PH07A	S	5/19/23	1000	4'	G	1	X	Chlorides		Cost Center: 1686131001
							X	TPH		API: 30.015.44280
										Imported to Xenco.com

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

Note: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and sub-contractors. 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
<i>[Signature]</i>	<i>[Signature]</i>	5.19.23 1148			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4693-1

SDG Number: 32.152557,-109.020787

Login Number: 4693

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4693-1

SDG Number: 32.152557,-109.020787

Login Number: 4693

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 05/22/23 08:42 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	



APPENDIX C Safety Data Sheets

SDS no. L065
Version 3
Revision date 11/Dec/2014
Supersedes date 27/Feb/2009



Safety Data Sheet Scale Inhibitor L065

1. Identification of the substance/preparation and of the Company/undertaking

1.1 Product identifier

Product name Scale Inhibitor L065
Product code L065

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Scale Inhibitor. Used as a fracturing additive in oilfield applications
Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
Schlumberger Oilfield Australia Pty Ltd
ABN: 74 002 459 225
ACN: 002 459 225
256 St. Georges Terrace, Perth WA 6000
+47 5157 7424
SDS@slb.com

1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 595 3518

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to (EC) No. 1272/2008

Health hazards Not classified
Environmental hazards Not classified
Physical Hazards Not classified

2.2 Label elements

Signal word
None

-

-



Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Indication of danger

Not classified

Contains

Ethylene glycol

CALCIUM CHLORIDE

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

2.3 Other data

Not classified as PBT/vPvB by current EU criteria

Australian statement of hazardous/dangerous nature

Classified as Non-Hazardous according to the criteria of NOHSC.
 NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3. Composition/information on ingredients
3.1 Substances

Not Applicable

3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
Ethylene glycol	203-473-3	107-21-1	10-30	Xn; R48/22	Acute Tox. 4 (H302) STOT RE. 2(H373)	No data available
CALCIUM CHLORIDE	233-140-8	10043-52-4	< 3	Xi; R36	Eye Irrit. 2 (H319)	No data available

Comments

The product contains other ingredients which do not contribute to the overall classification.

4. First aid measures
4.1 First-Aid Measures
Inhalation

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Ingestion

Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Skin contact

Wash skin thoroughly with soap and water. Get medical attention if irritation persists.



Scale Inhibitor L065

SDS no. L065
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Eye contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

General advice The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.

Main symptoms

Inhalation Please see Section 11. Toxicological Information for further information.

Ingestion Please see Section 11. Toxicological Information for further information.

Skin contact Please see Section 11. Toxicological Information for further information.

Eye contact Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing media appropriate for surrounding material.

Extinguishing media which shall not be used for safety reasons

None known.

5.2 Special hazards arising from the substance or mixture

Unusual fire and explosion hazards

None known.

Hazardous combustion products

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Special Fire-Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. See also section 8.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.



Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014
Environmental exposure controls

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After cleaning, flush away traces with water.

6.4 Reference to other sections

See section 13 for more information.

7. Handling and storage

7.1 Precautions for safe handling**Handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Avoid spills and splashing during use.

Hygiene measures

Use good work and personal hygiene practices to avoid exposure. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions	Ensure adequate ventilation. Keep airborne concentrations below exposure limits.
Storage precautions	Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid heat, flames and other sources of ignition.
Storage class	Chemical storage.
Packaging material	Use specially constructed containers only

7.3 Specific end uses

See Section 1.2.

8. Exposure controls/personal protection

8.1 Control parameters

Component	EU OEL	Austria	Australia	Denmark
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Scale Inhibitor L065

SDS no. L065

Revision date 11/Dec/2014

Ethylene glycol	20 ppm TWA 52 mg/m ³ TWA 40 ppm STEL 104 mg/m ³ STEL Possibility of significant uptake through the skin	Not determined	skin notation 10 mg/m ³ TWA (particulate); 20 ppm TWA (vapour); 52 mg/m ³ TWA (vapour); 40 ppm STEL (vapour); 104 mg/m ³ STEL (vapour)	10 ppm TWA 26 mg/m ³ TWA 10 mg/m ³ TWA Potential for cutaneous absorption
CALCIUM CHLORIDE	Not determined	Not determined	Not determined	Not determined

