



Site Information

Closure Report

Yates Rosemary Booster

Unit L Sec 06 T22S R32E

1RP-1526

32.418608°, -103.720863°

Produced Water Release

Source: Pipeline

Release Date: 7/28/2007

Volume Released: 50 bbls/PW

Volume Recovered: 50 bbls/PW

Prepared for:

EOG Resources

5509 Champions Dr.

Midland, TX 79706

Prepared by:

NTG Environmental

701 Tradewinds Blvd

Suite C

Midland, TX 79707



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701 Tradewinds Boulevard, Suite C
Midland, Texas 79706
Tel. 432.685.3898
www.ntglobal.com

February 21, 2021

Mr. Bradford Billings
New Mexico Oil Conservation Division
5200 Oakland Ave N.E Suite 100
Albuquerque, NM 87113

**Re: Closure Report
Yates Rosemary Booster 1RP-1526
EOG Resources Inc.
Site Location: Unit L, Sec.06, T22S, R32E
(Lat 32.418608°, Long -103.720863°)
Lea County, New Mexico**

To whom it may concern:

New Tech Global Environmental, LLC (NTGE) has prepared this letter to document site assessment activities for the Yates Rosemary Booster 1RP-1526. The site is located at 32.418608°, -103.720863° within Unit L, Section 06, Township 22 South, Range 32 East. The site location is shown on Figures 1 and 2.

Background

Based on the initial C-141 from the State of New Mexico, the leak was discovered on July 28, 2007, and released approximately 50 barrels of produced water due to an electrical problem caused by lighting. A vacuum truck was dispatched to remove all freestanding fluids, recovering approximately 50 barrels of produced water. The release occurred inside the bermed facility and measured approximately 30' x 4'. The initial C-141 form is included in Appendix A.

Site Characterization

The site is in a low karst area. There are no known water sources within ½ miles radius of the location. No water wells are listed within Section 6 on the New Mexico Office of State Engineer's database or the USGS database. The nearest well is in Section 7 on the New Mexico Office of State Engineer's database around 1.05 miles south of the site and has a reported depth to groundwater of 49' below surface. See Appendix A for the groundwater data.

Regulatory Criteria

Per the New Mexico Oil Conservation Division (NMOCD) update guidelines dated August 14, 2018, for Remediation of leaks, Spills, and Releases will follow Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12):

- Benzene: 10 milligrams per kilogram (mg/kg).

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride 600 mg/kg

Site Assessment

On February 3, 2021, NTG Environmental were onsite to evaluate and sample the release area. A total of one (1) sample point (S-1) was installed to a depth of 0.5' below surface inside the spill area. A total of four (4) horizontal delineation samples (H-1 through H-4) were collected around the perimeter of the spill to total depths of 0-0.5' below surface. The soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under proper chain-of-custody protocol to Xenco Laboratories for chemical analysis. The samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3.

Based on the analytical results presented in Table 1, all samples collected showed chloride, total BTEX, and TPH concentrations below the regulatory criteria (19.15.29.12).

Conclusions

Based on the analytical results, EOG requests closure of the spill. The final C-141 is included in Appendix A. No further actions are required at this site. If you have any questions regarding this report or need additional information, please contact us at 432-813-0263.

Sincerely,

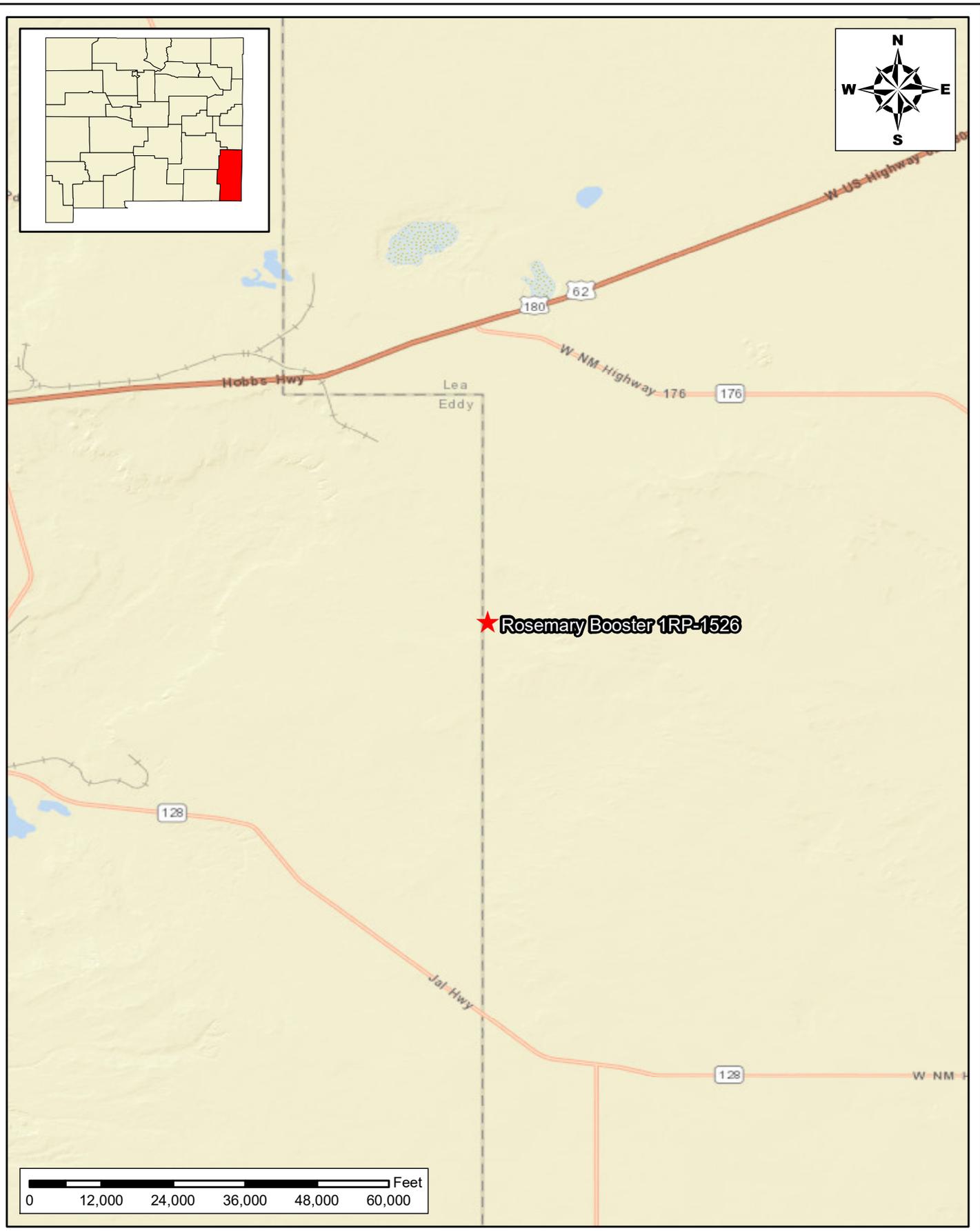
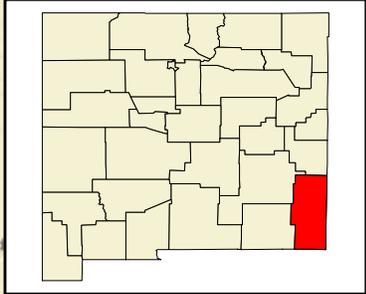
NTG Environmental



