

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

FORM 3  
 AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>					<b>1. WELL NAME and NUMBER</b> Vanterra Rush Lake #2		
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>					<b>3. FIELD OR WILDCAT</b> WILDCAT		
<b>4. TYPE OF WELL</b> Oil Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>					<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b>		
<b>6. NAME OF OPERATOR</b> TIDEWATER OIL & GAS COMPANY, LLC					<b>7. OPERATOR PHONE</b> 303 468-0656 201		
<b>8. ADDRESS OF OPERATOR</b> 110 16th St Ste 1220, Denver, CO, 80202					<b>9. OPERATOR E-MAIL</b> jjones@tidewater-oil.com		
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTPV003B-TR1			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>		<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>		
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b> Charles H. Esplin & Sons Land & Livestock Company					<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b> 435-586-8609		
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b> 138 North 500 West, Cedar City, UT 84720					<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b> jonswenson55@yahoo.com		
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>		<b>19. SLANT</b> VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>		
<b>20. LOCATION OF WELL</b>	<b>FOOTAGES</b>	<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>	
<b>LOCATION AT SURFACE</b>	667 FNL 2015 FWL	NENW	9	34.0 S	11.0 W	S	
<b>Top of Uppermost Producing Zone</b>	667 FNL 2015 FWL	NENW	9	34.0 S	11.0 W	S	
<b>At Total Depth</b>	667 FNL 2015 FWL	NENW	9	34.0 S	11.0 W	S	
<b>21. COUNTY</b> IRON			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 1025		<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 40		
			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 516		<b>26. PROPOSED DEPTH</b> MD: 5000 TVD: 5000		
<b>27. ELEVATION - GROUND LEVEL</b> 5384			<b>28. BOND NUMBER</b> 3-943-1262-4874		<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> Enoch City Corp System #11004		

**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"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input checked="" type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

<b>NAME</b> Walter Lowry	<b>TITLE</b> Engineer	<b>PHONE</b> 303 884-5505
<b>SIGNATURE</b>	<b>DATE</b> 05/20/2010	<b>EMAIL</b> wlowry@tidewater-oil.com
<b>API NUMBER ASSIGNED</b> 43021500010000	<b>APPROVAL</b>   Permit Manager	

**Proposed Hole, Casing, and Cement**

<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Cond	20	16	0	40		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade H-40 ST&C	40	65.0			

**CONFIDENTIAL**

**Proposed Hole, Casing, and Cement**

<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Surf	12.25	8.625	0	500		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade J-55 ST&C	500	24.0			

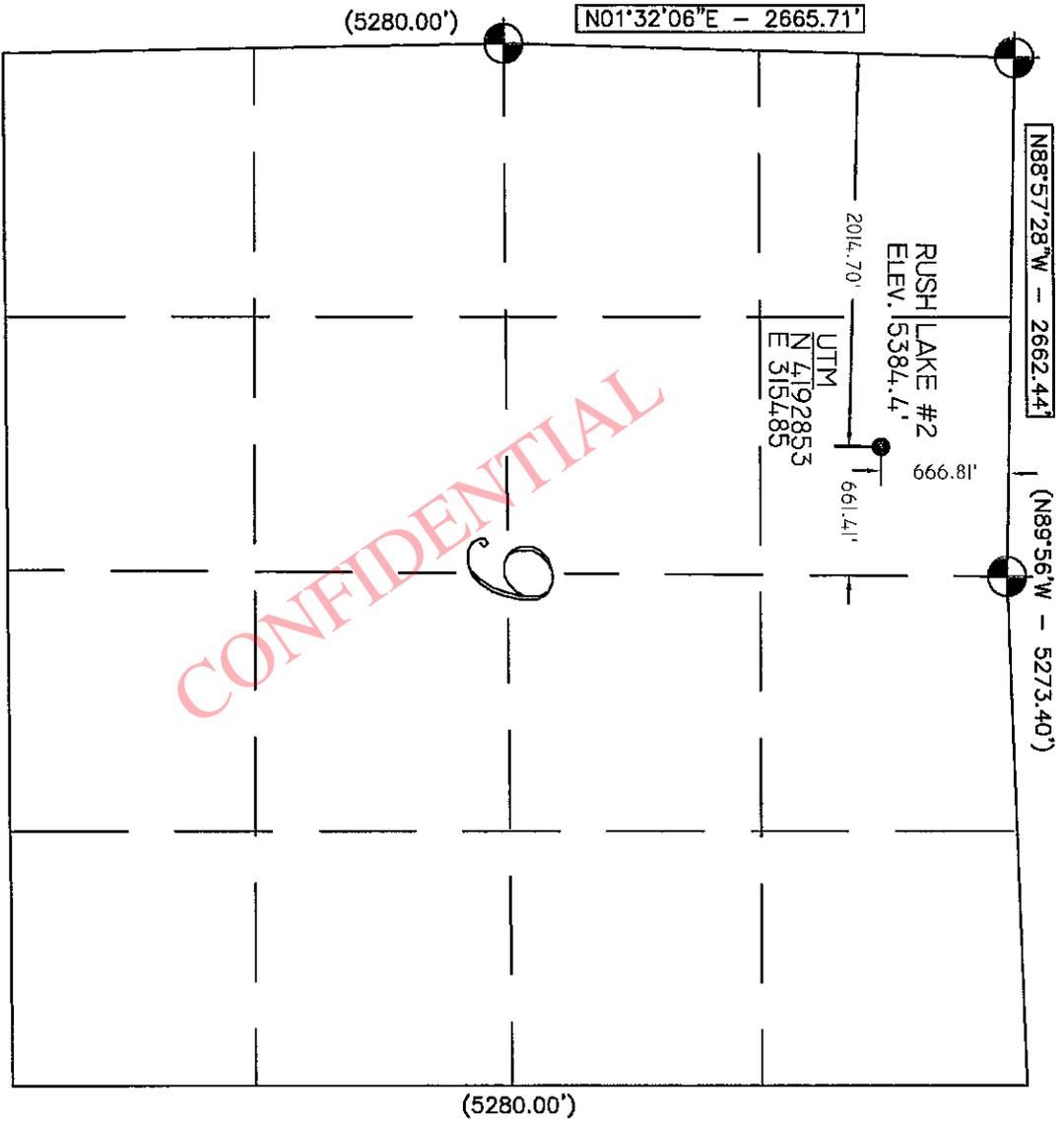
**CONFIDENTIAL**

<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Prod	7.875	5.5	0	5000		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade K-55 LT&C	5000	15.5			

CONFIDENTIAL

# Township 34 South

## Range 11 West



**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 5381.00' being at the Northeast Section Corner of Section 8, Township 34 South, Range 11 West, Salt Lake Base and Meridian, as shown on the Enoch Quadrangle 7.5 minute series map.

**Description of Location:**  
Proposed Drill Hole located in the NE/4 NW/4 of Section 9, T34S, R11W, S.L.B.&M., being South 666.81' from North Line and East 2014.70' from West Line of Section 9, T34S, R11W, Salt Lake Base and Meridian.



### Legend

- Drill Hole Location
- Stone (Found)
- Brass Cap (Searched for, but not found)
- △ Calculated Corner
- ( ) GLO
- GPS Measured

### NOTES:

1. Dimensions are GPS measured unless noted otherwise.
2. UTM and Latitude / Longitude Coordinates are derived using a GPS Pathfinder and are shown in NAD 27 Datum.

LAT / LONG
37°51'59" N
113°05'51" W

### GRAPHIC SCALE



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

**VANTERRA ENERGY INC.**

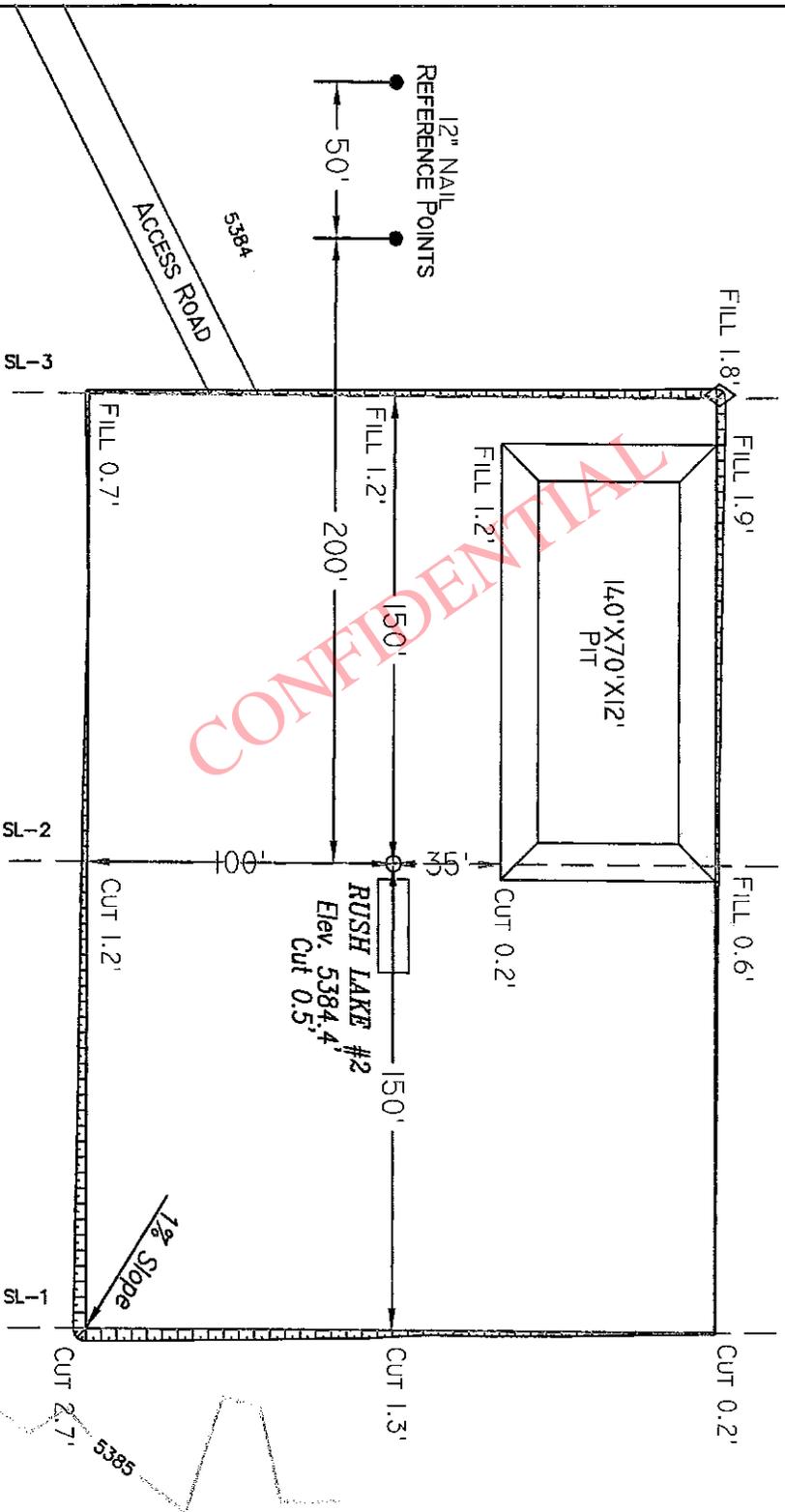
**RUSH LAKE #2**  
Section 9, T34S, R11W, S.L.B.&M.  
Iron County, Utah

Drawn By: N. BUTKOVICH  
Checked By: L.W.J./M.R.

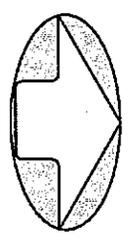
Drawing No: A-1  
Date: 05/17/10  
Scale: 1" = 1000'

Sheet 1 of 4  
Job No. 4557

ELEVATION OF UNGRADED GROUND AT LOCATION STAKE = 5384.4'  
 ELEVATION OF GRADED GROUND AT LOCATION STAKE = 5383.9'



CONFIDENTIAL

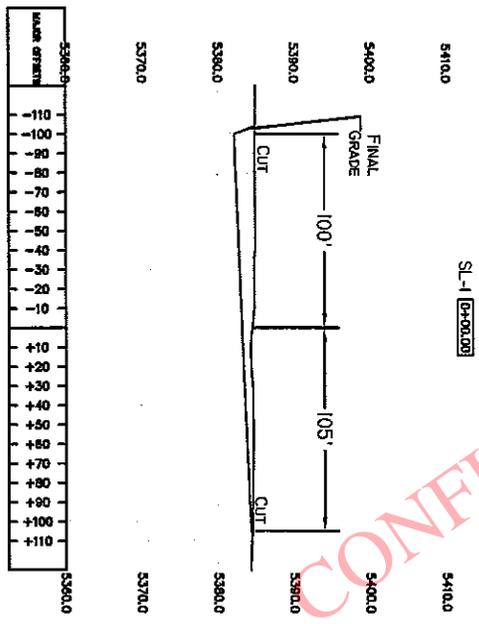
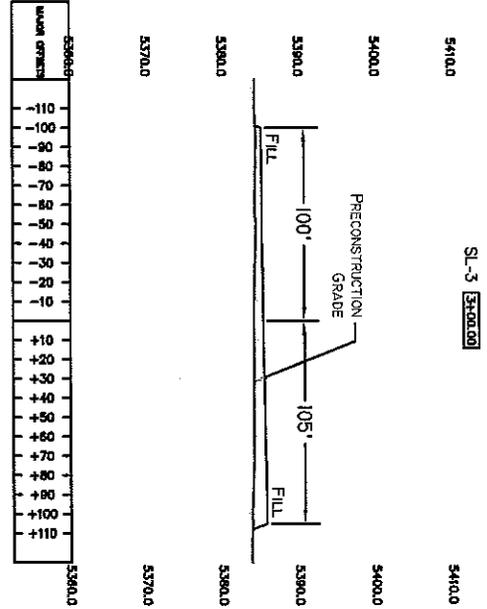
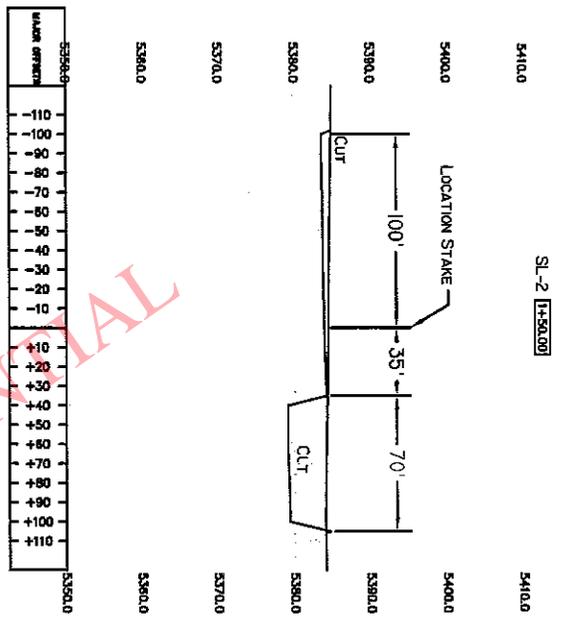


**TALON RESOURCES, INC.**  
 615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon@tr.net

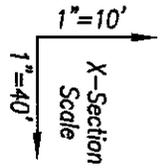
**VANTERRA ENERGY INC.**

**LOCATION LAYOUT**  
 Section 9, T34S, R11W, S.L.B.&M.  
**RUSH LAKE #2**

Drawing By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>A-2</b>	Date: <b>05/14/10</b>
	Scale: <b>1" = 60'</b>
Sheet <b>2</b> of <b>4</b>	Job No. <b>4557</b>



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



APPROXIMATE YARDAGES  
(6") TOPSOIL STRIPPING = 1,180 CU. YDS.  
TOTAL CUT (INCLUDING PIT) = 4,445 CU. YDS.  
TOTAL FILL = 320 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@trv.net

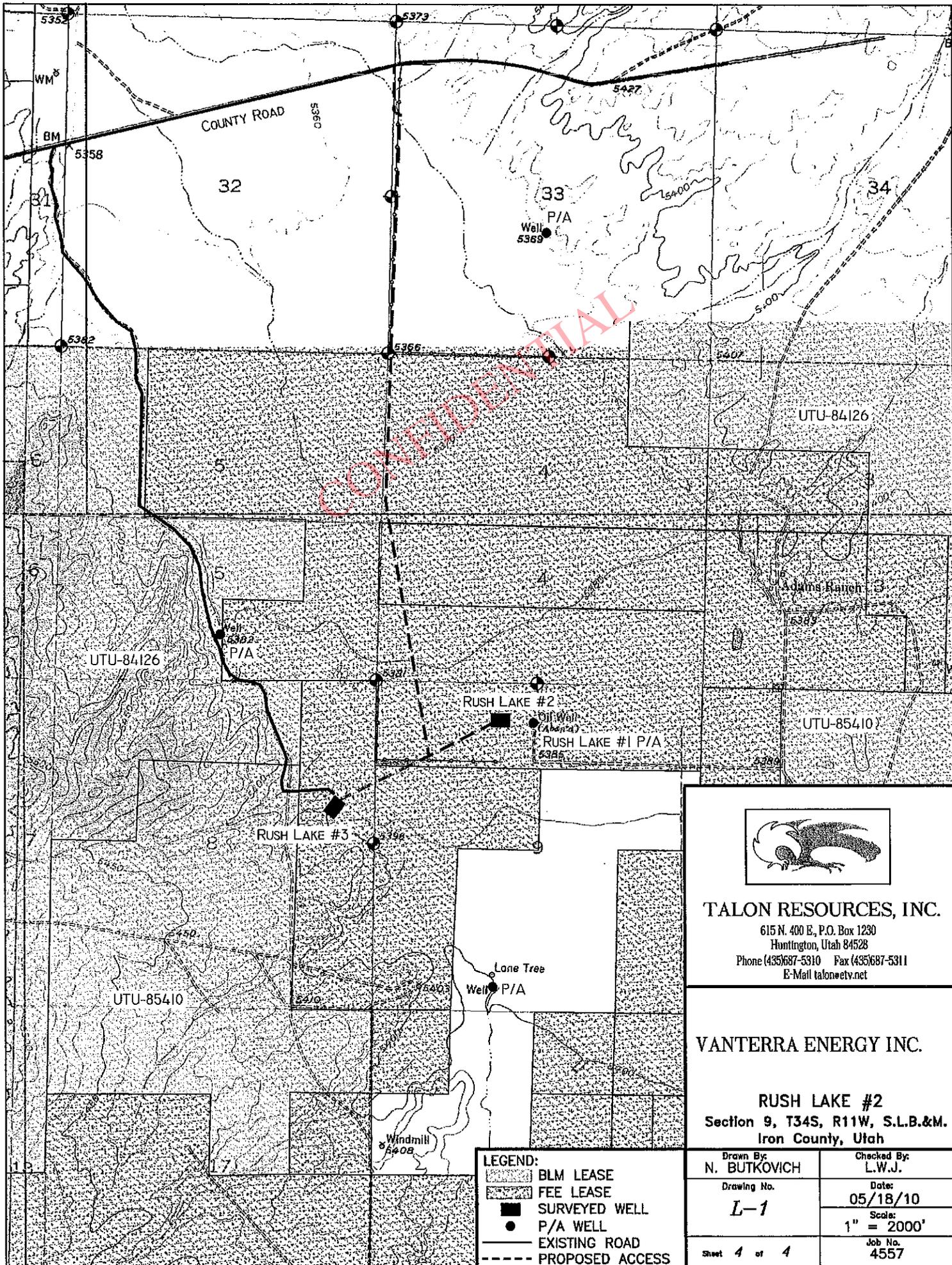
---

**VANTERRA ENERGY INC.**

---

**TYPICAL CROSS SECTION**  
Section 9, T34S, R11W, S.L.B.&M.  
RUSH LAKE #2

Drawn By <b>N. BUTKOVICH</b>	Checked By <b>L.W.J.</b>
Drawing No. <b>C-1</b>	Date: <b>05/14/10</b>
	Scale: <b>1" = 100'</b>
Sheet <b>3</b> of <b>4</b>	Job No. <b>4557</b>



