

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: Kurt Hoekstra
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3100
Facility Name: Pan Am Federal C # 1F	Facility Type: Gas Well, Basin Dakota
Surface Owner: Federal	Mineral Owner
API No.: 30-045-33705	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	19	30N	11W	840	FSL	2126	FWL	San Juan

Latitude 36.793375 Longitude -108.14072

NATURE OF RELEASE

Type of Release: Condensate and Produced Water	Volume of Release: 101 bbls Condensate, 20 bbls Produced Water	Volume Recovered: None
Source of Release: Production Tank	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 3-2-2016 9:30 am
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), Katherina Diemer (BLM)	
By Whom? James McDaniel (EHS Supervisor XTO Energy)	Date and Hour: 3-2-2016 3:23 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

OIL CONS. DIV DIST. 3

APR 01 2016

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken: At approximately 9:30am on 3-2-2016, a corrosion hole was discovered in the production tank at the Pan American Federal C #1F well site. Approximately 101 bbls of condensate and 20 bbls of produced water was released into the lined bermed area with none being recovered. No liquids left the bermed area. The site was ranked a 30 pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases due to a water well approximately 700 feet to the south, and an estimated depth to groundwater between 50 and 100 feet. This will set the closure standards to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken.*Based on the loss of 101 bbls of condensate and 20 bbls produced water, a release has been confirmed at this location. XTO removed approximately 1800 cu yds. of impacted soil and the dimensions of the excavation are 65' x 55' x 8' deep northeast end and south side of excavation, and 15' deep in the North west corner of the excavation. All samples collected for lab analysis were witnessed by NMOCD employee Cory Smith (two (2) samples) were collected for confirmation and were used to close the north and west walls. All but one (1) sample returned results below the NMOCD standards for this location. The NW Base sample was slightly above the 100 ppm TPH standard at 64ppm DRO and 62ppm GRO totaling 126 ppm TPH, but was in very hard sandstone and a variance was allowed for this part of the excavation. Benzene and BTEX results are below the NMOCD regulatory limits for all samples collected. Closure has been approved at these NMOCD acceptable levels, the variance is attached, 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 "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Kurt Hoekstra</i>	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Kurt Hoekstra	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: EHS Coordinator	Approval Date: 4/4/16	Expiration Date:

#NCS 1606253828

39

E-mail Address: Kurt_Hoekstra@xtoenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3-29-2016 Phone: 505-333-3100		

* Attach Additional Sheets If Necessary

Summary of Closure sample results:

Pan Am Federal C # 1F

Date:	Sample Name:	TPH DRO ppm	TPH GRO ppm	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylenes, Total ppm	Chloride ppm	
3/4/2016	N. Wall	ND	ND	ND	ND	ND	ND	ND	
3/4/2016	W. Wall	ND	ND	ND	ND	ND	ND	N/A	
3/8/2016	SW Bottom **	ND	ND	ND	ND	ND	ND	N/A	
3/8/2016	NW Base	64	62	ND	0.44	0.24	2.8	N/A	Variance
3/9/2016	NE Bottom**	590	1500	ND	27	9.9	110	N/A	
3/9/2016	S. Bottom	30	41	N/D	0.13	0.13	1.2	N/A	
3/9/2016	S. Wall	14	7.8	ND	0.014	ND	0.42	N/A	
3/9/2016	E. Wall	ND	ND	ND	ND	ND	ND	N/A	
3/11/2016	NE Bottom	ND	ND	ND	ND	ND	ND	N/A	

** These samples were not used for closure

Hoekstra, Kurt

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, March 22, 2016 7:30 AM
To: Hoekstra, Kurt
Subject: RE: Pan Am Federal C # 1F Variance Request

Categories: External Sender

Kurt,

XTO request for an alternative closure standard is approved.

Thanks,

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

From: Hoekstra, Kurt [mailto:Kurt_Hoekstra@xtoenergy.com]
Sent: Monday, March 21, 2016 2:15 PM
To: Smith, Cory, EMNRD
Subject: FW: Pan Am Federal C # 1F Variance Request

Hello Cory, I cannot find a written confirmation for this variance request, would please send me in writing this variance approval so I can include it in my Final C-141.

Thank You.

From: Hoekstra, Kurt
Sent: Thursday, March 10, 2016 8:29 AM
To: Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us); Brandon Powell (brandon.powell@state.nm.us); Katherina Diemer (kdiemer@blm.gov); mflanike@blm.gov
Cc: McDaniel, James (James_McDaniel@xtoenergy.com); Hixon, Logan; Farnsworth, Rex
Subject: Pan Am Federal C # 1F Variance Request

Hello Cory,

Per our conversation on location on 3-9-2016, XTO is requesting a variance to the 100ppm TPH closure for the NW Base of the excavation, based on the sample results of:

DRO 64 ppm
GRO 62 ppm
Benzene ND

Toluene 0.44 ppm
Ethyl benzene 0.24
Xylenes Total 2.8 ppm

Based on the location: the excavation is in very hard sandstone, an estimate depth to groundwater between 50 and 100 feet, distance to a water well at approximately 700 feet to the south and the combined TPH DRO /GRO at 126 ppm, no benzene and almost no BTEX. XTO believes this does not pose a risk to human health or the environment.

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

March 08, 2016

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

RE: Pan Am Federal C #1F

OrderNo.: 1603272

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/5/2016 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 light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: W. Wall

Project: Pan Am Federal C #1F

Collection Date: 3/4/2016 12:30:00 PM

Lab ID: 1603272-002

Matrix: SOIL

Received Date: 3/5/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/7/2016 10:32:58 AM	24099
Surr: DNOP	80.5	70-130		%Rec	1	3/7/2016 10:32:58 AM	24099
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	3/7/2016 10:20:59 AM	24095
Surr: BFB	111	66.2-112		%Rec	1	3/7/2016 10:20:59 AM	24095
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	3/7/2016 10:20:59 AM	24095
Toluene	ND	0.044		mg/Kg	1	3/7/2016 10:20:59 AM	24095
Ethylbenzene	ND	0.044		mg/Kg	1	3/7/2016 10:20:59 AM	24095
Xylenes, Total	ND	0.089		mg/Kg	1	3/7/2016 10:20:59 AM	24095
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	3/7/2016 10:20:59 AM	24095

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#: 1603272

08-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	MB-24109	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	24109	RunNo:	32638					
Prep Date:	3/7/2016	Analysis Date:	3/7/2016	SeqNo:	998627	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-24109	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	24109	RunNo:	32638					
Prep Date:	3/7/2016	Analysis Date:	3/7/2016	SeqNo:	998628	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	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
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603272

08-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	LCS-24099	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24099	RunNo:	32605					
Prep Date:	3/7/2016	Analysis Date:	3/7/2016	SeqNo:	997481	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	73.7	65.8	136			
Surr: DNOP	4.0		5.000		80.8	70	130			

Sample ID	MB-24099	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24099	RunNo:	32605					
Prep Date:	3/7/2016	Analysis Date:	3/7/2016	SeqNo:	997483	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	7.9		10.00		78.8	70	130			

Sample ID	1603272-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	N. Wall	Batch ID:	24099	RunNo:	32605					
Prep Date:	3/7/2016	Analysis Date:	3/7/2016	SeqNo:	997750	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.7	48.40	0	83.3	31.2	162			
Surr: DNOP	4.1		4.840		84.6	70	130			

Sample ID	1603272-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	N. Wall	Batch ID:	24099	RunNo:	32605					
Prep Date:	3/7/2016	Analysis Date:	3/7/2016	SeqNo:	997751	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.8	49.21	0	83.2	31.2	162	1.52	31.7	
Surr: DNOP	4.0		4.921		80.4	70	130	0	0	

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#: 1603272

08-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	MB-24095	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24095	RunNo:	32608					
Prep Date:	3/4/2016	Analysis Date:	3/7/2016	SeqNo:	998147	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	1100		1000		107	66.2	112			

Sample ID	LCS-24095	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24095	RunNo:	32608					
Prep Date:	3/4/2016	Analysis Date:	3/7/2016	SeqNo:	998148	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	94.4	80	120			
Surr: BFB	1200		1000		115	66.2	112			S

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#: 1603272

08-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	MB-24095	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	24095	RunNo:	32608					
Prep Date:	3/4/2016	Analysis Date:	3/7/2016	SeqNo:	998163	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-24095	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	24095	RunNo:	32608					
Prep Date:	3/4/2016	Analysis Date:	3/7/2016	SeqNo:	998164	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	94.8	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.9	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.4	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	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
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: **XTO Energy**

Work Order Number: **1603272**

RcptNo: **1**

Received by/date: JA 03/05/16

Logged By: **Joe Archuleta** **3/5/2016 8:05:00 AM** JA

Completed By: **Joe Archuleta** **3/5/2016 8:22:53 AM** JA

Reviewed By: AT 03/07/16

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

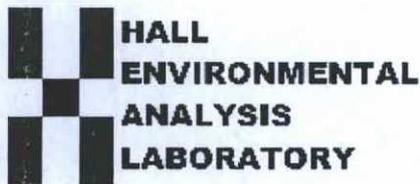
Regarding: _____

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

March 10, 2016

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

RE: Pan Am Federal C #1F

OrderNo.: 1603445

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/9/2016 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,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy
 Project: Pan Am Federal C #1F
 Lab ID: 1603445-001

Matrix: SOIL

Client Sample ID: SW Bottom
 Collection Date: 3/8/2016 1:00:00 PM
 Received Date: 3/9/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/9/2016 10:32:49 AM	24154
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2016 10:32:49 AM	24154
Surr: DNOP	80.5	70-130		%Rec	1	3/9/2016 10:32:49 AM	24154
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/9/2016 9:47:06 AM	24131
Surr: BFB	104	66.2-112		%Rec	1	3/9/2016 9:47:06 AM	24131
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	3/9/2016 9:47:06 AM	24131
Toluene	ND	0.040		mg/Kg	1	3/9/2016 9:47:06 AM	24131
Ethylbenzene	ND	0.040		mg/Kg	1	3/9/2016 9:47:06 AM	24131
Xylenes, Total	ND	0.080		mg/Kg	1	3/9/2016 9:47:06 AM	24131
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	3/9/2016 9:47:06 AM	24131

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
 Project: Pan Am Federal C #1F
 Lab ID: 1603445-002

Matrix: SOIL

Client Sample ID: NW Base
 Collection Date: 3/8/2016 2:00:00 PM
 Received Date: 3/9/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	64	9.6		mg/Kg	1	3/9/2016 10:54:08 AM	24154
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2016 10:54:08 AM	24154
Surr: DNOP	86.5	70-130		%Rec	1	3/9/2016 10:54:08 AM	24154
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	62	24		mg/Kg	5	3/9/2016 10:10:42 AM	24131
Surr: BFB	165	66.2-112	S	%Rec	5	3/9/2016 10:10:42 AM	24131
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	3/9/2016 10:10:42 AM	24131
Toluene	0.44	0.24		mg/Kg	5	3/9/2016 10:10:42 AM	24131
Ethylbenzene	0.24	0.24		mg/Kg	5	3/9/2016 10:10:42 AM	24131
Xylenes, Total	2.8	0.49		mg/Kg	5	3/9/2016 10:10:42 AM	24131
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	5	3/9/2016 10:10:42 AM	24131

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#: 1603445

10-Mar-16

Client: XTO Energy

Project: Pan Am Federal C #1F

Sample ID	MB-24154	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24154	RunNo:	32662					
Prep Date:	3/9/2016	Analysis Date:	3/9/2016	SeqNo:	999359	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.1		10.00		81.0	70	130			

Sample ID	LCS-24154	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24154	RunNo:	32662					
Prep Date:	3/9/2016	Analysis Date:	3/9/2016	SeqNo:	999422	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.8	65.8	136			
Surr: DNOP	4.0		5.000		80.1	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#: 1603445

10-Mar-16

Client: XTO Energy
 Project: Pan Am Federal C #1F

Sample ID	MB-24131	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24131	RunNo:	32666					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000133	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	1000		1000		105	66.2	112			

Sample ID	LCS-24131	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24131	RunNo:	32666					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000134	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.0	80	120			
Surr: BFB	1100		1000		110	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#: 1603445

10-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	MB-24131	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	24131	RunNo:	32666					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000154	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	LCS-24131	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	24131	RunNo:	32666					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000155	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.1	80	120			
Toluene	0.87	0.050	1.000	0	87.2	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.9	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	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
- W Sample container temperature is out of limit as specified

Client Name: XTO Energy

Work Order Number: 1603445

RcptNo: 1

Received by/date: LM 03/09/16

Logged By: Anne Thorne 3/9/2016 7:15:00 AM *Anne Thorne*

Completed By: Anne Thorne 3/9/2016 *Anne Thorne*

Reviewed By: *Jr* 03/09/16

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:

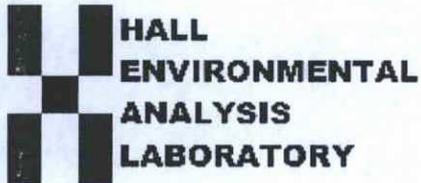
18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

SAME DAY

	Quote Number		Page <u>1</u> of <u>1</u>		Analysis/Container				Lab Information		
	XTO Contact <i>KURT</i>		XTO Contact Phone # 505-486-5043						Office Abbreviations Farmington = FAR Durango = DUR Bakken = BAK Raton = RAT Piceance = PC Roosevelt = RSV La Barge = LB Orangeville = OV		
	Email Results to: <i>JAMES, KURT, LOGAN, REX</i>										
Well Site/Location <i>PAN AM FEDERAL C# 1F</i>		API Number <i>30-045-3705</i>		Saturday Delivery (Y/N)		TPH 8015 BTEX 8021				Sample Number 110-3475 Not Witnessed for Witnessed Cores	
Collected By <i>KURT</i>		Samples on Ice <i>(Y/N)</i>		Turnaround							
Company <i>XTO</i>		Test Reason		<input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Next-Day <i>SAME DAY</i> <input type="checkbox"/> Two Day <input type="checkbox"/> Three Day <input type="checkbox"/> Same Day Date Needed _____							
Signature <i>Kurt Hebert</i>		Gray Area for Lab Use Only									
Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.					
FARKH-030816-1300	S. N. BOTTOM	S	3-8	1:00	ON ICE	(1) 4oz. Jar	X	X			
FARKH-030816-1400	N.W. BASE	S	3-8	2:00	ON ICE	(1) 4oz. Jar meat kits A-03109114	X	X			
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) <i>Kurt Hebert</i>		Date: 3-8-16	Time: 1545	Received By: (Signature) <i>Kurt Hebert</i>				Number of Bottles		Sample Condition	
Relinquished By: (Signature) <i>Christa Wheeler</i>		Date: 3/8/16	Time: 1829					Temperature:		Other Information	
Relinquished By: (Signature)		Date:	Time:	Received for Lab by: (Signature)				Date:	Time:		
Comments											

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



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

March 11, 2016

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

RE: Pan Am Federal C #1F

OrderNo.: 1603513

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/10/2016 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,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1603513
 Date Reported: 3/11/2016

CLIENT: XTO Energy
 Project: Pan Am Federal C #1F
 Lab ID: 1603513-001

Matrix: SOIL

Client Sample ID: NE Bottom
 Collection Date: 3/9/2016 1:55:00 PM
 Received Date: 3/10/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	590	9.6		mg/Kg	1	3/10/2016 10:25:30 AM	24181
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/10/2016 10:25:30 AM	24181
Surr: DNOP	96.4	70-130		%Rec	1	3/10/2016 10:25:30 AM	24181
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1500	200		mg/Kg	50	3/10/2016 10:05:00 AM	A32696
Surr: BFB	224	66.2-112	S	%Rec	50	3/10/2016 10:05:00 AM	A32696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.99		mg/Kg	50	3/10/2016 10:05:00 AM	B32696
Toluene	27	2.0		mg/Kg	50	3/10/2016 10:05:00 AM	B32696
Ethylbenzene	9.9	2.0		mg/Kg	50	3/10/2016 10:05:00 AM	B32696
Xylenes, Total	110	4.0		mg/Kg	50	3/10/2016 10:05:00 AM	B32696
Surr: 4-Bromofluorobenzene	137	80-120	S	%Rec	50	3/10/2016 10:05:00 AM	B32696

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: S Bottom

Project: Pan Am Federal C #1F

Collection Date: 3/9/2016 1:58:00 PM

Lab ID: 1603513-002

Matrix: SOIL

Received Date: 3/10/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	30	9.9		mg/Kg	1	3/10/2016 10:47:01 AM	24181
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/10/2016 10:47:01 AM	24181
Surr: DNOP	93.3	70-130		%Rec	1	3/10/2016 10:47:01 AM	24181
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	41	4.2		mg/Kg	1	3/10/2016 10:29:29 AM	A32696
Surr: BFB	271	66.2-112	S	%Rec	1	3/10/2016 10:29:29 AM	A32696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	3/10/2016 10:29:29 AM	B32696
Toluene	0.13	0.042		mg/Kg	1	3/10/2016 10:29:29 AM	B32696
Ethylbenzene	0.13	0.042		mg/Kg	1	3/10/2016 10:29:29 AM	B32696
Xylenes, Total	1.2	0.084		mg/Kg	1	3/10/2016 10:29:29 AM	B32696
Surr: 4-Bromofluorobenzene	141	80-120	S	%Rec	1	3/10/2016 10:29:29 AM	B32696

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
 Project: Pan Am Federal C #1F
 Lab ID: 1603513-003

Matrix: SOIL

Client Sample ID: S Wall
 Collection Date: 3/9/2016 2:05:00 PM
 Received Date: 3/10/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	14	9.7		mg/Kg	1	3/10/2016 11:08:29 AM	24181
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/10/2016 11:08:29 AM	24181
Surr: DNOP	97.4	70-130		%Rec	1	3/10/2016 11:08:29 AM	24181
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	7.8	4.6		mg/Kg	1	3/10/2016 10:54:00 AM	A32696
Surr: BFB	120	66.2-112	S	%Rec	1	3/10/2016 10:54:00 AM	A32696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	3/10/2016 10:54:00 AM	B32696
Toluene	0.14	0.046		mg/Kg	1	3/10/2016 10:54:00 AM	B32696
Ethylbenzene	ND	0.046		mg/Kg	1	3/10/2016 10:54:00 AM	B32696
Xylenes, Total	0.42	0.092		mg/Kg	1	3/10/2016 10:54:00 AM	B32696
Surr: 4-Bromofluorobenzene	125	80-120	S	%Rec	1	3/10/2016 10:54:00 AM	B32696

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 1603513

Date Reported: 3/11/2016

CLIENT: XTO Energy

Client Sample ID: E Wall

Project: Pan Am Federal C #1F

Collection Date: 3/9/2016 2:10:00 PM

Lab ID: 1603513-004

Matrix: SOIL

Received Date: 3/10/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/10/2016 11:30:03 AM	24181
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/10/2016 11:30:03 AM	24181
Surr: DNOP	97.4	70-130		%Rec	1	3/10/2016 11:30:03 AM	24181
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/10/2016 11:18:42 AM	A32696
Surr: BFB	109	66.2-112		%Rec	1	3/10/2016 11:18:42 AM	A32696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/10/2016 11:18:42 AM	B32696
Toluene	ND	0.048		mg/Kg	1	3/10/2016 11:18:42 AM	B32696
Ethylbenzene	ND	0.048		mg/Kg	1	3/10/2016 11:18:42 AM	B32696
Xylenes, Total	ND	0.095		mg/Kg	1	3/10/2016 11:18:42 AM	B32696
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	1	3/10/2016 11:18:42 AM	B32696

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#: 1603513

11-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	LCS-24181	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24181	RunNo:	32689					
Prep Date:	3/10/2016	Analysis Date:	3/10/2016	SeqNo:	1000578	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	65.8	136			
Surr: DNOP	4.6		5.000		92.4	70	130			

Sample ID	MB-24181	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24181	RunNo:	32689					
Prep Date:	3/10/2016	Analysis Date:	3/10/2016	SeqNo:	1000579	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.2	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#: 1603513

11-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001371	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	890		1000		89.0	66.2	112			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001372	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	80	120			
Surr: BFB	1000		1000		104	66.2	112			

Sample ID	1603513-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NE Bottom	Batch ID:	A32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001373	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2500	200	988.9	1477	101	59.3	143			
Surr: BFB	89000		39560		225	66.2	112			S

Sample ID	1603513-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NE Bottom	Batch ID:	A32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001431	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2500	200	988.9	1477	106	59.3	143	2.29	20	
Surr: BFB	95000		39560		240	66.2	112	0	0	S

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#: 1603513

11-Mar-16

Client: XTO Energy
Project: Pan Am Federal C #1F

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001385	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001386	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.6	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.7	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	1603513-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	S Bottom	Batch ID:	B32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001387	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.021	0.8368	0	93.8	71.5	122			
Toluene	0.98	0.042	0.8368	0.1259	103	71.2	123			
Ethylbenzene	1.1	0.042	0.8368	0.1279	113	75.2	130			
Xylenes, Total	4.0	0.084	2.510	1.184	112	72.4	131			
Surr: 4-Bromofluorobenzene	1.2		0.8368		140	80	120			S

Sample ID	1603513-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	S Bottom	Batch ID:	B32696	RunNo:	32696					
Prep Date:		Analysis Date:	3/10/2016	SeqNo:	1001388	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.021	0.8368	0	89.8	71.5	122	4.36	20	
Toluene	0.93	0.042	0.8368	0.1259	96.4	71.2	123	5.42	20	
Ethylbenzene	1.0	0.042	0.8368	0.1279	109	75.2	130	3.26	20	
Xylenes, Total	3.9	0.084	2.510	1.184	106	72.4	131	3.49	20	
Surr: 4-Bromofluorobenzene	1.1		0.8368		137	80	120	0	0	S

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

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1603513

RcptNo: 1

Received by/date: JA 03/10/16

Logged By: **Anne Thorne** 3/10/2016 7:25:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 3/10/2016 *Anne Thorne*

Reviewed By: *JA* 03/10/16

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

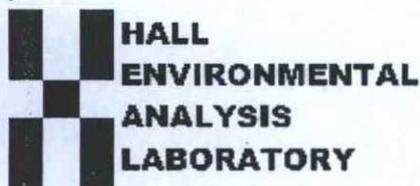
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

SAME DAY

1341

	Quote Number		Page <u>1</u> of <u>1</u>		Analysis/Container				Lab Information		
	XTO Contact <i>KURT</i>		XTO Contact Phone # <i>505-486-9543</i>						Office Abbreviations Farmington = FAR Durango = DUR Bakken = BAK Raton = RAT Piceance = PC Roosevelt = RSV La Barge = LB Orangeville = OV		
	Email Results to: <i>JAMES, KURT, LOGAN, REX</i>										
Well Site/Location <i>PAN AM FEDERAL C#1F</i>		API Number <i>30-045-33705</i>		Saturday Delivery (Y/N) <input checked="" type="checkbox"/>		TPH 8015 BTEX 8021					
Collected By <i>KURT</i>		Samples on Ice <input checked="" type="checkbox"/> (Y/N)		Turnaround							
Company <i>XTO</i>		Test Reason <i>SPILL</i>		<input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Next Day <i>SAME DAY</i> <input type="checkbox"/> Two Day <input type="checkbox"/> Three Day <input type="checkbox"/> Same Day							
Signature <i>Kurt Huelter</i>		Gray Area: for Lab Use Only		Date Needed							
Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.					Sample Number
<i>FARKH-030916-1355</i>	<i>N.E. BOTTOM</i>	<i>S</i>	<i>3-9</i>	<i>1:55</i>	<i>ON ICE</i>	<i>(1) 4oz Jar</i>	<i>X</i>	<i>X</i>			<i>1305/3-001</i>
<i>FARKH-030916-1358</i>	<i>S. BOTTOM</i>	<i>S</i>	<i>3-9</i>	<i>1:58</i>	<i>ON ICE</i>	<i>(1) 4oz Jar</i>	<i>X</i>	<i>X</i>			<i>202</i>
<i>FARKH-030916-1405</i>	<i>S. WALL</i>	<i>S</i>	<i>3-9</i>	<i>2:05</i>	<i>ON ICE</i>	<i>(1) 4oz Jar</i>	<i>X</i>	<i>X</i>			<i>203</i>
<i>FARKH-030916-1410</i>	<i>E. WALL</i>	<i>S</i>	<i>3-9</i>	<i>2:10</i>	<i>ON ICE</i>	<i>(1) 4oz Jar</i>	<i>X</i>	<i>X</i>			<i>209</i>
<i>Meat/lets</i>											
<i>AT 03/10/16</i>											
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) <i>Kurt Huelter</i>			Date: <i>3-9-16</i>		Time: <i>15:35</i>		Received By: (Signature) <i>Chad West</i>			Number of Bottles:	
Relinquished By: (Signature) <i>Chad West</i>			Date: <i>3-9-16</i>		Time: <i>18:41</i>		Received By: (Signature) <i>Chad West</i>			Temperature: <i>16</i>	
Relinquished By: (Signature)			Date:		Time:		Received for Lab by: (Signature)			Date: Time:	
Comments											

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



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

March 15, 2016

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

RE: Pan Am Federal C 1F

OrderNo.: 1603649

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/12/2016 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,

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.

CLIENT: XTO Energy

Client Sample ID: NE Bottom

Project: Pan Am Federal C 1F

Collection Date: 3/11/2016 10:45:00 AM

Lab ID: 1603649-001

Matrix: SOIL

Received Date: 3/12/2016 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/14/2016 10:22:43 AM	24225
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2016 10:22:43 AM	24225
Surr: DNOP	73.5	70-130		%Rec	1	3/14/2016 10:22:43 AM	24225
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	3/14/2016 8:46:44 AM	24219
Surr: BFB	110	66.2-112		%Rec	1	3/14/2016 8:46:44 AM	24219
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	3/14/2016 8:46:44 AM	24219
Toluene	ND	0.043		mg/Kg	1	3/14/2016 8:46:44 AM	24219
Ethylbenzene	ND	0.043		mg/Kg	1	3/14/2016 8:46:44 AM	24219
Xylenes, Total	ND	0.086		mg/Kg	1	3/14/2016 8:46:44 AM	24219
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	3/14/2016 8:46:44 AM	24219

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#: 1603649

15-Mar-16

Client: XTO Energy
Project: Pan Am Federal C 1F

Sample ID	LCS-24225	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24225	RunNo:	32764					
Prep Date:	3/14/2016	Analysis Date:	3/14/2016	SeqNo:	1003209	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	65.8	136			
Surr: DNOP	3.6		5.000		71.5	70	130			

Sample ID	MB-24225	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24225	RunNo:	32764					
Prep Date:	3/14/2016	Analysis Date:	3/14/2016	SeqNo:	1003210	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.5		10.00		74.7	70	130			

Sample ID	LCS-24212	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24212	RunNo:	32764					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004019	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.4	70	130			

Sample ID	MB-24212	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24212	RunNo:	32764					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004020	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.2	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#: 1603649

15-Mar-16

Client: XTO Energy
Project: Pan Am Federal C 1F

Sample ID	MB-24219	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24219	RunNo:	32770					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004230	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	1100		1000		106	66.2	112			

Sample ID	LCS-24219	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24219	RunNo:	32770					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004231	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	97.3	80	120			
Surr: BFB	1100		1000		114	66.2	112			S

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#: 1603649

15-Mar-16

Client: XTO Energy
Project: Pan Am Federal C 1F

Sample ID	MB-24219	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	24219	RunNo:	32770					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004248	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
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	LCS-24219	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	24219	RunNo:	32770					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004249	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	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
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1603649

RcptNo: 1

Received by/date: LM 03/12/16

Logged By: **Anne Thorne** 3/12/2016 11:00:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 3/14/2016 *Anne Thorne*

Reviewed By: *[Signature]* 03/14/16

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	4.4	Good	Yes			