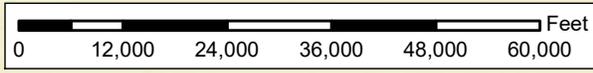
Mike Carmona
Senior Project Manager



Figures



★ Rosemary Booster 1RP-1526



Document Path: P:\2021 PROJECTS\EOG2 13851 - Yates Rosemary Booster Battery 1RP-1526\Yates Rosemary Booster Battery 1RP-1526.mxd

SITE LOCATION MAP
EOG RESOURCES
ROSEMARY BOOSTER 1RP-1526
LEA COUNTY, NM
32.418436, -103.720553


New Tech Global Environmental, LLC
701 Tradewind Blvd Suite C
Midland, Texas 79707
T - (432) 685-3898
Web: www.ntglobal.com

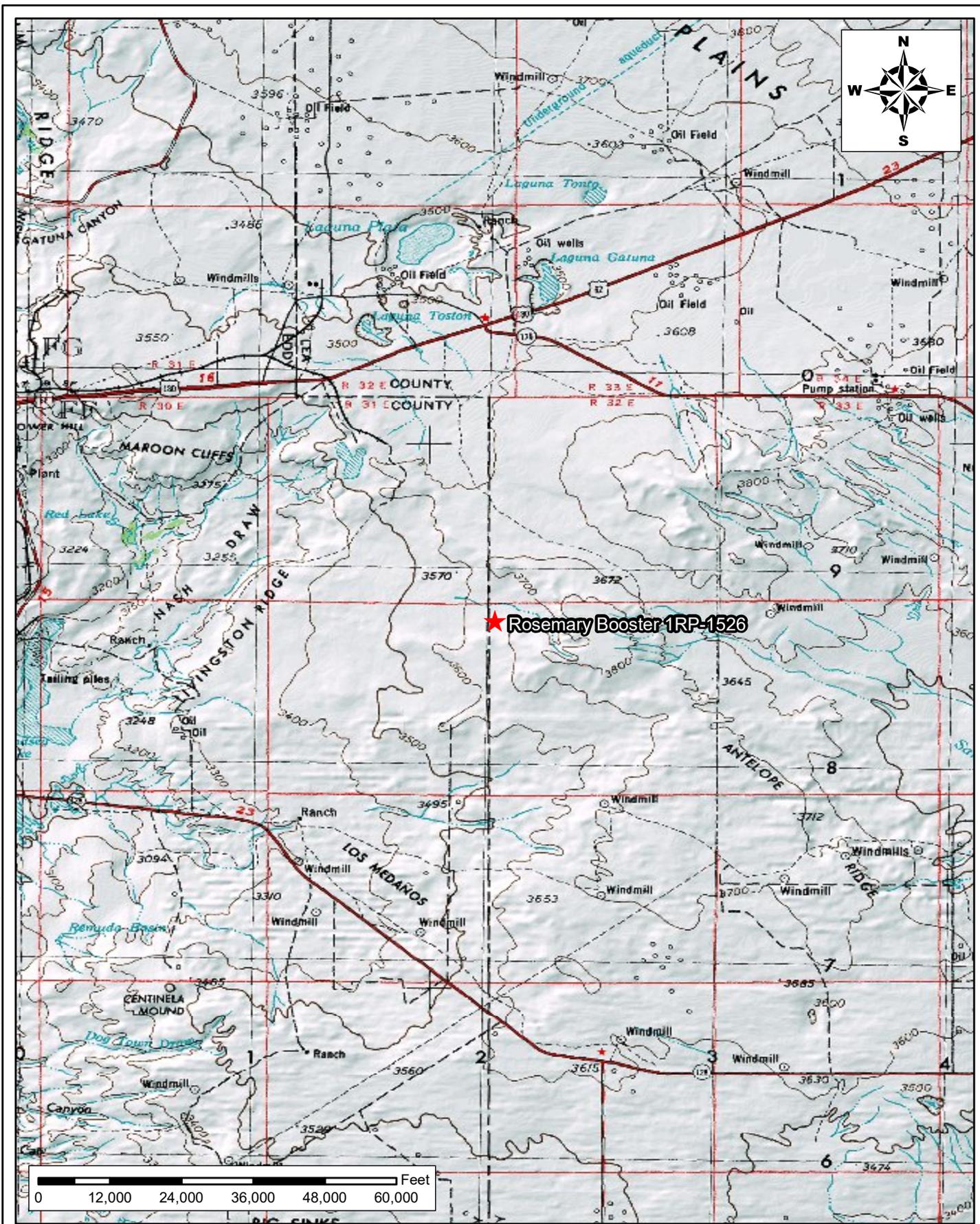
NOTES:
1. Base Image: ESRI Maps & Data 2016
2. Map Projection: NAD 1983