Component	Finland	France	Germany	Hungary
Ethylene glycol	Not determined	20 ppm 52 mg/m ³	10 ppm MAK 26 mg/m ³ MAK	Not determined
CALCIUM CHLORIDE	Not determined	Not determined	Not determined	Not determined

Component	New Zealand	Italy	Netherlands	Norway
Ethylene glycol	50 ppm Ceiling mist and vapour 127 mg/m ³ Ceiling mist and vapour	Not determined	52 mg/m ³ 10 mg/m ³	10 mg/m ³ TWA dust 25 ppm Ceiling (vapor) Skin
CALCIUM CHLORIDE	Not Determined	Not determined	Not determined	Not determined

Component	Poland	Portugal	Romania	Russia
Ethylene glycol	50 mg/m ³ STEL 15 mg/m ³ TWA	Not determined	Not determined	10 mg/m ³ STEL aerosol and vapor 5 mg/m ³ TWA aerosol and vapor
CALCIUM CHLORIDE	Not determined	Not determined	Not determined	2 mg/m ³ MAC Skin

Component	Spain	Switzerland	Turkey	UK
Ethylene glycol	40 ppm VLA-EC 104 mg/m ³ VLA-EC Skin 20 ppm VLA-ED indicative limit value 52 mg/m ³ VLA-ED indicative limit value	20 ppm STEL 52 mg/m ³ STEL Skin 10 ppm MAK 26 mg/m ³ MAK	40 ppm STEL 104 mg/m ³ STEL Skin 20 ppm TWA 52 mg/m ³ TWA	40 ppm STEL vapour 104 mg/m ³ STEL vapour 30 mg/m ³ STEL calculated particulate Skin 20 ppm TWA vapour 52 mg/m ³ TWA vapour 10 mg/m ³ TWA particulate
CALCIUM CHLORIDE	Not determined	Not determined	Not determined	Not determined

Notes

No biological limit allocated

8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering measures to reduce exposure

Ensure adequate ventilation. Mechanical ventilation or local exhaust ventilation is required.

Personal protective equipment**Eye protection**

It is good practice to wear goggles when handling any chemical. Tightly fitting safety goggles.

Hand protection

Use protective gloves made of: polyvinyl alcohol or nitrile-butyl rubber gloves, Be aware that liquid may penetrate the gloves. Frequent change is advisable.

Respiratory protection

No personal respiratory protective equipment normally required, In case of insufficient ventilation wear suitable respiratory equipment, When workers are facing concentrations above the exposure limit they must use appropriate certified respirators, Respirator with combination filter for vapour/particulate (EN 141), At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.

Skin and body protection

Wear suitable protective clothing, Eye wash and emergency shower must be available at the work place.

Hygiene measures

Wash hands before eating, drinking or smoking, Remove and wash contaminated clothing before re-use.



9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aqueous solution
Odor	Mild
Color	Pale yellow
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	7.8 - 8.8	
pH @ dilution		
Melting/freezing point	-50	
Boiling point/range	100 °C	
Flash point	> 100 °C	PMCC
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not Applicable	
Flammability Limits in Air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	7 kPa	@ 20 °C
Vapor density	No information available	
Specific gravity	No information available	
Bulk density	No information available	
Relative density	1.2	@ 15.6°C.
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	6 mPa s	@ 38 °C
Log Pow	No information available	
Explosive properties	Not Applicable	



Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014**Oxidizing properties** None known.**9.2 Other information****Pour point** No information available
Molecular weight No information available
VOC content(%) None
Density No information available**10. Stability and reactivity****10.1 Reactivity**

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions**Hazardous polymerization**

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2.

11. Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Inhalation** Inhalation of vapors in high concentration may cause irritation of respiratory system.**Eye contact** May cause slight irritation.**Skin contact** Prolonged contact may cause redness and irritation.**Ingestion** Ingestion may cause stomach discomfort.**Acute toxicity** .

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol	= 4000 mg/kg (Rat)	= 9530 µL/kg (Rabbit)	No data available
CALCIUM CHLORIDE	= 1000 mg/kg (Rat)	= 2630 mg/kg (Rat)	No data available



Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014

Sensitization	This product does not contain any components suspected to be sensitizing.
Mutagenic effects	This product does not contain any known or suspected mutagens.
Carcinogenicity	This product does not contain any known or suspected carcinogens.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
Routes of exposure	None known.
Routes of entry	No route of entry noted.
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified.
Aspiration hazard	No hazard from product as supplied.

