



[Dakota Neel]
[HSE Coordinator]

December 31, 2018

Mike Bratcher
Oil Conservation Division, District 2
811 S First St.
Artesia, NM 88210

Ryan Mann
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88240

Re: Closure Letter
Munnynthabank State Com #002H
API #: 30-015-40622
RP#: 2RP-4456
Unit Letter B Section 34, Township 24S, Range 27E
Eddy County, NM

Mr. Bratcher/Mr. Mann,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the Munnynthabank State Com #002H. This release occurred on October 21, 2017. Following the release an assessment of impacted soils was conducted. A remediation work plan was submitted to and subsequently approved by the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO). A copy of the approved work plan is attached.

BACKGROUND

The Munnynthabank State Com #002H release is located in Unit Letter B, Section 34, Township 24 South, and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for this release are 32.1803627 North and -104.1771088 West.

On October 21, 2017, a one (1) inch valve on the murphy switch failed resulting in the release of approximately two (2) barrels (bbls) of oil and three (3) bbls of produced water. All of the fluid remained on location and a vacuum truck was able to recover approximately two (2) bbls of oil and two & one-half (2.5) bbls of produced water.

December 31, 2018

REMEDIAL ACTIONS

- The impacted area in the vicinity of sample location T-1 was excavated to the depth of four and one-half (4.5) feet BGS.
- The impacted area in the vicinity of sample location T-2 was excavated to the depth of one (1) foot BGS.
- The impacted area in the vicinity of sample location T-4 was excavated to a depth of two (2) feet BGS.
- All of the excavated material was transported to an NMOCD approved solid waste disposal facility.
- The excavation was backfilled with caliche and contoured to match the surrounding location.

CONFIRMATION SAMPLES

MUNNYNTHABANK STATE #2					
Sample ID	Date	Chloride mg/Kg	Benzene mg/Kg	BTEX mg/Kg	TPH mg/Kg
T1-BTM	6/22/2019	144	-	-	-
T1 North	6/22/2019	160	-	-	-
T1-South	6/22/2018	160	-	-	-
T1 West	6/22/2019	176	-	-	-
T2-BTM	6/22/2018	144	-	-	-
T2 North	6/22/2019	160	-	-	-
T2 South	6/22/2018	160	-	-	-
T2 East	6/22/2019	144	-	-	-
T4-BTM	6/22/2019	160	-	-	-
T4 North	6/22/2019	160	-	-	-
T4 South	6/22/2018	128	-	-	-
T4 East	6/22/2019	208	-	-	-
T1/T4	6/22/2019	64	-	-	-
T1/T2	6/22/2018	144	-	-	-
T2/T4	6/22/2019	176	-	-	-

December 31, 2018

CLOSURE REQUEST

COG Operating, LLC respectfully requests closure approval for the Munnynthabank State Com #002H (2RP-4456).

Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dakota Neel". The signature is written in a cursive, slightly slanted style.

Dakota Neel
HSE Coordinator

Enclosed:

- Appendix I: Site Diagram
- Appendix II: Initial C-141 (Copy)
- Appendix III: Final C-141
- Appendix IV: Work Plan (Copy)
- Appendix V: Analytical Reports and Chain-of-Custody Forms

APPENDIX I

Munnynthabank State Com #002H

API #: 30-015-40622
RP#: 2RP-4456
Unit Letter B Section 34, Township 24S, Range 27E
Eddy County, NM