FIGURE 1

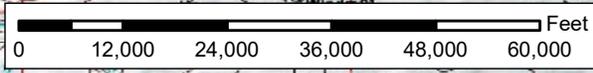
★ Site Location

SCALE: AS SHOWN DATE: 02/04/2021 PROJECT #: 213851

Document Path: P:\2021 PROJECTS\EOG213851 - Yates Rosemary Booster Battery 1RP-1526 - AREA MAP.mxd



★ Rosemary Booster 1RP-1526



TOPO MAP
ROSEMARY BOOSTER 1RP-1526
 LEA COUNTY, NM
 32.418436, -103.720553

SCALE: AS SHOWN DATE: 02/04/2021 PROJECT #: 213851

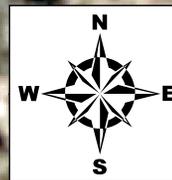
 **NTG ENVIRONMENTAL**
 New Tech Global Environmental, LLC
 701 Tradewind Blvd Suite C
 Midland, Texas 79707
 T - (432) 685-3898
 Web: www.ntglobal.com

NOTES:
 1. Base Image: ESRI Maps & Data 2016
 2. Map Projection: NAD 1983

FIGURE 2

★ Site Location

Sample Points	Latitude	Longitude
Source	32.418464	-103.720543
S-1	32.418419	-103.720526
H-1	32.418468	-103.720526
H-2	32.418423	-103.720511
H-3	32.418376	-103.720523
H-4	32.418428	-103.720537



Document Path: P:\2021 PROJECTS\EOG213851 - Yates Rosemary Battery 1RP-1526\Yates Rosemary Battery 1RP-1526 Sample Points.mxd

SAMPLE LOCATION MAP
 EOG RESOURCES
 ROSEMARY BOOSTER 1RP-1526
 LEA COUNTY, NM
 32.418436, -103.7205253

LEGEND	
	Source
	Sample Points
	Horizontal Samples
	Impacted Area

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NOTES:		FIGURE 3
1. Base Image: ESRI Maps & Data 2016 2. Map Projection: NAD 1983		
SCALE: AS SHOWN	DATE: 02/09/2021	PROJECT #: 213851



Tables

Table 1
EOG Resources
Yates Rosemary Booster 1RP-1526
Lea County, New Mexico

Sample ID	Date	Sample Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
S-1	2/2/2021	0-6"	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	21.0
H-1	2/2/2021	0-6"	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	18.5
H-2	2/2/2021	0-6"	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	19.3
H-3	2/2/2021	0-6"	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	17.3
H-4	2/2/2021	0-6"	<49.9	<49.9	<49.9	<49.9	<0.00200	0.00411	<0.00200	<0.00200	0.00411	17.5
Regulatory Limits						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet



Photo Log

PHOTOGRAPHIC LOG

EOG Resources

Photograph No. 1

Facility: Yates Rosemary Booster

County: Lea County, New Mexico

Description:

View of sampled release area inside of the berm adjacent to the pump.



Photograph No. 2

Facility: Yates Rosemary Booster

County: Lea County, New Mexico

Description:

View of sampled release area inside of the berm adjacent to the pump.



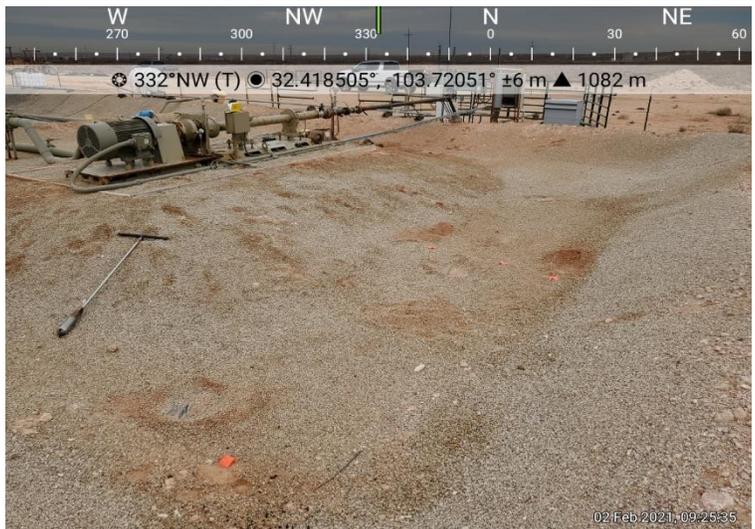
Photograph No. 3

Facility: Yates Rosemary Booster

County: Lea County, New Mexico

Description:

View of sampled release area inside of the berm adjacent to the pump.





Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company YATES PETROLEUM CORPORATION	OGRID Number 25575	Contact SHERRY BONHAM
Address 105 S 4 TH STREET	Telephone No. 505.748.1471	
Facility Name ROSEMARY BOOSTER	API Number	Facility Type PIPELINE
Surface Owner FEDERAL	Mineral Owner FEDERAL	Lease No

LOCATION OF RELEASE

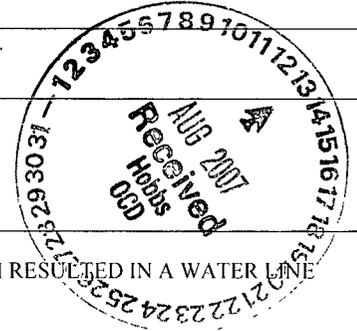
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County LEA
L	6	22S	32E					LEA

Latitude _____ Longitude _____

NATURE OF RELEASE

WTR
200

Type of Release PRODUCED WATER	Volume of Release 50 B/PW	Volume Recovered 50 B/PW
Source of Release PIPELINE	Date and Hour of Occurrence 7/28/07 11:00 AM	Date and Hour of Discovery 7/28/07 11:00 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? GARY WINK	
By Whom? SHERRY BONHAM	Date and Hour 7/28/07 12:51 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.*
ELECTRICAL PROBLEM CAUSED BY THUNDERSTORM IN THE AREA PRODUCED A PUMP PROBLEM WHICH RESULTED IN A WATER LINE LEAK. TURNED PUMP OFF AND SHUT VALVE ON WATER LINE. REPAIRS MADE.

Describe Area Affected and Cleanup Action Taken.*
APPROXIMATELY 30' X 4' AREA AFFECTED. HEAVY RAIN IN AREA. IMMEDIATELY CALLED IN VACUUM TRUCK VACUUMED STANDING FLUIDS

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: Sherry Bonham	Approved by District Supervisor:	
Title: Environmental Regulatory Agent	Approval Date: 9.11.07	ENVIRONMENTAL ENGINEER Expiration Date: 10.12.07
E-mail Address: sherryb@ypcnm.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: August 10, 2007	Phone: 505.748.1471	

* Attach Additional Sheets If Necessary

RP # 1524

Incident ID	
District RP	1RP-1526
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?	49' _____ (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

Incident ID	
District RP	1RP-1526
Facility ID	
Application ID	

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

Printed Name: James Kennedy Title: Environmental Specialist
 Signature: James Kennedy Date: 2/23/2021
 email: james_kennedy@eogresources.com Telephone: 432.848.9146

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	1RP-1526
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: James Kennedy Title: Environmental Specialist
 Signature: James Kennedy Date: 2/23/2021
 email: james_kennedy@eogresources.com Telephone: 432.848.9146

OCD Only

Received by: OCD Date: 1/6/2022

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

Closure Approved by: Ashley Maxwell Date: 2/27/2023
 Printed Name: Ashley Maxwell Title: Environmental Specialist