12. Ecological information

12.1 Toxicity

The product component(s) are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Toxicity to algae

This product is not considered toxic to algae.

Toxicity to fish

This product is not considered toxic to fish.

Toxicity to daphnia and other aquatic invertebrates

This product is not considered toxic to invertebrates.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Ethylene glycol	40000 - 60000 mg/L LC50 (Pimephales promelas) = 96 h 40761 mg/L LC50 (Oncorhynchus mykiss) = 96 h 27540 mg/L LC50 (Lepomis macrochirus) = 96 h 14 - 18 mL/L LC50 (Oncorhynchus mykiss) = 96 h 16000 mg/L LC50 (Poecilia reticulata) = 96 h 41000 mg/L LC50 (Oncorhynchus mykiss) = 96 h	6500 - 13000 mg/L EC50 (Pseudokirchneriella subcapitata) = 96 h	46300 mg/L EC50 (Daphnia magna) = 48 h
CALCIUM CHLORIDE	10650 mg/L LC50 (Lepomis macrochirus) = 96 h	No information available	52 mg/L EC50 (Daphnia magna) = 48 h



Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014**12.2 Persistence and degradability**

No product level data available.

12.3 Bioaccumulative potential

No product level data available.

12.4 Mobility in soil**Mobility**

The product is water soluble, and may spread in water systems.

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects.

None known.

13. Disposal considerations**13.1 Waste treatment methods****Waste from residues / unused products**

Dispose of in accordance with local regulations.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

EWC Waste disposal No.

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: EWC waste disposal No: 16 03 06 - organic wastes other than those mentioned in 16 03 05

14. Transport information

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA,ADR/RID/ADG).

14.1 UN Number

Not regulated

14.2 Proper shipping name

Not regulated

14.3 Hazard class(es)

ADR/RID/ADN Hazard class

Not regulated



Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014

IMDG Hazard class	Not regulated
ICAO Hazard class/division	Not regulated

14.4 Packing group	
ADR/RID/ADN Packing Group	Not regulated
IMDG Packing group	Not regulated
ICAO Packing group	Not regulated

14.5 Environmental hazard
No

14.6 Special precautions
Not Applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Please contact SDS@slb.com for info regarding transport in Bulk.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Australian Standard for the Uniform Scheduling of Drugs and Poisons

Ethylene glycol
Schedule 6
Schedule 5

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)].

National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004) 3rd Edition].

National Occupational Health and Safety Commission's Exposure Standards for Atmospheric Contaminants in the occupational Environment [NOHSC:1003 (1995)].

Safe Work Australia.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

International inventories

USA (TSCA)	Complies
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Scale Inhibitor L065

SDS no. L065
Revision date 11/Dec/2014

European Union (EINECS and ELINCS)
Canada (DSL)
Philippines (PICCS)
Japan (ENCS)
China (IECSC)
Australia (AICS)
Korean (KECL)
New Zealand (NZIoC)

Complies
Complies
Complies
Does not Comply
Complies
Complies
Complies
Complies

15.2 Chemical Safety Report

No information available

16. Other information

Prepared by Global Chemical Regulatory Compliance (GCRC) , Nicola Anderson
Supersedes date 27/Feb/2009
Revision date 11/Dec/2014
Version 3
The following sections have been revised Updated according to GHS/CLP.

Text of R phrases mentioned in Section 2 and 3

R22 - Harmful if swallowed
R36 - Irritating to eyes

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H319 - Causes serious eye irritation

Disclaimer

The information contained herein is considered in good faith as reliable of the date issued and is based upon on measurements, tests or data derived from supplier's own study or furnished by others. In providing this SDS information, Supplier makes no express or implied warranties as to the information or product; merchantability or fitness of purpose; any express or implied warranty; or non-infringement of intellectual property rights; and supplier assumes no responsibility for any direct, special or consequential damages, results obtained, or the activities of others. To the maximum extent permitted by law, supplier's warranty obligations and buyer's sole remedies are as stated in separate agreement between the parties.



