

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER KC 13-32E				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE OF WELL Gas Well <input checked="" type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME				
6. NAME OF OPERATOR XTO ENERGY INC						7. OPERATOR PHONE 505 333-3159				
8. ADDRESS OF OPERATOR 382 Road 3100, Aztec, NM, 87410						9. OPERATOR E-MAIL kyla_vaughan@xtoenergy.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-047059			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		687 FSL 2182 FWL		SESW	32	10.0 S	19.0 E	S		
Top of Uppermost Producing Zone		650 FSL 900 FWL		SWSW	32	10.0 S	19.0 E	S		
At Total Depth		650 FSL 900 FWL		SWSW	32	10.0 S	19.0 E	S		
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 687			23. NUMBER OF ACRES IN DRILLING UNIT 560				
27. ELEVATION - GROUND LEVEL 5378			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling of Completion) 2			26. PROPOSED DEPTH MD: 10317 TVD: 10000				
28. BOND NUMBER 104312762			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-10047							
<b>Hole, Casing, and Cement Information</b>										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	17.5	13.375	0 - 500	48.0	H-40 ST&C	8.4	Class C	450	1.2	15.6
I1	12.25	9.625	0 - 4292	36.0	J-55 ST&C	8.6	Premium Plus	518	4.14	10.5
PROD	7.875	5.5	0 - 10317	17.0	MAV-80 LT&C	8.6	Class G	254	1.2	15.6
							Premium Plus	90	3.12	11.5
							Premium Plus	1130	1.75	13.0
<b>ATTACHMENTS</b>										
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"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Krista Wilson			TITLE Permitting Tech			PHONE 505 333-3647				
SIGNATURE			DATE 10/10/2011			EMAIL krista_wilson@xtoenergy.com				
API NUMBER ASSIGNED 43047521050000					APPROVAL					

**DIRECTIONAL DRILLING PLAN**

**APPROVAL OF OPERATIONS**

**Attachment for Permit to Drill**

**Name of Operator:** Dominion Exploration & Production  
**Address:** 14000 Quail Springs Parkway, Suite 600  
 Oklahoma City, OK 73134  
**Well Location:** KC 13-32E  
 SHL: 687' FSL & 2,182' FWL, Section 32-10S-19E  
 BHL: 650' FSL & 900' FWL, Section 32-10S-19E  
 Uintah County, UT

1. **GEOLOGIC SURFACE FORMATION** Uintah
2. **ESTIMATED DEPTHS OF IMPORTANT GEOLOGIC MARKERS**

<u>Formation</u>	<u>Depth (MD)</u>
Wasatch Tongue	4,177'
Green River Tongue	4,517'
Wasatch	4,657'
Chapita Wells	5,547'
Uteland Buttes	6,907'
Mesaverde	7,782'

3. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS**

<u>Formation</u>	<u>Depth (MD)</u>	<u>Type</u>
Wasatch Tongue	4,177'	Oil
Green River Tongue	4,517'	Oil
Wasatch	4,657'	Gas
Chapita Wells	5,547'	Gas
Uteland Buttes	6,907'	Gas
Mesaverde	7,782'	Gas

4. **PROPOSED CASING PROGRAM**

All casing used to drill this well will be new casing.

<u>Type</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Conn.</u>	<u>Top</u>	<u>Bottom (MD)</u>	<u>Hole</u>
Surface	13-3/8"	48.0 ppf	H-40	STC	0'	500'	17-1/2"
Intermediate	9-5/8"	36.0 ppf	J-55	STC	0'	4,292'	12-1/4"
Production	5-1/2"	17.0 ppf	MAV-80	LTC	0'	10,317'	7-7/8"

5. **OPERATOR'S MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL**

**Surface hole:** No BOPE will be utilized.

**Intermediate hole:** To be drilled using a diverter stack with rotating head to divert flow from rig floor.

**Production hole:** Prior to drilling out the intermediate casing shoe, 3,000 psi or greater BOP equipment will be installed. The pipe rams will be operated at least once per day from surface to total depth. The blind rams will be tested once per day from surface to total depth if operations permit.

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**DRILLING PLAN****APPROVAL OF OPERATIONS**

A diagram of the planned BOP equipment for normal drilling operations in this area is attached. As denoted there will be two valves and one check valve on the kill line, two valves on the choke line, and two adjustable chokes on the manifold system. The BOP "stack" will consist of two BOP rams (1 pipe, 1 blind) and one annular type preventer, all rated to a minimum of 3,000 psi working pressure.

The BOP equipment will be pressure tested prior to drilling out surface casing shoe and anytime a new casing string is set. All test pressures will be maintained for fifteen (15) minutes without any significant pressure decrease. Clear water will be circulated into the BOP stack and lines prior to pressure testing. The following test pressures will be used as a minimum for various equipment items.

1.	Annular BOP	1,500 psi
2.	Ram type BOP	3,000 psi
3.	Kill line valves	3,000 psi
4.	Choke line valves and choke manifold valves	3,000 psi
5.	Chokes	3,000 psi
6.	Casing, casinghead & weld	1,500 psi
7.	Upper kelly cock and safety valve	3,000 psi
8.	Dart valve	3,000 psi

**6. MUD SYSTEMS**

- An air or an air/mist system may be used to drill the surface hole until water influx becomes too great.
- KCL mud system will be used to drill well.
- The mud system will be monitored manually/visually.

<u>Depths (MD)</u>	<u>Mud Weight (ppg)</u>	<u>Mud System</u>
0' - 500'	8.4	Air foam mist, no pressure control
500' - 4,292'	8.6	Fresh water, rotating head and diverter
4,292' - 10,317'	8.6	Fresh water/2% KCL/KCL mud system

**7. BLOOIE LINE**

- An automatic igniter will not be installed on blooie line. The blooie will have a constant ignition source.
- A "target tee" connection will be installed on blooie line for 90° change of directions for abrasion resistance.
- "Target tee" connections will be a minimum of 50' from wellhead.
- The blooie line discharge will be a minimum of 80' from the wellhead.

**8. AUXILIARY EQUIPMENT TO BE USED**

- Kelly cock.
- Full opening valve with drill pipe connection will be kept on floor. Valve will be used when the kelly is not in string.

**9. TESTING, LOGGING, AND CORING PROGRAMS TO BE FOLLOWED**

- A drillstem test in the Wasatch Tongue is possible.
- One electric line wire-log will be run from total depth to intermediate casing.
- The gamma ray will be left on to record from total depth to intermediate casing.
- Other log curves (resistivities, porosity, and caliper) will record from total depth to intermediate casing.
- A dipmeter, percussion cores, or rotary cores may be run over selected intervals.

**10. ANTICIPATED ABNORMAL PRESSURES OR TEMPERATURES EXPECTED**

- Expected BHP 1,500-2,000 psi (lower than normal pressure gradient).
- No abnormal temperature or pressures are anticipated.
- The formations to be penetrated do not contain known H<sub>2</sub>S gas.

**11. WATER SUPPLY**

- No water pipelines will be laid for this well.
- No water well will be drilled for this well.
- Drilling water for this will be hauled on the road(s) shown in Attachment No. 3.
- Water will be hauled from: Water Permit # 43-10447 Section 9, Township 8 South, Range 20 East

**CONFIDENTIAL****Received: October 10, 2011**

**DRILLING PLAN**

**APPROVAL OF OPERATIONS**

*To Richard Hand  
5/25/07 yield 1.20 ft<sup>3</sup>/sf density 15.6*

**12. CEMENT SYSTEMS**

**a. Surface Cement:**

- Drill 17-1/2" hole to 500' and cement 13-3/8" to surface with 450 sks class "C" cement with 2% CaCl<sub>2</sub> and 1/4 #/sk. Polyflake (volume includes 70% excess). Top out as necessary. Casing to be centralized with a total of 5 centralizers.

**b. Intermediate Casing Cement:**

- Drill 12-1/4" hole to 4,292' (MD) ±, run and cement 9-5/8" to surface.
- Pump 20 bbls lightly weighted water spacer followed by 5 bbls fresh water. Displace with any available water.
- Casing to be run with: a) guide shoe b) insert float c) three (3) centralizers, one on each of first 3 joints d) stop ring for plug one joint off bottom e) bottom three joints thread locked f) pump job with bottom plug only. Casing to be centralized with a total of 15 centralizers.
- Cement to surface not required due to surface casing set deeper than normal.

Type	Sacks	Interval (MD)	Density	Yield	Hole Volume	Cement Volume
Lead	518	0'-3,792'	10.5 ppg	4.14 CFS	1,225 CF	2,144 CF
Tail	254	3,792'-4,292'	15.6 ppg	1.2 CFS	174 CF	304 CF

Intermediate design volumes based on 75% excess of gauge hole.

**Lead Mix:** Halliburton Prem Plus V blend. Blend includes Class "C" cement, gel, salt, gilsonite, EX-1 and HR-7.  
 Slurry yield: 4.14 cf/sack Slurry weight: 10.5 #/gal.  
 Water requirement: 26.07 gal/sack  
 Compressives @ 110°F: 72 psi after 24 hours

**Tail Mix:** Class "G" Cement, 1/4 lb/sk Cellophane Flakes + 6% by wt Calcium Chloride + 46.5% fresh water.  
 Slurry yield: 1.20 cf/sack Slurry weight: 15.6 #/gal.  
 Pump Time: 1 hr. 5 min. @ 110 °F.  
 Compressives @ 110 °F: 2,500 psi after 24 hours

**c. Production Casing Cement:**

- Drill 7-7/8" hole to 10,317' (MD) ±, run and cement 5 1/2".
- Pump 20 bbl Mud Clean II unweighted spacer, followed by 20 Bbls fresh H2O spacer.
- Displace with 2% KCL.
- Production casing to be centralized with 30 centralizers.

Type	Sacks	Interval (MD)	Density	Yield	Hole Volume	Cement Volume
Lead	90	3,857'-4,657'	11.5 ppg	3.12 CFS	139 CF	277 CF
Tail	1130	4,657'-10,317'	13.0 ppg	1.75 CFS	981 CF	1961 CF

Production design volumes based on 35% excess of gauge hole. Actual volumes will be calculated from caliper log to bring lead cement to 800' above top of Wasatch + 15% excess, and tail cement to top of Wasatch +15%.

**Lead Mix:** Halliburton Prem Plus V blend. Blend includes Class "C" cement, gel, salt, gilsonite, EX-1 and HR-7.  
 Slurry yield: 3.12 cf/sack Slurry weight: 11.60 #/gal.  
 Water requirement: 17.71 gal/sack  
 Compressives @ 130°F: 157 psi after 24 hours

**Tail Mix:** Halliburton HLC blend (Prem Plus V/JB flyash). Blend includes Class "G" cement, KCl, EX-1, Halad 322, & HR-5.  
 Slurry yield: 1.75 cf/sack Slurry weight: 13.00 #/gal.  
 Water requirement: 9.09 gal/sack  
 Compressives @ 165°F: 905 psi after 24 hours

**13. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS**

Starting Date: April 18, 2006 **2007**  
 Duration: 14 Days

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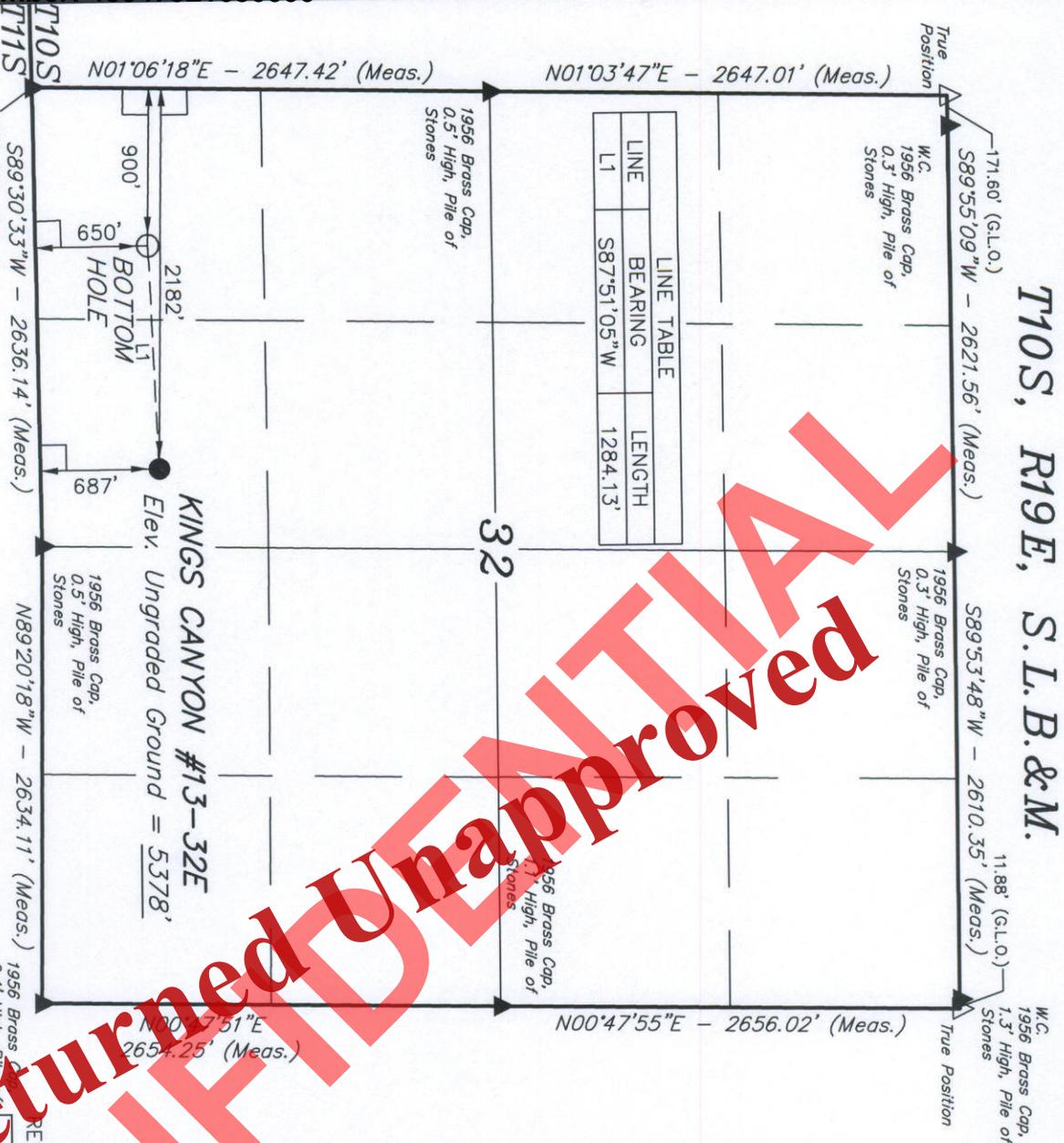
T10S, R19E, S.1.B.&M.

XTO ENERGY, INC.

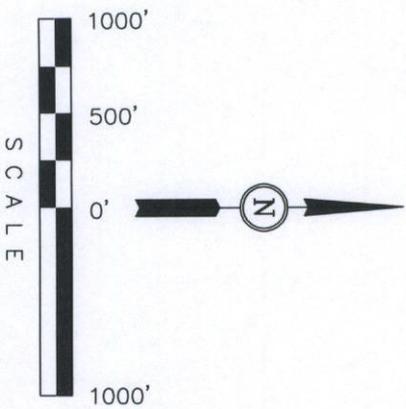
Well location, KINGS CANYON #13-32E, located as shown in the SE 1/4 SW 1/4 of Section 32, T10S, R19E, S.1.B.&M., Uintah County Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.1.B.&M. TAKEN FROM THE BIG PACK MTN. NW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.



