

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: James McDaniel
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3701
Facility Name: WF Federal 5-2 (30-045-29853)	Facility Type: Gas Well (Fruitland Coal)

Surface Owner: Federal	Mineral Owner:	Lease No.:
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LOCATION OF RELEASE

Unit Letter K	Section 5	Township 29N	Range 14W	Feet from the 1655	North/South Line FSL	Feet from the 1570	East/West Line FWL	County San Juan
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Latitude: 36.7531 Longitude: -108.3365

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 21 bbls	Volume Recovered: 20 bbls
Source of Release: Water Line	Date and Hour of Occurrence March 5, 2011	Date and Hour of Discovery March 5, 2011 - 13:30
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? RCVD MAR 30 '11	
By Whom? James McDaniel	Date and Hour OIL CONS. DIV.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse DIST. 3	

If a Watercourse was Impacted, Describe Fully *

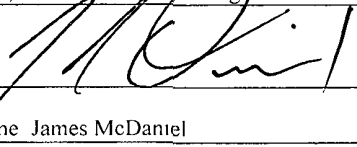
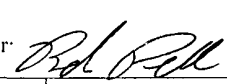
Describe Cause of Problem and Remedial Action Taken *

On March 5, 2011, a water leak was noticed at the WF Federal 5-2 well site. An estimated 21 bbls of produced water leaked from a ruptured line at the separator, running into the lined pit cellar. The leak was stopped and the damaged line replaced. 20 bbls of water was recovered from the lined pit cellar, with approximately 1 bbl soaking in to the soil inside the bermed area and in the pit cellar. The site was ranked a 10 pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases, due to an estimated depth to groundwater of over 50 feet.

Describe Area Affected and Cleanup Action Taken *

On March 7, 2011, two (2) composite samples were collected from the site. One (1) sample was collected inside the bermed area in the spill area, and one (1) sample was collected in the pit cellar. The water tank and cellar liner were removed due to the eroding soil around the pit cellar. The cellar and BGT were re-done and put back into service. The spill composite samples were analyzed for DRO/GRO, BTEX and chlorides. Both spill composite samples returned results below the regulatory standards determined for this site for DRO/GRO and for BTEX. The sample from inside the bermed area returned chloride results of 3,000 ppm, while the sample from the BGT cellar returned a chloride results of 1,400 ppm. The background for this site was determined to be 46 ppm chlorides during a previous sampling event. Due to the low amount of water lost, a depth to groundwater of over 50 feet, and the containment of the spills impact area to a small area inside the berm and BGT cellar, no further remediation activity will be performed. Applicable analytical results are attached for your reference.

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

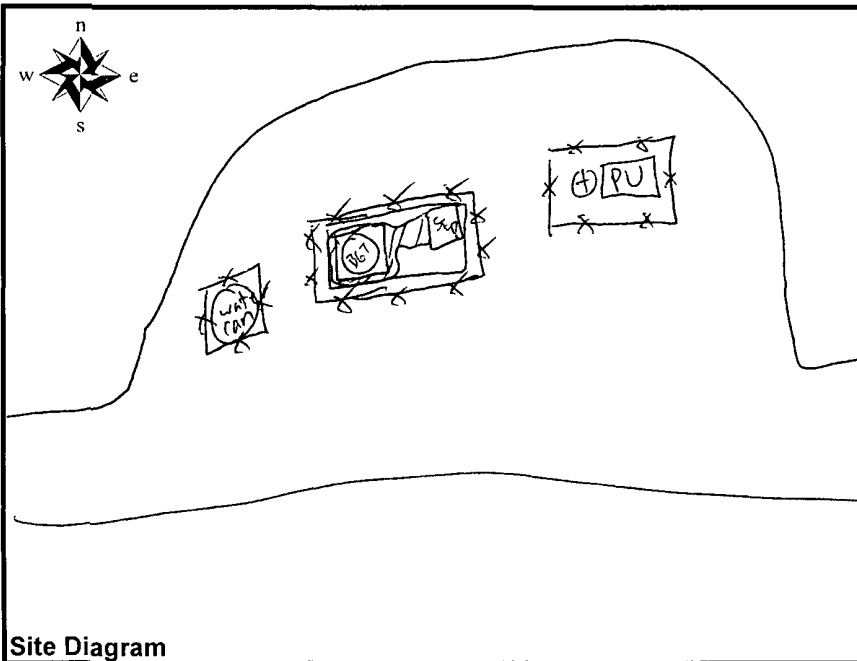
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: James McDaniel	Approved by District Supervisor: 	
Title: EH&S Specialist	Approval Date: 3/30/11	Expiration Date:
E-mail Address: James_McDaniel@xtoenergy.com	Conditions of Approval nJK 1122339546	Attached <input type="checkbox"/>
Date: 3/28/2011	Phone: 505-333-3701	

