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December 19, 2018

Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

Ryan Mann
Hobbs Field Office
New Mexico State Land Office
2827 North Dal Paso Street, Suite 117
Hobbs, NM 88240

Re: Site Assessment Summary and Proposed Remediation Plan
SRO State Com #031H
API No. 30-015-40256
GPS: Latitude 32.07425 Longitude -104.09065
UL "G", Sec. 4, T26S, R28E
Eddy County, NM
NMOCD Ref. No. 2RP-5012

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Site Assessment Summary and Proposed Remediation Plan* for the Release Site known as the **SRO State Com #031H**. Details of the Release are summarized below:

RELEASE DETAILS			
Type of Release:	Crude Oil	Volume of Release: 10 bbls	
		Volume Recovered: 4.8 bbls	
Source of Release:	Valve Malfunction	Date of Release: 9/28/18	Date of Discovery: 9/28/18
Was Immediate Notice Given?	No	If, YES, to Whom?	Not Applicable
Was a Watercourse Reached?	No	If YES, Volume Impacting the Watercourse: NA	
Surface Owner:	State	Mineral Owner:	State
Describe Cause of Problem and Remedial Action Taken:			
The Release was attributed to a valve malfunction on the flare. The Release affected an area on the caliche production pad measuring approximately 3,800 square feet.			

Topographical and Aerial Maps are provided as Attachments #1 and #2. General Site Photographs are provided as Attachment #7. A Copy of the Initial Release Notification and Corrective Action (NMODC Form C-141) is provided as Attachment #8.

REGULATORY FRAMEWORK

Surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste which occur during normal oilfield operations are generally regulated by the New Mexico Oil Conservation Division (NMOCD) in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). 19.15.29 NMAC establishes reporting, site assessment/characterization, remediation, closure, variance and enforcement procedures. Table I of 19.15.29.12 NMAC determines the closure criteria for soils impacted by a release based on the depth to groundwater and the following site characteristics:

Approximate Depth to Groundwater		<50 ft	
Within 300 ft. of any continuously flowing or significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within 200 ft. of any lakebed, sinkhole, or playa lake?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within 300 ft. of an occupied permanent residence, school, hospital, or institution?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within 500 ft. of a spring or private, domestic fresh water well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within 1,000 ft. of any fresh water well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within the incorporated municipal boundaries or within a municipal well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within 300 ft. of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within the area overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within an unstable area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater in the 1 Mile radius of the Release Site and identify any registered water wells within 1/2 Mile of the Release Site. If none were identified, the approximate depth to groundwater was extrapolated from a Depth to Groundwater Map utilized by the NMOCD. Depth to groundwater information is provided as Attachment #4.

Based on the approximate depth to groundwater and site characteristics, the NMOCD Closure Criteria are as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/L TDS	Constituent	Method*	Limit**
< 50 ft	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

INITIAL SITE ASSESSMENT

On October 11, 2018, TRC conducted an initial site assessment . During the initial site assessment, nine (9) soil samples were collected from four (4) sample points (SP 1 through SP 4) within the release margins in an effort to determine the vertical extent of soil impacts. In addition, four (4) soil samples were collected from the inferred release margins in an effort to determine the horizontal extent of soil impacts. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of benzene, BTEX, TPH, and chloride. Laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples with the exception of soil samples E @ 1', SP 1 @ SUR, SP 1 @ 3.5', SP 2 @ SUR, SP 2 @ 2', SP 4 @ Sur, SP 4 @ 1'. On October 17, 2018, TRC revisited the site. During the site visit, six (6) soil samples were collected from the sample locations exhibiting concentrations above NMOCD Closure Criteria. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of benzene, BTEX, TPH, and chloride. A table summarizing laboratory analytical results from soil samples collected from the Site is provided below:

Concentrations of BTEX, TPH and/or Chloride in Soil										
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.				E 300
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₅ (mg/kg)	TPH C ₆ -C ₃₅ (mg/kg)	Chloride (mg/kg)
N @ 1'	10/11/2018	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
E @ 1'	10/11/2018	1'	In-Situ	<0.050	<0.300	<10.0	661	206	867	32.0
E 2 @ 1'	10/17/2018	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
W @ 1'	10/11/2018	1'	In-Situ	<0.050	<0.300	<10.0	22.1	10.8	32.9	32.0
S @ 1'	10/11/2018	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP 1 @ SUR	10/11/2018	0-6"	In-Situ	14.1	267	2,960	19,400	3,400	25,760	16.0
SP 1 @ 3.5'	10/11/2018	3.5'	In-Situ	0.161	4.58	19.7	194	58.0	271.7	80.0
SP 1 @ 4'	10/17/2018	4'	In-Situ	0.289	0.466	<10.0	<10.0	<10.0	<10.0	32.0
SP 2 @ SUR	10/11/2018	0-6"	In-Situ	12.9	321	3,130	16,100	2,560	21,790	64.0
SP 2 @ 2'	10/11/2018	2'	In-Situ	<0.050	0.823	16.2	127	15.6	158.8	32.0
SP 2 @ 3'	10/17/2018	3'	In-Situ	0.052	0.907	10.4	133	17.2	160.6	48.0
SP 2 @ 4'	10/17/2018	4'	In-Situ	<0.050	<0.300	<10.0	21.1	<10.0	21.1	112
SP 3 @ SUR	10/11/2018	0-6"	In-Situ	4.49	161	1,610	25,300	4,690	31,600	112
SP 3 @ 1.5'	10/11/2018	1.5'	In-Situ	<0.050	<0.300	<10.0	23.2	13.4	36.6	48.0
SP 4 @ SUR	10/11/2018	0-6"	In-Situ	2.16	125	1,510	26,200	4,070	31,780	352
SP 4 @ 1'	10/11/2018	1'	In-Situ	<0.050	<0.300	<10.0	73.8	26.7	100.5	96.0
SP 4 @ 1.5'	10/17/2018	1.5'	In-Situ	0.060	2.27	27.1	280	34.2	341.3	32.0
SP 4 @ 2'	10/17/2018	2'	In-Situ	<0.050	2.53	<10.0	14.0	<10.0	14.0	32.0
Closure Criteria				10	50	-	-	-	100	600

A "Site & Sample Location Map" is provided as Attachment #3. Field Data, if applicable, is provided as Attachment #5. Laboratory analytical reports are provided as Attachment #6.

REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, COG proposes the following remediation activities designed to advance the Release Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil within the release margins in the area characterized by sample points SP 1 and SP 2 to a depth of approximately four (4) ft. bgs, or until laboratory analytical results from confirmation soil samples indicate concentrations of BTEX and TPH are below the applicable NMOCD Closure Criteria.
- Excavate impacted soil within the release margins in the area characterized by sample point SP 3 to a depth of approximately one and a half (1.5) ft. bgs, or until laboratory analytical results from confirmation soil samples indicate concentrations of BTEX and TPH are below the applicable NMOCD Closure Criteria.
- Excavate impacted soil within the release margins in the area characterized by sample point SP 4 to a depth of approximately two (2) ft. bgs, or until laboratory analytical results from confirmation soil samples indicate concentrations of BTEX and TPH are below the applicable NMOCD Closure Criteria.
- Excavated soil will be temporarily stockpiled on-site, atop a poly liner, pending transportation under manifest to a NMOCD-approved disposal facility.
- Upon receiving favorable laboratory analytical results from confirmation soil samples (below the NMOCD Closure Criteria) excavated areas will be backfilled with locally sourced, non-impacted "like" material, at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable.

SAMPLING PLAN

Upon completion of excavation activities, excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear feet. A minimum of one (1) representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated areas representing each sample point location. Additional "discrete" confirmation soil samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of this *Site Assessment Summary and Proposed Remediation Plan*. Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, it is estimated approximately 400 cubic yards of soil has been affected above the NMOCD Closure Criteria.

RESTORATION, RECLAMATION AND RE-VEGETATION

Areas affected by the Release and associated remediation activities will be substantially restored to the condition which existed prior to the release to the maximum extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an approved seed mixture during the first favorable growing season following closure of the site in accordance with the applicable regulatory agency.

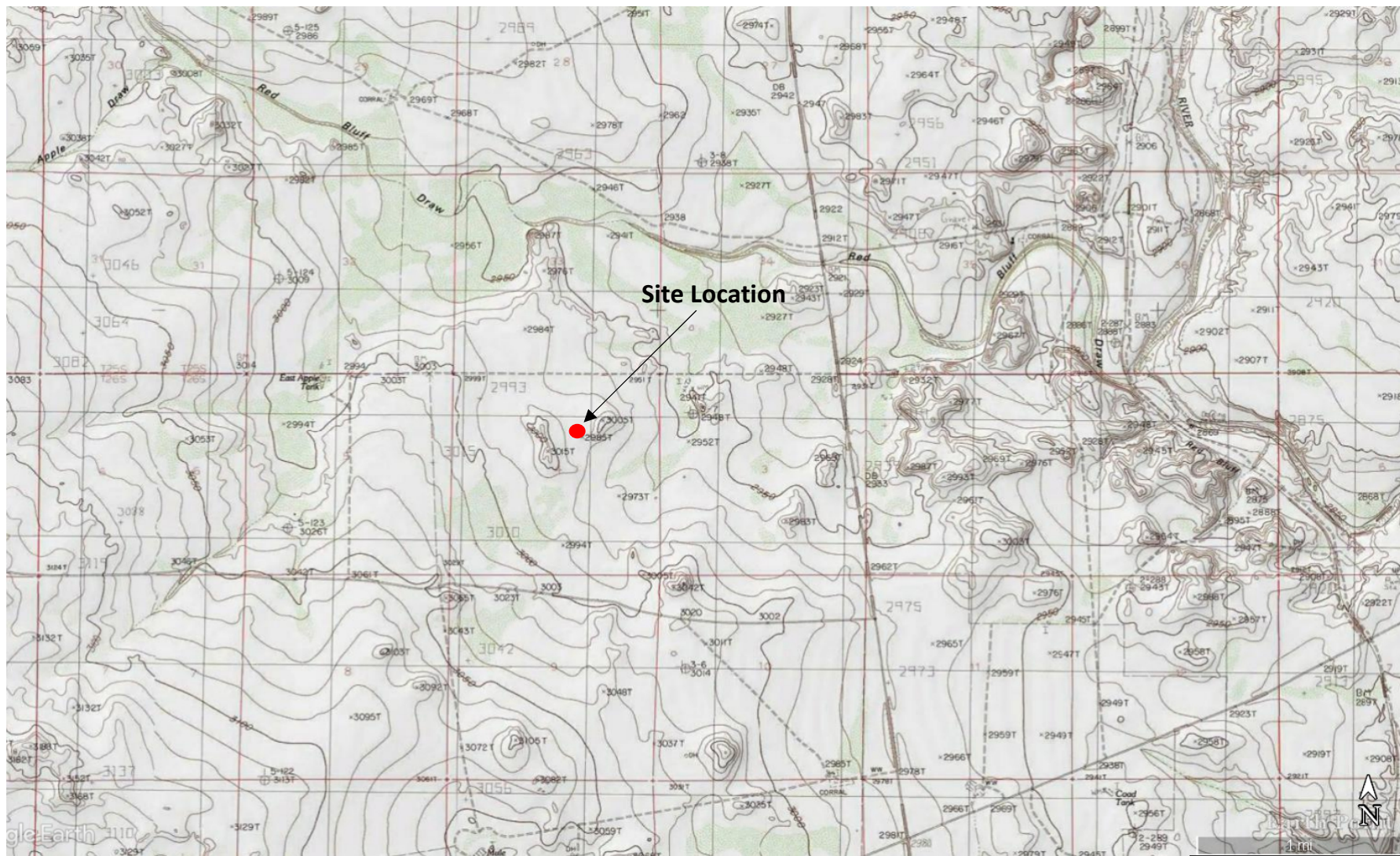
If you have any questions, or if additional information is required, please feel free to contact Becky Haskell or either of the undersigned by phone or email.