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

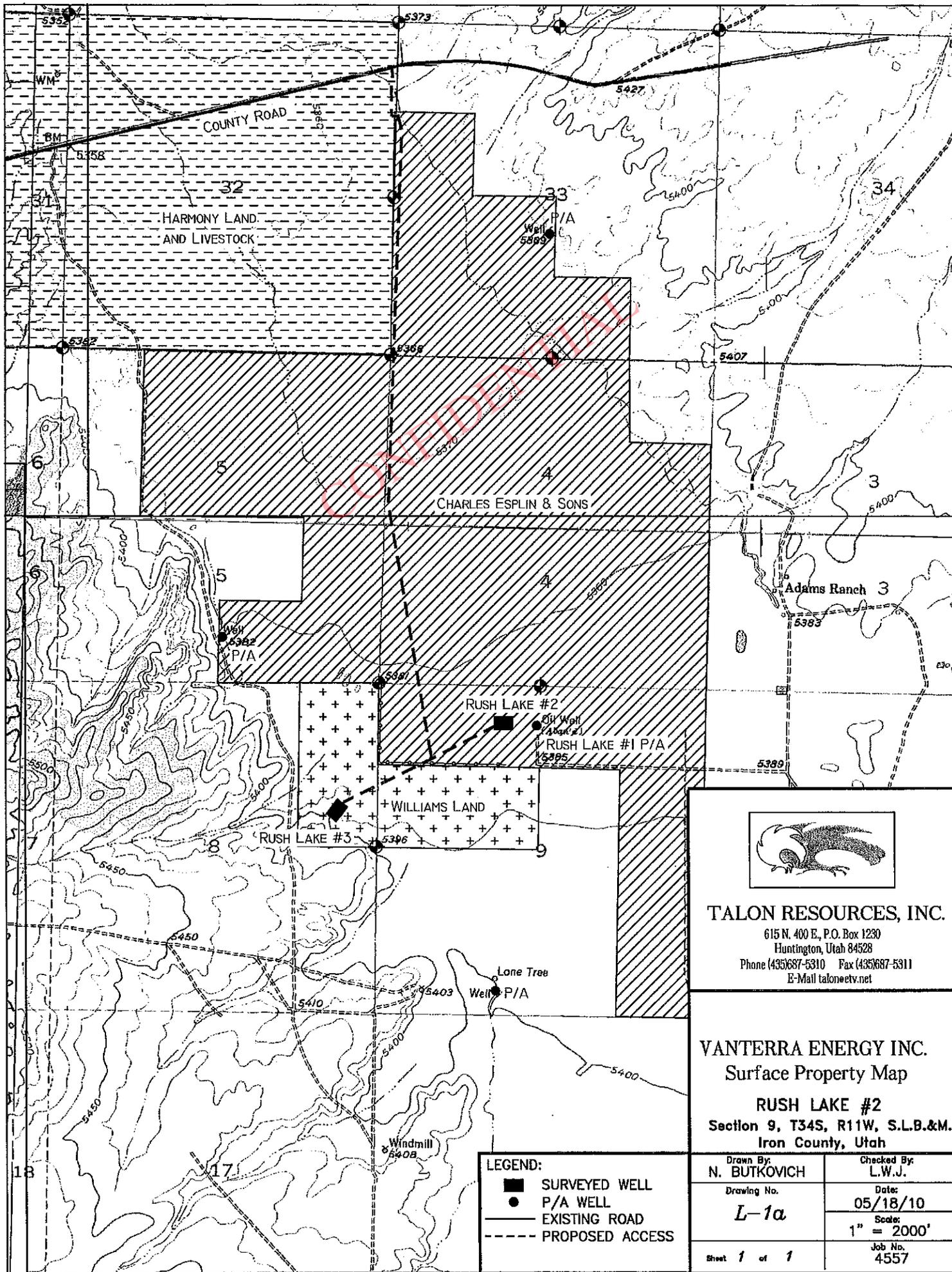
**VANTERRA ENERGY INC.**

**RUSH LAKE #2**  
**Section 9, T34S, R11W, S.L.B.&M.**  
**Iron County, Utah**

**LEGEND:**

- BLM LEASE
- FEE LEASE
- SURVEYED WELL
- P/A WELL
- EXISTING ROAD
- PROPOSED ACCESS

Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>L-1</b>	Date: <b>05/18/10</b>
	Scale: <b>1" = 2000'</b>
Sheet <b>4</b> of <b>4</b>	Job No. <b>4557</b>



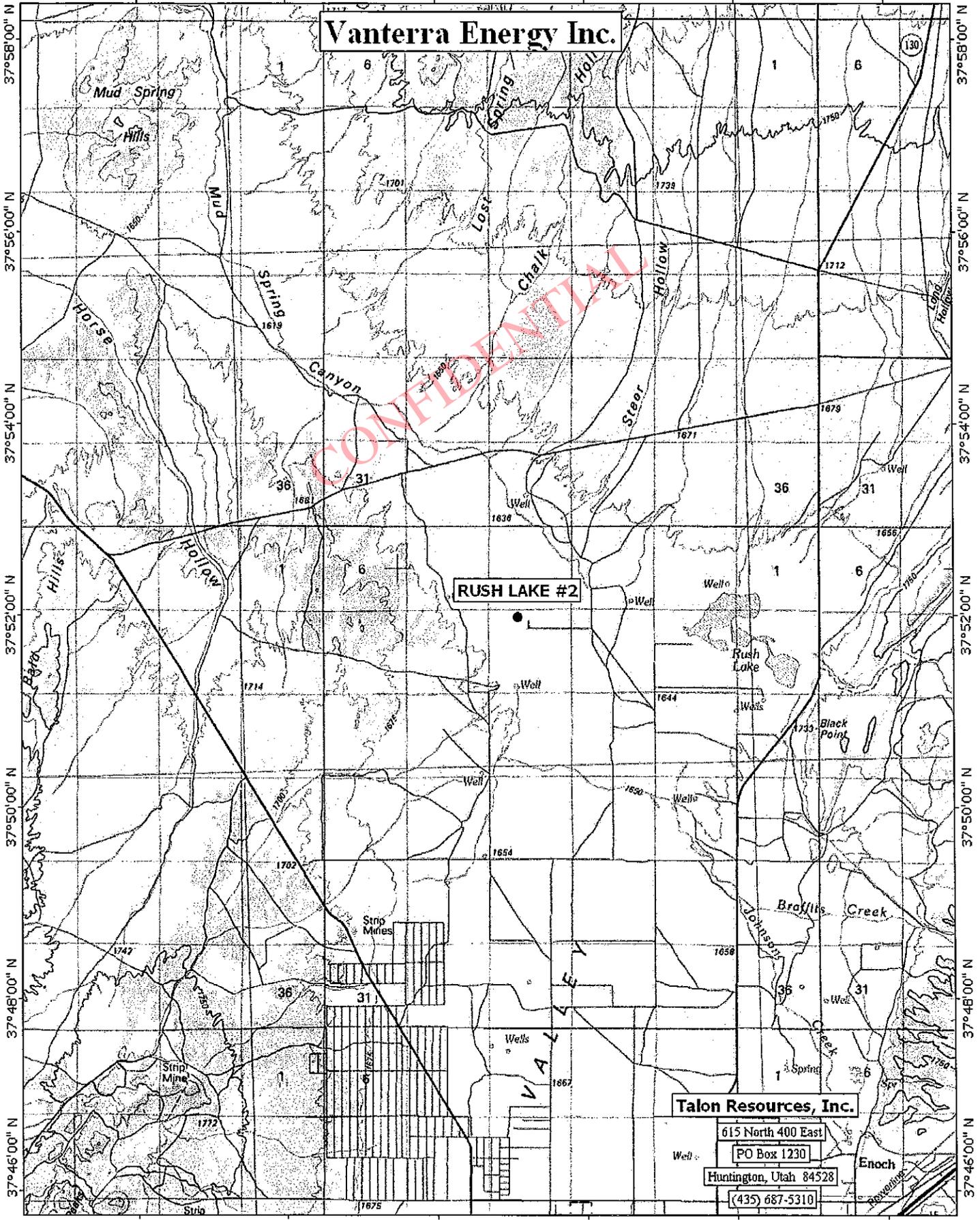
**TALON RESOURCES, INC.**  
 615 N. 400 E., P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talonectv.net

**VANTERRA ENERGY INC.**  
**Surface Property Map**  
**RUSH LAKE #2**  
**Section 9, T34S, R11W, S.L.B.&M.**  
**Iron County, Utah**

**LEGEND:**

- SURVEYED WELL
- P/A WELL
- EXISTING ROAD
- - - PROPOSED ACCESS

Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>L-1a</b>	Date: <b>05/18/10</b>
	Scale: <b>1" = 2000'</b>
Sheet <b>1</b> of <b>1</b>	Job No. <b>4557</b>

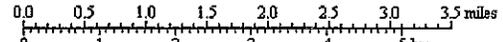


**Vanterra Energy Inc.**

**RUSH LAKE #2**

**Talon Resources, Inc.**

615 North 400 East  
 PO Box 1230  
 Huntington, Utah 84528  
 (435) 687-5310



CONFIDENTIAL

COUNTY ROAD

RUSH LAKE #3

RUSH LAKE #2

© 2010 Google  
Image USA Farm Service Agency

Imagery Date: Jun 23, 2009

37°52'39.02"N 113°06'11.50"W - 31.551011

© 2009 Google



N

CONFIDENTIAL

VANTERRA ENERGY, INC.

**DRILLING PROGRAM**  
FOR  
**VANTERRA RUSH LAKE #2**

**Surface Location: 667' FNL, 2015' FWL**  
**CNENW Section 9-T34S-R11W**  
**Iron County, Utah**

**Prepared By:**  
**Walter Lowry**

CONFIDENTIAL

VANTERRA ENERGY, INC.

**Key Phone Contact Information**

**Names and Duties of Persons Prime Responsibility**

**Vanterra Energy, Inc.**  
**600 17<sup>th</sup> Street, Suite 2800 South**  
**Denver, CO 80202**  
**(303) 868-9892**

**Don Vandergrift**

Vanterra Energy, Inc.  
Cell Phone  
Email

**President & CEO**

(303) 868-9892  
[don.vandergrift@vanterraenergy.com](mailto:don.vandergrift@vanterraenergy.com)

**Jim Jones**

Tidewater Oil & Gas Company LLC  
Cell Phone  
Email

**Manager**

(303) 547-6404  
[jjones@tidewater-oil.com](mailto:jjones@tidewater-oil.com)

**Tom Johnson**

Vanterra Energy, Inc.  
Cell Phone  
Direct Office  
Email:

**Office Manager**

(303) 884-5505  
(720) 881-7344  
[tom.johnson@vanterraenergy.com](mailto:tom.johnson@vanterraenergy.com)

**Walter Lowry**

Tidewater Oil & Gas Company, LLC  
Cell Phone  
Office  
Email:

**Engineer/ Field Supervisor**

(303) 884-5505  
(303) 468-0656 Ext. 206  
[wlowry@tidewater-oil.com](mailto:wlowry@tidewater-oil.com)

**CONFIDENTIAL**

VAN TERRA ENERGY, INC.

**EMERGENCY PHONE NUMBERS**

<b>Name</b>	<b>Phone Number</b>	<b>Address</b>
<b>Ambulance</b>	<b>911</b>	
<b>Iron Co Ambulance Director Ron Johnson</b>	<b>(435) 477-8390</b>	<b>68 S 100 E Parowan, UT 84761</b>
<b>Hospital- Valley View Medical Center</b>	<b>(435) 868-5000</b>	<b>1303 North Main Street Cedar City, UT 84721</b>
<b>Cedar City Fire Department</b>	<b>(435) 586-2964</b>	<b>291 North 800 West Cedar City UT 84721</b>
<b>Sheriff's Office Dispatch</b>	<b>(435) 867-7500 (435) 867-7550</b>	<b>2132 N. Main Street Cedar City, UT 84721</b>
<b>Utah Division of Oil, Gas &amp; Mining</b>	<b>(801) 538-4340</b>	<b>1594 W. North Temple Suite. 1210 Salt Lake City, UT 84114</b>
<b>Bureau of Land Management (BLM)</b>	<b>(435) 586-2401</b>	<b>176 East DL Sargent Drive Cedar City, UT 84721</b>

CONFIDENTIAL

VAN TERRA ENERGY, INC.

<b>Well Name:</b>	Vanterra Rush Lake #2
<b>Drilling Rig:</b>	Frontier Rig #5 (tentative)
<b>AFE Number:</b>	TBD
<b>AFE Amount:</b>	Confidential
<b>API Number:</b>	TBD
<b>APD Approved:</b>	TBD
<b>Proposed Spud Date:</b>	June 20, 2010
<b>Proposed Surface Latitude:</b>	37.86633°N
<b>Surface Longitude:</b>	-113.09763°W
<b>Graded GL Elevation:</b>	5,384'
<b>Kelly Bushing Height:</b>	TBD
<b>K.B. Elevation:</b>	TBD
<b>Proposed/ Permitted Total Depth:</b>	5000'
<b>Target Formation(s):</b>	Dakota/Navajo
<b>Anticipated Recorded BHT:</b>	<135°F at 5,000'

<b><u>Formation Tops (RKB):</u></b>	<b><u>TVD Depth</u></b>
Surface Gravels	Surface
Valley Fill	600'
Mancos Shale	1150'
Dakota 'A' Sandstone	2610'
Dakota 'B' Sandstone	2650'
Dakota 'C' Sandstone	2700'
Dakota 'D' Sandstone	2760'
Navajo	4000'
Proposed Total Depth	5000'
Permitted Total Depth	5000'

**Estimated Bottomhole Pressures (Chinle Formation):**

*Maximum* BHP Expected: 2,168 psi ~ 8.34 ppg EMW ~ Gradient of 0.434 psi/ft  
Wellbore is expected to be normally pressured.

**Directions to Location**

Directions from Parowan, Utah to Vanterra Rush Lake #2:

From Cedar City, Utah, head North on Minersville Hwy (130) approximately 15.3 miles. Turn left (West) on Horse Hollow Road and travel approximately 3.5 miles. Turn left (South) on lease road and travel approximately 2.0 miles to an abandoned location of the Rush Lake #1 well. The Rush Lake #2 well is approximately 515' West of this point.

**GENERAL HISTORY AND OBJECTIVE**

Following is a Drilling Prognosis for Vanterra's Rush Lake #2. The well is located in the NENW of Section 9-T34S-R11W in Iron County, Utah. The Rush Lake #2 well is designed to twin the Rush Lake #1 (Southern Utah Oil Company #1), which was drilled in 1949. The objective is to capture bypassed hydrocarbons identified in the Rush Lake #1 well.

The following procedure contemplates drilling an exploratory well through the Dakota Sandstone Group (A-D Sands with estimated tops of 2610'- 2760') and through the Navajo Formation (Navajo top estimated @ 4000').

The well is being drilled pursuant to a Farmout Agreement, and drilling operations must commence on or before June 30, 2010 as per the terms of the agreement. The Farmout Agreement requires Vanterra, or its designee, to drill the well to the shallower of: 1) 5,000' TVD; 2) a depth mutually agreed to by Vanterra and the farmor; or, 3) basement rock.

**ESTIMATED GEOLOGIC MARKERS**

<b>GEOLOGIC AGE</b>	<b>FORMATION</b>	<b>DEPTH (TVD)</b>	<b>OIL/GAS/WATER</b>
SURFACE GRAVELS		0	NA
TERTIARY	VALLEY FILL	600'	NA
CRETACEOUS	MANCOS SHALE	1150'	NA
	DAKOTA A SAND	2610'	OIL/GAS/WATER
	DAKOTA B SAND	2650'	OIL/GAS/WATER
	DAKOTA C SAND	2700'	OIL/GAS/WATER
	DAKOTA D SAND	2760'	OIL/GAS/WATER
	NAVAJO	4000'	OIL/GAS/WATER
TOTAL DEPTH		5000'	

**FORMATION EVALUATION**

No cores or DSTs are planned for this well

At TD, openhole electric logs will be run as follows:

- CNL/FDC/GR/CAL/Induction/BHC from TD to surface casing shoe, with GR run to surface

A mudlogger will be rigged up at approximately 600', and will catch samples at 10' intervals from 600' to TD.

**ABNORMAL HAZARDS**

This well is expected to be normally pressured, with a normal temperature gradient. There are no abnormal hazards expected. Bottom hole pressure is not expected to exceed 2500 psi.

