

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

Form C-141
Revised August 8, 2011

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

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: Rex Farnsworth	
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3100	
Facility Name: Federal Gas Com 1 #1C	Facility Type: Gas Well (Blanco Mesaverde)	
Surface Owner: Federal	Mineral Owner	API No.: 30-045-30144

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	20	32N	12W	1060	FNL	660	FWL	San Juan

Latitude 36.976050 Longitude -108.124597

NATURE OF RELEASE

Type of Release: Produced Oil / Produced Water	Volume of Release: 180 BBL's	Volume Recovered: 70 BBL's
Source of Release: Production Tank	Date and Hour of Occurrence: 12/30/2015 Time: Unknown	Date and Hour of Discovery: 12-30-2015 12:25pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith (NMOCD)	
By Whom? James McDaniel (EHS Supervisor XTO Energy)	Date and Hour: 12-30-2015 4:30 pm	OIL CONS. DIV DIST. 3
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

FEB 18 2016

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* On Wednesday, 12-30-2015 an XTO Foreman found the steel production tank on the Federal Gas Com 1#1C location leaking from the load line valve. The XTO Foreman determined by the ending gauge of the tank that approximately 180 barrels of total fluid, 20 barrels of produced water and 160 barrels of produced oil has been released. The spill was contained within the berm and never left location. The XTO Foreman then called Triple S Trucking to help aid with product recovery and notified EH&S. The Foreman was able to recover approximately 70 barrels of produced fluid. The site was then ranked according to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 20 due to an estimated depth to groundwater of 50 to 100 feet and an arroyo less than 1000 feet. This set the closure standard to 100 ppm TPH, 10 ppm benzene, and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken. *A release has been confirmed based a broken load line valve on the production tank and the loss of 110 barrels of fluid that was not recovered. XTO removed approximately 1500 cu yds. of impacted soil and the dimensions of the excavation are 100'x 60' x 4' deep east end, 8' deep in the center, and 12' deep at the west end of the excavation. All samples collected for lab analysis were witnessed by NMOCD employees Jonathan Kelly (two samples (2)) and Vanessa Fields (all other samples). All but four samples returned results below the NMOCD standards for this location. The four samples that returned results above the guideline standards are: Middle Shelf: TPH 140ppm DRO, 25ppm GRO and almost all ND BTEX this is a Solid Sandstone Shelf
NW Wall: TPH 210ppm DRO, 13ppm GRO, and almost all ND BTEX this is a Very Hard Dark Shale Wall
West Wall: TPH 150ppm DRO, 13ppm GRO, and almost all ND BTEX, this is a Very Hard Dark Shale Wall directly below the compressor building wall.
South West Bottom: TPH 250ppm DRO, 13ppm GRO and almost all ND BTEX this is Very Hard Solid Sandstone and the track hoe is unable to excavate this area any deeper. XTO believes the results that are slightly above TPH standards, but existing in very hard shale and sandstone do not pose a risk to human health and the environment due to the majority of the TPH values being attributed to non-mobile diesel range organics, Benzene and BTEX results are below the NMOCD regulatory limits for all samples collected. Closure has been approved at these NMOCD acceptable levels and no further action is required.

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 "Initial 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.

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OIL CONSERVATION DIVISION

Signature:



Printed Name: Kurt Hoekstra


Title: EHS Coordinator

E-mail Address: Kurt_Hoekstra@xtoenergy.com

Date: 2-15-2016

Phone: 505-333-3100

Approved by Environmental Specialist:



Approval Date: 02/23/16

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

NCS 1536539728

Hoekstra, Kurt

From: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Sent: Monday, February 15, 2016 8:15 AM
To: Hoekstra, Kurt; Powell, Brandon, EMNRD; Smith, Cory, EMNRD
Cc: Katherina Diemer (kdiemer@blm.gov); McDaniel, James; Hixon, Logan; Farnsworth, Rex; Baxstrom, Scott; Beaty, Brent; McCollum, Luke
Subject: RE: Proposed Closure at the Federal Gas Com 1 # 1C
Categories: External Sender

Kurt,

Based on the provided information below and the OCD's site assessment, XTO has the OCD's approval to close the release at the Federal gas Com 1 #1C. As this site is also under the regulatory purview of the BLM, we recommend XTO obtain their approval prior to backfilling.

OCD approval does not relieve XTO of any additional requirements imposed by other regulatory agencies.

Thank you,
Vanessa Fields

From: Hoekstra, Kurt [mailto:Kurt_Hoekstra@xtoenergy.com]
Sent: Friday, February 12, 2016 2:44 PM
To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Katherina Diemer (kdiemer@blm.gov) <kdiemer@blm.gov>; McDaniel, James <James_McDaniel@xtoenergy.com>; Hixon, Logan <Logan_Hixon@xtoenergy.com>; Farnsworth, Rex <Rex_Farnsworth@xtoenergy.com>; Baxstrom, Scott <Scott_Baxstrom@xtoenergy.com>; Beaty, Brent <Brent_Beaty@xtoenergy.com>; McCollum, Luke <Luke_McCollum@xtoenergy.com>
Subject: Proposed Closure at the Federal Gas Com 1 # 1C

Hello Vanessa,

XTO is proposing closure of the excavation for the release at the Federal Gas Com 1 # 1C. Approximately 1500 cu yds. of material has been removed and the dimensions of the excavation are 100'x 60' x 4' deep east end, 8' deep in the center, and 12' deep at the west end of the excavation. All samples collected for lab analysis were witnessed by NMOCD employees Jonathan Kelly (two samples (2)) and Vanessa Fields (all other samples). The site was ranked a 20 according to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. This set the closure standards to 100 ppm TPH, 50 ppm total BTEX and 10 ppm Benzene.

All but four samples returned results below the NMOCD standards for this location. The four samples that returned results above the guideline standards are:

Middle Shelf: TPH 140ppm DRO, 25ppm GRO and almost all ND BTEX this is a Solid Sandstone Shelf

NW Wall: TPH 210ppm DRO, 13ppm GRO, and almost all ND BTEX this is a Very Hard Dark Shale Wall

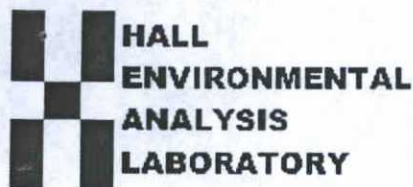
West Wall: TPH 150ppm DRO, 13ppm GRO, and almost all ND BTEX, this is a Very Hard Dark Shale Wall directly below the compressor building wall.

South West Bottom: TPH 250ppm DRO, 13ppm GRO and almost all ND BTEX this is Very Hard Solid Sandstone and the track hoe is unable to excavate this area any deeper.

All sample results are attached. XTO believes the results that are slightly above TPH standards, but existing in very hard shale and sandstone do not pose a risk to human health and the environment due to the majority of the TPH values being attributed to non-mobile diesel range organics. Benzene and BTEX results are below the NMOCD regulatory limits for all samples collected. Closure has already been discussed at these levels from the NMOCD based on conversations on location with Vanessa Fields. XTO would like to close this excavation at these NMOCD acceptable results and begin backfilling on 2-17-2016 at 8:00 am. Thank you for your help with this matter, If you have any questions or concerns please let me know. I will be awaiting your response so scheduled backfill operations can be completed.

Thank You.

Kurt Hoekstra
EHS Coordinator
XTO Energy
505-333-3202 Office
505-486-9543 Cell
Kurt_Hoekstra@xtoenergy.com
An ExxonMobil Subsidiary



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

January 28, 2016

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: FEDERAL GC 1 #1C

OrderNo.: 1601936

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/26/2016 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 qualifers 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601936

Date Reported: 1/28/2016

CLIENT: XTO Energy

Client Sample ID: Bottom/East

Project: FEDERAL GC I #1C

Collection Date: 1/25/2016 3:25:00 PM

Lab ID: 1601936-001

Matrix: SOIL

Received Date: 1/26/2016 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	1/26/2016 11:26:41 AM	23417
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	150	9.5		mg/Kg	1	1/26/2016 11:15:09 AM	23396
Surr: DNOP	88.2	70-130		%REC	1	1/26/2016 11:15:09 AM	23396
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	32	8.8		mg/Kg	2	1/26/2016 12:22:14 PM	A31678
Surr: BFB	169	66.2-112	S	%REC	2	1/26/2016 12:22:14 PM	A31678
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	2	1/26/2016 12:22:14 PM	C31678
Toluene	0.18	0.088		mg/Kg	2	1/26/2016 12:22:14 PM	C31678
Ethylbenzene	0.14	0.088		mg/Kg	2	1/26/2016 12:22:14 PM	C31678
Xylenes, Total	1.4	0.18		mg/Kg	2	1/26/2016 12:22:14 PM	C31678
Surr: 4-Bromofluorobenzene	129	80-120	S	%REC	2	1/26/2016 12:22:14 PM	C31678

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
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601936

28-Jan-16

Client: XTO Energy
Project: FEDERAL GC 1 #1C

Sample ID	MB-23417	SampType	MBLK	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	23417	RunNo	31710					
Prep Date	1/26/2016	Analysis Date	1/26/2016	SeqNo	970391	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23417	SampType	LCS	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	23417	RunNo	31710					
Prep Date	1/26/2016	Analysis Date	1/26/2016	SeqNo	970392	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

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
R RPD outside accepted recovery limits
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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601936

28-Jan-16

Client: XTO Energy
Project: FEDERAL GC 1 #1C

Sample ID	MB-23396	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23396	RunNo:	31661					
Prep Date:	1/26/2016	Analysis Date:	1/26/2016	SeqNo:	968886	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.3		10.00		82.8	70	130			

Sample ID	LCS-23396	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23396	RunNo:	31661					
Prep Date:	1/26/2016	Analysis Date:	1/26/2016	SeqNo:	969383	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.3	65.8	136			
Surr: DNOP	3.9		5.000		77.4	70	130			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601936

28-Jan-16

Client: XTO Energy
Project: FEDERAL GC 1 #1C

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A31678	RunNo:	31678					
Prep Date:		Analysis Date:	1/26/2016	SeqNo:	969794	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	870		1000		86.9	66.2	112			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A31678	RunNo:	31678					
Prep Date:		Analysis Date:	1/26/2016	SeqNo:	969795	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.5	79.6	122			
Surr: BFB	1000		1000		102	66.2	112			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601936

28-Jan-16

Client: XTO Energy
Project: FEDERAL GC I #1C

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	C31678	RunNo:	31678					
Prep Date:		Analysis Date:	1/26/2016	SeqNo:	969821	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	C31678	RunNo:	31678					
Prep Date:		Analysis Date:	1/26/2016	SeqNo:	969822	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.2	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

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
R RPD outside accepted recovery limits
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

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1601936

RcptNo: 1

Received by/date: AS 01/26/16

Logged By: Anne Thorne 1/26/2016 7:25:00 AM

Anne Thorne

Completed By: Anne Thorne 1/26/2016

Anne Thorne

Reviewed By: *[Signature]*

1/26/16

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° 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

SAME DAY



Well Site/Location
FEDERAL GC 1#1C

Collected By
KURT

Company
XTO

Signature
Kurt Hoeft

JAMES KURT, LEEAN, REX

API Number
30-045-30144

Samples on Ice
(V/DN)

QA/QC Requested
✓

Test Reason
SPILL

Turnaround
Standard

X Next Day SAME DAY

Two Day

Three Day

Std. 5 Bus. Days (by contract)

Date Needed

Email Results to:

Page 1 of 3

XTO Contact Phone #
505-486-9543

Quote Number

XTO Contact
KURT

Analysis

Lab Information

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV

Sample ID

Sample Name

Media

Date

Preservative

No. of
Conts.

FARXH-012516-1525

BOTTOM/EAST

Soil

1-25

ON ICE

1402

8015 TPH

8021 BTEX

Chloride

Sample Number

17601937-001

Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Water = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)

Relinquished By: (Signature)

Relinquished By: (Signature)

Relinquished By: (Signature)

Relinquished By: (Signature)

Relinquished By: (Signature)

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Relinquished By: (Signature)

Time: 1755

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Time: 1847

Number of Bottles

Temperature

Date

Time

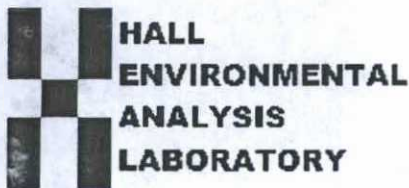
Other Information

Other Information

Comments

* Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200

0121



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

February 05, 2016

Kurt Hoekstra
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal Gas Com 1 # 1C

OrderNo.: 1601B41

Dear Kurt Hoekstra:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/29/2016 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601B41

Date Reported: 2/5/2016

CLIENT: XTO Energy

Client Sample ID: Farkh-012716-1015 N. Wall End

Project: Federal Gas Com 1 # 1C

Collection Date: 1/27/2016 10:15:00 AM

Lab ID: 1601B41-001

Matrix: SOIL

Received Date: 1/29/2016 8:10:00 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	2/4/2016 11:12:57 AM	23511
Surr: DNOP	89.2	70-130		%Rec	1	2/4/2016 11:12:57 AM	23511
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: BFB	90.4	66.2-112		%Rec	1	2/3/2016 12:13:09 AM	23504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Toluene	ND	0.048		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Ethylbenzene	ND	0.048		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Xylenes, Total	ND	0.097		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	2/3/2016 12:13:09 AM	23504

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
	R	RPD outside accepted recovery limits	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#: 1601B41

05-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 # 1C

Sample ID	MB-23551	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23551	RunNo:	31874					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	975374	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID	LCS-23551	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23551	RunNo:	31874					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	975375	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.3	70	130			

Sample ID	MB-23511	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23511	RunNo:	31874					
Prep Date:	2/1/2016	Analysis Date:	2/3/2016	SeqNo:	975961	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	LCS-23511	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23511	RunNo:	31874					
Prep Date:	2/1/2016	Analysis Date:	2/3/2016	SeqNo:	975962	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	65.8	136			
Surr: DNOP	6.0		5.000		120	70	130			

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 |
| R RPD outside accepted recovery limits | 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#: 1601B41

05-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 # 1C

Sample ID	MB-23504	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974988	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	930		1000		93.2	66.2	112			

Sample ID	LCS-23504	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974989	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	79.6	122			
Surr: BFB	980		1000		98.0	66.2	112			

Sample ID	MB-23523	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23523	RunNo:	31884					
Prep Date:	2/2/2016	Analysis Date:	2/3/2016	SeqNo:	975769	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	66.2	112			

Sample ID	LCS-23523	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23523	RunNo:	31884					
Prep Date:	2/2/2016	Analysis Date:	2/3/2016	SeqNo:	975770	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.5	66.2	112			

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 |
| R RPD outside accepted recovery limits | 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#: 1601B41

05-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 # 1C

Sample ID	MB-23504		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 23504		RunNo: 31851					
Prep Date:	2/1/2016		Analysis Date: 2/2/2016		SeqNo: 975028		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-23504		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 23504		RunNo: 31851					
Prep Date:	2/1/2016		Analysis Date: 2/2/2016		SeqNo: 975029		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	MB-23523		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 23523		RunNo: 31884					
Prep Date:	2/2/2016		Analysis Date: 2/3/2016		SeqNo: 975781		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-23523		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 23523		RunNo: 31884					
Prep Date:	2/2/2016		Analysis Date: 2/3/2016		SeqNo: 975782		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1601B41

RcptNo: 1

Received by/date:

JA 01/29/16

Logged By:

Lindsay Mangin

1/29/2016 8:10:00 AM

Judy H

Completed By:

Lindsay Mangin

1/29/2016 2:59:54 PM

Judy H

Reviewed By:

[Signature]

02/01/16

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			



Western Division

Well Site/Location
FEDERAL GAS CO. 1# 1C

Collected By
Kurt

Company
XTO

Signature
[Signature]

James Kurt, Logan, Rex

API Number
30-045-30144

Samples on Ice
(Y/N)

QA/QC Requested
Y

Gray Area for Lab Use Only

Test Reason
Spill

Turnaround
Standard

Next Day

Two Day

Three Day

Std. 5 Bus. Days (by contract)

Date Needed

XTO Contact
Kurt

XTO Contact Phone #
505-486-9543

Email Results to:

Quote Number

Page 1 of 1

Lab Information

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV

Analysis

No. of
Conts.

Preservative

Time

Date

Media

Sample Name

Sample ID

8015 1PH GED, DND

8021 BTEX

1407

1-27

S

N.WAY E. END

FAR-H-012716-1015

Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Water = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)

Relinquished By: (Signature)

Relinquished By: (Signature)

Received By: (Signature)

Received By: (Signature)

Received for Lab by: (Signature)

Time: 2000

Time: 1814

Time:

Date: 1-27-16

Date: 1/28/16

Date:

Number of Bottles

Temperature

Date

Sample Condition

Other Information

Comments

* Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200

0125



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

February 05, 2016

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal GC 1 #1 C

OrderNo.: 1602150

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/4/2016 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: E. Bottom

Project: Federal GC 1 #1 C

Collection Date: 2/3/2016 1:40:00 PM

Lab ID: 1602150-001

Matrix: MEOH (SOIL)

Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	83	9.9		mg/Kg	1	2/4/2016 1:06:04 PM	23577
Surr: DNOP	83.4	70-130		%Rec	1	2/4/2016 1:06:04 PM	23577
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	9.3	4.3		mg/Kg	1	2/4/2016 4:48:08 PM	R31945
Surr: BFB	139	66.2-112	S	%Rec	1	2/4/2016 4:48:08 PM	R31945

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602150

Date Reported: 2/5/2016

CLIENT: XTO Energy**Client Sample ID:** N. Middle Wall**Project:** Federal GC 1 #1 C**Collection Date:** 2/3/2016 1:45:00 PM**Lab ID:** 1602150-002**Matrix:** MEOH (SOIL)**Received Date:** 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	39	10		mg/Kg	1	2/4/2016 1:33:32 PM	23577
Surr: DNOP	84.1	70-130		%Rec	1	2/4/2016 1:33:32 PM	23577
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.5		mg/Kg	1	2/4/2016 5:58:45 PM	R31945
Surr: BFB	99.4	66.2-112		%Rec	1	2/4/2016 5:58:45 PM	R31945
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.055		mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Toluene	ND	0.055		mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Ethylbenzene	ND	0.055		mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Xylenes, Total	ND	0.11		mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	2/4/2016 5:58:45 PM	A31945

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: Middle Shelf

Project: Federal GC 1 #1 C

Collection Date: 2/3/2016 1:48:00 PM

Lab ID: 1602150-003

Matrix: MEOH (SOIL)

Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	140	9.9		mg/Kg	1	2/4/2016 2:00:44 PM	23577
Surr: DNOP	87.6	70-130		%Rec	1	2/4/2016 2:00:44 PM	23577
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	25	22		mg/Kg	5	2/4/2016 6:22:21 PM	R31945
Surr: BFB	117	66.2-112	S	%Rec	5	2/4/2016 6:22:21 PM	R31945
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.11		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Toluene	0.11	0.11		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Ethylbenzene	ND	0.11		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Xylenes, Total	0.73	0.22		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	5	2/4/2016 6:22:21 PM	A31945

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: E. Wall

Project: Federal GC 1 #1 C

Collection Date: 2/3/2016 1:50:00 PM

Lab ID: 1602150-004

Matrix: MEOH (SOIL)

Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	20	10		mg/Kg	1	2/4/2016 2:28:05 PM	23577
Surr: DNOP	84.8	70-130		%Rec	1	2/4/2016 2:28:05 PM	23577
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/4/2016 6:45:56 PM	R31945
Surr: BFB	95.8	66.2-112		%Rec	1	2/4/2016 6:45:56 PM	R31945
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Toluene	ND	0.047		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Ethylbenzene	ND	0.047		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Xylenes, Total	ND	0.093		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	2/4/2016 6:45:56 PM	A31945

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
				Page 4 of 8

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: S. East Wall

Project: Federal GC 1 #1 C

Collection Date: 2/3/2016 2:00:00 PM

Lab ID: 1602150-005

Matrix: MEOH (SOIL)

Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	220	9.8		mg/Kg	1	2/4/2016 2:55:26 PM	23577
Surr: DNOP	90.2	70-130		%Rec	1	2/4/2016 2:55:26 PM	23577
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	23	4.8		mg/Kg	1	2/4/2016 7:09:26 PM	R31945
Surr: BFB	185	66.2-112	S	%Rec	1	2/4/2016 7:09:26 PM	R31945
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Toluene	0.11	0.048		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Ethylbenzene	0.086	0.048		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Xylenes, Total	0.99	0.096		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	1	2/4/2016 7:09:26 PM	A31945

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
				Page 5 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602150

05-Feb-16

Client: XTO Energy

Project: Federal GC 1 #1 C

Sample ID	MB-23577	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	23577	RunNo	31916					
Prep Date	2/4/2016	Analysis Date	2/4/2016	SeqNo	976476	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.3	70	130			

Sample ID	LCS-23577	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	23577	RunNo	31916					
Prep Date	2/4/2016	Analysis Date	2/4/2016	SeqNo	976477	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.7	65.8	136			
Surr: DNOP	4.6		5.000		92.2	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
R RPD outside accepted recovery limits
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#: 1602150

05-Feb-16

Client: XTO Energy

Project: Federal GC 1 #1 C

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R31945	RunNo:	31945					
Prep Date:		Analysis Date:	2/4/2016	SeqNo:	977134	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.8	79.6	122			
Surr: BFB	940		1000		94.0	66.2	112			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R31945	RunNo:	31945					
Prep Date:		Analysis Date:	2/4/2016	SeqNo:	977135	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	920		1000		92.4	66.2	112			

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 |
| R RPD outside accepted recovery limits | 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#: 1602150

05-Feb-16

Client: XTO Energy

Project: Federal GC 1 #1 C

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	A31945	RunNo:	31945					
Prep Date:		Analysis Date:	2/4/2016	SeqNo:	977138	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	1602150-001A MS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	E. Bottom	Batch ID:	A31945	RunNo:	31945					
Prep Date:		Analysis Date:	2/4/2016	SeqNo:	977140	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.96	0.085	0.8518	0	112	69.2	128			
Benzene	0.86	0.043	0.8518	0	101	71.5	122			
Toluene	0.93	0.043	0.8518	0.02313	107	71.2	123			
Ethylbenzene	0.94	0.043	0.8518	0.02572	107	75.2	130			
Xylenes, Total	3.0	0.085	2.555	0.1278	112	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.8518		129	80	120			S

Sample ID	1602150-001A MSD	SampType:	MSD	TestCode: EPA Method 8021B: Volatiles						
Client ID:	E. Bottom	Batch ID:	A31945	RunNo: 31945						
Prep Date:		Analysis Date:	2/4/2016	SeqNo: 977141		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.043	0.8518	0	93.1	71.5	122	8.18	20	
Toluene	0.88	0.043	0.8518	0.02313	101	71.2	123	5.84	20	
Ethylbenzene	0.92	0.043	0.8518	0.02572	104	75.2	130	2.31	20	
Xylenes, Total	2.9	0.085	2.555	0.1278	109	72.4	131	3.22	20	
Surr: 4-Bromofluorobenzene	1.1		0.8518		126	80	120	0	0	S

Sample ID	5ML RB	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	A31945		RunNo:	31945				
Prep Date:		Analysis Date:	2/4/2016		SeqNo:	977146		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1602150

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

2/4/2016 8:00:00 AM

Completed By: Ashley Gallegos

2/4/2016 8:56:36 AM

Reviewed By:

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

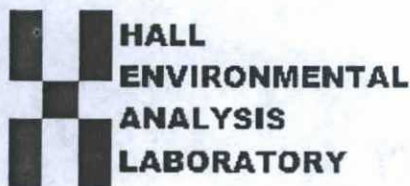
Regarding:

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			



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

February 02, 2016

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal G.C. 1 #1C

OrderNo.: 1601B44

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/30/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601B44

Date Reported: 2/2/2016

CLIENT: XTO Energy

Client Sample ID: Middle Wall

Project: Federal G.C. 1 #1C

Collection Date: 1/29/2016 1:52:00 PM

Lab ID: 1601B44-001

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	59	9.4		mg/Kg	1	2/1/2016 9:57:03 AM	23497
Surr: DNOP	76.0	70-130		%Rec	1	2/1/2016 9:57:03 AM	23497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	4.2		mg/Kg	1	2/1/2016 10:00:34 AM	A31828
Surr: BFB	142	66.2-112	S	%Rec	1	2/1/2016 10:00:34 AM	A31828
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	2/1/2016 10:00:34 AM	B31828
Toluene	0.052	0.042		mg/Kg	1	2/1/2016 10:00:34 AM	B31828
Ethylbenzene	0.042	0.042		mg/Kg	1	2/1/2016 10:00:34 AM	B31828
Xylenes, Total	0.33	0.084		mg/Kg	1	2/1/2016 10:00:34 AM	B31828
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	2/1/2016 10:00:34 AM	B31828

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601B44

Date Reported: 2/2/2016

CLIENT: XTO Energy

Client Sample ID: Pit Cellar Bottom

Project: Federal G.C. I #1C

Collection Date: 1/29/2016 1:45:00 PM

Lab ID: 1601B44-002

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	110	9.6		mg/Kg	1	2/1/2016 10:18:46 AM	23497
Surr: DNOP	79.3	70-130		%Rec	1	2/1/2016 10:18:46 AM	23497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	9.9	4.2		mg/Kg	1	2/1/2016 10:25:01 AM	A31828
Surr: BFB	144	66.2-112	S	%Rec	1	2/1/2016 10:25:01 AM	A31828
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Toluene	ND	0.042		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Ethylbenzene	ND	0.042		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Xylenes, Total	0.097	0.085		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	2/1/2016 10:25:01 AM	B31828

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601B44

Date Reported: 2/2/2016

CLIENT: XTO Energy

Client Sample ID: E. Bottom

Project: Federal G.C. 1 #1C

Collection Date: 1/29/2016 2:05:00 PM

Lab ID: 1601B44-003

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	140	9.8		mg/Kg	1	2/1/2016 10:40:37 AM	23497
Surr: DNOP	75.0	70-130		%Rec	1	2/1/2016 10:40:37 AM	23497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	29	4.2		mg/Kg	1	2/1/2016 10:49:31 AM	A31828
Surr: BFB	256	66.2-112	S	%Rec	1	2/1/2016 10:49:31 AM	A31828
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Toluene	0.058	0.042		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Ethylbenzene	0.11	0.042		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Xylenes, Total	0.69	0.085		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Surr: 4-Bromofluorobenzene	136	80-120	S	%Rec	1	2/1/2016 10:49:31 AM	B31828

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
	R	RPD outside accepted recovery limits	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#: 1601B44

02-Feb-16

Client: XTO Energy
Project: Federal G.C. 1 #1C

Sample ID	MB-23497	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23497	RunNo:	31813					
Prep Date:	2/1/2016	Analysis Date:	2/1/2016	SeqNo:	973617	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.6		10.00		76.4	70	130			

Sample ID	LCS-23497	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23497	RunNo:	31813					
Prep Date:	2/1/2016	Analysis Date:	2/1/2016	SeqNo:	973618	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.4	65.8	136			
Surr: DNOP	3.8		5.000		76.6	70	130			

Sample ID	1601B44-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Middle Wall	Batch ID:	23497	RunNo:	31813					
Prep Date:	2/1/2016	Analysis Date:	2/1/2016	SeqNo:	974086	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	86	9.6	47.85	59.00	55.7	31.2	162			
Surr: DNOP	3.3		4.785		68.9	70	130			S

Sample ID	1601B44-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Middle Wall	Batch ID:	23497	RunNo:	31813					
Prep Date:	2/1/2016	Analysis Date:	2/1/2016	SeqNo:	974087	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	91	9.8	48.78	59.00	65.8	31.2	162	6.13	31.7	
Surr: DNOP	3.3		4.878		67.6	70	130	0	0	S

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 |
| R RPD outside accepted recovery limits | 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#: 1601B44

02-Feb-16

Client: XTO Energy
Project: Federal G.C. 1 #1C

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974181	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	850		1000		85.5	66.2	112			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974182	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.8	79.6	122			
Surr: BFB	970		1000		97.4	66.2	112			

Sample ID	1601B44-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Middle Wall	Batch ID:	A31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974183	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	36	4.2	21.10	12.09	111	59.3	143			
Surr: BFB	1500		843.9		173	66.2	112			S

Sample ID	1601B44-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Middle Wall	Batch ID:	A31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974184	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	35	4.2	21.10	12.09	109	59.3	143	1.38	20	
Surr: BFB	1400		843.9		166	66.2	112	0	0	S

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 |
| R RPD outside accepted recovery limits | 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#: 1601B44

02-Feb-16

Client: XTO Energy
Project: Federal G.C. 1 #1C

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974187	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974188	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.96	0.050	1.000	0	95.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.0	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Sample ID	1601B44-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	Pit Cellar Bottom	Batch ID:	B31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974189	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.042	0.8489	0	92.0	71.5	122			
Toluene	0.87	0.042	0.8489	0.01520	100	71.2	123			
Ethylbenzene	0.94	0.042	0.8489	0.03599	107	75.2	130			
Xylenes, Total	2.9	0.085	2.547	0.09728	110	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.8489		128	80	120			S

Sample ID	1601B44-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	Pit Cellar Bottom	Batch ID:	B31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974190	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.042	0.8489	0	90.2	71.5	122	1.93	20	
Toluene	0.84	0.042	0.8489	0.01520	97.6	71.2	123	2.50	20	
Ethylbenzene	0.91	0.042	0.8489	0.03599	103	75.2	130	3.79	20	
Xylenes, Total	2.7	0.085	2.547	0.09728	104	72.4	131	5.28	20	
Surr: 4-Bromofluorobenzene	1.0		0.8489		122	80	120	0	0	S

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1601B44

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/30/2016 9:15:00 AM

Completed By: Lindsay Mangin

1/30/2016 9:45:20 AM

Reviewed By:

dan 1/30/16

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			



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

February 05, 2016

Kurt Hoekstra
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal Gas Com 1 # 1C

OrderNo.: 1601B41

Dear Kurt Hoekstra:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/29/2016 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 qualifers 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'.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601B41

Date Reported: 2/5/2016

CLIENT: XTO Energy

Client Sample ID: Farkh-012716-1015 N. Wall End

Project: Federal Gas Com 1 # 1C

Collection Date: 1/27/2016 10:15:00 AM

Lab ID: 1601B41-001

Matrix: SOIL

Received Date: 1/29/2016 8:10:00 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	2/4/2016 11:12:57 AM	23511
Surr: DNOP	89.2	70-130		%Rec	1	2/4/2016 11:12:57 AM	23511
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: BFB	90.4	66.2-112		%Rec	1	2/3/2016 12:13:09 AM	23504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Toluene	ND	0.048		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Ethylbenzene	ND	0.048		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Xylenes, Total	ND	0.097		mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	2/3/2016 12:13:09 AM	23504

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
	R	RPD outside accepted recovery limits	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#: 1601B41

05-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 # 1C

Sample ID	MB-23551	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23551	RunNo:	31874					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	975374	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID	LCS-23551	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23551	RunNo:	31874					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	975375	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.3	70	130			

Sample ID	MB-23511	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23511	RunNo:	31874					
Prep Date:	2/1/2016	Analysis Date:	2/3/2016	SeqNo:	975961	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	LCS-23511	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23511	RunNo:	31874					
Prep Date:	2/1/2016	Analysis Date:	2/3/2016	SeqNo:	975962	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	65.8	136			
Surr: DNOP	6.0		5.000		120	70	130			

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 |
| R RPD outside accepted recovery limits | 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#: 1601B41

05-Feb-16

Client: XTO Energy

Project: Federal Gas Com 1 # 1C

Sample ID	MB-23504	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974988	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	930		1000		93.2	66.2	112			

Sample ID	LCS-23504	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974989	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	79.6	122			
Surr: BFB	980		1000		98.0	66.2	112			

Sample ID	MB-23523	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23523	RunNo:	31884					
Prep Date:	2/2/2016	Analysis Date:	2/3/2016	SeqNo:	975769	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	66.2	112			

Sample ID	LCS-23523	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23523	RunNo:	31884					
Prep Date:	2/2/2016	Analysis Date:	2/3/2016	SeqNo:	975770	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.5	66.2	112			

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
- R RPD outside accepted recovery limits
- 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#: 1601B41

05-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 # 1C

Sample ID	MB-23504		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23504		RunNo:	31851			
Prep Date:	2/1/2016		Analysis Date:	2/2/2016		SeqNo:	975028		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-23504		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23504		RunNo:	31851			
Prep Date:	2/1/2016		Analysis Date:	2/2/2016		SeqNo:	975029		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	MB-23523		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23523		RunNo:	31884			
Prep Date:	2/2/2016		Analysis Date:	2/3/2016		SeqNo:	975781		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-23523		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23523		RunNo:	31884			
Prep Date:	2/2/2016		Analysis Date:	2/3/2016		SeqNo:	975782		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1601B41

RcptNo: 1

Received by/date:

JA *01/29/16*

Logged By: Lindsay Mangin

1/29/2016 8:10:00 AM

Lindsay Mangin

Completed By: Lindsay Mangin

1/29/2016 2:59:54 PM

Lindsay Mangin

Reviewed By:

[Signature]

02/01/16

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Western Division

Well Site/Location

FEDERAL GAS CO. 1st IC

Collected By

Kurt

Company

XTO

Signature

[Signature]

Email Results to:

JAMES KURT, LOGAN, REX

API Number

30-045-30144

Samples on Ice

(V) N

QA/QC Requested

Y

Test Reason

Spill

Turnaround

X Standard

Next Day

Two Day

Three Day

Std. 5 Bus. Days (by contract)

Date Needed

Quote Number

XTO Contact

Kurt

Page 1 of 1

XTO Contact Phone #

505-486-9543

Lab Information

Office Abbreviations

Farmington = FAR

Durango = DUR

Bakken = BAK

Raton = RAT

Piceance = PC

Roosevelt = RSV

La Barge = LB

Orangeville = OV

Analysis

8015 1 PH G-EO, DRO
8021 BTEX

No. of

Conts.

Preservative

Time

Date

Media

Sample Name

Sample ID

S

N.WAYL E. END

FARH-012716-1015

1407

ON ICE

1-27

Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Water = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)

[Signature]

Relinquished By: (Signature)

[Signature]

Relinquished By: (Signature)

[Signature]

Comments

Received By: (Signature)

[Signature]

Received By: (Signature)

[Signature]

Received for Lab by: (Signature)

[Signature]

Time: 2000

Time: 1814

Time: 1814

Time: 1814

Time: 1814

Date: 1-27-16

Date: 1-28-16

Date: 1-28-16

Date: 1-28-16

Date: 1-28-16

Number of Bottles

Temperature

10

Date

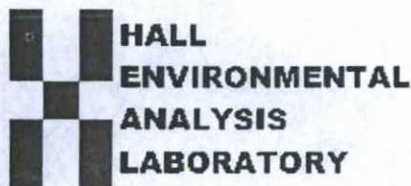
Time

Sample Condition

Other Information

* Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200

0125



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

February 09, 2016

Rex Farnsworth
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal GC 1 #1C

OrderNo.: 1602226

Dear Rex Farnsworth:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/6/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy
 Project: Federal GC 1 #1C
 Lab ID: 1602226-001

Matrix: SOIL

Client Sample ID: NW Wall
 Collection Date: 2/5/2016 2:24:00 PM
 Received Date: 2/6/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	210	9.7		mg/Kg	1	2/8/2016 10:36:58 AM	23605
Surr: DNOP	104	70-130		%Rec	1	2/8/2016 10:36:58 AM	23605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	13	4.0		mg/Kg	1	2/8/2016 1:28:32 PM	R31989
Surr: BFB	162	66.2-112	S	%Rec	1	2/8/2016 1:28:32 PM	R31989
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.040		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Toluene	ND	0.040		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Ethylbenzene	ND	0.040		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Xylenes, Total	0.30	0.080		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	1	2/8/2016 1:28:32 PM	A31989

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602226

Date Reported: 2/9/2016

CLIENT: XTO Energy

Client Sample ID: W Wall

Project: Federal GC 1 #1C

Collection Date: 2/5/2016 2:27:00 PM

Lab ID: 1602226-002

Matrix: SOIL

Received Date: 2/6/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	150	10		mg/Kg	1	2/8/2016 10:58:29 AM	23605
Surr: DNOP	102	70-130		%Rec	1	2/8/2016 10:58:29 AM	23605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	13	5.0		mg/Kg	1	2/8/2016 1:52:25 PM	R31989
Surr: BFB	149	66.2-112	S	%Rec	1	2/8/2016 1:52:25 PM	R31989
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	2/8/2016 1:52:25 PM	A31989
Toluene	ND	0.050		mg/Kg	1	2/8/2016 1:52:25 PM	A31989
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2016 1:52:25 PM	A31989
Xylenes, Total	0.17	0.099		mg/Kg	1	2/8/2016 1:52:25 PM	A31989
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	1	2/8/2016 1:52:25 PM	A31989

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
	R RPD outside accepted recovery limits	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#: 1602226

09-Feb-16

Client: XTO Energy
Project: Federal GC 1 #1C

Sample ID	MB-23605	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23605	RunNo:	31978					
Prep Date:	2/8/2016	Analysis Date:	2/8/2016	SeqNo:	977869	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.0	70	130			

Sample ID	LCS-23605	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23605	RunNo:	31978					
Prep Date:	2/8/2016	Analysis Date:	2/8/2016	SeqNo:	977870	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.9	65.8	136			
Surr: DNOP	4.3		5.000		85.7	70	130			

Sample ID	1602226-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	NW Wall	Batch ID:	23605	RunNo:	31978					
Prep Date:	2/8/2016	Analysis Date:	2/8/2016	SeqNo:	977950	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	240	9.8	48.78	205.5	78.3	31.2	162			
Surr: DNOP	5.1		4.878		104	70	130			

Sample ID	1602226-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	NW Wall	Batch ID:	23605	RunNo:	31978					
Prep Date:	2/8/2016	Analysis Date:	2/8/2016	SeqNo:	977951	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	260	9.9	49.36	205.5	112	31.2	162	6.87	31.7	
Surr: DNOP	5.2		4.936		105	70	130	0	0	

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 |
| R RPD outside accepted recovery limits | 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#: 1602226

09-Feb-16

Client: XTO Energy
Project: Federal GC 1 #1C

Sample ID	1602226-001A MS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NW Wall	Batch ID:	R31989	RunNo:	31989					
Prep Date:		Analysis Date:	2/8/2016	SeqNo:	978165	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	35	4.0	20.10	13.03	111	59.3	143			
Surr: BFB	1500		803.9		181	66.2	112			S

Sample ID	1602226-001A MSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NW Wall	Batch ID:	R31989	RunNo:	31989					
Prep Date:		Analysis Date:	2/8/2016	SeqNo:	978166	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.0	20.10	13.03	99.4	59.3	143	6.78	20	
Surr: BFB	1400		803.9		172	66.2	112	0	0	S

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R31989	RunNo:	31989					
Prep Date:		Analysis Date:	2/8/2016	SeqNo:	978169	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.7	79.6	122			
Surr: BFB	990		1000		99.1	66.2	112			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R31989	RunNo:	31989					
Prep Date:		Analysis Date:	2/8/2016	SeqNo:	978170	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	920		1000		92.2	66.2	112			

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	Page 4 of 5
ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
R RPD outside accepted recovery limits	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#: 1602226

09-Feb-16

Client: XTO Energy
Project: Federal GC 1 #1C

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	A31989	RunNo:	31989					
Prep Date:		Analysis Date:	2/8/2016	SeqNo:	978176	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.0	80	120			
Toluene	0.99	0.050	1.000	0	99.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.3	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		119	80	120			

Sample ID	1602226-002A MS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	W Wall		Batch ID:	A31989		RunNo:	31989				
Prep Date:			Analysis Date:	2/8/2016		SeqNo:	978181		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.86	0.050	0.9940	0	86.2	71.5	122				
Toluene	1.0	0.050	0.9940	0.02094	98.5	71.2	123				
Ethylbenzene	1.1	0.050	0.9940	0.02910	103	75.2	130				
Xylenes, Total	3.4	0.099	2.982	0.2182	107	72.4	131				
Surr: 4-Bromofluorobenzene	1.3		0.9940		132	80	120			S	

Sample ID	1602226-002A MSD			SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	W Wall		Batch ID:	A31989		RunNo:	31989				
Prep Date:			Analysis Date:	2/8/2016		SeqNo:	978182		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.050	0.9940	0	101	71.5	122	16.1	20		
Toluene	1.1	0.050	0.9940	0.02094	107	71.2	123	7.93	20		
Ethylbenzene	1.1	0.050	0.9940	0.02910	106	75.2	130	2.79	20		
Xylenes, Total	3.4	0.099	2.982	0.2182	107	72.4	131	0.573	20		
Surr: 4-Bromofluorobenzene	1.3		0.9940		132	80	120	0	0	S	

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	A31989	RunNo:	31989					
Prep Date:		Analysis Date:	2/8/2016	SeqNo:	978183	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1602226

RcptNo: 1

Received by/date: LM 02/06/16

Logged By: Anne Thorne

2/6/2016 9:15:00 AM

Anne Thorne

Completed By: Anne Thorne

2/8/2016

Anne Thorne

Reviewed By: *[Signature]*

02/08/16

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° 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?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

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?

Yes ☒

No ☐

(If no, notify customer for authorization.)

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: _____

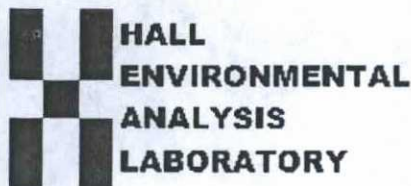
17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

1330

* Sample ID will be the office and sampler-date-military time FARJM-MIMDDYY-1200



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

February 12, 2016

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal Gas Com 1 #1C

OrderNo.: 1602474

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/11/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602474

Date Reported: 2/12/2016

CLIENT: XTO Energy

Client Sample ID: SE WALL

Project: Federal Gas Com 1 #1C

Collection Date: 2/10/2016 12:28:00 PM

Lab ID: 1602474-001

Matrix: SOIL

Received Date: 2/11/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/11/2016 10:20:47 AM	23678
Surr: DNOP	88.1	70-130		%Rec	1	2/11/2016 10:20:47 AM	23678
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.9		mg/Kg	1	2/11/2016 9:42:22 AM	A32073
Surr: BFB	99.8	66.2-112		%Rec	1	2/11/2016 9:42:22 AM	A32073
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.059		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Toluene	ND	0.059		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Ethylbenzene	ND	0.059		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Xylenes, Total	ND	0.12		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Surr: 4-Bromofluorobenzene	120	80-120	S	%Rec	1	2/11/2016 9:42:22 AM	B32073

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
	R	RPD outside accepted recovery limits	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#: 1602474

12-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 #1C

Sample ID	MB-23678	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23678	RunNo:	32069					
Prep Date:	2/11/2016	Analysis Date:	2/11/2016	SeqNo:	980364	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		91.8	70	130			

Sample ID	LCS-23678	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23678	RunNo:	32069					
Prep Date:	2/11/2016	Analysis Date:	2/11/2016	SeqNo:	980365	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.2	65.8	136			
Surr: DNOP	4.1		5.000		82.1	70	130			

Sample ID	1602474-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SE WALL	Batch ID:	23678	RunNo:	32069					
Prep Date:	2/11/2016	Analysis Date:	2/11/2016	SeqNo:	980537	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.8	48.88	5.984	92.0	31.2	162			
Surr: DNOP	4.2		4.888		85.8	70	130			

Sample ID	1602474-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SE WALL	Batch ID:	23678	RunNo:	32069					
Prep Date:	2/11/2016	Analysis Date:	2/11/2016	SeqNo:	980600	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.7	48.54	5.984	88.6	31.2	162	3.92	31.7	
Surr: DNOP	4.0		4.854		82.7	70	130	0	0	

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	Page 2 of 4
ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
R RPD outside accepted recovery limits	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#: 1602474

12-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 #1C

Sample ID	5ML RB	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	A32073	RunNo	32073					
Prep Date:		Analysis Date	2/11/2016	SeqNo	980782	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	940		1000		93.6	66.2	112			

Sample ID	2.5UG GRO LCS	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	A32073	RunNo	32073					
Prep Date:		Analysis Date	2/11/2016	SeqNo	980783	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	79.6	122			
Surr: BFB	1000		1000		104	66.2	112			

Sample ID	1602474-001AMS	SampType	MS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	SE WALL	Batch ID	A32073	RunNo	32073					
Prep Date:		Analysis Date	2/11/2016	SeqNo	980784	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.9	29.55	0	109	59.3	143			
Surr: BFB	1300		1182		113	66.2	112			S

Sample ID	1602474-001AMSD	SampType	MSD	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	SE WALL	Batch ID	A32073	RunNo	32073					
Prep Date:		Analysis Date	2/11/2016	SeqNo	980785	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	5.9	29.55	0	110	59.3	143	1.43	20	
Surr: BFB	1300		1182		110	66.2	112	0	0	

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
R	RPD outside accepted recovery limits	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#: 1602474

12-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 #1C

Sample ID	5ML RB	SampType	MBLK	TestCode	EPA Method 8021B: Volatiles					
Client ID	PBS	Batch ID	B32073	RunNo	32073					
Prep Date:		Analysis Date:	2/11/2016	SeqNo	980788	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	100NG BTEX LCS	SampType	LCS	TestCode	EPA Method 8021B: Volatiles					
Client ID	LCSS	Batch ID	B32073	RunNo	32073					
Prep Date:		Analysis Date:	2/11/2016	SeqNo	980789	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1602474

RcptNo: 1

Received by/date:

JA 02/11/16

Logged By: Anne Thorne

2/11/2016 8:00:00 AM

Anne Thorne

Completed By: Anne Thorne

2/11/2016

Anne Thorne

Reviewed By:

[Signature]

02/11/16

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



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

February 11, 2016

Kurt Hoekstra
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: FEDERAL GAS COM 1 #1C

OrderNo.: 1602363

Dear Kurt Hoekstra:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/10/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602363

Date Reported: 2/11/2016

CLIENT: XTO Energy

Client Sample ID: SW Bottom

Project: FEDERAL GAS COM 1 #1C

Collection Date: 2/9/2016 2:12:00 PM

Lab ID: 1602363-001

Matrix: SOIL

Received Date: 2/10/2016 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	320	10		mg/Kg	1	2/10/2016 10:27:41 AM	23655
Surr: DNOP	94.8	70-130		%Rec	1	2/10/2016 10:27:41 AM	23655
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	7.9	4.3		mg/Kg	1	2/10/2016 10:42:27 AM	A32054
Surr: BFB	133	66.2-112	S	%Rec	1	2/10/2016 10:42:27 AM	A32054
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Toluene	ND	0.043		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Ethylbenzene	ND	0.043		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Xylenes, Total	ND	0.086		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	2/10/2016 10:42:27 AM	B32054

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602363

Date Reported: 2/11/2016

CLIENT: XTO Energy

Client Sample ID: NW Bottom

Project: FEDERAL GAS COM 1 #1C

Collection Date: 2/9/2016 2:20:00 PM

Lab ID: 1602363-002

Matrix: SOIL

Received Date: 2/10/2016 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	18	10		mg/Kg	1	2/10/2016 10:49:25 AM	23655
Surr: DNOP	91.3	70-130		%Rec	1	2/10/2016 10:49:25 AM	23655
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	2/10/2016 11:06:11 AM	A32054
Surr: BFB	118	66.2-112	S	%Rec	1	2/10/2016 11:06:11 AM	A32054
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Toluene	ND	0.043		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Ethylbenzene	ND	0.043		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Xylenes, Total	ND	0.087		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	1	2/10/2016 11:06:11 AM	B32054

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602363

Date Reported: 2/11/2016

CLIENT: XTO Energy

Client Sample ID: SW Wall

Project: FEDERAL GAS COM 1 #1C

Collection Date: 2/9/2016 2:26:00 PM

Lab ID: 1602363-003

Matrix: SOIL

Received Date: 2/10/2016 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	2/10/2016 11:11:04 AM	23655
Surr: DNOP	94.1	70-130		%Rec	1	2/10/2016 11:11:04 AM	23655
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/10/2016 11:29:53 AM	A32054
Surr: BFB	104	66.2-112		%Rec	1	2/10/2016 11:29:53 AM	A32054
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Toluene	ND	0.041		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Ethylbenzene	ND	0.041		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Xylenes, Total	ND	0.082		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Surr: 4-Bromofluorobenzene	121	80-120	S	%Rec	1	2/10/2016 11:29:53 AM	B32054

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
R	RPD outside accepted recovery limits	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#: 1602363

11-Feb-16

Client: XTO Energy

Project: FEDERAL GAS COM I #1C

Sample ID	MB-23655	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	23655	RunNo	32031					
Prep Date	2/10/2016	Analysis Date	2/10/2016	SeqNo	979589	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		91.9	70	130			

Sample ID	1602363-001AMS	SampType	MS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	SW Bottom	Batch ID	23655	RunNo	32031					
Prep Date	2/10/2016	Analysis Date	2/10/2016	SeqNo	979966	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	380	9.8	49.07	319.0	125	31.2	162			
Surr: DNOP	4.5		4.907		92.0	70	130			

Sample ID	1602363-001AMSD	SampType	MSD	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	SW Bottom	Batch ID	23655	RunNo	32031					
Prep Date	2/10/2016	Analysis Date	2/10/2016	SeqNo	979967	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	370	9.5	47.48	319.0	101	31.2	162	3.67	31.7	
Surr: DNOP	4.3		4.748		90.8	70	130	0	0	

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 |
| R RPD outside accepted recovery limits | 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#: 1602363

11-Feb-16

Client: XTO Energy

Project: FEDERAL GAS COM 1 #1C

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A32054	RunNo:	32054					
Prep Date:		Analysis Date:	2/10/2016	SeqNo:	980098	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	930		1000		93.1	66.2	112			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A32054	RunNo:	32054					
Prep Date:		Analysis Date:	2/10/2016	SeqNo:	980099	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.5	79.6	122			
Surr: BFB	990		1000		98.7	66.2	112			

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 |
| ID Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | 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#: 1602363

11-Feb-16

Client: XTO Energy
Project: FEDERAL GAS COM I #1C

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B32054	RunNo:	32054					
Prep Date:		Analysis Date:	2/10/2016	SeqNo:	980109	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B32054	RunNo:	32054					
Prep Date:		Analysis Date:	2/10/2016	SeqNo:	980110	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		123	80	120			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- D Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % 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

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1602363

RcptNo: 1

Received by/date: AT 02/10/16

Logged By: Anne Thorne 2/10/2016 7:40:00 AM

Completed By: Anne Thorne 2/10/2016

Reviewed By: TD 2/10/16

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° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

JAME DAY



Well Site/Location
FEDERAL GAS COM 1#1C

Collected By
KURT

Company
XTO

Signature
Kurt Huebner

Quote Number

XTO Contact
KURT

Email Results to:

JAMES KURT, LOGAN, REX

API Number
30-045-30144

Samples on Ice
(V)N

QA/QC Requested
Y

Gray Areas for Lab Use Only!

Page 1 of 1

XTO Contact Phone #
505-486-9543

Test Reason
SPILL

Turnaround

Standard
X Next Day SAME DAY
Two Day
Three Day
Std. 5 Bus. Days (by contract)
Date Needed

No. of
Conts.

Preservative

Time

Date

Media

Sample Name

Sample ID

FARXA-020916-1412

S.W. BOTTOM

S

2/9

02 ICE

402 JAR

X

FARXA-020916-1420

N.W. BOTTOM

S

2/9

02 ICE

402 JAR

X

FARXA-020916-1426

S.W. WALL

S

2/9

02 ICE

402 JAR

X

Analysis

TPH 8015 DRD-GPD
BTEX 8021

Sample Number

1102303-001

1102303-002

1102303-003

Lab Information

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV

Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Water = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)
Kurt Huebner

Time: 5:00

Date: 2-9-16

Received By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Received By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Relinquished By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Received By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Received By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Relinquished By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Received By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Received By: (Signature)
James Kurt

Time: 1:11

Date: 2-9-16

Comments

* Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200

0124



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

February 15, 2016

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Federal Gas Com 1 #1C

OrderNo.: 1602520

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/12/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: S.W. Bottom

Project: Federal Gas Com 1 #1C

Collection Date: 2/11/2016 8:15:00 AM

Lab ID: 1602520-001

Matrix: MEOH (SOIL)

Received Date: 2/12/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	280	10		mg/Kg	1	2/12/2016 9:06:19 PM	23703
Surr: DNOP	98.0	70-130		%Rec	1	2/12/2016 9:06:19 PM	23703
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	13	4.6		mg/Kg	1	2/12/2016 11:44:54 AM	23685
Surr: BFB	149	66.2-112	S	%Rec	1	2/12/2016 11:44:54 AM	23685

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
	R	RPD outside accepted recovery limits	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#: 1602520

15-Feb-16

Client: XTO Energy
Project: Federal Gas Com 1 #1C

Sample ID	MB-23703	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	23703	RunNo	32107					
Prep Date	2/12/2016	Analysis Date	2/12/2016	SeqNo	982134	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.7		10.00		87.3	70	130			

Sample ID	LCS-23703	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	23703	RunNo	32107					
Prep Date	2/12/2016	Analysis Date	2/12/2016	SeqNo	982135	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.6	65.8	136			
Surr: DNOP	3.9		5.000		77.3	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
R RPD outside accepted recovery limits
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#: 1602520

15-Feb-16

Client: XTO Energy

Project: Federal Gas Com 1 #1C

Sample ID	MB-23685	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23685	RunNo:	32099					
Prep Date:	2/11/2016	Analysis Date:	2/12/2016	SeqNo:	982038	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	910		1000		91.1	66.2	112			

Sample ID	LCS-23685	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23685	RunNo:	32099					
Prep Date:	2/11/2016	Analysis Date:	2/12/2016	SeqNo:	982039	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	96.0	79.6	122			
Surr: BFB	970		1000		97.1	66.2	112			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- D Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 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

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1602520

RcptNo: 1

Received by/date:

Ja

02/12/16

Logged By:

Joe Archuleta

2/12/2016 8:00:00 AM

Completed By:

Joe Archuleta

2/12/2016 8:22:16 AM

Reviewed By:

[Signature]

02/12/16

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 ☒

of preserved
bottles checked
for pH:

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(<2 or >12 unless noted)

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

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			

		Quote Number		Page <u> </u> of <u> </u>		Analysis/Container <div style="border: 1px solid black; padding: 5px; margin: 5px;"> TPH 8015 220/220 </div>		Lab Information <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Office Abbreviations Farmington = FAR Durango = DUR Babken = BAK Raton = RAT Piceance = PC Roosevelt = RSU La Barge = LB Orangeville = OV 1602520 </div>	
		XTO Contact		XTO Contact Phone #					
FEDERAL GAS CORP #11C Collected By KURT		XTO Contact		505-486-9543		Email Results to: JAMES, KURT, LOGAN, REX Saturday Delivery (Y/N) <u> N </u>		Sample Number -001	
		XTO Contact		505-486-9543					
Signature 		API Number		30-045-30144		Turnaround Standard <input checked="" type="checkbox"/> Next Day SAME DAY <input type="checkbox"/> Two Day <input type="checkbox"/> Three Day <input type="checkbox"/> Same Day Date Needed <u> </u>		No. of Conts. 402 JAR X	
		Test Reason		Spill					
Signature 		Gray Areas for Lab Use Only!				Date 2/11 8:15 AM 10E		Preservative ON ICE	
		Sample Name		S.W. BOTTOM					
Sample ID FARKH-021116-0815		Media		S		Date 2/11 8:15 AM 10E		No. of Conts. 402 JAR X	
		Sample Name		S.W. BOTTOM					
Sample ID FARKH-021116-0815		Media		S		Date 2/11 8:15 AM 10E		No. of Conts. 402 JAR X	
		Sample Name		S.W. BOTTOM					
Sample ID FARKH-021116-0815		Media		S		Date 2/11 8:15 AM 10E		No. of Conts. 402 JAR X	
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Sample ID FARKH-021116-0815		Media		S		Date 2/11 8:15 AM 10E		No. of Conts. 402 JAR X	
		Sample Name		S.W. BOTTOM					
Sample ID FARKH-021116-0815		Media							

* Sample ID will be the office and sampler-date-military time FARJIM-MMDDYY-1200