



Amanda Trujillo
Senior Environmental Coordinator

May 20, 2016

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

**Re: Loco Hills SWD Mainline
Sec. 24, T17S-R30E
Eddy County, NM**

Mr. Mike 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 May 21, 2015.

Background

The release was caused when A.R.C. Power-Line Construction drilled into COG's Loco Hills SWD Mainline while setting a power pole for an Apache Corporation Facility. An area measuring approximately 9340 square feet was impacted to the north of the Apache facility. A hydrovac crew was called into daylight buried lines. In addition to the 8" COG SWD line, 4 other lines belonging to Frontier and Burnett were discovered. Frontier will not allow excavation within 15' of a buried pipeline.

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 350'. No well information could be found for Section 24.

Soil Assessment and Analytical Results

Initial soil samples were taken on 6/4/2015. Soil texture is classified as fine sand per NRCS Soil Survey. Samples indicated TPH and BTEX were within RRALs for site ranking zero. Chloride concentrations are within tolerable limits for surface reclamation. (see attached site diagram)

CORPORATE ADDRESS
One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701
PHONE 432.683.7443 | FAX 432.683.7441

LOCAL ADDRESS
Concho West | 2208 Main Street | Artesia, New Mexico 88210
PHONE 575.748.6940 | FAX 575.746.2096

Site Ranking: Zero
Depth to GW per Trend Map: 350'

S1	DRO	GRO	TPH	BTEX	Cl-
1'	< 10.0	< 10.0	< 10.0	<0.300	<16.0
3'	< 10.0	< 10.0	< 10.0	<0.300	4240
4'	< 10.0	< 10.0	< 10.0	<0.300	5200
5'					1200
6'					768
7'					1090
8'					656
S2	DRO	GRO	TPH	BTEX	Cl-
1'	142	< 10.0	142	<0.300	1300
2'	101	< 10.0	101	<0.300	368
3'	81.9	< 10.0	81.9	<0.300	976
4'					3680
6'					1720
7'					2200
8'					544
Bold values exceed RRLs per NMOCD Guidelines (1993)					

Work Plan

This location has 5 buried lines in a low lying area amongst scarce vegetation consistent with the surrounding dunal complex. Ground water is at a depth greater than 350' per the Chevron Trend Maps. COG proposes that no excavation take place, but monitor the area in an effort to achieve long term vegetative growth. Seeding would be completed in June of 2016 with BLM Seed Mixture #4 and LPC. If weed free organic matter is available it will be added to the soil and a stabilizing amendment. The site will be inspected in September 2016, May 2017 and June 2017 monitoring of vegetative growth.

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 my with any questions or concerns at (505) 350-1336

Sincerely,

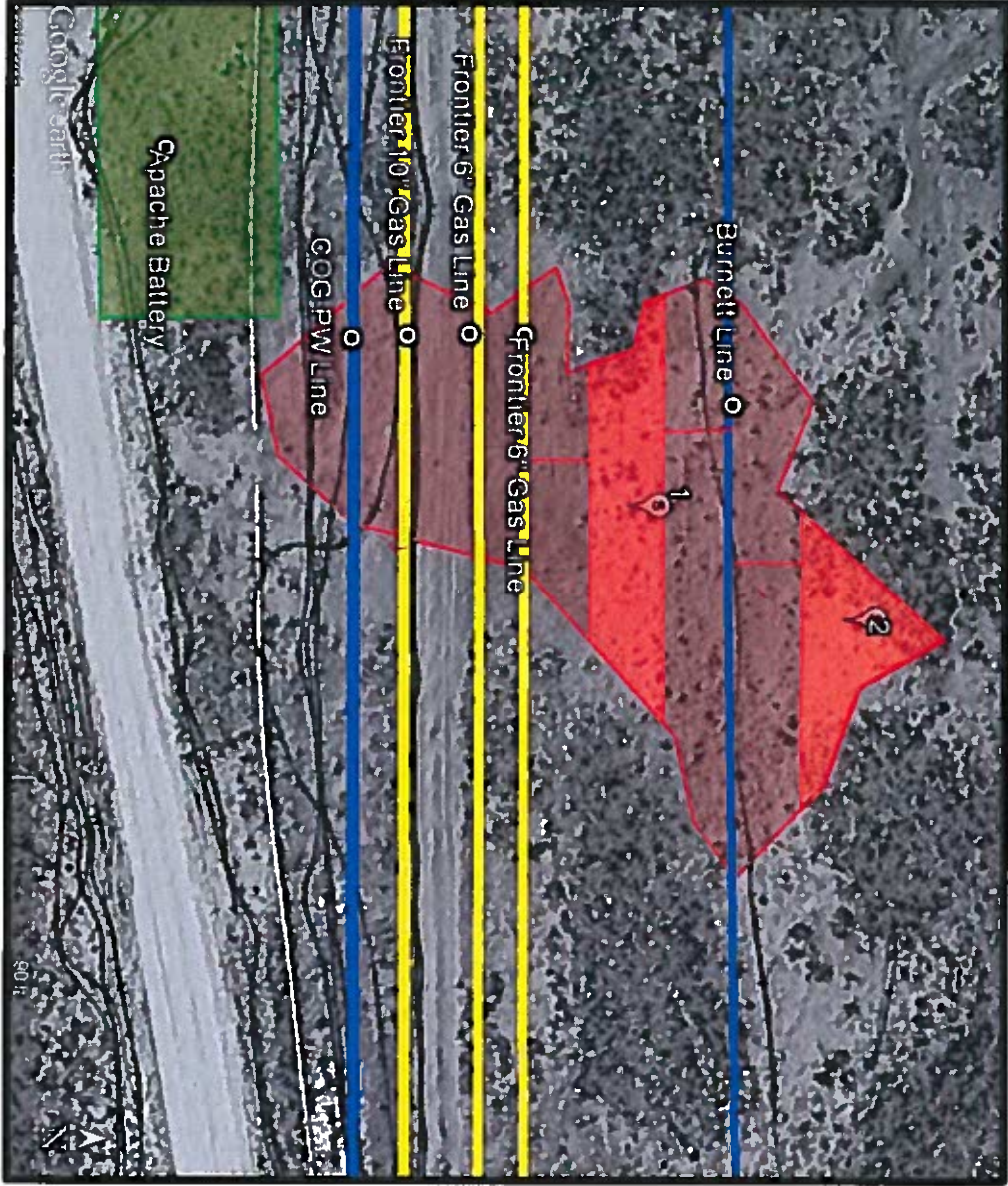


Amanda Trujillo Davis
Senior Environmental Coordinator

Enclosed:

Site Diagram and Summary Table
Laboratory Analysis

Loco Hills SWD Mainline



Site Ranking: Zero

Depth to GW per Trend Map: 350'

S1	DRO	GRO	TPH	BTEX	Cl-
1'	<10.0	<10.0	<10.0	<0.300	<16.0
3'	<10.0	<10.0	<10.0	<0.300	4240
4'	<10.0	<10.0	<10.0	<0.300	5200
5'					1200
6'					768
7'					1090
8'					656
S2	DRO	GRO	TPH	BTEX	Cl-
1'	142	<10.0	142	<0.300	1300
2'	101	<10.0	101	<0.300	368
3'	81.9	<10.0	81.9	<0.300	976
4'					3680
6'					1720
7'					2200
8'					544

Bold values exceed RRAIs per NMOCd Guidelines (1993)

June 12, 2015

AMANDA TRUJILLO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: LOCO HILLS SWD MAINLINE

Enclosed are the results of analyses for samples received by the laboratory on 06/08/15 10:30.

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
 AMANDA TRUJILLO
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 06/08/2015
 Reported: 06/12/2015
 Project Name: LOCO HILLS SWD MAINLINE
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 06/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2 4' (H501464-01)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	06/11/2015	ND	416	104	400	3.92	

Sample ID: S2 6' (H501464-02)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1720	16.0	06/11/2015	ND	416	104	400	3.92	

Sample ID: S2 7' (H501464-03)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	06/11/2015	ND	416	104	400	3.92	

Sample ID: S2 8' (H501464-04)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	06/11/2015	ND	416	104	400	3.92	

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



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June 12, 2015

AMANDA TRUJILLO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

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Method EPA 524.2	Total Trihalomethanes (TTHM)
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Sincerely,



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Lab Director/Quality Manager

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 COG OPERATING
 AMANDA TRUJILLO
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 06/08/2015
 Reported: 06/12/2015
 Project Name: LOCO HILLS SWD MAINLINE
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 06/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1 5' (H501463-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	06/11/2015	ND	416	104	400	3.92	

