

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: James McDaniel	RCVD OCT 7 '14
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3701	OIL CONS. DIV.
Facility Name: Davis Gas COM F #1E	Facility Type: Gas Well (Basin Dakota)	DIST. 3

Surface Owner: Private	Mineral Owner	API No. 30-045-24084
------------------------	---------------	----------------------

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	27	29N	11W	1490	FNL	1110	FEL	San Juan

Latitude: N 36.70663 Longitude: W -107.91304

### NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered: None
Source of Release: BGT	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 7/15/2009
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

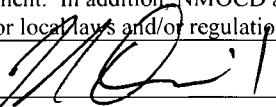
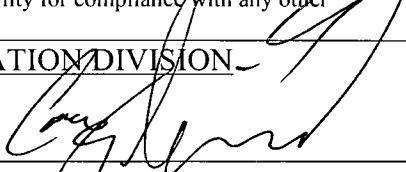
Describe Cause of Problem and Remedial Action Taken.\*

The below grade tank was taken out of service at the Davis Gas COM F #1E well site due to an upgrade at this well site. A composite sample was collected beneath the location of the on-site BGT, and submitted for laboratory analysis for TPH via USEPA Method 418.1, Benzene and BTEX via USEPA Method 8021, and for total chlorides. The sample returned results below the 'Pit Rule' spill confirmation standards for Benzene, Total BTEX and total chlorides, but above the 100 ppm standard for TPH at 534 ppm. The site was then ranked pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 30 due to an irrigation ditch approximately 280 feet to the south, and an estimated depth to groundwater less than 50 feet. This set the closure standard to 100 ppm TPH, 10 ppm benzene, and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken.\*

Tetra Tech, Inc. was contacted to oversee remediation activities at this location, and their report detailing the remediation activities is attached. XTO requests that 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: 	OIL CONSERVATION DIVISION 	
Printed Name: James McDaniel	Approved by Environmental Specialist:	
Title: EHS Supervisor	Approval Date: 11/21/14	Expiration Date:
E-mail Address: James.McDaniel@xtoenergy.com	Conditions of Approval:	
Date: 10/1/14	Attached <input type="checkbox"/>	
Phone: 505-333-3701	#HCS143255 1986	

\* Attach Additional Sheets If Necessary

65

# **SOIL AND GROUNDWATER INVESTIGATION REPORT**

**XTO ENERGY, INC.**

**DAVIS GC F#1E  
PRODUCTION WELL SITE  
BLOOMFIELD, NEW MEXICO**

**Prepared for:**



382 CR-3100  
Aztec, New Mexico 87410

**Prepared by:**



**TETRA TECH, INC.**

6121 Indian School Rd. NE, Suite 200  
Albuquerque, NM 87110  
Tetra Tech Project No. 114-690126

November 9, 2009

## TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site Background.....	1
2.0	SOIL AND GROUNDWATER INVESTIGATION.....	1
2.1	Methodology and Results.....	1
3.0	EXCAVATION EXPANSION AND ADDITIONAL SOIL REMOVAL.....	3
3.1	Methodology and Results.....	3
4.0	SUMMARY AND CONCLUSIONS .....	4

## **FIGURES**

1. Site Location Map
2. Site Layout Map with Pothole Locations and Laboratory Analytical Results
3. Site Excavation Detail Map with Laboratory Analytical Results

## **TABLES**

1. Soil Analytical Results
2. Groundwater Analytical Results

## **APPENDICES**

- |             |  |
|-------------|--|
| Appendix A. | Soil and Groundwater Laboratory Analytical Reports |
| Appendix B. | Waste Manifest Forms                               |

**SOIL AND GROUNDWATER INVESTIGATION REPORT  
DAVIS GAS COM F#1E, SAN JUAN COUNTY, NEW MEXICO  
NOVEMBER 2009**

## **1.0 INTRODUCTION**

This report discusses the soil and groundwater investigation conducted by Tetra Tech, Inc. (Tetra Tech) from August 11 through November 2, 2009 at the XTO Energy, Inc. (XTO) Davis Gas Com F#1E site located in Bloomfield, New Mexico (Site). The Site is located in Unit H of Section 27 within Township 29N and Range 11W, of San Juan County, New Mexico (Figure 1). The site layout is illustrated on Figure 2.

### **1.1 Site Background**

On July 9, 2009, XTO's lease operator discovered a small hole in the 90 barrel open-top beneath grade separator tank. The water from the tank was immediately removed, and XTO's construction supervisor was contacted to replace the tank. XTO construction crews discovered impacted soil beneath its former location and excavated approximately 200 cubic yards of sand and river cobble. The excavation stopped at 18' feet below ground surface (bgs) in sandstone bedrock due to sidewall stability concerns. A thin layer of groundwater began seeping in at that depth along the top of the sandstone bedrock. Within the excavation pit, the deepest 2.5' of cobbles (approximately 16-18' bgs) were gray in color, likely representing the groundwater smear zone where soil may have been impacted by a historic release. Potential up-gradient sources are also shown on Figure 1 and include the adjacent San Juan Refinery owned and operated by Western Refining Company and the Jacque #2 gas production well, owned and operated by Holcomb Oil. The subsurface investigation discussed in this report was initiated to better characterize lithology, delineate vertical and lateral extent of impacted soil, and investigate possible up-gradient concerns.

The location and dimensions of the excavation pit advanced during July 2009 and total petroleum hydrocarbon (TPH) results from the associated composite sampling are shown on Figures 2 and 3. Review of those results by the New Mexico Oil Conservation Division (NMOCD), prompted XTO to initiate this investigation.

## **2.0 SOIL AND GROUNDWATER INVESTIGATION**

### **2.1 Methodology and Results**

Beginning on August 11, 2009, Tetra Tech supervised advancement of six potholes at the site by Core Oil Field Services of Waterflow, New Mexico using excavator and

backhoe equipment. Figure 2 illustrates the location of the potholes. Three holes were advanced up-gradient of the initial excavation (B1, B2, and B3). Two holes were advanced on the east side of the existing excavation (B4 and B5) and one hole on the south side to plan for additional soil removal (B6). A pothole was not advanced on the west side, due to the presence of four high pressure gas lines located directly adjacent to that side of the excavation. Figure 2 illustrates the approximate locations of the pipelines and identifies ownership. Since the original soil sample collected from the bottom of the west wall contained only 434 parts per million (ppm) total petroleum hydrocarbon (TPH), XTO collected an additional composite sample of the west wall in order to request closure with those results if they were still relatively low or close to the standard of 100 ppm for site remediation required by the NMOCD. This sample was collected prior to additional excavation and had measured TPH of 138 ppm (Figure 3). XTO made the request to close the west wall portion of the excavation and it was approved by Brandon Powell on location during a discussion of the remediation.

Soil from within the potholes was screened in the field for volatile organic compounds, described, and collected for laboratory analysis when the lithology changed or discoloration or hydrocarbon odor was noted. The total depth of potholes was controlled by the depth to groundwater, which was encountered along the top of the sandstone layer at approximately 17 to 18 feet below ground surface in most locations. Potholes containing no impacted soil were backfilled with original material.

The sample from the highest field screening result and the sample from just above the groundwater level in the bottom of each pothole was submitted for laboratory analysis. If no impacts were detected through field screening, only the sample from just above the groundwater level was collected for laboratory analysis. A photo-ionization detector (PID) was used for field screening by the heated headspace method.

The laboratory samples were placed in pre-cleaned glass jars supplied by Hall Environmental Laboratory, labeled with the location, date, time, sampler, and method of analysis and immediately placed on ice. Strict chain-of-custody procedures were followed during transport of the samples to the laboratory. Soil samples were analyzed for benzene, toluene, ethyl-benzene and xylenes (BTEX) and TPH according to USEPA Methods 8021 and 8015B, and anions/cations by USEPA Methods 300.0 and 6010B per NMOCD request. Soil sampling results from the pothole locations are presented in Table 1 and on Figure 2. The complete laboratory reports are attached as Appendix A.

All pothole soil samples were non-detect or below standards for BTEX and TPH, with the exception of B3 (3 feet to 3.5 feet deep), which was collected from an area

where black sandy-silt was encountered from approximately two to four feet bgs. B3 was advanced approximately 65 feet north of the Jacque #2 wellhead.

Groundwater accumulated in the bottom of each pothole location, with the exception of B3, which was approximately 17 to 18 feet deep and advanced into the sandstone. The accumulated groundwater was collected from each location using a stainless steel cup attached to a telescoping rod that was lowered into the bottom of the excavations. The sampling device was decontaminated prior to use at each location by rinsing with de-ionized water. All groundwater samples were submitted to Hall Environmental Laboratory for analysis of BTEX and anions/cations according to USEPA Methods 8260B, 300.0, and 6010B. Groundwater sampling results are presented in Table 2 and Figure 2. The complete laboratory reports are attached as Appendix A.

All pothole groundwater results were non-detect or below the New Mexico Water Quality Control Commission (NMWQCC) standards for BTEX. The NMWQCC standard for sulfate was exceeded in potholes B4, B5, and B6 (Figure 2). The NMWQCC standard for chloride was exceeded in B6.

Following pothole advancement, prior to backfilling, it was noted that there was an area with varying degrees of light discoloration in the soil located approximately four to five feet deep in each location. Soil samples for field chloride analysis were collected from B1, B5, B6, and the east wall of the existing excavation for rush turn around at Envirotech, Inc. located in Farmington, New Mexico in order to compare the levels and determine if possible chloride presence could be naturally occurring. The results of those samples are included on Table 1. All pothole soil samples ranged from less than 33 ppm to 55 ppm, while the sample collected from the same depth in the east wall of the existing excavation resulted in 400 ppm chloride. The complete laboratory report is contained in Appendix A.

### **3.0 EXCAVATION EXPANSION AND ADDITIONAL SOIL REMOVAL**

#### **3.1 Methodology and Results**

Groundwater from the initial 200 cubic yard excavation was sampled for cations/anions in addition to BTEX and TPH prior to additional soil removal in the area. A vacuum truck operated by Riley Industrial Services was used to purge the water prior to sampling. Sample collection took place the following day on August 12, 2009. Groundwater collected from the excavation prior to additional soil removal contained 3,300 ppm chloride; however, another groundwater sample was collected following excavation expansion due to the large volume of additional soil removed (approximately 1,980 cubic yards). This groundwater sample, collected on August 19, 2009, resulted in 590 ppm chloride. BTEX was non-detect or below the standards for both groundwater samples. The excavation

remained open, additional water was removed, and groundwater samples were collected on October 6<sup>th</sup> and November 2<sup>nd</sup> for analysis at Envirotech Analytical Laboratory located in Farmington, New Mexico. The October sample resulted in a chloride concentration of 250 ppm, which is the standard. The November sample resulted in 106 ppm sulfate, which is below the standard. These laboratory reports are included in Appendix A and summarized in Table 2 and on Figure 3.

The decision to remove additional soil from the excavation was made based on soil sampling results collected during the initial excavation work completed in July 2009 (Figure 3). NMOCD advised additional removal of soil from the north, south, and east walls. This work began on August 13, 2009. Confirmatory soil samples were collected for laboratory analysis of BTEX and TPH by USEPA Methods 8021 and 8015B, and anions/cations by USEPA Methods 300.0 and 6010B. Soil containing white crystallization, PID readings above 100 ppm, hydrocarbon odor, or discoloration was removed from the site for disposal at the Envirotech landfarm located south of Bloomfield, New Mexico. The associated waste manifest documents are attached as Appendix B.

On August 13, 2009, the south wall of the excavation was expanded approximately 25 feet from the original south boundary. Gray material was completely removed to the sandstone layer at approximately 17 feet deep and PID readings no longer indicated hydrocarbon impacts. Confirmatory composite soil samples from the south bottom and the south wall were collected. Laboratory results were non-detect for BTEX and TPH.

On August 14, 2009, the north wall of the excavation was expanded approximately 37 feet north until gray material was completely removed to the sandstone layer at approximately 17 feet deep and PID readings no longer indicated hydrocarbon impacts. Confirmatory composite soil samples from the north bottom and the north wall were collected. Laboratory results were non-detect for BTEX and TPH.

On August 17, 2009, the east wall of the excavation was expanded approximately 22 feet east until the soil containing white crystallization from approximately four to seven feet deep and all gray material from approximately 14 feet to 17 feet deep was removed. Confirmatory composite soil samples from the north bottom and the north wall were collected. Laboratory results were non-detect for BTEX and TPH.

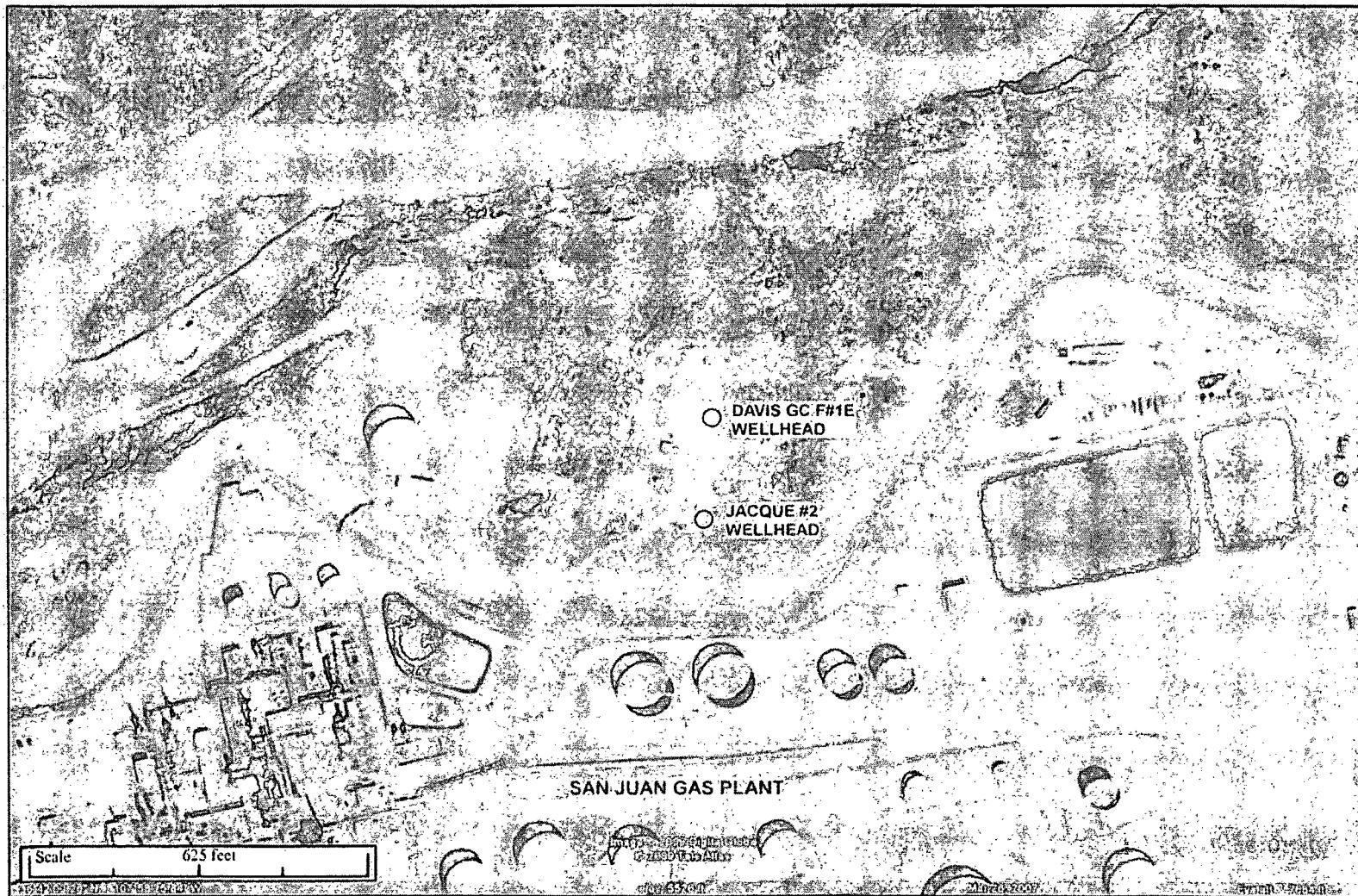
#### **4.0 SUMMARY AND CONCLUSIONS**

Approximately 2,180 cubic yards of soil was excavated in situ at the Davis Gas Com F#1E site. Potholes were advanced to determine if the source was up-gradient. The results indicate this is likely a historic release that is not connected to existing up-gradient impacts. All TPH impacts have been removed from the excavation area to below standards with the exception of the west wall, which resulted in 138 ppm

TPH. Tetra Tech, on behalf of XTO, requests no further action be taken to remediate soil at the Site in the area of the excavation. No BTEX impacts were found in groundwater. Chloride and sulfate results in the excavation decreased to standards and below standards, respectively with each additional water removal and sampling event. Tetra Tech, on behalf of XTO, requests no further action be taken to investigate groundwater at the Site.

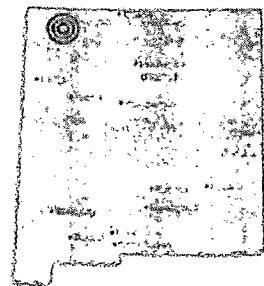
Please contact Kelly Blanchard at 505-237-8440 or [kelly.blanchard@tetrtech.com](mailto:kelly.blanchard@tetrtech.com) if you have any questions or require additional information.

## FIGURES



**FIGURE 1.**

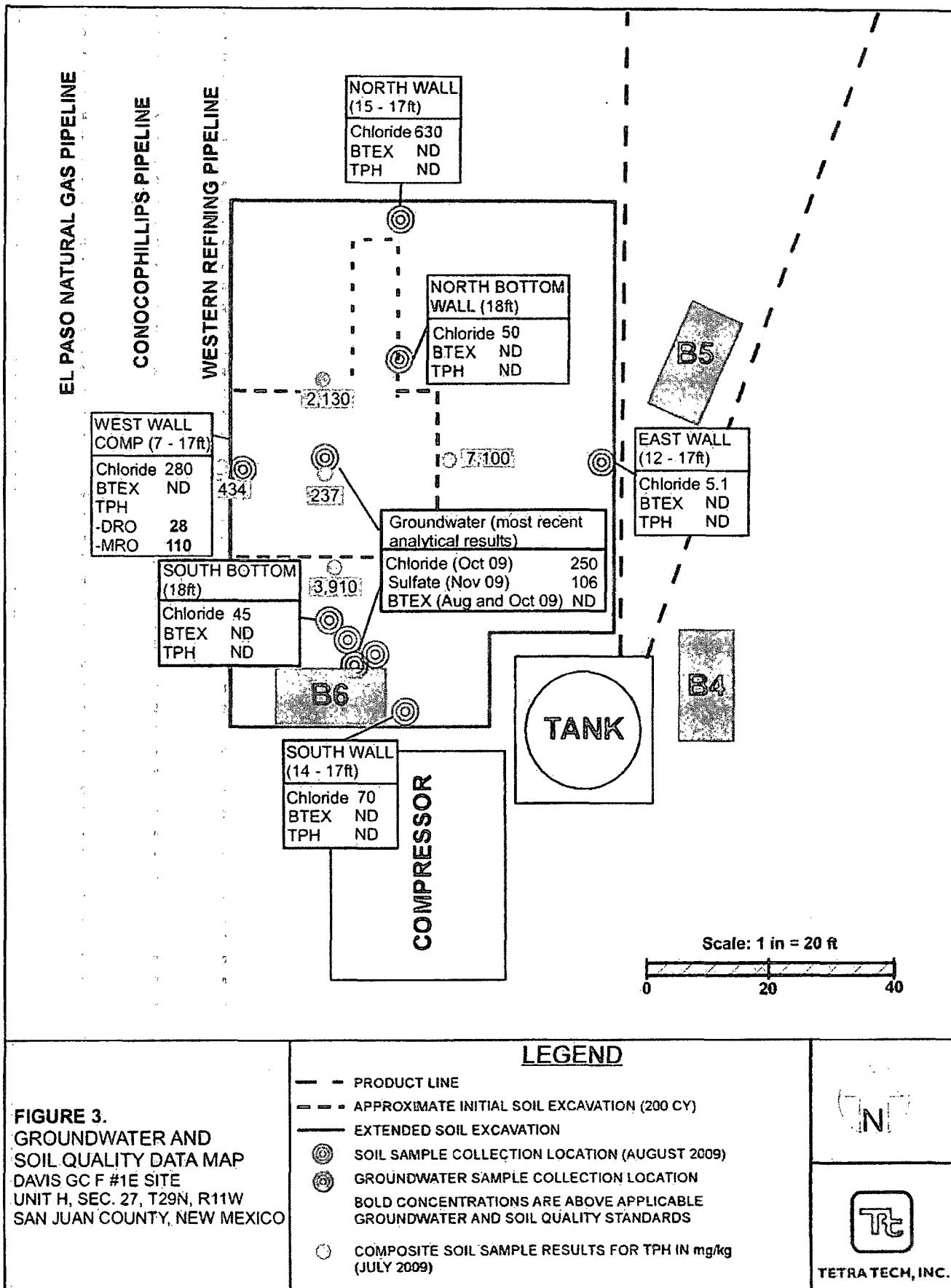
Site Location Map  
XTO Energy, Inc.  
Davis Gas Com F#1E  
Bloomfield, NM

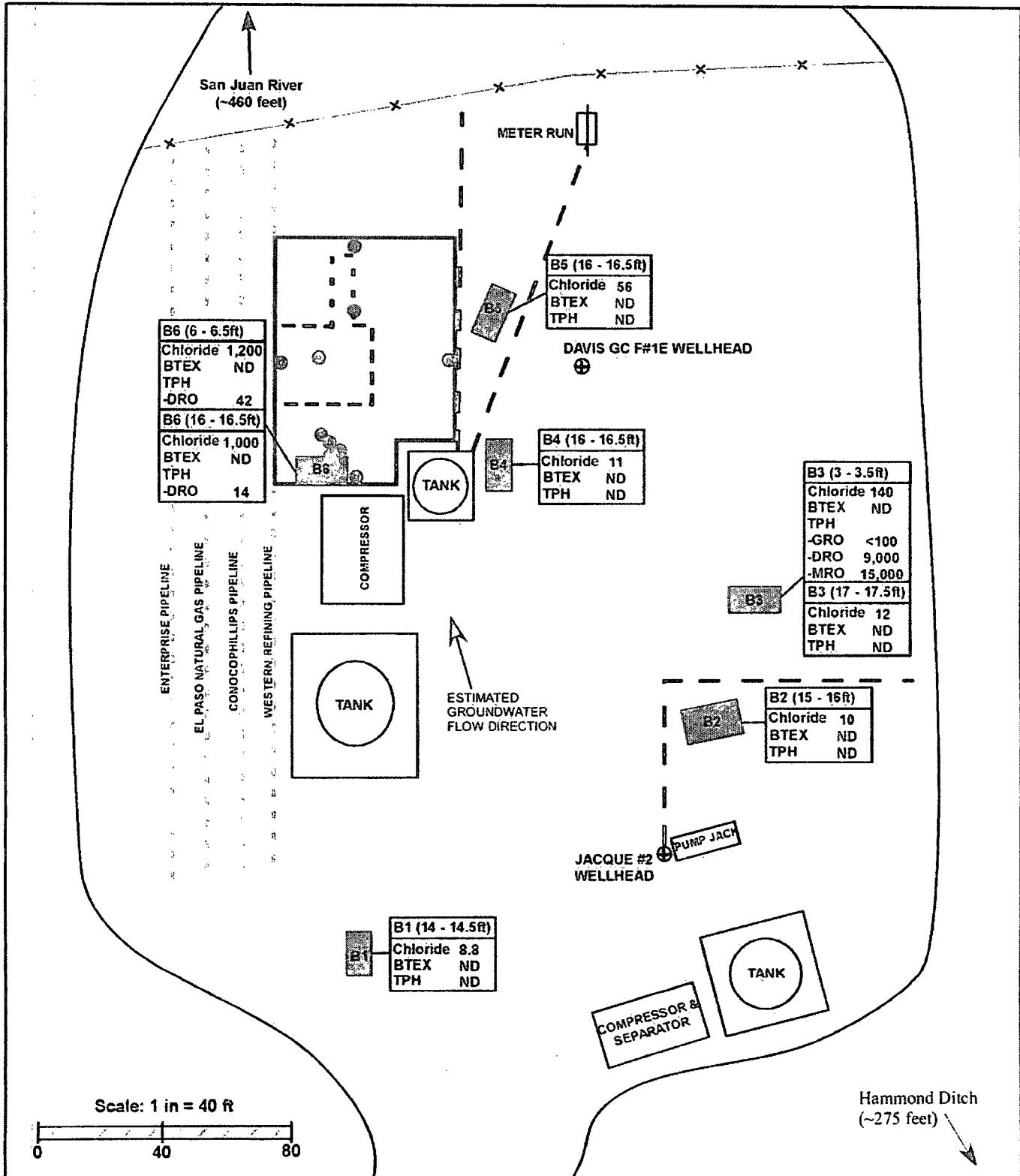


Approximate XTO Energy, Inc.  
Davis Gas Com F#1E  
Site location



TETRATECH, INC.





**FIGURE 2.**  
SITE LAYOUT AND  
SOIL BORING QUALITY DATA MAP  
DAVIS GC F#1E SITE  
UNIT H, SEC. 27, T29N, R11W  
SAN JUAN COUNTY, NEW MEXICO



TETRATECH, INC.

## TABLES

**RE** 144-44-154-0-HC.

Table 1. Soil Laboratory Analytical Results - XTO Energy - Davin GC F #1E Excavation

Sample Location	Date Sampled	Anions by Method E230.0 (mg/kg - dry)						Volatile Organics by Method 2016B (mg/kg - dry)						TPH by Method 2016B (mg/kg - dry)
		Fluoride	Chloride	Nitrite (as N)	Nitrate (as N)	Phosphate (as P)	Sulfate	Benzene	Toluene	Ethylbenzenes	Xylenes	GRO	DRO	
B1 (14 - 14.5 feet)	08/1/09	2.7	8.0	<1.5	<1.5	<2.5	1,500	<0.050	<0.050	<0.10	<5.0	<10	<50	
B2 (15 - 16 feet)	08/1/09	2.0	10	<1.5	<1.5	<2.5	37	<0.050	<0.050	<0.10	<5.0	<10	<50	
B3 (13 - 3.5 feet)	08/1/09	<1.5	140	<1.5	<1.5	<2.5	90	<1.0	<1.0	<2.0	<100	9,000	16,000	
B3 (17 - 17.5 feet)	08/1/09	1.0	12	<1.5	<1.5	<2.5	40	<0.050	<0.050	<0.10	<5.0	<10	<50	
B4 (16 - 16.5 feet)	08/1/09	5.6	11	<1.5	<1.5	<2.5	510	<0.050	<0.050	<0.10	<5.0	<10	<50	
B5 (16 - 16.5 feet)	08/1/09	41.5	50	<1.5	<1.5	<2.5	570	<0.050	<0.050	<0.10	<5.0	<10	<50	
B6 (0 - 0.5 feet)	08/1/09	6.2	1,200	<1.5	14	<2.5	1,500	<0.050	<0.050	<0.10	<10	42	<50	
B6 (16 - 16.5 feet)	08/1/09	3.0	1,000	<1.5	12	<2.5	3,800	<0.10	<0.10	<0.20	<5.0	14	<50	
North Wall (15 - 17 feet)	08/1/09	2.0	630	<1.5	32	<2.5	430	<0.050	<0.050	<0.10	<5.0	<10	<50	
South Wall (14 - 17 feet)	08/1/09	2.4	70	<1.5	31	<2.5	1,700	<0.050	<0.050	<0.10	<5.0	<10	<50	
East Wall (12 - 17 feet)	08/1/09	0.80	5.1	<0.3	0.33	<1.5	670	<0.050	<0.050	<0.10	<10	<10	<50	
West Wall Comp. (7 - 17 feet)	08/1/09	2.5	280	<1.5	38	<2.5	1,000	<0.10	<0.10	<0.20	<10	20	110	
South Bottom (18 feet)	08/1/09	1.6	45	<1.5	<1.5	<2.5	230	<0.050	<0.050	<0.10	<5.0	<10	<50	
North Bottom (18 feet)	08/1/09	1.6	60	<1.5	<1.5	<2.5	180	<0.050	<0.050	<0.10	<5.0	<10	<50	
Excavation D (Bottom of North Bottom)	08/1/09	<1.5	10	<1.5	<1.5	<2.5	57	<0.050	<0.050	<0.10	<5.0	<10	<50	
NMOCDD Standards		NE	NE	NE	NE	NE	NE	NE	NE	10ppm - Benzene, 50ppm - Total TETK				100

#### Excavated

NMOCDD = New Mexico Oil Conservation Division recommended action level  
NE = Not established by NMOCDD

N = Nitrogen

P = Phosphate

mg/kg - dry = Measurements for all organics analyzed after residual water was removed from soil

MTBE = Methyl tertiary-butyl ether

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MTO = Motor Oil Range Organics

ppm = Parts per million

#### Environmental Fluid Test Results for Chlorides

Sample	Date	Chloride (ppm)
B1 (4 - 5 feet)	08/12/2009	<50
B5 (4 - 5 feet)	08/12/2009	<33
E0 (4 - 5 feet)	08/12/2009	56
Existing Excavation (4 - 5 feet)	08/12/2009	450



TETRA TECH, INC.

Table 2. Groundwater Laboratory Analytical Results - XTO Energy - Davis GC F #1E Excavation

Constituent	Method	Units	SAMPLE ID / Date Collected								NMWQCC Groundwater Quality Standard	
			B1 - GW	B2 - GW	B4 - GW	B5 - GW	B8 - GW	*Excavation Pit GW	**Excavation Groundwater	**Excavation Groundwater	**Excavation Groundwater	
<b>Anions</b>												
Fluoride	E300.0	mg/L	0.46	1.1	1.4	0.78	1.1	1.4	0.44	NA	NA	1.6
Chloride	E300.0	mg/L	65	69	110	200	430	3,300	590	250	NA	250
Nitrate (as N)	E300.0	mg/L	<0.10	<0.10	<2.0	<2.0	<2.0	<10	3.3	NA	NA	10
Nitrite (as N)	E300.0	mg/L	<0.10	1.2	4	1.9	14	<10	<2.0	NA	NA	NE
Phosphorous, Orthophosphate (as P)	E300.0	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NE
Sulfate	E300.0	mg/L	380	560	1,600	1,500	2,700	2,500	2,200	1,900	106	600
<b>VOCs (detections and BTEX only)</b>												
Benzene	8260B	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	NA	10
Toluene	8260B	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.7	NA	750
Ethylbenzene	8260B	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.5	NA	750
Total Xylenes	8260B	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	30	<1.5	<3.2	NA	620

**Notes:**

NMWQCC = New Mexico Water Quality Control Commission

Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards

VOCs = volatile organic compounds

mg/L = milligrams per liter

µg/L = micrograms per liter

P = phosphate

N = nitrogen

NE = not established

NA = not analyzed

\*Excavation Pit GW sample collected prior to removal of additional soil in excavated area.

\*\*Excavation Groundwater samples collected following removal of additional soil and water from excavated area.

## **APPENDICES**

## **APPENDIX A**

**Soil and Groundwater Laboratory Analytical Reports**

## Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	B1 (14'-14.5')
<b>Lab Order:</b>	0908207	<b>Collection Date:</b>	8/11/2009 12:00:00 PM
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b>	8/13/2009
<b>Lab ID:</b>	0908207-01	<b>Matrix:</b>	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/17/2009	
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/17/2009	
Surr: DNOP	85.0	61.7-135		%REC	1	8/17/2009	
<b>EPA METHOD 8015B: GASOLINE RANGE</b>							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 4:18:34 PM	
Surr: BFB	82.0	58.8-123		%REC	1	8/18/2009 4:18:34 PM	
<b>EPA METHOD 8021B: VOLATILES</b>							
Benzene	ND	0.050		mg/Kg	1	8/18/2009 4:18:34 PM	
Toluene	ND	0.050		mg/Kg	1	8/18/2009 4:18:34 PM	
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 4:18:34 PM	
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 4:18:34 PM	
Surr: 4-Bromofluorobenzene	89.6	66.8-139		%REC	1	8/18/2009 4:18:34 PM	
<b>EPA METHOD 300.0: ANIONS</b>							
Fluoride	2.7	1.5		mg/Kg	5	8/17/2009 5:07:37 PM	
Chloride	8.8	1.5		mg/Kg	5	8/17/2009 5:07:37 PM	
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:07:37 PM	
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:07:37 PM	
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 5:07:37 PM	
Sulfate	160	7.5		mg/Kg	5	8/17/2009 5:07:37 PM	
<b>EPA METHOD 6010B: SOIL METALS</b>							
Calcium	6000	120		mg/Kg	5	8/20/2009 11:47:46 AM	
Magnesium	980	25		mg/Kg	1	8/18/2009 5:22:29 PM	
Potassium	340	50		mg/Kg	1	8/18/2009 5:22:29 PM	
Sodium	130	25		mg/Kg	1	8/18/2009 5:22:29 PM	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	B2 (15-16')
<b>Lab Order:</b>	0908207	<b>Collection Date:</b>	8/11/2009 3:45:00 PM
<b>Project:</b>	Davis GC F#IE	<b>Date Received:</b>	8/13/2009
<b>Lab ID:</b>	0908207-04	<b>Matrix:</b>	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	85.3	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 5:50:06 PM
Surr: BFB	82.3	58.8-123		%REC	1	8/18/2009 5:50:06 PM
<b>EPA METHOD 8021B: VOLATILES</b>						
Benzene	ND	0.050		mg/Kg	1	8/18/2009 5:50:06 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 5:50:06 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 5:50:06 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 5:50:06 PM
Surr: 4-Bromofluorobenzene	89.6	66.8-139		%REC	1	8/18/2009 5:50:06 PM
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	2.0	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Chloride	10	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 7:44:18 PM
Sulfate	37	7.5		mg/Kg	5	8/17/2009 7:44:18 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						
Calcium	1600	25		mg/Kg	1	8/18/2009 5:41:45 PM
Magnesium	1000	25		mg/Kg	1	8/18/2009 5:41:45 PM
Potassium	480	50		mg/Kg	1	8/18/2009 5:41:45 PM
Sodium	200	25		mg/Kg	1	8/18/2009 5:41:45 PM

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT:	XTO Energy	Client Sample ID:	B3 (3'-3.5')
Lab Order:	0908207	Collection Date:	8/11/2009 2:40:00 PM
Project:	Davis GC F#1E	Date Received:	8/13/2009
Lab ID:	0908207-03	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						
Diesel Range Organics (DRO)	9000	1000		mg/Kg	100	8/18/2009
Motor Oil Range Organics (MRO)	15000	5000		mg/Kg	100	8/18/2009
Surr: DNOP	0	61.7-135	S	%REC	100	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	8/18/2009 5:19:37 PM
Surr: BFB	77.9	58.8-123		%REC	20	8/18/2009 5:19:37 PM
<b>EPA METHOD 8021B: VOLATILES</b>						
Benzene	ND	1.0		mg/Kg	20	8/18/2009 5:19:37 PM
Toluene	ND	1.0		mg/Kg	20	8/18/2009 5:19:37 PM
Ethylbenzene	ND	1.0		mg/Kg	20	8/18/2009 5:19:37 PM
Xylenes, Total	ND	2.0		mg/Kg	20	8/18/2009 5:19:37 PM
Surr: 4-Bromofluorobenzene	83.8	66.8-139		%REC	20	8/18/2009 5:19:37 PM
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	ND	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Chloride	140	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 7:09:29 PM
Sulfate	99	7.5		mg/Kg	5	8/17/2009 7:09:29 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						
Calcium	3100	2500		mg/Kg	100	8/20/2009 1:27:32 PM
Magnesium	ND	2500		mg/Kg	100	8/20/2009 1:27:32 PM
Potassium	ND	5000		mg/Kg	100	8/20/2009 1:27:32 PM
Sodium	5100	2500		mg/Kg	100	8/20/2009 1:27:32 PM

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	B3 (17-17.5')
<b>Lab Order:</b>	0908207	<b>Collection Date:</b>	8/11/2009 2:30:00 PM
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b>	8/13/2009
<b>Lab ID:</b>	0908207-02	<b>Matrix:</b>	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	86.7	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 4:49:04 PM
Surr: BFB	82.6	58.8-123		%REC	1	8/18/2009 4:49:04 PM
<b>EPA METHOD 8021B: VOLATILES</b>						
Benzene	ND	0.050		mg/Kg	1	8/18/2009 4:49:04 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 4:49:04 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 4:49:04 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 4:49:04 PM
Surr: 4-Bromofluorobenzene	91.6	66.8-139		%REC	1	8/18/2009 4:49:04 PM
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	1.8	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Chloride	12	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 5:42:26 PM
Sulfate	46	7.5		mg/Kg	5	8/17/2009 5:42:26 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						
Calcium	880	25		mg/Kg	1	8/18/2009 5:25:28 PM
Magnesium	500	25		mg/Kg	1	8/18/2009 5:25:28 PM
Potassium	200	50		mg/Kg	1	8/18/2009 5:25:28 PM
Sodium	100	25		mg/Kg	1	8/18/2009 5:25:28 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT:	XTO Energy	Client Sample ID:	B4 (16-16.5')
Lab Order:	0908207	Collection Date:	8/12/2009 9:58:00 AM
Project:	Davis GC F#1E	Date Received:	8/13/2009
Lab ID:	0908207-05	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	87.7	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 6:20:41 PM
Surr: BFB	83.0	58.8-123		%REC	1	8/18/2009 6:20:41 PM
<b>EPA METHOD 8021B: VOLATILES</b>						
Benzene	ND	0.050		mg/Kg	1	8/18/2009 6:20:41 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 6:20:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 6:20:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 6:20:41 PM
Surr: 4-Bromofluorobenzene	93.4	66.8-139		%REC	1	8/18/2009 6:20:41 PM
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	5.6	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Chloride	11	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 8:19:06 PM
Sulfate	510	7.5		mg/Kg	5	8/17/2009 8:19:06 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						
Calcium	21000	130		mg/Kg	5	8/20/2009 11:54:21 AM
Magnesium	2600	130		mg/Kg	5	8/20/2009 11:54:21 AM
Potassium	920	250		mg/Kg	5	8/20/2009 11:54:21 AM
Sodium	690	130		mg/Kg	5	8/20/2009 11:54:21 AM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> B5 (16-16.5')				
<b>Lab Order:</b>	0908207	<b>Collection Date:</b> 8/12/2009 11:35:00 AM				
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/13/2009				
<b>Lab ID:</b>	0908207-06	<b>Matrix:</b> SOIL				
<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						<b>Analyst: SCC</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	83.9	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						<b>Analyst: NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 6:51:20 PM
Surr: BFB	78.6	58.8-123		%REC	1	8/18/2009 6:51:20 PM
<b>EPA METHOD 8021B: VOLATILES</b>						<b>Analyst: NSB</b>
Benzene	ND	0.050		mg/Kg	1	8/18/2009 6:51:20 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 6:51:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 6:51:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 6:51:20 PM
Surr: 4-Bromofluorobenzene	87.4	66.8-139		%REC	1	8/18/2009 6:51:20 PM
<b>EPA METHOD 300.0: ANIONS</b>						<b>Analyst: TAF</b>
Fluoride	ND	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Chloride	56	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 8:53:55 PM
Sulfate	570	7.5		mg/Kg	5	8/17/2009 8:53:55 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						<b>Analyst: SNV</b>
Calcium	1100	25		mg/Kg	1	8/18/2009 5:48:49 PM
Magnesium	600	25		mg/Kg	1	8/18/2009 5:48:49 PM
Potassium	240	50		mg/Kg	1	8/18/2009 5:48:49 PM
Sodium	400	25		mg/Kg	1	8/18/2009 5:48:49 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**B** Analyte detected in the associated Method Blank  
**H** Holding times for preparation or analysis exceeded  
**MCL** Maximum Contaminant Level  
**RL** Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> B6 (6-6.5')				
<b>Lab Order:</b>	0908207	<b>Collection Date:</b> 8/12/2009 12:20:00 PM				
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/13/2009				
<b>Lab ID:</b>	0908207-08	<b>Matrix:</b> SOIL				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	42		10	mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND		50	mg/Kg	1	8/18/2009
Surr: DNOP	91.4		61.7-135	%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND		10	mg/Kg	2	8/18/2009 11:56:00 PM
Surr: BFB	83.9		58.8-123	%REC	2	8/18/2009 11:56:00 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND		0.10	mg/Kg	2	8/18/2009 11:56:00 PM
Toluene	ND		0.10	mg/Kg	2	8/18/2009 11:56:00 PM
Ethylbenzene	ND		0.10	mg/Kg	2	8/18/2009 11:56:00 PM
Xylenes, Total	ND		0.20	mg/Kg	2	8/18/2009 11:56:00 PM
Surr: 4-Bromofluorobenzene	92.2		66.8-139	%REC	2	8/18/2009 11:56:00 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: TAF
Fluoride	6.2		1.5	mg/Kg	5	8/17/2009 10:55:47 PM
Chloride	1200		15	mg/Kg	50	8/17/2009 11:13:12 PM
Nitrogen, Nitrite (As N)	ND		1.5	mg/Kg	5	8/17/2009 10:55:47 PM
Nitrogen, Nitrate (As N)	14		1.5	mg/Kg	5	8/17/2009 10:55:47 PM
Phosphorus, Orthophosphate (As P)	ND		7.5	mg/Kg	5	8/17/2009 10:55:47 PM
Sulfate	1500		75	mg/Kg	50	8/17/2009 11:13:12 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						Analyst: SNV
Calcium	2400		25	mg/Kg	1	8/18/2009 5:56:17 PM
Magnesium	1100		25	mg/Kg	1	8/18/2009 5:56:17 PM
Potassium	580		50	mg/Kg	1	8/18/2009 5:56:17 PM
Sodium	1900		25	mg/Kg	1	8/18/2009 5:56:17 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**B** Analyte detected in the associated Method Blank  
**H** Holding times for preparation or analysis exceeded  
**MCL** Maximum Contaminant Level  
**RL** Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> B6 (16-16.5)				
<b>Lab Order:</b>	0908207	<b>Collection Date:</b> 8/12/2009 1:00:00 PM				
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/13/2009				
<b>Lab ID:</b>	0908207-07	<b>Matrix:</b> SOIL				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						<b>Analyst: SCC</b>
Diesel Range Organics (DRO)	14	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	92.0	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						<b>Analyst: NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 7:21:43 PM
Surr: BFB	87.1	58.8-123		%REC	1	8/18/2009 7:21:43 PM
<b>EPA METHOD 8021B: VOLATILES</b>						<b>Analyst: NSB</b>
Benzene	ND	0.050		mg/Kg	1	8/18/2009 7:21:43 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 7:21:43 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 7:21:43 PM
Xylenes; Total	ND	0.10		mg/Kg	1	8/18/2009 7:21:43 PM
Surr: 4-Bromofluorobenzene	95.1	66.8-139		%REC	1	8/18/2009 7:21:43 PM
<b>EPA METHOD 300.0: ANIONS</b>						<b>Analyst: TAF</b>
Fluoride	3.8	1.5		mg/Kg	5	8/17/2009 9:28:44 PM
Chloride	1000	15		mg/Kg	50	8/17/2009 10:38:23 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 9:28:44 PM
Nitrogen, Nitrate (As N)	12	1.5		mg/Kg	5	8/17/2009 9:28:44 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 9:28:44 PM
Sulfate	3800	75		mg/Kg	50	8/17/2009 10:38:23 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						<b>Analyst: SNV</b>
Calcium	9900	130		mg/Kg	5	8/20/2009 11:57:23 AM
Magnesium	1700	130		mg/Kg	5	8/20/2009 11:57:23 AM
Potassium	850	250		mg/Kg	5	8/20/2009 11:57:23 AM
Sodium	2200	130		mg/Kg	5	8/20/2009 11:57:23 AM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT:	XTO Energy	Client Sample ID: Excavation North Wall (15-17')				
Lab Order:	0908259	Collection Date: 8/14/2009 2:30:00 PM				
Project:	Davis GC F#1E	Date Received: 8/17/2009				
Lab ID:	0908259-02	Matrix: SOIL				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	85.3	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 1:57:33 AM
Surr: BFB	87.2	58.8-123		%REC	1	8/19/2009 1:57:33 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2009 1:57:33 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 1:57:33 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 1:57:33 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 1:57:33 AM
Surr: 4-Bromofluorobenzene	99.1	66.8-139		%REC	1	8/19/2009 1:57:33 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: TAF
Fluoride	2.0	1.5		mg/Kg	5	8/17/2009 1:21:18 PM
Chloride	630	15		mg/Kg	50	8/17/2009 1:38:42 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 1:21:18 PM
Nitrogen, Nitrate (As N)	3.2	1.5		mg/Kg	5	8/17/2009 1:21:18 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 1:21:18 PM
Sulfate	430	7.5		mg/Kg	5	8/17/2009 1:21:18 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						Analyst: SNV
Calcium	2500	25		mg/Kg	1	8/18/2009 6:33:57 PM
Magnesium	850	25		mg/Kg	1	8/18/2009 6:33:57 PM
Potassium	370	50		mg/Kg	1	8/18/2009 6:33:57 PM
Sodium	670	25		mg/Kg	1	8/18/2009 6:33:57 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT:	XTO Energy	Client Sample ID:	South Wall (14-17')
Lab Order:	0908234	Collection Date:	8/13/2009 3:00:00 PM
Project:	Davis GC F#1E	Date Received:	8/14/2009
Lab ID:	0908234-07	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	86.5	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 12:56:54 AM
Surr: BFB	85.5	58.8-123		%REC	1	8/19/2009 12:56:54 AM
<b>EPA METHOD 8021B: VOLATILES</b>						
Benzene	ND	0.050		mg/Kg	1	8/19/2009 12:56:54 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 12:56:54 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 12:56:54 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 12:56:54 AM
Surr: 4-Bromofluorobenzene	95.6	66.8-139		%REC	1	8/19/2009 12:56:54 AM
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	2.4	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Chloride	70	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Nitrogen, Nitrate (As N)	3.1	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 4:32:49 PM
Sulfate	1700	75		mg/Kg	50	8/17/2009 4:50:13 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						
Calcium	7500	120		mg/Kg	5	8/20/2009 12:11:54 PM
Magnesium	810	25		mg/Kg	1	8/18/2009 6:06:44 PM
Potassium	290	50		mg/Kg	1	8/18/2009 6:06:44 PM
Sodium	280	25		mg/Kg	1	8/18/2009 6:06:44 PM

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

## Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> Excavation East Wall (12-17')			
<b>Lab Order:</b>	0908316	<b>Collection Date:</b> 8/17/2009 11:00:00 AM			
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/19/2009			
<b>Lab ID:</b>	0908316-01	<b>Matrix:</b> SOIL			

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/21/2009 5:50:04 AM	
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/21/2009 5:50:04 AM	
Surr: DNOP	77.6	61.7-135		%REC	1	8/21/2009 5:50:04 AM	
<b>EPA METHOD 8015B: GASOLINE RANGE</b>							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/23/2009 10:46:14 PM	
Surr: BFB	86.0	65.9-118		%REC	1	8/23/2009 10:46:14 PM	
<b>EPA METHOD 300.0: ANIONS</b>							
Fluoride	0.69	0.30		mg/Kg	1	8/21/2009 7:46:31 AM	
Chloride	5.1	0.30		mg/Kg	1	8/21/2009 7:46:31 AM	
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/21/2009 7:46:31 AM	
Nitrogen, Nitrate (As N)	0.33	0.30		mg/Kg	1	8/21/2009 7:46:31 AM	
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	8/21/2009 7:46:31 AM	
Sulfate	570	75		mg/Kg	50	8/21/2009 8:03:55 AM	
<b>EPA METHOD 6010B: SOIL METALS</b>							
Calcium	2600	25		mg/Kg	1	8/26/2009 12:13:33 PM	
Magnesium	670	25		mg/Kg	1	8/26/2009 12:13:33 PM	
Potassium	280	50		mg/Kg	1	8/26/2009 12:13:33 PM	
Sodium	160	25		mg/Kg	1	8/26/2009 12:13:33 PM	
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							
Benzene	ND	0.050		mg/Kg	1	8/24/2009 2:36:37 PM	
Toluene	ND	0.050		mg/Kg	1	8/24/2009 2:36:37 PM	
Ethylbenzene	ND	0.050		mg/Kg	1	8/24/2009 2:36:37 PM	
Xylenes, Total	ND	0.10		mg/Kg	1	8/24/2009 2:36:37 PM	
Surr: 4-Bromofluorobenzene	97.1	84.7-111		%REC	1	8/24/2009 2:36:37 PM	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**B** Analyte detected in the associated Method Blank  
**H** Holding times for preparation or analysis exceeded  
**MCL** Maximum Contaminant Level  
**RL** Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> West Wall Composite (7-17')				
<b>Lab Order:</b>	0908234	<b>Collection Date:</b> 8/13/2009 10:40:00 AM				
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/14/2009				
<b>Lab ID:</b>	0908234-06	<b>Matrix:</b> SOIL				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	28	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	8/18/2009
Surr: DNOP	86.0	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	8/19/2009 12:26:26 AM
Surr: BFB	90.0	58.8-123		%REC	2	8/19/2009 12:26:26 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.10		mg/Kg	2	8/19/2009 12:26:26 AM
Toluene	ND	0.10		mg/Kg	2	8/19/2009 12:26:26 AM
Ethylbenzene	ND	0.10		mg/Kg	2	8/19/2009 12:26:26 AM
Xylenes, Total	ND	0.20		mg/Kg	2	8/19/2009 12:26:26 AM
Surr: 4-Bromofluorobenzene	96.1	66.8-139		%REC	2	8/19/2009 12:26:26 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: TAF
Fluoride	2.5	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Chloride	280	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Nitrogen, Nitrate (As N)	3.8	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 3:57:59 PM
Sulfate	1000	75		mg/Kg	50	8/17/2009 4:15:24 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						Analyst: SNV
Calcium	4200	130		mg/Kg	5	8/20/2009 12:07:22 PM
Magnesium	930	130		mg/Kg	5	8/20/2009 12:07:22 PM
Potassium	380	250		mg/Kg	5	8/20/2009 12:07:22 PM
Sodium	690	130		mg/Kg	5	8/20/2009 12:07:22 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	Excavation South Bottom (18')
<b>Lab Order:</b>	0908259	<b>Collection Date:</b>	8/14/2009 9:00:00 AM
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b>	8/17/2009
<b>Lab ID:</b>	0908259-01	<b>Matrix:</b>	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009	Analyst: SCC
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009	
Surr: DNOP	80.3	61.7-135		%REC	1	8/18/2009	
<b>EPA METHOD 8015B: GASOLINE RANGE</b>							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 1:27:13 AM	Analyst: NSB
Surr: BFB	85.1	58.8-123		%REC	1	8/19/2009 1:27:13 AM	
<b>EPA METHOD 8021B: VOLATILES</b>							
Benzene	ND	0.050		mg/Kg	1	8/19/2009 1:27:13 AM	Analyst: NSB
Toluene	ND	0.050		mg/Kg	1	8/19/2009 1:27:13 AM	
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 1:27:13 AM	
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 1:27:13 AM	
Surr: 4-Bromofluorobenzene	91.4	66.8-139		%REC	1	8/19/2009 1:27:13 AM	
<b>EPA METHOD 300.0: ANIONS</b>							
Fluoride	1.6	1.5		mg/Kg	5	8/17/2009 12:46:28 PM	Analyst: TAF
Chloride	45	1.5		mg/Kg	5	8/17/2009 12:46:28 PM	
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 12:46:28 PM	
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 12:46:28 PM	
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 12:46:28 PM	
Sulfate	230	7.5		mg/Kg	5	8/17/2009 12:46:28 PM	
<b>EPA METHOD 6010B: SOIL METALS</b>							
Calcium	2200	25		mg/Kg	1	8/18/2009 6:31:06 PM	Analyst: SNV
Magnesium	900	25		mg/Kg	1	8/18/2009 6:31:06 PM	
Potassium	240	50		mg/Kg	1	8/18/2009 6:31:06 PM	
Sodium	830	25		mg/Kg	1	8/18/2009 6:31:06 PM	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	Client Sample ID: Excavation North Bottom (18')				
<b>Lab Order:</b>	0908259	Collection Date: 8/14/2009 2:45:00 PM				
<b>Project:</b>	Davis GC F#1E	Date Received: 8/17/2009				
<b>Lab ID:</b>	0908259-03	Matrix: SOIL				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	83.6	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 2:28:02 AM
Surr: BFB	86.5	58.8-123		%REC	1	8/19/2009 2:28:02 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2009 2:28:02 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 2:28:02 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 2:28:02 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 2:28:02 AM
Sum: 4-Bromofluorobenzene	98.2	66.8-139		%REC	1	8/19/2009 2:28:02 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: TAF
Fluoride	1.6	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Chloride	50	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 1:56:06 PM
Sulfate	180	7.5		mg/Kg	5	8/17/2009 1:56:06 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						Analyst: SNV
Calcium	2400	25		mg/Kg	1	8/18/2009 6:42:51 PM
Magnesium	870	25		mg/Kg	1	8/18/2009 6:42:51 PM
Potassium	210	50		mg/Kg	1	8/18/2009 6:42:51 PM
Sodium	330	25		mg/Kg	1	8/18/2009 6:42:51 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> Excavation D				
<b>Lab Order:</b>	0908259	<b>Collection Date:</b> 8/14/2009 3:00:00 PM				
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/17/2009				
<b>Lab ID:</b>	0908259-04	<b>Matrix:</b> SOIL				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						<b>Analyst: SCC</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	81.9	61.7-135		%REC	1	8/18/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						<b>Analyst: NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 3:28:47 AM
Surr: BFB	83.8	58.8-123		%REC	1	8/19/2009 3:28:47 AM
<b>EPA METHOD 8021B: VOLATILES</b>						<b>Analyst: NSB</b>
Benzene	ND	0.050		mg/Kg	1	8/19/2009 3:28:47 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 3:28:47 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 3:28:47 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 3:28:47 AM
Surr: 4-Bromofluorobenzene	94.9	66.8-139		%REC	1	8/19/2009 3:28:47 AM
<b>EPA METHOD 300.0: ANIONS</b>						<b>Analyst: TAF</b>
Fluoride	ND	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Chloride	10	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Nitrogen, Nitrile (As N)	ND	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 2:30:55 PM
Sulfate	57	7.5		mg/Kg	5	8/17/2009 2:30:55 PM
<b>EPA METHOD 6010B: SOIL METALS</b>						<b>Analyst: SNV</b>
Calcium	2600	25		mg/Kg	1	8/18/2009 6:45:51 PM
Magnesium	700	25		mg/Kg	1	8/18/2009 6:45:51 PM
Potassium	180	50		mg/Kg	1	8/18/2009 6:45:51 PM
Sodium	270	25		mg/Kg	1	8/18/2009 6:45:51 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**B** Analyte detected in the associated Method Blank  
**H** Holding times for preparation or analysis exceeded  
**MCL** Maximum Contaminant Level  
**RL** Reporting Limit



## Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	B5 (4'-5')	Date Reported:	08-13-09
Lab ID#:	51224	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	< 33

Reference: Quantab Titrator

Comments: Davis GC F #1E / Bloomfield, NM.

Analyst

A handwritten signature in black ink, appearing to read "Dwyer".

A handwritten signature in black ink, appearing to read "Christine Walters".

Review



## Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	B6 (4'-5')	Date Reported:	08-13-09
Lab ID#:	51225	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	55

Reference: Quantab Titrator

Comments: Davis GC F #1E / Bloomfield, NM.

Analyst

A handwritten signature consisting of the letters 'Duy' in cursive script, followed by a stylized, swirling flourish.

Christina M. Waetess  
Review



## Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	Existing Excavation (4'-5')	Date Reported:	08-13-09
Lab ID#:	51226	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	400

Reference: Quantab Titrator

Comments: Davis GC F #1E / Bloomfield, NM.

Day  
Analyst

Christie M. Wooters  
Review



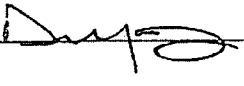
## Chloride

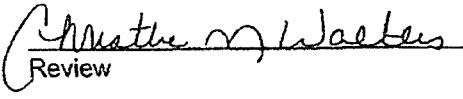
Client:	XTO Energy	Project #:	98031-0121
Sample ID:	B1 (4'-5')	Date Reported:	08-13-09
Lab ID#:	51227	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	< 33

Reference: Quantab Titrator

Comments: Davis GC F #1E / Bloomfield, NM.

  
Analyst

  
Review

## Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

**CLIENT:** XTO Energy      **Client Sample ID:** B1-GW  
**Lab Order:** 0908234      **Collection Date:** 8/12/2009 2:55:00 PM  
**Project:** Davis GC F#1E      **Date Received:** 8/14/2009  
**Lab ID:** 0908234-01      **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	0.46	0.10		mg/L	1	8/14/2009 3:51:54 PM
Chloride	65	2.0		mg/L	20	8/14/2009 4:09:19 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	8/20/2009 1:58:35 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/14/2009 3:51:54 PM
Sulfate	380	10		mg/L	20	8/14/2009 4:09:19 PM
<b>EPA METHOD 6010B: DISSOLVED METALS</b>						
Calcium	110	10		mg/L	10	8/24/2009 12:49:44 PM
Magnesium	23	1.0		mg/L	1	8/24/2009 12:02:42 PM
Potassium	2.5	1.0		mg/L	1	8/24/2009 12:02:42 PM
Sodium	190	10		mg/L	10	8/24/2009 12:49:44 PM
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	8/17/2009 3:34:59 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 3:34:59 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 3:34:59 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 3:34:59 PM
Surr: 1,2-Dichloroethane-d4	99.2	54.6-141		%REC	1	8/17/2009 3:34:59 PM
Surr: 4-Bromofluorobenzene	95.8	60.1-133		%REC	1	8/17/2009 3:34:59 PM
Surr: Dibromofluoromethane	103	78.5-130		%REC	1	8/17/2009 3:34:59 PM
Surr: Toluene-d8	98.3	79.5-126		%REC	1	8/17/2009 3:34:59 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	B2-GW
<b>Lab Order:</b>	0908234	<b>Collection Date:</b>	8/12/2009 3:20:00 PM
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b>	8/14/2009
<b>Lab ID:</b>	0908234-02	<b>Matrix:</b>	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	1.1	0.10		mg/L	1	8/14/2009 4:26:43 PM
Chloride	69	2.0		mg/L	20	8/14/2009 4:44:08 PM
Nitrate (As N)+Nitrile (As N)	1.2	1.0		mg/L	5	8/20/2009 2:16:00 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/14/2009 4:26:43 PM
Sulfate	560	10		mg/L	20	8/14/2009 4:44:08 PM
<b>EPA METHOD 6010B: DISSOLVED METALS</b>						
Calcium	140	10		mg/L	10	8/24/2009 12:52:48 PM
Magnesium	32	1.0		mg/L	1	8/24/2009 12:05:54 PM
Potassium	2.7	1.0		mg/L	1	8/24/2009 12:05:54 PM
Sodium	230	10		mg/L	10	8/24/2009 12:52:48 PM
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	8/17/2009 4:03:22 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 4:03:22 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 4:03:22 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 4:03:22 PM
Surr: 1,2-Dichloroethane-d4	101	54.6-141		%REC	1	8/17/2009 4:03:22 PM
Surr: 4-Bromofluorobenzene	94.7	60.1-133		%REC	1	8/17/2009 4:03:22 PM
Surr: Dibromofluoromethane	96.1	78.5-130		%REC	1	8/17/2009 4:03:22 PM
Surr: Toluene-d8	95.4	79.5-126		%REC	1	8/17/2009 4:03:22 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT:	XTO Energy	Client Sample ID:	B4-GW
Lab Order:	0908234	Collection Date:	8/13/2009 9:00:00 AM
Project:	Davis GC F#1E	Date Received:	8/14/2009
Lab ID:	0908234-03	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	1.4	0.10		mg/L	1	8/14/2009 5:01:33 PM
Chloride	110	2.0		mg/L	20	8/14/2009 5:18:58 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/14/2009 5:18:58 PM
Nitrogen, Nitrate (As N)	4.0	0.10		mg/L	1	8/14/2009 5:01:33 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2009 5:01:33 PM
Sulfate	1600	25		mg/L	50	8/17/2009 7:54:41 PM
<b>EPA METHOD 6010B: DISSOLVED METALS</b>						
Calcium	160	10		mg/L	10	8/24/2009 12:55:52 PM
Magnesium	33	1.0		mg/L	1	8/24/2009 12:11:48 PM
Potassium	3.5	1.0		mg/L	1	8/24/2009 12:11:48 PM
Sodium	590	10		mg/L	10	8/24/2009 12:55:52 PM
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	8/17/2009 4:31:48 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 4:31:48 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 4:31:48 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 4:31:48 PM
Sur: 1,2-Dichloroethane-d4	96.4	54.6-141		%REC	1	8/17/2009 4:31:48 PM
Sur: 4-Bromofluorobenzene	96.7	60.1-133		%REC	1	8/17/2009 4:31:48 PM
Sur: Dibromofluoromethane	99.9	78.5-130		%REC	1	8/17/2009 4:31:48 PM
Sur: Toluene-d8	94.2	79.5-126		%REC	1	8/17/2009 4:31:48 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	B5-GW
<b>Lab Order:</b>	0908234	<b>Collection Date:</b>	8/13/2009 9:20:00 AM
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b>	8/14/2009
<b>Lab ID:</b>	0908234-04	<b>Matrix:</b>	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	
<b>EPA METHOD 300.0: ANIONS</b>							
Fluoride	0.78	0.10		mg/L	1	8/14/2009 5:36:22 PM	
Chloride	200	2.0		mg/L	20	8/14/2009 5:53:46 PM	
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/14/2009 5:53:46 PM	
Nitrogen, Nitrate (As N)	1.9	0.10		mg/L	1	8/14/2009 5:36:22 PM	
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2009 5:36:22 PM	
Sulfate	1500	25		mg/L	50	8/17/2009 8:12:05 PM	
<b>EPA METHOD 6010B: DISSOLVED METALS</b>							
Calcium	210	10		mg/L	10	8/18/2009 10:26:35 AM	
Magnesium	42	1.0		mg/L	1	8/17/2009 4:30:46 PM	
Potassium	4.6	1.0		mg/L	1	8/17/2009 4:30:46 PM	
Sodium	510	10		mg/L	10	8/18/2009 10:26:35 AM	
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	8/17/2009 5:00:15 PM	
Toluene	ND	1.0		µg/L	1	8/17/2009 5:00:15 PM	
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 5:00:15 PM	
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 5:00:15 PM	
Surr: 1,2-Dichloroethane-d4	95.5	54.6-141		%REC	1	8/17/2009 5:00:15 PM	
Surr: 4-Bromofluorobenzene	95.5	60.1-133		%REC	1	8/17/2009 5:00:15 PM	
Surr: Dibromofluoromethane	98.9	78.5-130		%REC	1	8/17/2009 5:00:15 PM	
Surr: Toluene-d8	95.4	79.5-126		%REC	1	8/17/2009 5:00:15 PM	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**B** Analyte detected in the associated Method Blank  
**H** Holding times for preparation or analysis exceeded  
**MCL** Maximum Contaminant Level  
**RL** Reporting Limit



## Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b> B6-GW				
<b>Lab Order:</b>	0908234	<b>Collection Date:</b> 8/13/2009 9:40:00 AM				
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b> 8/14/2009				
<b>Lab ID:</b>	0908234-05	<b>Matrix:</b> AQUEOUS				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: LJB
Fluoride	1.1	0.10		mg/L	1	8/14/2009 6:11:11 PM
Chloride	430	5.0		mg/L	50	8/17/2009 8:29:30 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/14/2009 6:28:36 PM
Nitrogen, Nitrate (As N)	14	2.0		mg/L	20	8/14/2009 6:28:36 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2009 6:11:11 PM
Sulfate	2700	50		mg/L	100	8/17/2009 8:46:55 PM
<b>EPA METHOD 6010B: DISSOLVED METALS</b>						Analyst: SNV
Calcium	430	10		mg/L	10	8/18/2009 10:29:40 AM
Magnesium	84	1.0		mg/L	1	8/17/2009 4:35:08 PM
Potassium	9.5	1.0		mg/L	1	8/17/2009 4:35:08 PM
Sodium	840	10		mg/L	10	8/18/2009 10:29:40 AM
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	8/17/2009 5:28:38 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 5:28:38 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 5:28:38 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 5:28:38 PM
Surr: 1,2-Dichloroethane-d4	96.2	54.6-141		%REC	1	8/17/2009 5:28:38 PM
Surr: 4-Bromofluorobenzene	92.3	60.1-133		%REC	1	8/17/2009 5:28:38 PM
Surr: Dibromofluoromethane	98.0	78.5-130		%REC	1	8/17/2009 5:28:38 PM
Surr: Toluene-d8	98.8	79.5-126		%REC	1	8/17/2009 5:28:38 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy	<b>Client Sample ID:</b>	Excavation Pit
<b>Lab Order:</b>	0908207	<b>Collection Date:</b>	8/12/2009 2:10:00 PM
<b>Project:</b>	Davis GC F#1E	<b>Date Received:</b>	8/13/2009
<b>Lab ID:</b>	0908207-09	<b>Matrix:</b>	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						
Fluoride	1.4	0.10		mg/L	1	8/13/2009 1:48:54 PM
Chloride	3300	20		mg/L	200	8/18/2009 12:33:16 AM
Nitrate (As N)+Nitrite (As N)	ND	10		mg/L	50	8/18/2009 12:50:40 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/13/2009 1:48:54 PM
Sulfate	2500	100		mg/L	200	8/18/2009 12:33:16 AM
<b>EPA METHOD 6010B: DISSOLVED METALS</b>						
Calcium	860	10		mg/L	10	8/18/2009 10:38:03 AM
Magnesium	150	10		mg/L	10	8/18/2009 10:38:03 AM
Potassium	13	1.0		mg/L	1	8/17/2009 4:39:23 PM
Sodium	1800	20		mg/L	20	8/18/2009 10:40:59 AM
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	8/14/2009 7:38:16 AM
Toluene	ND	1.0		µg/L	1	8/14/2009 7:38:16 AM
Ethylbenzene	ND	1.0		µg/L	1	8/14/2009 7:38:16 AM
Xylenes, Total	30	1.5		µg/L	1	8/14/2009 7:38:16 AM
Surr: 1,2-Dichloroethane-d4	95.4	54.6-141		%REC	1	8/14/2009 7:38:16 AM
Surr: 4-Bromofluorobenzene	109	60.1-133		%REC	1	8/14/2009 7:38:16 AM
Surr: Dibromofluoromethane	100	78.5-130		%REC	1	8/14/2009 7:38:16 AM
Surr: Toluene-d8	98.7	79.5-126		%REC	1	8/14/2009 7:38:16 AM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

<b>CLIENT:</b>	XTO Energy					<b>Client Sample ID:</b> Excavation GW2
<b>Lab Order:</b>	0908316					<b>Collection Date:</b> 8/19/2009 8:40:00 AM
<b>Project:</b>	Davis GC F#1E					<b>Date Received:</b> 8/19/2009
<b>Lab ID:</b>	0908316-02					<b>Matrix:</b> AQUEOUS
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						<b>Analyst:</b> SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	8/20/2009 9:25:38 PM	
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	8/20/2009 9:25:38 PM	
Sur: DNOP	108	58.140	%REC	1	8/20/2009 9:25:38 PM	
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						<b>Analyst:</b> NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	8/24/2009 1:49:05 AM	
Sur: BFB	81.7	55.2-107	%REC	1	8/24/2009 1:49:05 AM	
<b>EPA METHOD 300.0: ANIONS</b>						<b>Analyst:</b> TAF
Fluoride	0.44	0.10	mg/L	1	8/19/2009 9:02:38 PM	
Chloride	590	5.0	mg/L	50	8/21/2009 9:13:34 AM	
Nitrogen, Nitrite (As N)	ND	2.0	mg/L	20	8/19/2009 9:54:51 PM	
Nitrogen, Nitrate (As N)	3.3	0.10	mg/L	1	8/19/2009 9:02:38 PM	
Phosphorus, Orthophosphate (As P)	ND	2.5	mg/L	5	8/20/2009 2:04:30 PM	
Sulfate	2200	25	mg/L	50	8/21/2009 9:13:34 AM	
<b>EPA METHOD 6010B: DISSOLVED METALS</b>						<b>Analyst:</b> IC
Calcium	550	10	mg/L	10	8/24/2009 12:22:18 PM	
Magnesium	71	1.0	mg/L	1	8/24/2009 11:26:27 AM	
Potassium	6.3	1.0	mg/L	1	8/24/2009 11:26:27 AM	
Sodium	630	10	mg/L	10	8/24/2009 12:22:18 PM	
<b>EPA METHOD 8260B: VOLATILES</b>						<b>Analyst:</b> DAM
Benzene	ND	1.0	µg/L	1	8/20/2009 2:56:47 PM	
Toluene	ND	1.0	µg/L	1	8/20/2009 2:56:47 PM	
Ethylbenzene	ND	1.0	µg/L	1	8/20/2009 2:56:47 PM	
Xylenes, Total	ND	1.5	µg/L	1	8/20/2009 2:56:47 PM	
Sur: 1,2-Dichloroethane-d4	97.2	54.6-141	%REC	1	8/20/2009 2:56:47 PM	
Sur: 4-Bromofluorobenzene	101	60.1-133	%REC	1	8/20/2009 2:56:47 PM	
Sur: Dibromofluoromethane	103	78.5-130	%REC	1	8/20/2009 2:56:47 PM	
Sur: Toluene-d8	99.4	79.5-126	%REC	1	8/20/2009 2:56:47 PM	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit



EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	Groundwater	Date Reported:	10-07-09
Chain of Custody:	8138	Date Sampled:	10-06-09
Laboratory Number:	51982	Date Received:	10-06-09
Sample Matrix:	Aqueous	Date Analyzed:	10-06-09
Preservative:	HCL	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	10	1.8
Toluene	ND	10	1.7
Ethylbenzene	ND	10	1.5
p,m-Xylene	ND	10	2.2
o-Xylene	ND	10	1.0

Total BTEX ND

ND - Parameter not detected at the stated detection limit.

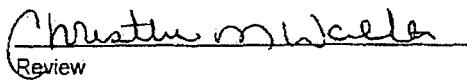
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	4-bromochlorobenzene	96.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: Ground Water Davis GC F #1E.

  
Analyst

  
Review



## Water Analysis

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	Groundwater	Date Reported:	10-07-09
Laboratory Number:	51982	Date Sampled:	10-06-09
Sample Matrix:	Aqueous	Date Received:	10-06-09
Preservative:	Cool	Date Analyzed:	10-06-09
Condition:	Cool & Intact	Chain of Custody:	8138

Parameter	Analytical Result	Units
Chloride	250	mg/L
Sulfate	1,900	mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Ground Water Davis GC F #1E.

Analyst

Christine M Woeter  
Review

**Sulfate**

---

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	Groundwater	Date Reported:	11-03-09
Laboratory Number:	52310	Date Sampled:	11-02-09
Chain of Custody:	8207	Date Received:	11-02-09
Sample Matrix:	Aqueous	Date Analyzed:	11-02-09
Preservative:	Cool		
Condition:	Intact		

Parameter	Analytical Result	Units
Sulfate	106	mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.  
ASTM D 516, Standard Test Method for Sulfate Ion in Water.

Comments: Davis GC F#1E

Analyst

A handwritten signature in black ink, appearing to read "D. J. Davis".

Review

A handwritten signature in black ink, appearing to read "Christine L. Jester".

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 300.0: Anions

Sample ID: MB-19889	MBLK				Batch ID:	19889	Analysis Date:	8/17/2009 12:11:39 PM		
Fluoride	ND	mg/Kg	0.30							
Chloride	ND	mg/Kg	0.30							
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30							
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30							
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5							
Sulfate	3.201	mg/Kg	1.5							
Sample ID: MB-19889	MBLK				Batch ID:	19889	Analysis Date:	8/18/2009 2:07:17 AM		
Fluoride	ND	mg/Kg	0.30							
Chloride	ND	mg/Kg	0.30							
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30							
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30							
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5							
Sulfate	2.985	mg/Kg	1.5							
Sample ID: LCS-19889	LCS				Batch ID:	19889	Analysis Date:	8/17/2009 12:29:03 PM		
Fluoride	1.557	mg/Kg	0.30	1.5	0	104	90	110		
Chloride	14.71	mg/Kg	0.30	15	0	98.0	90	110		
Nitrogen, Nitrite (As N)	2.990	mg/Kg	0.30	3	0	99.7	90	110		
Nitrogen, Nitrate (As N)	7.378	mg/Kg	0.30	7.5	0	98.4	90	110		
Phosphorus, Orthophosphate (As P)	14.57	mg/Kg	1.5	15	0	97.1	90	110		
Sulfate	29.49	mg/Kg	1.5	30	2.985	88.4	90	110		BS

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 300.0: Anions</b>											
Sample ID: 0908207-09BMSD		MSD									
Fluoride	1.836	mg/L	0.10	0.5	1.402	86.8	75.3	117	0.202	20	
Phosphorus, Orthophosphate (As P)	4.405	mg/L	0.50	5	0	88.1	74.5	116	1.46	20	
Sample ID: MB		MBLK									
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK									
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK									
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		LCS									
Chloride	4.910	mg/L	0.10	5	0	98.2	90	110			
Nitrate (As N)+Nitrite (As N)	3.424	mg/L	0.20	3.5	0	97.8	90	110			
Phosphorus, Orthophosphate (As P)	4.805	mg/L	0.50	5	0	96.1	90	110			
Sulfate	9.814	mg/L	0.50	10	0	98.1	90	110			
Sample ID: LCS-b		LCS									
Fluoride	0.5170	mg/L	0.10	0.5	0	103	90	110			
Sample ID: LCS		LCS									
Fluoride	0.5038	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.778	mg/L	0.10	5	0	95.6	90	110			
Nitrate (As N)+Nitrite (As N)	3.353	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.885	mg/L	0.50	5	0	97.7	90	110			
Sulfate	9.849	mg/L	0.50	10	0	98.5	90	110			
Sample ID: LCS		LCS									
Fluoride	0.4744	mg/L	0.10	0.5	0	94.9	90	110			
Chloride	4.793	mg/L	0.10	5	0	95.9	90	110			
Nitrate (As N)+Nitrite (As N)	3.355	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.816	mg/L	0.50	5	0	96.3	90	110			
Sulfate	9.772	mg/L	0.50	10	0	97.7	90	110			
Sample ID: 0908207-09BMS		MS									
Fluoride	1.832	mg/L	0.10	0.5	1.402	86.1	75.3	117			
Phosphorus, Orthophosphate (As P)	4.470	mg/L	0.50	5	0	89.4	74.5	116			

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#IE

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: 0908207-01AMSD		MSD					Batch ID: 19884	Analysis Date:			8/18/2009
Diesel Range Organics (DRO)	36.44	mg/Kg	10	50	0	72.9	67.4	117	0.283	17.4	
Sample ID: MB-19884		MBLK					Batch ID: 19884	Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19884		LCS					Batch ID: 19884	Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	35.66	mg/Kg	10	50	0	71.3	64.6	116			
Sample ID: LCSD-19884		LCSD					Batch ID: 19884	Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	39.25	mg/Kg	10	50	0	78.5	64.6	116	9.59	17.4	
Sample ID: 0908207-01AMS		MS					Batch ID: 19884	Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	36.34	mg/Kg	10	50	0	72.7	67.4	117			
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: 0908207-01A MSD		MSD					Batch ID: 19869	Analysis Date:	8/21/2009 11:49:59 PM		
Gasoline Range Organics (GRO)	27.63	mg/Kg	5.0	25	4.05	94.3	69.5	120	7.55	11.6	
Sample ID: MB-19869		MBLK					Batch ID: 19869	Analysis Date:	8/19/2009 3:59:26 AM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19869		LCS					Batch ID: 19869	Analysis Date:	8/22/2009 12:20:12 AM		
Gasoline Range Organics (GRO)	27.71	mg/Kg	5.0	25	0	111	64.4	133			
Sample ID: 0908207-01A MS		MS					Batch ID: 19869	Analysis Date:	8/21/2009 11:19:39 PM		
Gasoline Range Organics (GRO)	25.62	mg/Kg	5.0	25	4.05	86.3	69.5	120			

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8021B: Volatiles</b>											
<b>Sample ID: 0908207-01A MSD</b>											
Methyl tert-butyl ether (MTBE)	0.9763	mg/Kg	0.10	1	0	97.6	67.9	135	1.65	28	
Benzene	0.9698	mg/Kg	0.050	1	0.0038	96.6	78.8	132	0.607	27	
Toluene	0.9600	mg/Kg	0.050	1	0	96.0	78.9	112	6.40	19	
Ethylbenzene	0.9559	mg/Kg	0.050	1	0	95.6	69.3	125	9.78	10	
Xylenes, Total	2.802	mg/Kg	0.10	3	0	93.4	73	128	10.8	13	
<b>Sample ID: MB-19869</b>											
		MBLK					Batch ID:	19869	Analysis Date:	8/19/2009 3:59:26 AM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
<b>Sample ID: LCS-19869</b>											
		LCS					Batch ID:	19869	Analysis Date:	8/22/2009 5:54:13 AM	
Methyl tert-butyl ether (MTBE)	1.038	mg/Kg	0.10	1	0	104	67.9	135			
Benzene	0.9817	mg/Kg	0.050	1	0	98.2	78.8	132			
Toluene	0.9746	mg/Kg	0.050	1	0	97.5	78.9	112			
Ethylbenzene	0.9807	mg/Kg	0.050	1	0	98.1	69.3	125			
Xylenes, Total	2.883	mg/Kg	0.10	3	0	96.1	73	128			
<b>Sample ID: 0908207-01A MS</b>											
		MS					Batch ID:	19869	Analysis Date:	8/22/2009 4:53:33 AM	
Methyl tert-butyl ether (MTBE)	0.9603	mg/Kg	0.10	1	0	96.0	67.9	135			
Benzene	0.9757	mg/Kg	0.050	1	0.0038	97.2	78.8	132			
Toluene	1.024	mg/Kg	0.050	1	0	102	78.9	112			
Ethylbenzene	1.054	mg/Kg	0.050	1	0	105	69.3	125			
Xylenes, Total	3.123	mg/Kg	0.10	3	0	104	73	128			

## Qualifiers:

E Estimated value  
 J Analytic detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
<b>Sample ID: 0908207-09a MSD</b>											
Benzene	19.82	µg/L	1.0	20	0	99.1	78.9	115	2.63	15	
Toluene	18.49	µg/L	1.0	20	0	92.5	80.5	105	5.51	15	
Chlorobenzene	18.59	µg/L	1.0	20	0	93.0	85	102	7.31	15	
1,1-Dichloroethene	18.09	µg/L	1.0	20	0	90.5	80.2	128	0.149	17.8	
Trichloroethene (TCE)	16.03	µg/L	1.0	20	0	80.2	70.3	125	3.32	19.8	
Sample ID: b4		MLBK					Batch ID: R34910		Analysis Date:	8/14/2009 8:33:28 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: b4	MBLK										
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethane (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b8	MBLK										
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 8260B: VOLATILES

Sample ID: b8	MBLK						Batch ID:	R34910	Analysis Date:	8/14/2009 2:06:53 AM
2-Butanone	ND	µg/L	10							
Carbon disulfide	ND	µg/L	10							
Carbon Tetrachloride	ND	µg/L	1.0							
Chlorobenzene	ND	µg/L	1.0							
Chloroethane	ND	µg/L	2.0							
Chloroform	ND	µg/L	1.0							
Chloromethane	ND	µg/L	1.0							
2-Chlorotoluene	ND	µg/L	1.0							
4-Chlorotoluene	ND	µg/L	1.0							
cis-1,2-DCE	ND	µg/L	1.0							
cis-1,3-Dichloropropene	ND	µg/L	1.0							
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0							
Dibromochloromethane	ND	µg/L	1.0							
Dibromomethane	ND	µg/L	1.0							
1,2-Dichlorobenzene	ND	µg/L	1.0							
1,3-Dichlorobenzene	ND	µg/L	1.0							
1,4-Dichlorobenzene	ND	µg/L	1.0							
Dichlorodifluoromethane	ND	µg/L	1.0							
1,1-Dichloroethane	ND	µg/L	1.0							
1,1-Dichloroethene	ND	µg/L	1.0							
1,2-Dichloropropene	ND	µg/L	1.0							
1,3-Dichloropropene	ND	µg/L	1.0							
2,2-Dichloropropene	ND	µg/L	2.0							
1,1-Dichloropropene	ND	µg/L	1.0							
Hexachlorobutadiene	ND	µg/L	1.0							
2-Hexanone	ND	µg/L	10							
Isopropylbenzene	ND	µg/L	1.0							
4-Isopropyltoluene	ND	µg/L	1.0							
4-Methyl-2-pentanone	ND	µg/L	10							
Methylene Chloride	ND	µg/L	3.0							
n-Butylbenzene	ND	µg/L	1.0							
n-Propylbenzene	ND	µg/L	1.0							
sec-Butylbenzene	ND	µg/L	1.0							
Styrene	ND	µg/L	1.0							
tert-Butylbenzene	ND	µg/L	1.0							
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0							
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0							
Tetrachloroethene (PCE)	ND	µg/L	1.0							
trans-1,2-DCE	ND	µg/L	1.0							
trans-1,3-Dichloropropene	ND	µg/L	1.0							
1,2,3-Trichlorobenzene	ND	µg/L	1.0							
1,2,4-Trichlorobenzene	ND	µg/L	1.0							
1,1,1-Trichloroethane	ND	µg/L	1.0							
1,1,2-Trichloroethane	ND	µg/L	1.0							

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 8260B: VOLATILES

Sample ID: b8		MBLK					Batch ID:	R34910	Analysis Date:	8/14/2009 2:06:53 AM
Trichloroethene (TCE)	ND	µg/L	1.0							
Trichlorofluoromethane	ND	µg/L	1.0							
1,2,3-Trichloropropane	ND	µg/L	2.0							
Vinyl chloride	ND	µg/L	1.0							
Xylenes, Total	ND	µg/L	1.5							
Sample ID: b11		MBLK					Batch ID:	R34910	Analysis Date:	8/14/2009 1:44:23 PM
Benzene	ND	µg/L	1.0							
Toluene	ND	µg/L	1.0							
Ethylbenzene	ND	µg/L	1.0							
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0							
1,2,4-Trimethylbenzene	ND	µg/L	1.0							
1,3,5-Trimethylbenzene	ND	µg/L	1.0							
1,2-Dichloroethane (EDC)	ND	µg/L	1.0							
1,2-Dibromoethane (EDB)	ND	µg/L	1.0							
Naphthalene	ND	µg/L	2.0							
1-Methylnaphthalene	ND	µg/L	4.0							
2-Methylnaphthalene	ND	µg/L	4.0							
Acetone	ND	µg/L	10							
Bromobenzene	ND	µg/L	1.0							
Bromodichloromethane	ND	µg/L	1.0							
Bromoform	ND	µg/L	1.0							
Bromomethane	ND	µg/L	1.0							
2-Butanone	ND	µg/L	10							
Carbon disulfide	ND	µg/L	10							
Carbon Tetrachloride	ND	µg/L	1.0							
Chlorobenzene	ND	µg/L	1.0							
Chloroethane	ND	µg/L	2.0							
Chloroform	ND	µg/L	1.0							
Chloromethane	ND	µg/L	1.0							
2-Chlorotoluene	ND	µg/L	1.0							
4-Chlorotoluene	ND	µg/L	1.0							
cis-1,2-DCE	ND	µg/L	1.0							
cis-1,3-Dichloropropene	ND	µg/L	1.0							
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0							
Dibromochloromethane	ND	µg/L	1.0							
Dibromomethane	ND	µg/L	1.0							
1,2-Dichlorobenzene	ND	µg/L	1.0							
1,3-Dichlorobenzene	ND	µg/L	1.0							
1,4-Dichlorobenzene	ND	µg/L	1.0							
Dichlorodifluoromethane	ND	µg/L	1.0							
1,1-Dichloroethane	ND	µg/L	1.0							
1,1-Dichloroethene	ND	µg/L	1.0							
1,2-Dichloropropane	ND	µg/L	1.0							
1,3-Dichloropropane	ND	µg/L	1.0							

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: b11		MBLK					Batch ID: R34910		Analysis Date:	8/14/2009 1:44:23 PM	
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropene	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		LCS					Batch ID: R34910		Analysis Date:	8/13/2009 1:50:06 PM	
Benzene	17.48	µg/L	1.0	20	0	87.4	76.7	114			
Toluene	19.25	µg/L	1.0	20	0	96.2	78.4	117			
Chlorobenzene	19.09	µg/L	1.0	20	0	95.5	80.7	127			
1,1-Dichloroethene	18.37	µg/L	1.0	20	0	91.9	80.2	128			
Trichloroethene (TCE)	11.32	µg/L	1.0	20	0	56.6	77.4	115	S		
Sample ID: 100ng lcs-b		LCS					Batch ID: R34910		Analysis Date:	8/14/2009 1:39:16 AM	
Benzene	18.81	µg/L	1.0	20	0	94.1	76.7	114			
Toluene	18.61	µg/L	1.0	20	0	93.0	78.4	117			
Chlorobenzene	19.02	µg/L	1.0	20	0	95.1	80.7	127			
1,1-Dichloroethene	18.89	µg/L	1.0	20	0	94.4	80.2	128			
Trichloroethene (TCE)	14.81	µg/L	1.0	20	0	74.1	77.4	115	S		
Sample ID: 0908207-09a MS		MS					Batch ID: R34910		Analysis Date:	8/14/2009 8:05:54 AM	
Benzene	19.30	µg/L	1.0	20	0	96.5	78.9	115			
Toluene	19.54	µg/L	1.0	20	0	97.7	80.5	105			
Chlorobenzene	20.00	µg/L	1.0	20	0	100	85	102			
1,1-Dichloroethene	18.12	µg/L	1.0	20	0	90.6	80.2	128			

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 8260B: VOLATILES

Sample ID: 0908207-09a MS	MS					Batch ID: R34910	Analysis Date: 8/14/2009 8:05:54 AM				
Trichloroethene (TCE)	15.51	µg/L	1.0	20	0	77.5	70.3	125			

Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB	MBLK					Batch ID: R34935	Analysis Date: 8/17/2009 3:19:12 PM				
Calcium	ND	mg/L	1.0								
Magnesium	ND	mg/L	1.0								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: LCS	LCS					Batch ID: R34936	Analysis Date: 8/17/2009 3:22:13 PM				
Calcium	49.11	mg/L	1.0	50.5	0	97.3	80	120			
Magnesium	49.11	mg/L	1.0	50.5	0	97.3	80	120			
Potassium	52.25	mg/L	1.0	55	0	95.0	80	120			
Sodium	48.51	mg/L	1.0	50.5	0	96.1	80	120			

Method: EPA Method 6010B: Soil Metals

Sample ID: MB-19887	MBLK					Batch ID: 19887	Analysis Date: 8/18/2009 4:55:33 PM				
Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								
Sample ID: MB-19887	MBLK					Batch ID: 19887	Analysis Date: 8/20/2009 12:14:44 PM				
Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								
Sample ID: LCS-19887	LCS					Batch ID: 19887	Analysis Date: 8/18/2009 4:58:37 PM				
Calcium	2321	mg/Kg	25	2500	0	92.8	80	120			
Magnesium	2336	mg/Kg	25	2500	0	93.5	80	120			
Potassium	2508	mg/Kg	50	2500	0	100	80	120			
Sodium	2490	mg/Kg	25	2500	0	99.6	80	120			
Sample ID: LCS-19887	LCS					Batch ID: 19887	Analysis Date: 8/20/2009 12:17:47 PM				
Calcium	2440	mg/Kg	25	2500	0	97.6	80	120			
Magnesium	2433	mg/Kg	25	2500	0	97.3	80	120			
Potassium	2609	mg/Kg	50	2500	15.88	104	80	120			
Sodium	2628	mg/Kg	25	2500	0	105	80	120			

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name **XTO ENERGY**

Date Received:

**8/13/2009**

Work Order Number **0908207**

Received by: **ARS**

Checklist completed by:

Signature

**8/13/09**  
Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Container/Temp Blank temperature?	<b>3.0°</b>	<6° C Acceptable If given sufficient time to cool.	
Number of preserved bottles checked for pH:			<b>2</b>
			<b>&lt;2 &gt;12 unless noted below.</b>

COMMENTS:

=====

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Corrective Action: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Chain-of-Custody Record

Client: XTO Energy, Inc by TetraTech  Standard  Rush

Mailing Address: 382 CR - 3160  
Anser, NM 87410

Phone #: 505-333-3100

email or Fax#:

QA/QC Package:

Standard  Level 4 (Full Validation)

Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time:

Project Name:

Davis G C FILE

Project #:

Project Manager: TetraTech -  
Kelly Blanchard  
XTO - Martin Nee.

Sampler: Kelly Blanchard

Date: \_\_\_\_\_

Sample Temperature: \_\_\_\_\_

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX	MTBE + TMB's (8021)	BTEx + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Cations Chloride	Air Bubbles (Y or N)
8-11-09	12:00	soil	B1 (14'-14.5')	glass jars	cold	1	X													
8-11-09	14:30	soil	B3 (17'-17.5')	glass jars	cold	2	X		X											
8-11-09	14:40	soil	B3 (3'-3.5')	glass jars	cold	3	X		X											
8-11-09	15:45	soil	B2 (15'-16')	glass jars	cold	4	X		X											
8-12-09	9:58	soil	B4 (16'-16.5')	glass jars	cold	5	X		X											
8-12-09	11:00	soil	B5 (4-5')	glass jars	cold															
8-12-09	11:35	soil	B5 (16'-16.5')	glass jars	cold	6	X		X											
8-12-09	12:50	soil	B6 (4-5')	glass jars	cold															
8-12-09	13:00	soil	B6 (16'-16.5')	glass jars	cold	7	X		X											
8-12-09	12:20	soil	B6 (6'-6.5')	glass jars	cold	8	X		X											
8-12-09	14:10	water	Excavation Pit	various(7)	various	9														

Date: 8/12/09	Time: 15:20	Relinquished by: Kelly Blanchard	Received by: Kurt Winkler	Date: 8/12	Time: 1425	Remarks:
Date: 8/12	Time: 15:20	Relinquished by: Kurt Winkler	Received by: <i>[Signature]</i>	Date: 8/13	Time: 9:30	8/13/09

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Sep-09

CLIENT:	XTO Energy	Client Sample ID:	TRIP BLANK
Lab Order:	0908234	Collection Date:	
Project:	Davis GC F#1E	Date Received:	8/14/2009
Lab ID:	0908234-08	Matrix:	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: DAM
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	8/17/2009 5:56:58 PM	
Toluene	ND	1.0		µg/L	1	8/17/2009 5:56:58 PM	
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 5:56:58 PM	
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 5:56:58 PM	
Surr: 1,2-Dichloroethane-d4	98.5	54.6-141		%REC	1	8/17/2009 5:56:58 PM	
Surr: 4-Bromofluorobenzene	94.9	60.1-133		%REC	1	8/17/2009 5:56:58 PM	
Surr: Dibromofluoromethane	98.2	78.5-130		%REC	1	8/17/2009 5:56:58 PM	
Surr: Toluene-d8	98.8	79.5-126		%REC	1	8/17/2009 5:56:58 PM	

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		Page 8 of 8

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 300.0: Anions</b>											
Sample ID: MB-19889		MBLK					Batch ID:	19889	Analysis Date:	8/17/2009 12:11:39 PM	
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	3.201	mg/Kg	1.5								
Sample ID: MB-19889		MBLK					Batch ID:	19889	Analysis Date:	8/18/2009 2:07:17 AM	
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	2.985	mg/Kg	1.5								
Sample ID: LCS-19889		LCS					Batch ID:	19889	Analysis Date:	8/17/2009 12:29:03 PM	
Fluoride	1.557	mg/Kg	0.30	1.5	0	104	90	110			
Chloride	14.71	mg/Kg	0.30	15	0	98.0	90	110			
Nitrogen, Nitrite (As N)	2.990	mg/Kg	0.30	3	0	99.7	90	110			
Nitrogen, Nitrate (As N)	7.378	mg/Kg	0.30	7.5	0	98.4	90	110			
Phosphorus, Orthophosphate (As P)	14.57	mg/Kg	1.5	15	0	97.1	90	110			
Sulfate	29.49	mg/Kg	1.5	30	2.985	88.4	90	110			BS

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis.GC P#1E Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 300.0: Anions</b>											
Sample ID: MB		MBLK					Batch ID: R34924		Analysis Date:	8/14/2009 8:54:06 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK					Batch ID: R34944		Analysis Date:	8/17/2009 8:53:05 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK					Batch ID: R34981		Analysis Date:	8/18/2009 10:29:06 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK					Batch ID: R34971		Analysis Date:	8/19/2009 11:28:08 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		LCS					Batch ID: R34924		Analysis Date:	8/14/2009 9:11:31 AM	
Fluoride	0.5038	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.778	mg/L	0.10	5	0	95.6	90	110			
Nitrogen, Nitrite (As N)	0.9352	mg/L	0.10	1	0	93.5	90	110			
Nitrogen, Nitrate (As N)	2.418	mg/L	0.10	2.5	0	96.7	90	110			
Nitrate (As N)+Nitrite (As N)	3.353	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.885	mg/L	0.50	5	0	97.7	90	110			
Sulfate	9.849	mg/L	0.50	10	0	98.5	90	110			
Sample ID: LCS		LCS					Batch ID: R34944		Analysis Date:	8/17/2009 9:10:30 AM	
Fluoride	0.4744	mg/L	0.10	0.5	0	94.9	90	110			
Chloride	4.793	mg/L	0.10	5	0	95.9	90	110			
Nitrogen, Nitrite (As N)	0.9172	mg/L	0.10	1	0	91.7	90	110			
Nitrogen, Nitrate (As N)	2.438	mg/L	0.10	2.5	0	97.5	90	110			
Phosphorus, Orthophosphate (As P)	4.816	mg/L	0.50	5	0	96.3	90	110			
Sulfate	9.772	mg/L	0.50	10	0	97.7	90	110			
Sample ID: LCS		LCS					Batch ID: R34961		Analysis Date:	8/18/2009 10:46:30 AM	
Fluoride	0.5198	mg/L	0.10	0.5	0	104	90	110			

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 300.0: Anions</b>											
Sample ID: LCS		LCS					Batch ID:	R34961	Analysis Date:	8/18/2009 10:46:30 AM	
Chloride	4.931	mg/L	0.10	5	0	98.6	90	110			
Nitrate (As N)+Nitrite (As N)	3.454	mg/L	0.20	3.5	0	98.7	90	110			
Phosphorus, Orthophosphate (As P)	4.969	mg/L	0.50	5	0	99.4	90	110			
Sulfate	10.03	mg/L	0.50	10	0	100	90	110			
Sample ID: LCS		LCS					Batch ID:	R34971	Analysis Date:	8/19/2009 11:45:32 AM	
Fluoride	0.5090	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.761	mg/L	0.10	5	0	95.2	90	110			
Nitrate (As N)+Nitrite (As N)	3.345	mg/L	0.20	3.5	0	95.6	90	110			
Phosphorus, Orthophosphate (As P)	4.812	mg/L	0.50	5	0	96.2	90	110			
Sulfate	9.624	mg/L	0.50	10	0	96.2	90	110			
<b>Method: EPA Method 8016B: Diesel Range Organics</b>											
Sample ID: MB-19884		MBLK					Batch ID:	19884	Analysis Date:	8/17/2009	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19884		LCS					Batch ID:	19884	Analysis Date:	8/17/2009	
Diesel Range Organics (DRO)	35.66	mg/Kg	10	50	0	71.3	64.6	116			
Sample ID: LCSD-19884		LCSD					Batch ID:	19884	Analysis Date:	8/17/2009	
Diesel Range Organics (DRO)	39.25	mg/Kg	10	50	0	78.5	64.6	116	9.59	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: 0908234-07A MSD		MSD					Batch ID:	19881	Analysis Date:	8/22/2009 1:20:59 AM	
Gasoline Range Organics (GRO)	24.75	mg/Kg	5.0	25	2.92	87.3	69.5	120	6.53	11.6	
Sample ID: MB-19881		MBLK					Batch ID:	19881	Analysis Date:	8/19/2009 4:30:09 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19881		LCS					Batch ID:	19881	Analysis Date:	8/22/2009 1:51:16 AM	
Gasoline Range Organics (GRO)	26.50	mg/Kg	5.0	25	0	106	64.4	133			
Sample ID: 0908234-07A MS		MS					Batch ID:	19881	Analysis Date:	8/22/2009 12:50:46 AM	
Gasoline Range Organics (GRO)	26.42	mg/Kg	5.0	25	2.92	94.0	69.5	120			

**Qualifiers:**

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8021B: Volatiles</b>											
Sample ID: 0908234-07A MSD		MSD					Batch ID:	19881	Analysis Date:	8/22/2009 6:55:04 AM	
Methyl tert-butyl ether (MTBE)	0.9896	mg/Kg	0.10	1	0	99.0	67.9	135	1.49	28	
Benzene	0.9577	mg/Kg	0.050	1	0.0039	95.4	78.8	132	1.46	27	
Toluene	0.9437	mg/Kg	0.050	1	0	94.4	78.9	112	0.734	19	
Ethylbenzene	0.9408	mg/Kg	0.050	1	0	94.1	69.3	125	0.908	10	
Xylenes, Total	2.747	mg/Kg	0.10	3	0	91.6	73	128	0.215	13	
Sample ID: MB-19881		MBLK					Batch ID:	19881	Analysis Date:	8/19/2009 4:30:09 AM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-19881		LCS					Batch ID:	19881	Analysis Date:	8/23/2009 4:58:36 AM	
Methyl tert-butyl ether (MTBE)	0.8267	mg/Kg	0.10	1	0	82.7	67.9	135			
Benzene	0.9609	mg/Kg	0.050	1	0.0029	95.8	78.8	132			
Toluene	0.9366	mg/Kg	0.050	1	0	93.7	78.9	112			
Ethylbenzene	0.9119	mg/Kg	0.050	1	0	91.2	69.3	125			
Xylenes, Total	2.702	mg/Kg	0.10	3	0	90.1	73	128			
Sample ID: 0908234-07A MS		MS					Batch ID:	19881	Analysis Date:	8/22/2009 6:24:34 AM	
Methyl tert-butyl ether (MTBE)	0.9750	mg/Kg	0.10	1	0	97.5	67.9	135			
Benzene	0.9438	mg/Kg	0.050	1	0.0039	94.0	78.8	132			
Toluene	0.9368	mg/Kg	0.050	1	0	93.7	78.9	112			
Ethylbenzene	0.9323	mg/Kg	0.050	1	0	93.2	69.3	125			
Xylenes, Total	2.741	mg/Kg	0.10	3	0	91.4	73	128			

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb	MBLK						Batch ID:	R34941	Analysis Date:	8/17/2009 8:58:35 AM
Benzene	ND	µg/L	1.0							
Toluene	ND	µg/L	1.0							
Ethylbenzene	ND	µg/L	1.0							
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0							
1,2,4-Trimethylbenzene	ND	µg/L	1.0							
1,3,5-Trimethylbenzene	ND	µg/L	1.0							
1,2-Dichloroethane (EDC)	ND	µg/L	1.0							
1,2-Dibromoethane (EDB)	ND	µg/L	1.0							
Naphthalene	ND	µg/L	2.0							
1-Methylnaphthalene	ND	µg/L	4.0							
2-Methylnaphthalene	ND	µg/L	4.0							
Acetone	ND	µg/L	10							
Bromobenzene	ND	µg/L	1.0							
Bromodichloromethane	ND	µg/L	1.0							
Bromoform	ND	µg/L	1.0							
Bromomethane	ND	µg/L	1.0							
2-Butanone	ND	µg/L	10							
Carbon disulfide	ND	µg/L	10							
Carbon Tetrachloride	ND	µg/L	1.0							
Chlorobenzene	ND	µg/L	1.0							
Chloroethane	ND	µg/L	2.0							
Chloroform	ND	µg/L	1.0							
Chloromethane	ND	µg/L	1.0							
2-Chlorotoluene	ND	µg/L	1.0							
4-Chlorotoluene	ND	µg/L	1.0							
cis-1,2-DCE	ND	µg/L	1.0							
cis-1,3-Dichloropropene	ND	µg/L	1.0							
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0							
Dibromochloromethane	ND	µg/L	1.0							
Dibromomethane	ND	µg/L	1.0							
1,2-Dichlorobenzene	ND	µg/L	1.0							
1,3-Dichlorobenzene	ND	µg/L	1.0							
1,4-Dichlorobenzene	ND	µg/L	1.0							
Dichlorodifluoromethane	ND	µg/L	1.0							
1,1-Dichloroethane	ND	µg/L	1.0							
1,1-Dichloroethene	ND	µg/L	1.0							
1,2-Dichloropropane	ND	µg/L	1.0							
1,3-Dichloropropane	ND	µg/L	1.0							
2,2-Dichloropropane	ND	µg/L	2.0							
1,1-Dichloropropene	ND	µg/L	1.0							
Hexachlorobutadiene	ND	µg/L	1.0							
2-Hexanone	ND	µg/L	10							
Isopropylbenzene	ND	µg/L	1.0							
4-Isopropyltoluene	ND	µg/L	1.0							

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: 5ml rb		MBLK					Batch ID:	R34941	Analysis Date:	8/17/2009 8:58:35 AM	
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		LCS					Batch ID:	R34941	Analysis Date:	8/17/2009 9:54:43 AM	
Benzene	22.50	µg/L	1.0	20	0	113	76.7	114			
Toluene	20.05	µg/L	1.0	20	0	100	78.4	117			
Chlorobenzene	20.10	µg/L	1.0	20	0	100	80.7	127			
1,1-Dichloroethene	25.15	µg/L	1.0	20	0	126	80.2	128			
Trichloroethene (TCE)	24.23	µg/L	1.0	20	0	121	77.4	115			S

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB		MBLK				Batch ID:	R34935	Analysis Date:	8/17/2009 3:19:12 PM	
Calcium	ND	mg/L	1.0							
Magnesium	ND	mg/L	1.0							
Potassium	ND	mg/L	1.0							
Sodium	ND	mg/L	1.0							
Sample ID: MB		MBLK				Batch ID:	R35008	Analysis Date:	8/24/2009 11:08:34 AM	
Calcium	ND	mg/L	1.0							
Magnesium	ND	mg/L	1.0							
Potassium	ND	mg/L	1.0							
Sodium	ND	mg/L	1.0							
Sample ID: LCS		LCS				Batch ID:	R34935	Analysis Date:	8/17/2009 3:22:13 PM	
Calcium	49.11	mg/L	1.0	50.5	0	97.3	80	120		
Magnesium	49.11	mg/L	1.0	50.5	0	97.3	80	120		
Potassium	52.25	mg/L	1.0	55	0	95.0	80	120		
Sodium	48.51	mg/L	1.0	50.5	0	98.1	80	120		
Sample ID: LCS		LCS				Batch ID:	R35008	Analysis Date:	8/24/2009 11:11:37 AM	
Calcium	51.07	mg/L	1.0	50.5	0.0429	101	80	120		
Magnesium	51.62	mg/L	1.0	50.5	0.0213	102	80	120		
Potassium	56.10	mg/L	1.0	55	0.1766	102	80	120		
Sodium	51.14	mg/L	1.0	50.5	0.0804	101	80	120		

Method: EPA Method 6010B: Soil Metals

Sample ID: MB-19887		MBLK				Batch ID:	19887	Analysis Date:	8/18/2009 4:55:33 PM	
Calcium	ND	mg/Kg	25							
Magnesium	ND	mg/Kg	25							
Potassium	ND	mg/Kg	50							
Sodium	ND	mg/Kg	25							
Sample ID: MB-19887		MBLK				Batch ID:	19887	Analysis Date:	8/20/2009 12:14:44 PM	
Calcium	ND	mg/Kg	25							
Magnesium	ND	mg/Kg	25							
Potassium	ND	mg/Kg	50							
Sodium	ND	mg/Kg	25							
Sample ID: LCS-19887		LCS				Batch ID:	19887	Analysis Date:	8/18/2009 4:58:37 PM	
Calcium	2321	mg/Kg	25	2500	0	92.8	80	120		
Magnesium	2336	mg/Kg	25	2500	0	93.5	80	120		
Potassium	2508	mg/Kg	50	2500	0	100	80	120		
Sodium	2490	mg/Kg	25	2500	0	99.6	80	120		
Sample ID: LCS-19887		LCS				Batch ID:	19887	Analysis Date:	8/20/2009 12:17:47 PM	
Calcium	2440	mg/Kg	25	2500	0	97.6	80	120		
Magnesium	2433	mg/Kg	25	2500	0	97.3	80	120		
Potassium	2609	mg/Kg	50	2500	15.88	104	80	120		
Sodium	2628	mg/Kg	25	2500	0	105	80	120		

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



# Chain-of-Custody Record

Client: XTO Energy, Inc by TetraTech

Mailing Address: 382 CR-3100

Aztec, NM

Phone #: (505) 237-8440-TetraTech

email or Fax#: (505) 333-3196-XTO

QA/QC Package: Kelly.blanchard@tetratech.com

Standard  Level 4 (Full Validation)

Other

EDD (Type)

Turn-Around Time:

Standard  Rush

Project Name:

DAVIS GC FHIE

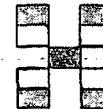
Project #:

Project Manager: Kelly Blanchard -  
tetra Tech; Martin Nee -  
XTO Energy

Sampler: Kelly Blanchard

Other

Sample Preparation:



HALL ENVIRONMENTAL  
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cations	Nitrate	Air Bubbles (Y or N)
8-12-09	1455	Water	B1-GW	Vials (4)	HCl										X				
8-12-09	1455	Water	B1-GW	plastic(1)	None										X		X		
8-12-09	1455	Water	B1-GW	plastic(2)	HNO <sub>3</sub> /H <sub>2</sub> SO <sub>4</sub>													X	
8-12-09	1520	water	B2-GW	glass(4)	HCl													X	
8-12-09	1520	water	B2-GW	plastic(1)	None													X	
8-12-09	1520	water	B2-GW	plastic(2)	HNO <sub>3</sub> /H <sub>2</sub> SO <sub>4</sub>													X	
8-13-09	9:00	water	B4-GW	vials(4)	HCl													X	
8-13-09	9:00	water	B4-GW	plastic(1)	None													X	
8-13-09	9:00	water	B4-GW	plastic(2)	HNO <sub>3</sub> /H <sub>2</sub> SO <sub>4</sub>													X	
8-13-09	9:20	Water	B5-GW	Vials(4)	HCl													X	
8-13-09	9:20	water	B5-GW	plastic(1)	None													X	
8-13-09	9:20	water	B5-GW	plastic(2)	HNO <sub>3</sub> /H <sub>2</sub> SO <sub>4</sub>													X	
Date:	Time:	Relinquished by:	Received by:			Date	Date							Remarks:					
8-13-09	1630	Kelly Blanchard	JJ			8/14/09	015												
Date:	Time:	Relinquished by:	Received by:			Date	Date												

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908259

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 300.0: Anions</b>											
Sample ID: MB-19889		MBLK					Batch ID: 19889		Analysis Date:	8/17/2009 12:11:39 PM	
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	3.201	mg/Kg	1.5								
Sample ID: MB-19889		MBLK					Batch ID: 19889		Analysis Date:	8/18/2009 2:07:17 AM	
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	2.985	mg/Kg	1.5								
Sample ID: LCS-19889		LCS					Batch ID: 19889		Analysis Date:	8/17/2009 12:29:03 PM	
Fluoride	1.557	mg/Kg	0.30	1.5	0	104	90	110			
Chloride	14.71	mg/Kg	0.30	15	0	98.0	90	110			
Nitrogen, Nitrite (As N)	2.990	mg/Kg	0.30	3	0	99.7	90	110			
Nitrogen, Nitrate (As N)	7.378	mg/Kg	0.30	7.5	0	98.4	90	110			
Phosphorus, Orthophosphate (As P)	14.57	mg/Kg	1.5	15	0	97.1	90	110			
Sulfate	29.49	mg/Kg	1.5	30	2.985	88.4	90	110			BS
<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: MB-19884		MBLK					Batch ID: 19884		Analysis Date:	8/17/2009	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19884		LCS					Batch ID: 19884		Analysis Date:	8/17/2009	
Diesel Range Organics (DRO)	35.66	mg/Kg	10	50	0	71.3	64.6	116			
Sample ID: LCSD-19884		LCSD					Batch ID: 19884		Analysis Date:	8/17/2009	
Diesel Range Organics (DRO)	39.25	mg/Kg	10	50	0	78.5	64.6	116	9.59	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: MB-19898		MBLK					Batch ID: 19898		Analysis Date:	8/19/2009 5:00:35 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19898		LCS					Batch ID: 19898		Analysis Date:	8/22/2009 2:21:25 AM	
Gasoline Range Organics (GRO)	31.42	mg/Kg	5.0	25	0	126	64.4	133			
Sample ID: LCSD-19898		LCSD					Batch ID: 19898		Analysis Date:	8/22/2009 2:51:57 AM	
Gasoline Range Organics (GRO)	30.88	mg/Kg	5.0	25	0	124	69.5	133	1.73	11.6	

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908259

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

## Method: EPA Method 8021B: Volatiles

Sample ID: MB-19898	<i>MBLK</i>				Batch ID:	19898	Analysis Date:	8/19/2009 5:00:35 AM		
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10							
Benzene	ND	mg/Kg	0.050							
Toluene	ND	mg/Kg	0.050							
Ethylbenzene	ND	mg/Kg	0.050							
Xylenes, Total	ND	mg/Kg	0.10							
Sample ID: LCS-19898	<i>LCS</i>				Batch ID:	19898	Analysis Date:	8/23/2009 5:28:56 AM		
Methyl tert-butyl ether (MTBE)	0.8509	mg/Kg	0.10	1	0	85.1	67.9	135		
Benzene	1.012	mg/Kg	0.050	1	0.0025	101	78.8	132		
Toluene	1.051	mg/Kg	0.050	1	0	105	78.9	112		
Ethylbenzene	1.065	mg/Kg	0.050	1	0	107	69.3	125		
Xylenes, Total	3.166	mg/Kg	0.10	3	0	106	73	128		
Sample ID: LCSD-19898	<i>LCSD</i>				Batch ID:	19898	Analysis Date:	8/23/2009 5:59:28 AM		
Methyl tert-butyl ether (MTBE)	0.8444	mg/Kg	0.10	1	0	84.4	67.9	135	0.767	28
Benzene	0.9735	mg/Kg	0.050	1	0.0025	97.1	78.8	132	3.83	27
Toluene	0.9391	mg/Kg	0.050	1	0	93.9	78.9	112	11.3	19
Ethylbenzene	0.9243	mg/Kg	0.050	1	0	92.4	69.3	125	14.1	10
Xylenes, Total	2.724	mg/Kg	0.10	3	0	90.8	73	128	15.0	13

## Method: EPA Method 6010B: Soil Metals

Sample ID: 0908259-02BMSD	<i>MSD</i>				Batch ID:	19901	Analysis Date:	8/18/2009 6:39:52 PM
Calcium	4426	mg/Kg	25	2486	2485	78.1	75	125
Magnesium	2788	mg/Kg	25	2486	845.5	78.2	75	125
Potassium	2443	mg/Kg	50	2486	370.1	83.4	75	125
Sodium	2750	mg/Kg	25	2486	667.7	83.7	75	125
Sample ID: MB-19901	<i>MBLK</i>				Batch ID:	19901	Analysis Date:	8/18/2009 6:23:20 PM
Calcium	ND	mg/Kg	25					
Magnesium	ND	mg/Kg	25					
Potassium	ND	mg/Kg	50					
Sodium	ND	mg/Kg	25					
Sample ID: LCS-19901	<i>LCS</i>				Batch ID:	19901	Analysis Date:	8/18/2009 6:26:24 PM
Calcium	2427	mg/Kg	25	2500	0	97.1	80	120
Magnesium	2432	mg/Kg	25	2500	0	97.3	80	120
Potassium	2554	mg/Kg	50	2500	0	102	80	120
Sodium	2592	mg/Kg	25	2500	0	104	80	120
Sample ID: 0908259-02BMS	<i>MS</i>				Batch ID:	19901	Analysis Date:	8/18/2009 6:36:53 PM
Calcium	4568	mg/Kg	25	2474	2485	84.2	75	125
Magnesium	2812	mg/Kg	25	2474	845.5	79.5	75	125
Potassium	2462	mg/Kg	49	2474	370.1	84.6	75	125
Sodium	2767	mg/Kg	25	2474	667.7	84.9	75	125

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



# CHAIN OF CUSTODY RECORD

7702

Client: XTO Energy, Inc. by Tetra Tech		Project Name / Location: DAVIS GC FILE/Bloomfield, NM		ANALYSIS / PARAMETERS																	
Client Address: 382 CR-3100 Aztec, NM		Sampler Name: Kelly Blanchard (Tetra Tech)																			
Client Phone No.: 505-975-2563		Client No.: 98031-0121																			
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl <sub>2</sub> HCl	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE Field Test			Sample Cool	Sample Intact	
B5 (4-5')	8-12-09	11:00	57274	Soil Solid	Sludge Aqueous	1-4oz									X					✓	✓
B6 (4-5')	8-12-09	12:50	57275	Soil Solid	Sludge Aqueous	1-4oz									X					✓	✓
Existing Excavation (4-5')	8/12/09	12:30	57276	Soil Solid	Sludge Aqueous	1-4oz									X					✓	✓
B1 (4-5')	8/12/09	13:50	57277	Soil Solid	Sludge Aqueous	1-4oz									X					✓	✓
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
				Soil Solid	Sludge Aqueous																
Relinquished by: (Signature) <i>Kelly E. Blanchard</i>				Date	Time	Received by: (Signature) <i>Justine Smith</i>				Date	Time										
				8-12-09	14:40					8/12	14:45										
Relinquished by: (Signature) <i>Justine Smith</i>				Date	Time	Received by: (Signature) <i>Karen Anglin</i>				Date	Time										
				8-12	14:55					8/12	14:55										
Relinquished by: (Signature)						Received by: (Signature)															
Verbal in a.m.												email results to: Kelly.blanchard@tetratech.com									
Hold sample for further analysis												5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com									

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 300.0: Anions</b>											
Sample ID: MB		MBLK					Batch ID:	R34971	Analysis Date:	8/19/2009 11:28:08 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK					Batch ID:	R34983	Analysis Date:	8/20/2009 2:56:44 PM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		LCS					Batch ID:	R34971	Analysis Date:	8/19/2009 11:45:32 AM	
Fluoride	0.5090	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.761	mg/L	0.10	5	0	95.2	90	110			
Nitrogen, Nitrite (As N)	0.9067	mg/L	0.10	1	0	90.7	90	110			
Nitrogen, Nitrate (As N)	2.438	mg/L	0.10	2.5	0	97.5	90	110			
Phosphorus, Orthophosphate (As P)	4.812	mg/L	0.50	5	0	96.2	90	110			
Sulfate	9.624	mg/L	0.50	10	0	96.2	90	110			
Sample ID: LCS		LCS					Batch ID:	R34983	Analysis Date:	8/20/2009 3:14:09 PM	
Fluoride	0.4961	mg/L	0.10	0.5	0	99.2	90	110			
Chloride	4.912	mg/L	0.10	5	0	98.2	90	110			
Nitrogen, Nitrite (As N)	1.019	mg/L	0.10	1	0	102	90	110			
Nitrogen, Nitrate (As N)	2.439	mg/L	0.10	2.5	0	97.6	90	110			
Phosphorus, Orthophosphate (As P)	4.818	mg/L	0.50	5	0	96.4	90	110			
Sulfate	9.842	mg/L	0.50	10	0	98.4	90	110			

<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: MB-19914		MBLK					Batch ID:	19914	Analysis Date:	8/20/2009 6:56:37 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19914		LCS					Batch ID:	19914	Analysis Date:	8/20/2009 7:32:41 AM	
Diesel Range Organics (DRO)	37.47	mg/Kg	10	50	0	74.9	64.6	116			
Sample ID: LCSD-19914		LCSD					Batch ID:	19914	Analysis Date:	8/20/2009 8:08:41 AM	
Diesel Range Organics (DRO)	37.88	mg/Kg	10	50	0	75.8	64.6	116	1.09	17.4	

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range</b>											
Sample ID: MB-19924		MBLK					Batch ID: 19924		Analysis Date:	8/20/2009 11:07:10 AM	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-19924		LCS					Batch ID: 19924		Analysis Date:	8/20/2009 11:42:37 AM	
Diesel Range Organics (DRO)	4.378	mg/L	1.0	5	0	87.6	74	157			
Sample ID: LCSD-19924		LCSD					Batch ID: 19924		Analysis Date:	8/20/2009 12:18:04 PM	
Diesel Range Organics (DRO)	4.502	mg/L	1.0	5	0	90.0	74	157	2.78	23	
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: MB-19923		MBLK					Batch ID: 19923		Analysis Date:	8/24/2009 1:18:36 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19923		LCS					Batch ID: 19923		Analysis Date:	8/24/2009 12:48:17 AM	
Gasoline Range Organics (GRO)	30.53	mg/Kg	5.0	25	3.82	107	64.4	133			
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: b-17		MBLK					Batch ID: R35001		Analysis Date:	8/23/2009 6:44:15 PM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.6UG GRO LCS		LCS					Batch ID: R35001		Analysis Date:	8/24/2009 4:21:25 AM	
Gasoline Range Organics (GRO)	0.5046	mg/L	0.050	0.5	0	101	80	115			
Sample ID: 2.6UG GRO LCSD		LCSD					Batch ID: R35001		Analysis Date:	8/24/2009 4:51:49 AM	
Gasoline Range Organics (GRO)	0.5182	mg/L	0.050	0.5	0	104	80	115	2.66	8.39	
<b>Method: EPA Method 8260B: Volatiles Short List</b>											
Sample ID: 0908316-01a msd		MSD					Batch ID: 19923		Analysis Date:	8/24/2009 3:33:00 PM	
Benzene	1.058	mg/Kg	0.050	1	0	106	83.2	118	1.23	19	
Toluene	0.9718	mg/Kg	0.050	1	0	97.2	84.8	112	4.71	0	
Sample ID: mb-19923		MBLK					Batch ID: 19923		Analysis Date:	8/24/2009 4:57:30 PM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: lcs-19923		LCS					Batch ID: 19923		Analysis Date:	8/24/2009 4:01:14 PM	
Benzene	1.100	mg/Kg	0.050	1	0	110	78.2	123			
Toluene	0.9760	mg/Kg	0.050	1	0	97.6	72.6	128			
Sample ID: 0908316-01a ms		MS					Batch ID: 19923		Analysis Date:	8/24/2009 3:04:48 PM	
Benzene	1.045	mg/Kg	0.050	1	0	105	83.2	118			
Toluene	0.9271	mg/Kg	0.050	1	0	92.7	84.8	112			

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb	MBLK						Batch ID: R34985	Analysis Date: 8/20/2009 9:03:32 AM		
Benzene	ND	µg/L	1.0							
Toluene	ND	µg/L	1.0							
Ethylbenzene	ND	µg/L	1.0							
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0							
1,2,4-Trimethylbenzene	ND	µg/L	1.0							
1,3,5-Trimethylbenzene	ND	µg/L	1.0							
1,2-Dichloroethane (EDC)	ND	µg/L	1.0							
1,2-Dibromoethane (EDB)	ND	µg/L	1.0							
Naphthalene	ND	µg/L	2.0							
1-Methylnaphthalene	ND	µg/L	4.0							
2-Methylnaphthalene	ND	µg/L	4.0							
Acetone	ND	µg/L	10							
Bromobenzene	ND	µg/L	1.0							
Bromodichloromethane	ND	µg/L	1.0							
Bromoform	ND	µg/L	1.0							
Bromomethane	ND	µg/L	1.0							
2-Butanone	ND	µg/L	10							
Carbon disulfide	ND	µg/L	10							
Carbon Tetrachloride	ND	µg/L	1.0							
Chlorobenzene	ND	µg/L	1.0							
Chloroethane	ND	µg/L	2.0							
Chloroform	ND	µg/L	1.0							
Chloromethane	ND	µg/L	1.0							
2-Chlorotoluene	ND	µg/L	1.0							
4-Chlorotoluene	ND	µg/L	1.0							
cis-1,2-DCE	ND	µg/L	1.0							
cis-1,3-Dichloropropene	ND	µg/L	1.0							
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0							
Dibromochloromethane	ND	µg/L	1.0							
Dibromomethane	ND	µg/L	1.0							
1,2-Dichlorobenzene	ND	µg/L	1.0							
1,3-Dichlorobenzene	ND	µg/L	1.0							
1,4-Dichlorobenzene	ND	µg/L	1.0							
Dichlorodifluoromethane	ND	µg/L	1.0							
1,1-Dichloroethane	ND	µg/L	1.0							
1,1-Dichloroethene	ND	µg/L	1.0							
1,2-Dichloropropane	ND	µg/L	1.0							
1,3-Dichloropropane	ND	µg/L	1.0							
2,2-Dichloropropane	ND	µg/L	2.0							
1,1-Dichloropropene	ND	µg/L	1.0							
Hexachlorobutadiene	ND	µg/L	1.0							
2-Hexanone	ND	µg/L	10							
Isopropylbenzene	ND	µg/L	1.0							
4-Isopropyltoluene	ND	µg/L	1.0							

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

## Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb	MBLK					Batch ID:	R34985	Analysis Date:	8/20/2009 9:03:32 AM	
4-Methyl-2-pentanone	ND	µg/L	10							
Methylene Chloride	ND	µg/L	3.0							
n-Butylbenzene	ND	µg/L	1.0							
n-Propylbenzene	ND	µg/L	1.0							
sec-Butylbenzene	ND	µg/L	1.0							
Styrene	ND	µg/L	1.0							
tert-Butylbenzene	ND	µg/L	1.0							
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0							
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0							
Tetrachloroethene (PCE)	ND	µg/L	1.0							
trans-1,2-DCE	ND	µg/L	1.0							
trans-1,3-Dichloropropene	ND	µg/L	1.0							
1,2,3-Trichlorobenzene	ND	µg/L	1.0							
1,2,4-Trichlorobenzene	ND	µg/L	1.0							
1,1,1-Trichloroethane	ND	µg/L	1.0							
1,1,2-Trichloroethane	ND	µg/L	1.0							
Trichloroethene (TCE)	ND	µg/L	1.0							
Trichlorofluoromethane	ND	µg/L	1.0							
1,2,3-Trichloropropane	ND	µg/L	2.0							
Vinyl chloride	ND	µg/L	1.0							
Xylenes, Total	ND	µg/L	1.5							
Sample ID: 100ng lcsb	LCS					Batch ID:	R34985	Analysis Date:	8/20/2009 10:59:43 AM	
Benzene	21.90	µg/L	1.0	20	0	109	76.7	114		
Toluene	20.89	µg/L	1.0	20	0	104	78.4	117		
Chlorobenzene	20.75	µg/L	1.0	20	0	104	80.7	127		
1,1-Dichloroethene	23.68	µg/L	1.0	20	0	118	80.2	128		
Trichloroethene (TCE)	21.53	µg/L	1.0	20	0	108	77.4	115		

## Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB	MBLK					Batch ID:	R36008	Analysis Date:	8/24/2009 11:08:34 AM
Calcium	ND	mg/L	1.0						
Magnesium	ND	mg/L	1.0						
Potassium	ND	mg/L	1.0						
Sodium	ND	mg/L	1.0						
Sample ID: LCS	LCS					Batch ID:	R36008	Analysis Date:	8/24/2009 11:11:37 AM
Calcium	51.07	mg/L	1.0	50.5	0.0429	101	80	120	
Magnesium	51.62	mg/L	1.0	50.5	0.0213	102	80	120	
Potassium	56.10	mg/L	1.0	55	0.1766	102	80	120	
Sodium	51.14	mg/L	1.0	50.5	0.0804	101	80	120	

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: XTO Energy  
 Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 6010B: Soil Metals</b>											
Sample ID: MB-19929		MBLK					Batch ID:	19929	Analysis Date:	8/26/2009 12:30:39 PM	
Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								
Sample ID: LCS-19929		LCS					Batch ID:	19929	Analysis Date:	8/26/2009 12:33:41 PM	
Calcium	2562	mg/Kg	25	2500	0	102	80	120			
Magnesium	2482	mg/Kg	25	2500	0	99.3	80	120			
Potassium	2633	mg/Kg	50	2500	11.11	105	80	120			
Sodium	2601	mg/Kg	25	2500	0	104	80	120			

## Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name **XTO ENERGY**

Date Received:

**8/19/2009**

Work Order Number **0908316**

Received by: **ARS**

Checklist completed by:

Signature

Sample ID labels checked by:

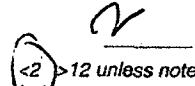
  
Initials

Date

Matrix:

Carrier name: **Client drop-off**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Container/Temp Blank temperature?	<b>3.9°</b>	<6° C Acceptable If given sufficient time to cool.	

Number of preserved bottles checked for pH:  


**<2 >12 unless noted below.**

COMMENTS:

-----

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Chain-of-Custody Record

Client: XTO Energy

Mailing Address: 382 CR-2100  
Aztec, NM

Phone #: 505-333-3100

email or Fax#: Kelly.blanchard@tetratech.com

QA/QC Package:

- Standard       Level 4 (Full Validation)  
 Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

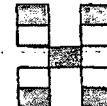
Turn-Around Time:

Standard       Rush

Project Name:

Davis GC FILE

Project #:



HALL ENVIRONMENTAL  
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975    Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	Sample Temperature	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Nitrate	Air Bubbles (Y or N)
8-17-09	11:00	Soil	Excavation Eastwall (12-17')	Glass	Cold	1	X			X		X		X		X	X	X	
8-19-09	8:40	Water	Excavation GW2	Vials - 4	HCl	2		X											
8-19-09	8:40	Water	Excavation GW2	500ml plastic	cold	2								X					
8-19-09	8:40	Water	Excavation GW2	Plastic (1)	HNO <sub>3</sub>	2													
8-19-09	8:40	Water	Excavation GW2	plastic (1)	H <sub>2</sub> SO <sub>4</sub>	2													
8/19/09	12:20	Kelly E. Blanchard																	
Date:	Time:	Relinquished by:		Received by:		Date		Date		Date		Date		Remarks:					
8/19/09	12:20	Kelly E. Blanchard				8/19/09		8/19/09		8/19/09		8/19/09							
Date:	Time:	Relinquished by:		Received by:		Date		Date		Date		Date							

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.



EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS  
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	10-06-BT QA/QC	Date Reported:	10-06-09
Laboratory Number:	51952	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-06-09
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	Cal RF	C Cal RF	%Diff.	Blank Conc.	Detect Limit
Benzene	9.9145E+005	9.9443E+005	0.30%	ND	1.8
Toluene	9.1061E+005	9.1335E+005	0.30%	ND	1.7
Ethylbenzene	8.1559E+005	8.1805E+005	0.30%	ND	1.5
p,m-Xylene	2.0271E+006	2.0332E+006	0.30%	ND	2.2
o-Xylene	7.7110E+005	7.7342E+005	0.30%	ND	1.0

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	1.7	1.8	5.4%	0 - 30%
Toluene	8.1	7.9	3.0%	0 - 30%
Ethylbenzene	1.8	1.7	6.1%	0 - 30%
p,m-Xylene	36.8	34.4	6.5%	0 - 30%
o-Xylene	5.4	5.2	4.2%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limit
Benzene	1.7	50.0	51.4	99.4%	39 - 150
Toluene	8.1	50.0	59.7	103%	46 - 148
Ethylbenzene	1.8	50.0	50.2	96.9%	32 - 160
p,m-Xylene	36.8	100	139	102%	46 - 148
o-Xylene	5.4	50.0	54.8	98.9%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:  
Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 51952, 51953 and 51982.

  
Analyst

  
Review



# CHAIN OF CUSTODY RECORD

8138 Rust

Client:		Project Name / Location:					ANALYSIS / PARAMETERS												
XTO ENERGY		GROUND WATER DAVIS GC F#1E																	
Client Address: 382 ROAD 3100 AZTEC, NM 87410		Sampler Name: KURT																	
Client Phone No.: 333-3207		Client No.: 98031-0121																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl <sub>2</sub> Na	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCl	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE	SULFATE	Sample Cool	Sample Intact
GROUNDWATER	10/6	9:45	51982	Soil Sludge Solid Aqueous	1 250ML 2 VOC	X	X									X	X	X	X
GROUNDWATER	10/6	9:45		Soil Sludge Solid Aqueous	1 250ML											X	X		
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
				Soil Sludge Solid Aqueous															
Relinquished by: (Signature) <i>Kurt Hockstra</i>					Date 10/6	Time 10:25	Received by: (Signature) <i>Dave</i>										Date 10-06-01	Time 10:25	
Relinquished by: (Signature)							Received by: (Signature)												
Relinquished by: (Signature)							Received by: (Signature)												



**envirotech**  
Analytical Laboratory

5798 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com

E-MAIL RESULTS TO  
KURT HOCKSTRA  
KIM CHAMPLIN

# CHAIN OF CUSTODY RECORD

8207 RUSA

Client:		Project Name / Location:					ANALYSIS / PARAMETERS													
XTO ENERGY		DAVIS LC. F# 1E																		
Client Address: 382 Road 3100 AZTEC NM 87410		Sampler Name: KURT					TPH (Method 8015)	BTX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCL	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE	SULFATE	Sample Cool	Sample Intact	
Client Phone No.: 505-333-3207		Client No.: 98031-0121																		
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative H <sub>2</sub> O, HCl														
GROUNDWATER	11/2	12:40	52310	Soil Solid Sludge Aqueous	(1)250 mL Bottle														X	Y
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
Relinquished by: (Signature) <i>Kurt Hoekstra</i>					Date 11/2	Time 1:00	Received by: (Signature) <i>Brandon Tait</i>					Date 11/2/09	Time 1:00							
Relinquished by: (Signature)							Received by: (Signature)													
Relinquished by: (Signature)							Received by: (Signature)													



**envirotech**  
Analytical Laboratory

5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com

E-MAIL RESULTS TO:  
KURT HOEKSTRA  
KIM CHAMPLIN

## **APPENDIX B**

**Waste Manifest Forms**

RECEIVAL DATE	CLIENT NAME	LOCATION	BBL	CY	Exempt?	COMMENTS	BOL#	CHLORIDE
07-01-09	XTO	Jicarilla Apache CDP	36		No	Soil	33781	298(3)
07-02-09	XTO	Jicarilla Apache CDP	30		No	Soil	33782	298(3)
07-07-09	XTO	Martinez GC G 1G	144		No	Soil	33788	298(12)
07-07-09	XTO	Martinez GC G 1G	54		No	Soil	33791	298(4)
07-08-09	XTO	Martinez GC G 1G	150		No	Soil	33792	298(12)
07-08-09	XTO	Florence 67	10		Yes	Tank bottoms	33795	298
07-08-09	XTO	Ute Indian A 31	10		Yes	Tank bottoms	33796	298
07-08-09	XTO	Evensen 3	20		Yes	Tank bottoms	33797	298
07-08-09	XTO	Lefkowitz GC B 1E	5		Yes	Tank bottoms	33798	298
07-08-09	XTO	Fullerton Fed 6E	20		Yes	Tank bottoms	33799	298
07-08-09	XTO	Davidson GC F 1E	10		Yes	Tank bottoms	33800	298
07-08-09	XTO	Martinez GC G 1G	30		No	Soil	33801	298(2)
07-09-09	XTO	Sullivan Frame A 1E	12		Yes	Soil	33803	298
07-09-09	XTO	Martinez GC G 1G	120		No	Soil	33806	298(9)
07-10-09	XTO	Martinez GC G 1G	90		No	Soil	33815	298(6)
07-13-09	XTO	Davis GC F 1E	120		Yes	Soil	33822	298(10)
07-13-09	XTO	Martinez GC G 1G	60		No	Soil	33824	298(4)
07-14-09	XTO	Haney GC B 1E	96		Yes	Soil	33826	298(8)
								298(9)
07-14-09	XTO	Davis GC F 1E	144		Yes	Soil	33827	298(3)
07-14-09	XTO	Martinez GC G 1G	162		No	Soil	33828	298(11)
								298(11)
07-15-09	XTO	Haney GC B 1E	144		Yes	Soil	33833	298(1)
07-15-09	XTO	Martinez GC G 1G	200		No	Soil	33834	298(12)
07-15-09	XTO	Kutz Deep D 1E	10		Yes	Soil	33836	298
07-15-09	XTO	Haney GC B 1E	62		Yes	Soil	33837	298(5)
07-16-09	XTO	Ohio CGovt 2	24		Yes	Soil	33841	298-796
07-20-09	XTO	Nocki 1	70		Yes	Soil	33863	298(6)
07-22-09	XTO	State GC B Z #1	61		Yes	Soil	33884	298(5)
07-23-09	XTO	MN Galt H 2	12		Yes	Soil	33900	298
07-27-09	XTO	TL Rhodes G 3	65		Yes	Tank bottoms	33915	298
07-30-09	XTO	Bolack B 6	4		Yes	Soil	33898	298
07-30-09	XTO	TL Rhodes G 3	12		No	Soil	33898	298
		Barrels	140	1847		Cubic yards		

Late or early receival

07-20-09 XTO

Nocki 1

82

Clean Fill

33861

82

RECEIVAL DATE	CLIENT NAME	LOCATION	BBL	CY	Exempt	COMMENTS	BOL #	CHLORIDE
08-03-09	XTO	Federal GG J 1	40		Yes	Tank bottoms	33960	298(277(5))
08-05-09	XTO	Haney B 1E	96		Yes	Soil	33973	298(3)(277(11))
08-13-09	XTO	Davis Gas Com F 1E	138		Yes	Soil	34023	277
08-13-09	XTO	Davis Gas Com F 1E	12		Yes	Soil	34028	277(298(9))
08-14-09	XTO	Davis Gas Com F 1E	128		Yes	Soil	34032	277(3)
08-14-09	XTO	Davis Gas Com F 1E	10		Yes	Soil	34033	298
08-14-09	XTO	Davis Gas Com F 1E	132		Yes	Soil	34037	298
08-14-09	XTO	Davis Gas Com F 1E	34		Yes	Soil	34040	298(3)
08-17-09	XTO	Davis Gas Com F 1E	138		Yes	Soil	34044	298(12)
08-17-09	XTO	Davis Gas Com F 1E	140		Yes	Soil	34046	298(12)
08-17-09	XTO	Davis Gas Com F 1E	58		Yes	Soil	34051	298(5)
08-18-09	XTO	Davis Gas Com F 1E	144		Yes	Soil	34054	298(12)
08-18-09	XTO	Davis Gas Com F 1E	134		Yes	Soil	34061	298(11)
08-19-09	XTO	Davis Gas Com F 1E	122		Yes	Soil	34069	298(11)
08-19-09	XTO	Dawson Fed IC	10		Yes	Soil	34079	298
08-19-09	XTO	Irish 2	25		Yes	Tank bottoms	34080	569
08-26-09	XTO	Kutz Federal 12E	20		Yes	Tank bottoms	34137	686
		Barrels	85	1296		Cubic yards		

Late or early receival

08-14-09 XTO	Davis Gas Com F 1E	132	Clean fill	BOL 34036
08-14-09 XTO	Davis Gas Com F 1E	36	Clean fill	34038
08-17-09 XTO	Davis Gas Com F 1E	138	Clean fill	34043
08-17-09 XTO	Davis Gas Com F 1E	140	Clean fill	34047
08-17-09 XTO	Davis Gas Com F 1E	58	Clean fill	34050
08-18-09 XTO	Davis Gas Com F 1E	144	Clean fill	34055
08-18-09 XTO	Davis Gas Com F 1E	24	Clean fill	34062

672