

BLAGG ENGINEERING, INC..

P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505) 632-1199 Fax: (505) 632-3903

30 039 08149

December 30, 2002

Mr. Kurt Sandoval, Director
Jicarilla Apache Tribe - Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528



RE: Transmittal of Closure Documentation
XTO Energy - Jicarilla Apache No. 11 Tank Leak
(M) Sec. 28 - T26N - R5W, Rio Arriba County, NM

Dear Mr. Sandoval:

Referencing our meeting on December 20, 2002, attached is the approved closure documentation for the XTO Energy Jicarilla Apache No. 11 well located in(M) Section 28 - T26N - R5W, Rio Arriba County, New Mexico. Reclamation of the tank leak hydrocarbon spill has been completed. Closure documentation for landfarmed soils will be submitted for your approval once these soils meet closure standards.

Questions or comments concerning this submittal may be directed to Blagg Engineering, Inc. at (505) 632-1199.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg

Jeffrey C. Blagg, President
NMPE 11607

cc: Pat Hester - BLM Albuquerque (2)
Denny Foust - NMOCD Aztec
Bill Olsen - NMOCD Santa Fe
Jicarilla Oil & Gas Administration
Jicarilla Agency Realty Office
Darren Steed - XTO Energy

Incident #
ADGF 0232936500

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

XTO ENERGY

3. Address and Telephone No.

2700 FARMINGTON AVE, BLDG K, STE 1, FARMINGTON, NM Tel: (505) 324-1090

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SW/4 SW/4, SEC. 28, T26N, R5W, NMPM
1040' FSL/800' FWL

5. Lease Designation and Serial No.
JICARILLA #110

6. If Indian, Allottee or Tribe Name

JICARILLA APACHE

7. If Unit or CA, Agreement Designation

8. Well Name and No.

JICARILLA APACHE #11

9. API Well No.

300308149

10. Field and Pool, or Exploratory Area
DAROTA

11. County or Parish, State

RIO ARriba, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other

SPILL CLOSURE

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SPILL closure verification - see attached documentation.

14. I hereby certify that the foregoing is true and correct

Signed Jeffrey C. Skelton, P.E. Title AGENT

Date 12/17/02

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

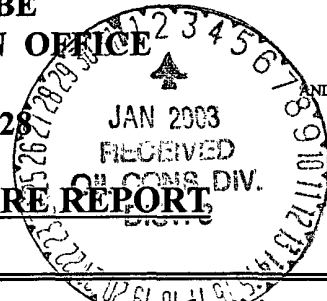
JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

SPILL REMEDIATION AND CLOSURE REPORT



Operator: XTO ENERGY, INC. Telephone: (505) 324-1090

Address: 2700 FARMINGTON AVE., BLDG. K, SUITE 1, FARMINGTON, NM 87401

Facility or Well Name: JICARILLA APACHE #11

Location: Unit or Qtr/Qtr Sec M Sec 28 T 26N R 5W County RIO ARriba

Spill Type: Separator Dehydrator Other PRODUCTION TANK

Land Type: RANGE - JICA. RESERV. Lease No. JICA. # 110

Spill Excavation Pit dimensions: length 17', width 17', depth 16'

Location: (Attach diagram) Reference: wellhead X, other

Footage from reference: 272'

Direction from reference: 64 Degrees ☒ East North
 West South ☒

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	(20 points)	<u>0</u>
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	

Distance to an Ephemeral Stream (Down gradient dry wash greater than ten feet in width)	Less than 100 feet	(10 points)	<u>0</u>
	Greater than 100 feet	(0 points)	

Distance to Nearest Lake, Playa, or Watering Pond (Down gradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet	(10 points)	<u>0</u>
	Greater than 100 feet	(0 points)	

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes	(20 points)	<u>0</u>
	No	(0 points)	

Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet	(20 points)	<u>10</u>
	100 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: _____

Date Completed: 12/17/02Remediation Method:
(Check all appropriate
sections)

Excavation _____

Landfarmed _____

Other _____

Approx. cubic yards 160

In situ Bioremediation _____

Remediation Location:

(i.e. landfarmed onsite,
name and location of
offsite facility)

Onsite _____

Offsite ✓

TO ENVIROTECH LANDFARM (HILLTOP)

154 C.Y. TO JICARILLA APACHE #13 (M-33-26-S)

General Description of Remedial Action: WILL ADD NUTRIENTS TO ACCELERATE L.F.Remediation. Future L.F. Tests may dictate Need to Compost.WILL BACKFILL WILL CLEAN SOIL FROM LEASE.