Respectfully,

Zach Conder
Operations Manager
TRC Environmental Corp.

Curt Stanley
Senior Project Manager
TRC Environmental Corp.

Attachments:	Attachment #1-	Figure 1 - Topographical Map
	Attachment #2-	Figure 2 - Aerial Map
	Attachment #3-	Figure 3 - Site & Sample Location Map
	Attachment #4-	Depth to Groundwater Information
	Attachment #5-	Field Data
	Attachment #6-	Laboratory Analytical Reports
	Attachment #7-	General Site Photographs
	Attachment #8-	Release Notification and Corrective Action (FORM C-141)



LEGEND:



Site Location



LEGEND:			Figure 2		Drafted by: BC Checked by: ZC		
	Site Location		Non-Industrial Building	Draft: December 19, 2018			
	Fresh Water Well		Municipal Well Field	GPS: 32.07425 -104.09065			
	100-Year Floodplain		Subsurface Mine	UL "G", Sec. 4, T26S, R28E			
	High/Critical Karst		1/2 Mile Radius	TRC Proj. No: 317775			

Aerial Map	
COG Operating, LLC	
SRO State Com #031H	
Eddy county, NM	

Aerial Map
COG Operating, LLC
SRO State Com #031H
Eddy county, NM



LEGEND:



Inferred Release Margins



Sample Point

Figure 3

Site & Sample Location Map
COG Operating, LLC
SRO State Com #031H
Eddy County, NM

Drafted by: BC | Checked by: ZC

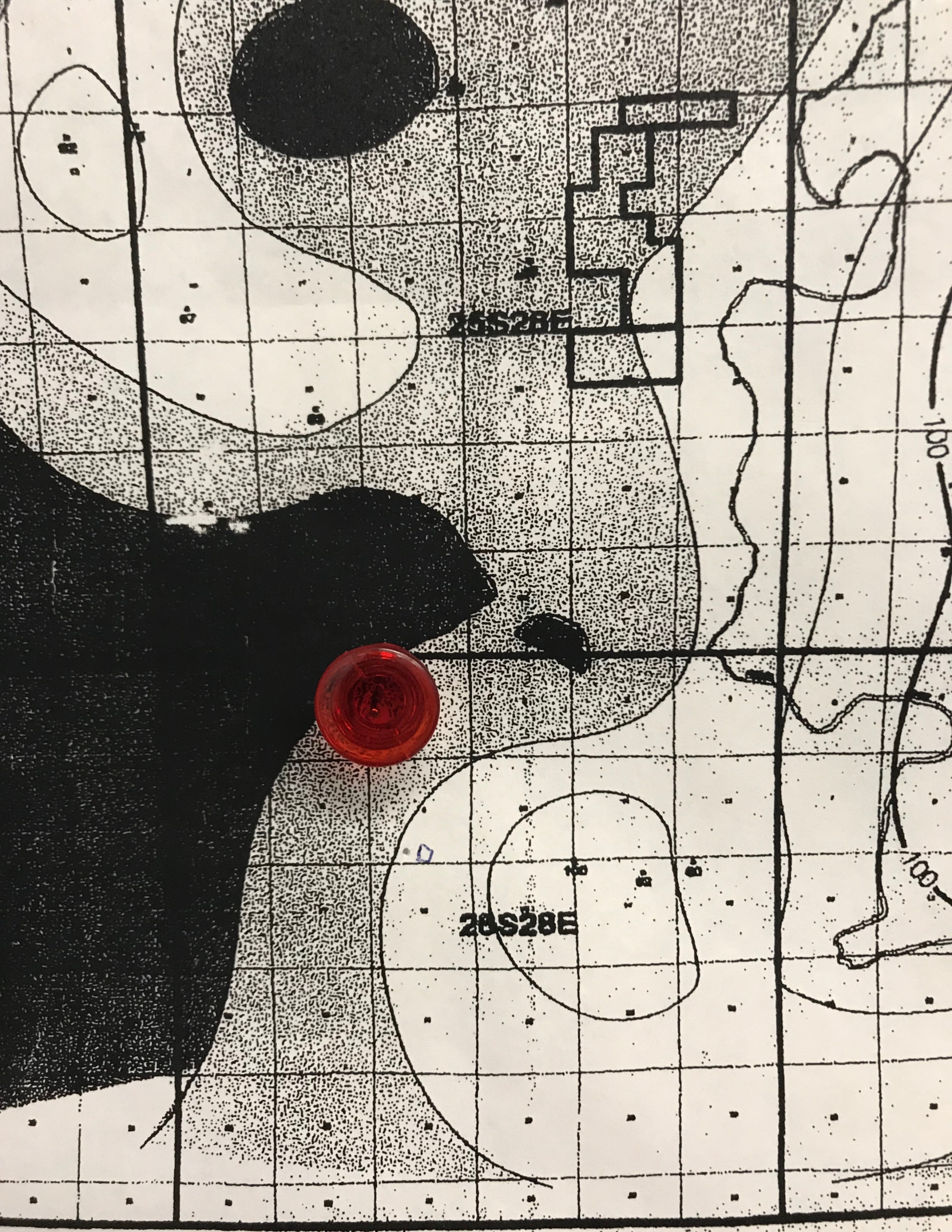
Draft: October 16, 2018

GPS: 32.07425 -104.09065

UL "G", Sec. 4, T26S, R28E

TRC Proj. No: 317775





20S28E

20S28E

100

100s



New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

UTMAD83 Radius Search (in meters):

Easting (X): 585824.1

Northing (Y): 3549069.42

Radius: 1610

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

10/25/18 3:23 PM

WELLS WITH WELL LOG INFORMATION



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

October 12, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: SRO STATE COM #31 H

Enclosed are the results of analyses for samples received by the laboratory on 10/11/18 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: N @ 1' (H802921-01)

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	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	<0.050	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	<0.050	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	<0.150	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTEX	<0.300	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/12/2018	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	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	<10.0	10.0	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	<10.0	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 90.7 % 41-142

Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: E @ 1' (H802921-02)

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	10/12/2018	ND	2.10	105	2.00	2.49		
Toluene*	<0.050	0.050	10/12/2018	ND	2.09	105	2.00	3.26		
Ethylbenzene*	<0.050	0.050	10/12/2018	ND	2.14	107	2.00	3.06		
Total Xylenes*	<0.150	0.150	10/12/2018	ND	6.17	103	6.00	3.69		
Total BTEx	<0.300	0.300	10/12/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/12/2018	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	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	661	10.0	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	206	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 69.1 % 41-142

Surrogate: 1-Chlorooctadecane 91.1 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: W @ 1' (H802921-03)

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	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	<0.050	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	<0.050	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	<0.150	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTX	<0.300	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/12/2018	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	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	22.1	10.0	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	10.8	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 88.8 % 41-142

Surrogate: 1-Chlorooctadecane 89.9 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S @ 1' (H802921-04)

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	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	<0.050	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	<0.050	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	<0.150	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTX	<0.300	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/12/2018	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	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	<10.0	10.0	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	<10.0	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 90.5 % 41-142

Surrogate: 1-Chlorooctadecane 83.2 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ SURFACE (H802921-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	14.1	2.00	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	82.6	2.00	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	26.4	2.00	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	144	6.00	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTEX	267	12.0	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/12/2018	ND	400	100	400	0.00	

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*	2960	100	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	19400	100	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	3400	100	10/12/2018	ND					

Surrogate: 1-Chlorooctane 218 % 41-142

Surrogate: 1-Chlorooctadecane 714 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 3.5' (H802921-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.161	0.050	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	0.898	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	0.458	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	3.07	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTEX	4.58	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/12/2018	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*	19.7	10.0	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	194	10.0	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	58.0	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 92.8 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ SURFACE (H802921-07)

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	12.9	0.500	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	91.0	0.500	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	32.2	0.500	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	185	1.50	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTX	321	3.00	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 154 % 69.8-142

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/12/2018	ND	400	100	400	0.00	

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*	3130	100	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	16100	100	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	2560	100	10/12/2018	ND					

Surrogate: 1-Chlorooctane 230 % 41-142

Surrogate: 1-Chlorooctadecane 607 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ SURFACE (H802921-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	4.49	1.00	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	38.1	1.00	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	16.7	1.00	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	102	3.00	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTEX	161	6.00	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/12/2018	ND	400	100	400	0.00		

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*	1610	100	10/12/2018	ND	192	96.2	200	0.369	
DRO >C10-C28*	25300	100	10/12/2018	ND	189	94.3	200	0.397	
EXT DRO >C28-C36	4690	100	10/12/2018	ND					

Surrogate: 1-Chlorooctane 193 % 41-142

Surrogate: 1-Chlorooctadecane 1060 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 1.5' (H802921-09)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	0.067	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	<0.050	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	<0.150	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTEX	<0.300	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/12/2018	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	10/12/2018	ND	190	95.0	200	0.209	
DRO >C10-C28*	23.2	10.0	10/12/2018	ND	195	97.7	200	1.78	
EXT DRO >C28-C36	13.4	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 98.4 % 41-142

Surrogate: 1-Chlorooctadecane 90.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ SURFACE (H802921-10)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.16	1.00	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	35.5	1.00	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	17.0	1.00	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	70.8	3.00	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTEX	125	6.00	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	10/12/2018	ND	400	100	400	0.00		

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*	1510	100	10/12/2018	ND	190	95.0	200	0.209	
DRO >C10-C28*	26200	100	10/12/2018	ND	195	97.7	200	1.78	
EXT DRO >C28-C36	4070	100	10/12/2018	ND					

Surrogate: 1-Chlorooctane 212 % 41-142

Surrogate: 1-Chlorooctadecane 725 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/11/2018	Sampling Date:	10/11/2018
Reported:	10/12/2018	Sampling Type:	Soil
Project Name:	SRO STATE COM #31 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1' (H802921-11)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	<0.050	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	<0.050	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	<0.150	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTX	<0.300	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	10/12/2018	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	10/12/2018	ND	190	95.0	200	0.209	
DRO >C10-C28*	73.8	10.0	10/12/2018	ND	195	97.7	200	1.78	
EXT DRO >C28-C36	26.7	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 97.7 % 41-142

Surrogate: 1-Chlorooctadecane 91.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/11/2018
Reported: 10/12/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/11/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 2' (H802921-12)

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	10/12/2018	ND	2.10	105	2.00	2.49	
Toluene*	0.112	0.050	10/12/2018	ND	2.09	105	2.00	3.26	
Ethylbenzene*	0.088	0.050	10/12/2018	ND	2.14	107	2.00	3.06	
Total Xylenes*	0.623	0.150	10/12/2018	ND	6.17	103	6.00	3.69	
Total BTX	0.823	0.300	10/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/12/2018	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	16.2	10.0	10/12/2018	ND	190	95.0	200	0.209	
DRO >C10-C28*	127	10.0	10/12/2018	ND	195	97.7	200	1.78	
EXT DRO >C28-C36	15.6	10.0	10/12/2018	ND					

Surrogate: 1-Chlorooctane 89.6 % 41-142

Surrogate: 1-Chlorooctadecane 86.4 % 37.6-147

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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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Celey D. Keene, Lab Director/Quality Manager



Rush

1 of 2

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: <u>TRC Solutions</u>		P.O. #:			
Project Manager: <u>Joel Lowry</u>		Company:	<u>COG</u>		
Address: <u>10 Desha Drive Suite 150 E</u>		Attn:			
City: <u>M. Land</u>		Address:			
State: <u>TX</u> Zip: <u>79705</u>		City:			
Phone #: <u>432-466-4450</u> Fax #:		State:			
Project #:		Zip:			
Project Name: <u>SKO State Con #31H</u>		Phone #:			
Project Location:		Fax #:			
Sampler Name: <u>Kyle Schuidd</u>					
FOR LAB USE ONLY					
Lab I.D. <u>H802921</u>	Sample I.D.	(G)RAB OR (C)OMP.			
		# CONTAINERS			
		GROUNDWATER			
		WASTEWATER			
		SOIL			
		OIL			
		SLUDGE			
		OTHER :			
		ACID/BASE:			
		ICE / COOL			
OTHER :					
DATE	TIME				
10/11	12:00	TPH 8015 M ext			
	12:05	BTEX 8021 B			
	12:10	CI			
	12:15				
	12:20				
	12:25				
	12:30				
	12:35				
	12:40				
	12:45				

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising 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:

Received By:

Date: 10-11-18
Time: 10:35
Date: 10-11-18
Time: 10:35

Received By: Quana Alabaz

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

REMARKS:

itavarez@concho.com
zconder@trcsolutions.com
rhaskell@concho.com
slhitchcock@concho.com
dnel2@concho.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

0.26
497

Sample Condition
Cool ☐ Intact ☐
Yes ☐ No ☐

CHECKED BY:
(Initials)



CHAN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

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

BILL TO

ANALYSIS REQUEST

Company Name: TLC Solutions P.O. #:

Project Manager: Joel Lowry Company: C&G

Address: 10 Delta Drive Suite 150 E Attn:

City: Midland State: TX Zip: 79705 Address:

Phone #: 432-466-4450 Fax #:

Project #: Project Owner: City: State: Zip:

Project Name: S&D State Com # 31 H Phone #:

Sample Name: Kyle Schwaidt Fax #:

FOR LAB USE ONLY

Lab I.D. Sample I.D.

11 SP4 at 1' (G)RAB OR (C)OMP. # CONTAINERS

12 SP2 at 2' G11 X

MATRIX

GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME

TPH 8015 M ext

BTEX 8021 B

CI-

REMARKS:

itavarez@concho.com

2condere@resolutions.com

rhaskell@concho.com

smithcock@concho.com

dhel2@concho.com

PHONE RESULT: Yes No Add'l Phone #: Fax Result: Yes No Add'l Fax #:

Relinquished By: [Signature] Date: 10-11-18 Received By: [Signature]

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 0.20 #57 Y2

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* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



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

October 25, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: SRO STATE COM #31 H

Enclosed are the results of analyses for samples received by the laboratory on 10/17/18 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/17/2018
Reported: 10/25/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/17/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 4' (H802991-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.289	0.050	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	0.108	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	0.069	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	<0.150	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTX	0.466	0.300	10/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/18/2018	ND	432	108	400	3.64	

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	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	<10.0	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	<10.0	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 95.7 % 41-142

Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/17/2018
Reported: 10/25/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/17/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 3' (H802991-02)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.052	0.050	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	0.194	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	0.119	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	0.542	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTEX	0.907	0.300	10/18/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/18/2018	ND	448	112	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*	10.4	10.0	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	133	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	17.2	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 89.8 % 41-142

Surrogate: 1-Chlorooctadecane 89.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/17/2018
Reported: 10/25/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/17/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 4' (H802991-03)

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	10/24/2018	ND	1.92	96.1	2.00	0.0867	
Toluene*	<0.050	0.050	10/24/2018	ND	1.82	91.1	2.00	0.499	
Ethylbenzene*	<0.050	0.050	10/24/2018	ND	1.81	90.7	2.00	0.346	
Total Xylenes*	<0.150	0.150	10/24/2018	ND	5.45	90.9	6.00	0.00717	
Total BTEX	<0.300	0.300	10/24/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/25/2018	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	10/23/2018	ND	208	104	200	0.472	
DRO >C10-C28*	21.1	10.0	10/23/2018	ND	202	101	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	10/23/2018	ND					

Surrogate: 1-Chlorooctane 98.5 % 41-142

Surrogate: 1-Chlorooctadecane 95.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/17/2018
Reported: 10/25/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/17/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 1.5' (H802991-04)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.060	0.050	10/18/2018	ND	2.02	101	2.00	0.618	
Toluene*	0.324	0.050	10/18/2018	ND	1.90	95.2	2.00	1.04	
Ethylbenzene*	0.325	0.050	10/18/2018	ND	1.90	95.0	2.00	0.383	
Total Xylenes*	1.56	0.150	10/18/2018	ND	5.73	95.4	6.00	0.0104	
Total BTEX	2.27	0.300	10/18/2018	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/18/2018	ND	448	112	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*	27.1	10.0	10/18/2018	ND	186	93.1	200	7.22	
DRO >C10-C28*	280	10.0	10/18/2018	ND	202	101	200	1.16	
EXT DRO >C28-C36	34.2	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 90.2 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/17/2018
Reported: 10/25/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/17/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 2' (H802991-05)

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	10/24/2018	ND	1.92	96.1	2.00	0.0867	
Toluene*	0.316	0.050	10/24/2018	ND	1.82	91.1	2.00	0.499	
Ethylbenzene*	0.351	0.050	10/24/2018	ND	1.81	90.7	2.00	0.346	
Total Xylenes*	1.86	0.150	10/24/2018	ND	5.45	90.9	6.00	0.00717	
Total BTX	2.53	0.300	10/24/2018	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/25/2018	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	10/23/2018	ND	208	104	200	0.472	
DRO >C10-C28*	14.0	10.0	10/23/2018	ND	202	101	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	10/23/2018	ND					

Surrogate: 1-Chlorooctane 97.6 % 41-142

Surrogate: 1-Chlorooctadecane 91.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/17/2018
Reported: 10/25/2018
Project Name: SRO STATE COM #31 H
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/17/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: E 2 @ 1' (H802991-06)

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	10/19/2018	ND	1.90	95.1	2.00	2.08		
Toluene*	<0.050	0.050	10/19/2018	ND	1.80	89.9	2.00	1.83		
Ethylbenzene*	<0.050	0.050	10/19/2018	ND	1.79	89.7	2.00	1.75		
Total Xylenes*	<0.150	0.150	10/19/2018	ND	5.42	90.3	6.00	2.05		
Total BTEx	<0.300	0.300	10/19/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 88.3 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/18/2018	ND	448	112	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	10/18/2018	ND	196	97.8	200	0.930	
DRO >C10-C28*	<10.0	10.0	10/18/2018	ND	190	95.0	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/18/2018	ND					

Surrogate: 1-Chlorooctane 85.4 % 41-142

Surrogate: 1-Chlorooctadecane 82.8 % 37.6-147

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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

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Celey D. Keene, Lab Director/Quality Manager

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

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+ Cardinal cannot accept verbal changes Please fax written changes to (575) 393-2326



Photo 1 - View of surface staining from the initial release, facing South.



Photo 2 - Surface staining from the initial release, facing North.



Photo 3 - View of surface staining from initial release, facing Northeast.

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NMAP1828471400
District RP	2RP-5012
Facility ID	N/A
Application ID	pMAP1828471193

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Robert McNeill	Contact Telephone	(432) 683-7443
Contact email	RMcNeill@concho.com	Incident # (assigned by OCD)	NMAP1828471400
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.07425 Longitude -104.09065
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	SRO State Com #031H	Site Type	Tank Battery
Date Release Discovered	September 28, 2018	API# (if applicable)	30-015-40256

Unit Letter	Section	Township	Range	County
G	04	26S	28E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 10	Volume Recovered (bbls) 4.8
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a valve malfunction. The valve is being replaced.
The release was on location. A vacuum truck was dispatched to remove all freestanding fluids.
Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Incident ID	NMAP1828471400
District RP	2RP-5012
Facility ID	N/A
Application ID	pMAP1828471193

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>DeAnn Grant</u> Signature: <u></u> email: <u>agrانت@concho.com</u>	Title: <u>HSE Administrative Assistant</u> Date: <u>10/1/2018</u> Telephone: <u>(432) 253-4513</u>
<u>OCD Only</u> Received by: <u></u> Date: <u>10/11/18</u>	