LINE	BEARING	LENGTH
L1	S87°51'05\"W	1284.13'



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM THE FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

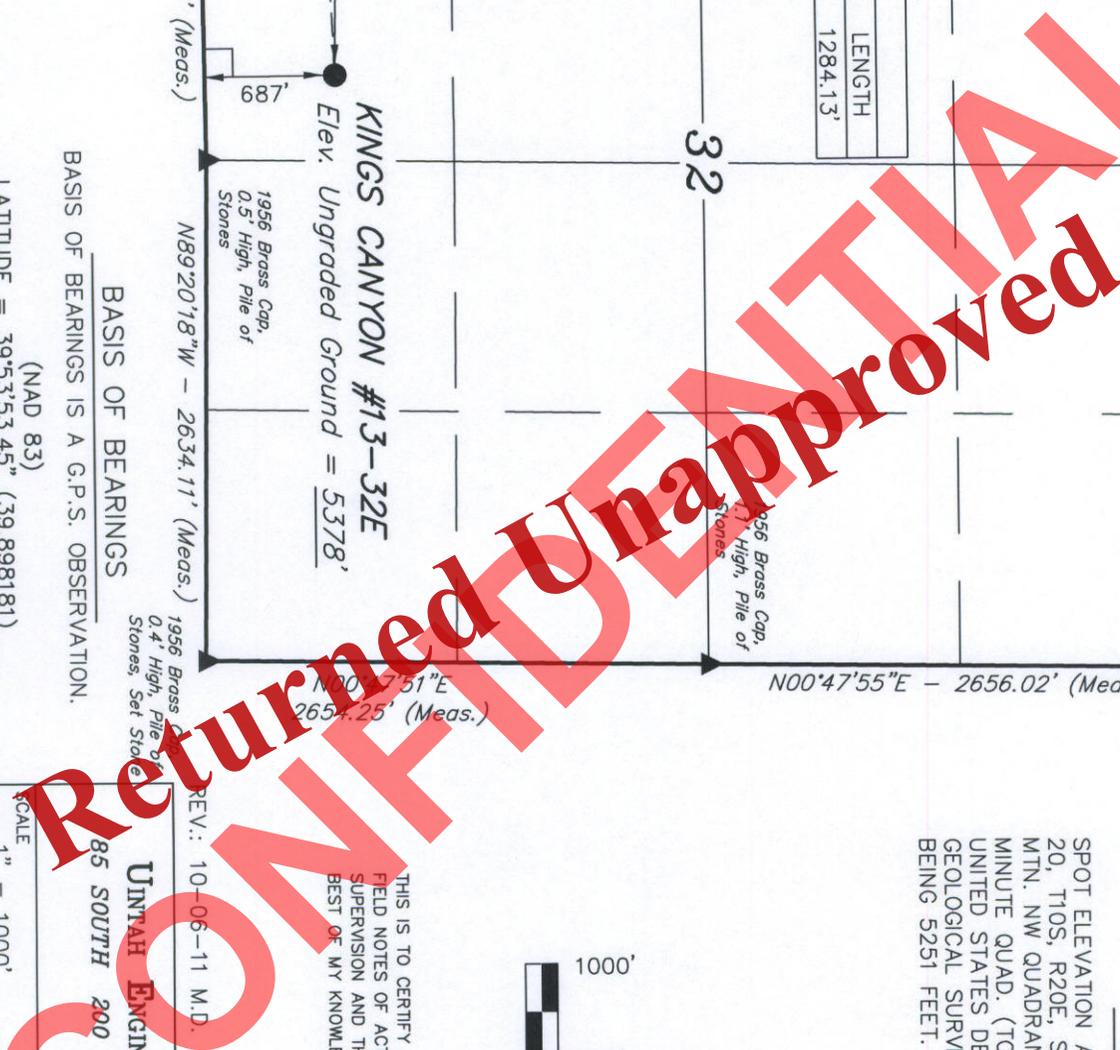
REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 161319  
 STATE OF UTAH

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.  
 (NAD 83)  
 LATITUDE = 39°53'53.45\" (39.898181)  
 LONGITUDE = 109°48'26.02\" (109.807228)  
 (NAD 27)  
 LATITUDE = 39°53'53.58\" (39.898217)  
 LONGITUDE = 109°48'23.51\" (109.806531)

UTAH ENGINEERING & LAND SURVEYING  
 85 SOUTH 200 EAST - VERNAL, UTAH 84078  
 (435) 789-1017

- LEGEND:
- = 90° SYMBOL
  - = PROPOSED WELL HEAD.
  - ▲ = SECTION CORNERS LOCATED.

SCALE	1" = 1000'	DATE SURVEYED:	06-05-06	DATE DRAWN:	06-09-06
PARTY	B.B. B.C. L.K.	REFERENCES	G.L.O. PLAT		
WEATHER	WARM	FILE	XTO ENERGY, INC.		





Returned Unapproved  
 ONLY  
 TOPO

**LEGEND:**

● PROPOSED LOCATION

**XTO ENERGY, INC.**

**KINGS CANYON #14-32E # 13-32E  
SECTION 32, T10S, R19E, S.L.B.&M.  
SE 1/4 SW 1/4**



**Utah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC  
MAP**

**05 25 06**  
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: C.H. REV: 10-06-11 C.I.



**EXHIBIT A**

**Received: October 10, 2011**



**Dominion**

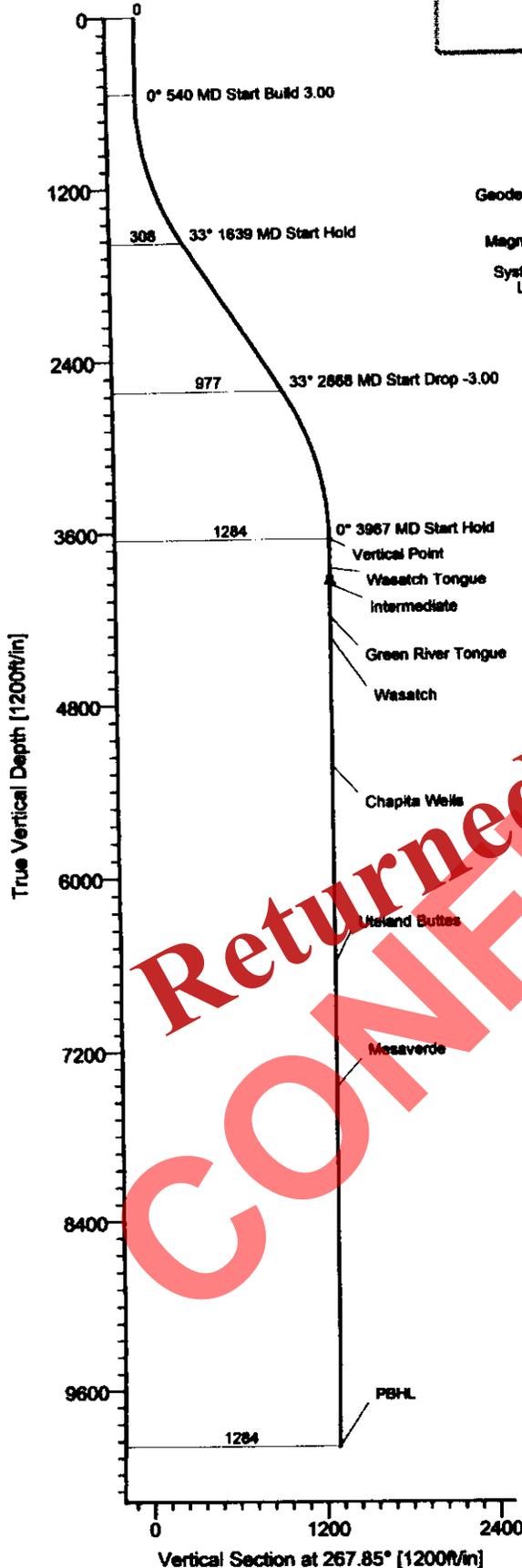
**Dominion Exploration & Production**

Field: Uintah County, Utah  
 Site: KC 13-32E  
 Well: Well #13-32E  
 Wellpath: Original Hole  
 Plan: Plan #1



Azimuths to True North  
 Magnetic North: 11.78°

Magnetic Field  
 Strength: 52737nT  
 Dip Angle: 65.84°  
 Date: 12/8/2008  
 Model: igr2005



**FIELD DETAILS**

Uintah County, Utah  
 Utah - Natural Buttes  
 USA  
 Geodetic System: US State Plane Coordinate System 1983  
 Ellipsoid: GRS 1980  
 Zone: Utah, Central Zone  
 Magnetic Model: igr2005  
 System Datum: Mean Sea Level  
 Local North: True North

**SITE DETAILS**

KC 13-32E  
 Section 32, T10S, R19E, S.L.B. & M.  
 Uintah County, Utah  
 Site Centre Latitude: 39°53'53.450N  
 Longitude: 109°48'26.020W  
 Ground Level: 5374.00  
 Positional Uncertainty: 0.00  
 Convergence: 1.08



**WELLPATH DETAILS**

Ref. Datum	Origin +N-S	Origin +E-W	Starting From TVD
5390.00ft <td>0.00</td> <td>0.00</td> <td>0.00</td>	0.00	0.00	0.00

**WELL DETAILS**

Name	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
Well #13-32E	0.00	0.00	7136144.34	2115300.59	39°53'53.450N	109°48'26.020W	N/A

**TARGET DETAILS**

Name	TVD	+N-S	+E-W	Shape
Vertical Point	3650.00	-48.14	-1283.23	Point
PBHL	10000.00	-48.14	-1283.23	Point

**FORMATION TOP DETAILS**

No.	TVDPath	MDPath	Formation
1	3860.00	4177.29	Wasatch Tongue
2	4200.00	4517.29	Green River Tongue
3	4340.00	4857.29	Wasatch
4	5230.00	5547.29	Chapita Wells
5	6590.00	6907.29	Uteland Buttes
6	7485.00	7782.29	Mesaverde

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	267.85	0.00	0.00	0.00	0.00	0.00	0.00	
2	540.00	0.00	267.85	540.00	0.00	0.00	0.00	0.00	0.00	
3	1639.02	32.97	267.85	1579.36	-11.53	-307.37	3.00	267.85	307.58	
4	2868.27	32.97	267.85	2610.64	-38.61	-975.86	0.00	0.00	976.55	
5	3967.29	0.00	267.85	3650.00	-48.14	-1283.23	3.00	180.00	1284.13	Vertical Point
6	10317.29	0.00	267.85	10000.00	-48.14	-1283.23	0.00	267.85	1284.13	PBHL



# Ryan Energy Technology 1 Planning Report



**Company:** Dominion Exploration & Product  
**Field:** Uintah County, Utah  
**Site:** KC 13-32E  
**Well:** Well #13-32E  
**Wellpath:** Original Hole  
**Date:** 12/8/2006  
**Co-ordinate(NE) Reference:** Well: Well #13-32E, True North  
**Vertical (TVD) Reference:** Est RKB 5390.0  
**Section (VS) Reference:** Well (0.00N,0.00E,267.85Azi)  
**Plan:** Plan #1  
**Time:** 09:55:14  
**Page:** 1

**Field:** Uintah County, Utah  
 Utah - Natural Buttes  
 USA  
**Map System:** US State Plane Coordinate System 1983  
**Geo Datum:** GRS 1980  
**Sys Datum:** Mean Sea Level  
**Map Zone:** Utah, Central Zone  
**Coordinate System:** Well Centre  
**Geomagnetic Model:** igr2005

**Site:** KC 13-32E  
 Section 32, T10S, R19E, S.L.B. & M.  
 Uintah County, Utah  
**Site Position:** Northing: 7136144.34 ft Latitude: 39 53 53.450 N  
**From:** Geographic Easting: 2115300.59 ft Longitude: 109 48 26.020 W  
**Position Uncertainty:** 0.00 ft North Reference: True  
**Ground Level:** 5374.00 ft Grid Convergence: 1.08 deg

**Well:** Well #13-32E  
**Slot Name:**  
**Well Position:** +N/-S 0.00 ft Northing: 7136144.34 ft Latitude: 39 53 53.450 N  
 +E/-W 0.00 ft Easting: 2115300.59 ft Longitude: 109 48 26.020 W  
**Position Uncertainty:** 0.00 ft

**Wellpath:** Original Hole  
**Current Datum:** Est RKB Height 5390.00 ft  
**Magnetic Data:** 12/8/2006  
**Field Strength:** 52737 nT  
**Vertical Section:** Depth From (TVD) ft +N/-S ft  
**Drilled From:** Surface  
**Tie-on Depth:** 0.00 ft  
**Above System Datum:** Mean Sea Level  
**Declination:** 11.76 deg  
**Mag Dip Angle:** 65.84 deg  
 +E/-W ft Direction deg  
 0.00 267.85

**Plan:** Plan #1  
**Principal:** Yes  
**Date Composed:** 12/8/2006  
**Version:** 1  
**Tied-to:** From Surface

**Plan Section Information**

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	267.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
540.00	0.00	267.85	540.00	0.00	0.00	0.00	0.00	0.00	267.85	
1639.02	32.97	267.85	1579.36	-11.53	-307.37	3.00	3.00	0.00	267.85	
2868.27	32.97	267.85	2610.64	-36.81	-975.86	0.00	0.00	0.00	0.00	
3967.29	0.00	267.85	3650.00	-48.14	-1283.23	3.00	-3.00	0.00	180.00	Vertical Point
10317.29	0.00	267.85	10000.00	-48.14	-1283.23	0.00	0.00	0.00	267.85	PBHL

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
540.00	0.00	267.85	540.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	1.80	267.85	599.99	-0.04	-0.94	0.94	3.00	3.00	0.00	
700.00	4.80	267.85	699.81	-0.25	-6.69	6.70	3.00	3.00	0.00	
800.00	7.80	267.85	799.20	-0.66	-17.66	17.67	3.00	3.00	0.00	
900.00	10.80	267.85	897.87	-1.27	-33.81	33.83	3.00	3.00	0.00	
1000.00	13.80	267.85	995.57	-2.07	-55.09	55.13	3.00	3.00	0.00	
1100.00	16.80	267.85	1092.01	-3.06	-81.46	81.51	3.00	3.00	0.00	
1200.00	19.80	267.85	1186.94	-4.23	-112.83	112.91	3.00	3.00	0.00	
1300.00	22.80	267.85	1280.10	-5.59	-149.13	149.23	3.00	3.00	0.00	
1400.00	25.80	267.85	1371.23	-7.14	-190.24	190.38	3.00	3.00	0.00	
1500.00	28.80	267.85	1460.08	-8.86	-236.07	236.24	3.00	3.00	0.00	
1600.00	31.80	267.85	1546.41	-10.75	-286.48	286.68	3.00	3.00	0.00	
1639.02	32.97	267.85	1579.36	-11.53	-307.37	307.58	3.00	3.00	0.00	
1700.00	32.97	267.85	1630.52	-12.77	-340.53	340.77	0.00	0.00	0.00	
1800.00	32.97	267.85	1714.42	-14.82	-394.91	395.19	0.00	0.00	0.00	

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# Ryan Energy Technology 1 Planning Report



<b>Company:</b> Dominion Exploration & Product <b>Field:</b> Uintah County, Utah <b>Site:</b> KC 13-32E <b>Well:</b> Well #13-32E <b>Wellpath:</b> Original Hole	<b>Date:</b> 12/8/2006 <b>Co-ordinate(NE) Reference:</b> Well: Well #13-32E, True North <b>Vertical (TVD) Reference:</b> Est RKB 5390.0 <b>Section (VS) Reference:</b> Well (0.00N,0.00E,267.85Azi) <b>Plan:</b> Plan #1	<b>Time:</b> 09:55:14 <b>Page:</b> 2
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**Survey**

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1900.00	32.97	267.85	1798.31	-16.86	-449.29	449.61	0.00	0.00	0.00	
2000.00	32.97	267.85	1882.21	-18.90	-503.68	504.03	0.00	0.00	0.00	
2100.00	32.97	267.85	1966.10	-20.94	-558.06	558.45	0.00	0.00	0.00	
2200.00	32.97	267.85	2050.00	-22.98	-612.44	612.87	0.00	0.00	0.00	
2300.00	32.97	267.85	2133.89	-25.02	-666.83	667.29	0.00	0.00	0.00	
2400.00	32.97	267.85	2217.79	-27.06	-721.21	721.71	0.00	0.00	0.00	
2500.00	32.97	267.85	2301.68	-29.10	-775.59	776.14	0.00	0.00	0.00	
2600.00	32.97	267.85	2385.58	-31.14	-829.97	830.56	0.00	0.00	0.00	
2700.00	32.97	267.85	2469.47	-33.18	-884.36	884.98	0.00	0.00	0.00	
2800.00	32.97	267.85	2553.37	-35.22	-938.74	939.40	0.00	0.00	0.00	
2868.27	32.97	267.85	2610.64	-36.61	-975.86	976.55	0.00	0.00	0.00	
2900.00	32.02	267.85	2637.40	-37.25	-992.90	993.60	3.00	-3.00	0.00	
3000.00	29.02	267.85	2723.54	-39.15	-1043.64	1044.37	3.00	-3.00	0.00	
3100.00	26.02	267.85	2812.22	-40.88	-1089.81	1090.57	3.00	-3.00	0.00	
3200.00	23.02	267.85	2903.19	-42.44	-1131.27	1132.07	3.00	-3.00	0.00	
3300.00	20.02	267.85	2996.21	-43.81	-1167.92	1168.74	3.00	-3.00	0.00	
3400.00	17.02	267.85	3091.02	-45.00	-1199.66	1200.50	3.00	-3.00	0.00	
3500.00	14.02	267.85	3187.36	-46.01	-1226.39	1227.25	3.00	-3.00	0.00	
3600.00	11.02	267.85	3284.97	-46.82	-1248.05	1248.92	3.00	-3.00	0.00	
3700.00	8.02	267.85	3383.59	-47.44	-1264.57	1265.48	3.00	-3.00	0.00	
3800.00	5.02	267.85	3482.93	-47.87	-1275.91	1276.61	3.00	-3.00	0.00	
3900.00	2.02	267.85	3582.73	-48.10	-1282.05	1282.95	3.00	-3.00	0.00	Vertical Point
3967.29	0.00	267.85	3650.00	-48.14	-1283.23	1284.13	3.00	-3.00	0.00	
4000.00	0.00	267.85	3682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4100.00	0.00	267.85	3782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4177.29	0.00	267.85	3860.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Wasatch Tongue
4200.00	0.00	267.85	3882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4292.29	0.00	267.85	3975.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Intermediate
4300.00	0.00	267.85	3982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4400.00	0.00	267.85	4082.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4500.00	0.00	267.85	4182.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Green River Tongue
4517.29	0.00	267.85	4200.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4600.00	0.00	267.85	4282.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Wasatch
4657.29	0.00	267.85	4340.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4700.00	0.00	267.85	4382.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4800.00	0.00	267.85	4482.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
4900.00	0.00	267.85	4582.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5000.00	0.00	267.85	4682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5100.00	0.00	267.85	4782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5200.00	0.00	267.85	4882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5300.00	0.00	267.85	4982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5400.00	0.00	267.85	5082.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5500.00	0.00	267.85	5182.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5547.29	0.00	267.85	5230.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Chapita Wells
5600.00	0.00	267.85	5282.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5700.00	0.00	267.85	5382.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5800.00	0.00	267.85	5482.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
5900.00	0.00	267.85	5582.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6000.00	0.00	267.85	5682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6100.00	0.00	267.85	5782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6200.00	0.00	267.85	5882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6300.00	0.00	267.85	5982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6400.00	0.00	267.85	6082.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6500.00	0.00	267.85	6182.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	

Returned & Approved

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# Ryan Energy Technology 1 Planning Report



<b>Company:</b> Dominion Exploration & Product <b>Field:</b> Uintah County, Utah <b>Site:</b> KC 13-32E <b>Well:</b> Well #13-32E <b>Wellpath:</b> Original Hole	<b>Date:</b> 12/8/2006 <b>Co-ordinate(NE) Reference:</b> <b>Vertical (TVD) Reference:</b> <b>Section (VS) Reference:</b> <b>Plan:</b>	<b>Time:</b> 09:55:14 <b>Well:</b> Well #13-32E, True North <b>Est RKB:</b> 5390.0 <b>Well (0.00N,0.00E,267.85Azi):</b> <b>Plan #1</b>	<b>Page:</b> 3
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**Survey**

MD ft	Incl deg	Aziam deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6600.00	0.00	267.85	6282.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6700.00	0.00	267.85	6382.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6800.00	0.00	267.85	6482.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6900.00	0.00	267.85	6582.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
6907.29	0.00	267.85	6590.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Uteland Buttes
7000.00	0.00	267.85	6682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7100.00	0.00	267.85	6782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7200.00	0.00	267.85	6882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7300.00	0.00	267.85	6982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7400.00	0.00	267.85	7082.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7500.00	0.00	267.85	7182.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7600.00	0.00	267.85	7282.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7700.00	0.00	267.85	7382.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7782.29	0.00	267.85	7465.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	Mesaverde
7800.00	0.00	267.85	7482.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
7900.00	0.00	267.85	7582.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8000.00	0.00	267.85	7682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8100.00	0.00	267.85	7782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8200.00	0.00	267.85	7882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8300.00	0.00	267.85	7982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8400.00	0.00	267.85	8082.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8500.00	0.00	267.85	8182.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8600.00	0.00	267.85	8282.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8700.00	0.00	267.85	8382.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8800.00	0.00	267.85	8482.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
8900.00	0.00	267.85	8582.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9000.00	0.00	267.85	8682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9100.00	0.00	267.85	8782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9200.00	0.00	267.85	8882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9300.00	0.00	267.85	8982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9400.00	0.00	267.85	9082.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9500.00	0.00	267.85	9182.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9600.00	0.00	267.85	9282.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9700.00	0.00	267.85	9382.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9800.00	0.00	267.85	9482.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
9900.00	0.00	267.85	9582.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
10000.00	0.00	267.85	9682.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
10100.00	0.00	267.85	9782.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
10200.00	0.00	267.85	9882.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
10300.00	0.00	267.85	9982.71	-48.14	-1283.23	1284.13	0.00	0.00	0.00	
10317.29	0.00	267.85	10000.00	-48.14	-1283.23	1284.13	0.00	0.00	0.00	PBHL

**Targets**

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
Vertical Point			3650.00	-48.14	-1283.23	7136071.92	2114018.50	39 53 52.974 N	109 48 42.486 W
-Plan hit target									
PBHL			10000.00	-48.14	-1283.23	7136071.92	2114018.50	39 53 52.974 N	109 48 42.486 W
-Plan hit target									

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**Ryan Energy Technolog' 1**  
**Planning Report**



<b>Company:</b> Dominion Exploration & Product	<b>Date:</b> 12/8/2006	<b>Time:</b> 09:55:14	<b>Page:</b> 4
<b>Field:</b> Uintah County, Utah	<b>Co-ordinate(NE) Reference:</b> Well: Well #13-32E, True North		
<b>Site:</b> KC 13-32E	<b>Vertical (TVD) Reference:</b> Est RKB 5390.0		
<b>Well:</b> Well #13-32E	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,267.85Azi)		
<b>Wellpath:</b> Original Hole	<b>Plan:</b> Plan #1		

**Casing Points**

MD ft	TVD ft	Diameter in	Hole Size in	Name
4292.29	3975.00	9.625	12.250	Intermediate

**Formations**

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4177.29	3860.00	Wasatch Tongue		0.00	0.00
4517.29	4200.00	Green River Tongue		0.00	0.00
4657.29	4340.00	Wasatch		0.00	0.00
5547.29	5230.00	Chapita Wells		0.00	0.00
6907.29	6590.00	Uteland Buttes		0.00	0.00
7782.29	7465.00	Mesaverde		0.00	0.00

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**SURFACE USE PLAN**

**Name of Operator:** XTO Energy Inc.

**Address:** 382 CR 3100  
Aztec, NM 87410

**Well Location:** KC 13-32E  
Surface: 687' FSL & 2182' FWL, Section 32, T10S, R19E  
BHL: 650' FSL & 900' FWL, Section 32, T10S, R19E  
SLB&M, Uintah County, Utah

The surface owner or surface owner representative and dirt contractor will be provided with an approved copy of the surface use plan of operations and approved conditions of approve before initiating construction.

**1. Existing Roads:**

- a. The proposed access route to the location shown on the USGS quadrangle map (see Exhibit "A").
- b. The proposed well site is located approximately 14.81 miles southwest of Ouray, Utah.
- c. Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 for approximately 14.0 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction for approximately 17.0 miles to Ouray, Utah. Proceed in a southerly, then southeasterly direction for approximately 9.1 miles on the Seep Ridge Road to the junction of this road an existing road to the south. Turn right and proceed in a southerly direction for approximately 2.8 miles to the junction of this road and an existing road to the west. Turn right and proceed in a westerly, then southwesterly direction for approximately 0.5 miles to the junction of this road and an existing road to the north. Turn right and proceed in a northerly, then southwesterly direction for approximately 12.3 miles to the junction of this road and an existing road to the southwest. Turn right and proceed in a southwesterly, then northerly direction for approximately 5.1 miles to the beginning of the proposed access for the KC 16-32E to the west. Follow the road flags in a westerly direction for approximately 350' to the beginning of the proposed access to the southeast. Follow the road flags in a southeasterly, then southwesterly, then northerly, then southwesterly, then northerly direction for approximately 1.6 miles to the proposed location.
- d. All existing roads within a one (1) mile radius of the proposed well site are shown in Exhibit "B". If necessary, all existing roads that will be used for access to the proposed well location will be maintained to the current condition, or better, unless BLM or SITLA approval or consent is given to upgrade the existing road(s).
- e. The use of roads under State and County Road Department maintenance are necessary to access the Kings Canyon Unit Area. However, an encroachment permit is not anticipated since no upgrades to the State or County Road System are anticipated at this time.
- f. All existing roads will be maintained and kept in good repair during all phases of operation.

- g. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- h. Since no improvements are anticipated to the to the State, County, Tribal or BLM access roads, no topsoil stripping will occur.
- i. An off-lease Right-of-Way is needed for the off-lease portion (Section 33) of the access and pipeline corridor since both are located outside the existing state lease boundary.

**2. Planned Access Roads:**

- a. Location (centerline): From the proposed KC 11-32E access road an access is proposed trending west approximately 1.6 miles to the proposed well site. The access will consist on entirely new disturbance and crosses no significant drainages.
- b. A road design plan is not anticipated at this time.
- c. The proposed access road will consist of a 24' travel surface within a 30' disturbed area.
- d. SITLA approval to construct and utilize the proposed access road is requested with this application. Federal surface use is being requested through a separate Federal Right-of-Way application.
- e. A maximum grade of 10% will be maintained throughout the project with no cuts and fill required to access this well.
- f. No turnouts are proposed since adequate site distance exists in all directions.
- g. No surfacing material will come from SITLA, Federal or Tribal lands.
- h. No gates or cattle guards are anticipated at this time.
- i. Surface disturbance and vehicular travel will be limed to the approved location access road.
- j. Adequate drainage structures and culverts have been incorporated into the road where needed.
- k. All access roads and surface disturbing activities will conform to the standards outlined in the Bureau of Land Management and Forest Service Publication: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (Gold Book – Fourth Edition – Revised 2007).
- l. The operator will be responsible for all maintenance of the access roads, including any anticipated drainage structures.
- m. Other: See general information below.
  - If any additional 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

- 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 facilities 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 a 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.
- If at any time the facilities located on public lands authorized by the terms of this lease are no longer included in the lease (due to a contraction in the unit or lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligations as determined by the BLM.
- If the well is productive, the access road will be rehabilitated as needed and brought to Resource (Class II) Road Standards within a time period specified by SITLA or the BLM. 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. All wells in a one (1) mile radius are shown within Exhibit "C".

**4. Location of Existing and/or Proposed Production Facilities:**

- a. On-site facilities. Typical on-site facilities will consist of a wellhead, flowlines (typically 3" dia.), artificial lifting system (if necessary), wellhead compression (if necessary), gas/oil/water separator (3 phase), gas measurement and water measurement equipment, and a heated enclosure/building for weather and environmental protection. The tank battery will typically be constructed and surrounded by a berm of sufficient capacity to contain 1 ½ times the storage capacity of the largest tank. The tanks typically necessary for the production of this well will be 1 – 300 bbl steel, above ground tank for oil/condensate and 1 – 300 bbl steel, above ground tank for produced water. All loading lines and valves for these tanks will be placed inside the berm surrounding the tank battery.
  - All oil/condensate production and measurement shall conform to the provision of 43 CFR 3162.7 and Onshore Oil and Gas Order No. 4, if applicable. Other on-site equipment and systems may include methanol injection and winter weather protection.
  - All permanent (in place for six (6) months or longer) structures constructed or installed on the well site location will be painted a flat, non-reflective color, matching the ground and not sky, slightly darker than the adjacent landscape, as specified by the COA's in the approved APD. All facilities will be painted within six (6) months of installation. Facilities required to comply with the Occupations Safety and Health Act (OSHA) may be excluded.
  - Site security guidelines identified in 43 CFR 3163.7-5 and Onshore Oil and Gas Order No. 3 will be adhered to.

- b. Off- site facilities: None.
- c. A gas meter run will be constructed and located on lease within 500 feet of the well head. Meter runs will be housed and/or fenced. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- d. A tank battery will be constructed on this lease; it will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All liquid hydrocarbons production and measurement shall conform to the provisions of 43 CFR 3162.7-3 and Onshore Oil and Gas Order No. 4 and Onshore Oil and Gas Order No. 5 for natural gas production and measurement.
- e. The site will require periodic maintenance to ensure that drainages are kept open and free of debris, ice, and snow, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- f. A gas pipeline is associated with this application and is being applied for at this time. The proposed gas pipeline corridor will lease the south side of the well side and traverse 8290 feet east to the proposed KC 11-32E pipeline corridor. The pipeline corridor will then continue east to the existing 8" KC 11-32E pipeline corridor located west of the existing county road (see Exhibit "D").
- g. The new and upgraded segments of the gas pipeline will be a 12' or less buried line and the water pipeline will be 12' or less buried line within a 75' wide disturbed pipeline corridor. The use of the proposed well site and access roads will facilitate the staging of the pipeline corridor upgrade. A new pipeline length of 8290 feet is associated with this well.
- h. The proposed pipeline and pipeline upgrade are contained within SITLA surface.
- i. XTC Energy Inc. intends to bury the pipeline where possible and connect the pipeline together utilizing conventional welding technology.

**5. Location and Type of Water Supply:**

- a. No water supply pipeline will be laid for this well.
- b. No water well will be drilled for this well.
- c. Drilling water for this well will be hauled on the road(s) shown in Exhibit "B".
- d. Water will be hauled from one of the following sources:
  - Water Permit # 43-10047, Section 9, T8S, R20E.

**6. Source of Construction Material:**

- a. The use of materials will conform to 43 CFR 3610.2-3.
- b. No construction materials will be removed from SITLA, Ute Tribal or BLM Lands.
- c. If any gravel is used, it will be obtained from a state approved gravel pit.

**7. Methods of Handling Waste:**

- a. All wastes associated with this application will be contained and disposed of utilizing approved facilities.
- b. Drill cuttings will be contained and buried on site.
- c. The reserve pit will be located outboard of the location and along the east side of the pad.
- d. The reserve pit will be constructed so as not to leak, breach, or allow for any discharge.
- e. The reserve pit will be lined with a 20 ml minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt liner pad only if rock is encountered during excavation. The pit liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe etc., that could puncture the liner will be disposed of in the pit. The pit walls will be sloped not greater than 2:1. A minimum 2-foot of freeboard will be maintained in the pit at all times during the drilling and completion operations.
- f. The reserve pit has been located in cut material. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced and a bird net installed as soon as drilling is completed, and shall remain until the pit is dry. After the reserve pit has dried, all areas not needed for production will be rehabilitated.
- g. No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored transported, or disposed of annually in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.
- h. Trash will be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations. The contents of the trash container will be hauled off periodically to the approved Uintah County Landfill near Vernal, Utah.
- i. Produced fluids from the well other than water will be produced into a test tank until such time as the construction of the production facilities is complete. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.
- j. After initial clean-up, a 400 bbl tank will be installed to contain produced waste water. This water will be transported from the tank to an approved XTO Energy Inc. disposal well for proper disposal.
- k. Produced water from the production well will be disposed of at the RBU 13-11F or RBU 16-19F disposal wells in accordance with Onshore Order No. 7.
- l. Any salts and/or chemical, which are an integral part of the drilling system, will be disposed of in the same manner as the drilling fluid.

- m. Sanitary facilities will be onsite at all times during operations. Sewage will be placed in a portable chemical toilet and the toilet replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

**8. Ancillary Facilities:**

- a. Garbage containers and portable toilets are the only ancillary facilities proposed in this application.
- b. No camps, airstrips or staging areas are proposed with this application.

**9. Well Site Layout:** (See Exhibit "E")

- a. The well will be properly identified in accordance with 43 CFR 3162.6.
- b. Access to the well pad will be from the southeast.
- c. The pad and road designs are consistent with BLM and SITLA specifications.
- d. A pre-construction meeting with responsible company representatives, contractors, and SITLA will be conducted at the project site prior to commencement of surface disturbing activities. The pad and road will be construction staked prior to this meeting.
- e. The pad has been staked at its maximum size; however, it will be constructed smaller, if possible, depending on log availability. Should the layout change, this application will be amended and approved utilizing a sundry notice.
- f. All surface disturbing activities will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specification in the approved plans.
- g. All cut and fill sloped will be such that stability can be maintained for the life of the activity.
- h. Diversion ditches will be constructed and storm water BMP's installed around the well site to prevent surface water from entering the well site.
- i. The site surface will be graded to drain away from the pit to avoid pit spillage during large storm events.
- j. The reserve pit will be properly fenced and a bird net installed to prevent any livestock, wildlife or migratory bird entry, and will remain so until site clean-up.
- k. All access roads will be maintained as necessary to prevent erosion and accommodate year-round traffic. The road will be maintained in a safe and useable condition.
- l. The stockpiled topsoil (first 6 inches or maximum available) will be stored in a windrow on the uphill side of the location to prevent possible contamination. All topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and/or contamination.

- m. The blooie line will be located at least 100 feet from the well head.
- n. Water injection may be implemented if necessary to minimize the amount of fugitive dust.

**10. Plans for Restoration of the Surface (Interim Reclamation and Final Reclamation):**

- a. Site reclamation for the production well will be accomplished for the portions of the site not required for the continued operation of the well.
- b. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. Once the reserve pit is dry, the plastic nylon liner shall be torn and perforated before backfilling of the reserve pit. The reserve pit and that torn portion of the location not needed for production facilities/operations will be re-contoured to match the appropriate natural contours of the area.
- c. Following the BLM published Best Management Practices and per the signed 2009 Reclamation Plan, the interim reclamation will be completed within 90 days of well completion or 120 days of wells spud (weather permitting) to reestablish vegetation, reduce dust and erosion and compliment the visual resources of the area.
  - All equipment and debris will be removed from the area proposed for interim reclamation and the pit area will be backfilled and re-contoured to match the surrounding topography.
  - The area outside the rig anchors and other disturbed areas not needed for the operation of the well will be re-contoured to blend in with the surrounding topography and reseeded as prescribed by SITLA.
  - Reclaimed areas receiving incidental disturbance during the life of the producing well will be re-contoured and reseeded as soon as practical.
- d. The operator will control noxious weeds along the access road use authorizations, pipeline route authorizations, well sites, or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the SITLA or the appropriate County Extension Office. On SITLA administered land, it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or other possibly hazardous chemicals.
- e. Prior to final abandonment of the site, all disturbed areas, including access roads will be scarified and left with a rough surface. The site will then be reseeded and/or planted as prescribed by SITLA. A SITLA recommended seed mix will be detailed within their approval documents.

**11. Surface and Mineral Ownership:**

- a. Surface Ownership – State of Utah – under the management of the SITLA – State Office, 675 East 500 South, Salt Lake City, Utah 84102; 801-538-5100.
- b. Surface Ownership – State of Utah – under the management of the SITLA – State Office, 675 East 500 South, Salt Lake City, Utah 84102; 801-538-5100.

**12. Other Information:**

- a. AIA has conducted a Class III archeological survey. A copy of the report was submitted under separate cover to the appropriate agencies with the first filing of this proposed APD
- b. Alden Hamblin conducted a paleontological survey. A copy of the original report was submitted under separate cover to the appropriate agencies with the first filing of this proposed APD.
- c. No drainage crossings that require additional State or Federal approval are being crossed.
- d. An off-lease Right-of-Way is necessary prior to any construction outside of State Section 22.

**Returned Unapproved**  
**CONFIDENTIAL**

**XTO ENERGY, INC.**  
**KINGS CANYON #14-32E & #13-32E**  
LOCATED IN UINTAH COUNTY, UTAH  
SECTION 32, T10S, R19E, S.L.B.&M.

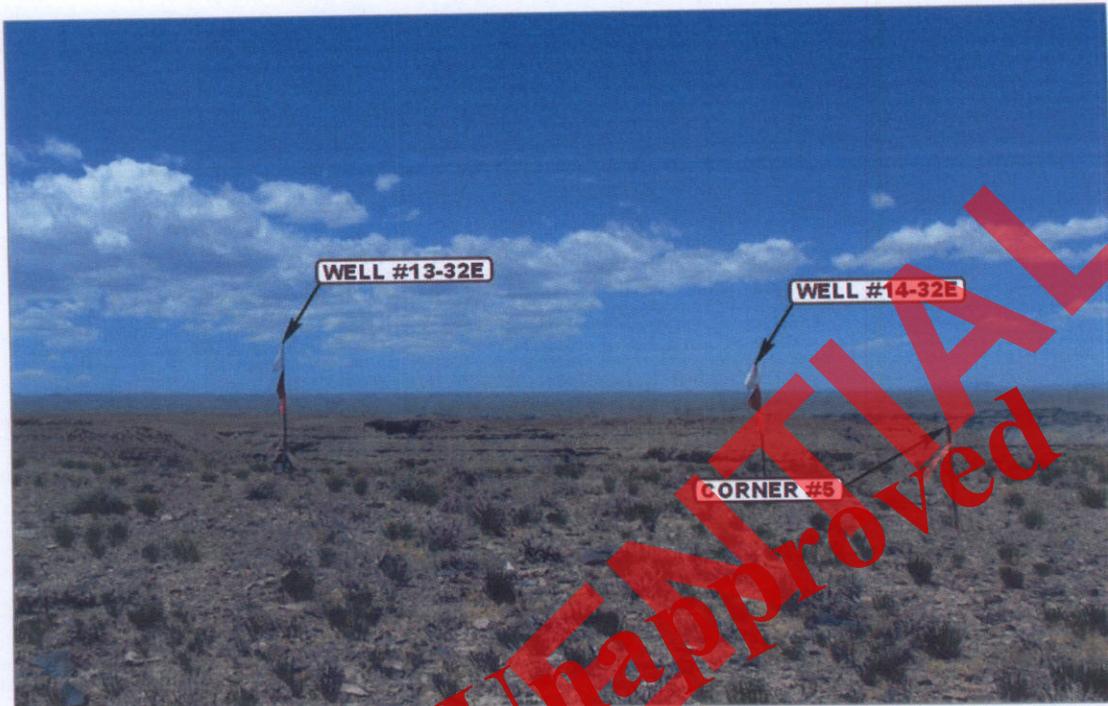


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHWESTERLY



- Since 1964 -

Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	05	25	06	PHOTO
	MONTH	DAY	YEAR	
TAKEN BY: B.B.	DRAWN BY: C.H.	REV: 10-06-11 C.I.		

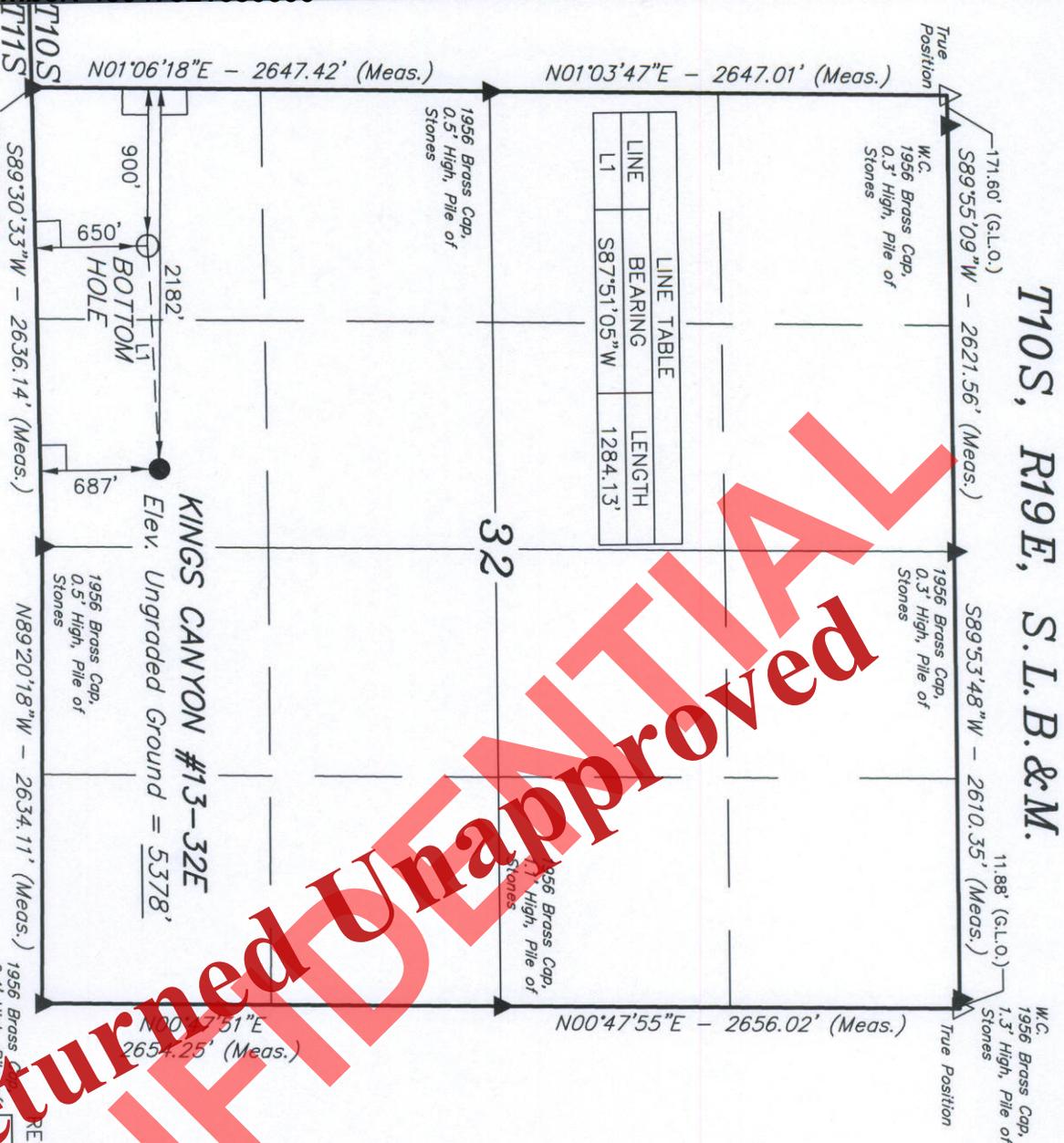
T10S, R19E, S.1.B.&M.

XTO ENERGY, INC.

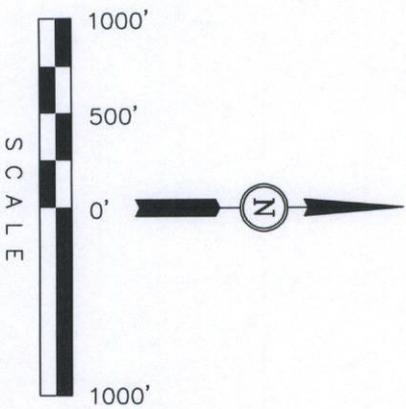
Well location, KINGS CANYON #13-32E, located as shown in the SE 1/4 SW 1/4 of Section 32, T10S, R19E, S.L.B.&M., Uintah County Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN. NW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.



LINE	BEARING	LENGTH
L1	S87°51'05\"W	1284.13'



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM THE FIELD NOTES OF ACTUAL SURVEY MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

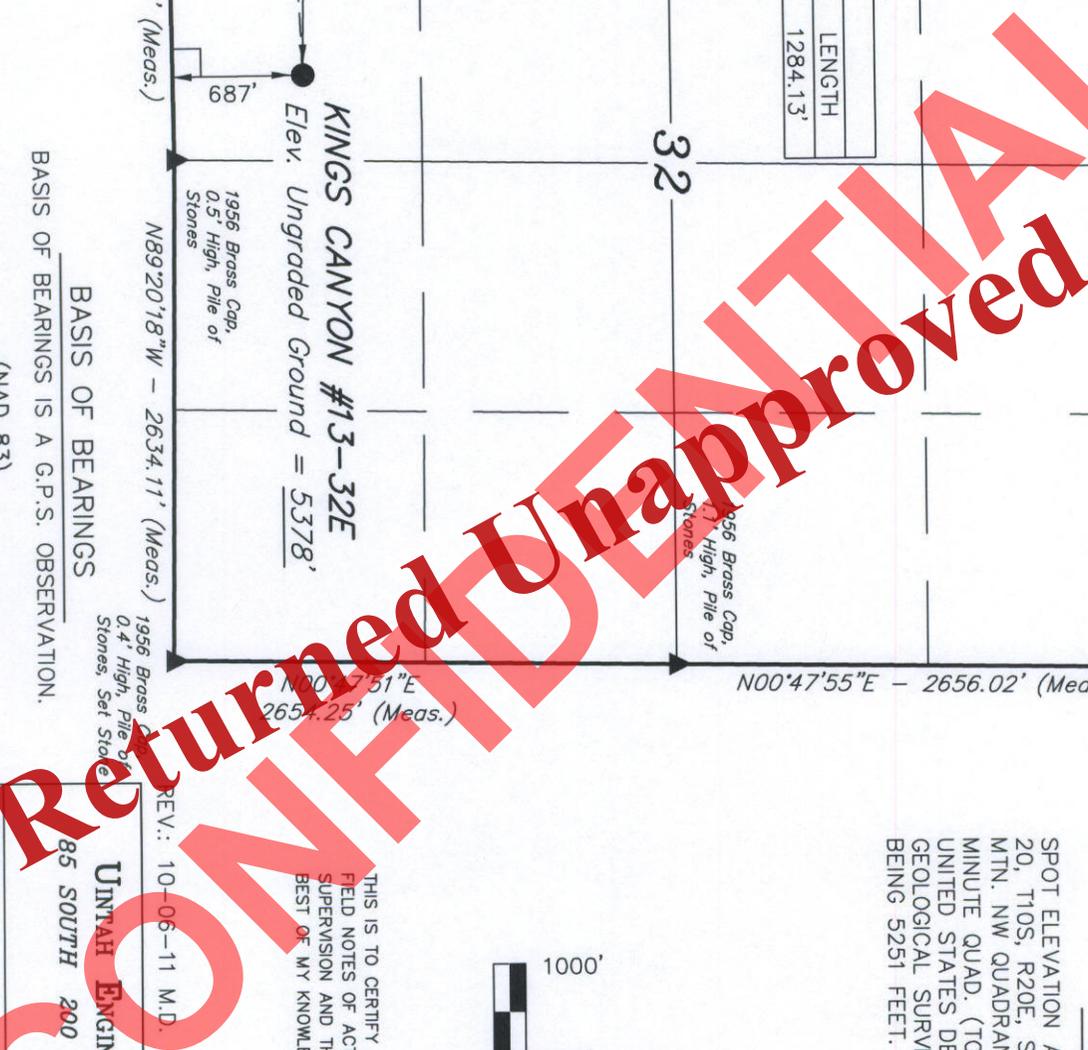
REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 161319  
 STATE OF UTAH

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.  
 (NAD 83)  
 LATITUDE = 39°53'53.45" (39.898181)  
 LONGITUDE = 109°48'26.02" (109.807228)  
 (NAD 27)  
 LATITUDE = 39°53'53.58" (39.898217)  
 LONGITUDE = 109°48'23.51" (109.806531)

UTAH ENGINEERING & LAND SURVEYING  
 85 SOUTH 200 EAST - VERNAL, UTAH 84078  
 (435) 789-1017

- LEGEND:
- = 90° SYMBOL
  - = PROPOSED WELL HEAD.
  - ▲ = SECTION CORNERS LOCATED.

SCALE	1" = 1000'	DATE SURVEYED:	06-05-06	DATE DRAWN:	06-09-06
PARTY	B.B. B.C. L.K.	REFERENCES	G.L.O. PLAT		
WEATHER	WARM	FILE	XTO ENERGY, INC.		



XTO ENERGY, INC.  
KINGS CANYON #14-32E & #13-32E  
SECTION 32, T10S, R19E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.1 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 2.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN NORTHERLY DIRECTION APPROXIMATELY 5.1 MILES TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE #16-32E TO THE WEST; FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 350' TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY, THEN SOUTHWESTERLY, THEN NORTHERLY, THEN SOUTHWESTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.6 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 62.5 MILES.



Returned Unapproved  
 ONLY  
 TOPO

**LEGEND:**

- PROPOSED LOCATION

**U&L S** Uintah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

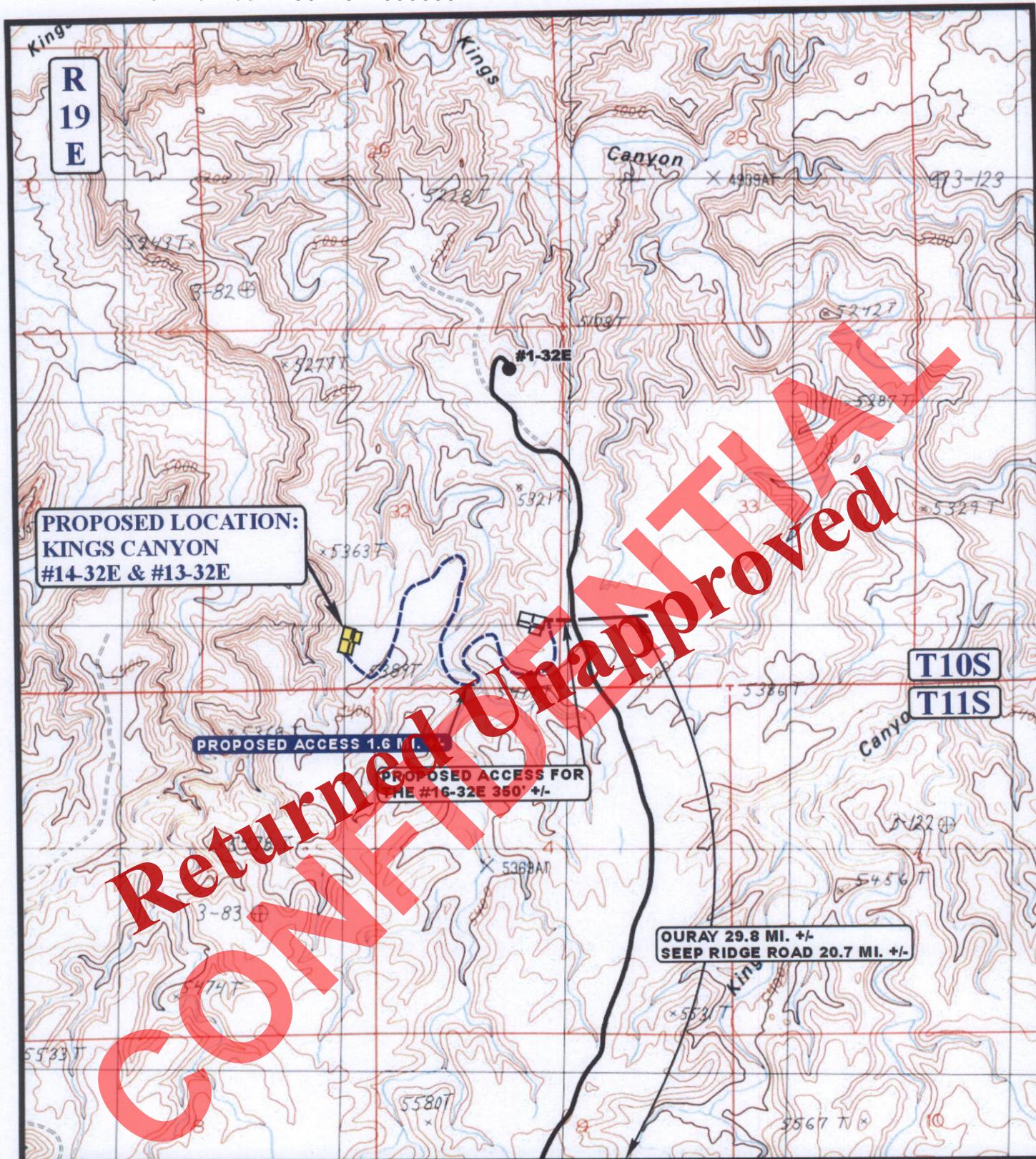
**XTO ENERGY, INC.**

**KINGS CANYON #14-32E # 13-32E  
SECTION 32, T10S, R19E, S.L.B.&M.  
SE 1/4 SW 1/4**

**TOPOGRAPHIC MAP** 05 25 06  
 MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: C.H. REV: 10-06-11 C.I.

**TOPO**



**LEGEND:**

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD



**XTO ENERGY, INC.**

**KINGS CANYON #14-32E & #13-32E**  
**SECTION 32, T10S, R19E, S.L.B.&M.**  
**SE 1/4 SW 1/4**

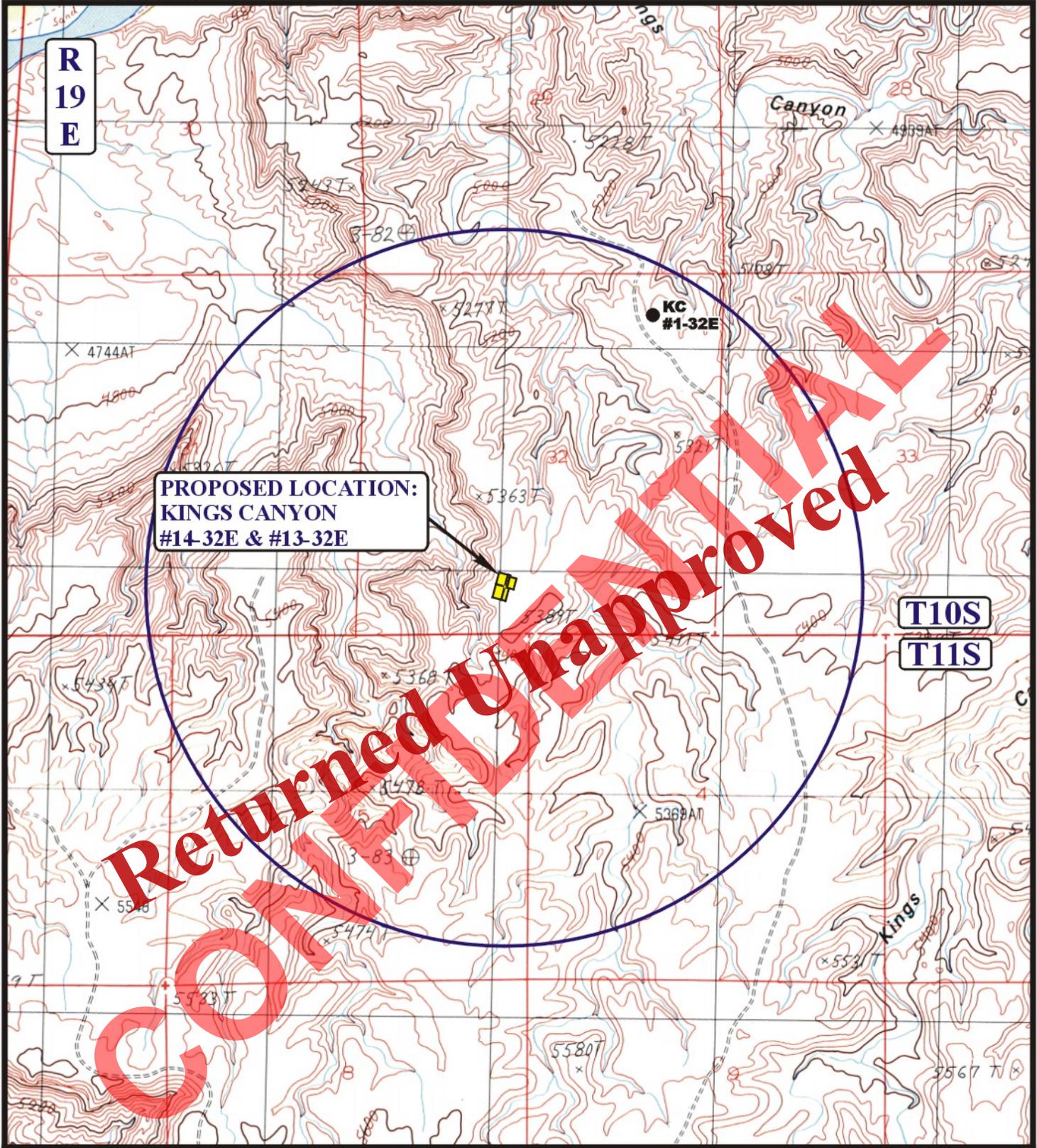
**UELS** Uintah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC MAP** 05 25 06  
 MONTH DAY YEAR  
 SCALE: 1" = 2000' DRAWN BY: C.H. REV: 10-06-11 C.L. **B TOPO**

EXHIBIT B

API Well Number: 43047521050000

R  
19  
E



PROPOSED LOCATION:  
KINGS CANYON  
#14-32E & #13-32E

T10S  
T11S

**LEGEND:**

- ⊗ DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- ⊗ WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

XTO ENERGY, INC.

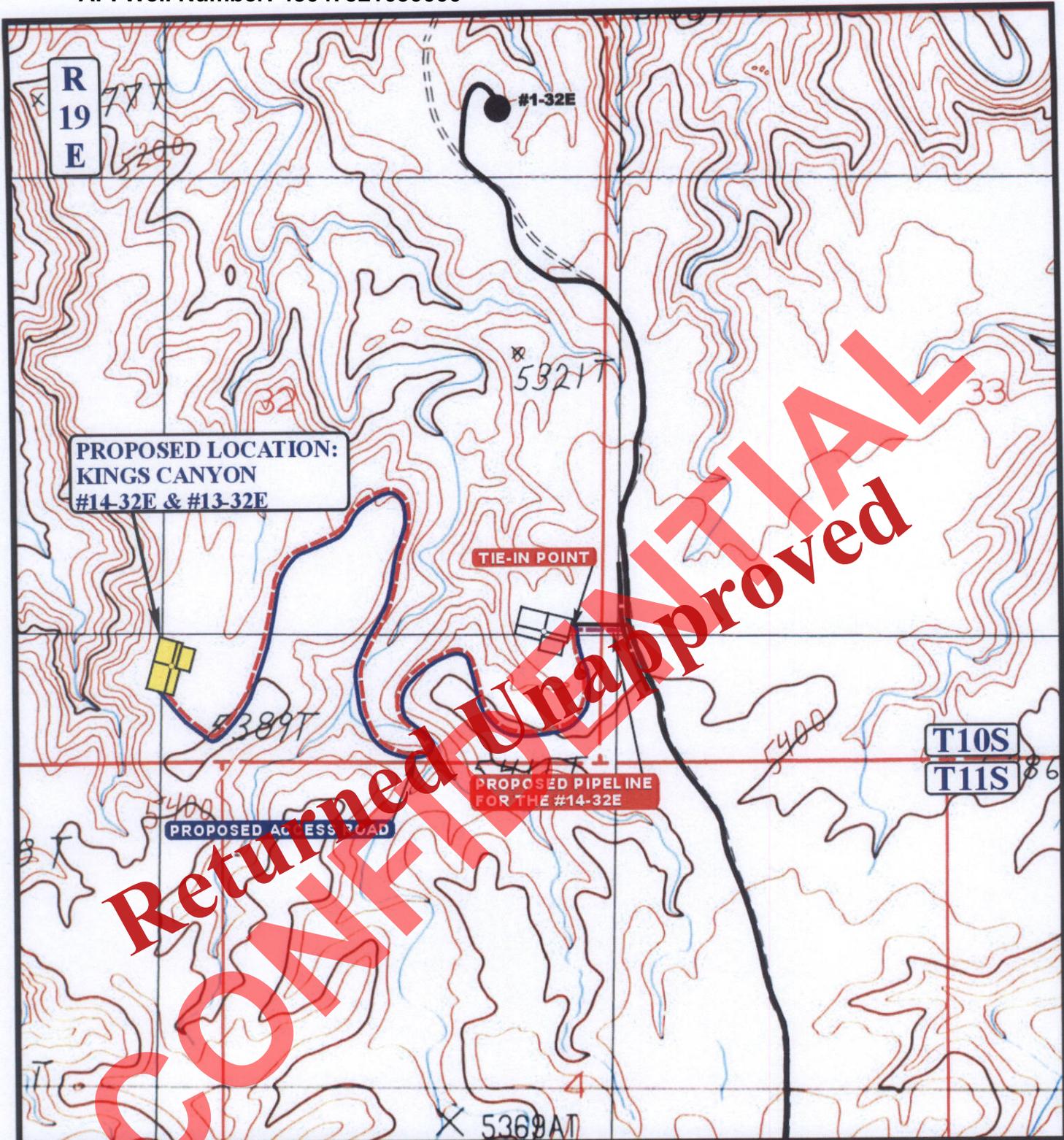
**KINGS CANYON #14-32E & #13-32E**  
**SECTION 32, T10S, R19E, S.L.B.&M.**

687' FSL & 2182' FWL

**U&S** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC** 05 25 06  
**MAP** MONTH DAY YEAR  
SCALE: 1" = 2000' DRAWN BY: C.H. REV: 11-17-11 C.I.

**C**  
**TOPO**



APPROXIMATE TOTAL PIPELINE DISTANCE = 8290' +/-

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE

**XTO ENERGY, INC.**

**KINGS CANYON #14-32E & #13-32E  
SECTION 32, T10S, R19E, S.L.B.&M.  
SE 1/4 SW 1/4**

**U&L S** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC MAP** 05 25 06  
MONTH DAY YEAR  
SCALE: 1" = 1000' DRAWN BY: C.H. REV: 10-06-11 C.L.

**D**  
TOPO

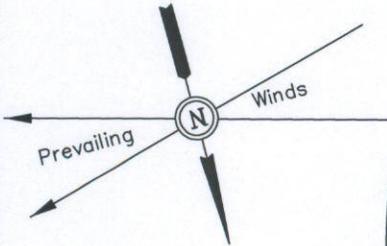
EXHIBIT D

XTO ENERGY, INC.

LOCATION LAYOUT FOR

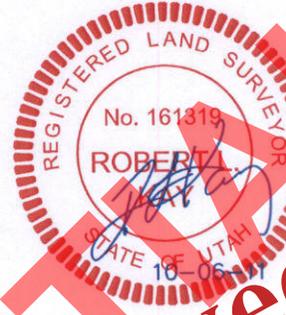
KINGS CANYON #14-32E & #13-32E  
SECTION 32, T10S, R19E, S.L.B.&M.  
SE 1/4 SW 1/4

F-0.5'  
El. 73.2'



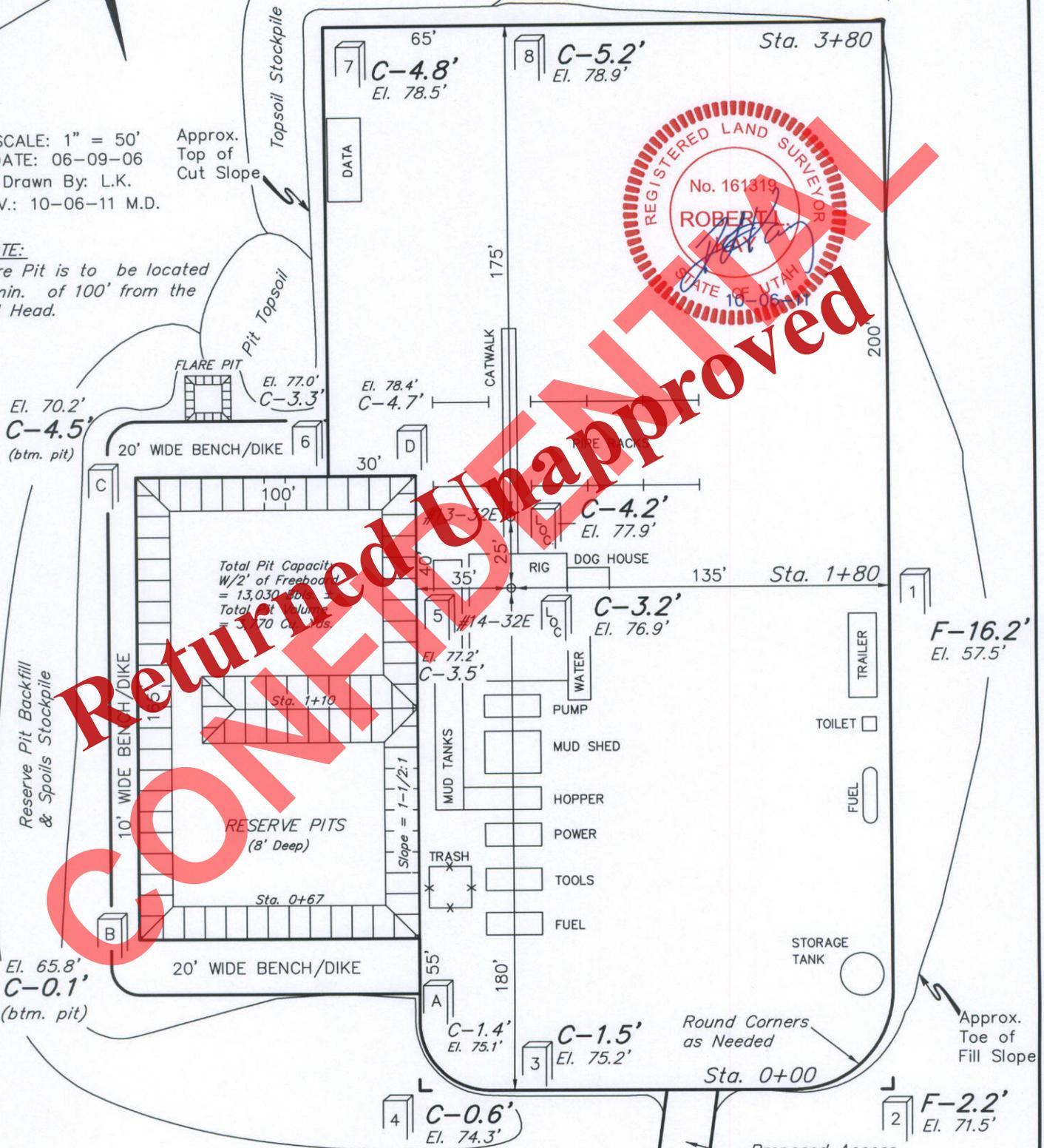
SCALE: 1" = 50'  
DATE: 06-09-06  
Drawn By: L.K.  
REV.: 10-06-11 M.D.

Approx. Top of Cut Slope



NOTE:

Flare Pit is to be located a min. of 100' from the Well Head.



Elev. Ungraded Ground at #14-32E Location Stake = 5376.9'  
Elev. Graded Ground at #14-32E Location Stake = 5373.7'

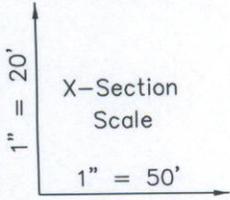
UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

EXHIBIT E

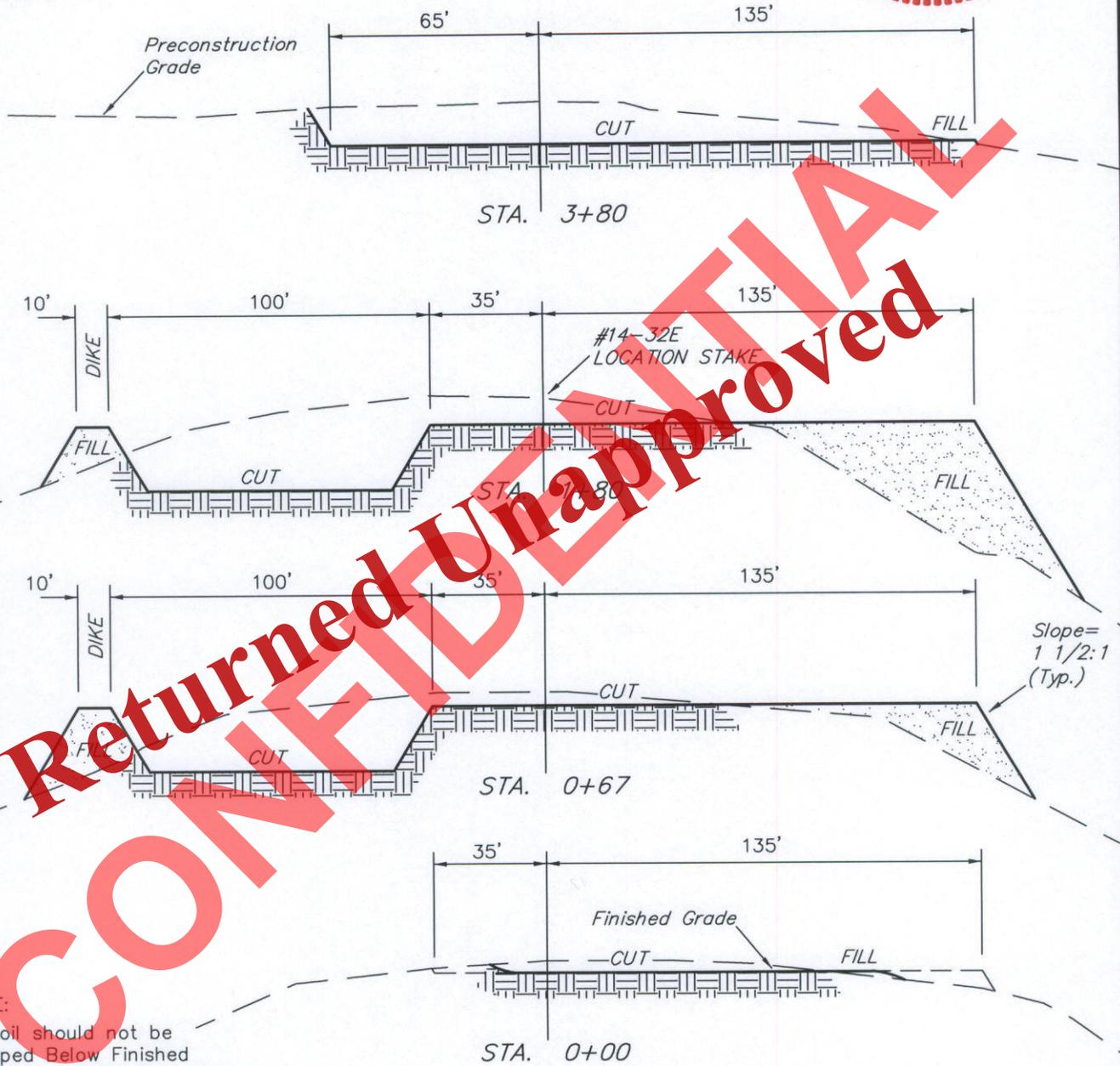
Received: October 10, 2011

XTO ENERGY, INC.

TYPICAL CROSS SECTIONS FOR  
 KINGS CANYON #14-32E & #13-32E  
 SECTION 32, T10S, R19E, S.L.B.&M.  
 SE 1/4 SW 1/4



DATE: 06-09-06  
 Drawn By: L.K.  
 REV.: 10-06-11 M.D.



CONFIDENTIAL  
 Returned Unapproved

NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE YARDAGES

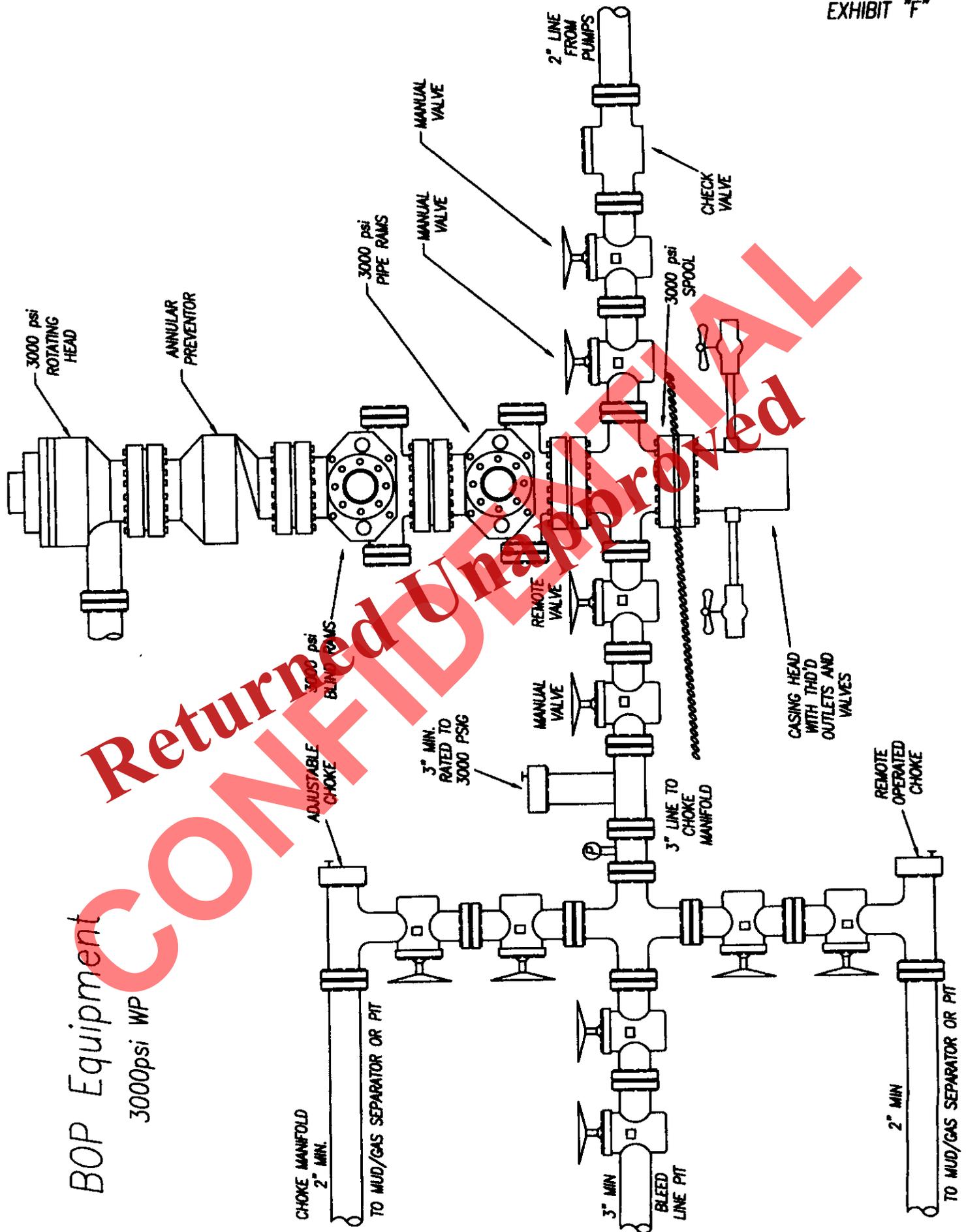
CUT		
(6") Topsoil Stripping	=	1,980 Cu. Yds.
Remaining Location	=	8,640 Cu. Yds.
<b>TOTAL CUT</b>	<b>=</b>	<b>10,620 CU.YDS.</b>
<b>FILL</b>	<b>=</b>	<b>6,750 CU.YDS.</b>

\* NOTE:

FILL QUANTITY INCLUDES 5% FOR COMPACTION

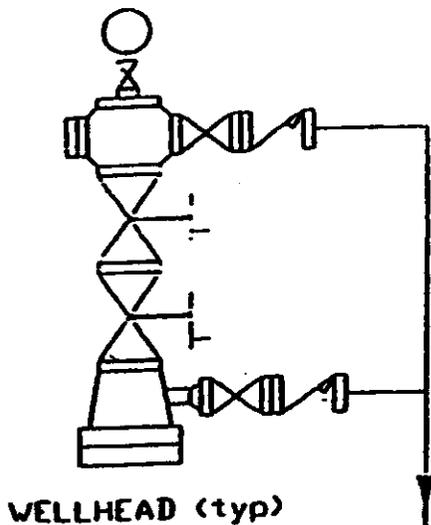
EXCESS MATERIAL	=	3,870 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	3,870 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING  
 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

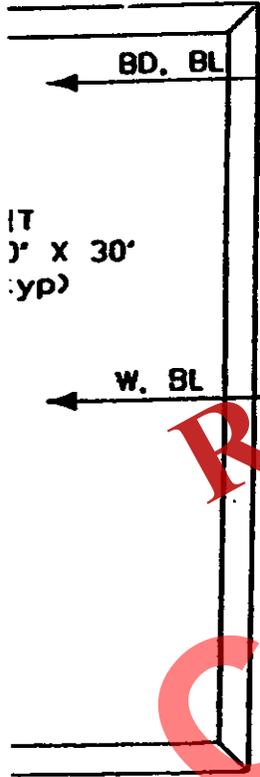


BOP Equipment  
3000psi WP

Returned Unapproved  
 CONFIDENTIAL

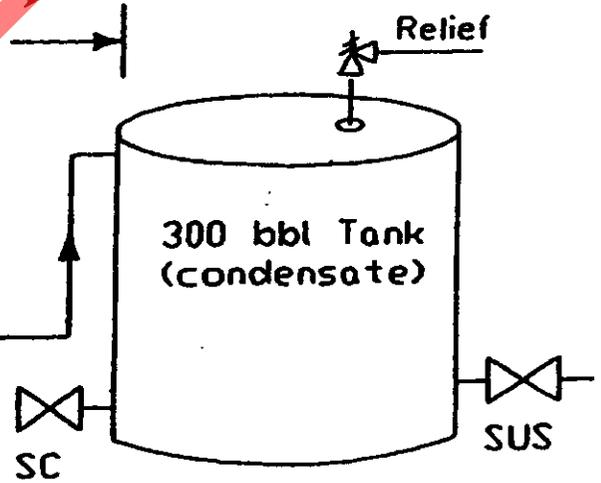


BL, G, C, W  
(± 100')



**LEGEND**

- O = Oil Line
- G = Gas Line
- V = Water Line
- R = Relief Line (Pressure)
- C = Condensate Line
- V = Vent Line
- D = Drain Line
- M = Gas Meter
- P = Pump
- BP = Back Pressure Valve
- SVS = Sealed When Shipping
- SUS = Sealed Unless Shipping
- T = Heat Traced Line
- H = Heater
- BL = Buried Line
- ⊗ = Valve
- ⌞ = Check Valve
- SC = Sealed Closed Valve
- NC = Normally Closed
- BD = Blowdown Line



The site security plan is on file in DEP's district office located at 1400 N. State St., Roosevelt, Utah. It can be inspected during office hours, from 6:30 AM thru 3:30 PM, Monday thru Friday..



October 10, 2011

State of Utah  
Division of Oil, Gas and Mining  
PO BOX 145801  
Salt Lake City, UT 84114

RE: Directional Drilling Regulation R649-3-11

Well Name: KC 13-32E  
Surface Location: 687' FSL & 2182' FWL, SE/4 SW/4  
BHL: 650' FSL & 900' FWL, SW/4 SW/4  
Section 32, T10S, R19E, SLB&M, Uintah County, Utah

To Whom It May Concern:

Pursuant to the filing of XTO Energy Inc. Application of Permit to Drill, regarding the proposed KC 13-32E on October 10, 2011, we are hereby submitting this letter in accordance with Oil and Gas Conservation Rule R649-3-11 pertaining to Location and Sitting 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 se 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 within the Unit Area. XTO Energy Inc. is the sole 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.

Please feel free to contact me with any questions you may have.

Thank you,

Krista Wilson  
Permitting Tech.  
XTO Energy Inc.  
505-333-6647  
Krista\_wilson@xtoenergy.com

Operator Certification:

a. Permitting and Compliance:

Krista Wilson  
Permitting Tech.  
XTO Energy Inc.  
382 CR 3100  
Aztec NM 87410  
505-333-3100

b. Drilling and Completions:

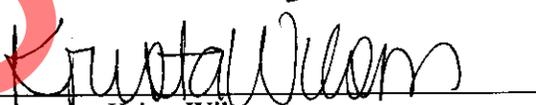
Justin Niederhofer  
XTO Energy Inc.  
382 CR 3100  
Aztec, NM 87410  
505-333-3100

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 10th day of October, 2011.

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

  
\_\_\_\_\_  
Krista Wilson

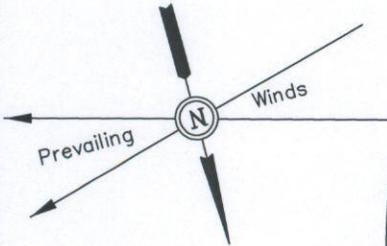
Returned Unapproved  
CONFIDENTIAL

XTO ENERGY, INC.

LOCATION LAYOUT FOR

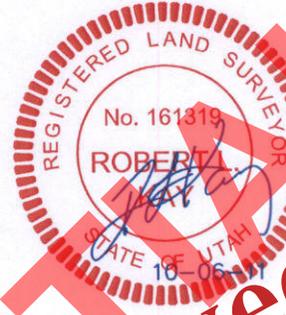
KINGS CANYON #14-32E & #13-32E  
SECTION 32, T10S, R19E, S.L.B.&M.  
SE 1/4 SW 1/4

F-0.5'  
El. 73.2'



SCALE: 1" = 50'  
DATE: 06-09-06  
Drawn By: L.K.  
REV.: 10-06-11 M.D.

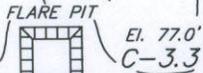
Approx.  
Top of  
Cut Slope



NOTE:

Flare Pit is to be located  
a min. of 100' from the  
Well Head.

El. 70.2'  
C-4.5'  
(btm. pit)



20' WIDE BENCH/DIKE  
10' WIDE BENCH/DIKE  
Reserve Pit Backfill  
& Spoils Stockpile

Total Pit Capacity  
W/2' of Freeboard  
= 13,030 cu. yds.  
Total Pit Volume  
= 3,170 cu. yds.

RESERVE PITS  
(8' Deep)

El. 65.8'  
C-0.1'  
(btm. pit)

4 C-0.6'  
El. 74.3'

C-1.4'  
El. 75.1'

C-1.5'  
El. 75.2'

F-16.2'  
El. 57.5'

2 F-2.2'  
El. 71.5'

Round Corners  
as Needed

Approx.  
Toe of  
Fill Slope

Elev. Ungraded Ground at #14-32E Location Stake = 5376.9'  
Elev. Graded Ground at #14-32E Location Stake = 5373.7'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

EXHIBIT E

Received: October 10, 2011

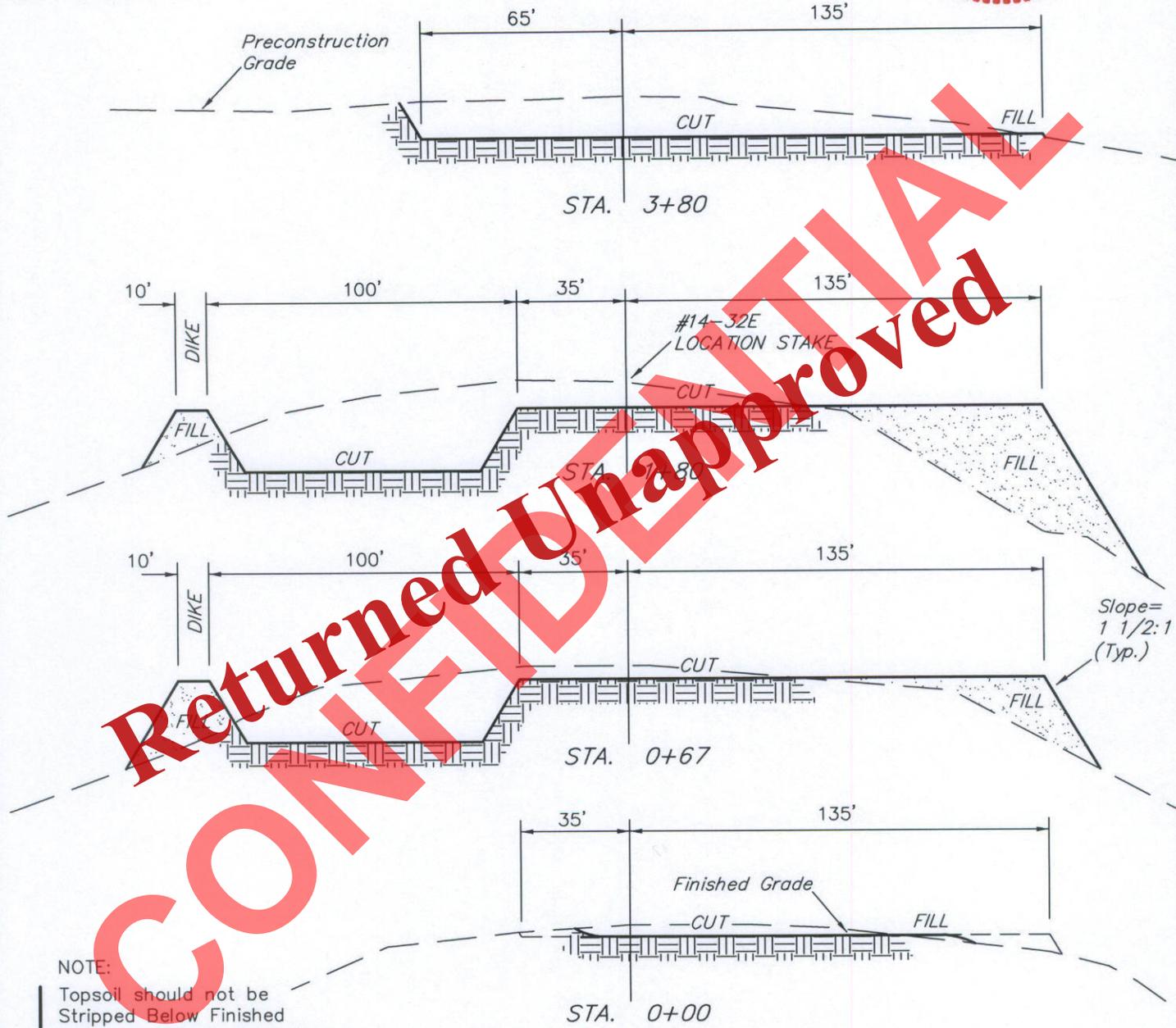
XTO ENERGY, INC.

TYPICAL CROSS SECTIONS FOR  
 KINGS CANYON #14-32E & #13-32E  
 SECTION 32, T10S, R19E, S.L.B.&M.  
 SE 1/4 SW 1/4



1" = 20'  
 X-Section Scale  
 1" = 50'

DATE: 06-09-06  
 Drawn By: L.K.  
 REV.: 10-06-11 M.D.



NOTE:  
 Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,980 Cu. Yds.
Remaining Location	= 8,640 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 10,620 CU.YDS.</b>
<b>FILL</b>	<b>= 6,750 CU.YDS.</b>

\* NOTE:  
 FILL QUANTITY INCLUDES 5% FOR COMPACTION

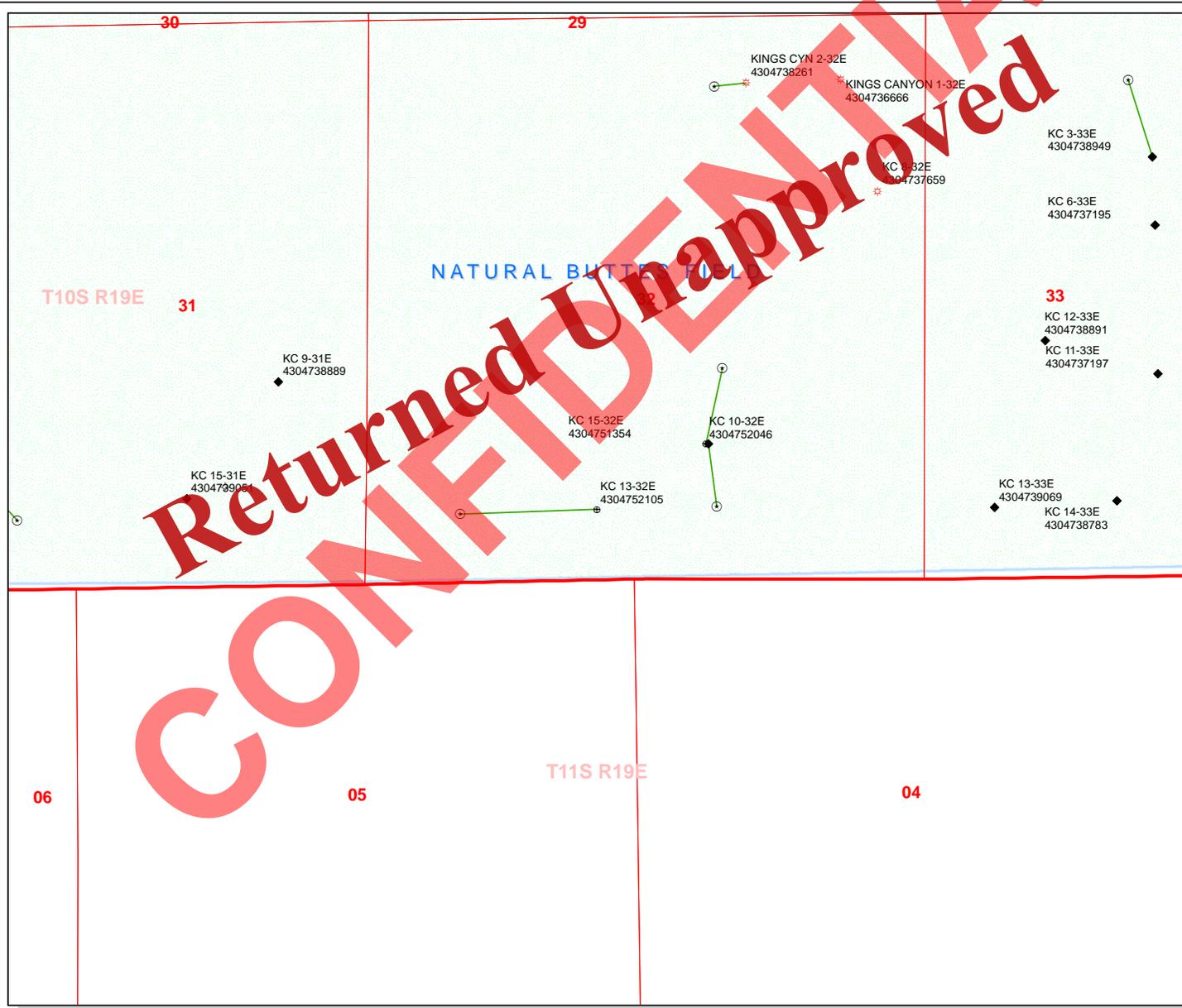
EXCESS MATERIAL	= 3,870 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,870 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 0 Cu. Yds.

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 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

CONFIDENTIAL  
 Returned Unapproved

CONFIDENTIAL

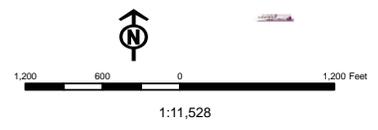
Returned Unapproved



**API Number: 4304752105**  
**Well Name: KC 13-32E**  
**Township T10.S Range R1.9 Section 32**  
**Meridian: SLBM**  
**Operator: XTO ENERGY INC**

Map Prepared:  
 Map Produced by Diana Mason

Units STATUS	Wells Query Status
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LA - Location Abandoned
PI OIL	LOC - New Location
PP GAS	OPS - Operation Suspended
PP GEOTHERM	PA - Plugged Abandoned
PP OIL	PGW - Producing Gas Well
SECONDARY	POW - Producing Oil Well
TERMINATED	RET - Returned APD
Unknown	SGW - Shut-in Gas Well
ABANDONED	SOW - Shut-in Oil Well
ACTIVE	TA - Temp. Abandoned
COMBINED	TW - Test Well
INACTIVE	WDW - Water Disposal
STORAGE	WWI - Water Injection Well
TERMINATED	WSW - Water Supply Well



# API Well Number: 43047521050000

BOPE REVIEW XTO ENERGY INC KC 13-32E 43047521050000

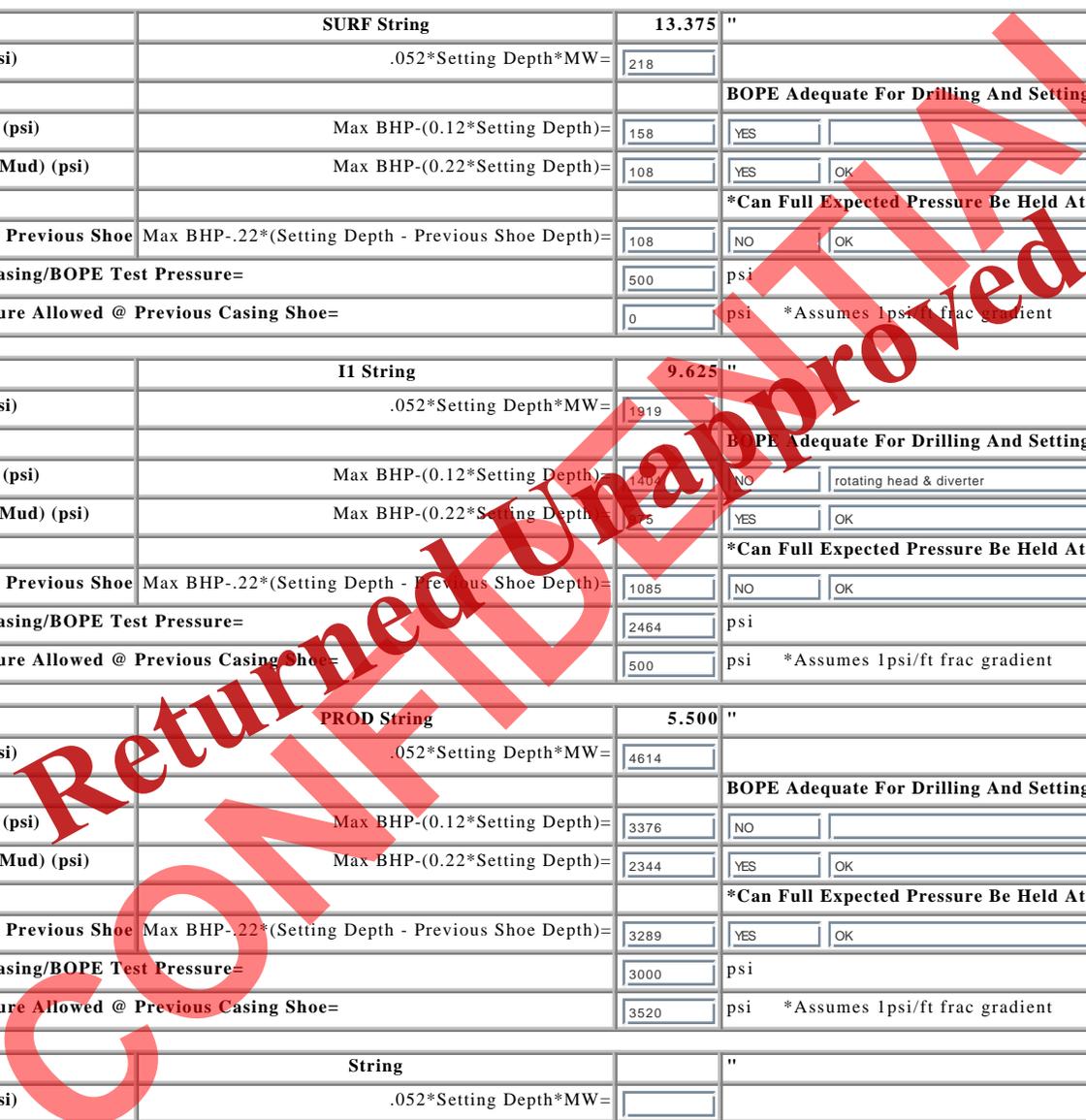
Well Name	XTO ENERGY INC KC 13-32E 43047521050000			
String	SURF	I1	PROD	
Casing Size(")	13.375	9.625	5.500	
Setting Depth (TVD)	500	4292	10317	
Previous Shoe Setting Depth (TVD)	0	500	4292	
Max Mud Weight (ppg)	8.4	8.6	8.6	
BOPE Proposed (psi)	500	1000	3000	
Casing Internal Yield (psi)	1730	3520	7740	
Operators Max Anticipated Pressure (psi)	4600		8.6	

Calculations	<b>SURF String</b>	<b>13.375</b>	"	
Max BHP (psi)	.052*Setting Depth*MW=	218		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	158	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	108	YES	OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	108	NO	OK
Required Casing/BOPE Test Pressure=		500	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient	

Calculations	<b>I1 String</b>	<b>9.625</b>	"	
Max BHP (psi)	.052*Setting Depth*MW=	1919		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	1405	NO	rotating head & diverter
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	75	YES	OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1085	NO	OK
Required Casing/BOPE Test Pressure=		2464	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		500	psi *Assumes 1psi/ft frac gradient	

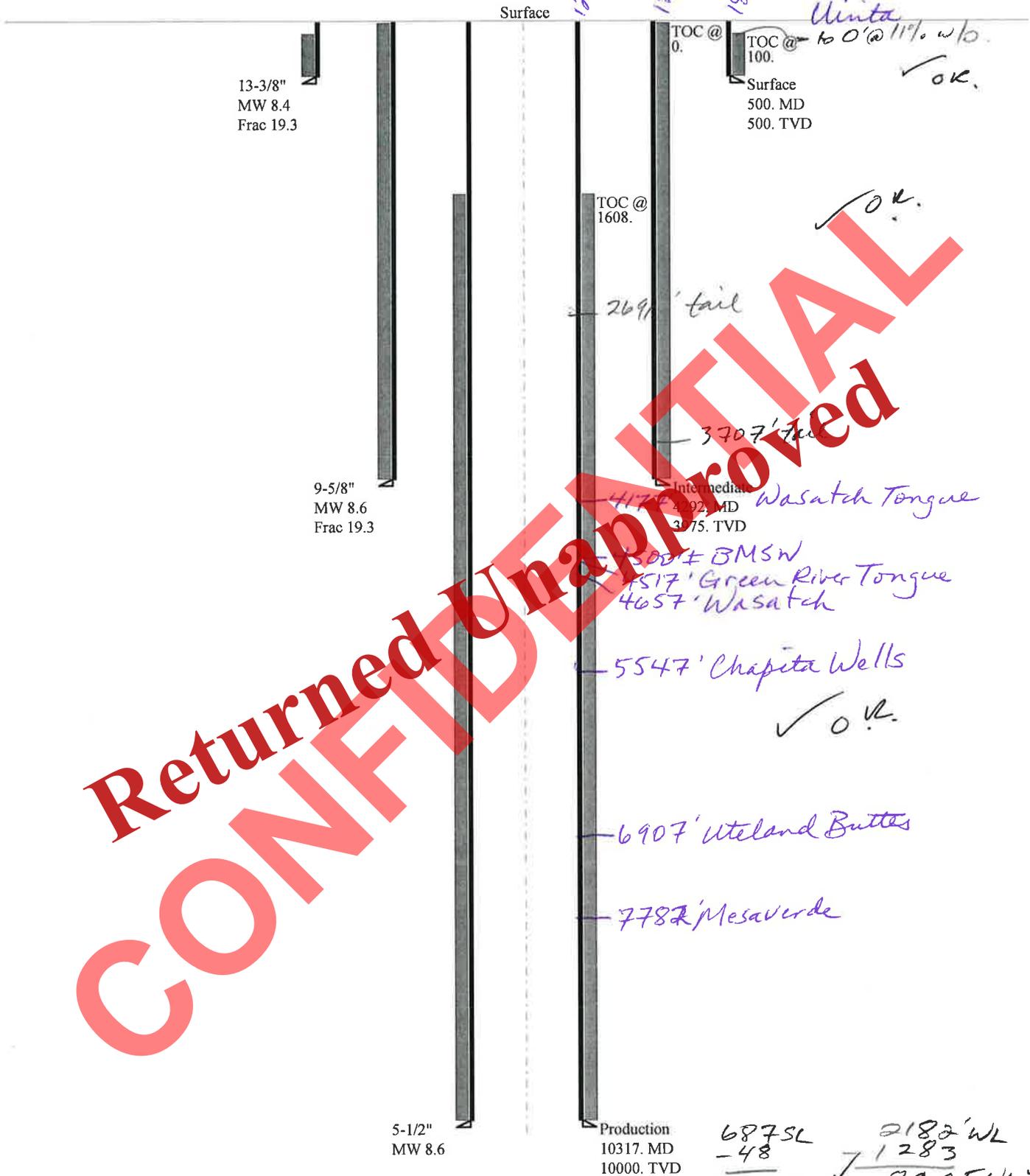
Calculations	<b>PROD String</b>	<b>5.500</b>	"	
Max BHP (psi)	.052*Setting Depth*MW=	4614		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3376	NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2344	YES	OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3289	YES	OK
Required Casing/BOPE Test Pressure=		3000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		3520	psi *Assumes 1psi/ft frac gradient	

Calculations	<b>String</b>		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	



43047521050000 KC 13-32E

Casing Schematic



13-3/8"  
MW 8.4  
Frac 19.3

9-5/8"  
MW 8.6  
Frac 19.3

5-1/2"  
MW 8.6

Production  
10317. MD  
10000. TVD

TOC @ 0.  
Surface  
500. MD  
500. TVD

TOC @ 1608.

Intermediate  
4175' 292' MD  
375. TVD

687SL 2182' WL  
 -48 7 1283  
 639FSL 899FWL ✓ OK

SW SW Sec 32-10S-19E

Returned Unapproved  
 CONFIDENTIAL

Uinta  
100' @ 11% w/b.  
✓ OK.

✓ OK.

✓ OK.

✓ OK.

Well name:	43047521050000 KC 13-32E	
Operator:	XTO ENERGY INC	Project ID:
String type:	Surface	43-047-52105
Location:	UINTAH COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 8.400 ppg  
 Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 440 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP: 500 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: 1.70 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Tension is based on air weight.  
 Neutral point: 438 ft

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 81 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
 Cement top: 100 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 4,292 ft  
 Next mud weight: 8.600 ppg  
 Next setting BHP: 1,917 psi  
 Fracture mud wt: 19,250 ppg  
 Fracture depth: 500 ft  
 Injection pressure: 500 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)	Est. Cost (\$)
1	500	13.375	48.00	H-40	ST&C	500	500	12.59	6199
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	213	740	3.392	500	1730	3.46	24	322	13.42 J

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

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

Date: January 4, 2012  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 500 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. 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:	43047521050000 KC 13-32E		
Operator:	XTO ENERGY INC		
String type:	Intermediate	Project ID:	43-047-52105
Location:	UINTAH COUNTY		

**Design parameters:**

**Collapse**

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

**Burst**

Max anticipated surface pressure: 2,339 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP: 3,214 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: 1.70 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Tension is based on air weight.  
 Neutral point: 3,786 ft

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 130 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
  
 Cement top: Surface

**Directional Info - Build & Drop**

Kick-off point: 540 ft  
 Departure at shoe: 1284 ft  
 Maximum dogleg: 3 °/100ft  
 Inclination at shoe: 0 °

**Re subsequent strings:**

Next setting depth: 10,317 ft  
 Next mud weight: 8.600 ppg  
 Next setting BHP: 4,609 psi  
 Fracture mud wt: 19,250 ppg  
 Fracture depth: 4,292 ft  
 Injection pressure: 4,292 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)	Est. Cost (\$)
1	4292	9.625	36.00	J-55	ST&C	3975	4292	8.796	37307

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	1776	2020	1.138	3214	3520	1.10	143.1	394	2.75 J

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

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

Date: January 4, 2012  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 3975 ft, a mud weight of 8.6 ppg. The casing is considered to be evacuated for collapse purposes. 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.

Well name:	43047521050000 KC 13-32E		
Operator:	XTO ENERGY INC		Project ID:
String type:	Production		43-047-52105
Location:	UINTAH COUNTY		

**Design parameters:**

**Collapse**

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

**Burst**

Max anticipated surface pressure: 2,267 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP: 4,467 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: 1.60 (B)

Tension is based on air weight.  
 Neutral point: 9,013 ft

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 214 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
  
 Cement top: 1,608 ft

**Directional Info - Build & Drop**

Kick-off point: 540 ft  
 Departure at shoe: 1284 ft  
 Maximum dogleg: 3 °/100ft  
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	10317	5.5	17.00	Mav-80	LT&C	10000	10317	4.767	85115

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	4467	6290	1.408	4467	7740	1.73	170	272.9	1.61 B

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

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

Date: January 4, 2012  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 10000 ft, a mud weight of 8.6 ppg. The casing is considered to be evacuated for collapse purposes. 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.



GARY R. HERBERT  
*Governor*

GREGORY S. 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*

August 09, 2012

XTO ENERGY INC  
382 Road 3100  
Aztec, NM 87410

Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the KC 13-32E well, API 43047521050000 that was submitted October 10, 2011 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason  
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah