

**RECEIVED***By OCD District 1 at 7:31 am, Jun 09, 2015***Garrett B. Merket**
Environmental Coordinator

June 1, 2015

Oil Conservation Division
District 2 – Artesia
811 S. First St.
Artesia, NM 88210**APPROVED** **CONDITIONAL***By OCD District 1 at 7:32 am, Jun 09, 2015***1. Ensure BLM concurrence.****Re: WBP Federal Com #1**
30-025-35296
Sec. 8, T19S-R32E
Lea County, NM

Ms. Kellie Jones,

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 October 28, 2014.

Background

The release was caused by a produced water tank that overflowed. The initial release consisted of approximately 20 barrels of oil and 350 barrels of produced water which 12 barrels of oil and 330 barrels of produced water were recovered. The release impacted inside the battery facility and the nearby pasture. The impacted area in the pasture is approximately 30' by 100'. A crew was dispatched to dispose of impacted soil within the facility. Approximately 6" to 8" of impacted soil was removed.

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 approximately 400'. No well information could be found for Section 8.

Soil Assessment and Analytical Results

Initial soil samples were taken on 11-18-14 within the battery facility on the pad. Approximate locations are depicted on the attached Site Diagram as (Yellow Shading) S1, S2, S3, and S4. Additional soil samples were taken on 1/15/2015 in the impacted pasture with approximate locations shown as (Green Shading) S1, S2, S3, and S4.

Yellow Shading

Sample results indicated BTEX and TPH levels are non-detect within the bermed facility, with chloride levels favorable for future surface reclamation (S1-S3).

Sample results for the pad (S4) indicate TPH and BTEX levels to be non-detect with chloride levels slightly elevated. Additional sample points were not taken because of the same soil type and compaction is homogeneous and therefore representative of the pad area.

Green Shading

Chloride levels for sample points S1-S4 are within tolerable levels for surface reclamation.

TPH and BTEX levels:

- S1 – Within RRAL's
- S2 – TPH is elevated to a depth of 1' with BTEX elevated to a depth of 3'
- S3 – TPH and BTEX are elevated to a depth of 1'
- S4 – TPH and BTEX are elevated to a depth of 4'

Site Ranking: 0

Depth to GW per SEO: 400'

Sample points taken on 11/18/2014

S1	GRO	DRO	TPH	BTEX	CI-
1'	ND	ND	ND	ND	480
2'	NA	NA	NA	NA	352
S2	GRO	DRO	TPH	BTEX	CI-
1'	ND	ND	ND	ND	208
2'	NA	NA	NA	NA	224
S3	GRO	DRO	TPH	BTEX	CI-
1'	ND	ND	ND	ND	272
2'	NA	NA	NA	NA	432
S4	GRO	DRO	TPH	BTEX	CI-
1'	ND	ND	ND	ND	1920
2'	NA	NA	NA	NA	2520
3'	NA	NA	NA	NA	272

Sample points taken on 1/15/2015

S1	GRO	DRO	TPH	BTEX	CI-
1'	279	1320	1599	29.8	128
2'	61.4	364	425.4	5.79	112
3'	ND	ND	ND	ND	416
S2	GRO	DRO	TPH	BTEX	CI-
1'	5960	14300	20260	486	112
2'	52.3	214	266.3	12.6	240
3'	591	1860	2451	114	464
4'	ND	301	301	0.362	160
S3	GRO	DRO	TPH	BTEX	CI-
1'	9220	20100	29320	1070	80
2'	15	68.4	83.4	0.604	256
3'	ND	228	228	ND	1200
4'	NA	NA	NA	NA	400
S4	GRO	DRO	TPH	BTEX	CI-
1'	6380	15300	21680	647	176
2'	1460	3740	5200	178	544
3'	1440	4160	5600	171	512
4'	1550	4930	6480	166	416
5'	ND	136	136	ND	NA

Work Plan

COG proposes the excavation of the following sample areas:

Yellow Shading

S1-S3 – No further remediation needed

S4 – Will be remediated at the time of abandonment

Green Shading

S1 – Light Scrape

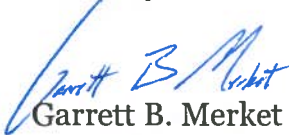
S2 – Excavate to a depth of 3.5' and haul for disposal

S3 – Excavate to a depth of 1.5' and haul for disposal

S4 – Excavate to a depth of 4.5' and haul for disposal

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 (432) 234-0490.