SAFETY DATA SHEET

DDP SPECIALTY ELECTRONIC MATERIALS US, INC.

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Print Date: 04/24/2020**

DDP SPECIALTY ELECTRONIC MATERIALS US, INC. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: ROCIMA™ 607 Biocide**Recommended use of the chemical and restrictions on use****Identified uses:** Biocidal product**COMPANY IDENTIFICATION**DDP SPECIALTY ELECTRONIC MATERIALS US,
INC.400 ARCOLA ROAD
COLLEGEVILLE PA 19426-2914
UNITED STATES**Customer Information Number:**

833-338-7668

SDSQuestion-NA@dupont.com

EMERGENCY TELEPHONE NUMBER**24-Hour Emergency Contact:** 1-800-424-9300**Local Emergency Contact:** 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Acute toxicity - Category 4 - Inhalation

Skin irritation - Category 2

Serious eye damage - Category 1

Skin sensitisation - Category 1

Label elements**Hazard pictograms**

Product name: ROCIMA™ 607 Biocide

Issue Date: 10/15/2018

Signal word: **DANGER!****Hazards**

Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.

Precautionary statements**Prevention**

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear eye protection/ face protection.
Wear protective gloves.

Response

IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
If skin irritation or rash occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Solution of organic and inorganic compounds

This product is a mixture.

Component	CASRN	Concentration
Benzisothiazolin-3-one	2634-33-5	>= 11.0 - <= 13.0 %
Bronopol	52-51-7	>= 9.0 - <= 11.0 %

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018**

Water	7732-18-5	>= 68.0 - <= 71.0 %
Triethylene glycol	112-27-6	>= 5.0 - <= 7.0 %

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use. Immediate medical attention is required.

Eye contact: Rinse immediately with plenty of water and seek medical advice.

Ingestion: Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Call a physician immediately.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water spray Foam Dry powder Carbon dioxide (CO₂)

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, irritating and highly toxic gases and/or fumes may be generated during combustion or decomposition.

Unusual Fire and Explosion Hazards: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Advice for firefighters

Fire Fighting Procedures: Contain run-off. Remain upwind. Avoid breathing noxious fumes from fire-exposed material.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

Product name: ROCIMA™ 607 Biocide

Issue Date: 10/15/2018

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ventilate the area. Refer to protective measures listed in sections 7 and 8. MATERIAL IS A POTENTIAL SENSITIZER.

Environmental precautions: Try to prevent the material from entering drains or water courses. Do not contaminate surface water.

Methods and materials for containment and cleaning up: Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin and eyes. For personal protection see section 8. May cause sensitisation of susceptible persons by skin contact. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Other data: This material is a potential skin sensitizer. See SECTION 8, Exposure Controls/Personal Protection, prior to handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Benzisothiazolin-3-one	Dow IHG	TWA	0.06 mg/m3
	Dow IHG	STEL	0.1 mg/m3
Triethylene glycol	Dow IHG	TWA Total	100 mg/m3

Exposure controls

Engineering controls: Use local exhaust ventilation with a minimum capture velocity of 100 ft/min. (0.5 m/sec.) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Hygiene measures: Shower or bathe at the end of working.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Individual protection measures

Eye/face protection: Tightly fitting safety goggles

Skin protection

Hand protection: Chemical-resistant gloves should be worn whenever this material is handled. Wear suitable gloves. Rubber or plastic gloves. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Other protection:** Chemical resistant apron Impervious clothing**Respiratory protection:** A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Flowable paste
Color	off-white light yellow light brown
Odor	No data available
Odor Threshold	No data available
pH	6.0
Melting point/range	>-1.00 °C (30.20 °F)
Freezing point	No data available
Boiling point (760 mmHg)	>100.00 °C (212.00 °F)
Flash point	closed cup >100 °C (212 °F)
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	0.2500000 Pa
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Water solubility	Miscible
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	>250.00 °C (482.00 °F)
Decomposition temperature	No data available
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available**Chemical stability:** No data available

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Possibility of hazardous reactions:** Stable under recommended storage conditions.**Conditions to avoid:** None known.**Incompatible materials:** None known.**Hazardous decomposition products:** No data available

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity**Acute oral toxicity**

LD50, Rat, 2,474 mg/kg

Acute dermal toxicity

LD50, Rat, > 5,000 mg/kg

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, 2.2 mg/l

Skin corrosion/irritation

(US Classification)

Serious eye damage/eye irritation

(US Classification)

Sensitization

May cause sensitisation by skin contact.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product test data not available. Refer to component data.

