Received by OCD: 4/11/2023 11:03:12 AM



[Sheldon L. Hitchcock] [HSE Coordinator]

March 28, 2019

Bradford Billings Oil Conservation Division 1220 S. St Francis Dr. #3 Santa Fe, NM 87505

Crystal Weaver Bureau of Land Management, CFO 620 E. Green Street Carlsbad, NM 88220

Re: Closure Letter GC Federal #055 API #: 30-025-40007 RP#: 1RP-5052 Unit Letter I, Section 19, Township 17 S, Range 32 E Lea County, New Mexico

Mr. Billings/Ms. Weaver,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the GC Federal #055. This release occurred on May 7, 2018. Following the release an assessment of impacted soils was conducted. A remediation work plan was submitted to and subsequently approved by the New Mexico Oil Conservation Division (NMOCD) and the Bureau of Land Management (BLM). A copy of the approved work plan is attached in Appendix V.

BACKGROUND

The GC Federal #055 release was located in Unit Letter I, Section 19, Township 17 South and Range 32 East in Eddy County, New Mexico. More specifically the latitude and longitude for this release are 32.8173409 North and -103.8004608 West.

On May 7, 2018, a flowline failed resulting in the release of approximately thirty (30) barrels (bbls) of produced water and ten (10) bbls of oil. A vacuum truck was utilized to recover all freestanding fluids.

Remediation activities were conducted in accordance with the approved work plan and NMOCD stipulations. The analytical results from the stipulated confirmation soil sampling activities are summarized in the table below. A site diagram of the excavated area is presented in Appendix I.

One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701 | P 432.683.7443 | F 432.683.7441

GROUNDWATER AND SITE RANKING

According New Mexico Office of the State Engineer groundwater in the project vicinity is approximately eighty-one (81) feet below ground surface (BGS) (Appendix II). No water well or surface water was observed within one-thousand (1,000) feet of the release site. Therefore the site ranking for this release is ten (10) based on the following:

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

CONFIRMATION SOIL SAMPLING RESULTS

0	Sample	Soil	Status		TPH (m	g/kg)		Benzene	Total BTEX	Chloride
Sample ID	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD RRAL L	imits (mg/kg)			-	-	-	1,000	10	50	600
N. T-3	N/A	Х		<10.0	<10.0	<10.0	0.0	<0.05	<0.300	400
S. T-3	N/A	Х		<10.0	<10.0	<10.0	0.0	<0.05	<0.300	320
E. T-3	N/A	Х		<10.0	<10.0	<10.0	0.0	<0.05	<0.300	80
W. T-3	N/A		Х	<10.0	<10.0	<10.0	0.0	<0.05	<0.300	1360
N. T-5	N/A	Х		<10.0	<10.0	<10.0	0.0	<0.05	<0.300	128
S. T-5	N/A	Х		<10.0	<10.0	<10.0	0.0	<0.05	<0.300	272
E. T-5	N/A		Х	<10.0	<10.0	<10.0	0.0	<0.05	<0.300	992
W. T-5	N/A	Х		<10.0	<10.0	<10.0	0.0	<0.05	<0.300	176
E. T-5	N/A	Х		#	#	#	#	#	#	48
(#)	Not Analyzed	d								

March 28, 2019

REMEDIAL ACTIONS

- The impacted areas in the vicinity of sample locations T-3 and T-5 were excavated to a depth of four (4) feet BGS. The western boundary of the T-3 area was excavated to the maximum extent possible. However due to its proximity to the wellhead and other infrastructure further excavation was neither possible nor safe.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation sidewall samples were collected from the excavations per NMOCD stipulations.
- Upon receipt of analytical results from stipulated confirmation soil sampling activities a 20mil poly liner was installed in the bottom of the excavations in order to encapsulate the remaining chloride impacts. The excavations were backfilled with clean "like" material and contoured to match the surrounding location.

March 28, 2019

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the GC Federal #055 incident that occurred on May 7, 2018.

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

Sincerely,

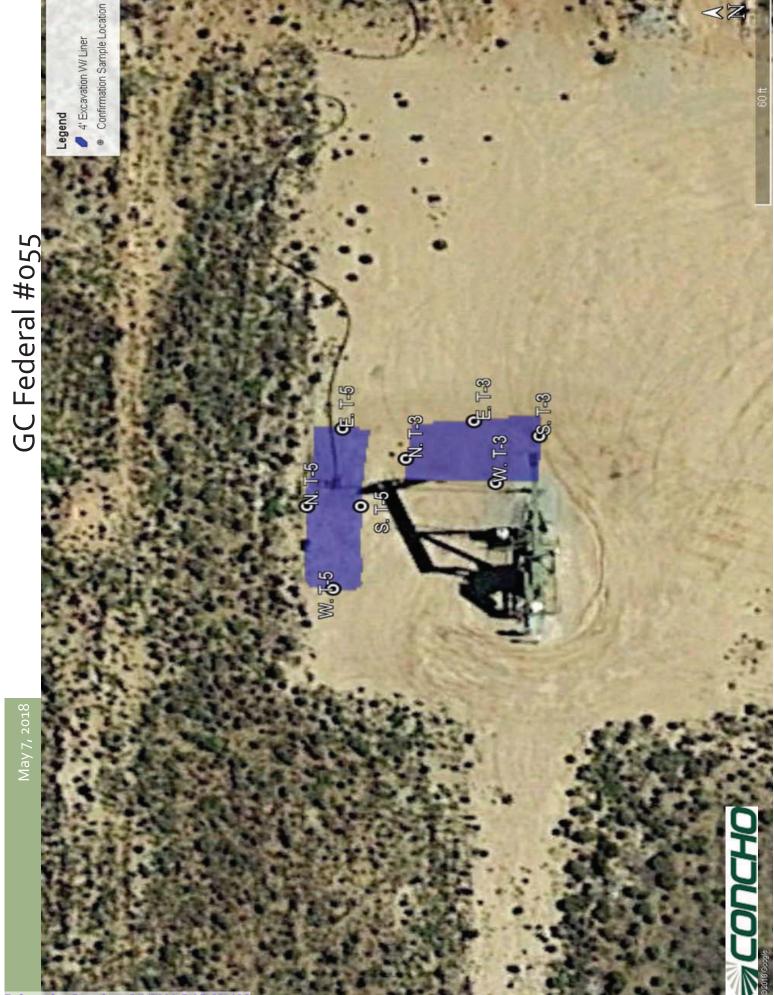
Sheldon gittom

Sheldon L. Hitchcock HSE Coordinator slhitchcock@concho.com

Enclosed:

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

APPENDIX I



APPENDIX II



(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)	· · ·						2=NE 3 st to lar	3=SW 4= gest)		.D83 UTM in me	ters)	(In feet)	
POD Number	POD Sub- Code basin Cou		ວ (4 1			Sec	Tws	Rng		x	Y	Distance		Depth Water	Water Column
RA 10175		E		2				-	6148 <i>1</i>	14	3631005* 🌍	2574	158		
RA 12020 POD1	L	E	2	2	1	28	17S	32E	61482	28	3630954 🌍	2600	120	81	39
RA 12042 POD1	L	E	2	2	1	28	17S	32E	61489	91	3631181 🌍	2609	400		
											Averaç	ge Depth to	Water:	81 1	feet
												Minimum	Depth:	81	feet
												Maximum	Depth:	81	feet

UTMNAD83 Radius Search (in meters):

Easting (X): 612328.52

Northing (Y): 3631675.18

Radius: 4828

*UTM location was derived from PLSS - see Help

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.

APPENDIX III

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised April 3, 2017

Page 10 of 90

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

		OPERATO	🛛 Ir	nitial Report		Final Report	
Name of Company: COG Operating, LLC (OGF	Contact:	Robert McNeill					
Address: 600 West Illinois Avenue, Midland	Telephone No.	432-683-7443					
Facility Name: GC Federal #055	Facility Type:	Flowline					
Surface Owner: Federal	Mineral Owner	: Federal		API	No. 30-025-4	0007	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Ι	19	17S	32E	1,630	South	990	East	Lea

Latitude 32.8173409 Longitude -103.8004608 NAD83

NATURE OF RELEASE

Type of Release:		Volume of Release:	Volume Recovered:
Oil & Pr	oduced Water	10 bbl. Oil	8 bbl. Oil
		30 bbl. Produced Water	25 bbl. Produced Water
Source of Release:		Date and Hour of Occurrence:	Date and Hour of Discovery:
	ne Corrosion	May 7, 2018 9:00am	May 7, 2018 9:00am
Was Immediate Notice Given?		If YES, To Whom?	
	Yes 🗌 No 🗌 Not Required	·	Yu – NMOCD
			tta Price – BLM
Dry Whom? Shaldon Hitchood	-		Tucker - BLM
By Whom? Sheldon Hitchcock Was a Watercourse Reached?		Date and Hour: May 7, 2018 9:42a If YES, Volume Impacting the Wate	
was a watercourse Reached?	🗌 Yes 🖾 No	II YES, volume impacting the wate	ercourse.
If a Watercourse was Impacted, D	escribe Fully.*	RECEIVED By Olivia Yu at 1	1:04 am, May 09, 2018
		By Olivia Tu at T	1.04 am, May 09, 2010
Describe Cause of Problem and R	emedial Action Taken.*	X	1
	in a steel flowline due to corrosion. The	flowline is being replaced.	
Describe Area Affected and Clear	up Action Taken.*		
	A vacuum truck was dispatched to removase and we will present a remediation wo		l have the spill area sampled to delineate prior to any significant remediation
regulations all operators are requir public health or the environment. should their operations have failed	NMOCD acceptance of a C-141 report do	otifications and perform corrective act NMOCD marked as "Final Report" of contamination that pose a threat to gr	ions for releases which may endanger loes not relieve the operator of liability round water, surface water, human health
		OIL CONSERV	VATION DIVISION
Signature: Daun	n Opeant		on
Printed Name: DeAnn	Grant	Approved by Environmental Specialis	t:
Title: HSE A	dministrative Assistant	Approval Date: 5/9/2018	Expiration Date:
E-mail Address: agrant(@concho.com	Conditions of Approval:	Attached
Date: May 9, 2018	Phone: 432-253-4513	see attached directive	Attached
Attach Additional Sheets If Ne		1RP-5052 nOY181	2939986

Released to Imaging: 5/9/2023 7:37:53 AM

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APPENDIX IV

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude

32.8173409

-103.8004608

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	GC Federal #0		Site Type	Well
Date Release Discovered	May 7, 2018		API# (if applicable)	30-025-40007
Unit Letter Section	Township	Range	County	

Unit Letter	Section	Township	Range	County
I	19	17S	32E	Lea

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)

Crude Oil	Volume Released (bbls) 10	Volume Recovered (bbls) 8
Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 25
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	■ Yes □ No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A steel flowline failed due to corrosion. The flowline was replaced.

e 2 Oil Conservation Division Incident ID District RP Facility ID Facility ID Application ID	<i>ceived by OCD: 4/11/202</i> orm C-141	3 11:03:12 AM State of New Mexico			Page 13 of
Partility ID Application ID Was this a major If YES, for what reason(s) does the responsible party consider this a major release? Stable Stable I' VES No I' TES No No	ge 2				
Image: Instant in the information of the certain show been remediation immediately after discovery of a release. If remediations and percentation are percentation and percentation anome decingerelation anortation percentation and percentation and					
Peress a defined by >25bbls I'y VesNo >>25bbls I'Y PES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes: To: Olivia Yu-OCD & Shelly Tucker-BLM By: Sheldon Hitchcock-COG Via: Email Initial Response The responsible party must undertake the following actions immediately unless they could create a safety hexard that would result in inpury The source of the release has been scoured to protect human health and the environment. Released materials have been contained via the us of berns or dikes, absorbent pads, or other containment devices. All free liquids and recoverable materials have been removed and managed appropriately. If all the actions described above have got 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 begin, please attach a narritive of actions to date. If remedial efforts have been concurred within a lined containment area (see 19.15.29.11(A)(S)(a) NMAC), please attach all information mediated for closure evaluation. Thereby certify that the information given above is true and complete to the best of my knowles, such as when y evaluation. Thereby certify that the information given above is true and complete to the best of my knowles, such as water, such as when y entrogenetic or the set of my knowles and understand that pursuant to CD rules and regulations and perform corrective actions for liability should thein greations in the actions an					
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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: Sheldon L. Hitchcocck Signature: Sheldon L. Hitchcocck remail: Shhitchcock@concho.com remail: Shhitchcock@concho.com relevent 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: Sheldon L. Hitchcocck remail: Shhitchcock@concho.com relevent 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: Sheldon L. Hit		-		a on other	t daviaas
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OCD Only	Printed Name: Offeria		Title: TISE C		
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OCD Only	email: slhitchcock	@concho.com	Telephone: 575	5-746-2010	
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Page 6

Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Page 14 of 90

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<u>Closure Report Attachment Checklist</u>: Each of the following i	tems must be included in the closure report.					
A scaled site and sampling diagram as described in 19.15.29.1						
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office					
Laboratory analyses of final sampling (Note: appropriate ODO	C District office must be notified 2 days prior to final sampling)					
Description of remediation activities						
and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of	ations. The responsible party acknowledges they must substantially					
Signature: Sheldon Jutan	Date: 3/28/2019					
email: slhitchcock@concho.com	Telephone: 575-746-2010					
OCD Only						
Received by:	Date:					
remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.					
Closure Approved by: Juttan Hall	Date:5/9/2023					
Printed Name: Brittany Hall	Title: Environmental Specialist					

APPENDIX V



P.O. Box 1708 • Artesia, NM 88211 www.hrlcomp.com

July 13, 2018

NMOCD District I Olivia Yu 1625 North French Drive Hobbs, New Mexico 88240

Bureau of Land Management Henryetta Price 620 E Greene Street Carlsbad, New Mexico 88220

SUBJECT: SOIL REMEDIATION WORK PLAN FOR THE INCIDENT AT THE GC Federal 055, LEA COUNTY, NEW MEXICO

Ms. Yu:

On behalf of COG Operating, LLC, HRL Compliance Solutions, Inc (HRL) has prepared this work plan that describes the assessment, initial characterization, and proposed remediation for a release associated with the GC Federal #055 release. The site is in Unit I, SECTION 19, TOWNSHIP 17S, RANGE 32E, NMPM, Lea County, New Mexico, on Federal land. Figure 1 illustrates the location and surrounding area.

Table 1 below, summarizes information regarding the release.

1.0 Background

The release at the GC Federal #055 was due to a hole in a steel flowline that developed due to corrosion as outlined in the NMOCD C-141 report (Appendix A). All released material remained on location within the perimeter of the well pad. A vacuum truck was used to remove all freestanding liquids. Samples were collected from the impacted area to delineate the vertical and horizontal extent of impacts.

2.0 Site Ranking and Land Jurisdiction

The release site is located approximately 3.3 miles south-southwest of Maljamar, with an elevation of approximately 4,595 feet above sea level. Due to the lack of water wells in the near vicinity an alternative method of water depth determination was utilized. An evaluation of the site using the Chevron Texaco Groundwater Trend Map (2005) shows depth to groundwater is approximately 175 feet below ground surface (bgs). Recommended Remediation Action Levels (RRALs) are determined by the site ranking according to the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (1993). Table 2 presents the remediation standards and the site ranking for this location. Justification for this site ranking is found in Appendix B.



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Table 1: Release Information and Site Ranking

Name	GC Federal #055
Company	COG Operating, LLC
RP Number	1RP-5052
API Number	30-025-40007
Location	32.8173409, -103.8004608
Estimated Date of Release	05/07/2018
Date Reported to NMOCD	05/07/2018
Land Owner	Federal
Reported to	OCD/BLM
Source of Release	Hole in steel flow line
Released Material	Oil and Produced Water
Released Volume	10 bbls oil, 30 bbls produced water
Recovered Volume	8 bbls oil, 25 bbls produced water
Net Release Volume	2 bbls oil, 5 bbls water
Nearest Waterway	9.8 miles to White Lake
Depth to Groundwater	175 feet bgs
Nearest Domestic Water Source	> 1 mile
NMOCD Ranking	0
Response Date	05/07/18

Table 2: Remediation Standards

Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
ТРН	5000 PPM	1000 PPM	100 PPM

Depth to Groundwater	NMOCD Numeric Rank
< 50 BGS = 20	
50' to 99' = 10	
>100' = 0	0
Distance to Nearest Surface Water	NMOCD Numeric Rank
< 200' = 20	
200' - 1000' = 10	
>1000' = 0	0
Well Head Protection	NMOCD Numeric Rank
<1000' (or <200' domestic) = 20	
> 1000' = 0	0
Total Site Ranking	0



3.0 Release Characterization

Upon receiving clearance from the underground utility locate (811) on May 30, 2018, COG field personnel assessed the impacted area. Samples were collected on 5/30/2018 to characterize the extent of impacts and calculate a volume of soil to be excavated for disposal. All samples were collected and analyzed at a Nationally Environmental Laboratory Accreditation Program (NELAP) laboratory and in accordance with NMOCD soil sampling procedures. The samples were submitted to Cardinal Laboratories for analyses including chlorides by Method 300.0, volatile organics (BTEX) by Method 8021B, and MRO, DRO, and GRO by EPA Method 8015D. Sample locations are depicted in Figure 2. All field screening and laboratory results are summarized in Table 3 with raw analytical reports included in Appendix C.

4.0 Soil Remediation Workplan

HRL will begin the excavation of the impacted soils, after approval from area utilities owners via 811 and NMOCD. HRL will oversee the excavation activities. Excavation will occur to a depth of four (4) feet bgs for the areas labeled as T3 and T5 with a liner placed at the four foot depth. Impacted soils will be stockpiled on location within a lined earthen berm containment cell prior to disposal. Confirmation samples will be collected from the sidewalls of the sample site to be analyzed for total chlorides. It is anticipated that approximately 100 cubic yards of contaminated soil is to be excavated and disposed at an approved solid waste disposal facility. GPS coordinates of the excavated area will be taken and mapped to show the area of final excavation. Clean native soils and caliche from an approved pit will be used to backfill the excavation and the impacted area will be recontoured to the surrounding area. The contaminated soil will be disposed at an approved disposal facility.

5.0 Revegetation

As the impacted soil is limited to the existing well pad, no revegetation will occur.



6.0 Scope and Limitations

The scope of HRL's services consist of performing site characterization and remediation, verification of release stabilization, regulatory liaison, and preparation of this work plan. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact Jennifer Knowlton at 505-238-3588.