Appendix B

Atoka

Rosemary Booster
32.418608°, -103.720863°

Legend

-  CRIT
-  HIGH
-  LOW
-  MEDIUM
-  Rosemary Booster

Hobbs

Eunice

Carlsbad

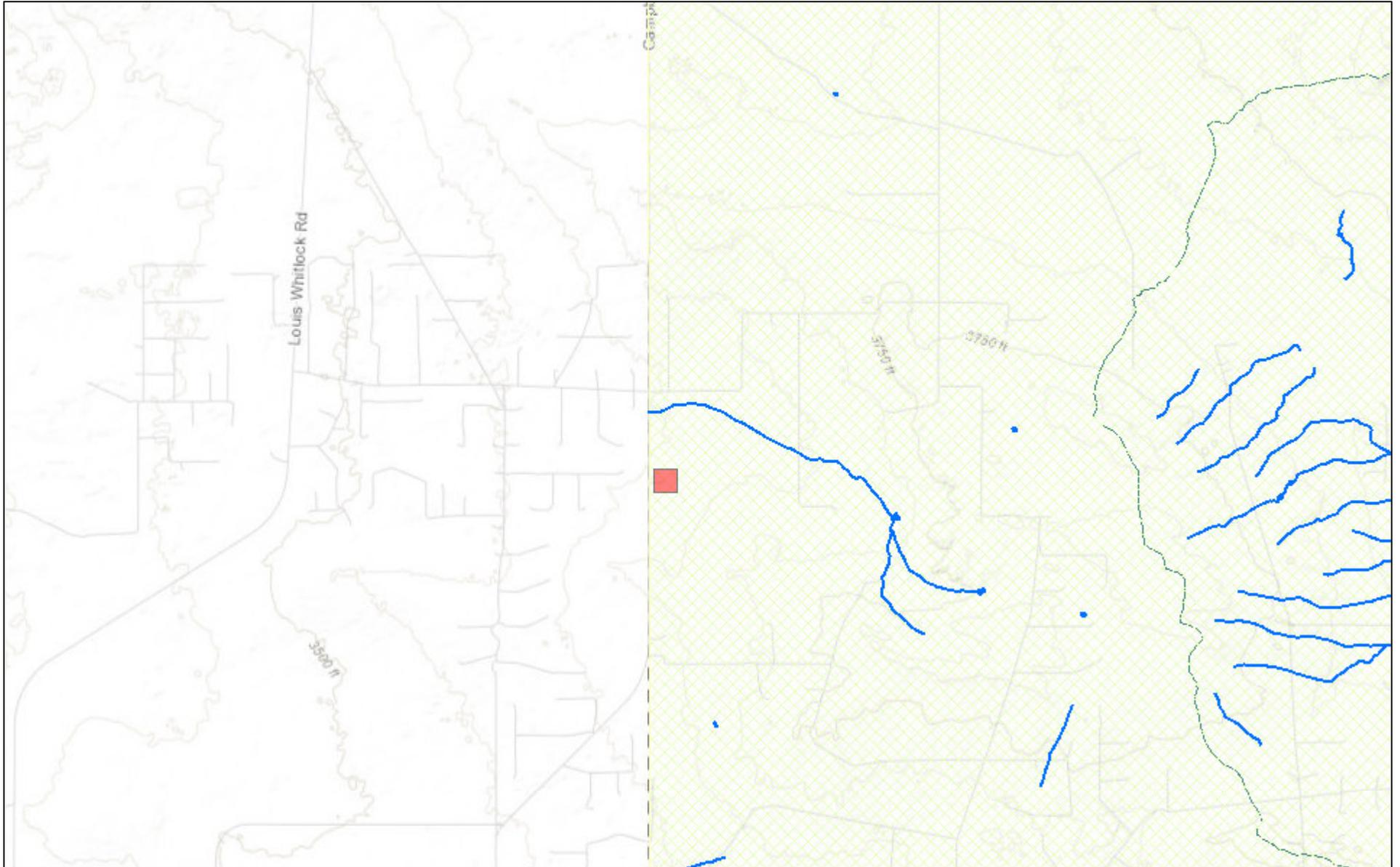
Loving

Google Earth

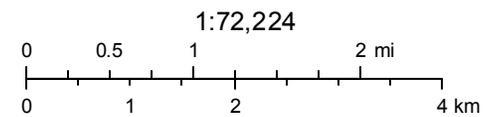


10 mi

New Mexico NFHL Data



February 4, 2021



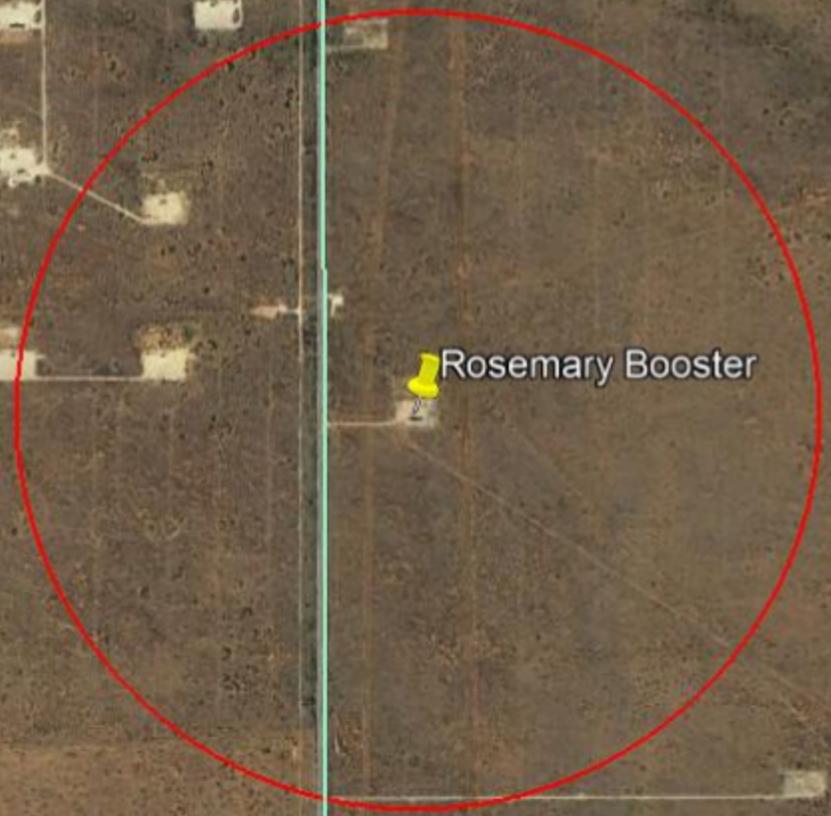
FEMA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

Yates Rosemary Booster

31.418600°, -103.720826°

Legend

 .50 Mile Radius



 Rosemary Booster

NMSEO 49' 22S 32E Sec 7
32.402498, -103.722439

 NMSEO 55' 22S 32E Sec 7





New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02096	CUB	ED		2	3	14	22S	32E		627204	3584464*	435	360	75
C 02821	C	LE		2	2	3	14	22S	32E	627303	3584563*	540	340	200
C 02939	C	LE		3	3	1	19	22S	32E	620234	3583042*	280		
C 03717 POD1	C	LE		4	4	1	09	22S	32E	624094	3586365	650		
C 04144 POD1	CUB	LE		3	1	3	07	22S	32E	620240	3585844	58	49	9
C 04144 POD2	CUB	LE		3	1	3	07	22S	32E	620147	3585768	60	55	5
C 04144 POD3	CUB	LE		3	1	3	07	22S	32E	620240	3585842			
C 04144 POD4	CUB	LE		3	1	3	07	22S	32E	620200	3585808			
C 04144 POD9	CUB	LE		1	3	3	07	22S	32E	620126	3585667	63	0	63

Average Depth to Water: **160 feet**
 Minimum Depth: **0 feet**
 Maximum Depth: **360 feet**

Record Count: 9

PLSS Search:

Township: 22S Range: 32E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04144 POD1	3	1	3	07	22S	32E	620240	3585844 

Driller License: 1456 **Driller Company:** WHITE DRILLING COMPANY

Driller Name: ATKINS., WILLIAM B.

Drill Start Date: 01/29/2018	Drill Finish Date: 01/30/2018	Plug Date:
Log File Date: 02/15/2018	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield:
Casing Size: 2.00	Depth Well: 58 feet	Depth Water: 49 feet

Water Bearing Stratifications:	Top	Bottom	Description
		42	54
	54	56	Sandstone/Gravel/Conglomerate
	56	58	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
		38

The data is furnished by the NMOSE/TSC and is accepted by the recipient with the expressed understanding that the OSE/TSC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/4/21 10:42 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04144 POD2	3	1	3	07	22S	32E	620147	3585768

Driller License: 1456 **Driller Company:** WHITE DRILLING COMPANY

Driller Name: ATKINS., WILLIAM B.