Carcinogenicity

Product test data not available. Refer to component data.

Teratogenicity

Product test data not available. Refer to component data.

Reproductive toxicity

Product test data not available. Refer to component data.

Mutagenicity

Product test data not available. Refer to component data.

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018**

Aspiration Hazard

Product test data not available. Refer to component data.

COMPONENTS INFLUENCING TOXICOLOGY:**Benzisothiazolin-3-one****Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity

No relevant data found.

Teratogenicity

Did not cause birth defects in laboratory animals.

Reproductive toxicity

In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

Mutagenicity

Not mutagenic when tested in bacterial or mammalian systems.

Bronopol**Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause respiratory irritation.

Route of Exposure: Inhalation

Target Organs: Respiratory Tract

Specific Target Organ Systemic Toxicity (Repeated Exposure)

In animals, effects have been reported on the following organs:

Kidney.

Salivary glands.

May cause nausea and vomiting.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

Has been toxic to the fetus in laboratory animals at doses toxic to the mother.

Reproductive toxicity

In animal studies, did not interfere with reproduction in females.

Mutagenicity

In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Triethylene glycol****Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not expected to cause significant adverse effects except at very high aerosol concentrations. Repeated excessive aerosol exposures may cause respiratory tract irritation and even death.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

Triethylene glycol did not cause birth defects in animals; reduced fetal body weight effects were seen only at very high doses.

Reproductive toxicity

In animal studies, did not interfere with reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

General Information

Very toxic to aquatic organisms.

Toxicity**Benzisothiazolin-3-one****Acute toxicity to fish**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Rainbow trout (*Oncorhynchus mykiss*), 96 Hour, 1.9 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), flow-through test, 48 Hour, 3.7 mg/l, OECD Test Guideline 202 or Equivalent

LC50, Mysid shrimp (*Mysidopsis bahia*), 96 Hour, 1.9 mg/l

Acute toxicity to algae/aquatic plants

ErC50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, 0.8 mg/l, OECD Test Guideline 201 or Equivalent

NOEC, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Growth rate, 0.21 mg/l, OECD Test Guideline 201 or Equivalent

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018**

ErC50, diatom Skeletonema costatum, static test, 72 Hour, 0.36 mg/l, OECD Test Guideline 201 or Equivalent

NOEC, diatom Skeletonema costatum, static test, 72 Hour, Growth rate, 0.15 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

EC50, Bacteria (active sludge), Respiration inhibition of activated sludge, 3 Hour, 28.52 mg/l

Bronopol**Acute toxicity to fish**

Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

LC50, Lepomis macrochirus (Bluegill sunfish), flow-through test, 96 Hour, 11 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna, 48 Hour, 1.08 mg/l

EC50, eastern oyster (Crassostrea virginica), 96 Hour, 0.77 mg/l

Acute toxicity to algae/aquatic plants

ErC50, green alga Pseudokirchneriella subcapitata (formerly known as Selenastrum capricornutum), Static, 72 Hour, Growth rate inhibition, 0.25 mg/l

NOEC, green alga Pseudokirchneriella subcapitata (formerly known as Selenastrum capricornutum), Static, 72 Hour, Growth rate inhibition, 0.03 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), flow-through test, 21 d, 0.06 mg/l

Toxicity to Above Ground Organisms

Material is slightly toxic to birds on a dietary basis (LC50 between 1001 and 5000 ppm).

Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).

oral LD50, Anas platyrhynchos (Mallard duck), 510 mg/kg

Triethylene glycol**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, > 10,000 mg/l, Method Not Specified.

