

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT   
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>			5. MINERAL LEASE NO: <b>ML-47100</b>	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>			7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			8. UNIT or CA AGREEMENT NAME: <i>Huntington CBM</i>	
2. NAME OF OPERATOR: <b>XTO ENERGY INC.</b>			9. WELL NAME and NUMBER: <b>Zions Federal 16-7-36-41D</b>	
3. ADDRESS OF OPERATOR: <b>382 CR 3100</b> CITY <b>AZTEC</b> STATE <b>NM</b> ZIP <b>87410</b>		PHONE NUMBER: <b>(505) 333-3100</b>	10. FIELD AND POOL, OR WILDCAT: <b>Ferron Sanstone/Buzzard Benc</b>	
4. LOCATION OF WELL (FOOTAGES) <i>492778x 4359834y 39.389860 -111.083861</i> AT SURFACE: <b>2129' FNL x 1985' FEL</b> AT PROPOSED PRODUCING ZONE: <b>660' FNL x 660' FEL NENE</b> <i>493182x 4360283y 39.393894 -111.079176</i>			11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SWNE 36 16S 7E S</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: <b>Approximately</b>			12. COUNTY: <b>EMERY</b>	13. STATE: <b>UTAH</b>
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) <b>660'</b>	16. NUMBER OF ACRES IN LEASE: <b>560</b>	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: <b>Lse basis</b>		
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) <b>2300'</b>	19. PROPOSED DEPTH: <i>4932</i> <b>4,950</b>	20. BOND DESCRIPTION: <b>UTB000138</b>		
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): <b>6494' Ground Elevation</b>	22. APPROXIMATE DATE WORK WILL START: <b>9/20/2008</b>	23. ESTIMATED DURATION: <b>2 weeks</b>		

24. PROPOSED CASING AND CEMENTING PROGRAM									
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT				
14.75"	10.75"	J-55	40.5#	<i>600</i> 300	Type V	+/- 210 sx	1.61 ft3/sx	14.2 ppg	
9.875"	5.5	J-55	15.5#	<i>4932</i> 4,950	CBM light wt-lead	+/-120 sx	4.15 ft/3 sx	10.5 ppg	
9.875"	5.5"	J-55	15.5#	<i>4932</i> 4,950	CBM light wt-tail	+/- 230 sx	1.81 ft3/sx	13.5 ppg	

25. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Kelly K. Small TITLE Regulatory Compliance

SIGNATURE *Kelly Small* DATE 6/20/2008

(This space for State use only)

API NUMBER ASSIGNED: 43-015-30756

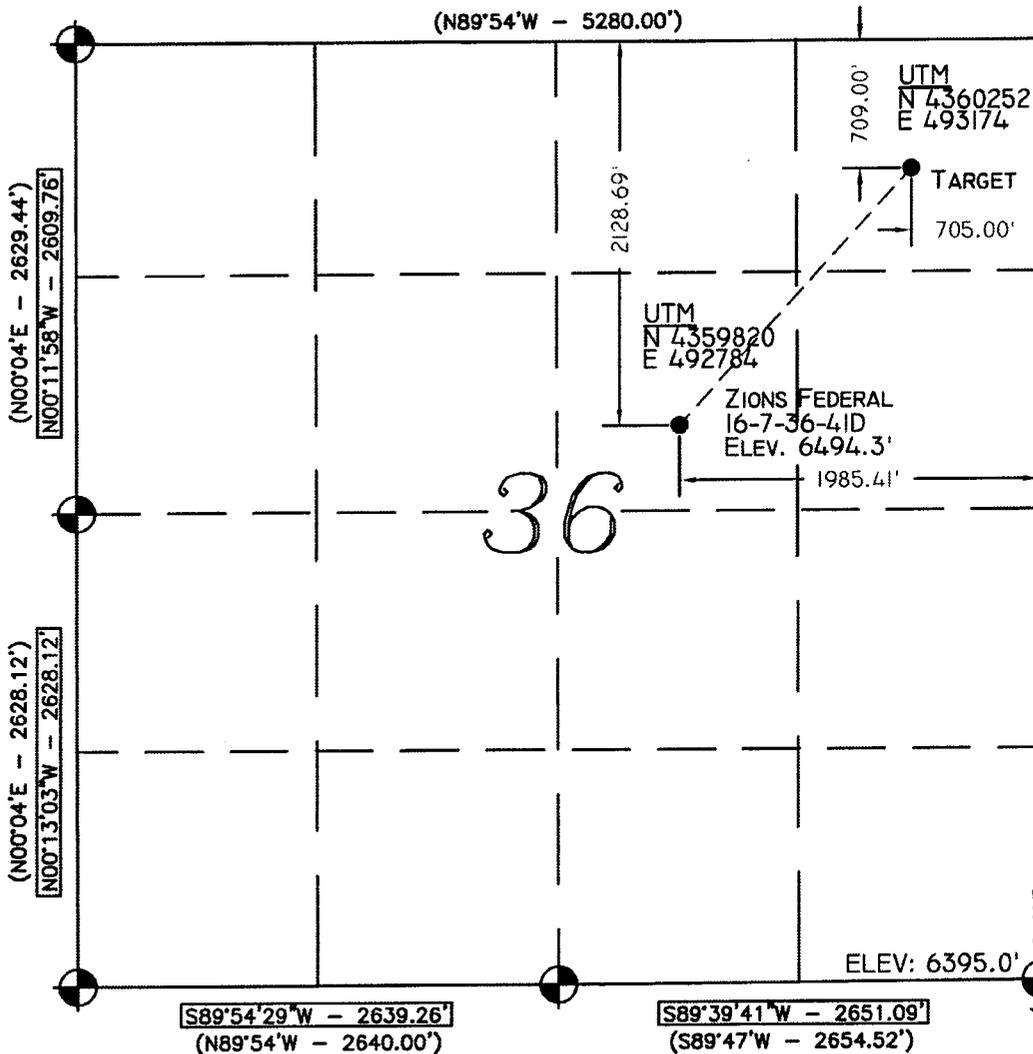
Approved by the  
Utah Division of  
Oil, Gas and Mining

APPROVAL:  
Date: 10-13-08  
By: *[Signature]*

**RECEIVED**  
**JUN 23 2008**  
DIV. OF OIL, GAS & MINING

# Range 7 East

Township 16 South



**Location:**  
The well location was determined using a Trimble 5700 GPS survey grade unit.

**Basis of Bearing:**  
The Basis of Bearing is GPS Measured.

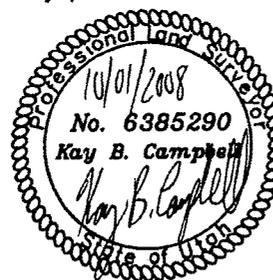
**GLO Bearing:**  
The Bearings indicated are per the recorded plat obtained from the U.S. Land Office.

**Basis of Elevation:**  
Basis of Elevation of 6395.0' being at the Southeast Section corner of Section 36, Township 16 South, Range 7 East, Salt Lake Base & Meridian, as shown on the Hiawatha Quadrangle 7.5 Minute Series Map.

**Description of Location:**  
**Surface**  
Proposed Drill Hole located in SW/4 NE/4 of Section 36, T16S, R7E, S.L.B.&M., being South 2128.69' from North Line and West 1985.41' from East Line of Section 36, T16S, R7E, Salt Lake Base & Meridian.

**Target**  
Proposed Target located in NE/4 NE/4 of Section 36, T16S, R7E, S.L.B.&M., being South 660.00' from North Line and West 660.00' from East Line of Section 36, T16S, R7E, Salt Lake Base & Meridian.

**Surveyor's Certificate:**  
I, Kay B. Campbell, a Professional Land Surveyor, holding Certificate 6385290 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.



**TALON RESOURCES, INC.**  
615 North 400 East P.O. Box 1230  
Huntington, Utah 84528  
Phone (435)687-5310 Fax (435)687-5311  
E-Mail talonsetv.net

**XTO ENERGY**  
ZIONS FEDERAL 16-7-36-41D  
Section 36, T16S, R7E, S.L.B.&M.  
Emery County, Utah

Drawn By: N. BUTKOVICH	Checked By: L.W.J./A.J.S.
Drawing No. A-1	Date: 5/22/08
	Scale: 1" = 1000'
Sheet 1 of 4	Job No. 3578

- Legend**
- Drill Hole Location
  - ⊕ Brass Cap (Found)
  - Brass Cap (Searched for, but not found)
  - △ Rock Pile
  - ( ) GLO
  - GPS Measured

**NOTES:**  
1. UTM and Latitude / Longitude Coordinates are derived using a GPS Pathfinder and are shown in NAD 27 Datum.

SURFACE	TARGET
LAT / LONG 39°23'22.984" N 111°05'01.655" W	LAT / LONG 39°23'37.010" N 111°04'45.367" W

OCT 06 2008

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GRAPHIC SCALE  
0 500' 1000'  
( IN FEET )  
1 inch = 1000 ft.

Revision: 10/2/08

DIV. OF OIL, GAS & MINING



June 20, 2008

State of Utah  
Division of Oil, Gas & Mining  
PO Box 145801  
Salt Lake City UT 84114-5801

RE: Directional Drilling R649-3-11  
Zions Federal 16-7-36-41D

2129' FNL x 1985' FEL (surface)  
Sec 36, T16S, R7E, SLB&M, Emery County, Utah  
660' FNL x 660' FEL (bottomhole)  
Sec 36, T16S, R7E, SLB&M, Emery County, Utah

To Whom It May Concern:

Pursuant to the filing of XTO Energy Inc. Application of Permit to Drill regarding the above referenced well on June 20, 2008, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- XTO Energy Inc. is permitting this well as a directional drill well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, XTO will be able to utilize the existing road and pipelines along with the use of an existing well pad in the area.
- Furthermore, the location of this well and its wellbore is no closer than 460 feet from the unit boundary or an uncommitted Federal or un-leased tract with the Unit Area. XTO Energy Inc. is the sole working interest owner within 460 feet of the entire directional wellbore.

Therefore, based on the above stated information XTO Energy Inc. requests the permit be granted pursuant to R649-3-11.

Regards,

A handwritten signature in black ink that reads 'Kelly Small'.

Kelly Small  
Regulatory Compliance

## **Amendment of Easement**

**WHEREAS**, under date of November 15, 1995, Zions First National Bank, Trustee, as Grantor did deliver unto Texaco Exploration and Production Inc., as Grantee, a certain easement to construct a well pad at the locations described therein and the right to erect production facilities and/or install equipment on said well pads related to the drilling, operating and producing said wells (hereinafter referred to as the "Easement");

**WHEREAS**, record notice of the Easement is filed in the Official records of the Emery County Recorder, Castle Dale, Utah, on January 16, 1996 in E 341173 B 220 P 286;

**WHEREAS**, Western National Trust Company (hereinafter referred to as "Grantor"), an affiliate of Zions First National Bank, is current trustee of the locations described in the easement;

**WHEREAS**, the Easement and all rights therein are now owned by XTO Energy Inc., with an address of 810 Houston Street, Fort Worth, Texas 76102 (hereinafter referred to as ("XTO"));

**WHEREAS**, Grantor and XTO, being the successor Grantee, desire to amend the Easement to provide for two additional wells, named the Zion Federal 16-7-36-21D, and the Zion Federal 16-7-36-41D to be drilled from the well pad described in the Easement; being the State of Utah "T" 36-10 well.

**NOW, THEREFORE**, and in consideration of Ten and No/100 dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties do hereby agree to amend the Easement in accordance with this instrument:

The undersigned do hereby agree to incorporate the following provision to become a part of the Easement, and it is understood between all parties hereto that notwithstanding anything contained in the Easement to the contrary, the following provision shall control in the event of a conflict with any of the other provisions contained in the Easement, to wit:

1. The Grantor, for and in consideration of the sum of Ten and No/100 Dollars (\$10.00), cash in hand paid, and other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, does hereby grant, convey, and warrant unto Grantee the right to drill two additional wells from the well pad, described in the Easement; being the State of Utah "T" 36-10 well, and as set out on Exhibit "A" attached hereto and made a part hereof. The Zion Federal 16-7-36-21D well is to be drilled as a directional well with a bottom hole target location of approximately 660 feet from the North line and 1,980 feet from the West line of Section 36, T16S, R7E, as set out on Exhibit "B" attached hereto and made a part hereof. The Zion Federal 16-7-36-41D well is to be drilled as a directional well with a bottom hole target location of approximately 660 feet from the North line and 1,986 feet from the East line of Section 36, T16S, R7E, as set out on Exhibit "C" attached hereto and made a part hereof.

Grantor hereby adopts, ratifies, and confirms the Easement as to all of the terms and provisions as herein amended, and Grantor does hereby grant, convey, and warrant unto XTO, as Grantee, the Easement upon the same terms, conditions and provisions as are set forth in the Easement, as amended hereby, as fully and completely as if the amended provisions had originally been a part of the Easement. This instrument shall be binding upon and inure to the benefit of the parties hereto, their respective heirs, executors, administrators, personal representatives, successors and assigns.

Except as herein amended, the Easement is and remains unchanged and in full force and effect as originally written.

**IN WITNESS WHEREOF, this instrument is executed and effective this 16th day of June, 2008.**

GRANTOR:

Western National Trust Company, an affiliate of  
Zions First National Bank, Trustee

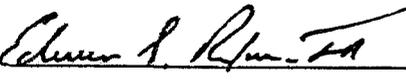
By: 

Name: Kevin Jowers

Title: Officer

GRANTEE:

XTO Energy Inc.

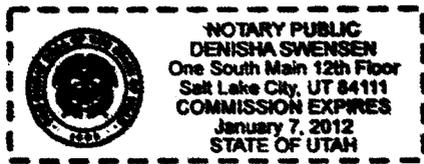
By:  *EMD CSR*

Name: Edwin S. Ryan, Jr.

Title: Senior Vice President – Land Administration

STATE OF UTAH §  
§ SS:  
COUNTY OF SALT LAKE §

The foregoing instrument was acknowledged before me on the 17<sup>th</sup> day of June, 2008, by Kevin Jowers, an officer of Western National Trust Company, Trustee, a national banking association, who acknowledged to me that he executed the same for the proposes and consideration therein express, in the capacity stated and as the act and deed of said corporation.



Denisha Swensen

Notary Public in and for the State of Utah

My Commission Expires:

1-7-2012

STATE OF TEXAS §  
§ SS:  
COUNTY OF TARRANT §

The foregoing instrument was acknowledged before me on this 16<sup>th</sup> day of June, 2008, by Edwin S. Ryan Jr., Sr. Vice President – Land Administration of XTO Energy Inc., a Delaware corporation, on behalf of said corporation.



Dorinda C West

Notary Public in and for the State of Texas

My Commission Expires:

06-22-2011

# XTO Energy, Inc.

## Zions Federal 16-7-36-41D

Drilling Data for APD

October 6, 2008

Surface Location: 2129' FNL & 1985' FEL, Sec. 36, T16S, R7E

Bottomhole Location: 709' FNL & 705' FEL, Sec 36, T16S, R7E

Proposed TD: 4932'

Approximate Elevation: 6494'

Objective: Ferron Coal

KB Elevation: 6505'

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**OCT 06 2008**

**DIV. OF OIL, GAS & MINING**

### 1. Mud Program:

<b>Interval</b>	<b>0'-600'</b>	<b>600'-4932'</b>
<b>Hole Size</b>	<b>14.75"</b>	<b>9.875"</b>
<b>Mud Type</b>	<b>Air/Mist</b>	<b>Air/Mist/LSND/Gel Chemical</b>
<b>Weight</b>	<b>N/A</b>	<b>8.4-8.6</b>
<b>Viscosity</b>	<b>N/A</b>	<b>45-60</b>
<b>Water Loss</b>	<b>N/A</b>	<b>8-10</b>

- a. Air drill to TD using produced water for mist fluid unless excessive water flow is encountered then switch to water based mud. If mud is required, use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing.
- b. The blooie line will be approximately 100' in length and will extend in a straight line from below the rotating head as indicated in the BOP schematic. An automatic spark-type igniter will be fixed to the end of the blooie line and set to provide a continuous spark to ignite and burn any produced hydrocarbons and/or gasses.
- c. If necessary, de-dusting will be accomplished with a small pump, waterline, and spray nipple positioned near the end of the blooie line to provide a continuous spray of water.
- d. Sufficient mud materials will be stored on location to maintain well control and combat lost circulation problems that might reasonably be expected.
- e. The BOP system will be consistent with API RP53 and Onshore Oil & Gas Order No. 2. Pressure tests of the surface casing and all BOP equipment subject to pressure will be conducted before drilling the casing shoe. Blowout preventer controls will be installed prior to drilling the surface casing shoe and will remain in use until the well is completed or abandoned. Ram preventers shall be inspected and operated daily. Annular preventers shall be inspected and operated

weekly to ensure good mechanical working order. The inspections and tests shall be recorded in the drilling log and daily drilling report. See the attached BOP and choke manifold schematic.

2. Casing Program:

- a. Surface Casing set @ 600' in a 14.75" hole.

10.75, 40.5 #/ft, J-55, ST&C, New, ( 10.05" ID, 9.894" Drift)					
Collapse Press	Burst Press	Joint Strength	SF Collapse	SF Burst	SF Tension
1580	3130	420	6.07	12.04	17.28

- b. Production Casing set @ 4932' in a 9.875" hole.

5.5", 15.5 #/ft, J-55, ST&C, New, ( 4.950" I.D., 4.825" Drift)					
Collapse Press	Burst Press	Joint Strength	SF Collapse	SF Burst	SF Tension
4040	4810	202	1.891	2.252	2.642

Safety Factors based on vertical wellbore conditions with hydrostatic of fresh water with no backup used to calculate burst and collapse. Tension based on hanging weight in air.

3. Well Heads:

- a. Casing Head: Install WHI Fig 92 (or equivalent), 10-3/4" X 7" slip and seal, 2,000 psig WP (4,000 psig test) with 10-3/4" 8rnd thread on bottom and 11-3/4" modified 8rd thread on top NU BOP and choke manifold (see attached schematic). Stack to consist of drilling spool with choke and kill lines, double rams with pipe rams on top, blind rams on bottom. Use cold water and test BOP to 250 psi low and 1,000 psi high. Record all tests on the IADC report. Inspect accumulator and closing unit to ensure that pre-charge pressures and oil levels are within API Specifications and report same on IADC report.
- b. Tubing Head: Larkin Fig 612 (or equivalent), 5,000 psig WP (5,000 psig test), 5 1/2" SOW (or API 8 rnd female thread) on bottom, 7 1/16" 5,000 psig flange on top with two 3" LPOs.

4. Cement Program:

- a. Surface: 420 sx of Type V cement (or equivalent) containing 1% CaCl, 1/4 pps Flocele, and 10% Cal\_Seal mixed at 14.2 ppg and 1.61 ft<sup>3</sup>/sk.
- i. Slurry Volume is 676 ft<sup>3</sup>, 200% excess of calculated annular volume to 600'.

b. Production:

- i. The production casing will be cemented using 2 (lead and tail) cement slurries. The lead cement (filler grade) volume will be calculated based on a maximum achievable top assuming formation pressure of 1,000 psi at the shoe. The tail cement will be calculated from TD to 300' above the Upper Ferron Sandstone as indicated on the formation tops table.
- ii. Lead Cement: 120 sx of CBM Light Weight Cement with 10 pps Gilsonite and ¼ pps celloflake mixed at 10.5 ppg and 4.15 ft<sup>3</sup>/sk.
- iii. Tail Cement: 230 sx of CBM Light Weight Cement with 10 pps Gilsonite and ¼ pps celloflake mixed at 13.5 ppg and 1.81 ft<sup>3</sup>/sk.
- iv. Slurry volume is 914 ft<sup>3</sup>, 40% excess of calculated annular volume to 1,000 psi hydrostatic over formation pressure.

5. Logging Program

- a. Mud logger: The mud logger, if utilized, will come on at ± 2800 feet and will remain until TD. The mud will be logged in ±10' intervals.
- b. Triple combo logs will be run from TD back to ± 3900' MD. The Gamma Ray and Induction tool will continue to log the hole effectively from total depth back to the surface shoe.

6. Formation Tops:

Formation	Well Depth (MD-KB)
Upper Bluegate Shale	Outcrops
Emery Sandstone	561'
Lower Bluegate Shale	1813'
Top of Upper Ferron SS	4420'
Top of Lower Ferron SS	4638'
Tununk Shale	4801'
Total Depth	4932'

- a. No known oil zones will be penetrated.
- b. Gas bearing sandstones and coals will be penetrated from 4420' to 4801'.
- c. No known fresh water zones will be penetrated. The gas bearing sandstones and coals may contain in-situ water.

- d. No known mineral zones will be penetrated.
- e. Any prospectively valuable minerals and all fresh water zones encountered during drill will be recorded, cased, and cemented. If possible, water flow rates will be measured and samples will be taken and analyzed with the results being submitted to the appropriate agency.
- f. Maximum anticipated bottomhole pressure is anticipated to be less than 1,500 psi.
- g. No abnormal pressure, abnormal temperature, H<sub>2</sub>S, or other hazardous conditions are known to exist.

7. Company Personnel:

<b>Name</b>	<b>Title</b>	<b>Office Phone</b>	<b>Mobile Phone</b>
Brent H. Martin	Drilling Manager	505-333-3110	505-320-4074
John Egelston	Drilling Engineer	505.333.3163	505.330.6902
Bobby Jackson	Drilling Superintendent	505.333.3224	505.486.4706
Joshua Stark	Project Geologist	817.885.2240	817.565.7158
Leonard West	Reservoir Engineer	817.885.2800	

# BOP SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

## TESTING PROCEDURE

1. Test BOP after installation:

Pressure test BOP to 200-300 psig (low pressure) for 10 min.

Test BOP to Working Press or to 70% internal yield of surf csg (10 min) or which ever is less.

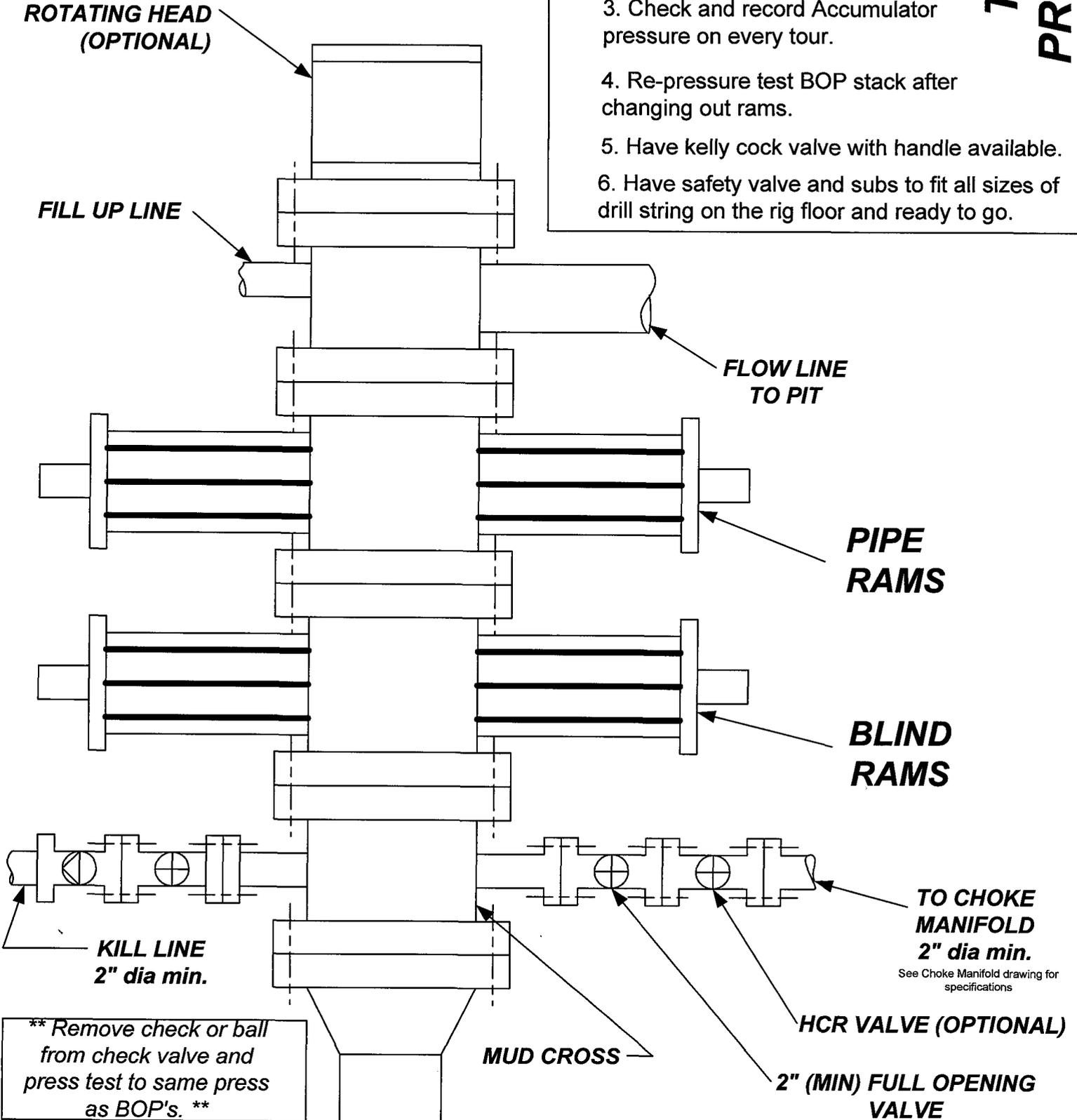
2. Test operation of (both) rams on every trip.

3. Check and record Accumulator pressure on every tour.

4. Re-pressure test BOP stack after changing out rams.

5. Have kelly cock valve with handle available.

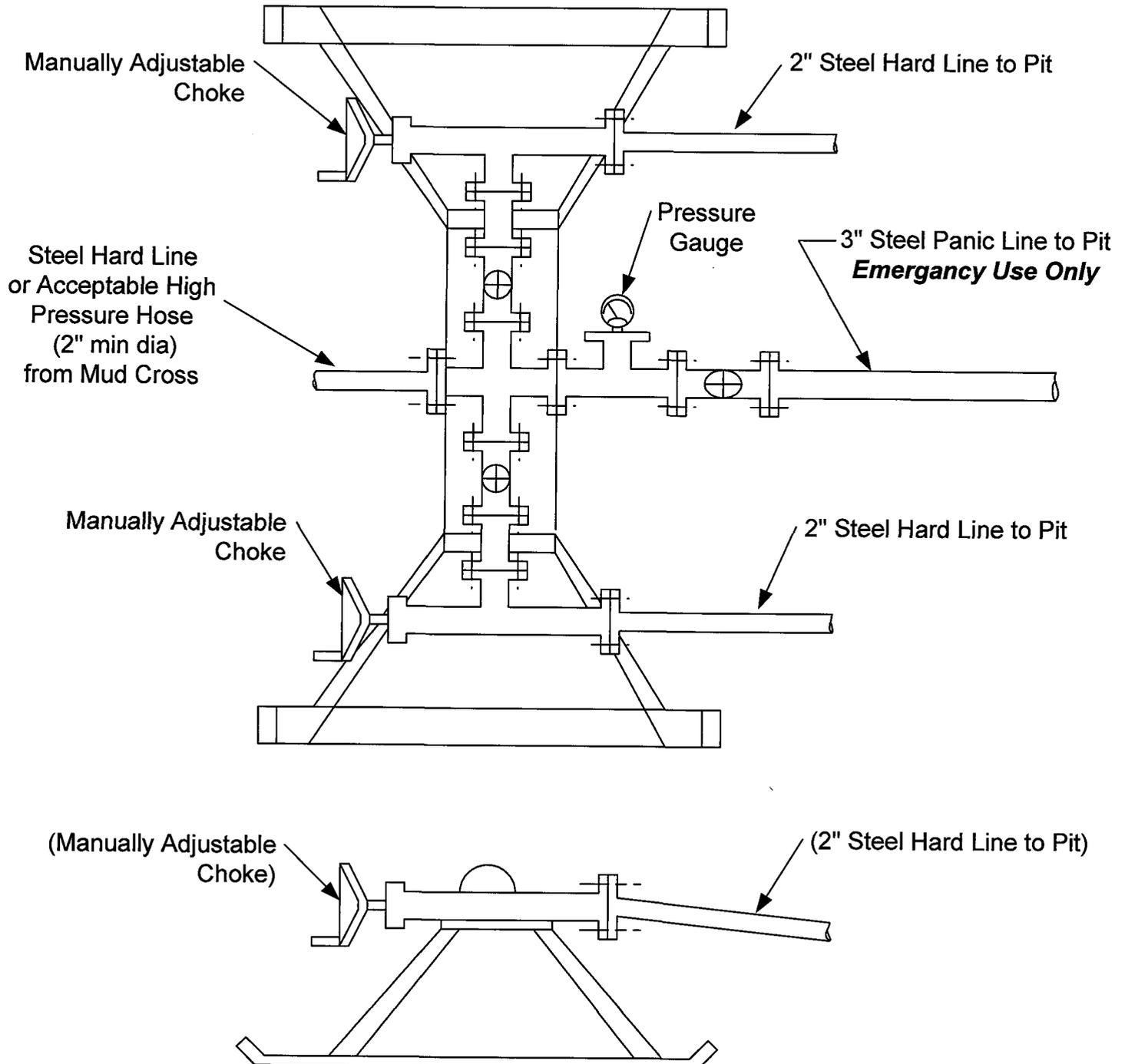
6. Have safety valve and subs to fit all sizes of drill string on the rig floor and ready to go.



# CHOKE MANIFOLD SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

1. Stake all lines from choke manifold to pit.
2. Pressure test choke manifold after installation.
3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.

**TESTING  
PROCEDURE**





**Weatherford<sup>®</sup>**

**Drilling Services**

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**Proposal**

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**XTO Energy**  
36-10T PAD  
ZIONS FEDERAL 16-7-36-41D  
EMERY COUNTY, UTAH  
WELL FILE: PLAN 2  
September 29, 2008

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**Weatherford International Ltd.**  
2000 Oil Drive  
Casper, Wyoming 82604  
+1.307.265.1413 Main  
+1.307.235.3958 Fax  
[www.weatherford.com](http://www.weatherford.com)

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**OCT 06 2008**

**DIV. OF OIL, GAS & MINING**



Project: EMERY COUNTY UTAH  
 Site: 36-10T PAD  
 Well: ZIONS FEDERAL 16-7-36-41D  
 Wellbore: WELLBORE #1  
 Design: Design #2  
 Latitude: 39° 23' 22.984 N  
 Longitude: 111° 5' 1.655 W  
 Ground Level: 6494.00  
 SITE1 @ 6505.00ft (RIG)



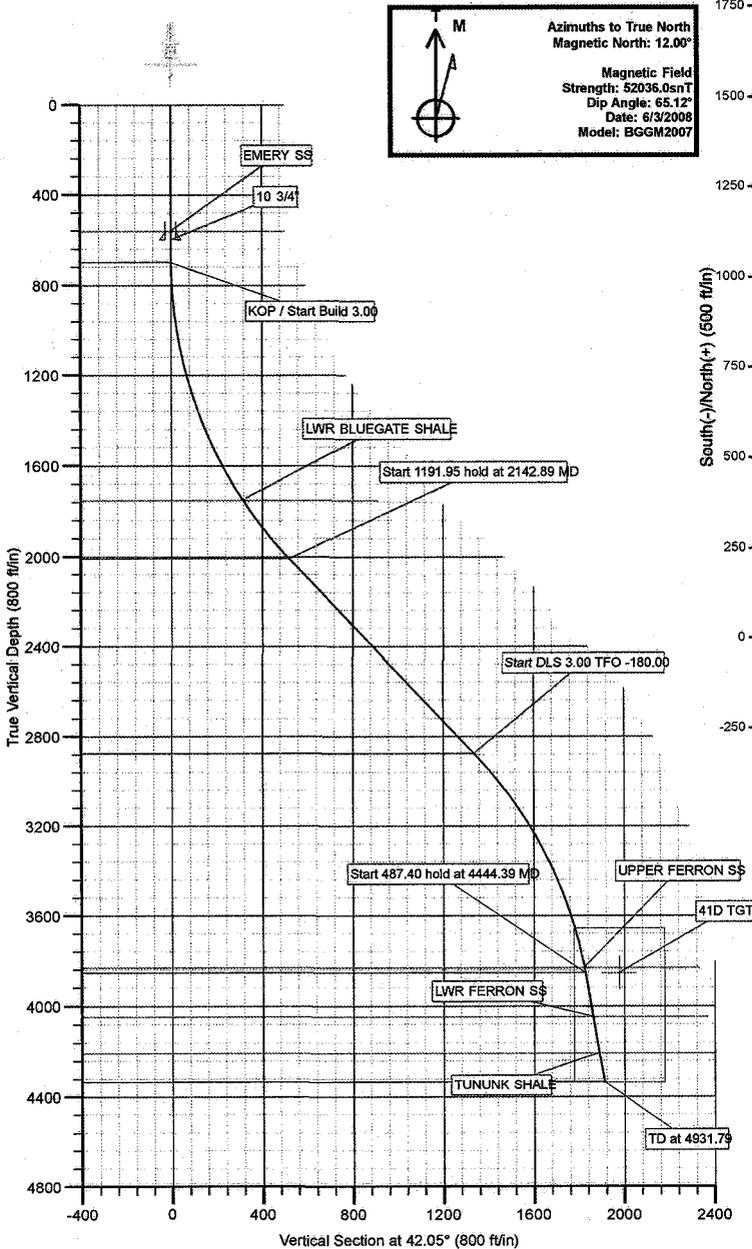
WELL DETAILS: ZIONS FEDERAL 16-7-36-41D						
+N/-S	+E/-W	Northing	Ground Level:	6494.00	Longitude	Slot
0.00	0.00	385038.17	Easting	2117631.45	39° 23' 22.984 N	111° 5' 1.655 W

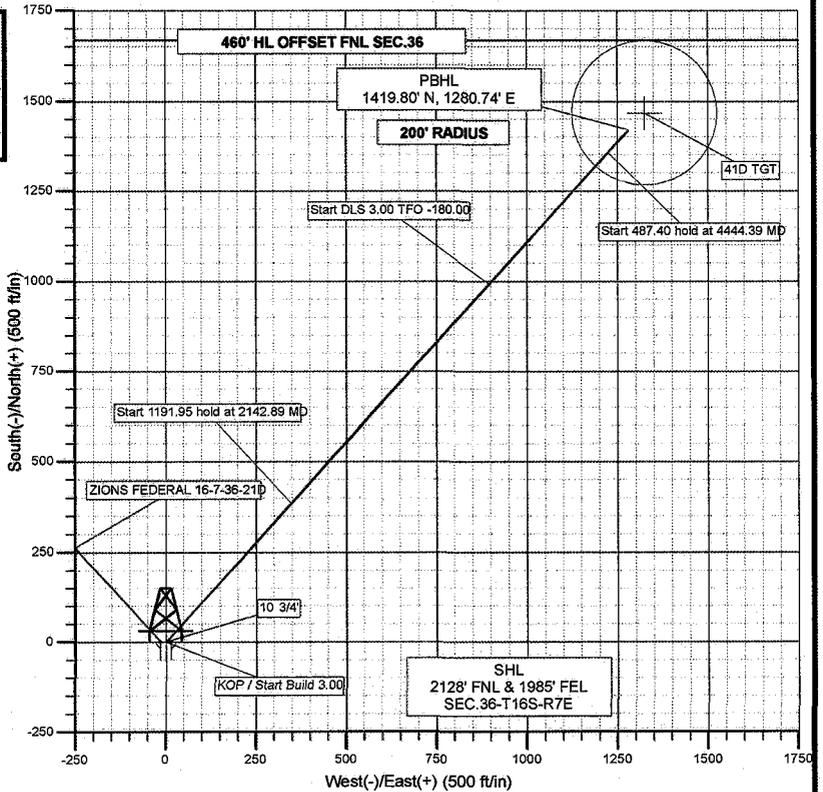
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
41D TGT	3855.00	1468.33	1324.51	39° 23' 37.497 N	111° 4' 44.783 W	Circle (Radius: 200.00)

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	KOP / Start Build 3.00
2142.89	43.29	42.05	2009.49	385.83	348.04	3.00	42.05	519.61	Start 1191.95 hold at 2142.89 MD
3334.83	43.29	42.05	2877.15	992.66	895.45	0.00	0.00	1336.87	Start DLS 3.00 TFO -180.00
4444.39	10.00	42.05	3855.00	1356.95	1224.05	3.00	-180.00	1827.46	Start 487.40 hold at 4444.39 MD
4931.79	10.00	42.05	4335.00	1419.80	1280.74	0.00	0.00	1912.10	TD at 4931.79



Azimuths to True North  
 Magnetic North: 12.00°  
 Magnetic Field Strength: 52036.0snT  
 Dip Angle: 65.12°  
 Date: 6/3/2008  
 Model: BGGM2007



CASING DETAILS			
TVD	MD	Name	Size
600.00	600.00	10 3/4"	10-3/4

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
561.00	561.00	EMERY SS
1751.00	1812.93	LWR BLUEGATE SHALE
3831.00	4419.99	UPPER FERRON SS
4046.00	4638.34	LWR FERRON SS
4206.00	4800.80	TUNUNK SHALE

Plan: Design #2 (ZIONS FEDERAL 16-7-36-41D/WELLBORE #1)  
 Created By: Bret Wolford Date: 11:41, September 29 2008



**XTO ENERGY**  
EMERY COUNTY UTAH  
36-10T PAD  
ZIONS FEDERAL 16-7-36-41D

**WELLBORE #1**

**Plan: Design #2**

## **Standard Planning Report**

**29 September, 2008**



**Weatherford®**



**Weatherford International Ltd.**  
Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** XTO ENERGY  
**Project:** EMERY COUNTY UTAH  
**Site:** 36-10T PAD  
**Well:** ZIONS FEDERAL 16-7-36-41D  
**Wellbore:** WELLBORE #1  
**Design:** Design #2

**Local Co-ordinate Reference:** Well ZIONS FEDERAL 16-7-36-41D  
**TVD Reference:** SITE1 @ 6505.00ft (RIG)  
**MD Reference:** SITE1 @ 6505.00ft (RIG)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	EMERY COUNTY UTAH		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Utah Central 4302		

**Site** 36-10T PAD, SEC.36-T16S-R7E

<b>Site Position:</b>		<b>Northing:</b>	385,038.12 ft	<b>Latitude:</b>	39° 23' 22.984 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,117,618.34 ft	<b>Longitude:</b>	111° 5' 1.822 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	0"	<b>Grid Convergence:</b>	0.27 °

**Well** ZIONS FEDERAL 16-7-36-41D

<b>Well Position</b>	<b>+N/-S</b>	-0.02 ft	<b>Northing:</b>	385,038.17 ft	<b>Latitude:</b>	39° 23' 22.984 N
	<b>+E/-W</b>	13.11 ft	<b>Easting:</b>	2,117,631.45 ft	<b>Longitude:</b>	111° 5' 1.655 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	6,494.00 ft

**Wellbore** WELLBORE #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	bggm2007	6/3/2008	12.00	65.12	52,036

**Design** Design #2

**Audit Notes:**

<b>Version:</b>	1	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
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**Vertical Section:**

Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
0.00	0.00	0.00	42.05

**Plan Sections**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,142.89	43.29	42.05	2,009.49	385.83	348.04	3.00	3.00	0.00	42.05	
3,334.83	43.29	42.05	2,877.15	992.66	895.45	0.00	0.00	0.00	0.00	
4,444.39	10.00	42.05	3,855.00	1,356.95	1,224.05	3.00	-3.00	0.00	-180.00	
4,931.79	10.00	42.05	4,335.00	1,419.80	1,280.74	0.00	0.00	0.00	0.00	



**Weatherford International Ltd.**  
Planning Report



Database: EDM 2003.21 Single User Db  
 Company: XTO ENERGY  
 Project: EMERY COUNTY UTAH  
 Site: 36-10T PAD  
 Well: ZIONS FEDERAL 16-7-36-41D  
 Wellbore: WELLBORE #1  
 Design: Design #2

Local Co-ordinate Reference: Well ZIONS FEDERAL 16-7-36-41D  
 TVD Reference: SITE1 @ 6505.00ft (RIG)  
 MD Reference: SITE1 @ 6505.00ft (RIG)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>EMERY SS</b>									
561.00	0.00	0.00	561.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>10 3/4"</b>									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP / Start Build 3.00</b>									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	3.00	42.05	799.95	1.94	1.75	2.62	3.00	3.00	0.00
900.00	6.00	42.05	899.63	7.77	7.01	10.46	3.00	3.00	0.00
1,000.00	9.00	42.05	998.77	17.46	15.75	23.51	3.00	3.00	0.00
1,100.00	12.00	42.05	1,097.08	30.99	27.95	41.73	3.00	3.00	0.00
1,200.00	15.00	42.05	1,194.31	48.32	43.59	65.08	3.00	3.00	0.00
1,300.00	18.00	42.05	1,290.18	69.41	62.61	93.47	3.00	3.00	0.00
1,400.00	21.00	42.05	1,384.43	94.19	84.97	126.85	3.00	3.00	0.00
1,500.00	24.00	42.05	1,476.81	122.60	110.60	165.12	3.00	3.00	0.00
1,600.00	27.00	42.05	1,567.06	154.57	139.43	208.16	3.00	3.00	0.00
1,700.00	30.00	42.05	1,654.93	189.99	171.39	255.87	3.00	3.00	0.00
1,800.00	33.00	42.05	1,740.18	228.79	206.38	308.12	3.00	3.00	0.00
<b>LWR BLUEGATE SHALE</b>									
1,812.93	33.39	42.05	1,751.00	234.04	211.12	315.19	3.00	3.00	0.00
1,900.00	36.00	42.05	1,822.59	270.84	244.31	364.75	3.00	3.00	0.00
2,000.00	39.00	42.05	1,901.91	316.04	285.08	425.62	3.00	3.00	0.00
2,100.00	42.00	42.05	1,977.95	364.25	328.58	490.56	3.00	3.00	0.00
<b>Start 1191.95 hold at 2142.89 MD</b>									
2,142.89	43.29	42.05	2,009.49	385.83	348.04	519.61	3.00	3.00	0.00
2,200.00	43.29	42.05	2,051.07	414.90	374.27	558.77	0.00	0.00	0.00
2,300.00	43.29	42.05	2,123.86	465.81	420.19	627.33	0.00	0.00	0.00
2,400.00	43.29	42.05	2,196.65	516.73	466.12	695.90	0.00	0.00	0.00
2,500.00	43.29	42.05	2,269.45	567.64	512.05	764.46	0.00	0.00	0.00
2,600.00	43.29	42.05	2,342.24	618.55	557.97	833.03	0.00	0.00	0.00
2,700.00	43.29	42.05	2,415.03	669.46	603.90	901.59	0.00	0.00	0.00
2,800.00	43.29	42.05	2,487.83	720.37	649.82	970.16	0.00	0.00	0.00
2,900.00	43.29	42.05	2,560.62	771.28	695.75	1,038.72	0.00	0.00	0.00
3,000.00	43.29	42.05	2,633.41	822.20	741.67	1,107.29	0.00	0.00	0.00
3,100.00	43.29	42.05	2,706.21	873.11	787.60	1,175.85	0.00	0.00	0.00
3,200.00	43.29	42.05	2,779.00	924.02	833.52	1,244.42	0.00	0.00	0.00
3,300.00	43.29	42.05	2,851.79	974.93	879.45	1,312.98	0.00	0.00	0.00
<b>Start DLS 3.00 TFO -180.00</b>									
3,334.83	43.29	42.05	2,877.15	992.66	895.45	1,336.87	0.00	0.00	0.00
3,400.00	41.33	42.05	2,925.34	1,025.23	924.83	1,380.73	3.00	-3.00	0.00
3,500.00	38.33	42.05	3,002.12	1,072.79	967.73	1,444.77	3.00	-3.00	0.00
3,600.00	35.33	42.05	3,082.15	1,117.30	1,007.87	1,504.71	3.00	-3.00	0.00
3,700.00	32.33	42.05	3,165.21	1,158.63	1,045.16	1,560.38	3.00	-3.00	0.00
3,800.00	29.33	42.05	3,251.07	1,196.69	1,079.49	1,611.63	3.00	-3.00	0.00
3,900.00	26.33	42.05	3,339.49	1,231.35	1,110.75	1,658.31	3.00	-3.00	0.00
4,000.00	23.33	42.05	3,430.24	1,262.53	1,138.88	1,700.30	3.00	-3.00	0.00
4,100.00	20.33	42.05	3,523.05	1,290.14	1,163.79	1,737.49	3.00	-3.00	0.00
4,200.00	17.33	42.05	3,617.69	1,314.10	1,185.40	1,769.76	3.00	-3.00	0.00



**Weatherford International Ltd.**  
Planning Report



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**Company:** XTO ENERGY  
**Project:** EMERY COUNTY UTAH  
**Site:** 36-10T PAD  
**Well:** ZIONS FEDERAL 16-7-36-41D  
**Wellbore:** WELLBORE #1  
**Design:** Design #2

**Local Co-ordinate Reference:** Well ZIONS FEDERAL 16-7-36-41D  
**TVD Reference:** SITE1 @ 6505.00ft (RIG)  
**MD Reference:** SITE1 @ 6505.00ft (RIG)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,300.00	14.33	42.05	3,713.89	1,334.36	1,203.67	1,797.04	3.00	-3.00	0.00
4,400.00	11.33	42.05	3,811.38	1,350.85	1,218.55	1,819.24	3.00	-3.00	0.00
<b>UPPER FERRON SS</b>									
4,419.99	10.73	42.05	3,831.00	1,353.69	1,221.11	1,823.07	3.00	-3.00	0.00
<b>Start 487.40 hold at 4444.39 MD</b>									
4,444.39	10.00	42.05	3,855.00	1,356.95	1,224.05	1,827.46	3.00	-3.00	0.00
<b>41D TGT</b>									
4,470.44	10.00	42.05	3,880.65	1,360.31	1,227.08	1,831.98	0.00	0.00	0.00
4,500.00	10.00	42.05	3,909.77	1,364.12	1,230.52	1,837.12	0.00	0.00	0.00
4,600.00	10.00	42.05	4,008.25	1,377.02	1,242.15	1,854.48	0.00	0.00	0.00
<b>LWR FERRON SS</b>									
4,638.34	10.00	42.05	4,046.00	1,381.96	1,246.61	1,861.14	0.00	0.00	0.00
4,700.00	10.00	42.05	4,106.73	1,389.91	1,253.78	1,871.85	0.00	0.00	0.00
4,800.00	10.00	42.05	4,205.21	1,402.80	1,265.41	1,889.21	0.00	0.00	0.00
<b>TUNUNK SHALE</b>									
4,800.80	10.00	42.05	4,206.00	1,402.91	1,265.50	1,889.35	0.00	0.00	0.00
4,900.00	10.00	42.05	4,303.69	1,415.70	1,277.04	1,906.58	0.00	0.00	0.00
<b>TD at 4931.79</b>									
4,931.79	10.00	42.05	4,335.00	1,419.80	1,280.74	1,912.10	0.00	0.00	0.00

**Wellbore Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
41D TGT	0.00	0.00	3,855.00	1,468.33	1,324.51	386,512.64	2,118,949.11	39° 23' 37.497 N	111° 4' 44.783 W
- hit/miss target									
- Shape									
- plan misses target center by 147.72ft at 4470.44ft MD (3880.65 TVD, 1360.31 N, 1227.08 E)									
- Circle (radius 200.00)									

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
600.00	600.00	10 3/4"	10-3/4	14-3/4

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
561.00	561.00	EMERY SS		0.00	0.00
1,812.93	1,751.00	LWR BLUEGATE SHALE		0.00	0.00
4,419.99	3,831.00	UPPER FERRON SS		0.00	0.00
4,638.34	4,046.00	LWR FERRON SS		0.00	0.00
4,800.80	4,206.00	TUNUNK SHALE		0.00	0.00



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Planning Report



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**Wellbore:** WELLBORE #1  
**Design:** Design #2

**Local Co-ordinate Reference:** Well ZIONS FEDERAL 16-7-36-41D  
**TVD Reference:** SITE1 @ 6505.00ft (RIG)  
**MD Reference:** SITE1 @ 6505.00ft (RIG)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N-S (ft)	+E-W (ft)	
700.00	700.00	0.00	0.00	KOP / Start Build 3.00
2,142.89	2,009.49	385.83	348.04	Start 1191.95 hold at 2142.89 MD
3,334.83	2,877.15	992.66	895.45	Start DLS 3.00 TFO -180.00
4,444.39	3,855.00	1,356.95	1,224.05	Start 487.40 hold at 4444.39 MD
4,931.79	4,335.00	1,419.80	1,280.74	TD at 4931.79



# Weatherford®

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## Application for Permit to Drill Surface Use Plan

Company: XTO Energy, Inc  
Well No: Zions Federal 16-7-36-41D  
Location: 2129' FNL & 1985' FEL, Sec. 36, T16S, R7E (Surface Location)  
660' FNL & 660' FEL, Sec. 36, T16S, R7E (Bottomhole Location)

The dirt contractor will be provided an approved copy of the surface use plan of operations before starting construction.

### 1. Existing Roads

- a. Proposed route to location: The proposed route to location is shown on Exhibit "A" and is from the Hiawatha Quadrangle 7.5 minute series USGS quadrangle map.
- b. Location of proposed well in relation to town or other reference point: From Huntington, Utah on Highway 10 go to State Highway 31 and turn West. Go 7.8 miles and turn right. Follow road northeast 625' to location, located on the existing State of Utah T 36-10 wellpad.
- c. Contact the County Road Department for use of County Roads: County Road permits will be researched and submitted if required.
- d. Plans for improvement and/or maintenance of existing roads: All existing roads within 1 mile of the drill site are shown on Exhibit "B". All roads that will be used to the well location will be maintained to their current conditions are better.
- e. Other Comments: None

### 2. Planned Access Roads

- a. Location of Access Road: Starting from a point along an existing road in the SE/4 of Section 36, T16S, R7E.
- b. Length of New Road: 0' of road will need to be constructed to access this location. On existing location State of Utah T 36-10.
- c. Length of Existing Road to Upgrade: No existing roads should need upgrades to access this location.
- d. Maximum Disturbed Width: Typically new access roads require up to 60' of disturbed width which includes ROW for gas and water pipe lines and electric service.

- e. Travel Width of Access Road: 25' or less.
- f. Maximum Grade after Construction: Maximum grades will not exceed 10% after construction.
- g. Turnouts Planned: No Turnouts are planned at this time.
- h. Surface Materials: Only native materials will be used if additional construction is required. If necessary, gravel or rock maybe purchased and used to improve road conditions and travel.
- i. Drainage (crowning, ditching, culverts, etc.): Roads will be re-crowned and bar ditches, if necessary, will be located on either side. 18"-24" culverts will be installed as necessary.
- j. Cattle Guards: No cattle guards are planned at this time. If necessary, cattle guards will be specified in the stipulations.
- k. Length of new and/or existing roads which lie outside the lease or unit boundary for which a BLM/State/Fee right of way is required: None.
- l. Other:
  - i. Surface disturbance and vehicular travel will be limited to the approved location and access road. Any additional area needed must be approved by the State of Utah in Advance.
  - ii. If a right-of-way is necessary, no surface disturbing activities shall take place on the subject right-of-way until the associated APD is approved. The holder will adhere to conditions of approval in the Surface Use Program of the approved APD, relevant to any right-of-way facilities.
  - iii. If a right-of-way is secured, boundary adjustments in the lease or unit shall automatically amend this right-of-way to include that portion of the facility no longer contained within the lease or unit. In the event of an automatic amendment to this right-of-way grant, the prior on-lease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of the boundary adjustment. Rental fees, if appropriate, shall be recalculated based on the conditions of this grant and the regulations in effect at the time of an automatic amendment.
  - iv. If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the State of Utah will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligations determined by the State of Utah.

- v. If the well is not productive, the access road will be rehabilitated or brought to Resource (Class III) Road Standards within 60 days of dismantling the rig.

If upgraded, the access road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Field Office Manager will be notified so that temporary drainage control can be installed along the access road.

3. Location of Existing Wells:

- a. On a map, show the location of all water, injection, disposal, producing and drilling wells within a one mile radius of the proposed well, and describe the status of each:  
See Exhibit "B".

4. Location of Production Facilities:

- a. On-Site facilities: Typical on-site facilities will consist of a wellhead, gas flow line, water flow line, artificial lifting system (pumping unit), 2 phase separator, gas measurement, water measurement, electronics, a heated enclosure/building for weather and environmental protection and chemical injection equipment (as required). All production and measurement shall conform to the provisions of 43 CFR § 3162.7 and Onshore Oil and Gas Order No. 4, if applicable.
- b. All permanent (in place for six months or longer) structures constructed or installed on the well site location will be painted a flat, non reflective color to match the standard environmental colors, as specified by the COA's in the APD. All facilities will be painted within six months of installation. Facilities required complying with the Occupational Safety and Health Act (OSHA) may be excluded.
- c. Off-site facilities: Off-site facilities are located at the CDP station and include compression, processing, separation, tanks, pits, electronics, and produced water disposal (SWD) well.
- d. Pipelines: The well will be produced into gas and water pipelines (sizes to be determined) and transported to existing pipelines. Pipelines will be utilized from the State of Utah T 36-10.
- e. Power lines: Power lines are located underground in the same ROW as the water and gas pipelines.

5. Location and Type of Water Supply:

- a. All water required for drilling will be purchased from local municipal water supply. If possible, currently produced coal well water may also be used after receiving any necessary permits. Water will be trucked to location by a third party trucking company who specializes in water hauling.

- b. Water obtained on private land, or land administered by another agency, will require approval from the owner or agency for use of land.

6. Source of Construction Material:

- a. Pad construction material will be obtained from (if the source is Federally owned, show location on a map): All construction material will be purchased from private land owners or from a commercial gravel/materials pit. The use of materials will conform to 43 CFR § 3610.2-3, if applicable.
- b. The use of materials under State of Utah jurisdiction will conform to 43CFR § 3610.2-3, if applicable.

7. Methods of Handling Waste Disposal:

- a. Describe the methods and locations proposed for safe containment and disposal of waste material, e.g. cuttings, produced water, garbage, sewage, chemicals, etc. The reserve pit will be located along the edge and within the boundaries of the designated well pad. The walls of the pit will be sloped at no greater than 2 to 1 and will be lined with a synthetic material of approximately 12 mills in thickness. The reserve pit shall be located in cut material, with at least 50% of the pit volume being below original ground level. Three sides of the pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed, and shall remain until the pit is dry. The amount of time the pit way remain open will typically be specified by the COA's. Once dry, the liner will be cut and removed at the mud line and the pit will be covered and buried in place.
- b. Trash must be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than the completion of drilling operations.
- c. Sewage from trailers and chemical portable toilets will be removed on a regular basis by a third party contractor and disposed of at an authorized sanitary waste facility.
- d. Any and all chemicals used during the drilling and completion of the well will be kept to a minimum and stored within the boundaries of the well pad. The third party chemical contractor will be responsible for containment and clean-up and removal of all spilled chemicals on location.

8. Ancillary Facilities:

- a. No ancillary facilities will be required during the drilling or completion of the well.

9. Well Site Layout:

- a. Depict the pit, rig, cut and fill, topsoil, etc. on a plat with a scale of at least 1"=50'. See Exhibit "C" & "D".

- b. All equipment and vehicles that will be used to drill and complete this well will remain within the boundaries of the approved well pad. Any equipment and or vehicles parked or stored off the location will be considered trespassing on federal lands and will NOT be tolerated.
- c. Materials obtained from the construction of the location, like topsoil and vegetation will be stock piled as indicated and permitted by the approved APD. The stock piles themselves may be outside the approved boundaries of the well pad.

10. Plans for Restoration of the Surface:

- a. The top 6 inches of topsoil material will be removed from the location and stockpiled separately on Adjacent Land or as specified by the approved APD.
- b. Topsoil along the access road will be reserved in place adjacent to the road.
- c. Within 30-45 days after completion of well, all equipment that is not necessary for production shall be removed.
- d. The reserve pit and that portion of the location not needed for production will be reclaimed 90-120 days after completion of the well.
- e. Before any dirt work to restore the location takes place, the reserve pit must be ready for burial.
- f. All road surfacing will be removed prior to the rehabilitation of roads.
- g. Reclaimed roads will have the berms and cuts reduced and will be closed to vehicle use.
- h. All disturbed areas will be re-contoured to replicate the natural slope.
- i. The stockpiled topsoil will be evenly distributed over the disturbed area.
- j. Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.
- k. Seed will broadcast or drilled between September and November, or at a time specified by the BLM and or state. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage.
- l. The following seed mixture will be used: As specified conditions of approval.
- m. If necessary, an abandonment marker will be one of the following, as specified by the State of Utah:
  - i. At least four feet above ground level,
  - ii. At restored ground level, or
  - iii. Below ground level.

- iv. In any case the marker shall be inscribed with the following: operator name, lease number, well name and description (township, section, range, and either quarter-quarter or footages).

n. Additional requirements: None

11. Surface and Mineral Ownership:

The Surface is privately owned by Zions Bank, PO Box 30880, Salt Lake City, Utah, 84130 . The minerals are owned by the State of Utah. See attached Surface Use Agreement. See Exhibit "E".

12. Other Information:

- a. Archeological Concerns: An approved contractor will submit the appropriate reports to the agency as required. Special stipulations will be included in the COA's of the approved APD.
- b. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the State of Utah Field Office. Within five (5) working days, the State of Utah will inform the operator as to:
  - i. Whether the materials appear eligible for the National Register of Historic Places;
  - ii. The mitigation measures the operator will likely have to undertake before the site can be used ( assuming in situ preservation is not necessary); and
  - iii. A time frame for the State of Utah to complete an expedited review under 36 CFR § 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the State of Utah are correct and that mitigation is appropriate.
- c. If the operator wishes, at any time, to relocate activities to avoid the expenses of mitigation and/or the delays associated with this process, the State will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The State of Utah will provide technical and procedural guidelines for the conduct of mitigation. Upon Verification from the State of Utah that the required mitigation has been completed, the operator will then be allowed to resume construction.
- d. Threatened and Endangered Species Concerns:
  - i. An approved contractor will submit the appropriate reports as required. Special Stipulations will be included in the COA's of the approved APD.
- e. Wildlife Seasonal Restrictions: Current wildlife restrictions and closure dates are specified in the BLM's Environment Impact Statement.

Operator Certification:

a. Permitting and Compliance:

Kelly Small  
Regulatory Compliance  
XTO Energy Inc.  
382 CR 3100  
Aztec NM 87410  
505-333-3100

b. Drilling and Completions:

Brent Martin  
XTO Energy Inc.  
382 CR 3100  
Aztec, NM 87410  
505-333-3100

c. Certification:

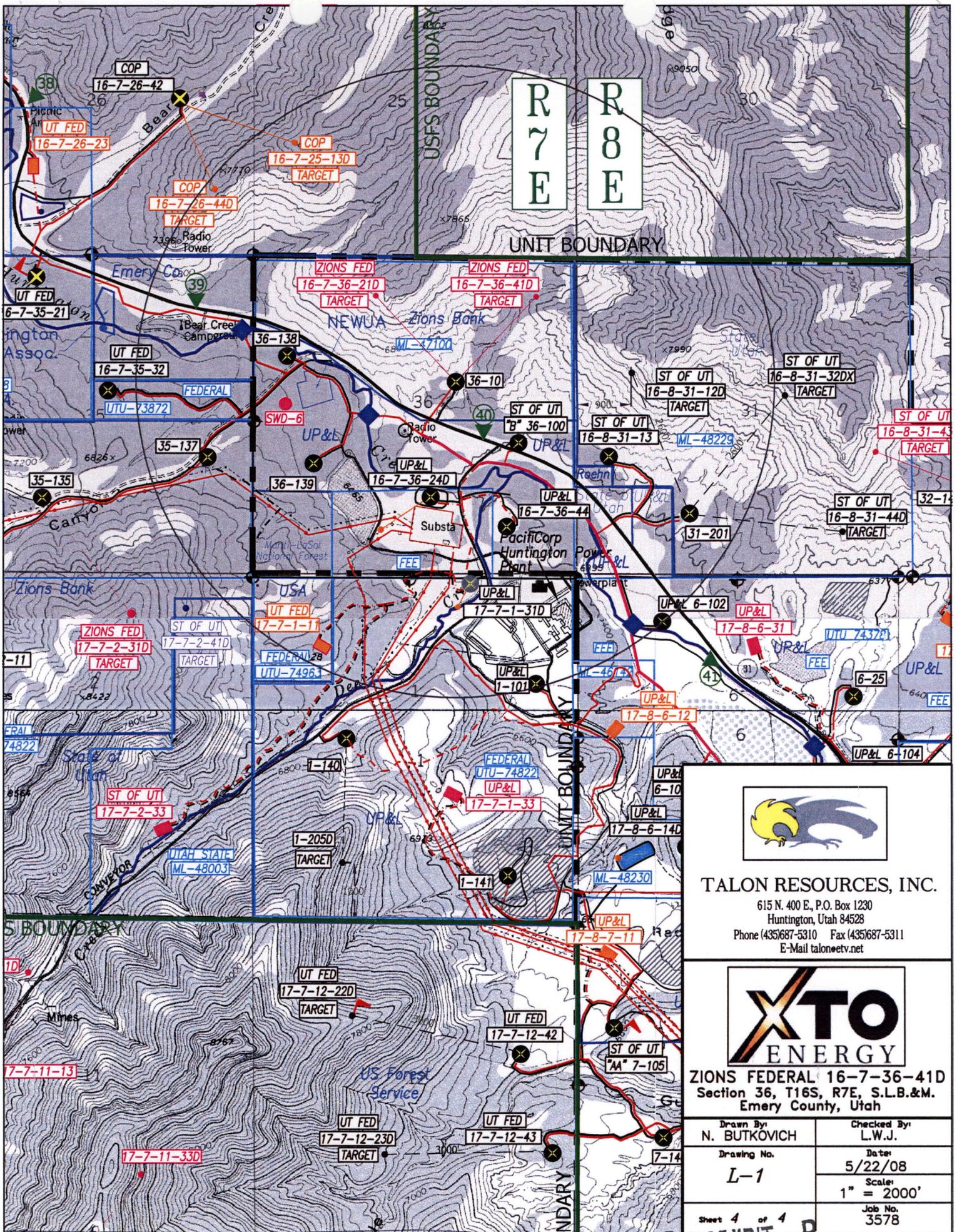
I hereby certify that, I or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or XTO Energy Inc., are responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 20th day of June, 2008.

Signature: \_\_\_\_\_

  
Kelly Small





**TALON RESOURCES, INC.**  
 615 N. 400 E., P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon@etv.net

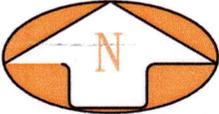
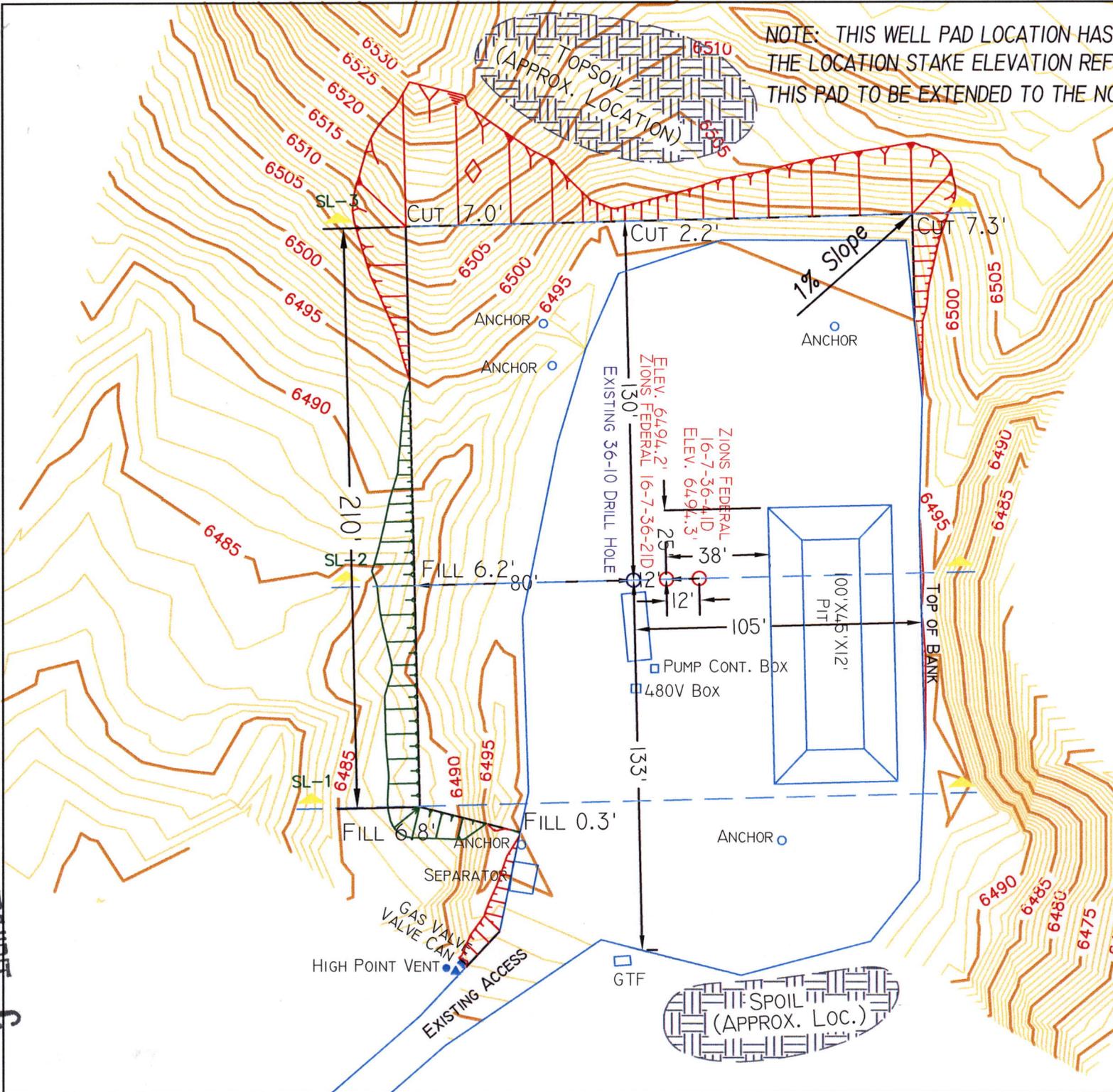


**ZIONS FEDERAL 16-7-36-41D**  
 Section 36, T16S, R7E, S.L.B.&M.  
 Emery County, Utah

Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>L-1</b>	Date: <b>5/22/08</b>
	Scale: <b>1" = 2000'</b>
Sheet <b>4</b> of <b>4</b>	Job No. <b>3578</b>

**EXHIBIT B**

NOTE: THIS WELL PAD LOCATION HAS BEEN BUILT.  
 THE LOCATION STAKE ELEVATION REFLECTS THE ASBUILT ELEVATION.  
 THIS PAD TO BE EXTENDED TO THE NORTH AND WEST AS SHOWN.



**TALON RESOURCES, INC.**

615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon etv.net

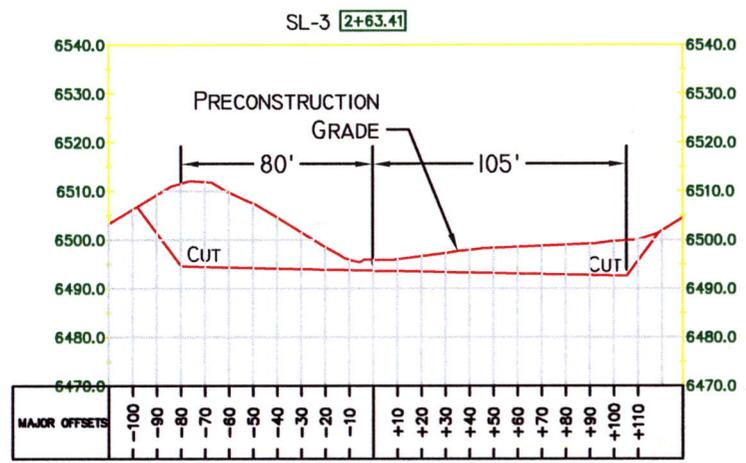
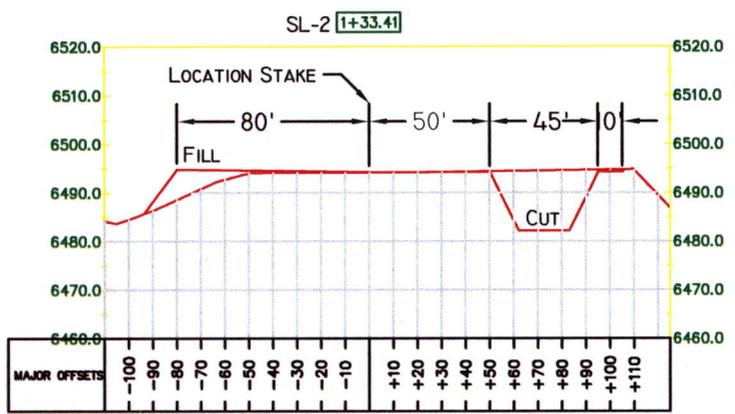


**LOCATION LAYOUT**  
 Section 36, T16S, R7E, S.L.B.&M.  
 ZIONS FEDERAL 16-7-36-41D

Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>A-2</b>	Date: <b>5/21/08</b>
	Scale: <b>1" = 50'</b>
Sheet <b>2 of 4</b>	Job No. <b>3578</b>

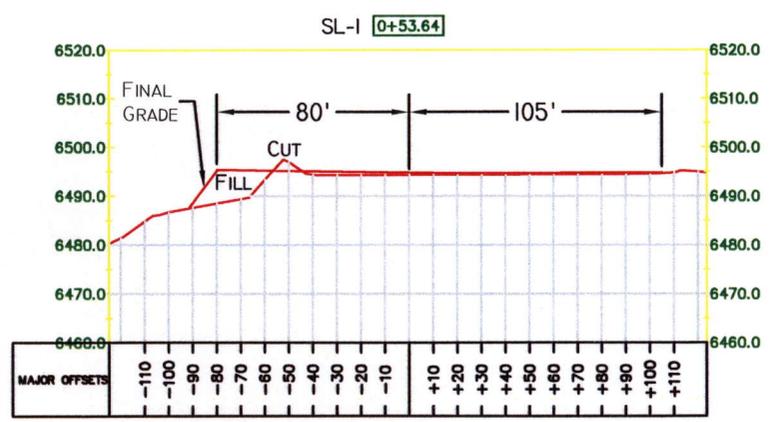
EXHIBIT C

EXHIBIT D



1"=10'  
X-Section Scale  
1"=20'

ALL SLOPES = 1 1/2 : 1  
(EXCEPT PIT)  
PIT SLOPE = 1 : 1



APPROXIMATE YARDAGES  
 (6") TOPSOIL STRIPPING = 230 CU. YDS.  
 TOTAL CUT (INCLUDING PIT) = 3,503 CU. YDS.  
 TOTAL FILL = 860 CU. YDS.



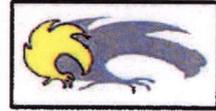
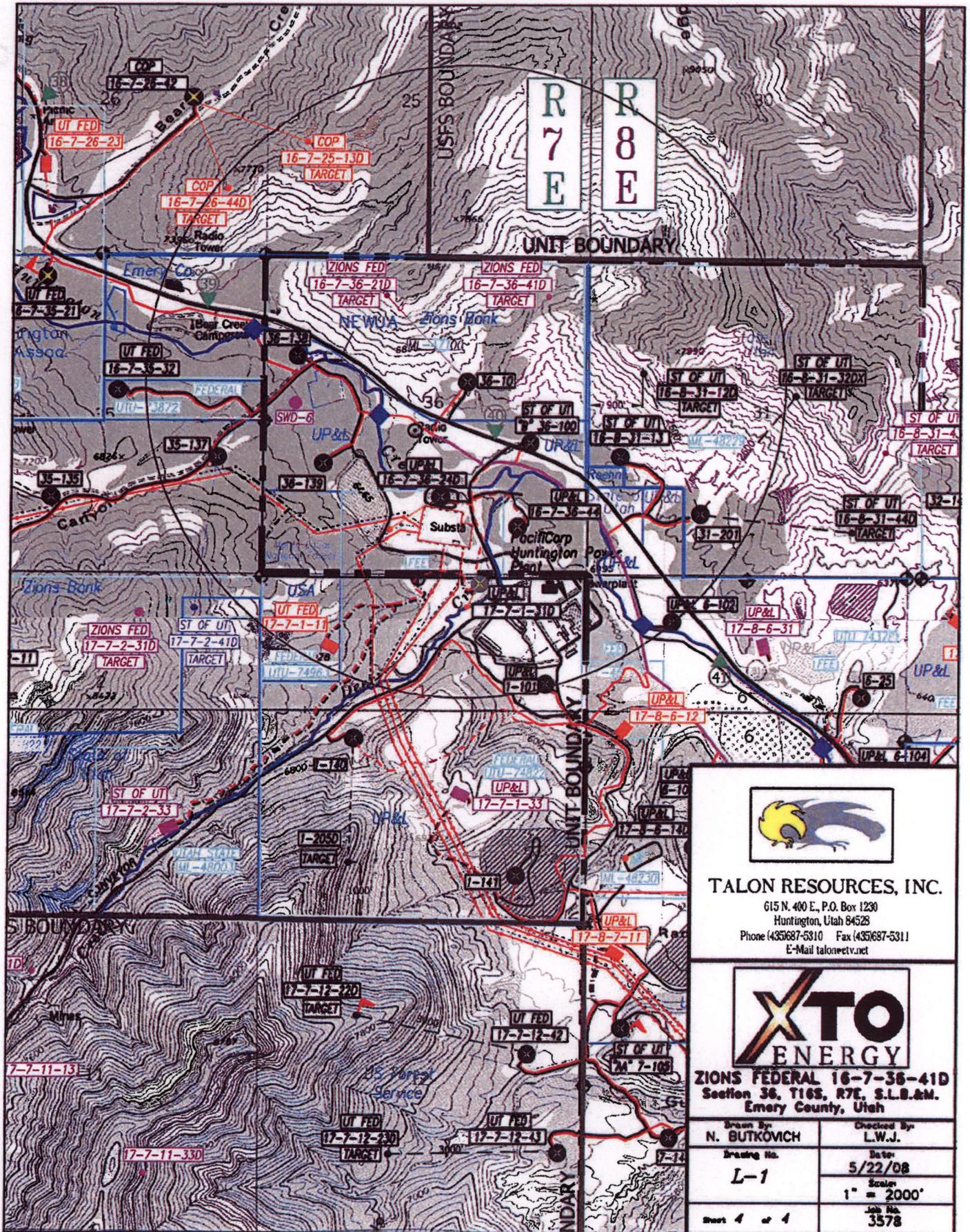
**TALON RESOURCES, INC**  
 615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon etv.net



**TYPICAL CROSS SECTION**  
 Section 36, T16S, R7E, S.L.B.&M.  
 ZIONS FEDERAL 16-7-36-41D

Drawn By: N. BUTKOVICH	Checked By: L.W.J.
Drawing No. C-1	Date: 5/21/08
	Scale: 1" = 80'
Sheet 3 of 4	Job No. 3578

**EXHIBIT "A"**  
(2 of 2)



**TALON RESOURCES, INC.**

615 N. 400 E., P.O. Box 1230  
Huntington, Utah 84528  
Phone (435)687-5310 Fax (435)687-5311  
E-Mail talon@trv.net



**ZIONS FEDERAL 16-7-36-41D**  
Section 36, T16S, R7E, S.L.B.&M.  
Emery County, Utah

Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>L-1</b>	Date: <b>5/22/08</b>
Sheet <b>4</b> of <b>4</b>	Scale: <b>1" = 2000'</b>
	Job No. <b>3578</b>

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 06/23/2008

API NO. ASSIGNED: 43-015-30756

WELL NAME: ZIONS FED 16-7-36-41D  
 OPERATOR: XTO ENERGY INC ( N2615 )  
 CONTACT: KELLY SMALL

PHONE NUMBER: 505-333-3100

PROPOSED LOCATION:

NEW

SWNE 36 160S 070E  
 SURFACE: 2129 FNL 1985 FEL  
 BOTTOM: 0660 FNL 0660 FEL  
 COUNTY: EMERY  
 LATITUDE: 39.38986 LONGITUDE: -111.0839  
 UTM SURF EASTINGS: 492778 NORTHINGS: 4359836  
 FIELD NAME: BUZZARD BENCH ( 132 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DKD	10/13/08
Geology		
Surface		

LEASE TYPE: 3 - State  
 LEASE NUMBER: ML-47100  
 SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: FRSD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]  
(No. 104312762 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. MUNICIPAL )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

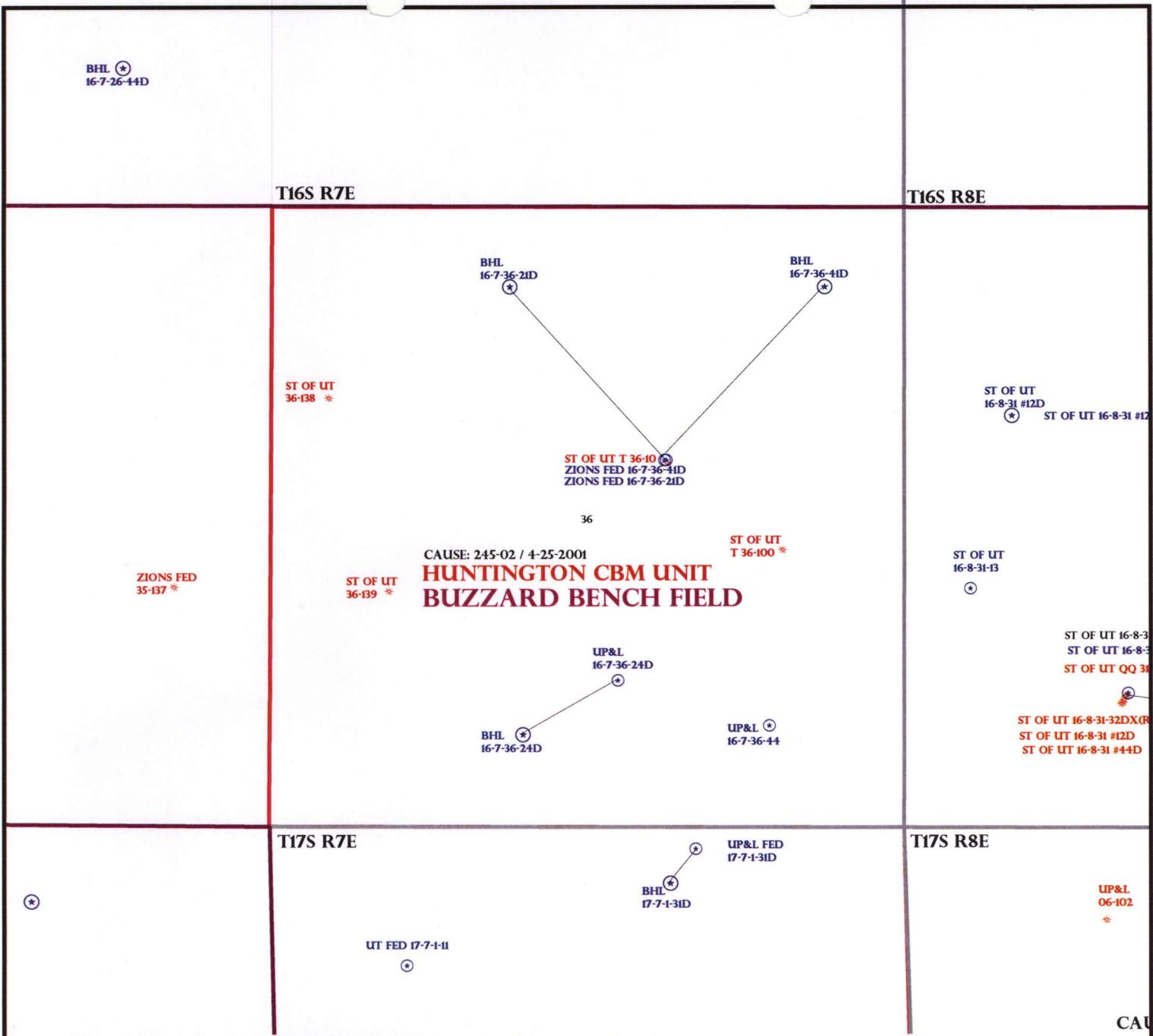
- R649-2-3. OK
- Unit: HUNTINGTON CBM
- R649-3-2. General
- Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: 245-02
- Eff Date: 4-25-2008
- Siting: 460' fr Ubdrg & Uncomm. Tract
- R649-3-11. Directional Drill

COMMENTS:

Needs Permit (07-31-08)

STIPULATIONS:

1- STATEMENT OF BASIS



CAUSE: 245-02 / 4-25-2001  
**HUNTINGTON CBM UNIT**  
**BUZZARD BENCH FIELD**

OPERATOR: XTO ENERGY INC (N2615)  
 SEC: 36 T.16S R. 7E  
 FIELD: BUZZARD BENCH (132)  
 COUNTY: EMERY  
 CAUSE: 245-02 / 4-25-2001

- Wells Status**
- ⊗ GAS INJECTION
  - ⊗ GAS STORAGE
  - ⊗ LOCATION ABANDONED
  - ⊗ NEW LOCATION
  - ⊗ PLUGGED & ABANDONED
  - ⊗ PRODUCING GAS
  - ⊗ PRODUCING OIL
  - ⊗ SHUT-IN GAS
  - ⊗ SHUT-IN OIL
  - ⊗ TEMP. ABANDONED
  - ⊗ TEST WELL
  - ⊗ WATER INJECTION
  - ⊗ WATER SUPPLY
  - ⊗ WATER DISPOSAL
  - ⊗ DRILLING

- Field Status**
- ⬜ ABANDONED
  - ⬜ ACTIVE
  - ⬜ COMBINED
  - ⬜ INACTIVE
  - ⬜ PROPOSED
  - ⬜ STORAGE
  - ⬜ TERMINATED

- Unit Status**
- ⬜ EXPLORATORY
  - ⬜ GAS STORAGE
  - ⬜ NF PP OIL
  - ⬜ NF SECONDARY
  - ⬜ PENDING
  - ⬜ PI OIL
  - ⬜ PP GAS
  - ⬜ PP GEOTHERML
  - ⬜ PP OIL
  - ⬜ SECONDARY
  - ⬜ TERMINATED



PREPARED BY: DIANA MASON  
 DATE: 25-JUNE-2008

# Application for Permit to Drill

## Statement of Basis

8/13/2008

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
827	43-015-30756-00-00		GW	P	No
<b>Operator</b>	XTO ENERGY INC	<b>Surface Owner-APD</b>			
<b>Well Name</b>	ZIONS FED 16-7-36-41D	<b>Unit</b>			
<b>Field</b>	UNDESIGNATED	<b>Type of Work</b>			
<b>Location</b>	SWNE 36 16S 7E S 2129 FNL 1985 FEL GPS Coord (UTM) 492778E 4359836N				

### Geologic Statement of Basis

At this well location a poorly to moderately permeable soil is developed on a fringe of Quaternary Alluvial Fan deposits covering the Upper Portion of the Blue Gate Member of the Mancos Shale. It is likely that the well will penetrate the sand units of the Emery Sandstone Member of the Mancos Shale. I recommend that the proposed surface casing and cementing program should be extended to protect any water bearing sandstones encountered in the Emery Sandstone. A review of the ground water resources for this location indicates that there are several points of diversion within a one mile radius of this well including three underground sources of water, both in Section 36, including two owned by Pacificorp dba Utah Power & Light and one owned by the Huntington-Cleveland Irrigation Company.

Chris Kierst  
APD Evaluator

8/12/2008  
Date / Time

### Surface Statement of Basis

On-site evaluation completed on July 31, 2008. In attendance: Bart Kettle-DOGM, Nathan Sill-BLM, David Whaler-BLM, Kevin Waller-XTO Energy, Ray Peterson-Emery County, Chris Nielson-Nielson Construction, Allen Childs-Talon Resources. Invited and choosing not to attend Kevin Jowers-Western National Trust Company

As proposed well is located and the existing well pad of the State of Utah T36-10 with an additional 60' of disturbance on the western edge. Drainage has already been diverted during the initial well pad construction.

As a split estate proposal from fee surface into federal minerals representatives from the Price BLM were in attendance. BLM recommends winter range stipulation for mule deer from Dec 1st to April 15 th. Per Onshore order #1 BLM will require a signed affidavit stating a surface agreement is in place.

Bart Kettle  
Onsite Evaluator

7/31/2008  
Date / Time

### Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

# ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

**Operator** XTO ENERGY INC  
**Well Name** ZIONS FED 16-7-36-41D  
**API Number** 43-015-30756-0      **APD No** 827      **Field/Unit** UNDESIGNATED  
**Location:** 1/4,1/4 SWNE      **Sec** 36      **Tw** 16S      **Rng** 7E      2129 FNL 1985 FEL  
**GPS Coord (UTM)**      **Surface Owner**

## Participants

Bart Kettle-DOG M, Nathan Sill-BLM, David Whaler-BLM, Kevin Waller-XTO Energy, Ray Peterson-Emery County, Chris Nielson-Nielson Construction, Allen Childs-Talon Resources. Invited and choosing not to attend Kevin Jowers-Western National Trust Company

## Regional/Local Setting & Topography

Proposed project area is located ~6 miles northwest of Huntington, located in Emery County Utah. Project site is surrounded by a series of sharp sandstone ledges cut by deep canyons along the eastern rim of the Wasatch Plateau. Drainages flow into Huntington Creek within a mile and eventually to the Green River 60 miles away. Project site is located in a 12-14" precip. zone part way up the eastern slope of the Wasatch Plateau. Regionally agriculture lands are located along the valley floor 5 miles to the east, and the top of the Wasatch Plateau is 5 miles to the west. With the exception of the Skyline drive portions of the Wasatch Plateau, regionally the climate is arid rangelands dominated by Salt Scrub shrub lands and Pinion/Juniper woodlands. Soils in the region are generally poorly developed, and moderate to highly erosive.

## Surface Use Plan

### **Current Surface Use**

Existing Well Pad

### **New Road**

<b>Miles</b>	<b>Well Pad</b>	<b>Length</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
	<b>Width</b>			

### **Ancillary Facilities**

## Waste Management Plan Adequate?

## Environmental Parameters

### **Affected Floodplains and/or Wetland N**

### **Flora / Fauna**

Limited flora and fauna, existing well pad.

#### **Flora:**

Grass: Crested wheatgrass, Indian rice grass, Salina rye grass

Forbs: Halogeton, curly cup gum weed

Shrubs: Rubber rabbit brush, shadscale, black grease wood, black sage.

Trees: Utah juniper, two needle pinion.

### **Soil Type and Characteristics**

Fine gray clays, sandstone fragments up to large boulders.

**Erosion Issues** Y

Soils erosive in nature, mitigation not recommended.

**Sedimentation Issues** N

**Site Stability Issues** N

**Drainage Diversion Required** N

Drainage diverted when original well pad was built

**Berm Required?** N

**Erosion Sedimentation Control Required?** N

**Paleo Survey Run?**

**Paleo Potential Observed?**

**Cultural Survey Run?**

**Cultural Resources?**

**Reserve Pit**

**Site-Specific Factors**

**Site Ranking**

<b>Distance to Groundwater (feet)</b>	>200	0
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>	<300	20
<b>Native Soil Type</b>	Low permeability	0
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>	10 to 20	5
<b>Affected Populations</b>	<10	0
<b>Presence Nearby Utility Conduits</b>	Not Present	0

**Final Score** 30 1 **Sensitivity Level**

**Characteristics / Requirements**

**Closed Loop Mud Required?** N

**Liner Required?** N

**Liner Thickness** 12

**Pit Underlayment Required?** N

**Other Observations / Comments**

Bart Kettle  
Evaluator

7/31/2008  
Date / Time



Online Services

Agency List

Business

Search

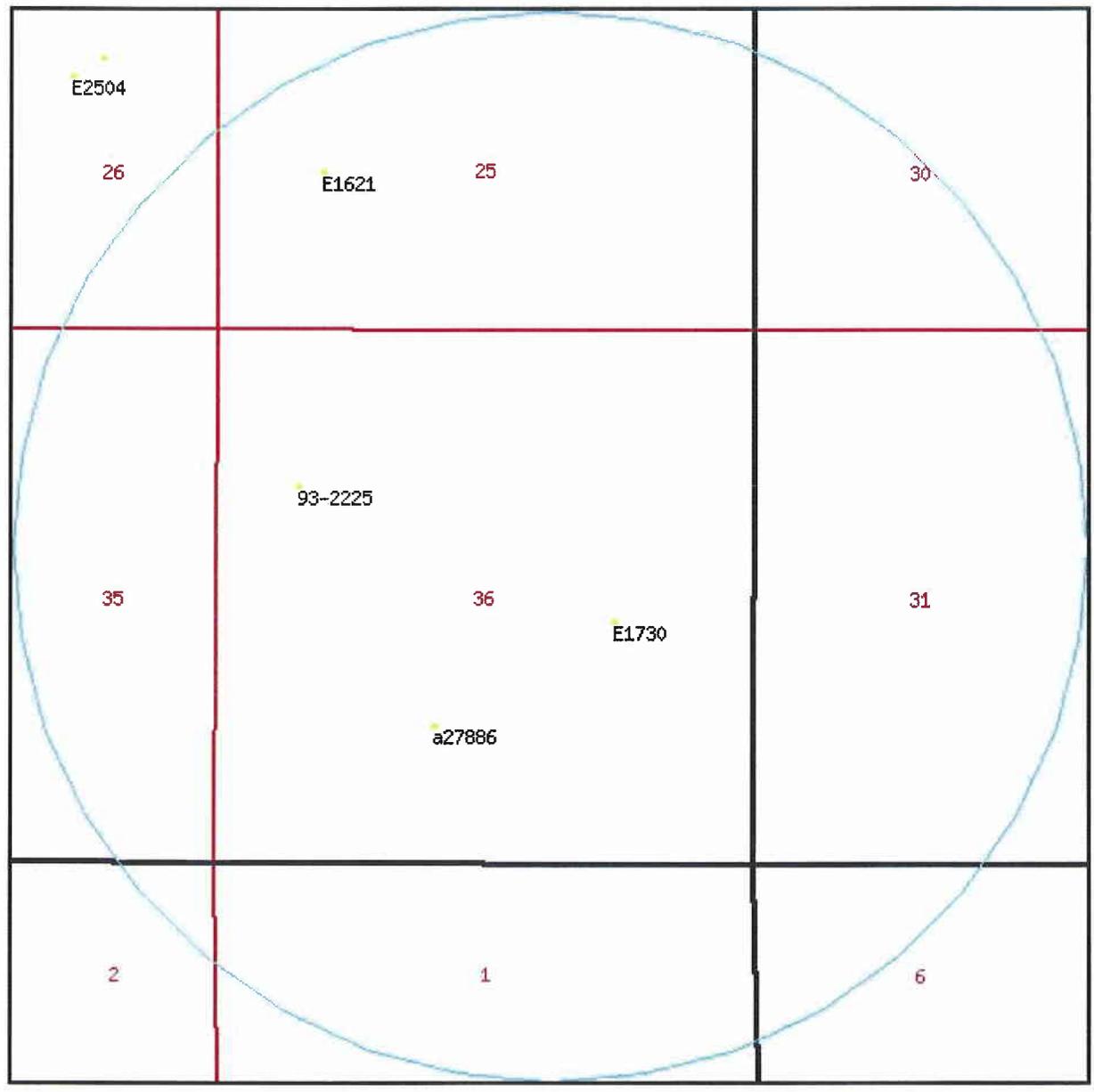


# Utah Division of Water Rights

## WRPLAT Program Output Listing

Version: 2007.04.13.01      Rundate: 08/12/2008 03:51 PM

Radius search of 5280 feet from a point S2129 W1985 from the NE corner, section 36, Township 16S, Range 7E, SL b&m Criteria:wrtypes=W,C,E  
podtypes=S,U,Sp status=U,A,P usetypes=all



**Water Rights**

WR Number	Diversions Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
<u>93-1115</u>	Surface S1535 E785 NW 36 16S 7E SL		P	19681210	IOP	20.000	0.000	PACIFICORP DBA UTAH POWER & LIGHT COMPANY  ATTN: MS. JODY L. WILLIAMS
<u>93-220</u>	Surface S1535 E785 NW 36 16S 7E SL		P	18750000	DIMOSP	150.000	0.000	HUNTINGTON CLEVELAND IRRIGATION COMPANY  P.O. BOX 327
<u>93-2223</u>	Surface S1535 E785 NW 36 16S 7E SL		P	18790000	DIMOSP	45.000	0.000	HUNTINGTON CLEVELAND IRRIGATION COMPANY  P.O. BOX 327
<u>93-2224</u>	Surface S1535 E785 NW 36 16S 7E SL		P	18840000	DIMOSP	77.250	0.000	HUNTINGTON CLEVELAND IRRIGATION  C/O J. CRAIG SMITH & DAVID B. HARTVIGSEN
<u>93-2225</u>	Surface S1535 E785 NW 36 16S 7E SL		P	18880000	DIMOSP	80.000	0.000	HUNTINGTON CLEVELAND IRRIGATION COMPANY  P.O. BOX 327
<u>a27886</u>	Underground N1350 E2150 SW 36 16S 7E SL		A	20030509	M	0.000	300.260	HUNTINGTON-CLEVELAND IRRIGATION COMPANY  P.O. BOX 327
<u>a34006</u>	Surface S2495 W1100 NE 26 16S 7E SL		U	20080208	DIX	0.250	3.790	C.O.P. COAL DEVELOPMENT COMPANY  A UTAH CORPORATION
<u>E1621</u>	Underground N1560 E1040 NW 36 16S 7E SL		A	19791105	O	0.000	80.000	PACIFICORP DBA UTAH POWER & LIGHT COMPANY  ATTN: CARLY BURTON
<u>E1730</u>	Underground	<u>well info</u>	A	19801209	O	0.330	240.000	PACIFICORP DBA UTAH POWER & LIGHT COMPANY

N2380 W1370 SE 36  
16S 7E SL

ATTN: CLAUDIA CONDER

E2504 Surface A 19870326 M 0.000 325.000

CASTLE VALLEY SPECIAL  
SERVICE DISTRICT

S90 W1400 E4 26  
16S 7E SL

P. O. BOX 877

Utah Division of Water Rights | 1594 West North Temple Suite 220, P.O. Box 146300, Salt Lake City, Utah 84114-6300 | 801-538-7240  
[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#)

43015307560000 Zions Fed 16-7-36-41D

Casing Schematic

Surface

1276  
1876

10-3/4"  
MW 8.3  
Frac 19.3

TOC @ 0. ✓ Upper Blue Gate Shale

561' Emery SS.  
Surface  
600. MD  
600. TVD

1813' Lower Blue Gate Sh.

TOC @ 3111. → to 2440' w/o 02, tail 3797'

✓ o.k.

4103' TOC tail

4420' Upper Ferron SS..

4658' Lower Ferron

4801' Tununk shale

5-1/2"  
MW 8.6

Production  
4932. MD  
4335. TVD

Well name:

4301530756000 Zions Fed 16-7-36-41D

Operator: XTO Energy Inc.

String type: Surface

Project ID:

43-015-30756-0000

Location: Emery County

**Design parameters:**

**Collapse**

Mud weight: 8.330 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 73 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 150 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 528 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 600 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 527 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 4,335 ft  
Next mud weight: 8.600 ppg  
Next setting BHP: 1,937 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 600 ft  
Injection pressure: 600 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	600	10.75	40.50	J-55	ST&C	600	600	9.925	330.5
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	260	1580	6.086	600	3130	5.22	24	420	17.29 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Minerals

Phone: 801-538-5357  
FAX: 801-359-3940

Date: October 6, 2008  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS:**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	<b>4301530756000 Zions Fed 16-7-36-41D</b>		
Operator:	<b>XTO Energy Inc.</b>	Project ID:	43-015-30756-0000
String type:	Production		
Location:	Emery County		

**Design parameters:**

**Collapse**

Mud weight: 8.600 ppg  
Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 983 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP: 1,937 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 4,359 ft

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 126 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 368 ft

Cement top: 3,111 ft

**Directional well information:**

Kick-off point: 700 ft  
Departure at shoe: 1912 ft  
Maximum dogleg: 3 °/100ft  
Inclination at shoe: 10 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	4932	5.5	15.50	J-55	ST&C	4335	4932	4.825	659.1
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1937	4040	2.086	1937	4810	2.48	67	202	3.01 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Minerals

Phone: 801-538-5357  
FAX: 801-359-3940

Date: October 6, 2008  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS:**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

*Engineering responsibility for use of this design will be that of the purchaser.*

**BOPE REVIEW**

**XTO Zions Fed 16-7-36-41D 43-015-30756-0000**

INPUT		XTO Zions Fed 16-7-36-41D 43-015-30756-0000	
Well Name	XTO Zions Fed 16-7-36-41D 43-015-30756-0000		
Casing Size (")	String 1	String 2	
Setting Depth (TVD)	10 3/4	5 1/2	
Previous Shoe Setting Depth (TVD)	600	4335	
Max Mud Weight (ppg)	0	600	
BOPE Proposed (psi)	8.4	8.6	
Casing Internal Yield (psi)	0	2000	
Operators Max Anticipated Pressure (psi)	3130	4810	
	1500	6.7 ppg	

Calculations	String 1	10 3/4 "	
Max BHP [psi]	$.052 * \text{Setting Depth} * \text{MW} =$	262	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) [psi]	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	190	NO
MASP (Gas/Mud) [psi]	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	130	NO <i>Required depth for area - o.k.</i>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	130	NO
Required Casing/BOPE Test Pressure		600 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		0 psi	*Assumes 1psi/ft frac gradient

Calculations	String 2	5 1/2 "	
Max BHP [psi]	$.052 * \text{Setting Depth} * \text{MW} =$	1939	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) [psi]	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	1418	YES ✓
MASP (Gas/Mud) [psi]	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	985	YES
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	1117	NO → <i>Expected pressure closer to 600 psi o.k.</i>
Required Casing/BOPE Test Pressure		2000 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		600 psi	*Assumes 1psi/ft frac gradient



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

**Division of Oil Gas and Mining**

JOHN R. BAZA  
Division Director

October 13, 2008

XTO Energy Inc  
382 CR 3100  
Aztec, NM 87410

Re: Zions Federal 16-7-36-41D Well, 2129' FNL, 1985' FEL, SW NE, Sec. 36, T. 16 South, R. 7 East, Bottom Location 660' FNL, 660' FEL, NE NE, Sec. 36, T. 16 South, R. 7 East, Emery County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-015-30756.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Emery County Assessor  
SITLA  
Bureau of Land Management, Price Field Office

Operator: XTO Energy Inc  
Well Name & Number Zions Federal 16-7-36-41D  
API Number: 43-015-30756  
Lease: ML-47100

Location: SW NE Sec. 36 T. 16 South R. 7 East  
Bottom Location: NE NE Sec. 36 T. 16 South R. 7 East

### Conditions of Approval

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-47100
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> HUNTINGTON CBM
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> ZIONS FED 16-7-36-41D
<b>2. NAME OF OPERATOR:</b> XTO ENERGY INC	<b>9. API NUMBER:</b> 43015307560000
<b>3. ADDRESS OF OPERATOR:</b> 382 Road 3100 , Aztec, NM, 87410	<b>PHONE NUMBER:</b> 505 333-3159 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2129 FNL 1985 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWNE Section: 36 Township: 16.0S Range: 07.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> BUZZARD BENCH  <b>COUNTY:</b> EMERY  <b>STATE:</b> UTAH

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

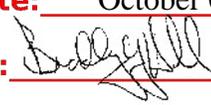
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 10/13/2010	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

**12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.**

XTO hereby requests a one year extension on the state permit for the referenced well.

**Approved by the Utah Division of Oil, Gas and Mining**

**Date:** October 05, 2009

**By:** 

<b>NAME (PLEASE PRINT)</b> Eden Fine	<b>PHONE NUMBER</b> 505 333-3664	<b>TITLE</b> Permitting Clerk
<b>SIGNATURE</b> N/A		<b>DATE</b> 10/1/2009



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43015307560000**

**API:** 43015307560000

**Well Name:** ZIONS FED 16-7-36-41D

**Location:** 2129 FNL 1985 FEL QTR SWNE SEC 36 TWP 160S RNG 070E MER S

**Company Permit Issued to:** XTO ENERGY INC

**Date Original Permit Issued:** 10/13/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
- Has the approved source of water for drilling changed?  Yes  No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
- Is bonding still in place, which covers this proposed well?  Yes  No

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

**Signature:** Eden Fine

**Date:** 10/1/2009

**Title:** Permitting Clerk **Representing:** XTO ENERGY INC

**Date:** October 05, 2009

**By:** 

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-47100
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> HUNTINGTON CBM
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> ZIONS FED 16-7-36-41D
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11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/28/2011	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

XTO hereby requests a one (1) year extension on the State Permit for the referenced well.

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

**Date:** September 29, 2010

**By:** 

<b>NAME (PLEASE PRINT)</b> Kelly Small	<b>PHONE NUMBER</b> 505 333-3145	<b>TITLE</b> Sr. Permitting Tech
<b>SIGNATURE</b> N/A		<b>DATE</b> 9/28/2010



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43015307560000**

**API:** 43015307560000

**Well Name:** ZIONS FED 16-7-36-41D

**Location:** 2129 FNL 1985 FEL QTR SWNE SEC 36 TWNP 160S RNG 070E MER S

**Company Permit Issued to:** XTO ENERGY INC

**Date Original Permit Issued:** 10/13/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

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- Has the approved source of water for drilling changed?  Yes  No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
- Is bonding still in place, which covers this proposed well?  Yes  No

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

**Signature:** Kelly Small

**Date:** 9/28/2010

**Title:** Sr. Permitting Tech **Representing:** XTO ENERGY INC

**Date:** September 29, 2010

**By:** 



GARY R. HERBERT  
Governor

GREG BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

November 17, 2011

XTO Energy Inc.  
382 Road 3100  
Aztec, NM 87410

Re: APD Rescinded – Zions Federal 16-7-36-41D, Sec. 36, T.16S, R. 7E  
Emery County, Utah API No. 43-015-30756

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on October 13, 2008. On October 5, 2009 and September 29, 2010 the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective November 17, 2011.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason  
Environmental Scientist

cc: Well File  
SITLA, Ed Bonner