Drill Start Date: 01/30/2018 **Drill Finish Date:** 01/30/2018 **Plug Date:**

Log File Date: 02/15/2018 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 2.00 **Depth Well:** 60 feet **Depth Water:** 55 feet

Water Bearing Stratifications:	Top	Bottom	Description
	52	56	Sandstone/Gravel/Conglomerate
	56	59	Sandstone/Gravel/Conglomerate
	59	60	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	40	60

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/4/21 10:42 AM

POINT OF DIVERSION SUMMARY



Appendix D

Analytical Report 687291

for

NT Global

Project Manager: Mike Carmona

Rosemary Booster 1RP-1526

213851

02.08.2021

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02.08.2021

Project Manager: **Mike Carmona**

NT Global

701 Tradewinds Blvd

Midland, TX 79706

Reference: Eurofins Xenco, LLC Report No(s): **687291**

Rosemary Booster 1RP-1526

Project Address: Lea Co, NM

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 687291. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 687291 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 687291

NT Global, Midland, TX

Rosemary Booster 1RP-1526

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1 (0-6")	S	02.02.2021 00:00	0 - 6 In	687291-001
H-1 (0-6")	S	02.02.2021 00:00	0 - 6 In	687291-002
H-2 (0-6")	S	02.02.2021 00:00	0 - 6 In	687291-003
H-3 (0-6")	S	02.02.2021 00:00	0 - 6 In	687291-004
H-4 (0-6")	S	02.02.2021 00:00	0 - 6 In	687291-005



Certificate of Analysis Summary 687291

NT Global, Midland, TX

Project Name: Rosemary Booster 1RP-1526

Project Id: 213851
Contact: Mike Carmona
Project Location: Lea Co, NM

Date Received in Lab: Thu 02.04.2021 09:08
Report Date: 02.08.2021 16:12
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	687291-001	687291-002	687291-003	687291-004	687291-005	
	<i>Field Id:</i>	S-1 (0-6")	H-1 (0-6")	H-2 (0-6")	H-3 (0-6")	H-4 (0-6")	
	<i>Depth:</i>	0-6 In					
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	02.02.2021 00:00	02.02.2021 00:00	02.02.2021 00:00	02.02.2021 00:00	02.02.2021 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	02.04.2021 11:45	02.04.2021 11:45	02.04.2021 11:45	02.04.2021 11:45	02.05.2021 11:00	
	<i>Analyzed:</i>	02.04.2021 16:03	02.04.2021 16:24	02.04.2021 16:44	02.04.2021 17:05	02.05.2021 14:14	
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	
Toluene		<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	0.00411 X 0.00200	
Ethylbenzene		<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	
m,p-Xylenes		<0.00396 0.00396	<0.00402 0.00402	<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	
o-Xylene		<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	
Total Xylenes		<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	
Total BTEX		<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	0.00411 0.00200	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	02.04.2021 14:50	02.04.2021 14:50	02.04.2021 14:50	02.04.2021 14:50	02.04.2021 14:50	
	<i>Analyzed:</i>	02.04.2021 16:42	02.04.2021 16:48	02.04.2021 17:04	02.04.2021 17:09	02.04.2021 17:14	
	<i>Units/RL:</i>	mg/kg RL					
Chloride		21.0 4.99	18.5 5.05	19.3 5.05	17.3 5.05	17.5 4.98	
TPH By SW8015 Mod	<i>Extracted:</i>	* * * * *	* * * * *	* * * * *	* * * * *	* * * * *	
	<i>Analyzed:</i>	02.04.2021 22:35	02.04.2021 23:38	02.04.2021 23:59	02.05.2021 00:20	02.05.2021 00:42	
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**CASE NARRATIVE****Client Name: NT Global****Project Name: Rosemary Booster IRP-1526**Project ID: 213851
Work Order Number(s): 687291Report Date: 02.08.2021
Date Received: 02.04.2021**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3150165 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7720892-1-BLK,687291-001 S,687291-001 SD,687291-003,687291-002,687291-001.

Lab Sample ID 687291-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO) recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 687291-001, -002, -003, -004, -005.

The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3150227 BTEX by EPA 8021B

Lab Sample ID 687291-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 687291-005.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 687291

NT Global, Midland, TX

Rosemary Booster 1RP-1526

Sample Id: **S-1 (0-6")**
 Lab Sample Id: 687291-001

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 02.04.2021 14:50

% Moisture:
 Basis: Wet Weight

Seq Number: 3150087

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.0	4.99	mg/kg	02.04.2021 16:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.04.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3150165

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.04.2021 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.04.2021 22:35	UX	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.04.2021 22:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.04.2021 22:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-130	02.04.2021 22:35	
o-Terphenyl	84-15-1	143	%	70-130	02.04.2021 22:35	**



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **S-1 (0-6")**
 Lab Sample Id: 687291-001

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 02.04.2021 11:45

% Moisture:
 Basis: Wet Weight

Seq Number: 3150088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.04.2021 16:03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.04.2021 16:03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.04.2021 16:03	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.04.2021 16:03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.04.2021 16:03	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.04.2021 16:03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.04.2021 16:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	02.04.2021 16:03	
4-Bromofluorobenzene	460-00-4	82	%	70-130	02.04.2021 16:03	



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **H-1 (0-6")** Matrix: Soil Date Received: 02.04.2021 09:08
 Lab Sample Id: 687291-002 Date Collected: 02.02.2021 00:00 Sample Depth: 0 - 6 In
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 02.04.2021 14:50 % Moisture:
 Seq Number: 3150087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.5	5.05	mg/kg	02.04.2021 16:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.04.2021 09:00 % Moisture:
 Seq Number: 3150165 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 23:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 23:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 23:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 23:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	02.04.2021 23:38	
o-Terphenyl	84-15-1	139	%	70-130	02.04.2021 23:38	**



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **H-1 (0-6")**
 Lab Sample Id: 687291-002

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 02.04.2021 11:45

% Moisture:
 Basis: Wet Weight

Seq Number: 3150088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.04.2021 16:24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.04.2021 16:24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.04.2021 16:24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.04.2021 16:24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.04.2021 16:24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.04.2021 16:24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.04.2021 16:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	02.04.2021 16:24	
1,4-Difluorobenzene	540-36-3	95	%	70-130	02.04.2021 16:24	



Certificate of Analytical Results 687291

NT Global, Midland, TX

Rosemary Booster 1RP-1526

Sample Id: **H-2 (0-6")**
 Lab Sample Id: 687291-003

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 02.04.2021 14:50

% Moisture:
 Basis: Wet Weight

Seq Number: 3150087

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.3	5.05	mg/kg	02.04.2021 17:04		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.04.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3150165

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 23:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 23:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 23:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 23:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	02.04.2021 23:59	
o-Terphenyl	84-15-1	146	%	70-130	02.04.2021 23:59	**



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **H-2 (0-6")**
 Lab Sample Id: 687291-003

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 02.04.2021 11:45

% Moisture:
 Basis: Wet Weight

Seq Number: 3150088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.04.2021 16:44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.04.2021 16:44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.04.2021 16:44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.04.2021 16:44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.04.2021 16:44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.04.2021 16:44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.04.2021 16:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	02.04.2021 16:44	
1,4-Difluorobenzene	540-36-3	82	%	70-130	02.04.2021 16:44	



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **H-3 (0-6")** Matrix: Soil Date Received: 02.04.2021 09:08
 Lab Sample Id: 687291-004 Date Collected: 02.02.2021 00:00 Sample Depth: 0 - 6 In
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 02.04.2021 14:50 % Moisture:
 Seq Number: 3150087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.3	5.05	mg/kg	02.04.2021 17:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.04.2021 09:00 % Moisture:
 Seq Number: 3150165 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.05.2021 00:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.05.2021 00:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.05.2021 00:20	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.05.2021 00:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	02.05.2021 00:20	
o-Terphenyl	84-15-1	120	%	70-130	02.05.2021 00:20	



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **H-3 (0-6")**
 Lab Sample Id: 687291-004

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 02.04.2021 11:45

% Moisture:
 Basis: Wet Weight

Seq Number: 3150088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.04.2021 17:05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.04.2021 17:05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.04.2021 17:05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.04.2021 17:05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.04.2021 17:05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.04.2021 17:05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.04.2021 17:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	80	%	70-130	02.04.2021 17:05	
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.04.2021 17:05	



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster 1RP-1526

Sample Id: **H-4 (0-6")** Matrix: Soil Date Received: 02.04.2021 09:08
 Lab Sample Id: 687291-005 Date Collected: 02.02.2021 00:00 Sample Depth: 0 - 6 In
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 02.04.2021 14:50 % Moisture:
 Seq Number: 3150087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.5	4.98	mg/kg	02.04.2021 17:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.04.2021 09:00 % Moisture:
 Seq Number: 3150165 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.05.2021 00:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.05.2021 00:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.05.2021 00:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.05.2021 00:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	02.05.2021 00:42	
o-Terphenyl	84-15-1	129	%	70-130	02.05.2021 00:42	



Certificate of Analytical Results 687291

NT Global, Midland, TX
 Rosemary Booster IRP-1526

Sample Id: **H-4 (0-6")**
 Lab Sample Id: 687291-005

Matrix: Soil
 Date Collected: 02.02.2021 00:00

Date Received: 02.04.2021 09:08
 Sample Depth: 0 - 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 02.05.2021 11:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3150227

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.05.2021 14:14	UX	1
Toluene	108-88-3	0.00411	0.00200	mg/kg	02.05.2021 14:14	X	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.05.2021 14:14	UX	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.05.2021 14:14	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.05.2021 14:14	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.05.2021 14:14	U	1
Total BTEX		0.00411	0.00200	mg/kg	02.05.2021 14:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	02.05.2021 14:14	
1,4-Difluorobenzene	540-36-3	83	%	70-130	02.05.2021 14:14	



NT Global
Rosemary Booster 1RP-1526

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3150087

Matrix: Solid

Prep Method: E300P

Date Prep: 02.04.2021

MB Sample Id: 7720810-1-BLK

LCS Sample Id: 7720810-1-BKS

LCSD Sample Id: 7720810-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	254	102	264	106	90-110	4	20	mg/kg	02.04.2021 15:01	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3150087

Matrix: Soil

Prep Method: E300P

Date Prep: 02.04.2021

Parent Sample Id: 687072-001

MS Sample Id: 687072-001 S

MSD Sample Id: 687072-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	313	248	533	89	532	88	90-110	0	20	mg/kg	02.04.2021 16:32	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3150087

Matrix: Soil

Prep Method: E300P

Date Prep: 02.04.2021

Parent Sample Id: 687327-001

MS Sample Id: 687327-001 S

MSD Sample Id: 687327-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	130	253	377	98	378	98	90-110	0	20	mg/kg	02.04.2021 15:17	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3150165

Matrix: Solid

Prep Method: SW8015P

Date Prep: 02.04.2021

MB Sample Id: 7720892-1-BLK

LCS Sample Id: 7720892-1-BKS

LCSD Sample Id: 7720892-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1010	101	1050	105	70-130	4	20	mg/kg	02.04.2021 21:53	
Diesel Range Organics (DRO)	<50.0	1000	1300	130	1270	127	70-130	2	20	mg/kg	02.04.2021 21:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		95		79		70-130	%	02.04.2021 21:53
o-Terphenyl	159	**	112		95		70-130	%	02.04.2021 21:53

Analytical Method: TPH By SW8015 Mod

Seq Number: 3150165

Matrix: Solid

Prep Method: SW8015P

Date Prep: 02.04.2021

MB Sample Id: 7720892-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.04.2021 21:31	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



NT Global
Rosemary Booster 1RP-1526

Analytical Method: TPH By SW8015 Mod

Seq Number: 3150165

Parent Sample Id: 687291-001

Matrix: Soil

MS Sample Id: 687291-001 S

Prep Method: SW8015P

Date Prep: 02.04.2021

MSD Sample Id: 687291-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	799	80	806	81	70-130	1	20	mg/kg	02.04.2021 22:56	
Diesel Range Organics (DRO)	<50.0	999	1350	135	1370	137	70-130	1	20	mg/kg	02.04.2021 22:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		127		70-130	%	02.04.2021 22:56
o-Terphenyl	138	**	137	**	70-130	%	02.04.2021 22:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3150088

MB Sample Id: 7720846-1-BLK

Matrix: Solid

LCS Sample Id: 7720846-1-BKS

Prep Method: SW5035A

Date Prep: 02.04.2021

LCSD Sample Id: 7720846-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0938	94	0.0944	94	70-130	1	35	mg/kg	02.04.2021 12:42	
Toluene	<0.00200	0.100	0.0890	89	0.0896	90	70-130	1	35	mg/kg	02.04.2021 12:42	
Ethylbenzene	<0.00200	0.100	0.0963	96	0.0974	97	70-130	1	35	mg/kg	02.04.2021 12:42	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.195	98	70-130	2	35	mg/kg	02.04.2021 12:42	
o-Xylene	<0.00200	0.100	0.0956	96	0.0975	98	70-130	2	35	mg/kg	02.04.2021 12:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		104		103		70-130	%	02.04.2021 12:42
4-Bromofluorobenzene	103		99		103		70-130	%	02.04.2021 12:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3150227

MB Sample Id: 7720936-1-BLK

Matrix: Solid

LCS Sample Id: 7720936-1-BKS

Prep Method: SW5035A

Date Prep: 02.05.2021

LCSD Sample Id: 7720936-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.112	112	0.107	107	70-130	5	35	mg/kg	02.05.2021 11:53	
Toluene	<0.00200	0.100	0.105	105	0.101	101	70-130	4	35	mg/kg	02.05.2021 11:53	
Ethylbenzene	<0.00200	0.100	0.108	108	0.105	105	70-130	3	35	mg/kg	02.05.2021 11:53	
m,p-Xylenes	<0.00400	0.200	0.216	108	0.209	105	70-130	3	35	mg/kg	02.05.2021 11:53	
o-Xylene	<0.00200	0.100	0.105	105	0.102	102	70-130	3	35	mg/kg	02.05.2021 11:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		103		101		70-130	%	02.05.2021 11:53
4-Bromofluorobenzene	100		99		100		70-130	%	02.05.2021 11:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



QC Summary 687291

NT Global

Rosemary Booster 1RP-1526

Analytical Method: BTEX by EPA 8021B

Seq Number: 3150088

Parent Sample Id: 687058-029

Matrix: Soil

MS Sample Id: 687058-029 S

Prep Method: SW5035A

Date Prep: 02.04.2021

MSD Sample Id: 687058-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0785	79	0.0771	77	70-130	2	35	mg/kg	02.04.2021 13:22	
Toluene	<0.00198	0.0990	0.0733	74	0.0719	72	70-130	2	35	mg/kg	02.04.2021 13:22	
Ethylbenzene	<0.00198	0.0990	0.0783	79	0.0745	75	70-130	5	35	mg/kg	02.04.2021 13:22	
m,p-Xylenes	<0.00396	0.198	0.156	79	0.148	74	70-130	5	35	mg/kg	02.04.2021 13:22	
o-Xylene	<0.00198	0.0990	0.0783	79	0.0742	74	70-130	5	35	mg/kg	02.04.2021 13:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		70-130	%	02.04.2021 13:22
4-Bromofluorobenzene	107		102		70-130	%	02.04.2021 13:22

Analytical Method: BTEX by EPA 8021B

Seq Number: 3150227

Parent Sample Id: 687291-005

Matrix: Soil

MS Sample Id: 687291-005 S

Prep Method: SW5035A

Date Prep: 02.05.2021

MSD Sample Id: 687291-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0102	10	0.00714	7	70-130	35	35	mg/kg	02.05.2021 12:34	X
Toluene	0.00411	0.100	0.00547	1	0.00467	1	70-130	16	35	mg/kg	02.05.2021 12:34	X
Ethylbenzene	<0.00200	0.100	0.00442	4	0.00370	4	70-130	18	35	mg/kg	02.05.2021 12:34	X
m,p-Xylenes	<0.00400	0.200	0.00878	4	0.00782	4	70-130	12	35	mg/kg	02.05.2021 12:34	X
o-Xylene	<0.00200	0.100	0.00533	5	0.00501	5	70-130	6	35	mg/kg	02.05.2021 12:34	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		95		70-130	%	02.05.2021 12:34
4-Bromofluorobenzene	102		108		70-130	%	02.05.2021 12:34

MS/MSD Percent Recovery
 Relative Percent Difference
 LCS/LCSD Recovery
 Log Difference

[D] = 100*(C-A) / B
 RPD = 200* |(C-E) / (C+E)|
 [D] = 100 * (C) / [B]
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: NT Global

Date/ Time Received: 02.04.2021 09.08.00 AM

Work Order #: 687291

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : IR8

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

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

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 02.04.2021
 Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02.08.2021
 Jessica Kramer

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 70832

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 70832
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	2/27/2023