Sample ID: S1 6' (H501463-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	06/11/2015	ND	416	104	400	3.92	

Sample ID: S1 7' (H501463-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	06/11/2015	ND	416	104	400	3.92	

Sample ID: S1 8' (H501463-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	06/11/2015	ND	416	104	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager



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Co-ordination

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June 09, 2015

AMANDA TRUJILLO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

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Lab Director/Quality Manager

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AMANDA TRUJILLO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 06/08/2015
Reported: 06/09/2015
Project Name: LOCO HILLS SWD MAINLINE
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/04/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S1 1' (H501462-01)

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	06/08/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/08/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/08/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/08/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	<0.300	0.300	06/08/2015	ND					

Surrogate 4-Bromofluorobenzene (PIE) *110 %* *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	06/09/2015	ND	416	104	400	3.77	

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	06/08/2015	ND	184	92.1	200	1.44	
DRO >C10-C28	<10.0	10.0	06/08/2015	ND	182	91.2	200	1.62	

Surrogate 1-Chlorooctane *89.8 %* *47.2-157*

Surrogate 1-Chlorooctadecane *96.3 %* *52.1-176*

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 AMANDA TRUJILLO
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 06/08/2015
 Reported: 06/09/2015
 Project Name: LOCO HILLS SWD MAINLINE
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 06/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1 3' (H501462-02)

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	06/08/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/08/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/08/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/08/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	<0.300	0.300	06/08/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 110 % 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	4240	16.0	06/09/2015	ND	416	104	400	3.77	

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	06/08/2015	ND	184	92.1	200	1.44	
DRO >C10-C28	<10.0	10.0	06/08/2015	ND	182	91.2	200	1.62	

Surrogate: 1-Chlorooctane 86.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.9 % 52.1-176

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AMANDA TRUJILLO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 06/08/2015
Reported: 06/09/2015
Project Name: LOCO HILLS SWD MAINLINE
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/04/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S1 4' (H501462-03)

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	06/08/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/08/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/08/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/08/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	<0.300	0.300	06/08/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 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	5200	16.0	06/09/2015	ND	416	104	400	3.77	

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	06/08/2015	ND	184	92.1	200	1.44	
DRO >C10-C28	<10.0	10.0	06/08/2015	ND	182	91.2	200	1.62	

Surrogate: 1-Chlorooctane 84.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.8 % 52.1-176

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*=Accredited Analyte

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COG OPERATING
AMANDA TRUJILLO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 06/08/2015
Reported: 06/09/2015
Project Name: LOCO HILLS SWD MAINLINE
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/04/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S2 1' (H501462-04)

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	06/09/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/09/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/09/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/09/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	<0.300	0.300	06/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 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	1300	16.0	06/09/2015	ND	416	104	400	3.77	

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	06/08/2015	ND	184	92.1	200	1.44	
DRO >C10-C28	142	10.0	06/08/2015	ND	182	91.2	200	1.62	

Surrogate: 1-Chlorooctane 84.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 104 % 52.1-176

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AMANDA TRUJILLO
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Fax To: NONE

Received: 06/08/2015
Reported: 06/09/2015
Project Name: LOCO HILLS SWD MAINLINE
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/04/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S2 2' (H501462-05)

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	06/09/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/09/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/09/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/09/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	<0.300	0.300	06/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 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	368	16.0	06/09/2015	ND	416	104	400	3.77	

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	06/08/2015	ND	184	92.1	200	1.44	
DRO >C10-C28	101	10.0	06/08/2015	ND	182	91.2	200	1.62	

Surrogate: 1-Chlorooctane 89.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 106 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
AMANDA TRUJILLO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 06/08/2015
Reported: 06/09/2015
Project Name: LOCO HILLS SWD MAINLINE
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/04/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S2 3' (H501462-06)

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	06/09/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/09/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/09/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/09/2015	ND	5.97	99.4	6.00	1.66	
Total BTX	<0.300	0.300	06/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 106 % 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	976	16.0	06/09/2015	ND	416	104	400	3.77	

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	06/08/2015	ND	184	92.1	200	1.44	
DRO >C10-C28	81.9	10.0	06/08/2015	ND	182	91.2	200	1.62	

Surrogate: 1-Chlorooctane 81.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 94.2 % 52.1-176

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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



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