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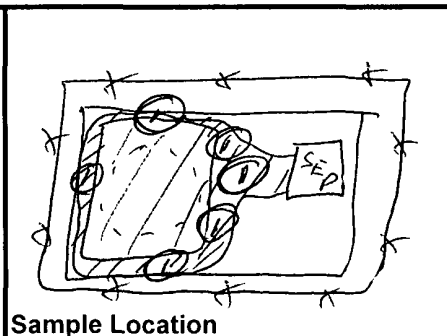


XTO Energy On-Site Form

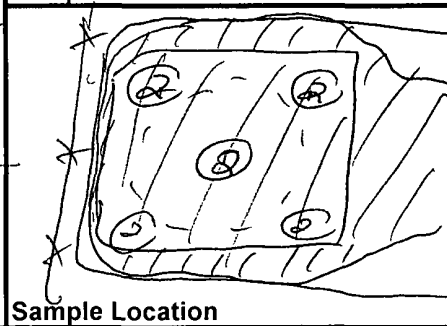
Well Name WF Federal 5-2 API # 30-045-2885-3
Section 5K Township 29N Range 14W County San Juan
Contractors On-Site OFT Const Time On-Site 1145 Time Off-Site 1215
Spill Amount 21 bbls Spilled (Oil / Produced Water / Other —)
Land Use (Grazing / Residential / Tribe —) Excavation — x — x — deep



Site Diagram



Sample Location



Sample Location

*OFT removing BGT and collar liner upon arrival
-water seeped under liner
Comments *no odor, steam or coal fines noticed

Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
—	NA	100 Standard	NA	—	NA
1200	1	Spill composite inside berm	wet, brown, sandy loam	—	8015, 8021 chlorides
1205	2	Spill composite in cellar	wet, brown, sand	—	8015, 8021, chlorides

Name (Print) James McDaniel Date 3/7/11
Name (Signature) [Signature] Company XTO Energy, Inc.



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Est 1970

James McDaniel
XTO Energy - San Juan Division
382 Road 3100
Aztec, NM 87410

Report Summary

Friday March 11, 2011

Report Number: L505078

Samples Received: 03/08/11

Client Project:

Description: WF Federal 5-2

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By.

Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences

Note The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP

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Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures 060302, 060303, and 060304