Sincerely,



Garrett B. Merket

Environmental Coordinator

Enclosed

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

October 28, 2014

WBP Federal Com #1

Section 8, T19S-R32E
Released: 20 B/O; 350 B/PW
Recovered: 12 B/O; 330 B/PW

Site Ranking: 0

Depth to GW per SEO: 400'

Sample points taken on 11/18/2014

S1	GRO	DRO	TPH	BTEX	Cl-
1'	ND	ND	ND	ND	480
2'	NA	NA	NA	NA	352
S2	GRO	DRO	TPH	BTEX	Cl-
1'	ND	ND	ND	ND	208
2'	NA	NA	NA	NA	224
S3	GRO	DRO	TPH	BTEX	Cl-
1'	ND	ND	ND	ND	272
2'	NA	NA	NA	NA	432
S4	GRO	DRO	TPH	BTEX	Cl-
1'	ND	ND	ND	ND	1920
2'	NA	NA	NA	NA	2520
3'	NA	NA	NA	NA	272

Legend

 WBP Release Area

Sample points taken on 1/15/2015

S1	GRO	DRO	TPH	BTEX	Cl-
1'	279	1320	1599	29.8	128
2'	61.4	364	425.4	5.79	112
3'	ND	ND	ND	ND	416
S2	GRO	DRO	TPH	BTEX	Cl-
1'	5960	14300	20260	486	112
2'	52.3	214	266.3	12.6	240
3'	591	1860	2451	114	464
4'	ND	301	301	0.362	160
S3	GRO	DRO	TPH	BTEX	Cl-
1'	9220	20100	29320	1070	80
2'	15	68.4	83.4	0.604	256
3'	ND	228	228	ND	1200
4'	NA	NA	NA	NA	400
S4	GRO	DRO	TPH	BTEX	Cl-
1'	6380	15300	21680	647	176
2'	1460	3740	5200	178	544
3'	1440	4160	5600	171	512
4'	1550	4930	6480	166	416
5'	ND	136	136	ND	NA

Google earth

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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: WBP Federal Com #1	Facility Type: Battery	
Surface Owner: Federal	Mineral Owner: Federal	API No. 30-025-35296

LOCATION OF RELEASE

Unit Letter M	Section 8	Township 19S	Range 32E	Feet from the 660	North/South Line South	Feet from the 660	East/West Line West	County Lea
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Latitude 32.6695499004105 Longitude -103.79484918328

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 20 bbls Oil; 350 bbls PW	Volume Recovered: 12 bbls Oil; 330 bbls PW
Source of Release: Water tank	Date and Hour of Occurrence: 10/28/2014 11:30 am	Date and Hour of Discovery: 10/28/2014 11:30 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Tomas Oberding - NMOCD / Jeffery Robertson - BLM	
By Whom? Lupe Carrasco	Date and Hour: 10/29/2014 9:09 am	
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 water tank overflow. Vacuum trucks were dispatched to pick up all standing fluids and dispose of at an NMOCD approved facility.

Describe Area Affected and Cleanup Action Taken.*

The impacted area 30'x100' in front of the battery to the southeast. 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: November 11, 2014 Phone: 575-748-6940			

* Attach Additional Sheets If Necessary

November 18, 2014

GARRETT MERKET
COG OPERATING
P. O. BOX 1630
ARTESIA, NM 88210

RE: WBP FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 11/13/14 10:55.