**DRILLING PROCEDURE**

1. Notify the appropriate State of Utah Division of Oil, Gas & Mining, local regulators, and partners approximately 24 hours prior to commencement of drilling operations. Notify \_\_\_\_\_, Field Inspector for the State of Utah Division of Oil, Gas & Mining, 24 hours prior to spud. Ensure possession of any permits necessary for accomplishment of the operations outlined below, including those required by the Utah Division of Oil, Gas and Mining and Iron County, Utah.
2. Prepare the location after giving 48 hours notice to the State of Utah as described above. Line the earthen reserve pit with a conventional oilfield pit liner. Move in conductor setting rig and set 40'+ of 16" conductor in 20" hole. Cement to surface.
3. Wellbore Construction Overview (see attached Proposed Wellbore Construction Diagram):

Interval	Hole Size	Casing Size	Mud Type	Top of Cement
0-40'	20"	16"	Air/ Mist/FW Mud	Surface
40'-500'	12-1/4"	8-5/8"	Fresh Water- Spud Mud	Surface
500'-5000'	7-7/8"	5-1/2"	FW-LSND	2000' (610' above Dakota top)

4. MIRU surface hole spudder rig to preset surface casing. Construct flowline as appropriate. Spud well using 12.25" bit. Drill surface hole with air if possible. If drilling fluid is required, prepare spud mud according to MI Drilling Fluids plan using fresh water with additions of gel and polymer. Hole cleaning may be an issue in the 12.25" hole and frequent high viscosity sweeps (60 sec/qt viscosity) will be run to facilitate hole cleaning. Ensure sufficient lost circulation materials (Polyswell, sawdust, fiber seal, cedar fiber, mica, etc.) are on location prior to spud in case lost circulation is encountered. The surface hole can be drilled through the reserve pit while maintaining a fluid viscosity of 34-36 sec/qt.
5. Drill surface hole to 500' BGL. **NOTIFY STATE INSPECTOR 50' PRIOR TO REACHING SURFACE CASING SETTING DEPTH.** Circulate hole until shaker is clean. Short trip drill string to ensure hole stability. CBU. Drop survey and SLMOOH to run casing.
6. Run 8.625" 24# J55 STC casing with PDC drillable float shoe, 1 joint of casing, PDC drillable float collar, and remainder of casing. Place centralizers on bottom 8 joints of casing. Land casing on bottom then PU 2' off bottom to circulate and cement. Circulate a minimum of 2 casing volumes prior to cementing.
7. Casing Program:

Interval	Size	Weight	Grade	Thread
0-40'	16"	0.25" w.t.		Welded
40'-500'	8-5/8"	24.0 #/ft	J55	STC
500'-5000'	5-1/2"	15.5 #/ft	K55	LTC

VANTERRA ENERGY, INC.

8. RU Halliburton. Pump 10 barrels of fresh water spacer ahead of cement. Mix and pump 100% excess over gauge hole (~192 sx) of Rockies LT + 0.125 #/sx Poly-E-Flake weighing 12.8 ppg with a slurry yield of 2.08 cf/sx. Displace cement with spud mud or fresh water. Ensure floats are holding. Perform top job down 12.25" x 8.625" annulus with 1" tubing if cement does not stay at surface. Set casing on bottom. RD Halliburton. WOC for minimum of 8 hours.

**CEMENT JOB INFORMATION - SURFACE**

12 1/4" Surface Openhole	0 - 500 ft (MD)
Inner Diameter	12.250 in
Job Excess	100 %
 8 5/8" Surface Casing	 0 - 500 ft (MD)
Outer Diameter	8.625 in
Inner Diameter	8.097 in
Linear Weight	24 lbm/ft

**JOB RECOMMENDATION SURFACE**

Fluid 1: Water Spacer  
Fresh Water

Fluid Density: 8.34 lbm/gal  
Fluid Volume: 10 bbl

Fluid 2: Primary Cement  
Rockies LT 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight	12.80 lbm/gal
Slurry Yield:	2.08 ft <sup>3</sup> /sk
Total Mixing Fluid:	11.45 Gal/sk
Top of Fluid:	0 ft
Calculated Fill:	500 ft
Volume:	52.9 bbl (278 ft <sup>3</sup> )
Calculated Sacks:	192 sks
Proposed Sacks:	200 sks

Fluid 3: Displacement  
Spud mud or Water Displacement

Fluid Density:	8.34- 9.0 lbm/gal
Fluid Volume:	25.48 bbl

Fluid 4: Top Out Cement (if required)  
Premium Cement (94 lbm/sk) + 2 % Calcium Chloride (Accelerator)

Fluid Weight	15.80 lbm/gal
Slurry Yield:	1.17 ft <sup>3</sup> /sk
Total Mixing Fluid:	5.02 Gal/sk
Proposed Sacks:	200 sks

## VANTERRA ENERGY, INC.

9. Cut off 8.625" casing. Weld on Cameron Wellhead 8-5/8" SOW x 11" 3M bradenhead. Allow to cool sufficiently. NU 11" 3M x 9" 3M DSA and 9" 3M BOPE consisting of 2 pipe rams and an annular preventer. Test BOPE pursuant to UDOGM requirements.
10. MIRU drilling rig. RU Pason mudloggers.
11. PU 7-7/8" Smith Tool Company M519 PDC bit, 6.5" Hunting Performance downhole motor, 10- 6.5" x20' DCs and 3.5" or 4.5" drill pipe. TIH to FC. Test casing to 500 psi surface pressure. Drill float equipment.
12. Drill 7-7/8" hole with FW mud from ~500' to TD of ~5,000'. Drilling fluid will be a LSND system with a water loss less than 10 cc/30 min. MW should not exceed 9.5 ppg. Funnel viscosity should range from 32-42 sec/qt. Lost circulation is possible. CBU. Short trip drill string. CBU. SLMOOH for logs.
13. RU Halliburton to run electric logs. Run CNL/FDC/CAL/GR from TD to 500' (surface casing shoe). Run GR to surface.
14. Evaluate logs. Notify partners if P&A procedures are recommended to allow them time to evaluate taking over the well. If casing is to be run, RU casing crew and run 5.5" 15.5 ppf K55 LTC casing to TD with a float shoe and float collar 1 joint apart. Run bow spring centralizers on every other joint from TD to 500'. RU Halliburton and cement production casing in one stage with cement top designed for 2000' (+/- 600' above the top of the Dakota Formation) utilizing a slurry design similar to the following:

7 7/8" Production Openhole	500 - 5000 ft (MD) Inner Diameter 7.875 in Job Excess: 50 % over caliper
5 1/2" Production Casing	0 - 5000 ft (MD) Outer Diameter 5.500 in Inner Diameter 4.892 in Linear Weight 15.5 lbm/ft

### Stage 1

Fluid 1: Water Based Spacer

MUD FLUSH

Fluid Density: 8.40 lbm/gal  
Fluid Volume: 20 bbl

Fluid 2: Primary Cement

Rockies LT 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)  
Fluid Weight 12.80 lbm/gal  
Slurry Yield: 2.08 ft<sup>3</sup>/sk  
Total Mixing Fluid: 11.45 Gal/sk  
Top of Cement: 2000 ft  
Calculated Fill: 3000 ft  
Volume: 780 cf (139 bbl)  
Calculated Sacks: 375 sks  
Proposed Sacks: 375 sks

CONFIDENTIAL

VANTERRA ENERGY, INC.

Fluid 3: 4% KCl Water Spacer  
Water Displacement  
Fluid Density:  
Fluid Volume:

8.53 lbm/gal  
118 bbl

15. Set slips on 5.5" casing. Hang casing in 100% tension. Cut off casing, and NU 7-1/16" 3M tubing head.
16. Clean pits and release rig. Prepare for completion operations.

CONFIDENTIAL

**VANTERRA ENERGY, INC.**  
**Vanterra Rush Lake #2**  
**Proposed Wellbore Construction Diagram**

Well: Rush Lake #2  
 Well Type: Vertical  
 Surface Location: 667' FNL, 2015' FWL, NENW Section 9, T34S, R11W  
 Latitude / Longitude: Lat: 37.86633, Long: -113.09763 (Estimated)  
 Bottom Hole Location: 667' FNL, 2015' FWL, NENW Section 9, T34S, R11W  
 Permitted TD: 5000'  
 Author-Version-Date: WDL - Rev 0 05-10-10

AFE Number: TBD  
 Field: Wildcat  
 API Well Number: 43-019-XXXXX  
 Elevation (ft): est 5300' ungraded  
 KB to GL (ft): -13'  
 Objectives: Drill & evaluate Dakota & Navajo Formations

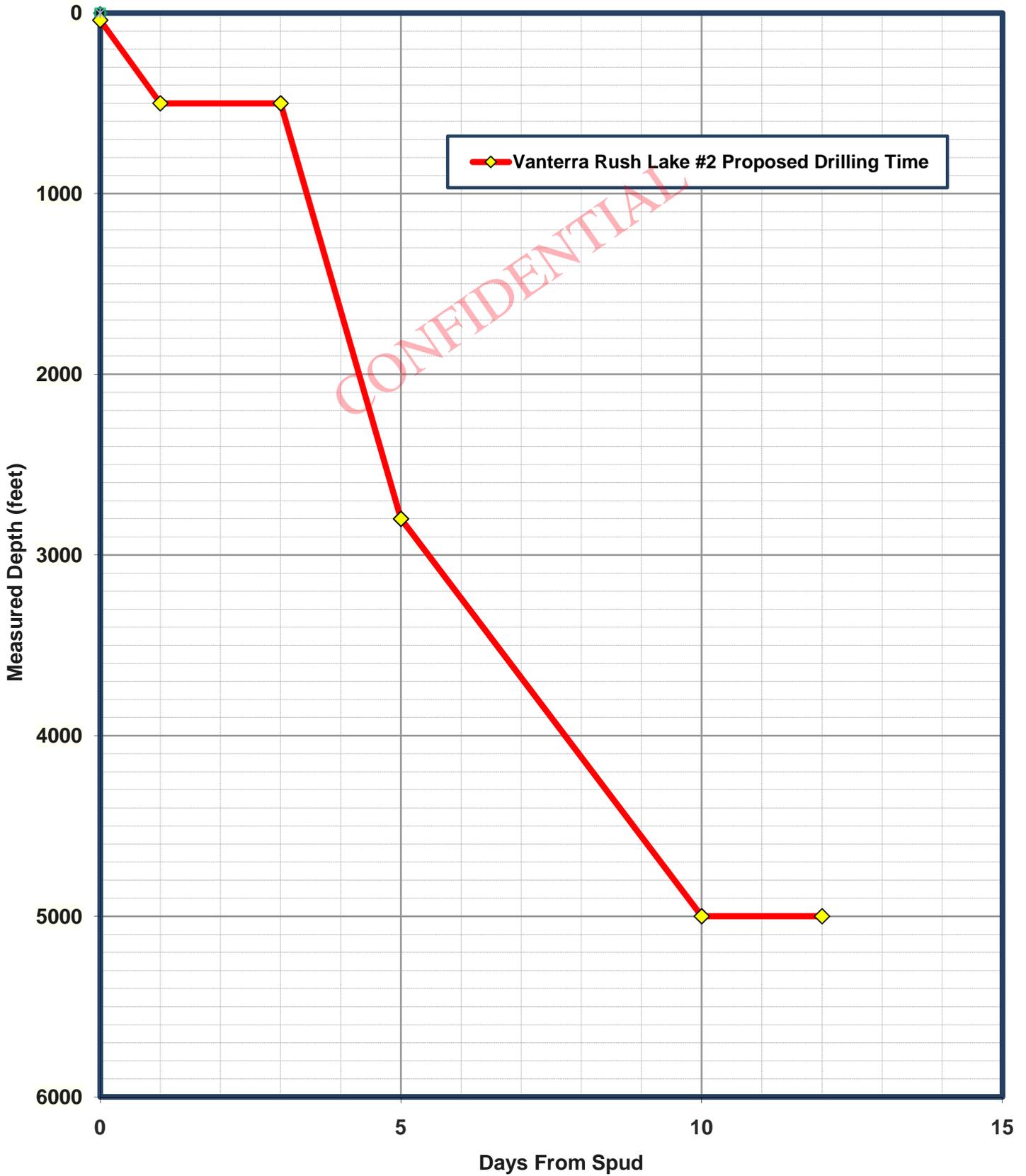
Geology Logs	BOP Testing Requirements	Casing and Cement	Depth (ft, MD)	Hole Size	Bit Run	Directional and Mud Data
Surface Gravels			8.625" 3M SOW X 11" 3M	40' of 16" 0.25" w.t. conductor in 20" hole with 6' diameter x 4' deep cellar		
		Cmt to surface for surface casing		12 1/4" Hole	Bit #1 12.25" Use retip air bit if drilled with air.	Preferred Procedure: Preset surface casing with small rig (e.g., Pro-Petro) utilizing air/mist to eliminate lost circulation concerns.  Drop Inclination survey prior to POOH to run casing.
		<div style="border: 1px solid black; padding: 5px;"> <p><b>Surface Casing Cement:</b> Pump 10 bbl water spacer. Pump 192 sx (2.08 cf/sx) mixed @ 12.8 ppg Rockies LT cement + 0.125 #/sx Poly-E-Flake. 100% excess, cement designed to return to surface. Perform top job w/ Premium cement + 2% CaCl2 @ 15.8 ppg. if necessary.</p> </div> <p>Test casing to 1500 psi / 10 min prior to drill out.</p> <p>8 5/8", 24#, J55, STC</p>	500' MD/TVD			
Valley Fill @ 600' TVD		RU 3M BOP stack per UDOGM requirements w/ double rams and annular preventer.		7-7/8" Hole	Bit #2	(No Formation Integrity Test required)
Mancos Shale @ 1150' TVD		Test Rams/choke to: 250 psi / 10 min 3000 psi / 10 min Test Annular to: 1500 psi / 10 min				Drilling Fluids for Production Hole: Gel/Polymer Water Base Mud. Mud up with prehydrated gel/polymer (PHPA) mud in fresh water. Run Hi-Viscosity gel sweeps every 200-300 ft. and/or for tight hole. Utilize Fed Pac-R for FL control and Fed Rheosmart for rheology control
Dakota 'A' SS @ 2610' TVD Dakota 'B' SS @ 2650' TVD Dakota 'C' SS @ 2700' TVD Dakota 'D' SS @ 2760' TVD		<div style="border: 1px solid black; padding: 5px;"> <p><b>Longstring Cement:</b> Pump 20 bbl FW spacer. Mix all blends 50% excess over caliper volume, cement designed to return to surface. Pump 375 sx Rockies LT Cement (2.08 cf/sx) + 0.125 #/sx Poly-E-Flake mixed @ 12.8 ppg. Displace w/ FW.</p> </div>		Proposed TOC for Longstring is 2000'		Drop survey tool on TFNB.
Navajo @ 4000' TVD					Bit #3	
TD 5000' MD/TVD	5-1/2", 15.5#, K55, LTC (0'-5000')		5000' MD/TVD			Drop survey tool on TOOH for logs.

**APPROVALS**

Prepared By:  May 10, 2010  
 Date

Approved By: \_\_\_\_\_  
 Date

**Vanterra Energy, Inc.  
Vanterra Rush Lake #2  
NENW Section 9-T34S- R11W  
Iron County, Utah  
Proposed Drilling Time**



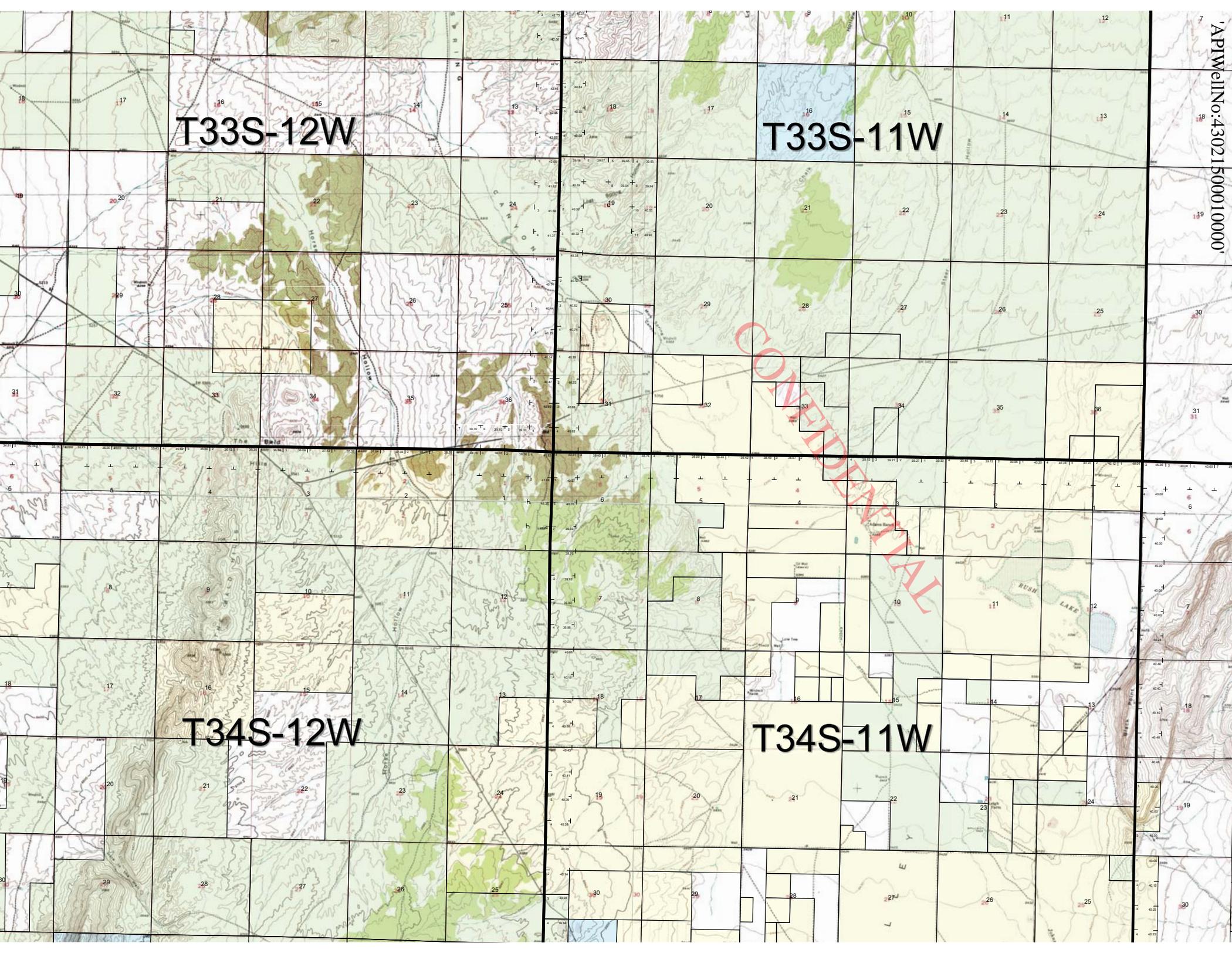
T33S-12W

T33S-11W

T34S-12W

T34S-11W

CONFIDENTIAL



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

DESIGNATION OF AGENT OR OPERATOR

The undersigned is, on record, the holder of oil and gas lease

LEASE NAME: Revocable Trust of Norman M. Adams

LEASE NUMBER: UTPV003B-TR1

and hereby designates

NAME: Tidewater Oil & Gas Company LLC

ADDRESS: 110 16th Street, Suite 405

city Denver state CO zip 80202

as his (check one) agent  / operator  with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing compliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah with respect to:

(Describe acreage to which this designation is applicable. Identify each oil and gas well by API number and name. Attach additional pages as needed.)  
  