Legend

Page 5 of 35

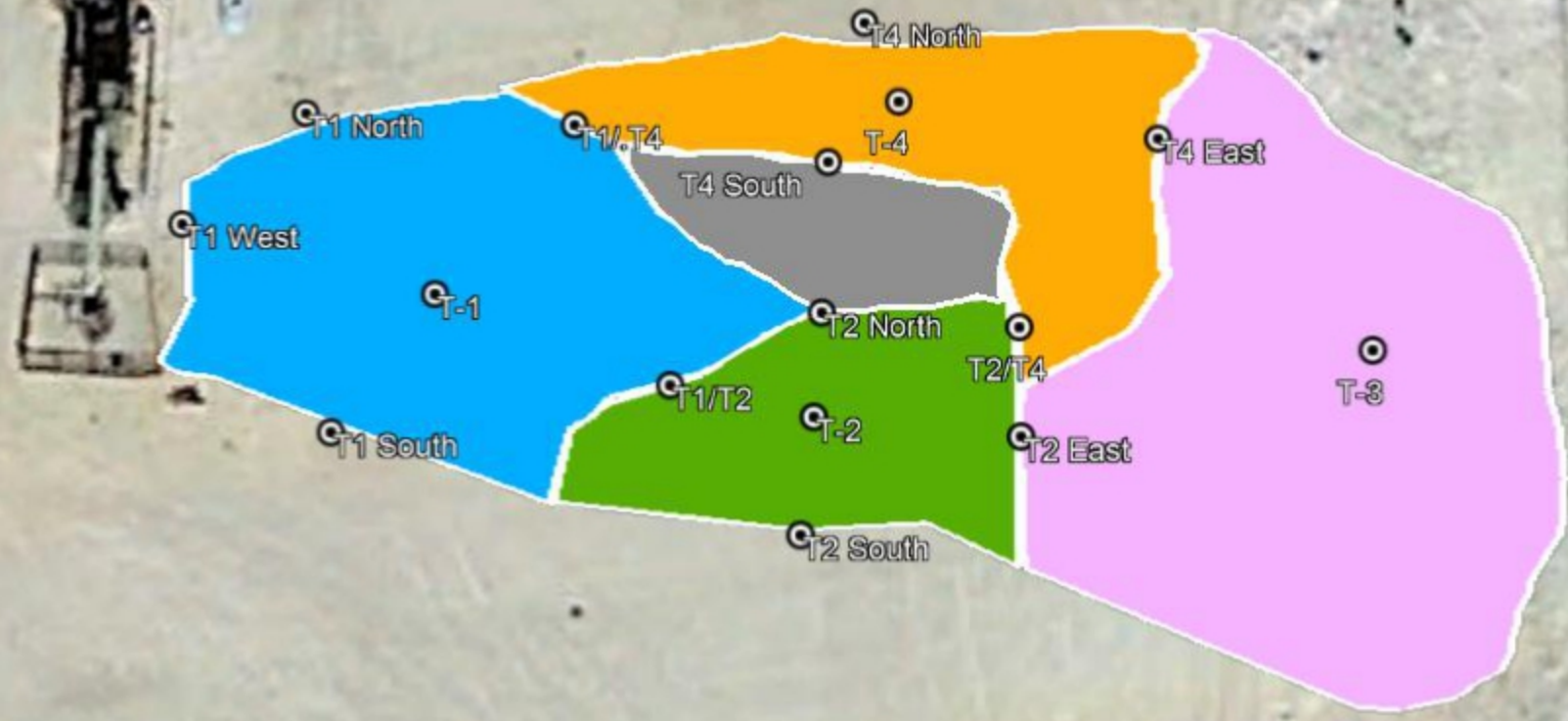
Non-Impacted

T1- 4.5'

T2- 1'

T3- 0'

T4- 2'



APPENDIX II

Page 7 of 35
Received by OGD: 4/11/2023 2:06:19 PM
Released to Imaging: 4/19/2023 2:01:41 PM

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: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443
Facility Name: MUNNYNTHABANK St. Com #002H	Facility Type: Tank Battery

Surface Owner: State	Mineral Owner: State	API No.: 30-015-40622
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LOCATION OF RELEASE

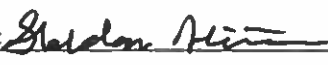
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	34	24S	27E	190	North	2260	East	Eddy

Latitude:32.1803627 Longitude:-104.1771088 NAD83

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 2bbls oil and 3bbls PW	Volume Recovered: 2bbls oil and 2.5bbls PW
Source of Release: 1-inch valve	Date and Hour of Occurrence: 10/21/17	Date and Hour of Discovery: 10/21/17 8:30am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* A bad 1-inch valve on pumping T behind the murphy switch failed. The valve was replaced.		
Describe Area Affected and Cleanup Action Taken.* All of the fluid remained on location. A vacuum truck was dispatched to recover all freestanding fluids. Concho will have the spill area evaluated for any possible impact from the release and will present a remediation work plan to the NMOCD prior to any significant 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 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.		

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist:		
Printed Name: Sheldon L. Hitchcock			
Title: HSE Coordinator	Approval Date:	Expiration Date:	
E-mail Address: slhitchcock@concho.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 10/23/2017	Phone: 575-746-2010		

Attach Additional Sheets If Necessary

APPENDIX III

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: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443
Facility Name: MUNNYNTHABANK St. Com #002H	Facility Type: Tank Battery
Surface Owner: State	Mineral Owner: State
API No.: 30-015-40622	

LOCATION OF RELEASE

Unit Letter B	Section 34	Township 24S	Range 27E	Feet from the 190	North/South Line North	Feet from the 2260	East/West Line East	County Eddy
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Latitude: 32.1803627 Longitude: -104.1771088 NAD83

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 2bbls oil and 3bbls PW	Volume Recovered: 2bbls oil and 2.5bbls PW
Source of Release: 1-inch valve	Date and Hour of Occurrence: 10/21/17	Date and Hour of Discovery: 10/21/17 8:30am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* A bad 1-inch valve on pumping T behind the murphy switch failed. The valve was replaced.		
Describe Area Affected and Cleanup Action Taken.* All of the fluid remained on location. A vacuum truck was dispatched to recover all freestanding fluids. Following the release COG had the site evaluated and drafted a remediation work plan that was subsequently approved by the NMOCD and NMSLO. The remediation was carried out in accordance with the approved work plan.		
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:		<h3>OIL CONSERVATION DIVISION</h3> Approved by Environmental Specialist: 
Printed Name: Dakota Neel		
Title: HSE Coordinator	Approval Date: 4/19/2023	Expiration Date: N/A
E-mail Address: dneel2@concho.com	Conditions of Approval:	
Date: 10/24/2018	Closed per previous rules in accordance with approved workplan.	
Phone: 575-746-2010	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

APPENDIX IV



[Sheldon L. Hitchcock]
[HSE Coordinator]

February 23, 2018

Mike Bratcher
Oil Conservation Division, District 2
811 S First St.
Artesia, NM 88210

Mark Naranjo
New Mexico State Land Office
1001 S. Atkinson
Roswell, NM 88230

Re: Work Plan
Munnynthabank State Com #002H
API #: 30-015-40622
RP#: 2RP-4456
Unit Letter B Section 34, Township 24S, Range 27E
Eddy County, NM

Mr. Bratcher/Mr. Naranjo,

COG Operating, LLC (COG) is pleased to submit for your consideration the following remediation work plan for the Munnynthabank State Com #002H. This plan is in response to an oil and produced water release that occurred on October 21, 2017. Subsequent to the release a C-141 initial report was submitted to the New Mexico Oil Conservation Division (NMOCD) on October 23, 2017.

BACKGROUND

The Munnynthabank State Com #002H release is located in Unit Letter B, Section 34, Township 24 South, and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for this release are 32.1803627 North and -104.1771088 West.

On October 21, 2017, a one (1) inch valve on the murphy switch failed resulting in the release of approximately two (2) barrels (bbls) of oil and three (3) bbls of produced water. All of the fluid remained on location and a vacuum truck was able to recover approximately two (2) bbls of oil and two & one-half (2.5) bbls of produced water.

On November 30, 2017, a site assessment and soil sampling were conducted in order to define the impacted area. A site diagram is included in Appendix I. The analytical results from the soil sampling activities are summarized in the table below.

February 23, 2018

GROUNDWATER AND SITE RANKING

According to the New Mexico Office of the State Engineer (NMOSE) groundwater in the project vicinity is approximately seventy (70) feet below ground surface (BGS) (Appendix II). No water well or surface water was observed within one-thousand (1,000) feet of the release site. Therefore the site ranking for this release is ten (10) based on the following:

Depth to groundwater 50-100-feet
 Distance to surface water body >1000-feet
 Wellhead Protection Area >1000-feet

Analytical Results

11/30/2017

Sample ID	Depth (feet)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)
T-1	0	<0.002	<0.002	5410	725
T-1	1	<0.002	<0.002	826	<15.0
T-1	2	<0.002	<0.002	870	<15.0
T-1	3	--	--	704	--
T-1	4	--	--	647	--
T-2	0	<0.100	3.74	9290	8720
T-2	1	<0.002	<0.002	77.1	<15.0
T-2	2	<0.002	<0.002	160	<15.0
T-2	3	--	--	171	--
T-2	4	--	--	275	--
T-2	5	--	--	263	--
T-2	6	--	--	213	--
T-3	0	<0.002	<0.002	195	28
T-3	1	<0.002	<0.002	<4.91	<15.0
T-3	2	<0.002	<0.002	<4.93	<15.0
T-3	3	--	--	<4.93	--
T-3	4	--	--	6.23	--
T-4	0	<0.002	<0.002	2080	<15.0
T-4	1	<0.002	<0.002	650	<15.0
T-4	2	<0.002	<0.002	290	<15.0
T-4	3	--	--	220	--

February 23, 2018

11/30/2017 Continued

Sample ID	Depth (feet)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)
T-4	4	--	--	260	--
T-4	5	--	--	183	--
T-4	7	--	--	221	--
T-4	9	--	--	190	--
T-4	11	--	--	227	--

(--) Analysis not requested

PROPOSED REMEDIAL ACTIONS

- The impacted area in the vicinity of sample location T-1 will be excavated to the depth of four and one-half (4.5) feet BGS.
- The impacted area in the vicinity of sample location T-2 will be excavated to the depth of one (1) foot BGS.
- The impacted area in the vicinity of sample location T-4 will be excavated to a depth of two (2) feet BGS.
- All of the excavated material will be transported to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with caliche and contoured to match the surrounding location.