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
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: S1 - 1' (H403500-01)

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	11/17/2014	ND	1.83	91.3	2.00	6.10	
Toluene*	<0.050	0.050	11/17/2014	ND	1.77	88.4	2.00	5.96	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.71	85.3	2.00	7.07	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.12	85.3	6.00	7.69	
Total BTX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.8 % 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	480	16.0	11/14/2014	ND	400	100	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	11/14/2014	ND	186	92.8	200	0.855	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	188	94.1	200	1.14	

Surrogate: 1-Chlorooctane 113 % 47.2-157

Surrogate: 1-Chlorooctadecane 127 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 11/13/2014
 Reported: 11/18/2014
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 11/12/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: S1 - 2' (H403500-02)

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	11/17/2014	ND	1.83	91.3	2.00	6.10	
Toluene*	<0.050	0.050	11/17/2014	ND	1.77	88.4	2.00	5.96	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.71	85.3	2.00	7.07	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.12	85.3	6.00	7.69	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 96.4 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	11/14/2014	ND	400	100	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	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	


Surrogate: 1-Chlorooctane 115 % 47.2-157

Surrogate: 1-Chlorooctadecane 124 % 52.1-176

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: S2 - 1' (H403500-03)

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	11/17/2014	ND	1.83	91.3	2.00	6.10	
Toluene*	<0.050	0.050	11/17/2014	ND	1.77	88.4	2.00	5.96	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.71	85.3	2.00	7.07	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.12	85.3	6.00	7.69	
Total BTEx	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 99.0 % 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	208	16.0	11/14/2014	ND	400	100	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	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	


Surrogate: 1-Chlorooctane 116 % 47.2-157

Surrogate: 1-Chlorooctadecane 129 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: S2 - 2' (H403500-04)

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	11/17/2014	ND	1.83	91.3	2.00	6.10	
Toluene*	<0.050	0.050	11/17/2014	ND	1.77	88.4	2.00	5.96	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.71	85.3	2.00	7.07	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.12	85.3	6.00	7.69	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.6 % 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	224	16.0	11/14/2014	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					

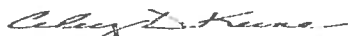
Surrogate: 1-Chlorooctane 112 % 47.2-157

Surrogate: 1-Chlorooctadecane 122 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: S3 - 1' (H403500-05)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	<0.050	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 97.3 % 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	272	16.0	11/14/2014	ND	400	100	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	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 112 % 47.2-157

Surrogate: 1-Chlorooctadecane 125 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: S3 - 2' (H403500-06)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	<0.050	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 97.6 % 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	432	16.0	11/14/2014	ND	400	100	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	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 116 % 47.2-157

Surrogate: 1-Chlorooctadecane 129 % 52.1-176

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: S4 - 1' (H403500-07)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	<0.050	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 98.3 % 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	11/14/2014	ND	400	100	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	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 110 % 47.2-157

Surrogate: 1-Chlorooctadecane 120 % 52.1-176


Sample ID: S4 - 2' (H403500-08)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2520	16.0	11/14/2014	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager


Analytical Results For:COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONEReceived: 11/13/2014
Reported: 11/18/2014
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez**Sample ID: S4 - 3' (H403500-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/14/2014	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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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Celey D. Keene, Lab Director/Quality Manager



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

January 15, 2015

GARRETT MERKET

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: WBP FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 01/14/15 14:00.

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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 01/14/2015
 Reported: 01/15/2015
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/06/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1 - 1' (H500136-01)

BTEx 8260B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	5.09	0.200	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	8.11	0.200	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	16.5	0.600	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	29.8	1.20	01/15/2015	ND					

Surrogate: Dibromofluoromethane 108 % 80.8-114

Surrogate: Toluene-d8 97.9 % 83.7-121

Surrogate: 4-Bromofluorobenzene 155 % 57.9-154

Chloride, SM4500Cl-B			mg/kg				Analyzed By: AP		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/15/2015	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	279	50.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	1320	50.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 125 % 47.2-157

Surrogate: 1-Chlorooctadecane 115 % 52.1-176

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 Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 01/14/2015
 Reported: 01/15/2015
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/06/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1 - 2' (H500136-02)

BTEX 8260B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	0.962	0.050	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	1.53	0.050	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	3.27	0.150	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	5.79	0.300	01/15/2015	ND					

Surrogate: Dibromofluoromethane 102 % 80.8-114

Surrogate: Toluene-d8 99.3 % 83.7-121

Surrogate: 4-Bromofluorobenzene 161 % 57.9-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/15/2015	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	61.4	10.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	364	10.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 108 % 52.1-176

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 Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S1 - 3' (H500136-03)

BTEX 82608		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	<0.050	0.050	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	<0.050	0.050	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	<0.150	0.150	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	<0.300	0.300	01/15/2015	ND					

Surrogate: Dibromofluoromethane 100 % 80.8-114

Surrogate: Toluene-d8 98.1 % 83.7-121

Surrogate: 4-Bromofluorobenzene 109 % 57.9-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	01/15/2015	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	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	<10.0	10.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 96.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 100 % 52.1-176

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S2 - 1' (H500136-04)

BTEX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	17.1	5.00	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	175	5.00	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	100	5.00	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	194	15.0	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	486	30.0	01/15/2015	ND					

Surrogate: Dibromofluoromethane 104 % 80.8-114

Surrogate: Toluene-d8 98.2 % 83.7-121

Surrogate: 4-Bromofluorobenzene 115 % 57.9-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/15/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	5960	100	01/15/2015	ND	212	106	200	1.46		
DRO >C10-C28	14300	100	01/15/2015	ND	201	101	200	5.51		

Surrogate: 1-Chlorooctane 223 % 47.2-157

Surrogate: 1-Chlorooctadecane 259 % 52.1-176

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 01/14/2015
 Reported: 01/15/2015
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/06/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2 - 2' (H500136-05)

BTEX 82608		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.340	0.050	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	4.84	0.050	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	2.02	0.050	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	5.42	0.150	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	12.6	0.300	01/15/2015	ND					

Surrogate: Dibromofluoromethane 102 % 80.8-114

Surrogate: Toluene-d8 109 % 83.7-121

Surrogate: 4-Bromofluorobenzene 213 % 57.9-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	01/15/2015	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	52.3	10.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	214	10.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 100 % 47.2-157

Surrogate: 1-Chlorooctadecane 103 % 52.1-176

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 Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 01/14/2015
 Reported: 01/15/2015
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/06/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2 - 3' (H500136-06)

BTEX 82608		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	29.9	0.500	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	26.3	0.500	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	57.6	1.50	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	114	3.00	01/15/2015	ND					

Surrogate: Dibromofluoromethane 102 % 80.8-114

Surrogate: Toluene-d8 103 % 83.7-121

Surrogate: 4-Bromofluorobenzene 165 % 57.9-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	01/15/2015	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	591	50.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	1860	50.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 139 % 47.2-157

Surrogate: 1-Chlorooctadecane 123 % 52.1-176

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 Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 01/14/2015
 Reported: 01/15/2015
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/06/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2 - 4' (H500136-07)

BTEX 82608		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	0.085	0.050	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	0.078	0.050	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	0.196	0.150	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	0.362	0.300	01/15/2015	ND					

Surrogate: Dibromofluoromethane 104 % 80.8-114

Surrogate: Toluene-d8 95.9 % 83.7-121

Surrogate: 4-Bromofluorobenzene 122 % 57.9-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/15/2015	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	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	301	10.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 106 % 47.2-157

Surrogate: 1-Chlorooctadecane 107 % 52.1-176

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 Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S3 - 1' (H500136-08)

BTEX 82608		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	32.6	10.0	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	392	10.0	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	233	10.0	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	415	30.0	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	1070	60.0	01/15/2015	ND					

Surrogate: Dibromofluoromethane 103 % 80.8-114

Surrogate: Toluene-d8 101 % 83.7-121

Surrogate: 4-Bromofluorobenzene 126 % 57.9-154

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	01/15/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	9220	100	01/15/2015	ND	212	106	200	1.46		
DRO >C10-C28	20100	100	01/15/2015	ND	201	101	200	5.51		

Surrogate: 1-Chlorooctane 261 % 47.2-157

Surrogate: 1-Chlorooctadecane 317 % 52.1-176

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Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S3 - 2' (H500136-09)

BTX 8260B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	0.252	0.050	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	0.101	0.050	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	0.202	0.150	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTX	0.604	0.300	01/15/2015	ND					

Surrogate: Dibromofluoromethane 97.4 % 80.8-114

Surrogate: Toluene-d8 99.0 % 83.7-121

Surrogate: 4-Bromofluorobenzene 117 % 57.9-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	01/15/2015	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	15.0	10.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	68.4	10.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 113 % 52.1-176

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S3 - 3' (H500136-10)

BTEX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	<0.050	0.050	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	<0.050	0.050	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	<0.150	0.150	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	<0.300	0.300	01/15/2015	ND					

Surrogate: Dibromofluoromethane 97.0 % 80.8-114

Surrogate: Toluene-d8 98.9 % 83.7-121

Surrogate: 4-Bromofluorobenzene 117 % 57.9-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	01/15/2015	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	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	228	10.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 113 % 52.1-176

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Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 01/14/2015
 Reported: 01/15/2015
 Project Name: WBP FEDERAL COM #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/06/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S4 - 1' (H500136-11)

BTEX 82608		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	15.7	5.00	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	230	5.00	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	127	5.00	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	275	15.0	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	647	30.0	01/15/2015	ND					

Surrogate: Dibromofluoromethane 104 % 80.8-114

Surrogate: Toluene-d8 100 % 83.7-121

Surrogate: 4-Bromofluorobenzene 136 % 57.9-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/15/2015	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	6380	100	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	15300	100	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 215 % 47.2-157

Surrogate: 1-Chlorooctadecane 257 % 52.1-176

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Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S4 - 2' (H500136-12)

BTEX 82608		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	7.86	1.00	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	69.5	1.00	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	14.9	1.00	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	86.0	3.00	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	178	6.00	01/15/2015	ND					

Surrogate: Dibromofluoromethane 100 % 80.8-114

Surrogate: Toluene-d8 104 % 83.7-121

Surrogate: 4-Bromofluorobenzene 143 % 57.9-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	01/15/2015	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	50.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	3740	50.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 168 % 47.2-157

Surrogate: 1-Chlorooctadecane 134 % 52.1-176

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Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S4 - 3' (H500136-13)

BTEX 8260B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.69	1.00	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	55.8	1.00	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	23.6	1.00	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	88.7	3.00	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	171	6.00	01/15/2015	ND					

Surrogate: Dibromofluoromethane 104 % 80.8-114

Surrogate: Toluene-d8 104 % 83.7-121

Surrogate: 4-Bromofluorobenzene 153 % 57.9-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	01/15/2015	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	1440	50.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	4160	50.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 169 % 47.2-157

Surrogate: 1-Chlorooctadecane 135 % 52.1-176

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
GARRETT MERKET
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 01/14/2015
Reported: 01/15/2015
Project Name: WBP FEDERAL COM #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/06/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S4 - 4' (H500136-14)

BTEX 8260B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	01/15/2015	ND	2.08	104	2.00	9.99	
Toluene*	33.3	1.00	01/15/2015	ND	2.00	99.8	2.00	8.51	
Ethylbenzene*	42.5	1.00	01/15/2015	ND	2.00	99.9	2.00	7.99	
Total Xylenes*	89.9	3.00	01/15/2015	ND	6.25	104	6.00	7.82	
Total BTEX	166	6.00	01/15/2015	ND					

Surrogate: Dibromofluoromethane 103 % 80.8-114

Surrogate: Toluene-d8 99.9 % 83.7-121

Surrogate: 4-Bromofluorobenzene 150 % 57.9-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	01/15/2015	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	1550	50.0	01/15/2015	ND	212	106	200	1.46	
DRO >C10-C28	4930	50.0	01/15/2015	ND	201	101	200	5.51	