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REPORT OF ANALYSIS

March 11, 2011

James McDaniel
XTO Energy - San Juan Division
382 Road 3100
Aztec, NM 87410

ESC Sample # L505078-01

Date Received March 08, 2011
Description WF Federal 5-2

Site ID WF FEDERAL 5-2

Sample ID SPILL COMPOSITE INSIDE BERM

Project #

Collected By James McDaniel
Collection Date 03/07/11 12 00

Parameter	Dry Result	Det Limit	Units	Method	Date	Dil
Chloride	3000	63	mg/kg	9056	03/09/11	5
Total Solids	80		%	2540G	03/11/11	1
Benzene	BDL	0.0031	mg/kg	8021/8015	03/08/11	5
Toluene	BDL	0.031	mg/kg	8021/8015	03/08/11	5
Ethylbenzene	BDL	0.0031	mg/kg	8021/8015	03/08/11	5
Total Xylene	BDL	0.0094	mg/kg	8021/8015	03/08/11	5
TPH (GC/FID) Low Fraction	BDL	0.63	mg/kg	GRO	03/08/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene (FID)	95.9		% Rec	8021/8015	03/08/11	5
a,a,a-Trifluorotoluene (PID)	97.2		% Rec	8021/8015	03/08/11	5
TPH (GC/FID) High Fraction	38	5.0	mg/kg	3546/DRO	03/10/11	1
Surrogate recovery(%)						
o-Terphenyl	86.8		% Rec	3546/DRO	03/10/11	1

Results listed are dry weight basis

BDL - Below Detection Limit

Det Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

James McDaniel
XTO Energy - San Juan Division
382 Road 3100
Aztec, NM 87410

March 11, 2011

Date Received March 08, 2011
Description WF Federal 5-2
Sample ID SPILL COMPOSITE IN CELLAR
Collected By James McDaniel
Collection Date 03/07/11 12 05

ESC Sample # L505078-02

Site ID WF FEDERAL 5-2

Project #

Parameter	Dry Result	Det Limit	Units	Method	Date	Dil
Chloride	1400	24	mg/kg	9056	03/09/11	2
Total Solids	84		%	2540G	03/11/11	1
Benzene	BDL	0 0030	mg/kg	8021/8015	03/08/11	5
Toluene	BDL	0 030	mg/kg	8021/8015	03/08/11	5
Ethylbenzene	BDL	0 0030	mg/kg	8021/8015	03/08/11	5
Total Xylene	BDL	0 0089	mg/kg	8021/8015	03/08/11	5
TPH (GC/FID) Low Fraction	BDL	0 60	mg/kg	GRO	03/08/11	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene (FID)	90 8		% Rec	8021/8015	03/08/11	5
a,a,a-Trifluorotoluene (PID)	91 4		% Rec	8021/8015	03/08/11	5
TPH (GC/FID) High Fraction	BDL	4 8	mg/kg	3546/DRO	03/10/11	1
Surrogate recovery(%)						
o-Terphenyl	94 5		% Rec	3546/DRO	03/10/11	1

Results listed are dry weight basis

BDL - Below Detection Limit

Det Limit - Practical Quantitation Limit (PQL)

Note

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Reported 03/11/11 13 10 Printed 03/11/11 13 11

Summary of Remarks For Samples Printed
03/11/11 at 13 11 15

TSR Signing Reports 288
R4 - Rush Three Day

drywt

Sample	L505078-01	Account	XTORNM Received	03/08/11 08 30	Due Date	03/11/11 00 00	RPT Date	03/11/11 13.10
Sample	L505078-02	Account	XTORNM Received	03/08/11 08 30	Due Date	03/11/11 00 00	RPT Date	03/11/11 13 10



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

Quality Assurance Report
Level II

L505078

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Est 1970

March 11, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< 0005	mg/kg			WG524978	03/08/11 21 06
Ethylbenzene	< 0005	mg/kg			WG524978	03/08/11 21 06
Toluene	< 005	mg/kg			WG524978	03/08/11 21 06
TPH (GC/FID) Low Fraction	< 1	mg/kg			WG524978	03/08/11 21 06
Total Xylene	< 0015	mg/kg			WG524978	03/08/11 21 06
a,a,a-Trifluorotoluene(FID)		% Rec	96 46	59-128	WG524978	03/08/11 21 06
a,a,a-Trifluorotoluene(PID)		% Rec	98 05	54-144	WG524978	03/08/11 21 06
Chloride	< 10	mg/kg			WG524727	03/09/11 09 50
TPH (GC/FID) High Fraction	< 4	ppm			WG524988	03/10/11 15 24
o-Terphenyl		% Rec	95 81	50-150	WG524988	03/10/11 15 24
Total Solids	< 1	%			WG525312	03/11/11 10 33

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
Chloride	mg/kg	1200	1200	4 26	20	L505078-02	WG524727
Total Solids	%	89 0	90 2	1 16	5	L505101-02	WG525312

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	05	0 0503	101	76-113	WG524978
Ethylbenzene	mg/kg	05	0 0481	96 3	78-115	WG524978
Toluene	mg/kg	05	0 0479	95 8	76-114	WG524978
Total Xylene	mg/kg	15	0 144	96 2	81-118	WG524978
a,a,a-Trifluorotoluene(PID)				99 15	54-144	WG524978
TPH (GC/FID) Low Fraction	mg/kg	5 5	5 41	98 4	67-135	WG524978
a,a,a-Trifluorotoluene(PID)				102 7	59-128	WG524978
Chloride	mg/kg	200	214	107	85-115	WG524727
TPH (GC/FID) High Fraction	ppm	60	48 6	81 0	50-150	WG524988
o-Terphenyl				86 66	50-150	WG524988
Total Solids	%	50	50 0	100	85-155	WG525312

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/kg	0 0522	0 0503	104	76-113	3 80	20	WG524978
Ethylbenzene	mg/kg	0 0500	0 0481	100	78-115	3 74	20	WG524978
Toluene	mg/kg	0 0499	0 0479	100	76-114	4 05	20	WG524978
Total Xylene	mg/kg	0 150	0 144	100	81-118	3 95	20	WG524978
a,a,a-Trifluorotoluene(PID)				97 09	54-144			WG524978
TPH (GC/FID) Low Fraction	mg/kg	5 42	5 41	98 0	67-135	0 130	20	WG524978
a,a,a-Trifluorotoluene(PID)				102 8	59-128			WG524978

* Performance of this Analyte is outside of established criteria
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers '



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XTO Energy - San Juan Division
James McDaniel
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Aztec, NM 87410

Quality Assurance Report
Level II

L505078

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Est 1970

March 11, 2011

Analyte	Laboratory Control Sample Duplicate				Limit	RPD	Limit	Batch
	Units	Result	Ref	%Rec				
Chloride	mg/kg	210	214	105	85-115	1 89	20	WG524727
TPH (GC/FID) High Fraction	ppm	50 2	48 6	84 0	50-150	3 25	25	WG524988
o-Terphenyl				89 46	50-150			WG524988

Analyte	Units	MS Res	Matrix Spike			Limit	Ref Samp	Batch
			Ref Res	TV	% Rec			
Benzene	mg/kg	0 252	0	05	101	32-137	L505080-02	WG524978
Ethylbenzene	mg/kg	0 239	0	05	95 4	10-150	L505080-02	WG524978
Toluene	mg/kg	0 237	0	05	95 0	20-142	L505080-02	WG524978
Total Xylene	mg/kg	0 710	0	15	94 6	16-141	L505080-02	WG524978
a,a,a-Trifluorotoluene(PID)					96 04	54-144		WG524978
TPH (GC/FID) Low Fraction	mg/kg	23 7	0	5 5	86 3	55-109	L505080-02	WG524978
a,a,a-Trifluorotoluene(FID)					101 2	59-128		WG524978
TPH (GC/FID) High Fraction	ppm	52 3	0	60	87 1	50-150	L504852-19	WG524988
o-Terphenyl					91 16	50-150		WG524988

Analyte	Units	MSD	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec						
Benzene	mg/kg	0 249	0 252	99 7		32-137	1 16	39	L505080-02	WG524978
Ethylbenzene	mg/kg	0 233	0 239	93 3		10-150	2 26	44	L505080-02	WG524978
Toluene	mg/kg	0 229	0 237	91 6		20-142	3 62	42	L505080-02	WG524978
Total Xylene	mg/kg	0 698	0 710	93 0		16-141	1 75	46	L505080-02	WG524978
a,a,a-Trifluorotoluene(PID)				96 45		54-144				WG524978
TPH (GC/FID) Low Fraction	mg/kg	25 2	23 7	91 6		55-109	5 99	20	L505080-02	WG524978
a,a,a-Trifluorotoluene(FID)				102 0		59-128				WG524978
TPH (GC/FID) High Fraction	ppm	54 8	52 3	91 2		50-150	4 61	25	L504852-19	WG524988
o-Terphenyl				101 3		50-150				WG524988

Batch number / Run number / Sample number cross reference

WG524978 R1603449 L505078-01 02
WG524727 R1605072 L505078-01 02
WG524988 R1606189 L505078-01 02
WG525312 R1606719 L505078-01 02

* * Calculations are performed prior to rounding of reported values
* Performance of this Analyte is outside of established criteria
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers '



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XTO Energy - San Juan Division
James McDaniel
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Quality Assurance Report
Level II

LS05078

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March 11, 2011

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



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James McDaniel
XTO Energy - San Juan Division
382 Road 3100
Aztec, NM 87410

Report Summary

Wednesday March 02, 2011

Report Number: L503822

Samples Received: 03/01/11

Client Project:

Description: WF Federal 5-2

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,
TX - T104704245, OK-9915

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP

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REPORT OF ANALYSIS

March 02, 2011

James McDaniel
XTO Energy - San Juan Division
382 Road 3100
Aztec, NM 87410

Date Received March 01, 2011
Description WF Federal 5-2

Sample ID BACKGROUND

Collected By James McDaniel
Collection Date 02/25/11 16 40

ESC Sample # L503822-02

Site ID WF FEDERAL 5-2

Project #

Parameter	Dry Result	Det Limit	Units	Method	Date	Dil
Chloride	46	13	mg/kg	9056	03/02/11	1
Total Solids	76		%	2540G	03/02/11	1

Results listed are dry weight basis

BDL - Below Detection Limit

Det Limit - Practical Quantitation Limit(PQL)

Note

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Reported 03/02/11 12 49 Printed 03/02/11 13 11



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XTO Energy - San Juan Division
James McDaniel
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Aztec, NM 87410

Quality Assurance Report
Level II

L503822

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March 02, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< 0005	mg/kg			WG523768	03/01/11 14 55
Ethylbenzene	< 0005	mg/kg			WG523768	03/01/11 14 55
Toluene	< 005	mg/kg			WG523768	03/01/11 14 55
TPH (GC/FID) Low Fraction	< 1	mg/kg			WG523768	03/01/11 14 55
Total Xylene	< 0015	mg/kg			WG523768	03/01/11 14 55
a,a,a-Trifluorotoluene (FID)		% Rec	94 62	59-128	WG523768	03/01/11 14 55
a,a,a-Trifluorotoluene (PID)		% Rec	94 72	54-144	WG523768	03/01/11 14 55
TPH (GC/FID) High Fraction	< 4	ppm			WG523502	03/02/11 00 46
o-Terphenyl		% Rec	96 02	50-150	WG523502	03/02/11 00 46
Chloride	< 10	mg/kg			WG523456	03/01/11 12 29
Total Solids	< 1	%			WG523815	03/02/11 11 30

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Total Solids	%	75 0	76 1	1 59	5	L503822-02	WG523815

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	05	0 0461	92 2	76-113	WG523768
Ethylbenzene	mg/kg	05	0 0453	90 6	78-115	WG523768
Toluene	mg/kg	05	0 0436	87 2	76-114	WG523768
Total Xylene	mg/kg	15	0 134	89 5	81-118	WG523768
a,a,a-Trifluorotoluene (PID)				96 76	54-144	WG523768
TPH (GC/FID) Low Fraction	mg/kg	5 5	5 48	99 7	67-135	WG523768
a,a,a-Trifluorotoluene (FID)				100 9	59-128	WG523768
TPH (GC/FID) High Fraction	ppm	60	51 9	86 4	50-150	WG523502
o-Terphenyl				84 38	50-150	WG523502
Chloride	mg/kg	200	208	104	85-115	WG523456
Total Solids	%	50	50 2	100	85-155	WG523815

Analyte	Units	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref %Rec				
Benzene	mg/kg	0 0476	0 0461	95 0	76-113	3 14	WG523768
Ethylbenzene	mg/kg	0 0463	0 0453	93 0	78-115	2 27	WG523768
Toluene	mg/kg	0 0460	0 0436	92 0	76-114	5 40	WG523768
Total Xylene	mg/kg	0 138	0 134	92 0	81-118	2 98	WG523768
a,a,a-Trifluorotoluene (PID)				96 71	54-144		WG523768
TPH (GC/FID) Low Fraction	mg/kg	5 47	5 48	100	67-135	0 170	WG523768
a,a,a-Trifluorotoluene (FID)				100 9	59-128		WG523768
TPH (GC/FID) High Fraction	ppm	50 6	51 9	84 0	50-150	2 47	WG523502
o-Terphenyl				82 85	50-150		WG523502

* Performance of this Analyte is outside of established criteria
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers'



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

Quality Assurance Report
Level II

L503822

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Mt Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I D 62-0814289

Est 1970

March 02, 2011

Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Chloride	mg/kg	203	208	102		85-115	2 43	20	WG523456
Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch	
		MS Res	Ref Res	TV					
Benzene	mg/kg	0 226	0	05	90 2	32-137	L503819-01	WG523768	
Ethylbenzene	mg/kg	0 220	0	05	87 8	10-150	L503819-01	WG523768	
Toluene	mg/kg	0 225	0	05	89 8	20-142	L503819-01	WG523768	
Total Xylene	mg/kg	0 661	0	15	88 1	16-141	L503819-01	WG523768	
a,a,a-Trifluorotoluene(PID)	mg/kg	17 6	0	5 5	95 30	54-144	L503819-01	WG523768	
TPH (GC/FID) Low Fraction					64 0	55-109		WG523768	
a,a,a-Trifluorotoluene (FID)					97 22	59-128		WG523768	
TPH (GC/FID) High Fraction	ppm	82 2	22 0	60	100	50-150	L503819-02	WG523502	
o-Terphenyl					69 83	50-150		WG523502	
Analyte	Units	Matrix Spike		Duplicate	Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
Benzene	mg/kg	0 225	0 226	90 2	32-137	0 0500	39	L503819-01	WG523768
Ethylbenzene	mg/kg	0 217	0 220	86 7	10-150	1 33	44	L503819-01	WG523768
Toluene	mg/kg	0 218	0 225	87 3	20-142	2 85	42	L503819-01	WG523768
Total Xylene	mg/kg	0 646	0 661	86 1	16-141	2 33	46	L503819-01	WG523768
a,a,a-Trifluorotoluene(PID)	mg/kg	22 6	17 6	95 65	54-144	20	L503819-01	WG523768	
TPH (GC/FID) Low Fraction				82 1	55-109			WG523768	
a,a,a-Trifluorotoluene (FID)				98 91	59-128			WG523768	
TPH (GC/FID) High Fraction	ppm	74 5	82 2	87 5	50-150	9 82	25	L503819-02	WG523502
o-Terphenyl				77 09	50-150	WG523502			

Batch number / Run number / Sample number cross reference

WG523768 R1593469 L503822-01
WG523502 R1593649 L503822-01
WG523456 R1593910 L503822-01 02
WG523815 R1594493 L503822-01 02

* * Calculations are performed prior to rounding of reported values
* Performance of this Analyte is outside of established criteria
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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.