LC50, Pimephales promelas (fathead minnow), flow-through test, 96 Hour, 69,800 mg/l,

OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, > 10,000 mg/l, DIN 38412

Toxicity to bacteria

EC50, Bacteria, 16 Hour, > 10,000 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, > 15,000 mg/l

ChV (Chronic Value), Daphnia magna (Water flea), semi-static test, 21 d, number of offspring,

> 15,000 mg/l

Persistence and degradability

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Benzisothiazolin-3-one****Biodegradability:** Abiotic degradation: The material is rapidly degradable by abiotic means.**Biodegradation:** 24 %**Exposure time:** 28 d**Method:** OECD Test Guideline 301B or Equivalent**Theoretical Oxygen Demand:** 2.22 mg/mg**Photodegradation****Sensitizer:** OH radicals**Atmospheric half-life:** 7.6 hrs**Method:** Estimated.**Bronopol****Biodegradability:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

10-day Window: Fail

Biodegradation: 51 - 57 %**Exposure time:** 28 d**Method:** OECD Test Guideline 301B or Equivalent

10-day Window: Not applicable

Biodegradation: 99 %**Exposure time:** 1 hrs**Method:** Simulation study**Theoretical Oxygen Demand:** 0.56 mg/mg**Chemical Oxygen Demand:** 0.56 - 0.61 mg/mg**Triethylene glycol****Biodegradability:** Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability). Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

Biodegradation: 90 - 100 %**Exposure time:** 10 d**Method:** OECD Test Guideline 301A or Equivalent

10-day Window: Not applicable

Biodegradation: > 70 %**Exposure time:** 2 - 14 d**Method:** OECD Test Guideline 302B or Equivalent**Theoretical Oxygen Demand:** 1.60 mg/mg**Biological oxygen demand (BOD)**

Incubation Time	BOD
5 d	12 - 32 %
10 d	15 - 64 %
20 d	17 - 86 %

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Photodegradation****Test Type:** Half-life (indirect photolysis)**Sensitizer:** OH radicals**Atmospheric half-life:** 10.6 Hour**Method:** Estimated.**Bioaccumulative potential****Benzisothiazolin-3-one****Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).**Partition coefficient: n-octanol/water(log Pow):** 1.19 OECD Test Guideline 117 or Equivalent**Bioconcentration factor (BCF):** 3.2 Fish Calculated.**Bronopol****Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).**Partition coefficient: n-octanol/water(log Pow):** -0.42 at 20 °C Calculated.**Bioconcentration factor (BCF):** 3.16 Estimated.**Triethylene glycol****Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).**Partition coefficient: n-octanol/water(log Pow):** -1.75 Estimated.**Mobility in soil****Benzisothiazolin-3-one**

Potential for mobility in soil is high (Koc between 50 and 150).

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient(Koc): 104 Estimated.**Bronopol**

Potential for mobility in soil is very high (Koc between 0 and 50).

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient(Koc): 10 Estimated.**Triethylene glycol**

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient(Koc): 10 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: For disposal, incinerate this material at a facility that complies with local, state, and federal regulations. (See 40 CFR 268)

Product name: ROCIMA™ 607 Biocide

Issue Date: 10/15/2018

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(1,2-Benzisothiazolin-3-one, Bronopol)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	1,2-Benzisothiazolin-3-one, Bronopol
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(1,2-Benzisothiazolin-3-one, Bronopol)
UN number	UN 3082
Class	9
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard
Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Product name: ROCIMA™ 607 Biocide**Issue Date: 10/15/2018****Pennsylvania**

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number: 707-295

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive

Causes irreversible eye damage

Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Harmful if absorbed through skin

Harmful if inhaled

Harmful if swallowed

This product is toxic to fish and wildlife.

16. OTHER INFORMATION

Hazard Rating System**HMIS**

Health	Flammability	Physical Hazard
3*	1	0

* = Chronic Effects (See Hazards Identification)

Revision

Identification Number: 101127050 / A749 / Issue Date: 10/15/2018 / Version: 2.1

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

Dow IHG	Dow Industrial Hygiene Guideline
STEL	Short Term Exposure Limit (STEL):
TWA	Time Weighted Average (TWA):

Information Source and References

Product name: ROCIMA™ 607 Biocide

Issue Date: 10/15/2018

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DDP SPECIALTY ELECTRONIC MATERIALS US, INC. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



SAFETY DATA SHEET

Creation Date 31-Mar-2008

Revision Date 24-Dec-2021

Revision Number 5

1. Identification

Product Name Poly(acrylic acid), sec. stand.