Submitted by: HRL Compliance Solutions, Inc

Jennifer Knowlton Regional Manager - Permian

Attachments:

Figure 1: Vicinity and Wellhead Protection Map Figure 2: Site and Sample Location Map

Table 3: Summary of Sample Results

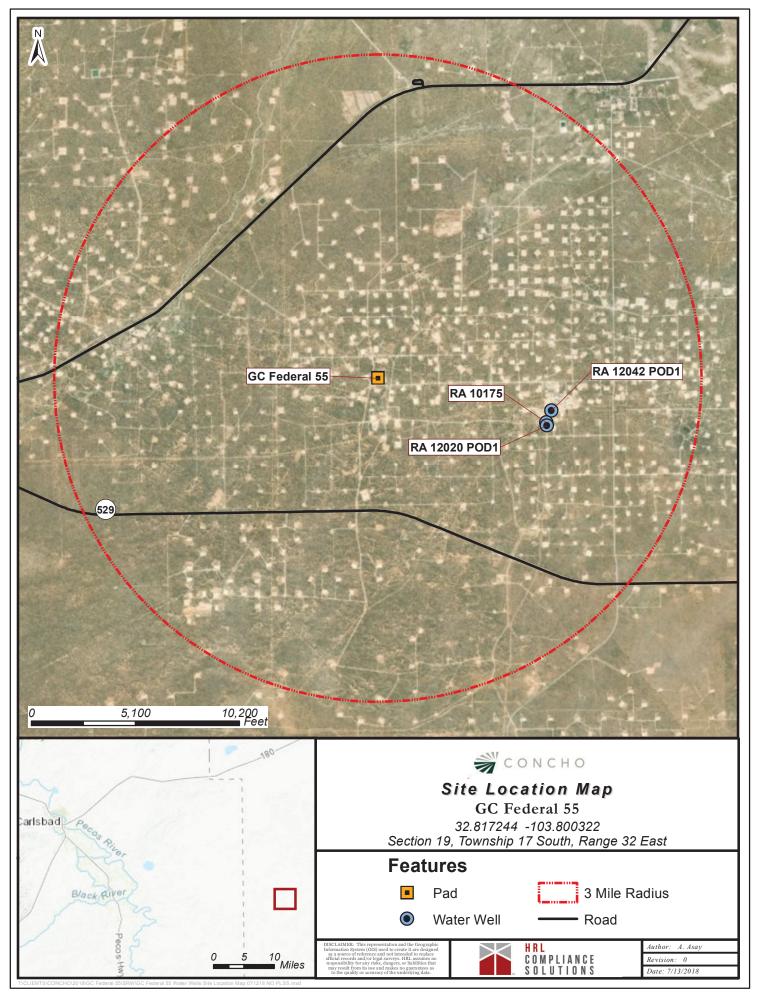
Appendix A: Form C141 Initial Appendix B: NMOSE Well Report Appendix C: Laboratory Analytical Reports Received by OCD: 4/11/2023 11:03:12 AM



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Figure 1:

Site Vicinity Map



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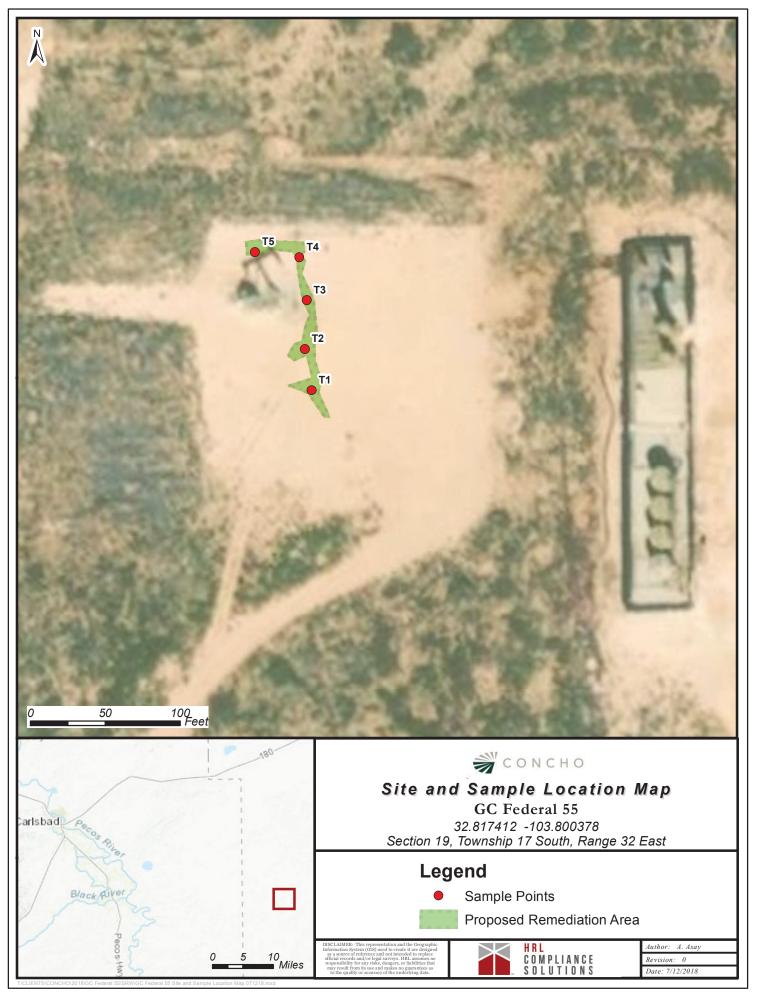
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Figure 2:

Site and Sample Location Map



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	TABLE 1 Summary of Delineation Sampling Analytical Results												
	Summary of Delineation Sampling Analytical Results Concentrations of Benzene, BTEX, TPH & Chloride in Soil												
				Concentra		e, BTEX, TPH & Chic Incho	bride in Soil						
	GC Federal #055 Lea County, New Mexico NMOCD REF: 2RP-5052												
8021B 8015M												300.0	
		8021B 8015M										500.0	
SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYLBENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	Total TPH (mg/Kg)	CHLORIDE (mg/Kg)	
NMOCD - Guidelines for Remediation of Leaks, Spills and Releases 10 NE NE NE 50 NE NE 5,000											600		
				· · · · · · · · · · · · · · · · · · ·	Vertical Deli	nation Sampling							
T1	Surface	5/30/2018	In-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	80	
T1	1'	5/30/2018	ln-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T1	2'	5/30/2018	ln-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T1	3'	5/30/2018	In-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T2	Surface	5/30/2018	In-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	16	
T2	1'	5/30/2018		<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T2	2'	5/30/2018		<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T2	3'	5/30/2018	In-Situ	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T2	4'	5/30/2018	In-Situ	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T2	5'	5/30/2018	ln-Situ	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T3	Surface	5/30/2018	In-Situ	<0.05	<0.05	<0.05	<0.150	< 0.300	<10.0	<0.10	<10.0	12,700	
T3	1'	5/30/2018		<0.05	<0.05	<0.05	<0.150	< 0.300	<10.0	<0.10	<10.0	6,400	
T3	2'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	3,200	
T3	3'	5/30/2018		<0.05	<0.05	< 0.05	<0.150	< 0.300	<10.0	<0.10	<10.0	4,200	
T3	4'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	832	
Т3	5'	5/30/2018		<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	1,010	
Т3	6'	5/30/2018	In-Situ	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	528	
T3	8'	5/30/2018	ln-Situ	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T3	10'	5/30/2018	In-Situ	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T4	Surface	5/30/2018	In-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	128	
T4	1'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T4	2'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T4	3'	5/30/2018	1	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T4	4'	5/30/2018		<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T4	5'	5/30/2018	ln-Situ	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
T5	Surface	5/30/2018	ln-Situ	<0.05	<0.05	<0.05	<0.150	< 0.300	<10.0	<0.10	<10.0	3,160	
T5	1'	5/30/2018		<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	2,720	
T5	2'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	3,800	
T5	3'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	1,620	
T5	4'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	800	
T5	5'	5/30/2018	1	<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	848	
T5	6'	5/30/2018	1	<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	704	
T5	8'	5/30/2018		<0.05	<0.05	< 0.05	<0.150	<0.300	<10.0	<0.10	<10.0	384	
T5	10'	5/30/2018		<0.05	<0.05	<0.05	<0.150	<0.300	<10.0	<0.10	<10.0	-	
'Kg-milligrams p	er Kilogram												
= Not Establishe													
centrations in B	OLD exceed the NMC												
	Proposed excavted	darea											

Table 3: Analytical Results Summary

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Appendix A: Form C141 Initial

State of New Mexico Energy Minerals and Natural Resources

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

Form C-141 Revised April 3, 2017

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

Release Notification and Corrective Action

		OPERATO	R	\square	Initial Report		Final Report
Name of Company: COG Operating, LLC (OGF	Contact:	Robert McNeill					
Address: 600 West Illinois Avenue, Midland	Telephone No.	432-683-7443					
Facility Name: GC Federal #055	Facility Type:	Flowline					
	M' 10	F 1 1		A 1	DIN 20.025	40007	
Surface Owner: Federal	Mineral Owner	: Federal		A	PI No. 30-025-4	40007	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Ι	19	17S	32E	1,630	South	990	East	Lea

Latitude 32.8173409 Longitude -103.8004608 NAD83

NATURE OF RELEASE

Type of Release:		Volume of Release:	Volume Re	ecovered:		
	Oil & Produced Water	10 bbl. Oil		8 bbl. Oil		
		30 bbl. Produced Water	25	5 bbl. Produced Water		
Source of Release:		Date and Hour of Occurrence:	Date and H	lour of Discovery:		
	Flowline Corrosion	May 7, 2018 9:00am]	May 7, 2018 9:00am		
Was Immediate Notice C	liven?	If YES, To Whom?	•			
	X Yes No Not Required	Olivia	Yu – NMOC	D		
		Henrye	tta Price – BI	LM		
		Shelle	y Tucker - BL	M		
By Whom? Sheldon I	litchcock	Date and Hour: May 7, 2018 9:42				
Was a Watercourse Read	hed?	If YES, Volume Impacting the Wa	tercourse.			
	🗌 Yes 🖾 No					
If a Watercourse was Im	pacted Describe Fully *					
If a watereouise was ini	pueted, Deserie Fully.					
Describe Cause of Proble	em and Remedial Action Taken.*					
The release was caused h	by a hole in a steel flowline due to corrosion. The	flowline is being replaced.				
	and Cleanup Action Taken.*					
	1					
The release occurred on	location. A vacuum truck was dispatched to remo	ve all freestanding fluids. Concho wil	l have the spi	ll area sampled to delineate		
	the release and we will present a remediation we					
activities.	1	1 11	, j	0		
	nformation given above is true and complete to the	he best of my knowledge and understa	and that pursu	ant to NMOCD rules and		
	are required to report and/or file certain release n					
	conment. The acceptance of a C-141 report by the					
		ate contamination that pose a threat to ground water, surface water, human health				
	ddition, NMOCD acceptance of a C-141 report d					
federal, state, or local lay			·····j -···			
,		OIL CONSERV	VATION I	DIVISION		
	- 0					
Signature:	Delinnareant					
		Approved by Environmental Specialis	at•			
Printed Name:	DeAnn Grant	Approved by Environmental Special				
Title:	HSE Administrative Assistant	Approval Date:	Expiration D	ate:		
E-mail Address:	agrant@concho.com	Conditions of Approval:		Attached		
Date: May 9, 2018	Phone: 432-253-4513					

* Attach Additional Sheets If Necessary

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Appendix B: NMOSE Well Report



(A CLW###### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)	· ·					2=NE 3 st to lar	3=SW 4=S gest) (l	E) NAD83 UTM in m	neters)	(In feet)	
POD Number	POD Sub- Code basin Cou		Q 4 16			Tws	Rng	x	X Y	Distance		Depth Water C	
RA 10175		E		1			32E	614814	4 3631005* 🌍	2574	158		
RA 12020 POD1	L	E 2	2 2	1	28	17S	32E	614828	3 3630954 🌍	2600	120	81	39
RA 12042 POD1	L	E 2	2 2	1	28	17S	32E	614891	1 3631181 🌍	2609	400		
									Avera	age Depth to	Water:	81 fe	eet
										Minimum	Depth:	81 fe	eet
										Maximum	Depth:	81 f	eet
Record Count: 3													

UTMNAD83 Radius Search (in meters):

Easting (X): 612328.52

Northing (Y): 3631675.18

Radius: 4828

*UTM location was derived from PLSS - see Help

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.

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Appendix C: Laboratory Analytical Reports



June 08, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GC FEDERAL #55

Enclosed are the results of analyses for samples received by the laboratory on 05/31/18 11:30.

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

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	IEEL 1630		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T1 - SURFACE (H801489-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	69.8-14	2						
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	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	82.8	% 41-142	,						
Surrogate: 1-Chlorooctadecane	73.2	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	EEL 1630 IM, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T1 - 1' (H801489-02)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 %	69.8-14	2						
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	35.3	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	89.8 9	% 41-142	,						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	EEL 1630 IM, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T1 - 2' (H801489-03)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	69.8-14	2						
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	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	89.9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	81.3	% 37.6-14	7						

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*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	EEL 1630 IM, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T1 - 3' (H801489-04)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	69.8-14	2						
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	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	88.9	% 41-142							

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T2 - SURFACE (H801489-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.8	% 69.8-14	2						
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	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	85.7	% 41-142	,						
Surrogate: 1-Chlorooctadecane	77.0	% 37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
		Fax TO.	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T2 - 1' (H801489-06)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	69.8-14	2						
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	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	90.7	% 41-142	2						
	20.7 7								

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T2 - 2' (H801489-07)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	117 9	69.8-14	2						
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	93.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	83.4	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	EEL 1630 IM, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T2 - 3' (H801489-08)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	69.8-14	2						
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	84.6	% 41-142	,						
Surrogate: 1-Chlorooctadecane	76.2	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	EEL 1630 IM, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T2 - 4' (H801489-09)

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	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	69.8-14	2						
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	89.1	% 41-142	,						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N	EEL 1630 IM, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T2 - 5' (H801489-10)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 %	69.8-14	2						
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	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	89.7	% 41-142	,						
Surrogate: 1-Chlorooctadecane	80.3	37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - SURFACE (H801489-11)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 %	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12700	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	79.1	% 41-142	,						
Surrogate: 1-Chlorooctadecane	71.3	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 1' (H801489-12)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	87.3	% 41-142	,						
Surrogate: 1-Chlorooctadecane	78.9	% 37.6-14	7						

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		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 2' (H801489-13)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	88.0	% 41-142	,						
Surrogate: 1-Chlorooctadecane	79.9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 3' (H801489-14)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4200	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	85.5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	77.7	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 4' (H801489-15)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg,	′kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	86.7	% 41-142	,						
Surrogate: 1-Chlorooctadecane	81.2	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 5' (H801489-16)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	81.4	% 41-142	,						
Surrogate: 1-Chlorooctadecane	72.6	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 6' (H801489-17)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	'kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	44.4	% 41-142							
Surrogate: 1-Chlorooctadecane	46.0	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER. DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 8' (H801489-18)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	69.8-14	2						
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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	47.2	% 41-142	?						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T3 - 10' (H801489-19)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	69.8-14	2						
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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	60.5 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	63.5 9	% 37.6-14	_						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T4 - SURFACE (H801489-20)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/05/2018	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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	68.3	% 41-142							
Surrogate: 1-Chlorooctadecane	71.5	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
		Fax TO.	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T4 - 1' (H801489-21)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 %	69.8-14	2						
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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	71.3 %	% 41-142	,						
Surrogate: 1-Chlorooctadecane	74.8 9	37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
		Fax TO.	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T4 - 2' (H801489-22)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	69.8-14	2						
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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	64.6 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	65.7 9	37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
		Fax TO.	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T4 - 3' (H801489-23)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 %	69.8-14	2						
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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	70.9 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	74.0 9	37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T4 - 4' (H801489-24)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2018	ND	1.80	90.0	2.00	1.24	
Toluene*	<0.050	0.050	06/02/2018	ND	1.76	88.0	2.00	1.44	
Ethylbenzene*	<0.050	0.050	06/02/2018	ND	1.74	87.2	2.00	0.914	
Total Xylenes*	<0.150	0.150	06/02/2018	ND	5.36	89.3	6.00	0.940	
Total BTEX	<0.300	0.300	06/02/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	69.8-14	2						
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	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	61.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane									

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER. DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630 M, 88210		
		Fax To:	NONE		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T4 - 5' (H801489-25)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 %	69.8-14	2						
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	73.6	% 41-142	,						
Surrogate: 1-Chlorooctadecane	77.9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - SURFACE (H801489-26)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	69.8-14	2						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3160	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	471	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	118	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	77.5	% 41-142							
Surrogate: 1-Chlorooctadecane	119 9	37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 1' (H801489-27)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	06/05/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	72.0	% 41-142							
Surrogate: 1-Chlorooctadecane	78.1	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 2' (H801489-28)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3800	16.0	06/05/2018	ND	432	108	400	0.00	QM-07
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	72.3	% 41-142							
Surrogate: 1-Chlorooctadecane	77.2	% 37.6-14	7						

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		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 3' (H801489-29)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	72.8	% 41-142	2						
Surrogate: 1-Chlorooctadecane	76.7	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 4' (H801489-30)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	75.7	% 41-142	,						
Surrogate: 1-Chlorooctadecane	80.1	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 5' (H801489-31)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	67.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	70.8	% 37.6-14	7						

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		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 6' (H801489-32)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	74.5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	79.0	% 37.6-14	7						

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		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 8' (H801489-33)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/05/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	75.5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	79.9	% 37.6-14	7						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPER DAKOTA N P. O. BOX ARTESIA N Fax To:	EEL 1630		
Received:	05/31/2018			Sampling Date:	05/30/2018
Reported:	06/08/2018			Sampling Type:	Soil
Project Name:	GC FEDERAL #55			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN				

Sample ID: T5 - 10' (H801489-34)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.08	104	2.00	2.18	
Toluene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.34	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.06	103	2.00	2.02	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.40	107	6.00	2.30	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 %	69.8-14	2						
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2018	ND	170	85.0	200	12.3	
DRO >C10-C28*	<10.0	10.0	06/02/2018	ND	174	87.2	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	06/02/2018	ND					
Surrogate: 1-Chlorooctane	64.9 %	% 41-142	,						
Surrogate: 1-Chlorooctadecane	67.3 %	37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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101 East Marland, Hobbs, NM 88240 ora

Project Manager:

Company Name:

City:

Address:

Project #: Phone #:

Project Location: Project Name:

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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(575) 393-2326 FAX (575) 393-2476

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Phone Result: otherwise

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Please fax written changes to 575-393-2476

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Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Page 39 of 40

City: Company Name: Project Manager: Project #: Address: Project Location: Project Name: Phone #: Sampler Name: FOR LAB USE ONLY Relinquished By: **Relinquished By:** service. In no event shall Cardinal be liable for incidental or con analyses. All claims PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any 4801 489 Sampler - UPS - Bus - Other: Lab I.D. Please fax written changes to 575-393-2476 Delivered By: (Circle One) Artesia 8,23228 2208 West Main the including those for negligence and any other cause whats GC Federal #55 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 ng out of or (575) 748-6930 Dakota Neel COG Operating LLC Dakota Neel elated to the perf Sample I.D. **T4-SURFACE** T4-3' T4-1' T4-4 T4-2' T4-5 Fax #: Project Owner: State: NM asualla Date: 5-31-18 Date: 1.20 Time: Time: /: 30 ntal damages, including without limitation, business inter 64512010 pever shall be de under by Ca (G)RAB OR (C)OMP Received By: Received By nam ansing whether uses in curiness or out, she in the inness or the answer proceed of the applicable med waived unless made in writing and received by Cardinal within 30 days after completion of the applicable Zip **# CONTAINERS** 150 T -GROUNDWATER Cool Intact WASTEWATER 88210 Sample Condition MATRIX × SOIL OIL ptions, loss of use, or loss of profits incurred by client, its subsidiaries SLUDGE P.O. #: City: Attn: Fax #: State: TX Address: Company: Phone #: (432) 221-0388 OTHER ACID/BASE: PRESERV. shall be limited to the amount paid by the client for the A ICE / COOL × CHECKED BY: BILL TO OTHER (Initials) COG Operating LLC #75 Zip: 79701 Robert McNeill 5/30/18 5/30/18 5/30/18 5/30/18 600 W Illinois 5/30/18 5/30/18 DATE SAMPLING Midland 8:00 AM 8:00 AM 8:00 AM 8:00 AM 8:00 AM dneel2@concho.com REMARKS: 8:00 AM Fax Result: Phone Result: TIME or otherwise BTEX × × TPH × × × × × × Yes × Chloride × × × No ANALYSIS Add'l Phone #: Add'l Fax #: REQUES

Page 68 of 90

Laboratories

Page 69 of 90

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Page 40 of 40

N con Operating 110					ANALYSIS REQUEST
Project Manager: Dakota Neel		P.O. #:	-		
≤		Company: COG Operating LLC	ing LLC		
Te	Zip 88210	Attn: Robert McNeill	eill		
e#: (575)748-6930 F		Address: 600 W Illinois	nois	-	
		City: Midland			
ame: GC Federal #55		State: TX Zip: 79701			
9		Phone #: (432) 221-0388			
		Fax #:			
Sampler Name: Dakota Neel	L	FCERV	G		
FOR LAB USE ONLY	MP.	PRESERV. SAMPLING	Ğ		
Lab I.D. Sample I.D.	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	TIME BTEX	TPH Chloride	
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		5/30/48	8.00 AM X	X	
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the client for the applicable analyses. All claims including these 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	r any claim arising whether based in contract be deemed waived unless made in writing and	t or tort, shall be limited to the amount paid d received by Cardinal within 30 days afte	d by the client for the r completion of the applic	able	
service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss or use, or loss or provide income or provide a service strain or the other second and the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	ing without limitation, business interruptions, i y Cardinal, regardless of whether such claim	, business interruptions, loss of use, or loss of promisincurried by working and occurrent of the source of the source of otherwise.	asons or otherwise.		
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5. Please fax written changes to 575-393-2476					

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APPENDIX VI



09/18/2018 16:01

Released to Imaging: 5/9/2023 7:37:53 AM



APPENDIX VII



September 24, 2018

LUPE CARRASCO HRL COMPLIANCE SOLUTIONS, INC. 2385 F 1/2 ROAD GRAND JUNCTION, CO 81505

RE: GC FERDERAL #55

Enclosed are the results of analyses for samples received by the laboratory on 09/19/18 12:03.

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 accreditated 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,

Celecz D. Keine

Celey D. Keene Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: NORTH T5 (H802649-01)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	09/22/2018	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2018	ND	213	106	200	2.64	
DRO >C10-C28*	<10.0	10.0	09/21/2018	ND	184	92.0	200	3.46	
EXT DRO >C28-C36	<10.0	10.0	09/21/2018	ND					
Surrogate: 1-Chlorooctane	85.3	% 41-142	,						
Surrogate: 1-Chlorooctadecane	84.0	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: SOUTH T5 (H802649-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	09/22/2018	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2018	ND	213	106	200	2.64	
DRO >C10-C28*	<10.0	10.0	09/21/2018	ND	184	92.0	200	3.46	
EXT DRO >C28-C36	<10.0	10.0	09/21/2018	ND					
Surrogate: 1-Chlorooctane	87.8	% 41-142	2						
Surrogate: 1-Chlorooctadecane	85.4	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: EAST T5 (H802649-03)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	09/22/2018	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2018	ND	213	106	200	2.64	
DRO >C10-C28*	<10.0	10.0	09/21/2018	ND	184	92.0	200	3.46	
EXT DRO >C28-C36	<10.0	10.0	09/21/2018	ND					
Surrogate: 1-Chlorooctane	84.8	% 41-142	,						
Surrogate: 1-Chlorooctadecane	82.6	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: WEST T5 (H802649-04)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	09/22/2018	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2018	ND	213	106	200	2.64	
DRO >C10-C28*	<10.0	10.0	09/21/2018	ND	184	92.0	200	3.46	
EXT DRO >C28-C36	<10.0	10.0	09/21/2018	ND					
Surrogate: 1-Chlorooctane	91.6	% 41-142	2						
Surrogate: 1-Chlorooctadecane	92.8	% 37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: NORTH T3 (H802649-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	09/22/2018	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2018	ND	213	106	200	2.64	
DRO >C10-C28*	<10.0	10.0	09/21/2018	ND	184	92.0	200	3.46	
EXT DRO >C28-C36	<10.0	10.0	09/21/2018	ND					
Surrogate: 1-Chlorooctane	87.6	% 41-142	,						
Surrogate: 1-Chlorooctadecane	86.1	% 37.6-14	7						

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*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: SOUTH T3 (H802649-06)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	09/22/2018	ND	416	104	400	3.77	QM-07
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2018	ND	189	94.7	200	2.02	
DRO >C10-C28*	<10.0	10.0	09/20/2018	ND	179	89.3	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	09/20/2018	ND					
Surrogate: 1-Chlorooctane	93.9	% 41-142	2						
Surrogate: 1-Chlorooctadecane	93.7	% 37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: EAST T3 (H802649-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	09/22/2018	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2018	ND	189	94.7	200	2.02	
DRO >C10-C28*	<10.0	10.0	09/20/2018	ND	179	89.3	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	09/20/2018	ND					
Surrogate: 1-Chlorooctane	95.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	94.8	% 37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/19/2018	Sampling Date:	09/18/2018
Reported:	09/24/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Brittany Feller
Project Location:	COG		

Sample ID: WEST T3 (H802649-08)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2018	ND	2.14	107	2.00	0.780	
Toluene*	<0.050	0.050	09/21/2018	ND	2.21	111	2.00	2.22	
Ethylbenzene*	<0.050	0.050	09/21/2018	ND	2.29	114	2.00	2.08	
Total Xylenes*	<0.150	0.150	09/21/2018	ND	6.60	110	6.00	1.99	
Total BTEX	<0.300	0.300	09/21/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	09/22/2018	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2018	ND	189	94.7	200	2.02	
DRO >C10-C28*	<10.0	10.0	09/20/2018	ND	179	89.3	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	09/20/2018	ND					
Surrogate: 1-Chlorooctane	92.6	% 41-142	2						
Surrogate: 1-Chlorooctadecane	92.7	% 37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 85 of 90 Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

2476	393-	(575) 393-2476	FAX	393-2326) 393	(575)
88240	NM	Hobbs,	٦d, H	I East Marland, H	East	101

- ()					
Company Name:	ERE CONSTANC	こういろいろうち のうてきまえ しっこ	BILL TO	ANALYSIS REQUEST	
Project Manager:	Lupe durhasis	100	P.O. #:)	
Address:	4		Company:		
city: Actesia	State: NM Zip:	01759	Attn: Dalater Nee!	<u></u>	
Phone # いいい	-25-72-018]Fax #:		Address:		
Project #:	Project Owner:		City:		
Project Name: 50	Federal \$55		State: Zip:		
Project Location:	8		Phone #:	es	
Sampler Name:	Kevin Smith		Fax #:		
		MATRIX	PRESERV. SAMPLING	EP	
		ERS ATER	1	BT Ch	
Lab I.D. HSD2649	Sample I.D.	(G)RAB OR # CONTAINI GROUNDW, WASTEWAT SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER :		
	North TS	/ /	1 4 5 5		
200	South 15	0	1		
5	East Ts	5	1		
- -	West Th	6			
Cr.	いやすう しょ	6	1		
6	Lever I	6 /			
7	East 3	Ġ /	1		
8	West 73	6			
PLEASE NOTE: Liability and Damages, Cardinal's liability and clic analyses. All daims including these for negligence and any other service. In no event shall Cardinal be liable for incidenta or conse affiales or successors acidio out of or related to the performance	의 은 철 철	's exclusive remedy for any claim arising whether based in contract or lort, shall be limited to the amount is whatscover shall be deemed waived unless made in writing and received by Cardina within 30 days are ential damages, including without limitation, business interruptions, loss of use, or loss of profils incurred b services betweender by Cardinal, legandless of whether such claim is based upon any of the above stated	or lort, shall be limited to the amount paid received by Cardinal within 30 days after coss of use, or loss of profits incurred by clic so based upon any of the above stated reas	aid by the client for the terms of the applicable recommendation of the applicable recommendation of the applicable resons or otherwise.	-
Relinquished By:	-	Received By:		Phone Result:	
Reharquished By:		Received By:	terr	i Know Hoin Ohr Icomp, can	
	Time:	(I CARDOLOGICART COMP. COM	
Delivered By: (Circle One)	le One) K L o / # C	Sample Condition	on CHECKED BY:	1 CSMARGAILCOMPACEM	
Sampler - UPS - Bus	Bus - Other: 5.6 2 to	Ves Yes	CVV	ainee 12 Ocourine. com	
† Cardinal cannot	Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	e fax written changes to	(575) 393-2326	S	



September 28, 2018

LUPE CARRASCO HRL COMPLIANCE SOLUTIONS, INC. 2385 F 1/2 ROAD GRAND JUNCTION, CO 81505

RE: GC FERDERAL #55

Enclosed are the results of analyses for samples received by the laboratory on 09/26/18 11:52.

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/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



HRL COMPLIANCE SOLUTIONS, INC. LUPE CARRASCO 2385 F 1/2 ROAD GRAND JUNCTION CO, 81505 Fax To:

Received:	09/26/2018	Sampling Date:	09/18/2018
Reported:	09/28/2018	Sampling Type:	Soil
Project Name:	GC FERDERAL #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: EAST T5 (H802724-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/27/2018	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

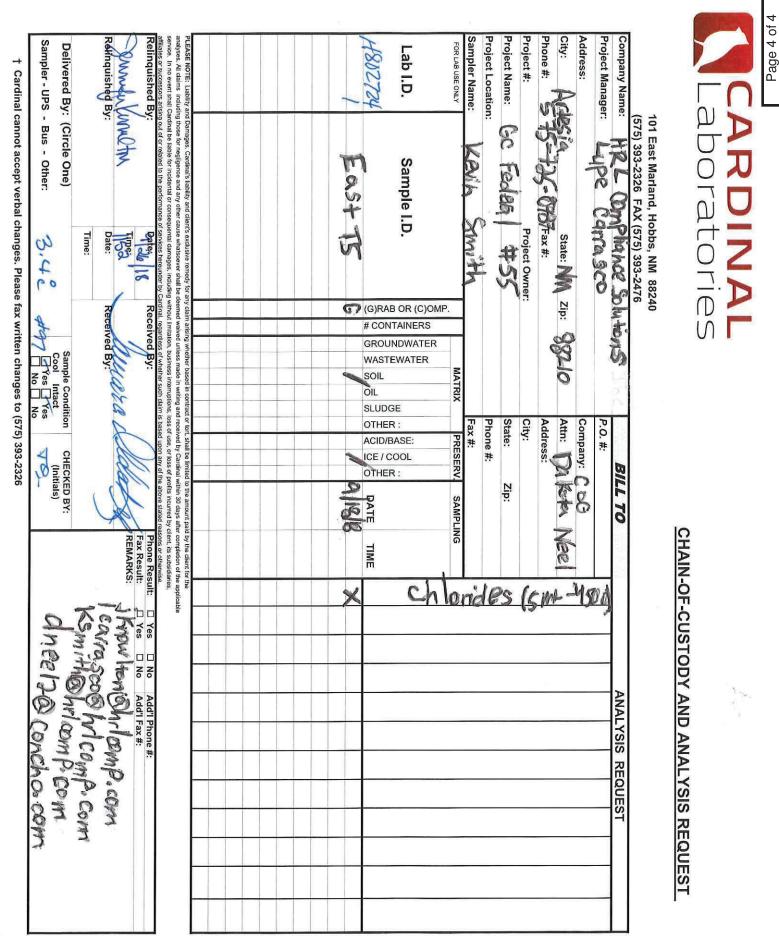
Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 4/11/2023 11:03:12 AM



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Released to Imaging: 5/9/2023 7:37:53 AM

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Spur Energy Partners LLC	328947
9655 Katy Freeway	Action Number:
Houston, TX 77024	206271
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created	Condition	Condition
By		Date
bhall	Site will need to meet the requirements of 19.15.29.13 NMAC at time of plugging and abandonment.	5/9/2023

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Action 206271