



March 3, 2015

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

**Re: GJ West Coop #92 Battery
Sec. 28, T17S-R29E
Eddy County, NM**

Mr. Bratcher,

COG Operating LLC would like to submit for your consideration the enclosed work plan for the above captioned well. The plan is in response to the C-141 initial report dated December 3, 2014.

Background

The release was caused by a gasket failure on the fire tube of the heater treater resulting in the release of 9 barrels of oil and 14 barrels of produced water of which 8 barrels of oil and 10 barrels of produced water were recovered. The majority of the fluid was contained within the lined facility and some of the fluid impacted a portion of the pad and the nearby pasture. Upon discovery of the release and recovery of the standing fluid, the impacted pasture was treated with Micro Blaze® and the pad was scraped.

Groundwater

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of Zero due to the depth of groundwater at greater than 150'.

Soil Assessment and Analytical Results

Initial soil samples were taken on December 9, 2014 with the results and approximate locations depicted on the attached Site Diagram as S1, S2, and Pad.

Sample results indicate that TPH and BTEX are within RRAL's for S1 and the Pad. S2 sample results indicate elevated BTEX levels at a depth of 1' and drop below RRAL's at a depth of 2'. Chloride levels for all sample points are elevated to a depth of 2'.

Work Plan

COG Operating LLC proposes the following remediation plan:

- **S1:** Excavate to a depth 2.5' due to elevated chloride results.
- **S2:** Excavate to a depth of 2.5' due to elevated chloride results.
- **Pad:** The area is a high traffic area during normal operations of the facility and the existing lease road; therefore we are proposing no excavation until time of abandonment. Groundwater is greater than 150'.

All impacted material excavated will be hauled to an approved NMOCD facility for disposal. Although the topography of the area is of a dunal complex with not much vegetation between dunes or impacted areas, the excavated or disturbed areas will be reseeded in the spring of 2015.

If there are no objections or further stipulations, COG Operating LLC would like to begin the remediation process based on approval of this work plan. Please feel free to contact me with any questions or concerns at (575) 748-6933.

Sincerely,



Lupe Carrasco
Environmental Coordinator

Enclosed:

- (1) Site Diagram and Summary Table
- (2) Laboratory Analysis
- (3) C-141 Initial (copy)

GJ West Coop #92 Battery

Sec. 28, T17S-R29E

Released: 9 B/O; 14 B/PW
Recovered: 8 B/O; 10 B/PW

S1	BTEX	GRO	DRO	TPH	CI-
1'	27.7	250	891	1141	2280
2'	0.978	ND	115	115	1920
3'	ND	ND	ND	ND	ND
5'	ND	ND	ND	ND	ND
S2	BTEX	GRO	DRO	TPH	CI-
1'	154	1460	3100	4560	4800
2'	0.301	ND	13.6	13.6	5120
3'	ND	ND	ND	ND	ND
5'	ND	ND	ND	ND	96
PAD-1	BTEX	GRO	DRO	TPH	CI-
1'	ND	ND	ND	ND	8930
2'	ND	ND	ND	ND	2400
3'	ND	ND	ND	ND	32
5'	ND	ND	ND	ND	80

Legend
Release Area

Pad

S1

S2

December 17, 2014

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GJ WEST COOP #92 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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/ga/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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 1' (H403798-01)

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/16/2014	ND	1.81	90.3	2.00	10.1	
Toluene*	6.31	0.500	12/16/2014	ND	1.76	87.8	2.00	10.6	
Ethylbenzene*	9.83	0.500	12/16/2014	ND	1.67	83.4	2.00	11.8	
Total Xylenes*	11.6	1.50	12/16/2014	ND	5.02	83.6	6.00	12.5	
Total BTEX	27.7	3.00	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2280	16.0	12/16/2014	ND	400	100	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	250	100	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	891	100	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 104 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.5 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 2' (H403798-02)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/16/2014	ND	1.81	90.3	2.00	10.1	
Toluene*	0.110	0.050	12/16/2014	ND	1.76	87.8	2.00	10.6	
Ethylbenzene*	0.330	0.050	12/16/2014	ND	1.67	83.4	2.00	11.8	
Total Xylenes*	0.538	0.150	12/16/2014	ND	5.02	83.6	6.00	12.5	
Total BTEX	0.978	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	115	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 97.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 92.7 % 52.1-176

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LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 3' (H403798-03)

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	12/16/2014	ND	1.81	90.3	2.00	10.1	
Toluene*	<0.050	0.050	12/16/2014	ND	1.76	87.8	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/16/2014	ND	1.67	83.4	2.00	11.8	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.02	83.6	6.00	12.5	
Total BTEX	<0.300	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 92.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.8 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 5' (H403798-04)

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	12/16/2014	ND	1.81	90.3	2.00	10.1	
Toluene*	<0.050	0.050	12/16/2014	ND	1.76	87.8	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/16/2014	ND	1.67	83.4	2.00	11.8	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.02	83.6	6.00	12.5	
Total BTEX	<0.300	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 93.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 92.2 % 52.1-176

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Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 1' (H403798-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.12	1.00	12/16/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	53.0	1.00	12/16/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	46.6	1.00	12/16/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	52.6	3.00	12/16/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	154	6.00	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	12/16/2014	ND	400	100	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	1460	100	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	3100	100	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 150 % 47.2-157

Surrogate: 1-Chlorooctadecane 121 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 2' (H403798-06)

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	12/16/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	0.225	0.050	12/16/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	0.076	0.050	12/16/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	0.301	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5120	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	13.6	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 92.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.9 % 52.1-176

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Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 3' (H403798-07)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/16/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/16/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/16/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 94.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.6 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 5' (H403798-08)

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	12/16/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/16/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/16/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 92.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.2 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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



Celey D. Keene, Lab Director/Quality Manager

December 17, 2014

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GJ WEST COOP #92 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PAD - 1' (H403799-01)

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	12/16/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/16/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/16/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8930	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 94.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.7 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PAD - 2' (H403799-02)

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	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 89.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 85.8 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PAD - 3' (H403799-03)

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	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 91.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.2 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PAD - 5' (H403799-04)

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	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	189	94.3	200	0.361	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	183	91.6	200	8.75	

Surrogate: 1-Chlorooctane 91.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.0 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: GJ WEST COOP #92 BATTERY
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PASTURE - 1' (H403799-05)
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	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	<0.050	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	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	12/16/2014	ND	194	96.9	200	3.46	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	206	103	200	3.31	

Surrogate: 1-Chlorooctane 96.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 94.5 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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



Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

Page 8 of 8

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

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: GJ West Coop #92 Battery	Facility Type: Battery

Surface Owner: State	Mineral Owner:	API No.
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LOCATION OF RELEASE

Unit Letter J	Section 28	Township 17S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude 32.80259 Longitude 104.07849

NATURE OF RELEASE

Type of Release: Oil and Water	Volume of Release: 9 bbls Oil; 14 bbls PW	Volume Recovered: 8 bbls Oil; 10 bbls PW
Source of Release: Gasket Failure	Date and Hour of Occurrence: 11/20/2014 8:00am	Date and Hour of Discovery: 11/20/2014 8:00am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Amanda Trujillo	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.*

This release was caused by a gasket failure on a heater treater. The process equipment was repaired and vacuum trucks were dispatched to pick up any standing fluid. All fluid was disposed of at an NMOCD approved facility.

Describe Area Affected and Cleanup Action Taken.*

Most of the released fluid was contained within the lined facility, however there was some impact outside of the lined area to the east of the facility on the pad. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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: Amanda Trujillo	Approved by Environmental Specialist:		
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:	
E-mail Address: atrujillo@concho.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: December 3, 2014 Phone: 575-748-6940			

* Attach Additional Sheets If Necessary