Cat No. : AC178060000; AC178060010; AC178060050; AC178060100; AC178060500

CAS No 9003-01-4
Synonyms 2-Propenoic acid polymer; Acrylic acid resin.

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

Poly(acrylic acid), sec. stand.

Revision Date 24-Dec-2021

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Acrylic resin	9003-01-4	<=100

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	520 °C / 968 °F
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
0

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.
Environmental Precautions	Should not be released into the environment.

Poly(acrylic acid), sec. stand.

Revision Date 24-Dec-2021

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage. Keep container tightly closed in a dry and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong bases. Amines. Ammonia.

8. Exposure controls / personal protection

Exposure Guidelines

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Powder Solid
Appearance	White
Odor	vinegar-like
Odor Threshold	No information available
pH	2.5-3.0 1% aq.sol
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	520 °C / 968 °F
Decomposition Temperature	No information available
Viscosity	Not applicable

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Poly(acrylic acid), sec. stand.

Revision Date 24-Dec-2021

Conditions to Avoid	Avoid dust formation. Incompatible products.
Incompatible Materials	Strong oxidizing agents, Strong bases, Amines, Ammonia
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information	The toxicological properties have not been fully investigated
Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Mist LC50	Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acrylic resin	LD50 = 2500 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	LC50 > 5.1 mg/L (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Acrylic resin	9003-01-4	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains. .

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Acrylic resin	Not listed	LC50: = 580 mg/L, 96h	Not listed	Not listed

Poly(acrylic acid), sec. stand.

Revision Date 24-Dec-2021

		(Lepomis macrochirus)		
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Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Acrylic resin	9003-01-4	X	ACTIVE	XU

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

'-' - Not Listed

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B))

X - Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Acrylic resin	9003-01-4	X	-	-	X	X	X	X	X	KE-28833

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

Poly(acrylic acid), sec. stand.

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California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations**U.S. Department of Transportation**

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations**Mexico - Grade**

No information available

Authorisation/Restrictions according to EU REACH**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Acrylic resin	9003-01-4	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Acrylic resin	9003-01-4	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information**Prepared By**Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com**Creation Date**

31-Mar-2008

Revision Date

24-Dec-2021

Print Date

24-Dec-2021

Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



APPENDIX D

NMOCD Notifications

From: [Green, Garrett J](#)
To: [Tacoma Morrissey](#); [Ben Belill](#)
Subject: Fwd: [EXTERNAL] XTO - Sampling Notification (Week of 5/15/23 - 5/19/23)
Date: Friday, May 12, 2023 5:50:39 PM

[**EXTERNAL EMAIL**]

Sent from my iPhone

Begin forwarded message:

From: "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>
Date: May 12, 2023 at 4:02:13 PM MDT
To: "Green, Garrett J" <garrett.green@exxonmobil.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>
Subject: RE: [EXTERNAL] XTO - Sampling Notification (Week of 5/15/23 - 5/19/23)

External Email - Think Before You Click

Garrett,

Please be aware that notification requirements are **two business days**, per rule. When sampling at multiple sites, a more detailed schedule of days at each site should be provide. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to insure inclusion in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, May 11, 2023 11:04 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: [EXTERNAL] XTO - Sampling Notification (Week of 5/15/23 - 5/19/23)

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

All,

XTO plans to complete final sampling activities at the sites listed below for the week of May 15, 2023.

Monday

- Ross Draw 3031/ nAPP2227244441 & NAPP2300442748

Tuesday

- Ross Draw 3031/ nAPP2227244441 and NAPP2300442748
- Outrider Fed 28 Pad B / NAPP2306936047

Wednesday

- Outrider Fed 28 Pad B / NAPP2306936047

Thursday

- Outrider Fed 28 Pad B / NAPP2306936047
- PLU PC 17 BATTERY/ nAPP2233951574

Friday

- Sizzler 2H / NMAP1822337753
- PLU PC 17 BATTERY/ nAPP2233951574
- JRU 108 / nAPP2217931599

Thank you,

Garrett Green

Environmental Coordinator

Delaware Business Unit

(575) 200-0729

Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

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 229262

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 229262
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	Closure approved. Site will need to meet all the requirements of 19.15.29.13 NMAC at time of plugging and abandonment or when the site is no longer reasonably needed for production, whichever comes first.	7/6/2023