District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: James McDaniel
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3701
Facility Name: Jack Frost B #2 (30-045-06295)	Facility Type: Gas Well (Dakota)

Surface Owner: Federal	Mineral Owner:	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	27	27N	10W	930	FNL	1040	FWL	San Juan

Latitude: 36.55094 **Longitude:** -107.88842

RCVD AUG 18 '10
OIL CONS. DIV.
DIST. 3

NATURE OF RELEASE

Type of Release: Produced Water w/ Incidental Oil/Condensate	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Earthen Pit/Historical Production Tank Overflow	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 5/12/2010
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Brandon Powell	
By Whom? James McDaniel	Date and Hour 5/25/2010	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. Unknown	

If a Watercourse was Impacted, Describe Fully.*
Groundwater was encountered during excavation activities. 15 bbls of groundwater was removed, and a sample was collected of the infiltrating groundwater. The water was below the WQCC regulatory standards for BTEX. No impact to the groundwater is expected.

Describe Cause of Problem and Remedial Action Taken.*
On May 12, 2010, it was noticed that approximately 2 bbls of water had overflowed from the on-site pit tank. On May 17, 2010, excavation activities began to clean up the 2 bbls release. The site had been ranked prior to excavation pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 40 due to an estimated depth to groundwater of less than 50 feet, and a wash at less than 200 feet from the location. This set the closure standards to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX. During excavation activities, a historical earthen pit from Amoco's former production of the location was discovered. The excavation area was extended at this time to remove soil impacted by the former earthen pit's operation. On May 25th, 2010, groundwater was discovered during excavation activities, and Brandon Powell, OCD Aztec Office, and Mark Kelly, BLM, were notified via a phone call by James McDaniel with XTO Energy, Inc.. Excavation continued through June, under the supervision of LT Environmental, until samples were collected from the excavation that returned results below the regulatory standards determined for this site. A report documenting on-site activities is attached for your reference.

Describe Area Affected and Cleanup Action Taken.*
See attached report completed by LT Environmental documenting onsite activities.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: James McDaniel	Approved by District Supervisor: Brandon Powell For: CP
Title: EH&S Specialist	Approval Date: 9/8/10 Expiration Date:
E-mail Address: James_McDaniel@xtoenergy.com	Conditions of Approval: Attached ☐
Date: 8/16/2010 Phone: 505-333-3701	

nBP1025138360

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EXCAVATION REPORT

JACK FROST B #2
SAN JUAN COUNTY, NEW MEXICO

August 12, 2010

Prepared for:

XTO ENERGY, INC
Aztec, NM

EXCAVATION REPORT

JACK FROST B #2

SAN JUAN COUNTY, NEW MEXICO

August 12, 2010

Prepared for:

XTO ENERGY, INC
382 CR 3100
Aztec, NM 87410

Prepared by:

LT ENVIRONMENTAL, INC.
2243 Main Avenue, Suite 3
Durango, Colorado 81301
(970) 385-1096

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APPENDIX

EXECUTIVE SUMMARY

This report was prepared by LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc (XTO) to document remediation activities at the Jack Frost B #2 (Site). The Site is located in Unit D of Section 27 in Township 27 North and Range 10 West in San Juan County, New Mexico.

The scope of work for this project included mitigation of hydrocarbon impacts following a May 2010 release of condensate from a below grade pit tank at the Site. Soil impacted by this recent release was removed and disposed of along with historically impacted soil encountered in the subsurface. The perimeter of the final excavation was approximately 17,850 square feet. The excavation advanced to an average depth of 18 feet below ground surface (bgs) where groundwater was encountered. A vacuum truck was used to remove and dispose of impacted groundwater that pooled within the open excavation. These activities contributed to overall remediation of the Site. A small, separate excavation was dug northwest of the primary excavation underneath the former location of a production tank. It consisted of removal of 161 cubic yards of soil. A final total of 7,233 cubic yards of impacted soil were excavated and transported to Envirotech Landfarm for disposal. Analytical results from soil confirmation samples indicated that the walls and floor of the excavation were remediated to below New Mexico Oil Conservation Division (NMOCD) standards. Analytical results from groundwater samples collected from the open excavation were below the New Mexico Water Quality Control Commission (NMWQCC) standard for benzene, toluene, ethylbenzene, and total xylenes (BTEX).

SECTION 1.0

INTRODUCTION

This report was prepared by LT Environmental, Inc. (LTE) for XTO Energy, Inc (XTO) to document excavation activities at the Jack Frost B #2 (Site). The purpose of this project was to remove hydrocarbon-impacted soils and groundwater from the Site.

1.1 SITE DESCRIPTION

The Jack Frost B #2 is located in Unit D of Section 27 in Township 27 North and Range 10 West in San Juan County, New Mexico. The Site is situated near the headwaters of the Kutz Canyon arroyo of the San Juan River Drainage Basin. The production wellhead is approximately 90 feet northeast of the East Fork of Kutz Wash (Figure 1). Site geology is identified as Quaternary alluvium overlying the Nacimiento Formation and Ojo Alamo Sandstone. Shallow soils are composed of wind-blown alluvium, which are weathered from shale. Depth to groundwater at the site is less than 50 feet below ground surface (bgs) based on observations of groundwater pooling in the open excavation.

1.2 SITE HISTORY

In May 2010, a small amount of produced water was released from a below ground storage tank situated in a wood cellar containment at the Site. The liquid overflowed into the bermed area and saturated the gravel containment area. XTO responded immediately and scheduled an excavation to remove impacted soil. XTO contracted LTE to oversee the excavation and collect confirmation samples for closure.

1.3 SCOPE OF WORK

The scope of work for this remediation project included removal of impacted soil. Impacted soil was transported off site to the Envirotech Landfarm and replaced with clean fill from the Moss Pit. During on-site activities, LTE personnel conducted excavation oversight, collected soil and groundwater samples, field screened samples to segregate clean from impacted soils, monitored health and safety, and documented all field activities. A summary of field work, analytical results from soil and groundwater sampling, and conclusions are presented in the subsequent sections of this report.

SECTION 2.0

SUMMARY OF FIELD ACTIVITIES

2.1 EXCAVATION ACTIVITIES

2.1.1 Impacted Soil Removal

Excavation activities began on May 12, 2010. LTE was not on site from May 12, 2010 through June 8, 2010. During this time period, the soil immediately beneath the bermed area was removed and XTO conducted field screening and sampling. On June 9, 2010, an LTE geologist took over excavation oversight from XTO personnel and noted evidence of impact within the existing pit beginning at approximately 6 feet bgs and extending to an average depth of 18 feet bgs. While excavating the primary release, soil impacted by other historical releases were identified and removed. Additional sources included a former earthen pit, one out-of-service below ground pipeline, and a production tank. The production tank had to be moved to allow for excavation of a separate, smaller area of impacted soil located beneath the tank.

During the excavation, LTE personnel conducted field screening of organic vapor concentrations with a photoionization detector (PID) according to New Mexico Oil Conservation Division (NMOCD) headspace techniques. LTE also collected confirmation samples of the side walls and floor of the excavation to document excavation activities.

Due to the duration and large size of the excavation, XTO worked with the NMOCD to subdivide the excavation and allow for backfilling portions shown to be clean prior to moving forward with additional soil removal. This strategy provided a larger and safer area for equipment operators to work.

The final dimensions of the primary excavation were approximately 170 feet long by 105 feet wide and the total depth of the excavation ranged from 15-19 feet bgs. The smaller hole was dug in the location of a former production tank immediately northeast. It was 25 feet wide by 35 feet long and 5 feet deep. A total estimated volume of 11,888 cubic yards of soil was excavated. Of that, 7,233 cubic yards of contaminated soil was transported to Envirotech Landfarm in Hilltop, New Mexico. The remainder was clean overburden that was used to backfill the hole.

Confirmation samples were collected for submittal to an analytical laboratory. Figure 2 presents the excavation extent and the location of composite soil samples collected from within the excavation. Composite soil samples were collected by depositing five aliquots of soil into plastic bags, thoroughly mixing the contents and sampling into four ounce glass jars. Samples were stored on ice and either dropped off at Envirotech Laboratory in Bloomfield, New Mexico or shipped to ESC Lab Sciences (ESC) in Nashville, Tennessee following strict chain-of-custody procedures. The soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by U.S. Environmental

Protection Agency (USEPA) Method 8021 and total petroleum hydrocarbons (TPH) by USEPA Method 8015.

2.1.2 Impacted Groundwater Removal

Approximately 15 barrels of impacted groundwater were pumped and transferred by Roberts Trucking to Basin Disposal SWD #1. Groundwater that pooled in excavation was sampled for BTEX by collecting a grab sample in a decontaminated pitcher or bailer and immediately filling three pre-cleaned and pre-preserved 40 milliliter (ml) glass vials with zero headspace to prevent degradation of the sample. The groundwater samples were shipped on ice to ESC and analyzed for BTEX according to USEPA Method 8021B.

SECTION 3.0

ANALYTICAL RESULTS

Results from laboratory testing of all soil samples collected during the excavation are listed on Table 1. Locations of soil samples collected for site closure are shown in Figure 2. Complete laboratory reports are included in Appendix A. Final laboratory analyses indicate that TPH concentrations in soils on the walls and the floor were beneath NMOCD standards for sites where groundwater is less than 50 feet deep.

Groundwater sampling results are presented in Table 2 and laboratory reports are in Appendix A. The groundwater sample collected from the excavation was below New Mexico Water Quality Control Commission (NMWQCC) standard for BTEX concentrations.

SECTION 4.0

SUMMARY AND CONCLUSIONS

A total of 11,888 cubic yards of soil was excavated from the Site. Of those yards, 7,233 cubic yards were impacted by both the recent produced water release and by historical releases identified in the subsurface. Impacted soil was transported to the Envirotech Landfarm in Hilltop, New Mexico for disposal. XTO worked with the NMOCD to gain approval to backfill the excavation as progress was made towards ultimate removal of all impacted soil. Confirmation soil samples from the side walls and floor of the excavation were below NMOCD standards for BTEX and TPH concentrations. A vacuum truck collected 15 barrels of impacted groundwater, which was transported to Basin Disposal SWD #1 for proper disposal. BTEX concentrations in samples collected from pooling groundwater were below NMWQCC standards.

FIGURES

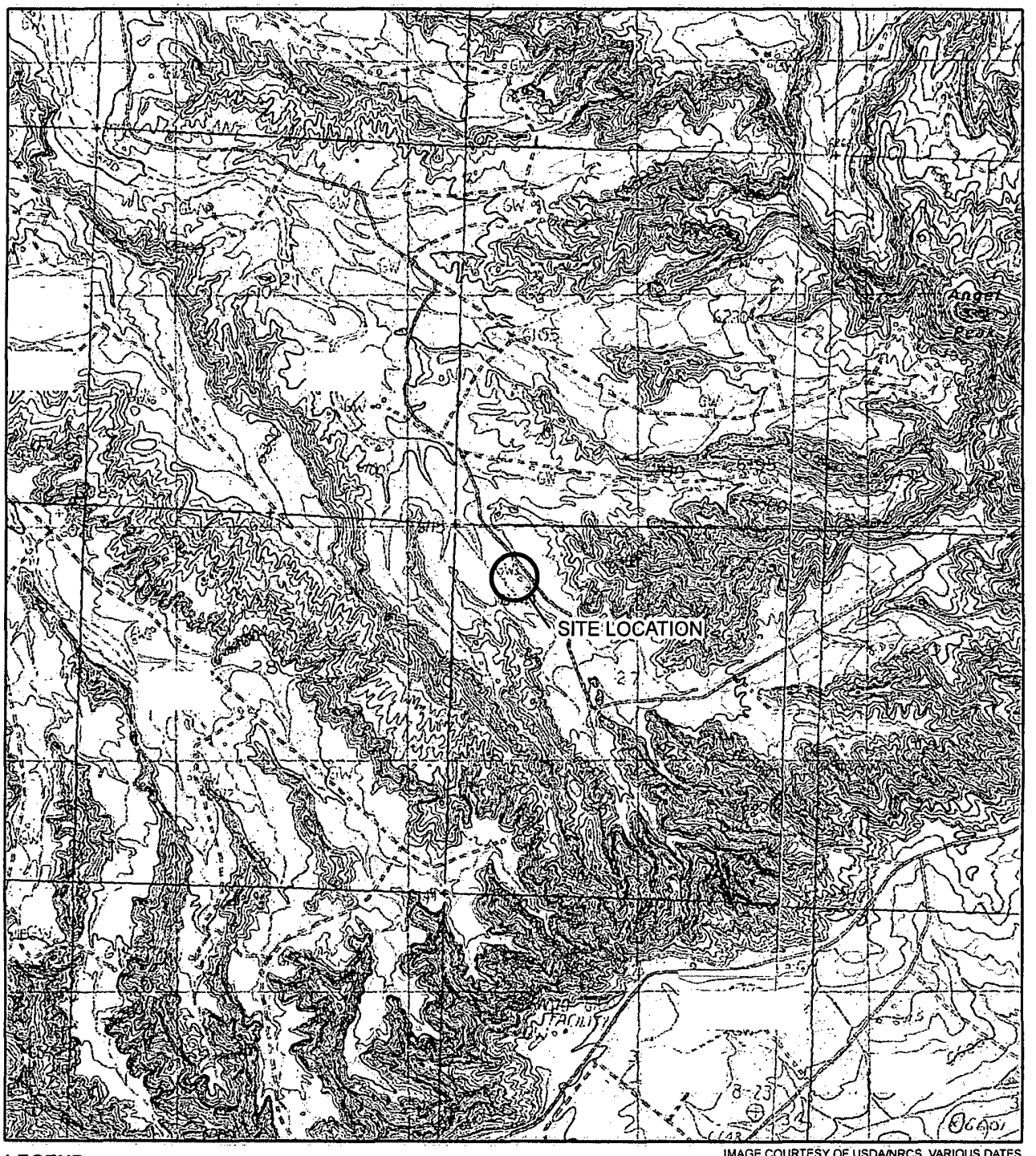

IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

LEGEND

○ SITE LOCATION

0 2,000 4,000

Feet

N

FIGURE 1
SITE LOCATION MAP
JACK FROST B #2
SAN JUAN COUNTY, NEW MEXICO

XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\XTO1014\XTO1014_FIGURE_1_SITE_LOCATION.mxd

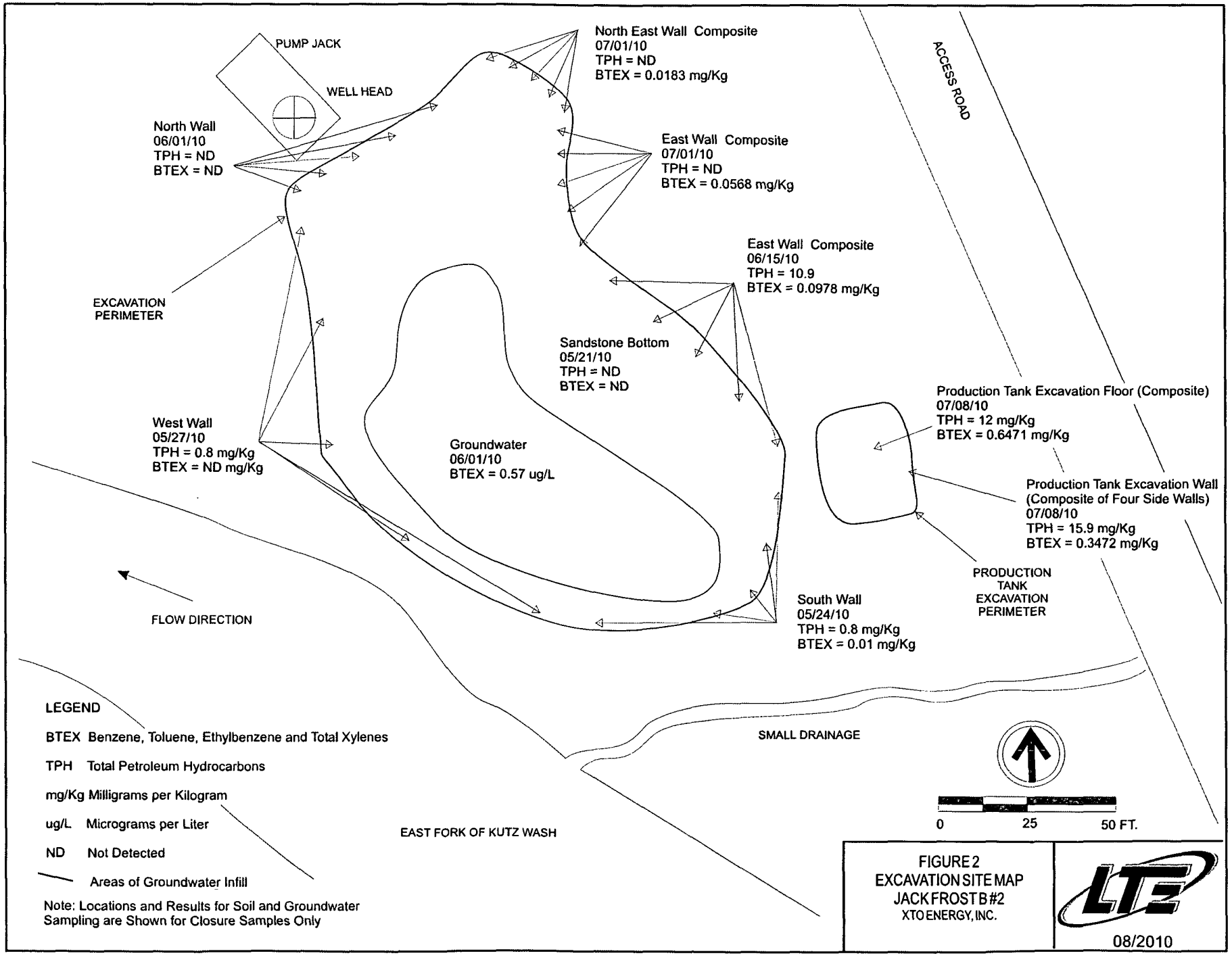

FIGURE 2
EXCAVATION SITE MAP
JACK FROST B #2
XTO ENERGY, INC.

LT Environmental

08/2010

TABLES

TABLE 1

SOIL ANALYTICAL RESULTS
JACK FROST B #2
XTO ENERGY, INC.

Sample ID	Date Sampled	Field Headspace Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	TPH (mg/kg)
Sandstone Bottom*	5/21/2010		<0.0028	<0.028	<0.0028	<0.0085	ND	< 4.5	< 0.56	ND
South Wall*	5/24/2010		0.0019	0.0047	<0.0010	<0.032	0.01	0.3	0.5	0.8
West Wall*	5/27/2010		<0.00090	<0.0010	<0.0010	<0.0021	ND	<0.1	0.8	0.8
North Wall*	6/1/2010		<0.0027	<0.027	<0.0027	<0.0082	ND	< 4.4	< 0.54	ND
East Wall Composite*	6/15/2010		0.0024	0.0083	0.0109	0.0762	0.0978	6.0	4.9	10.9
North Wall Composite	6/30/2010	1700	0.036	0.152	0.638	5.171	5.997	10.9	195	**105.9**
North East Wall Composite*	7/1/2010	25	0.0021	0.0025	0.0017	0.0120	0.0183	<0.1	<0.2	ND
East Wall Composite*	7/1/2010	140	0.0029	0.0055	0.0055	0.0429	0.0568	<0.1	<0.2	ND
West Wall Comp*	7/6/2010	2.1	0.0067	0.0078	<0.0010	0.0095	0.0240	<0.1	<0.2	ND
North Wall Comp*	7/6/2010	31.3	0.0299	0.0440	0.0097	0.0907	0.1743	14.3	15.4	29.7
Production Tank Excavation Floor*	7/8/2010	97	0.0024	0.0859	0.0254	0.5334	0.6471	6.6	5.4	12.0
Production Tank Excavation Wall*	7/8/2010	37.9	<0.009	0.0115	0.0128	0.3229	0.3472	< 0.1	15.9	15.9
NMOCD Standard			**10**				**50**			**100**

Notes:

ppm - parts per million

mg/kg - milligrams per kilogram

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - Diesel Range Organics

GRO - Gasoline Range Organics

< indicates result is less than the stated laboratory method detection limit

ND - not detected

* - Indicates final confirmation sample

NMOCD - New Mexico Oil Conservation Commission

Bold font indicates values exceeding NMOCD standards

TPH analyzed by EPA Modified Method 8015

BTEX analyzed by EPA Method 8021.

Missing field screening data represents a time period when LTE was not on site for excavatoin oversight. XTO collected soil samples during this time.

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
JACK FROST B #2
XTO ENERGY, INC.

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
Groundwater	6/1/2010	0.57	<5.0	<0.5	<1.5
NMWQCC Standard		**10**	**750**	**750**	**620**

Notes:

ug/L - micrograms per liter

NMWQCC - New Mexico Water Quality Control Commission

< indicates result is less than the stated laboratory method detection limit

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8021.