

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

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

NMOCD

JUN 06 2018

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: BP America	Contact: Steve Moskal
Address: 380 Airport Road, Durango, CO 81303	Telephone No.: 505-330-9179
Facility Name: Sullivan Gas Com E No. 001	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004528641
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LOCATION OF RELEASE

Unit Letter N	Section 22	Township 32N	Range 10W	Feet from the 600	North/South Line South	Feet from the 1,540	East/West Line West	County: San Juan
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Latitude 36.695171° Longitude -107.872735°

NATURE OF RELEASE


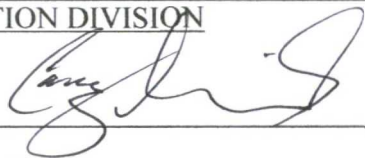
Type of Release: Compressor Lube Oil	Volume of Release: 300 gallons	Volume Recovered: 200 gallons
Source of Release: Compressor line	Date and Hour of Occurrence: 2/1/2017	Date and Hour of Discovery: 2/6/2017 @ 12:00PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Lube oil line on compressor pinched on skid and broke. 300 gallons of lube oil spilled onto skid and ground over the period of a week. 200 gallons on skid/ 100 gallons on ground. The site was excavated by hand tools and equipment around the compressor where accessible and areas impacted outside of compressor footprint. The compressor is rather large and impedes access. A hand auger assessment was conducted to determine the extents of the release beneath the compressor. The remaining impacts beneath the compressor will be addressed when the compressor is removed or replaced.

Describe Area Affected and Cleanup Action Taken.* The area immediate to the compressor skid and around the compressor was affected. The area was excavated and contents removed for offsite disposal. Approximately 66 cubic yards of soil was exported off site for landfarm treatment. Laboratory samples confirmed the maximum, accessible, extents of impacts were removed. A hand auger assessment was conducted, and documented in the attached report, to determine the extents of the release beneath the compressor. The hand auger assessment demonstrates very isolated areas of motor oil rang organics above the site closure standard. The site has been delineated via hand auguring and excavation and the data can be extrapolated to suggest the impacts are superficial, <2-3' in depth, and are not readily mobilized in soil. Attached is a field report, site diagram and laboratory analysis. BP request that the isolated areas of impacts remain until the removal or decommissioning of the compressor on site.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Steve Moskal		Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator		Approval Date: <u>6/21/18</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com		Conditions of Approval:	
Date: June 6, 2017 Phone: 505-330-9179		Attached <input checked="" type="checkbox"/> <u>Emailed / Attached</u>	

* Attach Additional Sheets If Necessary

#NMF1705454 171

6/21/18

31

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Thursday, June 21, 2018 2:46 PM
To: Steven Moskal - BP America (steven.moskal@BPX.com)
Cc: Fields, Vanessa, EMNRD; 'Abiodun Adeloye'; whitney thomas (l1thomas@blm.gov)
Subject: RE: Sullivan Gas Com E #1 C-141 Conditions of Approval 30-045-28641

Steve,

OCD received BP "Final Report" on 6/6/18 for the Sullivan Gas Com E #1 30-045-28641. After review, the OCD is approving BP request to defer remediation of the impacts below the compressor with the following conditions of approval.

- BP will remediate all impacts below the compressor if/when the compressor is moved for **any reason**.
- BP will schedule with District III final confirmation sampling.

BP compliance case will stay open, and OCD approval to defer remediation does not relieve BP of any liability nor any requirements imposed by other regulatory agencies.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Smith, Cory, EMNRD
Sent: Friday, June 1, 2018 9:49 AM
To: Moskal, Steven <Steven.Moskal@bp.com>
Cc: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: RE: Sullivan Gas Com E #1 C-141 Conditions of Approval 30-045-28641

Steve,

Still have an Open compliance for the Sullivan Gas Com E#1, This is the site with the MRO under then Compressor skid. If I recall a third party was handling it on BP behalf.

Please review and send in the completed C-141 by June 30, 2018.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410

(505)334-6178 ext 115
cory.smith@state.nm.us

From: Smith, Cory, EMNRD
Sent: Tuesday, August 29, 2017 10:55 AM
To: Moskal, Steven <Steven.Moskal@bp.com>
Cc: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: Sullivan Gas Com E #1 C-141 Conditions of Approval 30-045-28641

Steve,

OCD District III Office received a "Final C-141" on March 31, 2017 in regards to the Sullivan Gas Com E#1 (30-045-28641) which has been approved with the following conditions of approval.

- BP has until November 29, 2017 to return to the site to perform either additional remediation below the compressor skid, or perform additional delineation as required by the Conditions of Approval that were attached to the Initial C-141 approved on 2/23/17.
- BP will notify the OCD at least 72 hours but no more than 1 week prior to the start of remediation/delineation.
- BP will submit either a delineation report (To include BP path forward) on form C-141 or an additional C-141 with laboratory results no later than December 29, 2017

If you have any questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us



December 22, 2017

Project Number 15096-0014

Mr. Luke Klitzke
Archrock Services, LP
9807 Katy Freeway, Suite 100
Houston, Texas 77024

Phone: (505) 320-3498
Email: lucanus.klitzke@archrock.com

SOIL SAMPLING ACTIVITIES FOR THE SULLIVAN GAS COM E#1 WELL SITE, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Klitzke:

Enclosed please find the *Soil Sampling Report* detailing sampling activities at the Sullivan Gas Com E#1 well site located in Section 22, Township 32 North, Range 10 West, San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.



Brittany Hall
Environmental Field Technician
bhall@envirotech-inc.com

Enclosures: *Soil Sampling Report*

Cc: Steve Moskal, BP America (via email)
Client File Number 03143

SOIL SAMPLING REPORT

LOCATION:

**BP AMERICA PRODUCTION COMPANY
SULLIVAN GAS COM E#1 WELL SITE
SECTION 22, TOWNSHIP 32 NORTH, RANGE 10 WEST
SAN JUAN COUNTY, NEW MEXICO**

CONTRACTED BY:

**ARCHROCK SERVICES, LP
MR. LUKE KLITZKE
9807 KATY FREEWAY, SUITE 100
HOUSTON, TEXAS 77024**

**PROJECT NUMBER 15096-0014
DECEMBER 2017**

ARCHROCK SERVICES, LP
SOIL SAMPLING REPORT
SULLIVAN GAS COM E#1 WELL SITE
SECTION 22, TOWNSHIP 32 NORTH, RANGE 10WEST
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION	1
ACTIVITIES PERFORMED.....	1

Figures: *Figure 1, Vicinity Map*
 Figure 2, Site Map

Appendices: *Appendix A, Field Notes*
 Appendix B, Site Photography
 Appendix C, Chain of Custody

INTRODUCTION

Envirotech, Inc. (Envirotech) of Farmington, New Mexico, was contracted by Archrock Services, LP to provide soil sampling services for additional hydrocarbon contamination delineation per the request of the New Mexico Oil Conservation Division (NMOCD) at the Sullivan Gas Com E#1 well site (operated by BP America) located in Section 22, Township 32 North, Range 10 West, San Juan County, New Mexico; see enclosed **Figure 1, Vicinity Map**. Approximately 300-500 gallons of oil were reported to be released from a compressor leak in February 2017. Activities included sample collection, documentation, and reporting.

ACTIVITIES PERFORMED

Envirotech, Inc. was contacted with a request to perform additional soil sampling activities due to a release of oil from the on-site compressor at the above referenced location in February 2017. Envirotech personnel arrived on site to perform soil sampling on November 21, 2017. Upon arrival to the site, a brief assessment was conducted and a job safety analysis (JSA) was completed. Based on the previous remediation activities and analytical results, the impacted area was determined to be the soil beneath the compressor skid.

Four (4) samples on each side of the compressor skid were to be collected by hand augering at approximately a 45-degree angle to three (3) to five (5) feet below ground surface (bgs). During hand augering activities, auger refusal was met at approximately two (2) feet bgs on the north and south sides of the compressor skid and at approximately one (1) foot bgs on the west and east sides of the compressor skid. Envirotech personnel consulted with BP America representative, Mr. Steve Moksall and a decision was made to collect bottom hole samples from three (3) locations on the east side of the compressor skid, two (2) locations on the south and west sides of the compressor skid, and one (1) sample from the north side of the compressor skid; see enclosed **Site Photography** and **Field Notes**. Upon collection of the requested samples, the samples were placed into laboratory provided four (4) ounce glass jars, placed on ice, and transported back to Envirotech. The samples were relinquished to Christine Walters with Hall Environmental per the request of Mr. Steve Moskal, BP America; see enclosed **Chain of Custody**. Analytical results were to be sent to Mr. Steve Moskal, BP America.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

Reviewed by:

ENVIROTECH, INC.



Brittany Hall
Environmental Field Technician
bhall@envirotech-inc.com

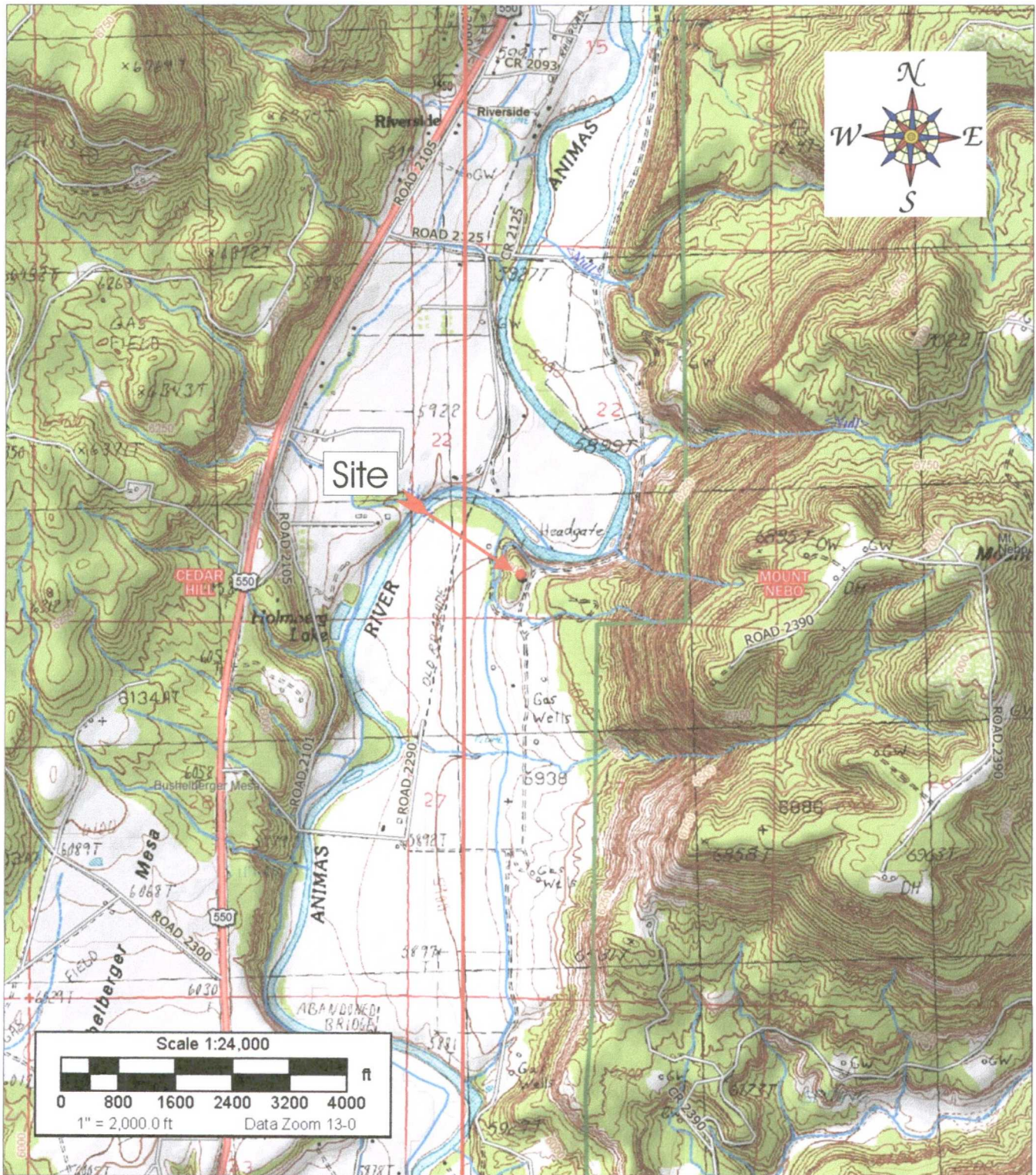


Felipe Aragon, CES
Environmental Assistant Manager
faragon@envirotech-inc.com

FIGURES

Figure 1, Vicinity Map

Figure 2, Site Map



Source: 7.5 Minute, Mount Nebo, New Mexico U.S.G.S. Topographic Quadrangle Map
 Scale: 1:24,000 1" = 2000'

Archrock Service, LP Sullivan Gas Com E#1 Section 22 Township 32N Range 10W San Juan County, New Mexico	 envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map	
Project Number: 15096-0014 Date Drawn: 12/12/17		Figure #1 DRAWN BY: Brittany Hall	PROJECT MANAGER: Felipe Aragon



LEGEND

X Sample locations

Compressor

SITE MAP Archrock Service, LP Sullivan Gas Com E#1 SECTION 22, TWP 32 NORTH, RANGE 10 WEST San Juan County, New Mexico

SCALE: NTS

PROJECT NO15096-0014

FIGURE NO. 2

REV

REVISIONS

NO.	DATE	BY	DESCRIPTION
MAP DRWN	BH	2/12/2017	BASE DRWN



envirotech

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

APPENDIX A

Field Notes

CLIENT:	Archrock	 envirotech (505) 632-0615 (800) 362-1879 5796 U.S. Hwy 64, Farmington, NM 87401	Envmtl. Spelst:	Hyd
CLIENT/JOB #:	15096-0014		C.O.C. No:	
START DATE:	11/21/17		LAT	36°57'54.016"
FINISH DATE:			LONG	107°52'22.781"
Page #	of			

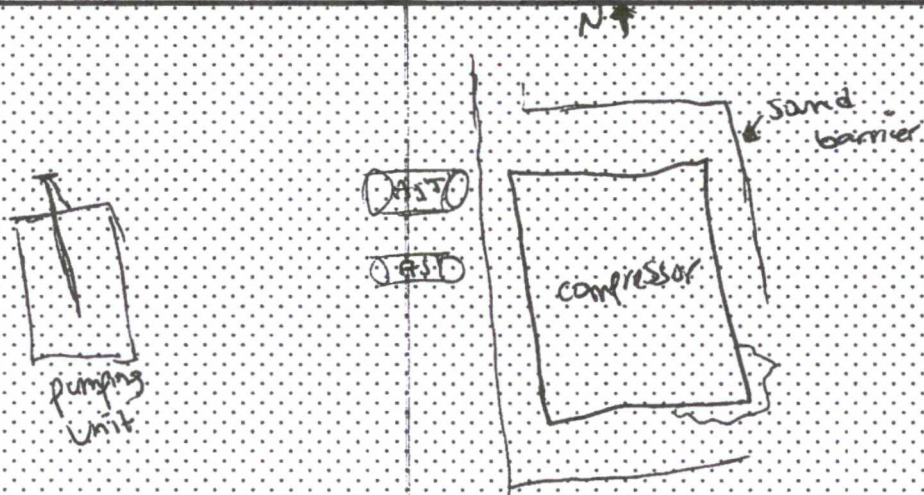
Field Report: Spill Closure Verification

LOCATION:	Name: Sullivan Gas Com-East	Well #E001	API: 3004528641
	County: San Juan	State: NM	

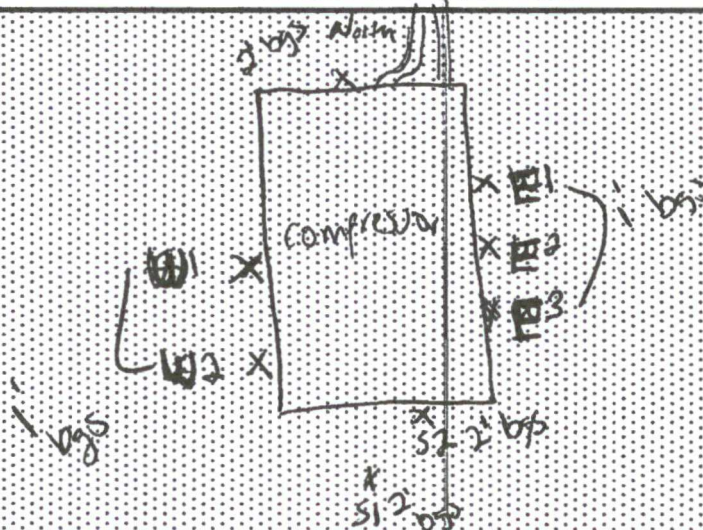
FIELD 418.1 ANALYSIS

OVM Results

SPILL PERIMETER: Draw a schematic of the spill site. Attach photos and other diagrams as needed.



EXCAVATION PROFILE:



NOTES:

Include number of samples and borings taken, and screening types completed.

Describe spill in narrative format including amount, source and type of product.

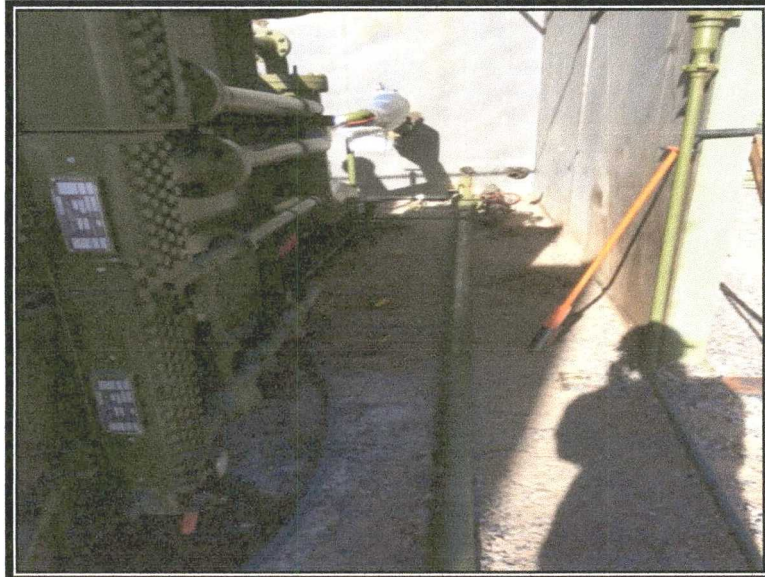
WO #:

Who Ordered/Site Rep:

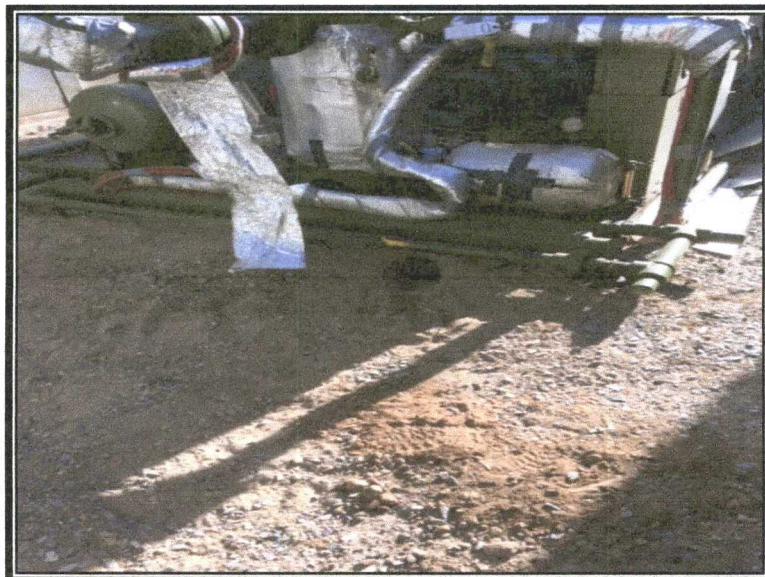
APPENDIX B

Site Photography

Site Photography
Archrock Service, LP
Sullivan Gas Com E#1 Well Site
Soil Sampling Report
Project No. 15096-0014



Picture 1: Sample Locations on the East Side of Compressor



Picture 2: Sample Location on North Side of Compressor

Site Photography
Archrock Service, LP
Sullivan Gas Com E#1 Well Site
Soil Sampling Report
Project No. 15096-0014

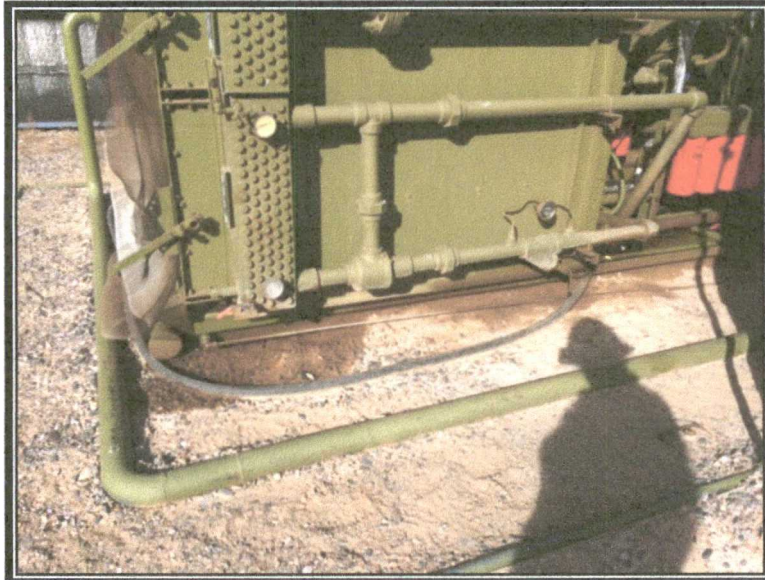


Picture 3: Sample Locations on West Side of Compressor

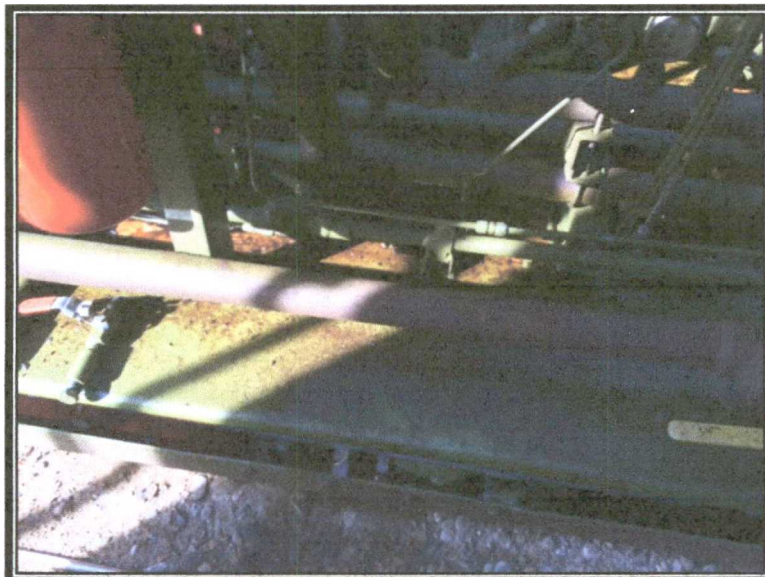


Picture 4: Sample Locations on South Side of Compressor

Site Photography
Archrock Service, LP
Sullivan Gas Com E#1 Well Site
Soil Sampling Report
Project No. 15096-0014



Picture 5: Soil Staining on Southeast Corner of Compressor



Picture 6: View of Standing Liquid on Compressor Skid

APPENDIX C

Chain of Custody

Client: Archrock		Report Attention		Lab Use Only		TAT		EPA Program					
Project: Sullivan GC E1 Soil Sampling		Report due by: <u>Standard</u>		Lab WO#		Job Number		1D	3D	RCRA	CWA	SDWA	
Project Manager: <u>F. Aragon</u>				P		15096-0014							
Address: <u>1280 Tru King Rd</u>		Address: <u>Send Report to</u>		Analysis and Method								State	
City, State, Zip <u>Farmington NM 87401</u>		City, State, Zip <u>Durango NM</u>										NM CO UT AZ	
Phone: <u>(505) 947-9510</u>		Phone: <u>Greg Crabtree</u>										X	
Email: <u>Faragon Gcrabtree Admin Bhall</u>													

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	RCRA 8 Metals 6010	8270	TPH 418.1	Total Mercury	Oil and Grease 1664	pH SM4500H+ B - 2000	TSS SM2540D - 1997	TDS	Remarks
1240	11/21/17	S	1	North		X	X											
1424	11/21/17	S	1	South 2		X	X											
1200	11/21/17	S	1	South 1		X	X											
1145	11/21/17	S	1	West 1		X	X											
1415	11/21/17	S	1	West 2		X	X											
1357	11/21/17	S	1	East 1		X	X											
1310	11/21/17	S	1	East 2		X	X											
1403	11/21/17	S	1	East 3		X	X											

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Brittany Hall

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only	
<u>Brittany Hall</u>	<u>11/21/17</u>	<u>1645</u>	<u>Christi Wacker</u>	<u>11/21/17</u>	<u>1645</u>	Received on ice: Y / N	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3	
						AVG Temp °C	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 30, 2017

Greg Crabtree
Envirotech
5796 US Highway 64
Farmington, NM 87401
TEL: (505) 632-0615
FAX (505) 632-1865

RE: Sullivan GC E1 Soil Sampling

OrderNo.: 1711B89

Dear Greg Crabtree:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/22/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** North**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 12:40:00 PM**Lab ID:** 1711B89-001**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	320	94		mg/Kg	10	11/29/2017 4:06:29 PM	35150
Motor Oil Range Organics (MRO)	7200	470		mg/Kg	10	11/29/2017 4:06:29 PM	35150
Surr: DNOP	0	70-130	S	%Rec	10	11/29/2017 4:06:29 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/28/2017 7:12:06 PM	35154
Surr: BFB	106	15-316		%Rec	1	11/28/2017 7:12:06 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** South 2**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 2:24:00 PM**Lab ID:** 1711B89-002**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	27	9.6		mg/Kg	1	11/28/2017 6:38:16 PM	35150
Motor Oil Range Organics (MRO)	330	48		mg/Kg	1	11/28/2017 6:38:16 PM	35150
Surr: DNOP	114	70-130		%Rec	1	11/28/2017 6:38:16 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/28/2017 7:59:35 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 7:59:35 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** South 1**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 12:00:00 PM**Lab ID:** 1711B89-003**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/29/2017 3:22:05 PM	35150
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/29/2017 3:22:05 PM	35150
Surr: DNOP	103	70-130		%Rec	1	11/29/2017 3:22:05 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/28/2017 8:23:18 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 8:23:18 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** West 1**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 11:45:00 AM**Lab ID:** 1711B89-004**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	17	9.6		mg/Kg	1	11/28/2017 7:26:40 PM	35150
Motor Oil Range Organics (MRO)	510	48		mg/Kg	1	11/28/2017 7:26:40 PM	35150
Surr: DNOP	105	70-130		%Rec	1	11/28/2017 7:26:40 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/28/2017 8:47:03 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 8:47:03 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** West 2**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 2:15:00 PM**Lab ID:** 1711B89-005**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/29/2017 3:44:06 PM	35150
Motor Oil Range Organics (MRO)	59	47		mg/Kg	1	11/29/2017 3:44:06 PM	35150
Surr: DNOP	105	70-130		%Rec	1	11/29/2017 3:44:06 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/28/2017 9:10:38 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 9:10:38 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** East 1**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 1:57:00 PM**Lab ID:** 1711B89-006**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	42	9.7		mg/Kg	1	11/28/2017 8:15:04 PM	35150
Motor Oil Range Organics (MRO)	370	49		mg/Kg	1	11/28/2017 8:15:04 PM	35150
Surr: DNOP	110	70-130		%Rec	1	11/28/2017 8:15:04 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/28/2017 9:34:26 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 9:34:26 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** East 2**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 1:10:00 PM**Lab ID:** 1711B89-007**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	16	9.3		mg/Kg	1	11/28/2017 8:39:09 PM	35150
Motor Oil Range Organics (MRO)	460	46		mg/Kg	1	11/28/2017 8:39:09 PM	35150
Surr: DNOP	111	70-130		%Rec	1	11/28/2017 8:39:09 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/28/2017 9:58:15 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 9:58:15 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1711B89

Date Reported: 11/30/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Envirotech**Client Sample ID:** East 3**Project:** Sullivan GC E1 Soil Sampling**Collection Date:** 11/21/2017 2:03:00 PM**Lab ID:** 1711B89-008**Matrix:** SOIL**Received Date:** 11/22/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	950	950		mg/Kg	100	11/29/2017 4:50:39 PM	35150
Motor Oil Range Organics (MRO)	16000	4700		mg/Kg	100	11/29/2017 4:50:39 PM	35150
Surr: DNOP	0	70-130	S	%Rec	100	11/29/2017 4:50:39 PM	35150
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/28/2017 10:22:01 PM	35154
Surr: BFB	109	15-316		%Rec	1	11/28/2017 10:22:01 PM	35154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1711B89

30-Nov-17

Client: Envirotech
Project: Sullivan GC E1 Soil Sampling

Sample ID	LCS-35150		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	35150		RunNo:	47354				
Prep Date:	11/27/2017		Analysis Date:	11/28/2017		SeqNo:	1512100		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	49	10	50.00	0	98.0	73.2	114				
Surr: DNOP	4.7		5.000		94.1	70	130				

Sample ID	MB-35150		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	35150		RunNo:	47354				
Prep Date:	11/27/2017		Analysis Date:	11/28/2017		SeqNo:	1512101		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10		10.00		103	70	130				

Sample ID	LCS-35209		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 35209		RunNo: 47389					
Prep Date:	11/29/2017		Analysis Date: 11/29/2017		SeqNo: 1512108		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.5	70	130			

Sample ID	MB-35209		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	35209		RunNo:	47389				
Prep Date:	11/29/2017		Analysis Date:	11/29/2017		SeqNo:	1512109		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	9.1		10.00		91.0	70	130				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1711B89

30-Nov-17

Client: Envirotech
Project: Sullivan GC E1 Soil Sampling

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: G47369		RunNo: 47369							
Prep Date:	Analysis Date: 11/28/2017		SeqNo: 1511549		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	15	316			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: G47369		RunNo: 47369							
Prep Date:	Analysis Date: 11/28/2017		SeqNo: 1511550		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		116	15	316			

Sample ID MB-35154	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 35154		RunNo: 47368							
Prep Date: 11/27/2017	Analysis Date: 11/28/2017		SeqNo: 1511588		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.1	15	316			

Sample ID LCS-35154	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 35154		RunNo: 47368							
Prep Date: 11/27/2017	Analysis Date: 11/28/2017		SeqNo: 1511589		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.3	75.9	131			
Surr: BFB	1000		1000		102	15	316			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Envirotech

Work Order Number: 1711B89

RcptNo: 1

Received By: Anne Thorne

11/22/2017 7:00:00 AM

Anne Thorne

Completed By: Anne Thorne

11/22/2017 2:40:48 PM

Anne Thorne

Reviewed By: *SM*

11/22/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Project Information

Chain of Custody

Page 1 of 1

Client: Archrock					Report Attention		Lab/Use Only		TAT		EPA Program															
Project: Sullivan GC E1 Soil Sampling					Report due by: <u>Standard</u>		Lab WO#		Job Number		1D	3D	RCRA	CWA	SDWA											
Project Manager: <u>F. Aragon</u>							<u>P</u>		<u>15096-0014</u>																	
Address: <u>1280 Troy King Rd</u>					Address: <u>Send Report to</u>		Analysis and Method								State											
City, State, Zip: <u>Farmington, NM 87401</u>					City, State, Zip: <u>Envirotech</u>		DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	RCRA 8 Metals	6010	8270	TPH 418.1	Total Mercury	Oil and Grease	1664	pH	SM4500H+8 - 2000	TSS	SM2540D - 1997	TDS	NM	CO	UT	AZ
Phone: <u>(505) 947-9510</u>					Phone: <u>Greg Crabtree</u>																					
Email: <u>Faragon.Gcrabtree@Admin.Bhall</u>																										
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number																	Remarks				
1240	11/21/17	S	1	North			X	X														1711389-001				
1424	11/21/17	S	1	South 2			X	X														202				
1200	11/21/17	S	1	South 1			X	X														203				
1145	11/21/17	S	1	West 1			X	X														204				
1415	11/21/17	S	1	West 2			X	X														205				
1357	11/21/17	S	1	East 1			X	X														206				
1310	11/21/17	S	1	East 2			X	X														207				
1403	11/21/17	S	1	East 3			X	X														208				
Additional Instructions: <u>Per CW Invoice Archrock Rpt to Envirotech / At 11/22/17 email Greg Crabtree</u>																										
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Brian Hall</u>																Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.										
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only														
<u>Brian Hall</u>		11/21/17		1645		<u>Christina Wagoner</u>		11/21/17		1645		Received on ice: Y / N														
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T1 T2 T3														
<u>Christina Wagoner</u>		11/21/17		1819		<u>Christina Wagoner</u>		11/22/17		0700		AVG Temp °C <u>1.0</u>														
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA										
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																										



5796 US Highway 64, Farmington, NM 87401
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

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Ph (970) 259-0615 Fx (800) 362-1879

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