Surrogate: 1-Chlorooctane 144 % 47.2-157

Surrogate: 1-Chlorooctadecane 149 % 52.1-176

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COG Operating LLC		BILL TO		ANALYSIS REQUEST																																											
Project Manager: Garrett Merkel		P.O. #:																																													
Address: 2208 West Main		Company: COG Operating LLC																																													
City: Artesia		Attn: Robert McNeill																																													
Phone #: (575) 748-6940		Address: 600 W Illinois																																													
Fax #: (575) 748-6940		City: Midland																																													
Project #: WBP #1		State: TX Zip: 79701																																													
Project Location:		Phone #: (432) 221-0386																																													
Sampler Name: Garrett Merkel		Fax #:																																													
FOR LAB USE ONLY		MATRIX		PRESERV		SAMPLING																																									
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER		ACID/BASE		ICE / COOL		OTHER		DATE		TIME		BTX		TPH		Chloride													
H500136		11		S4-1		G		X		1/6/14		X		X		X		X		X		X		X		X		X		X		X		X													
12		S4-2		G		X		X		1/6/14		X		X		X		X		X		X		X		X		X		X		X		X													
13		S4-3		G		X		X		1/6/14		X		X		X		X		X		X		X		X		X		X		X		X													
14		S4-4		G		X		X		1/6/14		X		X		X		X		X		X		X		X		X		X		X		X													
RELEASE 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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		Relinquished By:		Date: 1/14/14		Time: 2:00		Received By: Heidi Stender		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: _____		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: _____		REMARKS: gcamasco@concho.com		afrullio@concho.com, gmerkel@concho.com																											
Delivered By: (Circle One) FOR UPS R 2.0 Sampler - UPS - Bus - Other:		Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		CHECKED BY: (initials)																																											

April 10, 2015

GARRETT MERKET

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: WEST BRUSHY 5 FEDERAL SWD #5

Enclosed are the results of analyses for samples received by the laboratory on 04/02/15 12:45.

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
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 04/02/2015
 Reported: 04/10/2015
 Project Name: WEST BRUSHY 5 FEDERAL SWD #5
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/01/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S3-4' (H500889-01)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	04/07/2015	ND	400	100	400	0.00	

Sample ID: S4-5' (H500889-02)

BTEX 8021B

mg/kg

Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.089	0.050	04/08/2015	ND	2.09	105	2.00	2.49	
Toluene*	<0.050	0.050	04/08/2015	ND	1.92	96.2	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/08/2015	ND	1.90	95.2	2.00	3.58	
Total Xylenes*	<0.150	0.150	04/08/2015	ND	5.94	99.0	6.00	3.41	
Total BTEX	<0.300	0.300	04/08/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 112 % 61-154

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	04/07/2015	ND	196	98.2	200	3.87	
DRO >C10-C28	136	10.0	04/07/2015	ND	217	109	200	5.33	

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 114 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories***=Accredited Analyte**

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COG Operating LLC		P.O. #:		BILL TO											
Project Manager: Garrett Market		Company: COG Operating LLC		ANALYSIS REQUEST											
Address: 2208 West Main		Attn: Robert McNeill													
City: Artesia		Address: 600 W Illinois													
Phone #: (575) 748-6940		City: Midland													
Fax #: (575) 748-6940		State: TX Zip: 79701													
Project #: WBIP		State: NM Zip: 88210													
Project Name: WBIP		Phone #: (432) 221-0368													
Project Location:		Fax #:													
Sampler Name: Garrett Market															
FOR LAB USE ONLY															
Lab I.D. Sample I.D.															
H50889															
S3-4		(G)RAB OR (C)OMP.													
S4-5		# CONTAINERS													
		GROUNDWATER													
		WASTEWATER													
		SOIL													
		OIL													
		SLUDGE													
		OTHER :													
		ACID/BASE:													
		ICE / COOL													
		OTHER :													
		DATE													
		TIME													
		BTX													
		TPH													
		Chloride													

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Relinquished By: *[Signature]* Date: 4/15/15 Time: 12:40 pm Received By: *[Signature]* Date: 4-8-15 Time: 12:45 pm

Relinquished By: *[Signature]* Date: 4/15/15 Time: 12:40 pm Received By: *[Signature]* Date: 4-8-15 Time: 12:45 pm

Delivered By: (Circle One) FORM-006 R 2.0 Sampler - Ups - Bus - Other: 0.40g

Sample Condition: Cool ☒ Intact ☐ Yes ☐ No ☐ No

CHECKED BY: *[Signature]*

REMARKS: 90airassco@concho.com almuillo@concho.com gmetket@concho.com

Phone Result: ☐ Yes ☐ No Add'l Phone #: #54

Fax Result: ☐ Yes ☐ No Add'l Fax #: