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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: Kurt Hoekstra
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3100
Facility Name: Salty Dog SWD # 4	Facility Type: Gas Well (Basin Fruitland Coal)

Surface Owner: Federal	Mineral Owner	API No. 30-045-32334

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	1	30N	14W	2580	FSL	1890	FWL	San Juan

Latitude: 36.8427 **Longitude:** -108.2629

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 150 BBL	Volume Recovered: 20 BBL
Source of Release: 6" underground water transfer line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery: 2-23-2017 @ 4:00 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields NMOCD	
By Whom? Kurt Hoekstra XTO Energy	Date and Hour: 2-23-2017 @ 4:10 pm	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. Approximately 150 BBL produced water	

If a Watercourse was Impacted, Describe Fully.* Approximately 150 bbls of produced water was lost from a 6" water transfer line ponding on location, before flowing off location to the east, entering a small drainage feature, and eventually entering a wash south of the location. The water traveled for approximately 1,500 feet off location, and approximately 1,000 feet in the wash.

OIL CONS. DIV DIST. 3

MAR 0 6 2017

Describe Cause of Problem and Remedial Action Taken: Approximately 150 bbls of produced water was lost from a 6" water transfer line ponding on location, before flowing off location to the east, entering a small drainage feature, and eventually entering a wash south of the location. The water traveled for approximately 1,500 feet off location, and approximately 1,000 feet in the wash. Vanessa Fields NMOCD was notified at 4:10 pm. 2-23-2017. The site was ranked a 20 pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases due to distance to surface water 200-1000 feet, and an estimated depth to groundwater between 50 and 100 feet, and distance to a domestic water source greater than 1,000 feet. This set the closure standards to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX. A spill has been confirmed at this location.

Describe Area Affected and Cleanup Action Taken.*Due to a produced water leak of 150 BBLs a release has been confirmed at this location. The line was shut in immediately and the leak was stopped. A water truck was called and 20 BBLs of produced water was recovered. Repairs were made to the 6" transfer line. The sample results (attached) returned results below the regulatory requirements. 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: Kurt Hoekstra

Printed Name: Kurt Hoekstra

Title: EHS Coordinator

E-mail Address: Kurt_Hoekstra@xtoenergy.com

Date: 3-1-2017 Phone: 505-333-3100

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 3/8/2017 Expiration Date:

Conditions of Approval:

Attached ☐

NVF1706731924

Apply gypsum to affected area following BLM's spec sheet. 38

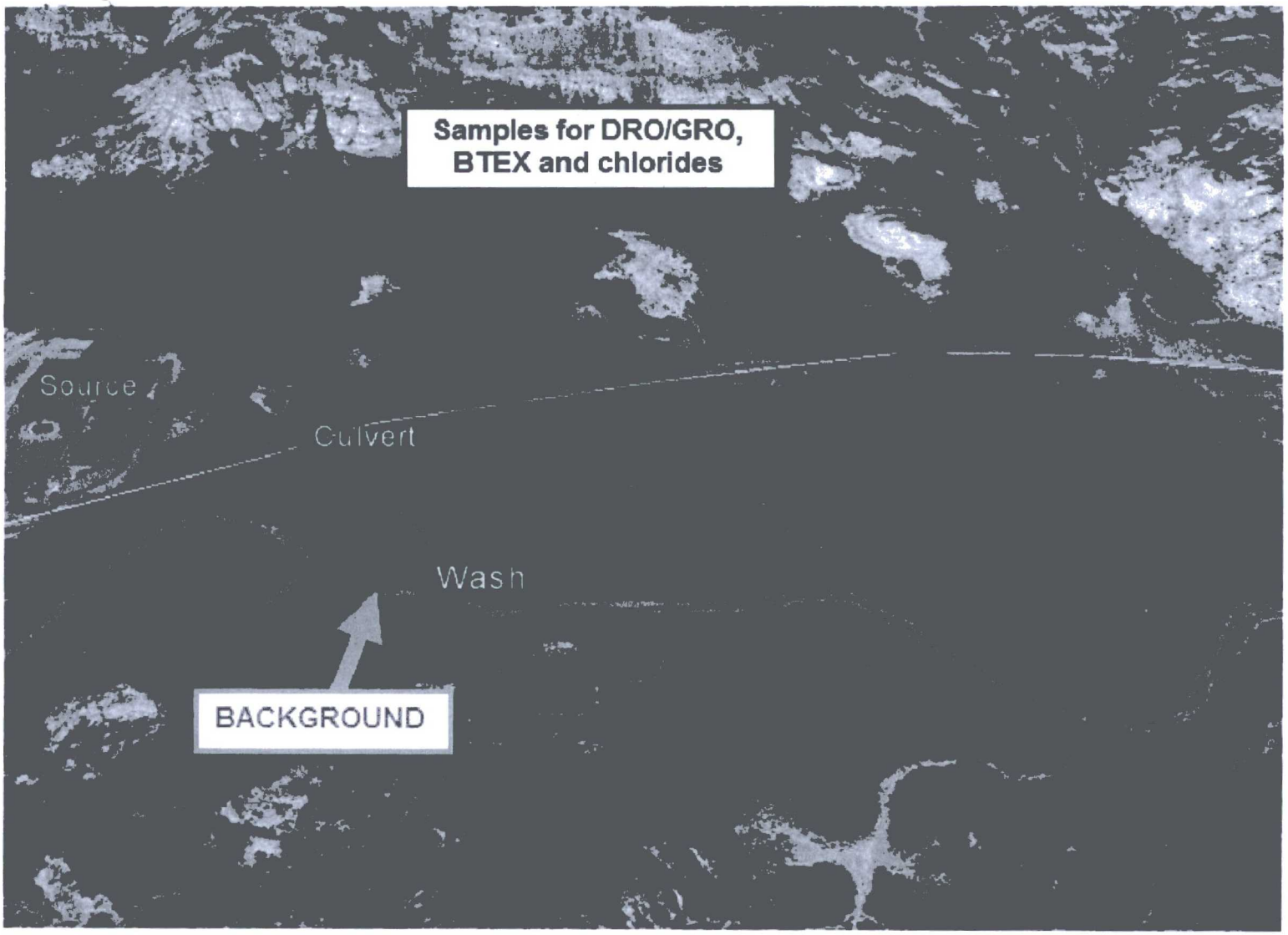
* Attach Additional Sheets If Necessary

McDaniel, James

From: McDaniel, James
Sent: Friday, February 24, 2017 2:23 PM
To: Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us); Smith, Cory, EMNRD; 'Brandon Powell (brandon.powell@state.nm.us)'; Whitney Thomas (l1thomas@blm.gov)
Cc: Martin Nee (Martin_Nee@xtoenergy.com); Logan Hixon (Logan_Hixon@xtoenergy.com); Kurt Hoekstra (Kurt_Hoekstra@xtoenergy.com)
Subject: 24 Hour Notice - Salty Dog SWD #4 release

Hello,

Please consider this email the required 24 hour notification for a major release at the Salty Dog SWD #4 injection well location. The well is located in Section 1K, Township 30N, Range 14W, San Juan County, New Mexico, API # 30-045-32334. The well Lat/Long is 36.8427/-108.2629. On February 23, 2017 at approximately 4:00 PM, a water leak was discovered at the location, originating from the 6" underground water transfer line. The line was shut in immediately and the leak was stopped. It was determined that approximately 150 bbls of produced water was lost from the line, ponding on location, before flowing off location to the east, entering a small drainage feature, and eventually entering a wash south of the location. The water traveled for approximately 1,500 feet off location, and approximately 1,000 feet in the wash. Repairs to the line are underway, and soil samples were collected from the spill area. One soil sample was collected from the source of the release, and a sample was collected every 100 feet in the wash. Samples from the source, from the point where the water entered the wash from a culvert, the point where the water entered the main wash, and from the end of the release will be analyzed for DRO/GRO, BTEX and chlorides. All other samples will be analyzed for chlorides only. A background sample was also collected from the wash upgradient of the spill area. All samples will be analyzed on a rush, and analytical results should be available early next week. An aerial photo of the site and spill area is attached to this email for your reference. Please do not hesitate to contact me with any questions regarding this incident.



James McDaniel
EH&S Supervisor
CHMM #15676
CSP #30009
XTO Energy Inc.
382 Road 3100
Aztec, New Mexico 87410
Phone: 505.333.3701 | Mobile: 505.787.0519
james_mcdaniel@xtoenergy.com

An ExxonMobil Subsidiary

ESC LAB SCIENCES
YOUR LAB OF CHOICE

ANALYTICAL REPORT

February 28, 2017

myESC
REAL TIME DATA ACCESS

XTO Energy - San Juan Division

Sample Delivery Group:	L892428
Samples Received:	02/25/2017
Project Number:	
Description:	Salty Dog #4

Report To: Kurt Hoekstra
382 County Road 3100
Aztec, NM 87410

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

TABLE OF CONTENTS

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

SOURCE L892428-01 Solid

Collected by: Kurt | Collected date/time: 02/24/17 09:00 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG955864	1	02/26/17 10:26	02/28/17 10:14	LM
Total Solids by Method 2540 G-2011	WG955766	1	02/25/17 13:16	02/25/17 13:26	KDW
Volatile Organic Compounds (GC) by Method 8015/8021	WG955936	1	02/26/17 23:19	02/28/17 10:29	DWR
Wet Chemistry by Method 9056A	WG955763	1	02/27/17 13:05	02/27/17 16:53	KCF

CULVERT EXIT L892428-02 Solid

Collected by: Kurt | Collected date/time: 02/24/17 09:10 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG955864	1	02/26/17 10:26	02/28/17 10:25	LM
Total Solids by Method 2540 G-2011	WG955766	1	02/25/17 13:16	02/25/17 13:26	KDW
Volatile Organic Compounds (GC) by Method 8015/8021	WG955936	1	02/26/17 23:19	02/28/17 10:52	DWR
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 17:13	KCF

CULVERT 100 L892428-03 Solid

Collected by: Kurt | Collected date/time: 02/24/17 09:20 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955766	1	02/25/17 13:16	02/25/17 13:26	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 18:55	KCF

CULVERT 200 L892428-04 Solid

Collected by: Kurt | Collected date/time: 02/24/17 09:30 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955766	1	02/25/17 13:16	02/25/17 13:26	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 19:16	KCF

CULVERT 300 L892428-05 Solid

Collected by: Kurt | Collected date/time: 02/24/17 09:40 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955766	1	02/25/17 13:16	02/25/17 13:26	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 19:36	KCF

WASH ENTRY L892428-06 Solid

Collected by: Kurt | Collected date/time: 02/24/17 09:50 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG955864	1	02/26/17 10:26	02/28/17 10:37	LM
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Volatile Organic Compounds (GC) by Method 8015/8021	WG955936	1	02/26/17 23:19	02/28/17 11:14	DWR
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 19:56	KCF

WASH BACKGROUND L892428-07 Solid

Collected by: Kurt | Collected date/time: 02/24/17 10:00 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	1	02/27/17 13:05	02/27/17 20:17	KCF

WASH 100 L892428-08 Solid

Collected by: Kurt | Collected date/time: 02/24/17 10:10 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 20:37	KCF

WASH 200 L892428-09 Solid

Collected by: Kurt | Collected date/time: 02/24/17 10:20 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 20:58	KCF

WASH 300 L892428-10 Solid

Collected by: Kurt | Collected date/time: 02/24/17 10:30 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 21:18	KCF

WASH 400 L892428-11 Solid

Collected by: Kurt | Collected date/time: 02/24/17 10:40 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 21:39	KCF

WASH 500 L892428-12 Solid

Collected by: Kurt | Collected date/time: 02/24/17 10:50 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 22:40	KCF

WASH 600 L892428-13 Solid

Collected by: Kurt | Collected date/time: 02/24/17 11:00 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 23:00	KCF

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

WASH 700 L892428-14 Solid

Collected by: Kurt | Collected date/time: 02/24/17 11:10 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 23:21	KCF

WASH 800 L892428-15 Solid

Collected by: Kurt | Collected date/time: 02/24/17 11:20 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955767	1	02/25/17 13:59	02/25/17 14:06	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/27/17 23:41	KCF

WASH 900 L892428-16 Solid

Collected by: Kurt | Collected date/time: 02/24/17 11:30 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG955768	1	02/25/17 14:10	02/25/17 14:23	KDW
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/28/17 00:02	KCF

WASH 1000 L892428-17 Solid

Collected by: Kurt | Collected date/time: 02/24/17 11:40 | Received date/time: 02/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG955864	1	02/26/17 10:26	02/28/17 10:48	LM
Total Solids by Method 2540 G-2011	WG955768	1	02/25/17 14:10	02/25/17 14:23	KDW
Volatile Organic Compounds (GC) by Method 8015/8021	WG955936	1	02/26/17 23:19	02/28/17 11:37	DWR
Wet Chemistry by Method 9056A	WG955763	10	02/27/17 13:05	02/28/17 00:22	KCF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.2		1	02/25/2017 13:26	WG955766

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	506		11.2	1	02/27/2017 16:53	WG955763

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000560	1	02/28/2017 10:29	WG955936
Toluene	ND		0.00560	1	02/28/2017 10:29	WG955936
Ethylbenzene	ND		0.000560	1	02/28/2017 10:29	WG955936
Total Xylene	ND		0.00168	1	02/28/2017 10:29	WG955936
TPH (GC/FID) Low Fraction	ND		0.112	1	02/28/2017 10:29	WG955936
(S) a,a,a-Trifluorotoluene(FID)	*97.3*		*77.0-120*		*02/28/2017 10:29*	WG955936
(S) a,a,a-Trifluorotoluene(PID)	*102*		*75.0-128*		*02/28/2017 10:29*	WG955936

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	ND		4.48	1	02/28/2017 10:14	WG955864
(S) o-Terphenyl	*67.9*		*18.0-148*		*02/28/2017 10:14*	WG955864

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	02/25/2017 13:26	WG955766

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	3190	V	121	10	02/27/2017 17:13	WG955763

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000977		0.000606	1	02/28/2017 10:52	WG955936
Toluene	ND		0.00606	1	02/28/2017 10:52	WG955936
Ethylbenzene	ND		0.000606	1	02/28/2017 10:52	WG955936
Total Xylene	0.00248	B	0.00182	1	02/28/2017 10:52	WG955936
TPH (GC/FID) Low Fraction	0.149		0.121	1	02/28/2017 10:52	WG955936
(S) a,a,a-Trifluorotoluene(FID)	*97.7*		*77.0-120*		*02/28/2017 10:52*	WG955936
(S) a,a,a-Trifluorotoluene(PID)	*102*		*75.0-128*		*02/28/2017 10:52*	WG955936

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	5.07		4.85	1	02/28/2017 10:25	WG955864
(S) o-Terphenyl	*65.6*		*18.0-148*		*02/28/2017 10:25*	WG955864

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	02/25/2017 13:26	WG955766

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	3330		121	10	02/27/2017 18:55	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.9		1	02/25/2017 13:26	WG955766

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	1760		114	10	02/27/2017 19:16	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	02/25/2017 13:26	WG955766

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	1490		111	10	02/27/2017 19:36	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.2		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2320		117	10	02/27/2017 19:56	WG955763

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000587	1	02/28/2017 11:14	WG955936
Toluene	ND		0.00587	1	02/28/2017 11:14	WG955936
Ethylbenzene	ND		0.000587	1	02/28/2017 11:14	WG955936
Total Xylene	ND		0.00176	1	02/28/2017 11:14	WG955936
TPH (GC/FID) Low Fraction	0.232		0.117	1	02/28/2017 11:14	WG955936
(S) a,a,a-Trifluorotoluene(FID)	*96.7*		*77.0-120*		*02/28/2017 11:14*	WG955936
(S) a,a,a-Trifluorotoluene(PID)	*102*		*75.0-128*		*02/28/2017 11:14*	WG955936

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	ND		4.69	1	02/28/2017 10:37	WG955864
(S) o-Terphenyl	*66.2*		*18.0-148*		*02/28/2017 10:37*	WG955864

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		11.5	1	02/27/2017 20:17	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.9		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2340		119	10	02/27/2017 20:37	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2890		120	10	02/27/2017 20:58	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.7		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2850		120	10	02/27/2017 21:18	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2950		120	10	02/27/2017 21:39	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	3100		120	10	02/27/2017 22:40	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2210		116	10	02/27/2017 23:00	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.5		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2110		116	10	02/27/2017 23:21	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	02/25/2017 14:06	WG955767

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2060		114	10	02/27/2017 23:41	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.6		1	02/25/2017 14:23	WG955768

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	3370		118	10	02/28/2017 00:02	WG955763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.6		1	02/25/2017 14:23	WG955768

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	1650		113	10	02/28/2017 00:22	WG955763

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000564	1	02/28/2017 11:37	WG955936
Toluene	ND		0.00564	1	02/28/2017 11:37	WG955936
Ethylbenzene	ND		0.000564	1	02/28/2017 11:37	WG955936
Total Xylene	ND		0.00169	1	02/28/2017 11:37	WG955936
TPH (GC/FID) Low Fraction	ND		0.113	1	02/28/2017 11:37	WG955936
(S) a,a,a-Trifluorotoluene(FID)	*97.4*		*77.0-120*		*02/28/2017 11:37*	WG955936
(S) a,a,a-Trifluorotoluene(PID)	*102*		*75.0-128*		*02/28/2017 11:37*	WG955936

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	ND		4.51	1	02/28/2017 10:48	WG955864
(S) o-Terphenyl	*64.8*		*18.0-148*		*02/28/2017 10:48*	WG955864

WG955766

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

L892428-01,02,03,04,05

Method Blank (MB)

(MB) R3199446-1 02/25/17 13:26

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00130			

L891206-13 Original Sample (OS) • Duplicate (DUP)

(OS) L891206-13 02/25/17 13:26 • (DUP) R3199446-3 02/25/17 13:26

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	68.0	69.9	1	2.75		5

Laboratory Control Sample (LCS)

(LCS) R3199446-2 02/25/17 13:26

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

WG955767

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

L892428-06,07,08,09,10,11,12,13,14,15

Method Blank (MB)

(MB) R3199454-1 02/25/17 14:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000600			

L892428-15 Original Sample (OS) • Duplicate (DUP)

(OS) L892428-15 02/25/17 14:06 • (DUP) R3199454-3 02/25/17 14:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	87.3	87.8	1	0.498		5

Laboratory Control Sample (LCS)

(LCS) R3199454-2 02/25/17 14:06

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

WG955768

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

L892428-16,17

Method Blank (MB)

(MB) R3199455-1 02/25/17 14:23

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000800			

L892441-01 Original Sample (OS) • Duplicate (DUP)

(OS) L892441-01 02/25/17 14:23 • (DUP) R3199455-3 02/25/17 14:23

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	91.4	92.3	1	0.970		5

Laboratory Control Sample (LCS)

(LCS) R3199455-2 02/25/17 14:23

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

WG955763

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

L892428-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17

Method Blank (MB)

(MB) R3199795-2 02/27/17 14:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		0.795	10.0

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3199795-3 02/27/17 14:50 • (LCSD) R3199795-4 02/27/17 15:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Chloride	200	191	191	95	96	80-120			0	15

L892428-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L892428-02 02/27/17 17:13 • (MS) R3199795-6 02/27/17 17:33 • (MSD) R3199795-7 02/27/17 17:54

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	R
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%
Chloride	60.6	3190	3580	3670	66	80	10	80-120	V		2

WG955936

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

L892428-01,02,06,17

Method Blank (MB)

(MB) R3199837-5 02/27/17 12:37

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000275	J	0.000150	0.00500
Ethylbenzene	0.000149	J	0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*103*			*75.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3199837-1 02/27/17 10:47 • (LCSD) R3199837-2 02/27/17 11:09

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.0500	0.0461	0.0461	92.1	92.2	71.0-121			0.0700	20
Toluene	0.0500	0.0457	0.0451	91.5	90.2	72.0-120			1.35	20
Ethylbenzene	0.0500	0.0456	0.0454	91.3	90.8	76.0-121			0.580	20
Total Xylene	0.150	0.136	0.136	90.7	90.5	75.0-124			0.150	20
(S) a,a,a-Trifluorotoluene(FID)				*96.9*	*97.0*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*101*	*101*	*75.0-128*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3199837-3 02/27/17 11:31 • (LCSD) R3199837-4 02/27/17 11:53

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	5.75	5.97	105	109	70.0-136			3.78	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*105*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*111*	*111*	*75.0-128*				

L892175-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L892175-01 02/27/17 14:21 • (MS) R3199837-6 02/27/17 14:43 • (MSD) R3199837-7 02/27/17 15:06

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	R
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%
Benzene	0.0584	0.000800	0.0132	0.0136	21.2	21.9	1	10.0-146			2
Toluene	0.0584	0.000737	0.00876	0.00879	13.7	13.8	1	10.0-143			0
Ethylbenzene	0.0584	0.000185	0.00537	0.00569	8.89	9.43	1	10.0-147	J6	J6	5
Total Xylene	0.175	0.000675	0.0164	0.0165	8.99	9.04	1	10.0-149	J6	J6	0

L892175-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L892175-01 02/27/17 14:21 • (MS) R3199837-6 02/27/17 14:43 • (MSD) R3199837-7 02/27/17 15:06

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	R
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%
(S) a,a,a-Trifluorotoluene(FID)					*97.2*	*96.4*		*77.0-120*			
(S) a,a,a-Trifluorotoluene(PID)					*102*	*101*		*75.0-128*			

L892175-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L892175-01 02/27/17 14:21 • (MS) R3199837-8 02/27/17 15:28 • (MSD) R3199837-9 02/27/17 15:50

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	R
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%
TPH (GC/FID) Low Fraction	6.42	0.0930	2.14	3.03	31.8	45.7	1	10.0-147		J3	3
(S) a,a,a-Trifluorotoluene(FID)					*90.7*	*100*		*77.0-120*			
(S) a,a,a-Trifluorotoluene(PID)					*94.4*	*106*		*75.0-128*			

WG955864

Semi-Volatile Organic Compounds (GC) by Method 8015

QUALITY CONTROL SUMMARY

L892428-01,02,06,17

Method Blank (MB)

(MB) R3199754-1 02/27/17 12:44

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	*61.6*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3199754-2 02/27/17 12:55 • (LCSD) R3199754-3 02/27/17 13:06

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPH (GC/FID) High Fraction	60.0	49.9	48.8	83.1	81.4	50.0-150			2.14	20
(S) o-Terphenyl				*76.0*	*73.5*	*18.0-148*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [-/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

XTO ENERGY
Western Division

Quote Number	Page ___ of ___	Analysis/Contai
XTO Contact: KURT	XTO Contact Phone #: 505-486-9543	
Email Results to: JAMES, KURT, LOGAN		
Well Site/Location: SALTY DOG #4	API Number	Saturday Delivery (Y)/N
Collected By: KURT	Samples on Ice (Y)/N	Turnaround: ___ Standard; X Next Day; ___ Two Day; ___ Three Day; ___ Same Day; Date Needed ___
Company: XTO	Test Reason: SPILL	
Signature: Kurt Hurlbut	Gray Areas for Lab Use Only!	

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	TPH 8015 DRO/GRO	BTEX 8021	CHLORIDE		
SALTY DOG #4	SOURCE	S	2/24	9:00	ON ICE	(1) 4oz. JAR	X	X	X		
	CULVERT EXIT			9:10			X	X	X		
	CULVERT 100'			9:20					X		
	CULVERT 200'			9:30					X		
	CULVERT 300'			9:40					X		
	WASH ENTRY			9:50			X	X	X		
	WASH BACKGROUND			10:00					X		
	WASH 100'			10:10					X		
	WASH 200'			10:20					X		
	WASH 300'			10:30					X		
	WASH 400'			10:40					X		
	WASH 500'			10:50					X		
	WASH 600'			11:00					X		

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

Relinquished By: (Signature) Kurt Hurlbut	Date: 2-24-17	Time: 2:30	Received By: (Signature)	Nu
Relinquished By: (Signature)	Date:	Time:	6127 6739 4273	Te
Relinquished By: (Signature)	Date:	Time:	Received for Lab by: (Signature)	Da 2

Comments

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

XTO ENERGY
Western Division

Quote Number		Page ___ of ___
XTO Contact: KURT		XTO Contact Phone #: 505-486-9543
Email Results to: JAMES, KURT, LOGAN		
Well Site/Location: SALTY DOG #4	API Number	Saturday Delivery (Y) N
Collected By: KURT	Samples on Ice (Y) N	Turnaround: ___ Standard; X Next Day; ___ Two Day; ___ Three Day; ___ Same Day; Date Needed ___
Company: XTO	Test Reason	
Signature: Kurt Hunter	Gray Areas for Lab Use Only!	

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	Analysis/Contain: TPH 8015 DRO/GRO	BTEX 8021	Chloride		
SALTY DOG #4	WASH 700'	S	2/24	11:10	ON ICE	(1) 4oz JAR			X		
	WASH 800'			11:20					X		
	WASH 900'			11:30					X		
	WASH 1000'			11:40			X	X	X		

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

Relinquished By: (Signature) Kurt Hunter	Date: 2-24-17	Time: 2:30	Received By: (Signature)	N
Relinquished By: (Signature)	Date:	Time:	same	Te
Relinquished By: (Signature)	Date:	Time:	Received for Lab by: (Signature)	D

Comments

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

ESC LAB SCIENCES
Cooler Receipt Form

Client:	XTORNM	SDG#	8924
Cooler Received/Opened On: 2/ 25 /17		Temperature:	3,2
Received By: **Don Wright**			
Signature:			

Receipt Check List	NP	Yes
COC Seal Present / Intact?	/	
COC Signed / Accurate?		/
Bottles arrive intact?		/
Correct bottles used?		/
Sufficient volume sent?		/
If Applicable		
VOA Zero headspace?		
Preservation Correct / Checked?		