February 23, 2018

Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,



Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

Enclosed:

- Appendix I: Site Diagram
- Appendix II: Groundwater Data
- Appendix III: Initial C-141 (Copy)
- Appendix IV: Analytical Reports and Chain-of-Custody Forms

APPENDIX V



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 06, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: MUNNY NTHA BANK ST COM #2

Enclosed are the results of analyses for samples received by the laboratory on 07/02/18 11:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T1 - BTM (H801811-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37	
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92	
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59	
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70	
Total BTX	<0.300	0.300	07/03/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2018	ND	190	95.1	200	7.19	
DRO >C10-C28*	<10.0	10.0	07/03/2018	ND	204	102	200	7.81	
EXT DRO >C28-C36	<10.0	10.0	07/03/2018	ND					

Surrogate: 1-Chlorooctane 80.9 % 41-142

Surrogate: 1-Chlorooctadecane 83.9 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 07/02/2018
 Reported: 07/06/2018
 Project Name: MUNNY NTHA BANK ST COM #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 06/22/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T2 - BTM (H801811-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37	
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92	
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59	
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70	
Total BTEX	<0.300	0.300	07/03/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/05/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2018	ND	190	95.1	200	7.19	
DRO >C10-C28*	<10.0	10.0	07/03/2018	ND	204	102	200	7.81	
EXT DRO >C28-C36	<10.0	10.0	07/03/2018	ND					

Surrogate: 1-Chlorooctane 77.7 % 41-142

Surrogate: 1-Chlorooctadecane 81.8 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T4 - BTM (H801811-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEX	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2018	ND	190	95.1	200	7.19	
DRO >C10-C28*	<10.0	10.0	07/03/2018	ND	204	102	200	7.81	
EXT DRO >C28-C36	<10.0	10.0	07/03/2018	ND					

Surrogate: 1-Chlorooctane 81.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 07/02/2018
 Reported: 07/06/2018
 Project Name: MUNNY NTHA BANK ST COM #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 06/22/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T1 / T4 (H801811-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEX	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 88.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 07/02/2018
 Reported: 07/06/2018
 Project Name: MUNNY NTHA BANK ST COM #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 06/22/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T1 / T2 (H801811-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEX	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/05/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 76.5 % 41-142

Surrogate: 1-Chlorooctadecane 80.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 07/02/2018
 Reported: 07/06/2018
 Project Name: MUNNY NTHA BANK ST COM #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 06/22/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T2 / T4 (H801811-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEX	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	07/05/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 85.6 % 41-142

Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T1 - NORTH (H801811-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEX	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 82.8 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T1 - SOUTH (H801811-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEx	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 80.6 % 41-142

Surrogate: 1-Chlorooctadecane 83.8 % 37.6-147

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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T1 - WEST (H801811-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/03/2018	ND	1.80	90.0	2.00	2.37		
Toluene*	<0.050	0.050	07/03/2018	ND	1.79	89.6	2.00	2.92		
Ethylbenzene*	<0.050	0.050	07/03/2018	ND	1.79	89.3	2.00	1.59		
Total Xylenes*	<0.150	0.150	07/03/2018	ND	5.52	92.0	6.00	1.70		
Total BTEX	<0.300	0.300	07/03/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 80.0 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T2 - NORTH (H801811-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34		
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02		
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840		
Total BTEx	<0.300	0.300	07/04/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/05/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 75.4 % 41-142

Surrogate: 1-Chlorooctadecane 78.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T2 - SOUTH (H801811-11)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34		
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02		
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840		
Total BTX	<0.300	0.300	07/04/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/05/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 72.5 % 41-142

Surrogate: 1-Chlorooctadecane 76.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T2 - EAST (H801811-12)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34		
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02		
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840		
Total BTEx	<0.300	0.300	07/04/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/05/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 73.1 % 41-142

Surrogate: 1-Chlorooctadecane 77.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T4 - NORTH (H801811-13)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34		
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02		
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840		
Total BTEx	<0.300	0.300	07/04/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/05/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 86.7 % 41-142

Surrogate: 1-Chlorooctadecane 90.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T4 - SOUTH (H801811-14)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34		
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02		
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840		
Total BTEx	<0.300	0.300	07/04/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	07/05/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 77.4 % 41-142

Surrogate: 1-Chlorooctadecane 82.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	07/02/2018	Sampling Date:	06/22/2018
Reported:	07/06/2018	Sampling Type:	Soil
Project Name:	MUNNY NTHA BANK ST COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: T4 - EAST (H801811-15)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34		
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02		
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840		
Total BTEx	<0.300	0.300	07/04/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	07/05/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					

Surrogate: 1-Chlorooctane 70.0 % 41-142

Surrogate: 1-Chlorooctadecane 73.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene", written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

Page 18 of 19



**101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476**

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1057

[illegible]



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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 206423

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 206423
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	Closed per previous rules in accordance with approved workplan.	4/19/2023