Groundwater Encountered:

No ✓

Yes _____

Depth _____

Final Spill

Closure Sampling:

(if multiple samples,
attach sample results
and diagram of sample
locations and depths)Sample location SEE ATTACHED DOCUMENTATION -MULTIPLE SAMPLESSample depth 16' (TANK PIT EXCAVATION BOTTOM)Sample date: 12/11/02Sample time 1609

Sample Results

Soil: Benzene

(ppm) ND

Water: Benzene

(ppb) _____

Total BTEX

(ppm) ND

Toluene

(ppb) _____

Field Headspace

(ppm) 154.6

Ethylbenzene

(ppb) _____

TPH

(ppm) ND

Total Xylenes

(ppb) _____

Groundwater Sample:

Yes _____

No ✓

(If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE AND BELIEF

DATE

12/17/02

PRINTED NAME

JEFFREY C. BLAGE

SIGNATURE

Jeffrey C. Blage

AND TITLE


NMPE 11607AFTER REVIEW OF THE SPILL REMEDIATION INFORMATION, CLOSURE IS APPROVED IN
ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.APPROVED: YES ✓

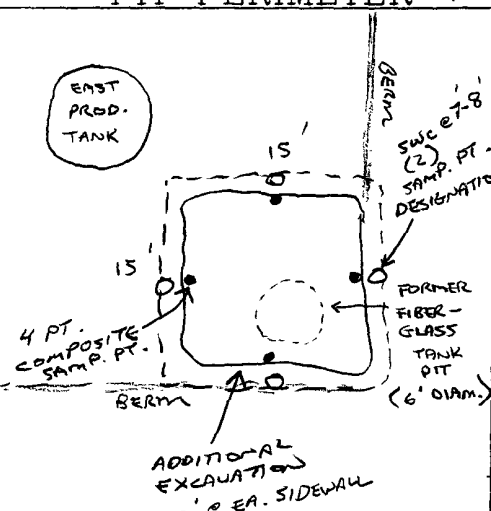
NO _____

(REASON) _____

SIGNED: [Signature]DATE: 12/20/02

CLIENT: <u>XTO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: _____ C.D.C. NO: <u>10292</u>
FIELD REPORT: SPILL CLOSURE VERIFICATION		PAGE No: <u>2</u> of <u>2</u>
LOCATION: NAME: <u>JICARILLA APACHE</u> WELL #: <u>11</u> TYPE: <u>PROD. TANK PIT</u> QUAD/UNIT: <u>M SEC: 28 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM</u> QTR/FOOTAGE: <u>1040S (800' W. SW/4W) CONTRACTOR: HDI (FERNANDO)</u>		DATE STARTED: <u>12/12/02</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
EXCAVATION APPROX. <u>15</u> FT. x <u>15</u> FT. x <u>16</u> FT. DEEP. CUBIC YARDAGE: <u>180</u> DISPOSAL FACILITY: <u>JICA AP. #13 m-33-26-5</u> REMEDIATION METHOD: <u>LANDFARM</u> LAND USE: <u>RANGE - JICA. BERRU.</u> LEASE: <u>JICA. 110</u> FORMATION: <u>OK</u>		
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>272</u> FT. <u>564E</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u> NMOCD RANKING SCORE: <u>0</u> NMOCD TPH CLOSURE STD: <u>5000</u> PPM <u>11:14 12/16/02 51.5 ppm CHECK</u>		
SOIL AND EXCAVATION DESCRIPTION: SOIL TYPE: SAND / <u>SILTY SAND</u> / SILT / <u>SILTY CLAY</u> / CLAY / GRAVEL / OTHER _____ SOIL COLOR: <u>MOO. YELL. BROWN</u> COHESION (ALL OTHERS): NON COHESIVE / <u>SLIGHTLY COHESIVE</u> / COHESIVE / HIGHLY COHESIVE CONSISTENCY (NON COHESIVE SOILS): LOOSE / <u>FIRM</u> / <u>DENSE</u> / VERY DENSE PLASTICITY (CLAYS): NON PLASTIC / <u>SLIGHTLY PLASTIC</u> / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / <u>STIFF</u> / VERY STIFF / HARD MOISTURE: DRY / <u>SLIGHTLY MOIST</u> / MOIST / WET / SATURATED / SUPER SATURATED DISCOLORATION/STAINING OBSERVED: YES / <u>NO</u> EXPLANATION - _____ HC ODOR DETECTED: <u>YES</u> / NO EXPLANATION - <u>OWN SAMPLE</u> SAMPLE TYPE: GRAB / <u>COMPOSITE</u> - # OF PTS. <u>4</u> ADDITIONAL COMMENTS: _____		OVM CALIB. READ. <u>52.8</u> ppm OVM CALIB. GAS = <u>100</u> ppm RF = <u>0.52</u> TIME: <u>2:00</u> am/pm DATE: <u>12/11/02</u>

SCALE  0 FT	FIELD 418.1 CALCULATIONS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>SAMP. TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>	SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm																																
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PIT PERIMETER 	OVM RESULTS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> <tr><td>1 @</td><td> </td></tr> <tr><td>2 @</td><td> </td></tr> <tr><td>3 @</td><td> </td></tr> <tr><td>4 @</td><td> </td></tr> <tr><td>5 @</td><td> </td></tr> <tr><td colspan="2"> </td></tr> <tr><td>SWC 7-8</td><td>465</td></tr> <tr><td>SWC 7-8 (2)</td><td>6.6</td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2"> </td></tr> </table> LAB SAMPLES <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> <tr> <td>SWC 7-8</td> <td>TPH & BTEX</td> <td>1148 12/12</td> </tr> <tr> <td>SWC 7-8 (2)</td> <td>" "</td> <td>1106 12/16</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1 @		2 @		3 @		4 @		5 @				SWC 7-8	465	SWC 7-8 (2)	6.6							SAMPLE ID	ANALYSIS	TIME	SWC 7-8	TPH & BTEX	1148 12/12	SWC 7-8 (2)	" "	1106 12/16									
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P.D. = PIT DEPRESSION; B.G. = BELOW GRADE T.H. = TEST HOLE; ~ = APPROX.; B = BELOW	
TRAVEL NOTES: CALLOUT: <u>12/10/02 - AFTER.</u> ONSITE: <u>12/12/02 - MORNS.</u>	

CLIENT: XTO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO:
COCR NO: 10291

FIELD REPORT: SPILL CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA APACHE WELL #: 11 TYPE: PROD. TANK
QUAD/UNIT: M SEC: 28 TWP: 26N RING: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 1040'S/800'W SW/5W CONTRACTOR: HDI (FERNANDO)

DATE STARTED: 12/11/02
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. FT. x FT. x FT. DEEP. CUBIC YARDAGE: 160

DISPOSAL FACILITY: ENVIROTECH LF / JICA AP. #13 M-33-26-S REMEDIATION METHOD: LANDFARMED

LAND USE: RANGE - JICA. RESERV. LEASE: JICA. 110 FORMATION: DK

FIELD NOTES & REMARKS:
W. PROD. TANK
90' LOCATED APPROXIMATELY 240 FT. S63E FROM WELLHEAD.
DEPTH TO GROUNDWATER: 2100' NEAREST WATER SOURCE: 21000' NEAREST SURFACE WATER: 21000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM
ELEV 6465'

OVM CALIB. READ. = 52.8 ppm
OVM CALIB. GAS = 100 ppm RF = 0.52
TIME: 2:00 am DATE: 12/11/02

SOIL AND EXCAVATION DESCRIPTION:

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER
SOIL COLOR: JANOS - LT. TO MOD. YELL. BROWN SILTY CLAY - LT TO DK. GRAY (3.5 - 13.5' BELOW GRADE & TANK PIT)
COHESION (ALL OTHERS): NON COHESIVE SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE
CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE
PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED
DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - GROUND SURFACE TO APPROX. 2 FT. BELOW GRADE (INSIDE BERM)
HC ODOR DETECTED: YES / NO EXPLANATION - EXCAVATED SOIL
SAMPLE TYPE: GRAB COMPOSITE - # OF PTS. 1
ADDITIONAL COMMENTS: SPILL OCCURRED 11/23/02. GROUND SURFACE W/IDE BERM ELEVATED APPROX. 1.5'-2' FROM SURROUNDING GRADE. WASH LOCATED WSW OF IMPACTED AREA APPROX. 177 FT. FROM WESTERN MOST BERM. 6 C.Y. TAKEN TO ENVIROTECH LF.

FIELD 418.1 CALCULATIONS

SCALE 0 FT

PIT PERIMETER

PIT PROFILE

OVM READING

LAB SAMPLES

TRAVEL NOTES: CALLOUT: 12/10/02 - AFTER. ONSITE: 12/11/02 - MORN.

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	2 @ 3'	Date Reported:	12-12-02
Laboratory Number:	24405	Date Sampled:	12-11-02
Chain of Custody No:	10291	Date Received:	12-12-02
Sample Matrix:	Soil	Date Extracted:	12-12-02
Preservative:	Cool	Date Analyzed:	12-12-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

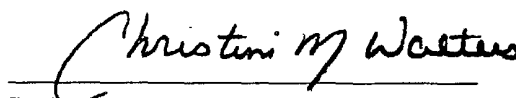
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #11 Tank Spill Grab Sample.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	2 @ 3'	Date Reported:	12-12-02
Laboratory Number:	24405	Date Sampled:	12-11-02
Chain of Custody:	10291	Date Received:	12-12-02
Sample Matrix:	Soil	Date Analyzed:	12-12-02
Preservative:	Cool	Date Extracted:	12-12-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	61.4	1.5
p,m-Xylene	21.7	2.2
o-Xylene	12.4	1.0
Total BTEX	95.5	

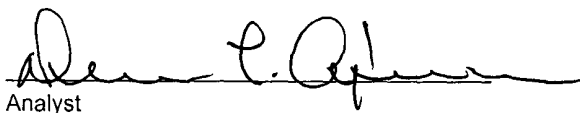
ND - Parameter not detected at the stated detection limit.

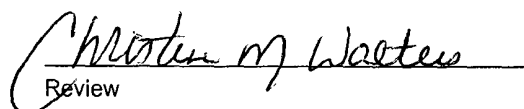
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96 %
	1,4-difluorobenzene	96 %
	Bromochlorobenzene	96 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #11 Tank Spill Grab Sample.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

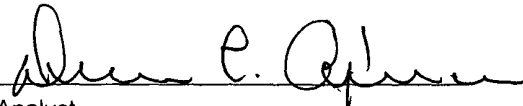
Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	5 @ 16'	Date Reported:	12-12-02
Laboratory Number:	24406	Date Sampled:	12-11-02
Chain of Custody No:	10291	Date Received:	12-12-02
Sample Matrix:	Soil	Date Extracted:	12-12-02
Preservative:	Cool	Date Analyzed:	12-12-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

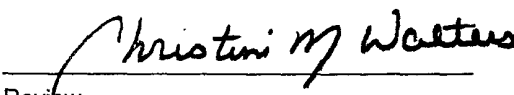
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #1 Tank Spill Grab Sample.


Analyst


Review

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	5 @ 16'	Date Reported:	12-12-02
Laboratory Number:	24406	Date Sampled:	12-11-02
Chain of Custody:	10291	Date Received:	12-12-02
Sample Matrix:	Soil	Date Analyzed:	12-12-02
Preservative:	Cool	Date Extracted:	12-12-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	ND	2.2
o-Xylene	ND	1.0
Total BTEX	ND	

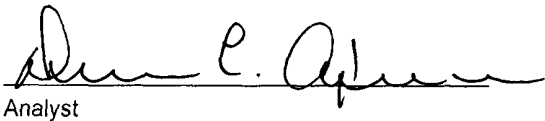
ND - Parameter not detected at the stated detection limit.

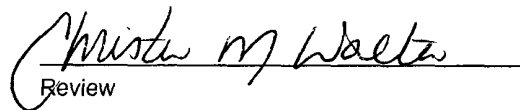
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96 %
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	Bromochlorobenzene	96 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #11 Tank Spill Grab Sample.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

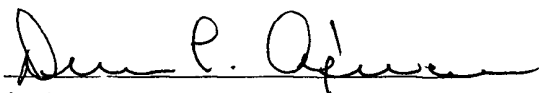
Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	SWC @ 7' - 8'	Date Reported:	12-13-02
Laboratory Number:	24411	Date Sampled:	12-12-02
Chain of Custody No:	10292	Date Received:	12-12-02
Sample Matrix:	Soil	Date Extracted:	12-13-02
Preservative:	Cool	Date Analyzed:	12-13-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

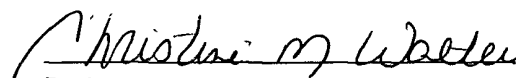
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	159	0.2
Diesel Range (C10 - C28)	421	0.1
Total Petroleum Hydrocarbons	580	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #11 Tank Spill - Tank Pit 4 Pt. Sidewall Composite.


Analyst


Review

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	SWC @ 7' - 8'	Date Reported:	12-13-02
Laboratory Number:	24411	Date Sampled:	12-12-02
Chain of Custody:	10292	Date Received:	12-12-02
Sample Matrix:	Soil	Date Analyzed:	12-13-02
Preservative:	Cool	Date Extracted:	12-13-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	34.7	1.8
Toluene	426	1.7
Ethylbenzene	233	1.5
p,m-Xylene	1,420	2.2
o-Xylene	542	1.0
Total BTEX	2,660	

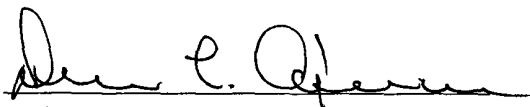
ND - Parameter not detected at the stated detection limit.

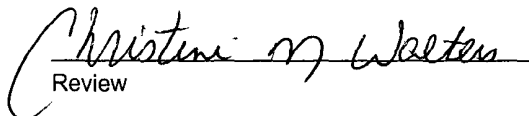
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	95 %
	1,4-difluorobenzene	95 %
	Bromochlorobenzene	95 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #11 Tank Spill - Tank Pit 4 Pt. Sidewall Composite.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

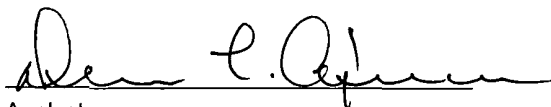
Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	SWC @ 7' - 8' (2)	Date Reported:	12-17-02
Laboratory Number:	24420	Date Sampled:	12-16-02
Chain of Custody No:	10296	Date Received:	12-16-02
Sample Matrix:	Soil	Date Extracted:	12-16-02
Preservative:	Cool	Date Analyzed:	12-17-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

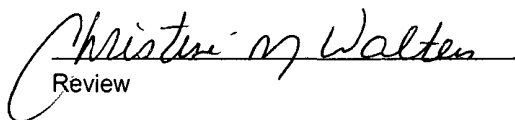
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache #11 Tank Spill - Tank Pit 4 Pt. Sidewall Composite.


Analyst


Review

CHAIN OF CUSTODY RECORD

10291

Client / Project Name ELAGG/ XTO ENERGY			Project Location TANK SPILL JICARILLA APACHE #11		ANALYSIS / PARAMETERS									
Sampler: NJV			Client No. 94034-010		No. of Containers	TPH (30158)	BTEX (80218)					Remarks		
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix								PRESERVED COOL		
													GRAB SAMPLES	
(2) @ 3'	12/11/02	1428	24405	SOIL	1	✓	✓							
(5) @ 16'	12/11/02	1609	24406	SOIL	1	✓	✓							
Relinquished by: (Signature) <i>[Signature]</i>			Date 12/12/02	Time 0734	Received by: (Signature) <i>[Signature]</i>			Date 12/12/02	Time 0754					
Relinquished by: (Signature) <i>[Signature]</i>					Received by: (Signature)				Time					
Relinquished by: (Signature)					Received by: (Signature)				Time					
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615											Sample Receipt			
												Y	N	N/A
											Received Intact	✓		
											Cool - Ice/Blue Ice	✓		

CHAIN OF CUSTODY RECORD

10292

Client / Project Name BLAGG/ XTO ENERGY			Project Location TANK SPILL - TANK PIT JICARILLA APACHE #11		ANALYSIS / PARAMETERS									
Sampler: NJV			Client No. Q4054-010		No. of Containers	TPH (3015B)	BTEX (3021B)					Remarks		
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix								PRESERVED Cool		
SWC @ 7'-8'	12/12/02	1148	2441	SOIL	1	✓	✓					4 PT. COMPOSITE		
												SWC = SIDEWALL COMPOSITE		
Relinquished by: (Signature) <i>Nelson Vef</i>			Date 12/12/02	Time 1405	Received by: (Signature) <i>Don P. Aguirre</i>			Date 12-12-02	Time 1405					
Relinquished by: (Signature)					Received by: (Signature)									
Relinquished by: (Signature)					Received by: (Signature)									
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615											Sample Receipt			
												Y	N	N/A
											Received Intact	✓		
											Cool - Ice/Blue Ice	✓		

CHAIN OF CUSTODY RECORD

Client / Project Name BLAGG / XTO ENERGY			Project Location TANK SPILL -- TANK PIT JICARILLA APACHE #11		ANALYSIS / PARAMETERS								
Sampler: NJV			Client No. 94034-010		No. of Containers TPH (8015B)							Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
SWC @ 7'-8' (2)	12/16/02	1106	24420	SOIL	1	1						4 PT. COMPOSITE	
												SWC = SIDEWALL COMPOSITE	
Relinquished by: (Signature) <i>[Signature]</i>			Date 12/16/02	Time 1357	Received by: (Signature) <i>[Signature]</i>			Date 12/16/02	Time 1357				
Relinquished by: (Signature)					Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615										Sample Receipt			
											Y	N	N/A
										Received Intact	<input checked="" type="checkbox"/>		
										Cool - Ice/Blue Ice	<input checked="" type="checkbox"/>		

BLAGG ENGINEERING, INC..

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505) 632-1199 Fax: (505) 632-3903

December 5, 2002

Mr. Kurt Sandoval, Director
Jicarilla Apache Tribe - Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528

RE: Revised Reclamation Plan
XTO Energy
Jicarilla Apache No. 11 Tank Leak
(M) Sec. 28 - T26N - R5W, Rio Arriba County, NM

Dear Mr. Sandoval:

Pursuant to our meeting on December 4, 2002 in Dulce, New Mexico with representatives of the Jicarilla Apache Tribe EPO, XTO Energy and Blagg Engineering Inc. (BEI), this revised reclamation plan has been prepared to address a spill at the Jicarilla Apache No. 11 well located in (M) Section 28 - T26N - R5W, Rio Arriba County, New Mexico. These revisions follow the guidelines set forth in Title 14, Environmental Protection Code of the Jicarilla Apache Tribe.

A spill at the site was discovered on November 23, 2002 by XTO personnel. The spill consisted of the loss of approximately 8 barrels of unrecovered crude from the well stock tank that resulted from a failed valve. The tank drained a total of 150 barrels of fluid and 142 barrels were recovered by a vacuum truck. This loss was contained within the firewall earthen berm and no hydrocarbon left the well pad.

XTO proposes concurrent assessment and reclamation of the spill, following the provisions of Title 14, Chapter 3, §7 (D). Assessment and reclamation will be concurrent because excavation will be the initial method for evaluating and cleaning up the spill impacts. In the event that excavation is not or can not be effective, this plan will be revised to incorporate other methods.

Primary Contacts

<u>Company</u>	<u>Contact</u>	<u>Position</u>	<u>Telephone</u>
XTO Energy	Darrin Steed	Enviro. Coord.	(505)324-1090 (O) (505)215-3651 (C)
Blagg Engr. Inc.	Jeff Blagg	Engineer	(505)632-1199 (O) (505)320-1183 (C)
Blagg Engr. Inc.	Nelson Velez	Geologist	(505)632-1199 (O) (505)320-3489 (C)

Assessment and Reclamation Plan

The primary assessment technique will be excavation of contaminated soils using backhoes and/or trackhoes. The excavated spill area will be evaluated to verify that closure standards have been achieved. Excavation will continue until closures standards are met, or until excavation becomes un-feasible. In the event that excavation is not effective at site remediation, the Jicarilla EPO will be consulted and if necessary an alternate closure plan will be prepared.

The ground surface of contaminated soils and any soils found to contain visually evident paraffin hydrocarbons will be excavated and removed from the reservation. These soils will be transported to the licensed and OCD permitted Envirotech commercial landfarm in San Juan County for final disposal. The Jicarilla Apache EPO will be notified in the event that an alternate commercial landfarm may be used and soils will not be transported to a different landfarm without prior approval.

Additional excavated soils that are not transported to a commercial facility will be moved to an adjacent well pad on the same lease for remediation. XTO has identified the Jicarilla Apache No. 13 as the best site for this transfer.

Test procedures to verify closure requirements of the excavation are proposed as follows:

- 1) A qualified geologist or engineer will coordinate with the Jicarilla Apache EPO on a date and time to conduct closure sampling. The name and contact information for the sampling individual(s) will be provided for EPO records.
- 2) The geologist or engineer will prepare a field report that will be used to document sampling and test procedures. Sampling times, locations and depths will be logged and a field site schematic will be prepared. During spill assessment, a minimum of five grab soil samples will be collected from the excavated spill site, one each from the four sidewalls and the bottom of the excavation. A soil vapor headspace analysis will made on each sample following NMOC headspace analysis procedures, using a calibrated photo-ionization detector (PID) to record the peak response for volatile organic vapor concentrations in each soil sample.
- 4) Based on review of results obtained by the PID, a Total Petroleum Hydrocarbon (TPH) analysis per USEPA Method 8015 and BTEX analysis per USEPA Method 8021 will be conducted on the sample considered to retain the highest residual contamination. If all PID readings indicate low to non-detect amounts of contamination, the pit bottom sample will be submitted for laboratory analysis. Envirotech Laboratories in Farmington, New Mexico will be used for all analytical testing.
- 5) Based on Jicarilla Apache EPO requirements, closure standards for the site will be as follows: TPH of 100 ppm// Benzene of 10 ppm// Total BTEX of 50 ppm

If site closure is not achieved based on laboratory test results, additional excavation will typically be performed, if feasible. Interference of the well head, adjacent high pressure pipelines or dense bedrock surfaces may limit additional excavation. In the event that closure cannot be achieved by excavation due to these interferences, the Jicarilla Apache EPO will be consulted.

Compost/Landfarm Pile Management and Closure Procedure

Contaminated soils not removed from the reservation for treatment at a commercial facility will be transported to the Jicarilla Apache No. 13 for final remediation. These soils will either be landfarmed or compost piled depending on the hydrocarbon levels and space limitations. Liquid fertilizer or livestock manure will be added to these soils to enhance natural bio-degradation. No manmade or commercial microbes will be used in any remediation processes.

The following procedure will be used to assess the reclamation status of the landfarm/compost piles:

- 1) Five point composite samples will be collected from each landfarm or compost pile. These samples will be analyzed by an Organic Vapor Meter (PID) for volatile hydrocarbons. Samples will be submitted for laboratory analysis of TPH using USEPA Method 8015. If field analysis by the PID exceeds 100 ppm the laboratory sample will also be tested for BTEX using USEPA Method 8021.
- 2) A closure standard of 100 ppm TPH, 100 ppm PID reading, 10 ppm Benzene and 50 ppm total BTEX will be used for closure. If closure standards are not achieved, additional management of the landfarm/compost pile will be performed. This management will typically include rolling soils with a loader to improve mixing and to achieve additional exposure to the atmosphere.

Final Closure

Following completion of assessment/remediation activities, XTO will prepare a Jicarilla Apache Closure Form and BLM Final Sundry Notice, including a copy of field assessment reports and laboratory analytical data sheets for submittal to the Jicarilla Apache EPO, Oil & Gas Administration Agency Realty Office and BLM. Site closure will be complete when the Jicarilla Apache EPO provides signed notification that closure activities are acceptable.

Excavation Contractor

The following XTO contractor will perform roustabout and excavation activities at the site:

High Desert Industrial
5422 Highway 64
Farmington, New Mexico 87401

Emergency contacts for High Desert are as follows:

Primary Contact: Randy Schreffler (505)325-2690 (O) or (505)320-6601 (C)
Secondary Contact: Steve Rowe (505)325-2690 (O) or (505)320-6616 (C)

A Statment of Qualifications for High Desert Industrial will be submitted under their own letterhead.

Environmental Consultant

Blagg Engineering, Inc. has been retained by XTO to conduct environmental sampling and reclamation supervision. Contact information for BEI is as follows:

Address: 110 N. Fourth Street
Bloomfield, New Mexico 87413

Primary Contact: Jeff Blagg Engineer (505)632-1199 (O)
(505)320-1183 (C)

Secondary Contact: Nelson Velez Geologist (505)632-1199 (O)
(505)320-3489 (C)

BEI has previously submitted a Statement of Qualifications to the Jicarilla Apache EPO and has conducted environmental work on the Reservation. The Jicarilla Oil and Gas operating permit for BEI is current through February 16, 2003.

Quality Assurance/Quality Control

To assure Quality Assurance/Quality Control in sampling techniques, Blagg Engineering will incorporate stringent controls in sampling protocols. The following procedures will be used to verify accuracy and precision in sample results:

- 1) Sampling will be performed by qualified engineers or geologists experienced in environmental sampling techniques.
- 2) Sampling containers are to be supplied by an qualified supply company or the laboratory providing laboratory testing.
- 3) Samples will be preserved and transported using industry standard procedures.
- 3) Photo-ionization detectors (PID's) will be calibrated daily using an isobutylene standard to achieve a proper hydrocarbon response factor.
- 4) Laboratory QA/QC standards will be carefully reviewed to insure proper integrity.

Additional Required Information Pursuant to Title 14, Chapter 3, §7 (D) & (E)

Proposed Date of Work

Work pursuant to this plan will begin within one week of approval to proceed by the Jicarilla Apache EPO. Due to the unknown extent of hydrocarbon impacts the time required to complete the project is unknown.

Groundwater Contamination

At the present time there is no known groundwater contamination resulting from the spill. In the event that the investigation reveals groundwater contamination, a groundwater remediation plan will be prepared and submitted to the Jicarilla EPO for approval.

USGS Map

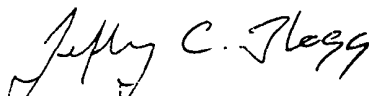
Relevant portions of the USGS topographic sheet, Lapis Point, New Mexico are attached. The location of the Jicarilla Apache No. 11 well is indicated on the map.

Backfill Soils

The total volume of required backfill soils is unknown at this time. Some soil can be obtained from scraping and leveling the permitted well pad. If additional soils are needed, XTO will pursue obtaining soils from backfill sites permitted by the previous operator, Marathon Oil. If these sites are found to be inadequate, XTO will consult with the EPO on permitting a new backfill site.

Questions or comments concerning this document may be directed to Blagg Engineering, Inc. at (505) 632-1199 or Darrin Steed with XTO at (505)324-1090. Following approval of this plan by the Jicarilla EPO, copies of the approved plan will be submitted to the BLM, the Jicarilla Apache Oil and Gas Administration and the Agency Realty Office.

Respectfully submitted,
Blagg Engineering, Inc.


Jeffrey C. Blagg, President
NMPE 11607

attachment: Site Map

cc: Darrin Steed - XTO Energy

AUTHORIZATION TO PROCEED BY JICARILLA EPO

Signature

Position

Date

December 5, 2002

Additional Required Information Pursuant to Title 14, Chapter 3, §7 (D) & (E)

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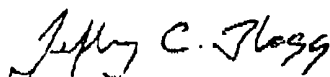
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Blagg Engineering, Inc.


Jeffrey C. Blagg, President
NMPE 11607

attachment: Site Map

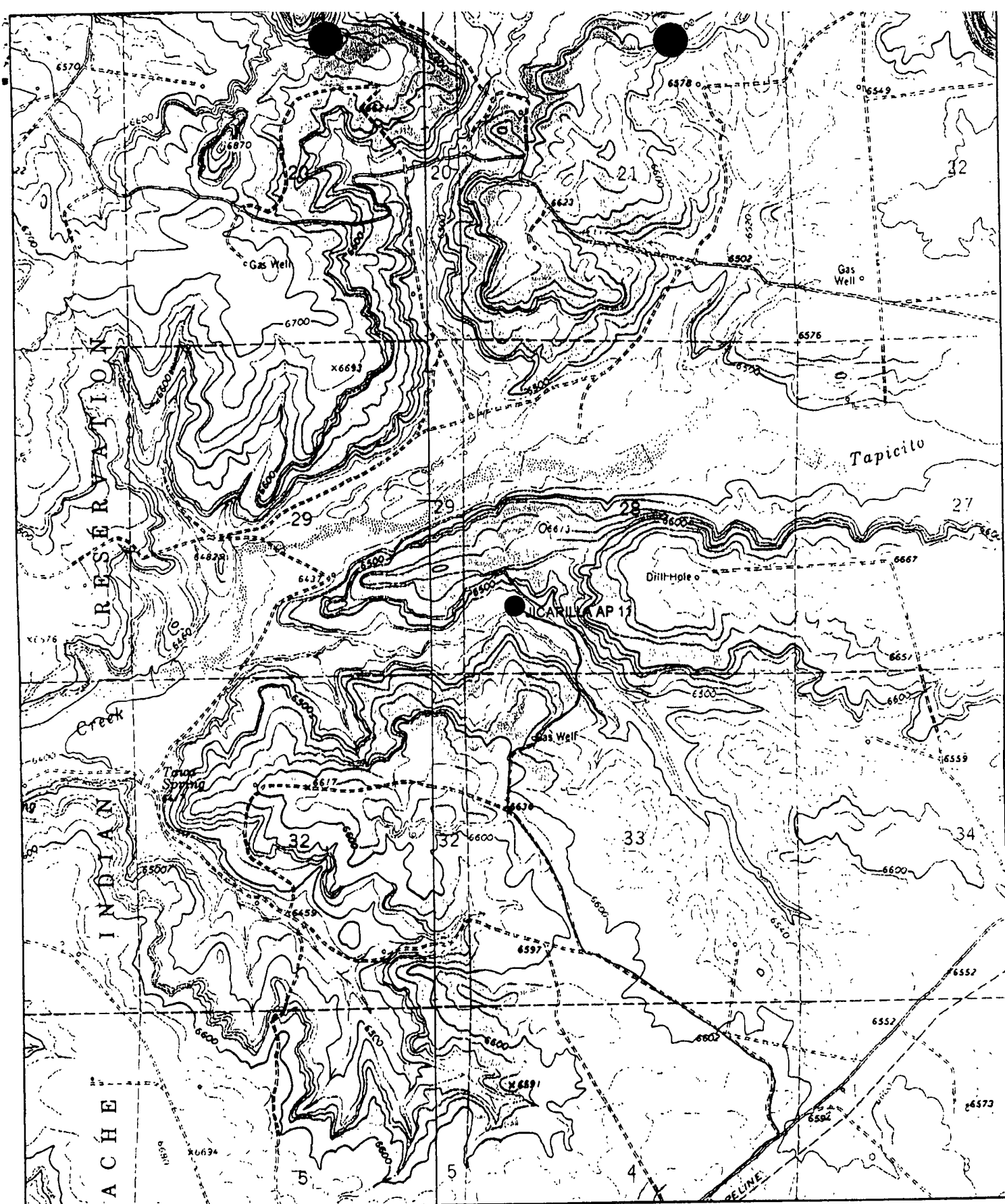
cc: Darrin Steed - XTO Energy

AUTHORIZATION TO PROCEED BY JICARILLA EPO


Signature

EPO Director
Position

12/9/02
Date



Name: LAPIS POINT
 Date: 12/4/2002
 Scale: 1 inch equals 2000 feet

Location: 036.4536218° N 107.3706294° W
 Caption: XTO ENERGY, INC.
 JICARILLA APACHE #11
 SW/4 SW/4 SEC. 28,
 T28N R5W