SEE ATTACHED

It is understood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

The lessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation: 05/19/2010

BY: (Name) Donald B. Vandergrift  
(Signature)   
(Title) President & CEO  
(Phone) (303) 868-9892

OF: (Company) Vanterra Energy, Inc.  
(Address) 600 17th Street, Suite 2800 S  
city Denver  
state CO zip 80202

10/21/2005

BASELINE MINERALS, INC.  
LEASE PURCHASE REPORT

EXHIBIT "A"

**Tract 1:**

**Township 33 South – Range 11 West – Salt Lake Base and Meridian – Iron County, Utah**

Section 33: The Southwest 1/4; the Southwest 1/4 of the Northwest 1/4 and the Southwest 1/4 of the Southeast 1/4 (containing 240.00 acres, more or less).

**Township 34 South – Range 11 West – Salt Lake Base and Meridian – Iron County, Utah**

Section 3: The Southwest 1/4 and the West 1/2 of the Southwest 1/4 of the Southeast 1/4 (containing 180.00 acres, more or less).

Section 4: The South 1/2 of the South 1/2; the South 1/2 of the North 1/2; Lot 2 (38.85 ac); Lot 3 (38.67 ac) and Lot 4 (38.49 ac) (containing 436.01 acres, more or less).

Section 5: The South 1/2 of the Northeast 1/4; the East 1/2 of the Southeast 1/4; the Southwest 1/4 of the Southeast 1/4; the Southeast 1/4 of the Northwest 1/4; Lot 1 (38.42 ac); Lot 2 (38.46 ac) and Lot 3 (38.50 ac) (containing 355.38 acres, more or less).

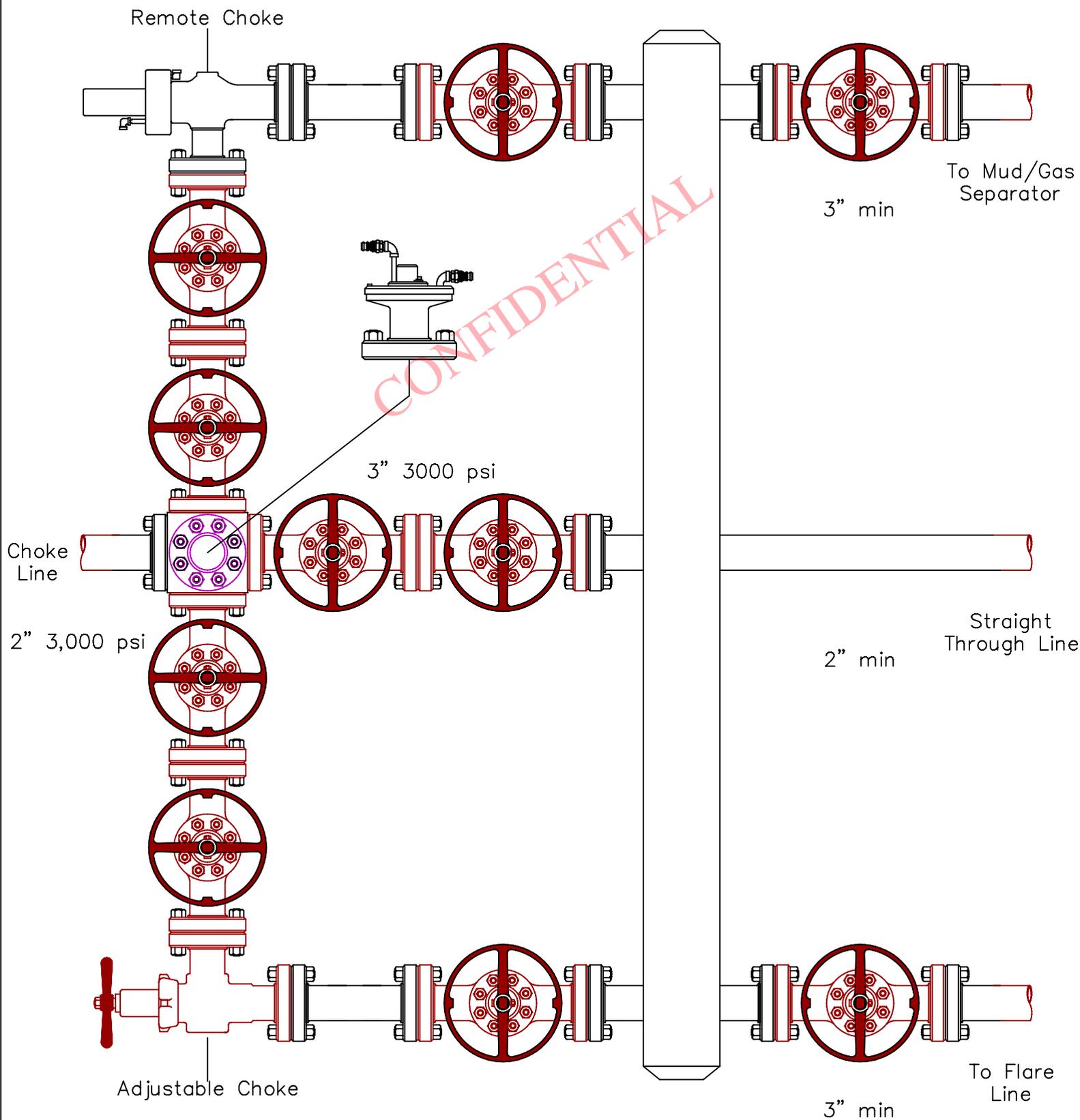
Section 9: The North 1/2 of the North 1/2 (containing 160.00 acres, more or less).

**Tract 2:**

**Township 33 South – Range 11 West – Salt Lake Base and Meridian – Iron County, Utah**

Section 32: The Northwest 1/4 (containing 160.00 acres, more or less).

CONFIDENTIAL



CONFIDENTIAL

Choke Manifold  
(Typical)  
Class 2



Name: Jeanette	Date: 8-29-07	Working Pressure: 3,000 #	J-7746-5
----------------	---------------	---------------------------	----------

Drilling Nipple

11" 3000 psi  
Annular

11" 3000 psi  
Double Rams

2" 3,000# psi  
Kill-Line

2" min. 3000 psi  
Choke-Line

11" 3,000#

11" 3,000#

9-5/8"

CONFIDENTIAL

BOPE Diagram  
3000 psi WP



Class 2

Name: Joe	Date: 5/19/10	Working Pressure: 3,000# #
-----------	---------------	----------------------------



# VANTERRA Energy Inc.

600 17<sup>th</sup> Street, Suite 2800 South  
Denver, CO 80202  
(303) 868-9892

May 19, 2010

Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, UT 84114-5801

Attention: Diana Mason  
Dustin Doucet  
Earlene Russell

Re: Application for a Permit to Drill ("APD") the Vanterra Rush Lake #2 well in the NE1/4 of the NW1/4 of Section 9-T34S-R11W, Iron County, Utah

Ladies and Gentleman:

My name is Donald B. Vandergrift, and I am the President and CEO of Vanterra Energy, Inc. On December 22, 2009, Vanterra Energy, Inc. ("Vanterra") purchased 100% of Tidewater Oil & Gas Company LLC's ("Tidewater") working interest in the Horse Hollow and Parowan prospect areas in Iron County, Utah. Vanterra now owns Tidewater's 40% working interest in the aforementioned leases. The other 60% of the working interest is owned by North American Exploration, LLC ("NAE").

Under the Joint Operating Agreement ("JOA"), the pertinent sections of which are attached hereto, between Vanterra and NAE, Vanterra has the right to propose to NAE the drilling of a well. Vanterra proposed said well, the referenced well, to NAE on May 11, 2010, pursuant to the terms of the JOA. NAE has until close of business on June 11, 2010 to elect to participate in the drilling of the well. It is very unlikely that NAE will elect to participate. If NAE does not elect to participate, Vanterra will then be the Operator pursuant to the terms of the JOA.

Subsequent to purchasing Tidewater's interest, Vanterra entered into a farmout agreement with a third party, which requires Vanterra to commence drilling operations on the subject well before June 30, 2010. That farmout agreement requires that Vanterra, or its designee, be the Operator of the referenced well.

Vanterra desires Tidewater to act as its agent and designee for all matters related to the permitting, drilling, completing and/or P&A'ing, production, and reclamation of the referenced well. Attached you will find a Designation of Operator form which reflects Vanterra's desire to appoint Tidewater as its agent and Operator for this well. Of course, the Designation of Operator will not officially take effect until June 12, 2010, after NAE's 30 day election period has expired, and they have either not responded or have elected not to participate. If NAE elects to participate, they would have the right to operate the well. However, Vanterra has no reason to suspect that any changes would be made to the APD in the remote chance that NAE elects to participate.

This morning I became aware of an imminent family emergency which requires me to be out of the country for an indefinite period of time. During my absence, I authorize Tidewater, specifically James Jones, Tom Johnson, and Walter Lowry, to act on behalf of Vanterra in all matters related to obtaining the referenced APD.

Thank you for your attention to this matter and your cooperation with same.

Regards,



Donald B. Vandergrift  
President & CEO  
Vanterra Energy, Inc.

CONFIDENTIAL

## SURFACE USE AGREEMENT

This Surface Use Agreement (the "Agreement") is entered into this 14th day of May, 2010, by and between Charles H. Esplin & Sons Land & Livestock Company ("Surface Owner," whether one or more) with an address of 138 North 500 West, Cedar City, UT 84720, and Vanterra Energy, Inc. ("Vanterra") with an address of 600 17<sup>th</sup> Street, Suite 2800 South, Denver, CO 80202.

Vanterra, at its sole discretion, shall have the exclusive right to assign its duties, responsibilities and obligations as operator of the Property to a competent oil and gas operator of its choosing (the "Contract Operator"), and said Contract Operator shall be bound by the terms, conditions, obligations, liabilities and indemnifications contained herein. Vanterra and Contract Operator may hereinafter be referred to as Vanterra, and any reference herein to Vanterra shall, by definition, include and apply to the Contract Operator.

Vanterra, or the Contract Operator, plans to drill and complete or plug and abandon a well(s) in the NE $\frac{1}{4}$  of the NW $\frac{1}{4}$  of Section 9, Township 34 South, Range 11 West, Iron County, Utah and/or SE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 8, Township 34 South, Range 11 West, Iron County, Utah (the "Property"), and the Surface Owner owns an undivided 100% share of the well pad in Section 9 and a portion of the proposed access road surface in the well proposed for Section 9.

Vanterra and Surface Owner have agreed to the settlement of surface damages in the amount of \$2,500.00 for the well site and \$5,000.00 for any access road and turn-around that will need to be built or upgraded, for a total payment of \$7,500 (the "Payment"). Should it be determined that the proposed access road across the Property is less than  $\frac{1}{2}$  mile, the surface damage payment for the access road shall be reduced to \$2,500, making the total payment to Surface Owner equal to \$5,000 instead of \$7,500. In consideration of such Payment and in consideration of the obligations set forth herein, Vanterra and Surface Owner agree as follows:

1. **Compensation for Surface Damages.** Said Payment is a one-time payment and constitutes the full and entire consideration to be paid Surface Owner by Vanterra for the use of its ownership of the surface and all damages (except as provided in paragraph 2 hereof) to the above mentioned lands in Section 9, associated with the drilling, testing, completion, recompletion, reworking, reentry, pumping, production, and general maintenance and operations of the well site located on the Property and adjacent lands. The Payment is for all damages to the Property, including, but not limited to, damages to growing crops, if any, topsoil, removal, transportation and care of livestock, if any, construction of access roads, preparation and use of the drill site area, preparation and use of reserve pits, construction, installation and maintenance of production equipment and facilities such as flow lines, gas pipelines, separators, tank batteries, pumping units, compressor stations, and other equipment or facilities necessary or convenient to the production, transportation and sale of oil, gas and other materials produced by or used for production of oil and/or gas from the Property and adjacent lands. With respect to the construction, access roads, preparation and use of the drill site area, preparation and use of reserve pits, and construction, installation and maintenance of production equipment and facilities such as flow lines, gas pipelines, separators, tank batteries, pumping units, compressor stations, and other equipment or facilities necessary or convenient to the production, transportation and sale of oil, gas and other materials produced by or used for production of the well, Vanterra may exercise the rights granted in this Agreement at any time and from time to time without further additional consideration being payable to Surface Owner. No rentals, annual or otherwise, shall be paid Surface Owner for the rights hereunder granted.

2. **Indemnification.** Surface Owner, their heirs, successors, assigns, invitees, and licensees, do hereby relieve, release, indemnify, defend, and hold harmless Vanterra and its agents, licensees, contractors, and sub-contractors and agree to defend Vanterra from any claim of damage to any person or property arising out of use of the access road or the Property for damages proximately caused by Surface Owner, their heirs, successors, assigns, invitees, and licensees, which damages include specifically but without limitation, all damages sounding in tort (whether by way of nuisance, trespass, ultra-hazardous activity or otherwise) and/or involving environmental contamination and its incident response, compensation or liability, and also including all expenses, reasonable attorneys' fees, court costs, and witness fees, and other monies expended by or incurred by Vanterra, its agents, licensees, contractors, and sub-contractors, in the event it shall become necessary for Vanterra, its agents, licensees, contractors, and sub-contractors to defend themselves from any claims made by anyone as a result of the use of the access roads by Surface Owner, their heirs, successors, assigns, invitees, and licensees.

Further, Vanterra relieves, releases, indemnifies, defends, and holds harmless and agrees to defend Surface Owner, their heirs, successors, assigns, invitees, and licensees from any and all claim of damage to any person or property arising out of use of the Property for operations by Vanterra and its agents, licensees, contractors, and sub-contractors for damages proximately caused by Vanterra or its agents, which damages include specifically but without limitation, all damages sounding in tort (whether by way of nuisance, trespass, ultra-hazardous activity or otherwise) and/or involving environmental contamination and its incident response, compensation or liability, and also including all expenses, reasonable attorneys' fees, court costs, witness fees, and other monies expended by or incurred by Surface Owner, their heirs, successors, assigns, invitees and licensees in the event it shall become necessary for Surface Owner, their heirs, successors, assigns, invitees and licensees to defend themselves from any claims made by anyone as a result of Vanterra's operations, on, across or over the Property. Vanterra shall comply with all lawful and applicable federal, state, and local regulations in effect upon the Property. As between Surface Owner and Vanterra, Surface Owner shall have no liability for the release or discharge by Vanterra, its contractors or agents of oil, gas or any other substance on or under the property, except as any such release or discharge is caused in whole or in part by Surface Owner, Surface Owner's tenant, licensees, invitees, or agents, and Vanterra will indemnify and hold Surface Owner harmless from and against all costs and expenses (including reasonable attorney's fees) for any such release or discharge by Vanterra.

3. **Reclamation.** Vanterra agrees to restore the surface of the Property in accordance with the minimum well site restoration requirements established by the Utah Division of Oil, Gas and Mining.
4. **Standard of Care.** Vanterra shall conduct its oil and gas operations, including construction and maintenance of access roads, well sites, and pipelines in a good and workman-like manner consistent with oilfield custom and usage and shall comply with all applicable federal, state, and local laws, rules, and regulations in its conduct of operations. Vanterra shall repair or replace any fences cut or gates damaged by Vanterra's use and shall install gate(s), including double gates and cattle guards, or something similar, where required by Surface Owner and at locations specified by the Surface Owner, to protect livestock..
5. **Consent and Right of Immediate Occupancy.** Surface Owner grants Vanterra the right of immediate occupancy of the Property for well sites, access roads, power lines, and pipelines as shall be reasonably necessary for these purposes contemplated under this Agreement. This

Agreement constitutes written consent of Surface Owner for Vanterra to proceed with the drilling, testing, completion, recompletion, reworking, reentry, pumping, producing, and general operation and maintenance of the above described drill site on the Property.

6. **Sale of Water for Drilling.** If sufficient water is available at the time of drilling and if both parties are in agreement at that time, Surface Owner and Vanterra may agree to the purchase of Surface Owner's nearby water, within 1 mile of the drill site, at the price of \$2.50 per 1,000 gallons.
7. **Surface Owner's Right to Use the Access Roads.** Vanterra acknowledges that Surface Owner(s) own an undivided interest in the surface estate in the Property. Vanterra hereby agrees that Surface Owner, their heirs, successors, assigns, invitees, and licensees, have the right to use the access roads at their sole risk, cost, and expense and subject to the indemnities contained in this Agreement. Surface Owner, their heirs, successors, assigns, invitees, and licensees shall not interfere with Vanterra's operations on the Property, the access road, the well site, and any of Vanterra's attendant equipment and operations. Due to the inherent danger of oil and gas operations, Surface Owner, their heirs, successors, assigns, invitees, and licensees shall at no time have access to the drill site, and nothing contained herein shall confer such right upon Surface Owner. Further, due to the competitive nature of the oil and gas business, Surface Owner, their heirs, successors, assigns, invitees, and licensees shall not disclose any information regarding the well to any other party or entity, whether in written or oral form.
8. **Disuse and Reclamation.** If Vanterra fails to use the well site or pipeline for a period in excess of 36 consecutive months, unless the well is "shut in" as defined under State regulation and industry standards, the well and pipeline shall be deemed abandoned and Vanterra shall promptly take all actions necessary or desirable to clean up, mitigate the effects of use, and render the well site and pipeline environmentally safe and fit for abandonment in place. All such clean up and mitigation shall be performed in compliance with all federal, state and local laws and regulations.
9. **Surface Owner's Obligation upon Sale or Encumbrance of Property.** Surface Owner agrees to provide a copy of this Agreement to any potential successor or assign of Surface Owner prior to the closing of any sale or encumbrance of all or any portion of the Property, and any such successor and/or assign shall be bound by the terms, conditions, obligations, and indemnifications contained herein in the same manner and to the same degree as the Surface Owner.
10. **Assignment of Rights.** All rights and obligations under this Agreement shall run with the Property and the underlying oil and gas leases and shall inure to the benefit of and be binding upon the heirs, successors, designees, or assigns of each party.
11. **Term of Grant.** Rights granted by this Agreement shall continue so long as Vanterra, its successors or assigns, are actively engaged in operations on the Property, or until written surrender of such rights by Vanterra, its successors or assigns, whichever is the earlier. Vanterra shall have the authority to surrender separately any part of the Property, in which event, the surrendered portion of the Property shall no longer be subject to this Agreement.
12. **Ownership of the Access Road, Bridges, Gates, and Improvements upon Termination.** The access road, bridges, gates, cattle guards, culverts, fences, and all other improvements constructed by Vanterra on the Lands, except the pipeline and well-site equipment, shall

become the Surface Owner's property upon termination of this Agreement, unless Surface Owner expressly rejects such vesting within 10 business days of receipt of notice of Vanterra, its successors or assigns of its intent to quit the premises.

13. **Rehabilitation and Restoration.** All well-sites, access roads, and pipeline paths constructed by Vanterra shall be restored as near as possible to their original conditions and reseeded with a seed mixture of the Surface Owner's choice upon surrender or abandonment of the well or wells in accordance with acceptable industry practices and in compliance with all applicable laws and regulations in effect at the time of restoration. Provided however, that Surface Owner at their option may elect to have Vanterra (or its successor) leave the well-sites, the access roads, or any respective portions or segments thereof in an unrestored or partially restored state, with the understanding that Surface Owner shall then assume responsibility for any restoration thereafter required by law.
14. **Notices and Payment.** Notices shall be in writing and shall be given by certified or registered mail to Vanterra and Surface Owner at the following addresses

Operator:

Vanterra Energy, Inc.  
600 17<sup>th</sup> Street, Suite 2800 South  
Denver, CO 80202  
Attn: Don Vandergrift  
(303) 868-9892  
(303) 260-6401 fax

Surface Owner:

Charles Esplin  
138 North 500 West  
Cedar City, UT 84720  
435-586-8609

or Jonathan Swenson  
138 North 500 West  
Cedar City, UT 84720  
435-590-1505

or to such address as either party may designate to the other in writing not less than thirty (30) days before that event which triggers notices. Notices shall be effective the third day after the date of mailing, postage prepaid.

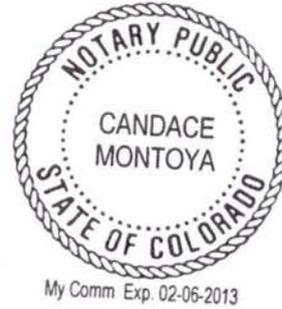
15. **Governing Law.** The laws of the State of Utah shall control the rights of the parties under this contract.
16. **Waiver.** By signing this Agreement, neither party waives its statutory and common law rights to occupancy and enjoyment of their respective estates, except as expressly provided in this Agreement with regard to the access road and the well site and such additional access roads and additional well sites affecting the Lands as may be negotiated between them, their heirs, successors, and assigns.
17. **Counterparts.** This Agreement may be executed in counterparts. Each counterpart shall constitute an original and all counterparts together shall constitute one and the same document.

Agreed to and accepted the day and year first above written.

VANTERRA ENERGY, INC.

By: [Signature]  
Donald B. Vandergrift, President & CEO

STATE OF COLORADO )  
 ) ss.  
COUNTY OF DENVER )



The foregoing instrument was acknowledged before me this 18 day of May, 2010, by Donald B. Vandergrift. Witness my hand and official seal.

[Signature]  
Notary Public

My Commission Expires: 02/06/13

CHARLES H. ESPLIN & SONS LAND & LIVESTOCK COMPANY (SURFACE OWNER):

By: [Signature]  
Charles H. Esplin  
POA

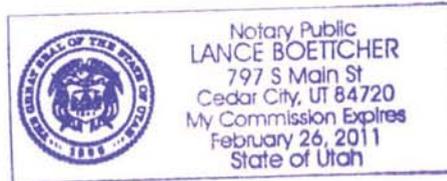
STATE OF UTAH )  
 ) ss.  
COUNTY OF IRON )

The foregoing instrument was acknowledged before me this 15 day of May, 2010, by Charles C Esplin. Witness my hand and official seal.

[Signature]  
Notary Public

My Commission Expires: 2/26/2011

By: [Signature]  
Lowman Nelson



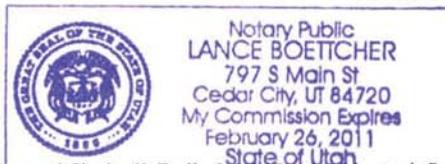
Social Security Number(s) or Tax ID No.:

STATE OF UTAH )  
 ) ss.  
COUNTY OF IRON )

The foregoing instrument was acknowledged before me this 15 day of May, 2010, by Lowman Nelson. Witness my hand and official seal.

[Signature]  
Notary Public

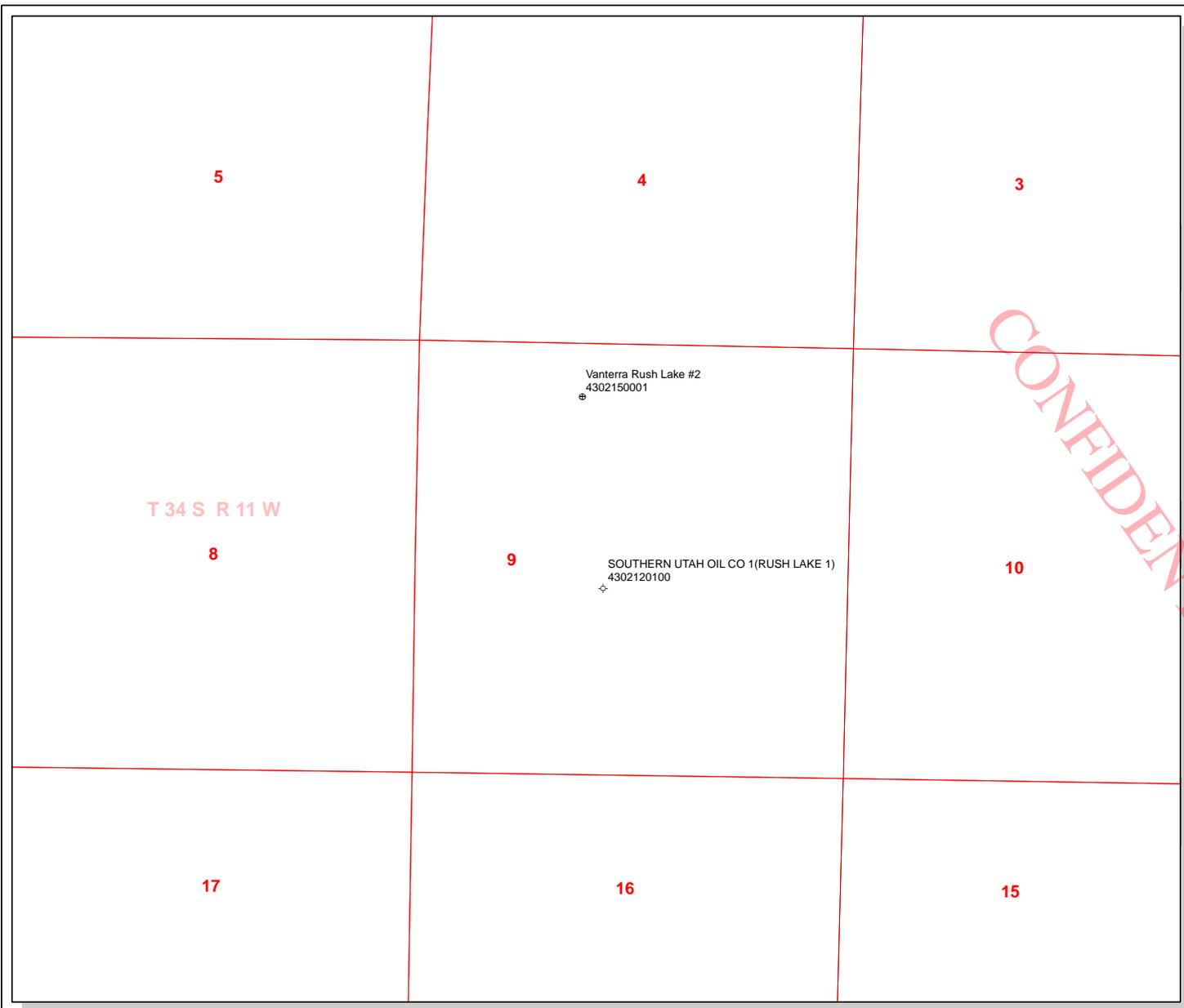
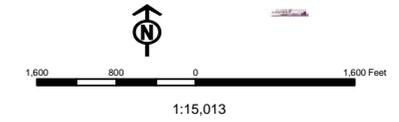
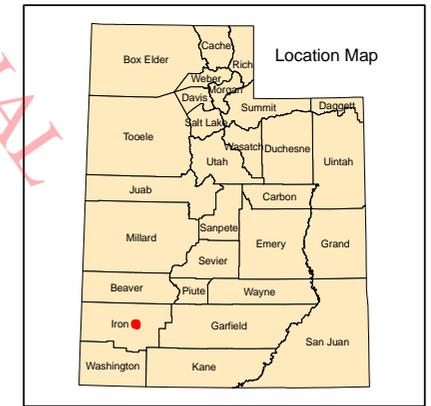
My Commission Expires: 2/26/2011



**API Number: 4302150001**  
**Well Name: Vanterra Rush Lake #2**  
**Township 34.0 S Range 11.0 W Section 9**  
**Meridian: SLBM**  
Operator: TIDEWATER OIL & GAS COMPANY, LLC

Map Prepared:  
Map Produced by Diana Mason

- |               |                                    |
|---------------|------------------------------------|
| <b>Units</b>  | <b>Wells Query</b>                 |
| <b>STATUS</b> | <b>Status</b>                      |
| ACTIVE        | ✕ -all other values-               |
| EXPLORATORY   | APD - Approved Permit              |
| GAS STORAGE   | DRL - Spudded (Drilling Commenced) |
| NF PP OIL     | GIW - Gas Injection                |
| NF SECONDARY  | GS - Gas Storage                   |
| PI OIL        | LA - Location Abandoned            |
| PP GAS        | LOC - New Location                 |
| PP GEOTHERMAL | OPS - Operation Suspended          |
| PP OIL        | PA - Plugged Abandoned             |
| SECONDARY     | PGW - Producing Gas Well           |
| TERMINATED    | POW - Producing Oil Well           |
| <b>Fields</b> | RET - Returned APD                 |
| Sections      | SGW - Shut-in Gas Well             |
| Township      | SOW - Shut-in Oil Well             |
|               | TA - Temp. Abandoned               |
|               | TW - Test Well                     |
|               | WDW - Water Disposal               |
|               | WW - Water Injection Well          |
|               | WSW - Water Supply Well            |



CONFIDENTIAL



State of Utah

GARY R. HERBERT  
Governor

GREG BELL  
Lieutenant Governor

Office of the Governor  
PUBLIC LANDS POLICY COORDINATION

JOHN HARJA  
Director

June 8, 2010

Diana Mason  
Petroleum Specialist  
Department of Natural Resources, Division of Oil Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

CONFIDENTIAL

Subject: Application for Permit to Drill Tidewater Oil & Gas Co. Vanterra Rush Lake #2 well  
RDCC Project No. 21120

Dear Ms. Mason:

The State of Utah, through the Public Lands Policy Coordination Office (PLPCO), has reviewed this project. Utah Code (Section 63J-4-601, *et. seq.*) designates PLPCO as the entity responsible to coordinate the review of technical and policy actions that may affect the physical resources of the state, and to facilitate the exchange of information on those actions among federal, state, and local government agencies. As part of this process, PLPCO makes use of the Resource Development Coordinating Committee (RDCC). The RDCC includes representatives from the state agencies that are generally involved or impacted by public lands management.

#### **Division of Air Quality**

The proposed well drilling project may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site a permit application, known as a Notice of Intent, should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to R307-401: Permit: Notice of Intent and Approval Order, of the Utah Air Quality Rules. A copy of the rules can be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm).

The Utah Division of Air Quality encourages the use of Best Management Processes in protecting air quality in Utah. The state recommends emission standards for stationary reciprocating internal combustion engines. These standards are 2 g/bhp-hr for engines less than 300 HP and 1 g/bhp-hr for engines over 300 HP.

The proposed project is subject to R307-205-5: Fugitive Dust, of the Utah Air Quality Rules, due to the fugitive dust that will be generated during the excavation of the roadway for the

project and possibly the pad (based on pad size). These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules can be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm).

The State of Utah appreciates the opportunity to review this proposal and we look forward to working with you on future projects. Please direct any other written questions regarding this correspondence to the Public Lands Policy Coordination Office at the address below, or call Judy Edwards at (801) 537-9023.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Harja', is written over a large, diagonal, red watermark that says 'CONFIDENTIAL'.

John Harja  
Director

## SURFACE USE AGREEMENT

This Surface Use Agreement (the "Agreement") is entered into this 21st day of May, 2010, by and between Harmony Land & Livestock Company ("Surface Owner," whether one or more) with an address of 479 South 700 West, Cedar City, UT 84720, and Vanterra Energy, Inc. ("Vanterra") with an address of 600 17<sup>th</sup> Street, Suite 2800 South, Denver, CO 80202.

Vanterra, at its sole discretion, shall have the exclusive right to assign its duties, responsibilities and obligations as operator of the Property to a competent oil and gas operator of its choosing (the "Contract Operator"), and said Contract Operator shall be bound by the terms, conditions, obligations, liabilities and indemnifications contained herein. Vanterra and Contract Operator may hereinafter be referred to as Vanterra, and any reference herein to Vanterra shall, by definition, include and apply to the Contract Operator.

Vanterra, or the Contract Operator, plans to drill and complete or plug and abandon a well(s) in the NE $\frac{1}{4}$  of the NW $\frac{1}{4}$  of Section 9, Township 34 South, Range 11 West, Iron County, Utah and/or SE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 8, Township 34 South, Range 11 West, Iron County, Utah (the "Property"), and the Surface Owner owns an undivided 100% share of approximately 865 feet of surface access to said well site(s) directly off of Horse Hollow Road (County Road 122) in the NE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 33-T33S-R11W.

Vanterra and Surface Owner have agreed to the settlement of surface damages in the amount of \$500.00 for any access road and turn-around that will need to be built or upgraded (the "Payment"). Should it be determined that the proposed access road across the Property is greater than 865 feet, the surface damage payment for the access road shall be increased proportionally by \$0.58 per additional foot. In consideration of such Payment and in consideration of the obligations set forth herein, Vanterra and Surface Owner agree as follows:

1. **Compensation for Surface Damages.** Said Payment is a one-time payment and constitutes the full and entire consideration to be paid Surface Owner by Vanterra for the use of its ownership of the surface and all damages (except as provided in paragraph 2 hereof) to the above mentioned lands in Section 33-T33S-R11W, associated with the drilling, testing, completion, recompletion, reworking, reentry, pumping, production, and general maintenance and operations of the well site located on the Property and adjacent lands. The Payment is for all damages to the Property, including, but not limited to, damages to growing crops, if any, topsoil removal, transportation and care of livestock, if any, construction of access roads, installation and maintenance of production equipment and facilities such as flow lines, gas pipelines, compressor stations, and other equipment or facilities necessary or convenient to the production, transportation and sale of oil, gas and other materials produced by or used for production of oil and/or gas from the Property and adjacent lands. With respect to the construction, access roads, installation and maintenance of production equipment and facilities such as flow lines, gas pipelines, compressor stations, and other equipment or facilities necessary or convenient to the production, transportation and sale of oil, gas and other materials produced by or used for production of the well, Vanterra may exercise the rights granted in this Agreement at any time and from time to time without further additional consideration being payable to Surface Owner. No rentals, annual or otherwise, shall be paid Surface Owner for the rights hereunder granted.
2. **Indemnification.** Surface Owner, their heirs, successors, assigns, invitees, and licensees, do hereby relieve, release, indemnify, defend, and hold harmless Vanterra and its agents, licensees,

contractors, and sub-contractors and agree to defend Vanterra from any claim of damage to any person or property arising out of use of the access road or the Property for damages proximately caused by Surface Owner, their heirs, successors, assigns, invitees, and licensees, which damages include specifically but without limitation, all damages sounding in tort (whether by way of nuisance, trespass, ultra-hazardous activity or otherwise) and/or involving environmental contamination and its incident response, compensation or liability, and also including all expenses, reasonable attorneys' fees, court costs, and witness fees, and other monies expended by or incurred by Vanterra, its agents, licensees, contractors, and sub-contractors, in the event it shall become necessary for Vanterra, its agents, licensees, contractors, and sub-contractors to defend themselves from any claims made by anyone as a result of the use of the access roads by Surface Owner, their heirs, successors, assigns, invitees, and licensees.

Further, Vanterra relieves, releases, indemnifies, defends, and holds harmless and agrees to defend Surface Owner, their heirs, successors, assigns, invitees, and licensees from any and all claim of damage to any person or property arising out of use of the Property for operations by Vanterra and its agents, licensees, contractors, and sub-contractors for damages proximately caused by Vanterra or its agents, which damages include specifically but without limitation, all damages sounding in tort (whether by way of nuisance, trespass, ultra-hazardous activity or otherwise) and/or involving environmental contamination and its incident response, compensation or liability, and also including all expenses, reasonable attorneys' fees, court costs, witness fees, and other monies expended by or incurred by Surface Owner, their heirs, successors, assigns, invitees and licensees in the event it shall become necessary for Surface Owner, their heirs, successors, assigns, invitees and licensees to defend themselves from any claims made by anyone as a result of Vanterra's operations, on, across or over the Property. Vanterra shall comply with all lawful and applicable federal, state, and local regulations in effect upon the Property. As between Surface Owner and Vanterra, Surface Owner shall have no liability for the release or discharge by Vanterra, its contractors or agents of oil, gas or any other substance on or under the property, except as any such release or discharge is caused in whole or in part by Surface Owner, Surface Owner's tenant, licensees, invitees, or agents, and Vanterra will indemnify and hold Surface Owner harmless from and against all costs and expenses (including reasonable attorney's fees) for any such release or discharge by Vanterra.

3. **Reclamation.** Vanterra agrees to restore the surface of the Property in accordance with the minimum well site restoration requirements established by the Utah Division of Oil, Gas and Mining.
4. **Standard of Care.** Vanterra shall conduct its oil and gas operations, including construction and maintenance of access roads, well sites, and pipelines in a good and workman-like manner consistent with oilfield custom and usage and shall comply with all applicable federal, state, and local laws, rules, and regulations in its conduct of operations. Vanterra shall repair or replace any fences cut or gates damaged by Vanterra's use and shall install gate(s), including double gates and cattle guards, or something similar, where required by Surface Owner and at locations specified by the Surface Owner, to protect livestock..
5. **Consent and Right of Immediate Occupancy.** Surface Owner grants Vanterra the right of immediate occupancy of the Property for access roads, power lines, and pipelines as shall be reasonably necessary for these purposes contemplated under this Agreement. This Agreement constitutes written consent of Surface Owner for Vanterra to proceed with the drilling, testing,

completion, recompletion, reworking, reentry, pumping, producing, and general operation and maintenance of the above described drill site on the Property.

6. **Sale of Water for Drilling.** If sufficient water is available at the time of drilling and if both parties are in agreement at that time, Surface Owner and Vanterra may agree to the purchase of Surface Owner's nearby water, within 1 mile of the drill site, at the price of \$2.50 per 1,000 gallons.
7. **Surface Owner's Right to Use the Access Roads.** Vanterra acknowledges that Surface Owner(s) own an undivided interest in the surface estate in the Property. Vanterra hereby agrees that Surface Owner, their heirs, successors, assigns, invitees, and licensees, have the right to use the access roads at their sole risk, cost, and expense and subject to the indemnities contained in this Agreement. Surface Owner, their heirs, successors, assigns, invitees, and licensees shall not interfere with Vanterra's operations on the Property, the access road, the well site, and any of Vanterra's attendant equipment and operations. Due to the inherent danger of oil and gas operations, Surface Owner, their heirs, successors, assigns, invitees, and licensees shall at no time have access to the drill site or the access road past their property line (without written consent of both the other surface owner and Vanterra), and nothing contained herein shall confer such right upon Surface Owner. Further, due to the competitive nature of the oil and gas business, Surface Owner, their heirs, successors, assigns, invitees, and licensees shall not disclose any information regarding the well to any other party or entity, whether in written or oral form.
8. **Disuse and Reclamation.** If Vanterra fails to use the well site or pipeline for a period in excess of 36 consecutive months, unless the well is "shut in" as defined under State regulation and industry standards, the well and pipeline shall be deemed abandoned and Vanterra shall promptly take all actions necessary or desirable to clean up, mitigate the effects of use, and render the well site and pipeline environmentally safe and fit for abandonment in place. All such clean up and mitigation shall be performed in compliance with all federal, state and local laws and regulations.
9. **Surface Owner's Obligation upon Sale or Encumbrance of Property.** Surface Owner agrees to provide a copy of this Agreement to any potential successor or assign of Surface Owner prior to the closing of any sale or encumbrance of all or any portion of the Property, and any such successor and/or assign shall be bound by the terms, conditions, obligations, and indemnifications contained herein in the same manner and to the same degree as the Surface Owner.
10. **Assignment of Rights.** All rights and obligations under this Agreement shall run with the Property and the underlying oil and gas leases and shall inure to the benefit of and be binding upon the heirs, successors, designees, or assigns of each party.
11. **Term of Grant.** Rights granted by this Agreement shall continue so long as Vanterra, its successors or assigns, are actively engaged in operations on the Property, or until written surrender of such rights by Vanterra, its successors or assigns, whichever is the earlier. Vanterra shall have the authority to surrender separately any part of the Property, in which event, the surrendered portion of the Property shall no longer be subject to this Agreement.
12. **Ownership of the Access Road, Bridges, Gates, and Improvements upon Termination.** The access road, bridges, gates, cattle guards, culverts, fences, and all other improvements constructed by Vanterra on the Lands, except the pipeline and well-site equipment, shall

become the Surface Owner's property upon termination of this Agreement, unless Surface Owner expressly rejects such vesting within 10 business days of receipt of notice of Vanterra, its successors or assigns of its intent to quit the premises.

13. **Rehabilitation and Restoration**. All well-sites, access roads, and pipeline paths constructed by Vanterra shall be restored as near as possible to their original conditions and reseeded with a seed mixture of the Surface Owner's choice upon surrender or abandonment of the well or wells in accordance with acceptable industry practices and in compliance with all applicable laws and regulations in effect at the time of restoration. Provided however, that Surface Owner at their option may elect to have Vanterra (or its successor) leave the well-sites, the access roads, or any respective portions or segments thereof in an unrestored or partially restored state, with the understanding that Surface Owner shall then assume responsibility for any restoration thereafter required by law.
14. **Notices and Payment**. Notices shall be in writing and shall be given by certified or registered mail to Vanterra and Surface Owner at the following addresses

Operator:

Vanterra Energy, Inc.  
600 17<sup>th</sup> Street, Suite 2800 South  
Denver, CO 80202  
Attn: Don Vandergrift  
(303) 868-9892  
(303) 260-6401 fax

Surface Owner:

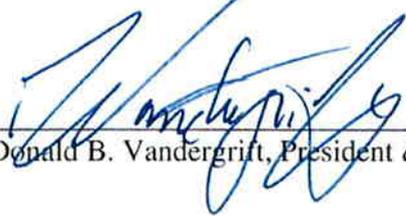
Harmony Land & Livestock Company  
c/o Brad Schmutz  
479 South 700 West  
Cedar City, UT 84720  
435-590-2944 (cell)

or to such address as either party may designate to the other in writing not less than thirty (30) days before that event which triggers notices. Notices shall be effective the third day after the date of mailing, postage prepaid.

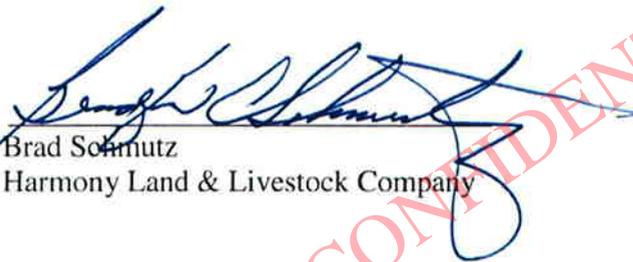
15. **Governing Law**. The laws of the State of Utah shall control the rights of the parties under this contract.
16. **Waiver**. By signing this Agreement, neither party waives its statutory and common law rights to occupancy and enjoyment of their respective estates, except as expressly provided in this Agreement with regard to the access road and the well site and such additional access roads and additional well sites affecting the Lands as may be negotiated between them, their heirs, successors, and assigns.
17. **Counterparts**. This Agreement may be executed in counterparts. Each counterpart shall constitute an original and all counterparts together shall constitute one and the same document.

Agreed to and accepted the day and year first above written.

**VANTERRA ENERGY, INC.**

By:   
Donald B. Vandergrift, President & CEO

**SURFACE OWNER:**

By:   
Brad Schmutz  
Harmony Land & Livestock Company

CONFIDENTIAL



Search all of Utah.gov »

# Utah Division of Water Rights

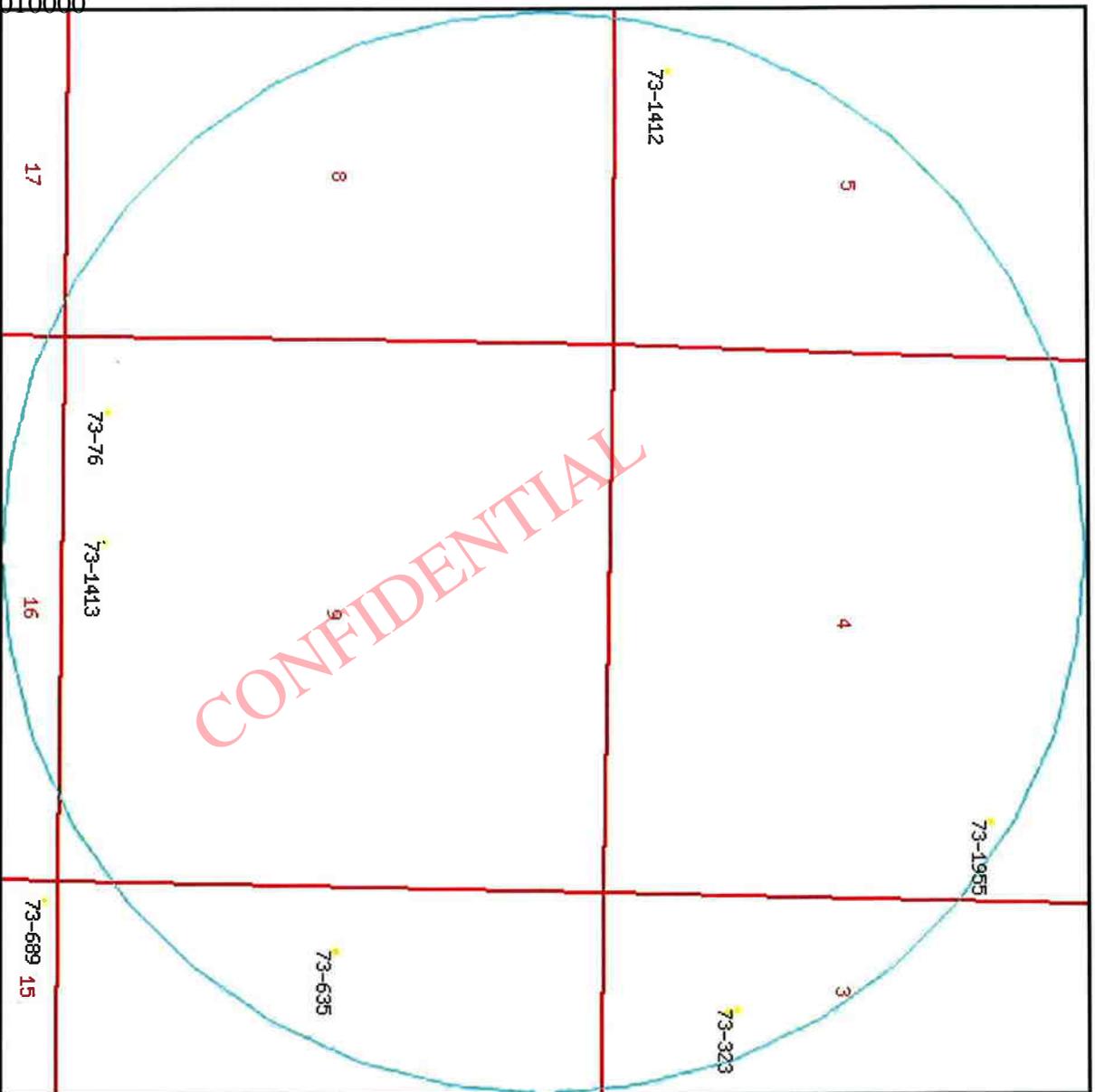


## Output Listing

Version: 2009.05.06.00      Rundate: 06/16/2010 09:23 AM

Radius search of 5280 feet from a point S667 E2015 from the NW corner, section 09, Township 34S, Range 11W, SL b&m Criteria:wrtypes=W,C,E  
podtypes=S,U,Sp status=U,A,P useypes=all

CONFIDENTIAL



**Water Rights**

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
73-1412	Underground		P	19340000 S		0.024	0.000	USA BUREAU OF LAND MANAGEMENT 2370 SOUTH 2300 WEST
73-1413	Underground		P	19340000 S		0.027	0.000	CLARA MERLE EVANS STOCKTON UT 84071
73-1955	Underground		P	19340000 S		0.000	0.000	CHARLES H. ESPLIN & SONS LAND AND LIVESTOCK CO. 138 NORTH 500 WEST
73-322	Underground		P	19160000 DIS		0.134	0.000	CHARLES H. ESPLIN & SONS LAND AND LIVESTOCK CO. 138 NORTH 500 WEST
73-323	Surface		P	18560000 S		0.167	0.000	CHARLES H. ESPLIN AND SONS LAND AND LIVESTOCK, INC 138 NORTH 500 WEST
73-635	Underground		P	18960600 S		0.011	0.000	NORMAN M. ADAMS 372 SOUTH 600 WEST
73-689	Underground		P	19040000 DS		0.011	0.000	ELIZABETH L. CHILDS 27501 MARION AVENUE
73-76	Underground	well info	P	19130000 DS		0.033	0.000	WARREN WILLIAMS 2705 LUND HIGHWAY

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

Well Name	TIDEWATER OIL & GAS COMPANY, LLC Vanterra Rush Lake #2 43021501			
String	Cond	Surf	Prod	
Casing Size(")	16.000	8.625	5.500	
Setting Depth (TVD)	40	500	5000	
Previous Shoe Setting Depth (TVD)	0	40	500	
Max Mud Weight (ppg)	8.3	9.0	9.5	
BOPE Proposed (psi)	0	500	3000	
Casing Internal Yield (psi)	1730	2950	4810	
Operators Max Anticipated Pressure (psi)	2340		9.0	

Calculations	Cond String	16.000	"
Max BHP (psi)	.052*Setting Depth*MW=	17	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	12	NO air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	8	NO OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	8	NO OK
Required Casing/BOPE Test Pressure=		40	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

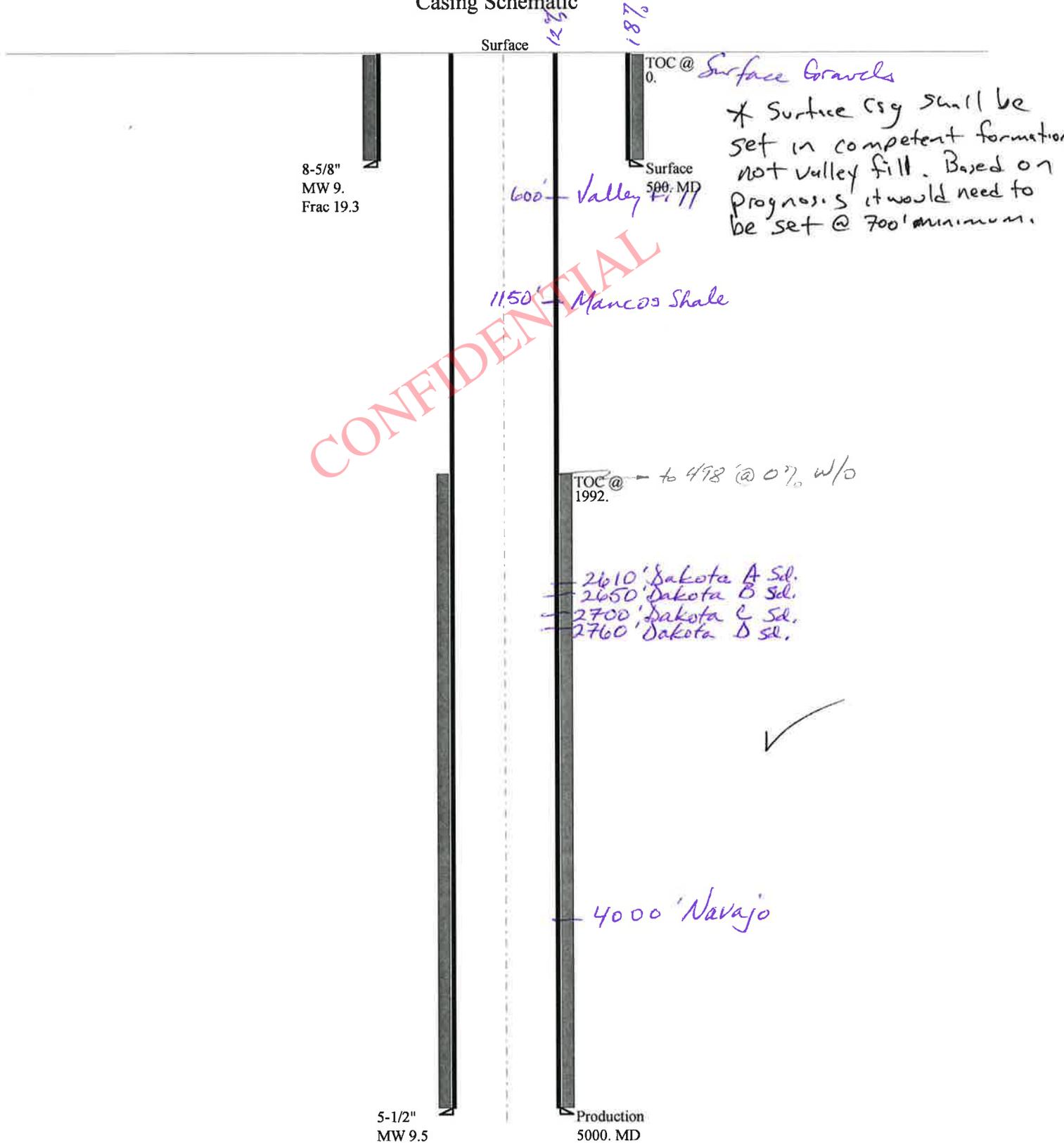
Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	234	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	174	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	124	YES OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	133	NO OK
Required Casing/BOPE Test Pressure=		500	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	5.500	"
Max BHP (psi)	.052*Setting Depth*MW=	2470	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	1870	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1370	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)=	1480	NO Reasonable - surface casing possible extension
Required Casing/BOPE Test Pressure=		3000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		500	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
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

# 43021500010000 Vanterra Rush Lake #2

## Casing Schematic



Well name:	<b>43021500010000 Vanterra Rush Lake #2</b>		
Operator:	<b>TIDEWATER OIL &amp; GAS COMPANY, LLC</b>		
String type:	Surface	Project ID:	43-021-50001
Location:	IRON	COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 9.000 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: 74 °F  
 Bottom hole temperature: 81 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 440 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 500 psi

No backup mud specified.

**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: 432 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 5,000 ft  
 Next mud weight: 9.500 ppg  
 Next setting BHP: 2,468 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	8.625	24.00	J-55	ST&C	500	500	7.972	2573
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	234	1370	5.862	500	2950	5.90	12	244	20.34 J

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

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

Date: June 22, 2010  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 500 ft, a mud weight of 9 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.

Well name:	<b>43021500010000 Vanterra Rush Lake #2</b>		
Operator:	<b>TIDEWATER OIL &amp; GAS COMPANY, LLC</b>		
String type:	Production	Project ID:	43-021-50001
Location:	IRON	COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 9.500 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: 74 °F  
 Bottom hole temperature: 144 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft

Cement top: 1,992 ft

**Burst**

Max anticipated surface pressure: 1,368 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 2,467 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: 1.60 (B)

**Non-directional string.**

Tension is based on air weight.  
 Neutral point: 4,281 ft

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	5000	5.5	15.50	K-55	LT&C	5000	5000	4.825	21912
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	2467	4040	1.637	2467	4810	1.95	77.5	239	3.08 J

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

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

Date: June 22, 2010  
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 5000 ft, a mud weight of 9.5 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.

# TIDEWATER OIL & GAS COMPANY LLC

110 - 16<sup>th</sup> Street, Suite 405

Denver, Colorado 80202

(303) 468-0656

June 22, 2010

Mr. Charles Esplin  
Charles H. Esplin & Sons Land & Livestock Company  
138 North 500 West  
Cedar City, UT 84720

Re: Preliminary access road and location construction prior to approval of Application  
for Permit to Drill the Vanterra Rush Lake #2 well

Dear Mr. Esplin,

Pursuant to my discussions with Jon Swenson last week, following is a release for  
Tidewater to commence access road and location construction for the Vanterra Rush  
Lake #2 well in Section 9-T34S-R11W.

In recent discussions with the Utah Division of Oil, Gas and Mining, they indicated there  
would be no problem with commencing road and location preparation for the referenced  
well prior to the actual issuance of the Permit to Drill, so long as we have your  
permission and the permission of Harmony Land & Livestock Company.

Please review the following release at your earliest convenience and fax back to my  
attention at (303) 534-1218 with your signature if you so agree.

Thank you for your time and consideration on this matter.

Regards,



Walter Lowry

*I, Charles H. Esplin, as a duly appointed representative of Charles H. Esplin & Sons  
Land & Livestock Company, do hereby grant Tidewater Oil & Gas Company LLC  
permission to commence construction of the access road across Esplins's fee surface  
property and the drill site location, immediately as of June 22, 2010. I fully understand  
that Tidewater has not yet received its approved Permit to Drill the Vanterra Rush Lake  
#2 well, and I further understand that granting permission to Tidewater to commence  
access road and drilling location construction in no way guarantees that such permit will  
be approved by the UDOGM.*

Charles Esplin  
Charles H. Esplin, Charles H. Esplin & Sons Land & Livestock Company

6/22/2010  
Date

**TIDEWATER OIL & GAS COMPANY LLC**110 - 16<sup>th</sup> Street, Suite 405

Denver, Colorado 80202

(303) 468-0656

June 22, 2010

Mr. Brad Schmutz  
Harmony Land & Livestock Company  
479 South 700 West  
Cedar City, UT 84720

Re: Preliminary access road and location construction prior to approval of Application  
for Permit to Drill the Vanterra Rush Lake #2 well

Dear Brad,

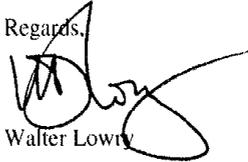
Pursuant to our discussion this morning, following is a release for Tidewater to  
commence access road and location construction for the Vanterra Rush Lake #2 well in  
Section 9-T34S-R11W.

In recent discussions with the Utah Division of Oil, Gas and Mining, they indicated there  
would be no problem with commencing road and location preparation for the referenced  
well prior to the actual issuance of the Permit to Drill, so long as we have your  
permission and the permission of Charles H. Esplin & Sons Land & Livestock Company.

Please review the following release at your earliest convenience and fax back to my  
attention at (303) 534-1218 with your signature if you so agree.

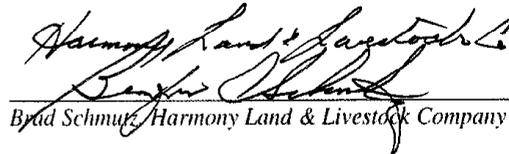
Thank you for your time and consideration on this matter.

Regards,



Walter Lowry

*I, Brad Schmutz, as a duly appointed representative of Harmony Land & Livestock  
Company, do hereby grant Tidewater Oil & Gas Company LLC permission to commence  
construction of the access road across Harmony's fee surface property immediately as of  
June 22, 2010. I fully understand that Tidewater has not yet received its approved  
Permit to Drill the Vanterra Rush Lake #2 well, and I further understand that granting  
permission to Tidewater to commence road construction in no way guarantees that such  
permit will be approved by the UDOGM.*



Brad Schmutz, Harmony Land & Livestock Company

6-22-10

Date

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** TIDEWATER OIL & GAS COMPANY, LLC  
**Well Name** Vanterra Rush Lake #2  
**API Number** 43021500010000      **APD No** 2676      **Field/Unit** WILDCAT  
**Location: 1/4,1/4** NENW      **Sec 9 Tw** 34.0S      **Rng** 11.0W      667 FNL 2015 FWL  
**GPS Coord (UTM)** 315484 4192853      **Surface Owner** Charles H. Esplin & Sons Land & Livestock Company

**Participants**

Ted Smith - DOGM, Walter Lowry-Tiedwater Oil & Gas Company LLC, Larry Johnson, Mitch Childs-Talon Resources, Inc., Gary Smith-Gary's Drilling LLC, Charles, John, Gil Esplin-Charles H. Esplin & Sons Land & Livestock Co., Brad Schmutz-Harmony Land, Livestock Co

**Regional/Local Setting & Topography**

Located in Cedar Valley. This valley sits between the Red Hills to the east and the Bald Hills to the west. Surrounding area is dry grazing land with the dry Rush Lake bottom 2 miles to the east. Area of proposed pad is flat as a pancake and very dry. Proposed location is approximately 15 miles north of the town of Cedar City and 14 miles west of the town of Parowan. Altitude at site approximately 5384'.

**Surface Use Plan**

**Current Surface Use**  
Grazing

New Road Miles	Well Pad	Src Const Material	Surface Formation
2.34	Width 300 Length 200	Onsite	ALLU

**Ancillary Facilities** N  
None with exception of trailers to be on location during drilling operations.

**Waste Management Plan Adequate?** Y

**Environmental Parameters**

**Affected Floodplains and/or Wetlands** N  
Do to being located close to the Rush dry lake bottom. Rairly has standing water once every 100 years.

**Flora / Fauna**  
Flora around the drill location area consist of - Greasewood, and Winter Fat.  
Fauna around the drill location area consist of - Coyote, Cattle, Lizards, and Jack Rabbit.

**Soil Type and Characteristics**  
Alluvial valley fill with small amount of soil crusts on surface such as mosses and lichens

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** N

**Drainage Diverson Required?** N

**Berm Required?** N

**Erosion Sedimentation Control Required?** Y

Access road will need to be watered down on regular basis. Soil appears to turn to flour after repeated travel

**Paleo Survey Run?** N **Paleo Potential Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N

**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>	>1320	0	
<b>Native Soil Type</b>	Mod permeability	10	
<b>Fluid Type</b>	Fresh Water	5	
<b>Drill Cuttings</b>	Salt or Detrimental	10	
<b>Annual Precipitation (inches)</b>		0	
<b>Affected Populations</b>			
<b>Presence Nearby Utility Conduits</b>	Not Present	0	
	<b>Final Score</b>	25	3 Sensitivity Level

**Characteristics / Requirements**

Pit will be constructed so as not to leak, break, or discharge. The reserve pit will be lined with minimum of 12 mil plastic liner

Pit will be 140' x 70' x 12' in size. The reserve pit will be fenced once it has been lined.

**Closed Loop Mud Required?** N **Liner Required?** Y **Liner Thickness** 12 **Pit Underlayment Required?** N

**Other Observations / Comments**

Tidewater Oil & Gas Company, LLC. will use a open lined pit program. All pit fluids will be hauled to an approved disposal site for waste management once well is completed. Fresh water source will be from Enoch City. Access road will be using landowner constructed through landowners Harmony Land and Livestock property for 0.16 mile and Charles Esplin & Sons Land & Livestock Company 2.19 miles to access API #4302150001. Iron county roads will be used to access the entrance to private property approximately 3.5 miles. There is no utility conduits within 2 miles of pad location. There are no agricultural irrigation ditches within 2 miles of pad location. A water well is located 1.25 mile north of location. There are no rivers or running streams within many miles of location. There is one PA'd oil well API# 4302120100 located 600 feet east of proposed well. The operator Vanterra Energy, Inc. has surface use agreement with Harmony Land & Livestock for access to proposed well dated May 21, 2010. The operator Vanterra Energy, Inc. has surface use agreement with Charles H. Esplin & Sons Land & Livestock Company for access and well pad operation and construction dated May 14, 2010. There is no local disagreement by local landowners with this drilling program. Photos are located in well file.

Ted Smith  
**Evaluator**

6/8/2010  
**Date / Time**

# Application for Permit to Drill

## Statement of Basis

6/29/2010

### Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
2676	43021500010000	REVISION	OW	P	No
<b>Operator</b>	TIDEWATER OIL & GAS COMPANY, LLC		<b>Surface Owner-APD</b>	Charles H. Esplin & Sons Land & Livestock Company	
<b>Well Name</b>	Vanterra Rush Lake #2		<b>Unit</b>		
<b>Field</b>	WILDCAT		<b>Type of Work</b>	DRILL	
<b>Location</b>	NENW 9 34S 11W S 667 FNL 2015 FWL GPS Coord (UTM) 315469E 4192839N				

#### Geologic Statement of Basis

A well at this location will likely spud into a moderately permeable soil developed on Quaternary Alluvium that covers the Tertiary-age Sevier River Formation. There may be as much as 1,000' of Cedar Valley Basin-fill at this location with Tropic Shale and the Dakota Sandstone below the valley fill. The Navajo Sandstone is also prognosticated before TD at 5,000'. An shallower old offset well in the same section (1950) suggests a show in what is likely to be the Dakota Sandstone at about 2,700' TD. No Gamma track was presented on its Resistivity Log so only SP and Resistivity were available. Drill control is quite sparse in the area (Proximate Basin & Range). The operator proposes to set 8 5/8" surface casing at 500' TD in the valley fill. There are 8 water rights filed within a mile of the location and one listed water well driller's log indicates a depth of 130' TD. The operator proposes to use a benign fresh water based mud system to depth. This program should adequately protect the shallow fresh water resources.

Chris Kierst  
APD Evaluator

6/14/2010  
Date / Time

#### Surface Statement of Basis

A presite was conducted at 11:00 am May 8, 2010 This proposed location is 15 miles north of the Cedar City. Iron county graded roads will be used for access to the location with one heavy duty cattle guard will be replaced to allow the heavy loads to location. Access off the county road requires 2.34 miles of new access road needing to be constructed on landowners Harmony Land & Livestock and Cheales H. Esplin & Sons Land & Livestock property who attended the presite. At time of presite Tidewater Oil and Gas Company, LLC partner Vanterra Energy, Inc. has a surface agreement with Harmony Land & Livestock dated May 21, 2010 and also Charles H. Esplin & Sons Land & Livestock dated May 14, 2010. Two culverts will be added at two locations along this access road to allow any water to drain properly as well as one dugway will be graveled. The operator will need to water this access road regularly. Soil tuns to flour after being repeatedly driven on. At time of presite Tidewater Oil & Gas Company, LLC has Oil & Gas lease # UTPV003B-TR1 dated May 19, 2010.

General topography in the Cedar Valley area is flat and are suitable for dry grazing. This area is easily accessed off State Highway 130. Operator will be required to construct a access road 2.34 miles onto privately owned property that has been permitted by the operator.

The proposed Rush Lake #2 pad runs east west direction and is located in the Cedar Valley . The construction material needed for this location and access road will be obtained from on site or the local Cedar City gravel pit. The pad is located on flat ground.

Tidewater Oil and Gas Company, LLC. representative Walter Lowry does not see any local opposition and says the area would like to see development.

The selected location for this well is suitable for drilling.

---

# Application for Permit to Drill Statement of Basis

6/29/2010

Utah Division of Oil, Gas and Mining

Page 2

---

Ted Smith  
Onsite Evaluator

6/8/2010  
Date / Time

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

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the northwest side of the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

CONFIDENTIAL

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

**APD RECEIVED:** 5/20/2010

**API NO. ASSIGNED:** 43021500010000

**WELL NAME:** Vanterra Rush Lake #2

**OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC (N3000)

**PHONE NUMBER:** 303 884-5505

**CONTACT:** Walter Lowry

**PROPOSED LOCATION:** NENW 9 340S 110W

**Permit Tech Review:**

**SURFACE:** 0667 FNL 2015 FWL

**Engineering Review:**

**BOTTOM:** 0667 FNL 2015 FWL

**Geology Review:**

**COUNTY:** IRON

**LATITUDE:** 37.86621

**LONGITUDE:** -113.09781

**UTM SURF EASTINGS:** 315469.00

**NORTHINGS:** 4192839.00

**FIELD NAME:** WILDCAT

**LEASE TYPE:** 4 - Fee

**LEASE NUMBER:** UTPV003B-TR1

**PROPOSED PRODUCING FORMATION(S):** NAVAJO

**SURFACE OWNER:** 4 - Fee

**COALBED METHANE:** NO

**RECEIVED AND/OR REVIEWED:**

- PLAT**
- Bond:** STATE/FEE - 3-943-1262-4874
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** Enoch City Corp System #11004
- RDCC Review:** 2010-06-24 00:00:00.0
- Fee Surface Agreement**
- Intent to Commingle**

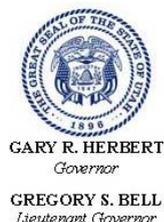
**Commingle Approved**

**LOCATION AND SITING:**

- R649-2-3.**
- Unit:**
- R649-3-2. General**
- R649-3-3. Exception**
- Drilling Unit**
- Board Cause No:** R649-3-2
- Effective Date:**
- Siting:**
- R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:**  
5 - Statement of Basis - bhill  
21 - RDCC - dmason  
23 - Spacing - dmason  
25 - Surface Casing - ddoucet



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** Vanterra Rush Lake #2  
**API Well Number:** 43021500010000  
**Lease Number:** UTPV003B-TR1  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 6/29/2010

### Issued to:

TIDEWATER OIL & GAS COMPANY, LLC, 110 16th St Ste 1220, Denver, CO 80202

### Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2. The expected producing formation or pool is the NAVAJO Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

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

### 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.

### Conditions of Approval:

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be set in competent formation, not valley fill, and cemented back to the surface. This will protect water resources in the valley fill and provide proper blow out prevention.

**Additional Approvals:**

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

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

**Notification Requirements:**

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

- Within 24 hours following the spudding of the well – contact Carol Daniels  
OR  
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

**Contact Information:**

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

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

**Approved By:**



Acting Associate Director, Oil & Gas

**DIVISION OF OIL, GAS AND MINING**

**SPUDDING INFORMATION**

Name of Company: TIDEWATER OIL & GAS COMPANY, LLC

Well Name: VANTERRA RUSH LAKE #2

Api No: 43-021-50001 Lease Type FEE

Section 09 Township 34S Range 11W County IRON

Drilling Contractor CAPSTAR RIG # 311

**SPUDDED:**

Date 11/20/2010

Time 2:30 PM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by WALT LOWRY

Telephone # (303) 884-5505

Date 11/22/2010 Signed CHD

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
UTPV003B-TR1

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  
NA

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.

7. UNIT or CA AGREEMENT NAME:  
NA

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER Dryhole

8. WELL NAME and NUMBER:  
Vanterra Rush Lake #2

2. NAME OF OPERATOR:  
Tidewater Oil & Gas Company LLC

9. API NUMBER:  
4302150001

3. ADDRESS OF OPERATOR: 110 16th St, Suite 405 Denver CO 80202  
PHONE NUMBER: (303) 468-0656

10. FIELD AND POOL, OR WILDCAT:  
Wildcat

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 667 FNL 2015 FWL COUNTY: Iron  
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 9 34S 11W S STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>11/29/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

**COPY SENT TO OPERATOR**

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

Date: 12.2.2010  
Initials: KS

Tidewater proposes to plug & abandon the subject well as follows:

- TD @ 6100'  
Set 200' balanced Plug #1 (88 sx) in 7-7/8" hole with 50% excess over gauge hole from 5580'-5780' over the top of the Carmel Limestone with a top at 5681'.
- Set 200' balanced Plug #2 (88 sx) in 7-7/8" hole with 50% excess over gauge hole from 2600'-2800' over the top of the Dakota Sandstone with a top at 2700'.
- Set 200' balanced Plug #3 (77 sx) with 100' in 7-7/8" hole with 50% excess over gauge hole and 100' inside surface casing shoe at 538' from 438'-638'.
- Set 50' surface Plug #4 (15 sx) inside surface casing from ground level to 50' RKB.

All plugs will be Class G mixed at 15.8 ppg with a yield of 1.15 cf/sx.

**RECEIVED**  
**NOV 29 2010**

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

NAME (PLEASE PRINT) Walter Lowry TITLE Engineer

SIGNATURE [Signature] DATE 11/29/2010

**APPROVED BY THE STATE**  
**OF UTAH DIVISION OF**  
**OIL, GAS, AND MINING**

DATE: 11/29/2010  
BY: [Signature]

(See Instructions on Reverse Side)  
\* See conditions of Approval (Attached)

(This space for State use only)



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

## ***CONDITIONS OF APPROVAL TO PLUG AND ABANDON WELL***

Well Name and Number: Vanterra Rush Lake #2  
API Number: 43-021-50001  
Operator: Tidewater Oil & Gas Company LLC  
Reference Document: Original Sundry Notice dated November 29, 2010,  
received by DOGM on November 29, 2010.

### Approval Conditions:

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
2. All balanced plugs shall be tagged to ensure they remain at the depth specified by the proposal.
3. All annuli shall be cemented from a minimum depth of 50' to the surface.
4. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.
5. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
6. If there are any changes to the plugging procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.
7. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Dustin K. Doucet  
Petroleum Engineer

November 29, 2010

Date



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

AMENDED REPORT  FORM 8  
(highlight changes)

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>UTPV003B-TR1</b>	
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>NA</b>	
2. NAME OF OPERATOR: <b>Tidewater Oil &amp; Gas Company LLC</b>		7. UNIT or CA AGREEMENT NAME <b>NA</b>	
3. ADDRESS OF OPERATOR: <b>110 16th Street, Ste 405 CITY Denver STATE CO ZIP 80202</b>		8. WELL NAME and NUMBER: <b>Vanterra Rush Lake #2</b>	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: <b>667 FNL, 2015 FWL</b>  AT TOP PRODUCING INTERVAL REPORTED BELOW: <b>667 FNL, 2015 FWL</b>  AT TOTAL DEPTH: <b>667 FNL, 2015 FWL</b>		9. API NUMBER: <b>4302150001</b>	
14. DATE SPUDED: <b>11/20/2010</b>		15. DATE T.D. REACHED: <b>11/29/2010</b>	
16. DATE COMPLETED: <b>12/1/2010</b>		17. ELEVATIONS (DF, RKB, RT, GL): <b>5384' GL, 5395' RKB</b>	
18. TOTAL DEPTH: MD <b>6,100</b> TVD <b>6,100</b>		19. PLUG BACK T.D.: MD <b>3</b> TVD <b>3</b>	
20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD PLUG SET: TVD	
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  <b>Unable to obtain electric logs</b>		23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit copy)	

**24. CASING AND LINER RECORD (Report all strings set in well)**

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20	16 H40	65	0	30			14	0	0
12.25	8.625 J55	24	0	538		Versa 210	78	0	0

**25. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

**26. PRODUCING INTERVALS**

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Navajo	2,700	3,000	2,700	3,000				Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(B) Kaibab	5,750	6,000	5,750	6,000				Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

**27. PERFORATION RECORD**

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

**28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.**

29. ENCLOSED ATTACHMENTS: <input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input checked="" type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION		<input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> CORE ANALYSIS		<input type="checkbox"/> DST REPORT <input checked="" type="checkbox"/> OTHER: <b>Drilling rpts</b>		<input type="checkbox"/> DIRECTIONAL SURVEY <input type="checkbox"/>		30. WELL STATUS:  <b>P&amp;A</b>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------	--	--------------------------------------------------------------------------------------------------------	--	-------------------------------------------------------------------------	--	----------------------------------------

RECEIVED

**31. INITIAL PRODUCTION**

**INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL B (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL C (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL D (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)**

**33. SUMMARY OF POROUS ZONES (Include Aquifers):**

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

**34. FORMATION (Log) MARKERS:**

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
None				Unable to run e-logs	

**35. ADDITIONAL REMARKS (Include plugging procedure)**

See attached "Actual Plug & Abandon Schematic" for details of P&A operations.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Walter Lowry TITLE Engineer  
 SIGNATURE [Signature] DATE 12/8/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
 1594 West North Temple, Suite 1210  
 Box 145801  
 Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

CONFIDENTIAL

TIDEWATER OIL & GAS COMPANY LLC

Vanterra Rush Lake #2

ACTUAL PLUG & ABANDONMENT DIAGRAM

Well: Vanterra Rush Lake #2  
 Well Type: Vertical  
 Surface Location: 667' FNL, 2015' FWL, NENW Section 9-T34S-R11W  
 Latitude / Longitude: Lat: 37.866389, Long: -113.0975  
 Bottom Hole Location: 667' FNL, 2015' FWL, NENW Section 9-T34S-R11W  
 Permitted TD: 5,000' MD/TVD REVISIED TO 6,100'  
 Author-Version-Date: WDL - Rev 0 12-07-10

ALL INFORMATION & DATA  
 STRICTLY CONFIDENTIAL

AFE Number: 10-003D  
 Field: Wildcat  
 API Well Number: 43-021-50001  
 Elevation (ft): 5384' graded  
 KB to GL (ft): ~13'  
 Objectives: Plug & Abandon Well

Geology Logs	Casing & Cement	BOPE Testing Requirements	Depth (ft, MD)	Hole Size	Bit Run	Directional and Mud Data
Surface Gravels			8.625" 3M SOW X 11" 3M	30' of 16" 0.25" w.t. conductor in 20" hole with 6' dia x 4' deep cellar		
	<p>Set 50' surface plug with 15 sx Class G cement mixed at 15.8 ppg with a yield of 1.15 cf/sx from 3' BGL to 53' BGL.</p> <p>Surface Casing Cement: Pump 10 bbl FW spacer. Pump 210 sx Howco Versacem (2.08 cf/sx) + 0.125 #/sx Poly-E-Flake, 100% excess, mixed @ 12.8 ppg. Return 35 bbls cement to surface. Cement stayed at surface.</p> <p>Test casing to 2360 psi / 10 min prior to drill out.</p>			12 1/4" Hole	Bit #1 12.25" Use retip bit.	<p>Spud well below 16" conductor pipe at 30' BGL w/ spud mud pre-mixed in steel tanks. Preferred properties: Wt= 9.0 ppg; Vis= ~38 sec/qt; WL= NC; Prepare for substantial additions of LCM.</p> <p><b>MUDLOGGING PROGRAM:</b> 2 sets of samples taken at 10' intervals from the shale shaker from spud @ 30' BGL to Total Depth (~6100' MD). One set has been cleaned, dried, bagged, and marked.</p>
Out of Valley Fill @ 450' TVD			8 5/8" 24# J55 STC @ 538' MD/TVD			
	<p>RU 3M BOP stack per UDOGM requirements w/ double rams and annular preventer.</p> <p>Test Rams/Choke to: 250 psi / 10 min 2360 psi / 10 min</p> <p>Test Annular to: 1500 psi / 10 min</p> <p>Navajo SS Top @ 2700' TVD</p>	<p>Set 200' (77 sx) Class G cement plug 100' inside and 100' outside surface casing shoe fl 438'-538'. Mix cement at 15.8 ppg and 1.15 cf/sx yield.</p> <p>Set 200' (89 sx) Class G cement plug across suspected top of Navajo Formation from 2600'-2800'. Mix cement at 15.8 ppg and 1.15 cf/sx yield.</p> <p>Set 200' (89 sx) Class G cement plug across suspected top of Kaibab Carbonate from 5580'-5780'. Mix cement at 15.8 ppg and 1.15 cf/sx yield.</p>		7-7/8" Hole	Bit #2 STC Mi616 PDC 538'-4582'	<p>(No Formation Integrity Test required)</p> <p><b>Drilling Fluids for Production Hole (from 538'-6100'):</b> Gel/Polymer Fresh Water Base Mud. Ran Hi-Viscosity gel sweeps every 200-300 ft. Utilize Fed Pac-R for FL control and Fed Rheosmart for rheology control. MW range from 9-1-9.5 ppg, Vis range from 32-45 sec/qt, WL range from 8.5-18.0 cc/30 min.</p>
						<p><b>DIRECTIONAL SURVEYS</b></p> <p>281'- 0.5 DEG                      535'- 1.0 DEG                      911'- 0.5 DEG                      1418'- 0.5 DEG                      1926'- 1.0 DEG                      2433'- 1.0 DEG                      2942'- 1.0 DEG                      3449'- 4.0 DEG                      4422'- 5.5 DEG                      4918'- 5.0 DEG                      5976'- Misrun                      6070'- 5.0 DEG</p>
Kaibab Carbonate (?) @ 5650' MD						
	<p><b>OPENHOLE LOGGING PROGRAM:</b> Attempt to run Quad Combo (True Resistivity/Spectral Density/ Dual Spaced Neutron/ GR/ CAL/ BHC Sonic). Make 3 attempts to log and could not get past obstruction at 1950'. Receive verbal permission from UDOGM to abandon logging operations.</p>				Bit #3 STC Mi616 PDC 4582'-6100'	
TD 6100' MD			6100' MD			

APPROVALS

Prepared By:  December 7, 2010  
 Date

Approved By: \_\_\_\_\_  
 Date

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

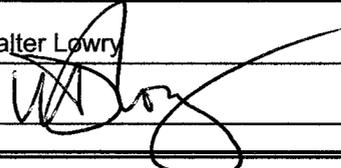
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: UTPV003B-TR1
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Dryhole</u>		7. UNIT or CA AGREEMENT NAME: NA
2. NAME OF OPERATOR: Tidewater Oil & Gas Company LLC		8. WELL NAME and NUMBER: Vanterra Rush Lake #2
3. ADDRESS OF OPERATOR: 110 16th St, Suite 405 CITY Denver STATE CO ZIP 80202		9. API NUMBER: 4302150001
4. LOCATION OF WELL FOOTAGES AT SURFACE: 667 FNL 2015 FWL COUNTY: Iron QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 9 34S 11W S STATE: UTAH		10. FIELD AND POOL, OR WILDCAT: Wildcat

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>11/29/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Change permitted depth</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

Tidewater proposes to modify the permitted total depth of the subject well from 5000' to 6100' MD/TVD.

NAME (PLEASE PRINT) <u>Walter Lowry</u>	TITLE <u>Engineer</u>
SIGNATURE 	DATE <u>11/29/2010</u>

(This space for State use only)

RECEIVED

DEC 14 2010

DIV. OF OIL, GAS & MINING

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**UTPV003B-TR1**

**SUNDRY NOTICES AND REPORTS ON WELLS**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  
**NA**

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.

7. UNIT or CA AGREEMENT NAME:  
**NA**

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER Dryhole

8. WELL NAME and NUMBER:  
**Vanterra Rush Lake #2**

2. NAME OF OPERATOR:  
**Tidewater Oil & Gas Company LLC**

9. API NUMBER:  
**4302150001**

3. ADDRESS OF OPERATOR: **110 16th St, Suite 405 Denver CO 80202** PHONE NUMBER: **(303) 468-0656**

10. FIELD AND POOL, OR WILDCAT:  
**Wildcat**

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: **667 FNL 2015 FWL** COUNTY: **Iron**  
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **NENW 9 34S 11W S** STATE: **UTAH**

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>11/29/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Change permitted depth</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
Tidewater proposes to modify the permitted total depth of the subject well from 5000' to 6100' MD/TVD.

**COPY SENT TO OPERATOR**

Date: 12.6.2010  
Initials: KS

NAME (PLEASE PRINT): Walter Lowry TITLE: Engineer  
SIGNATURE: [Signature] DATE: 11/29/2010

**APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**

DATE: 11/29/2010  
BY: [Signature]  
(See Instructions on Reverse Side)

\*Verbal given 11/29/2010

(This space for State use only)

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

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: UTPV003B-TR1
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.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA
		7. UNIT or CA AGREEMENT NAME: NA
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Dryhole</u>	8. WELL NAME and NUMBER: Vanterra Rush Lake #2	
2. NAME OF OPERATOR: Tidewater Oil & Gas Company LLC		9. API NUMBER: 4302150001
3. ADDRESS OF OPERATOR: 110 16th Street, Suite 405 CITY Denver STATE CO ZIP 80202	PHONE NUMBER: (303) 468-0656	10. FIELD AND POOL, OR WILDCAT: Wildcat
4. LOCATION OF WELL FOOTAGES AT SURFACE: 667 FNL, 2015 FWL		COUNTY: Iron
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 9 34S 11W S		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start:  	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: 12/1/2010	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Drill deeper</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

16" conductor was pre-set at 30' BGL (D. Doucet was notified of the change from 40' BGL). CapStar #311 was MIRU and the well was spud at 1430 hrs on 11/20/10. A 12-1/4" hole was drilled from 30' BGL to 538' RKB. 8-5/8" 24ppf J55 STC surf csg was run to 538' and cemented to surf w/ 210 sx Howco Versacem cement mixed at 12.8 ppg and 2.11 cf/sx. 78 bbls of cement were pumped. 35 bbls of cement were circulated to surface. 9" 3M BOP equip was nipped up onto an 11" 3M wellhead. The rams and manifold were tested to 2360 psi (80% of the IYP of the csg). The annular preventer was tested to 1500 psi. A 7-7/8" hole was drilled f/ 538'-6100'. Inclination surveys were taken approx every 500' of hole drilled (see attached "Actual Plug & Abandon Schematic" for details of the final condition of the well including directional surveys). Verbal approval was given by D. Doucet at 1609 hrs on 11/26/10 to extend the permitted TD from 5000' to 5500'. Additional verbal approval was given by D. Doucet at ~1900 hrs on 11/28/10 to extend the permitted TD to 6500'. No shows of oil, gas or water were apparent throughout the drilling of the well. The well was TD'd at 1330 hrs on 11/29/10 at 6100' MD. The only formation tops picked with confidence were the Navajo Sand at 2700' and the Kaibab Carbonate at ~5650'. 3 attempts were made to obtain electric logs, however the logging tools would not go past 1950'. Verbal approval was received from D. Doucet to abandon logging operations. The well was P&A'd pursuant to verbal P&A orders received from D. Doucet. All P&A plugs were Class G cement mixed at 15.8 ppg and 1.15 cf/sx with 50% calculated excess. Plug #1 was 89 sx set from 5580'-5780' over the top of the Kaibab formation. Plug #2 was 89 sx set from 2600'-2800' over the top of the Navajo formation. Plug #3 was 77 sx set from 438'-638' across the surface casing shoe at 538'. Plug #4 was 15 sx surf plug set from 3' BGL-53' RKB. CapStar #311 released at 1000 hrs on 12/01/10. The 4th side of the reserve pit was fenced, cellar ring pulled, cellar filled, and a dryhole marker installed.

NAME (PLEASE PRINT) <u>Walter Lowry</u>	TITLE <u>Engineer</u>
SIGNATURE	DATE <u>12/8/2010</u>



# TIDEWATER OIL & GAS COMPANY LLC

## DAILY DRILLING REPORT

Report Date: 11/21/10

Report Time: 0700 hrs

Operator: TIDEWATER OIL & GAS COMPANY LLC

Lease No: UTPV003B-TR 1

Field: Wildcat

Well Name: Vanterra Rush Lake #2

API 43-021-50001

Location: 667 FNL, 2015 FWL

Contractor: CapStar

Type: Vertical

Elevation: 5384' graded

Sec 9-T34S- R11W

Rig #: 311

Target: Navajo

Iron County, Utah

Current Operation	Report #/ Days From Spud	Current Depth	24 Hour Footage	Hole Condition	Hole Problems
Running surface casing	1	538'	508'	GOOD	NONE

**Summary:** MIRU CapStar Rig #311. Weld on bell nipple. RU Pason and Columbine mudlogging. Mix mud in steel tanks. **SPUD WELL AT 1430 HRS 11/20/10.** Received deliveries of 8-5/8" surface casing, mud motors, 12-1/4" & 7-7/8" bits. Drill 12-1/4" surface hole to 538' RKB (KB height is 11'). Rig repair- hydraulic pump for power swivel. Run wireline survey at 281'- 1/2 deg. Drill surface hole to a TD of 538'. Drop survey- 1 degree. Circ hi-vis pill and bottoms up. Short-trip 250'. Wash 3' of fill. Circulate & condition mud. POOH. RU & run 8-5/8" 24#/ft J55 STC surface casing. Halliburton on location at 2200 hrs. DAN JARVIS OF UDOGM WAS NOTIFIED OF PENDING SURFACE CASING CEMENT JOB AND SUBSEQUENT BOPE NIPPLE UP & TESTING AT 0918 HRS ON 11-21-2010.

Walt Lowry (Company Man): 303-884-5505

Cum Cost: \$0

Mud Properties	Depth	Weight	Viscosity	Gel Strength	Water Loss	Filter Cake	pH	Chloride PPM	Calcium PPM	Solids %	Sand %	
		538	9.3	40	12/24	10.2	2/32	7.5	700	80	7.1	2
Mud Pump	Number	Mnfctr	Model	Stroke (")	Liner (in)	Rod Size (in)	Number	Mnfctr	Model	Stroke (in)	Liner (in)	Rod Size (in)
	1	National	7-P-50	7 3/4	6 1/4							
Drilling Parameters	Depth Interval	Weight on Bit	RPM	Torque	Pump Press (PSI)	SPM	Average Drill Rate	Avg FPM DP	Avvg FPM DC	FPS	Hydraulic Hp	Jet Impact Force
		10K	90	900-1100	200	116	56.6	181	207			
Bit Record	No./Size	Mnfctr	Type	Serial #	Jets (#/32nd)	Depth In (ft)	Depth Out (ft)	Footage	FPH	Rotating Hours		Dull Gr
										Bit	Cum	
	1- 12.25"	REED	JR7414	MHT116KPRC	OPEN	30	538	508	53.5	9.5	9.5	WT

Surveys	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	TVD	BHA
		281'	0.5	NA	535'	1.0	NA				

To Time	Hours	OPERATIONS								WELL COST		TODAY	CUM
	0700-1430	7.50	MIRU CapStar Rig #311. RU Columbine mudloggers & Pason. Unload 12 jts of 8-5/8" 24#/ft J55 STC surface casing. Construct and weld on 16" bell nipple and flowline extension. Mix mud in steel tanks for spud.										Rig
												Mud	
												Set Conductor	
1430-1630	2.00	Spud well and drill 12.25" surface hole from 30'-177'										Bit/ Rmr	
1630-1900	2.50	Rig Repair. Broken shaft on hydraulic pump for power swivel.										Rentals	
1900-2230	3.50	Drill 12.25" surface hole from 177'-281'										Geol/Mudlogger	
2230-2300	0.50	Circulate and survey- 0.5 deg at 250'										Engineer & Suprvisor	
2300-0200	3.00	Drill 12.25" surface hole from 281'-508'										Fuel	
0200-0230	0.50	Rig Repair. Work on mud pump.										Logs	
0230-0300	0.50	Drill 12.25" surface hole from 508'-538'										Wellhead, Tbg & Csg	
0300-0330	0.50	Circulate & condition mud										Cementing	
0330-0400	0.50	Short trip to 250'. No adverse hole conditions.										Damages & Permit	
0400-0430	0.50	Circulate & condition mud										Mob/Demob	
0430-0530	1.00	Drop survey. POOH to run surface casing.										Bond & Insurance	
0530-0630	1.00	LD BHA. Recover survey- 1 degree at 535'.										Trucking	
0630-0700	0.50	Make up 8-5/8" float shoe, shoe joint & float collar. Run bow spring centralizer on middle of shoe joint then every other collar for total of 10 centralizers.										Permitting	
												Road/Location	
												Water	
TOTAL	24											TOTAL	

Mud Gas Units	BG	Conn	Gas Chromatograph							Formation %:			Shows
	50u			C4	C5					Shale: 10	Sand: 90	Chalk:	

Confidential

Hours	Drilling	Tripping	Rig Service/ Repair	Survey	MIRU/ RDMO	Ream/ Wash	Circ	Log/ Csg	Other	Downtime		Totals:	
										Repair	Other	Standby	Daywork
Today:	9.5	1.5	3.0	0.5	7.5		1.0	0.5	0.5				24
Cum.:	9.5	1.5	3.0	0.5	7.5		1.0	0.5	0.5				24

# TIDEWATER OIL & GAS COMPANY LLC

## DAILY DRILLING REPORT

Report Date: 11/22/10

Report Time: 0700 hrs

Operator: TIDEWATER OIL & GAS COMPANY LLC

Lease No: UTPV003B-TR 1

Field: Wildcat

Well Name: Vanterra Rush Lake #2

API 43-021-50001

Location: 667 FNL, 2015 FWL

Contractor: CapStar

Type: Vertical

Elevation: 5384' graded

Sec 9-T34S- R11W

Rig #: 311

Target: Navajo

Iron County, Utah

Current Operation	Report #/ Days From Spud	Current Depth	24 Hour Footage	Hole Condition	Hole Problems
NU & Test BOPE	2	538'	0	GOOD	NONE

**Summary:** Run 535.37' of 8-5/8" 24#/ft J55 STC. Tag 3' fill and wash to TD of 538'. PU 5' off bottom and circulate and condition mud while rigging up Halliburton. Hold safety meeting on casing/cementing operations. Pump 10 bbls fresh water spacer. Mix & pump 210 sx of Howco Versacem cement at 12.8 ppg with a 2.11 cf/sx yield with 11.75 gal/sx mix water. Pump 100% excess over gauge volume. Total cement volume pumped= 78 bbls. Total cement returned to surface= 35 bbls. Displace with 39 bbls of fresh water. Bump plug with 1100 psi. Floats held. ND Halliburton head. Slack off casing and set on bottom in compression. WOC. Make rough cuts on conductor pipe and 8-5/8" surface casing. Pre-heat and weld on 8-5/8" SOW x 11" 3M wellhead. NU & test BOPE.

Walt Lowry (Company Man): 303-884-5505

Cum Cost: \$0

Mud Properties	Depth	Weight	Viscosity	Gel Strength	Water Loss	Filter Cake	pH	Chloride PPM	Calcium PPM	Solids %	Sand %	
	538	9.6	40	16/34	11.2	2/32	7.5	800	360	9.3	3	
Mud Pump	Number	Mnfctr	Model	Stroke (")	Liner (in)	Rod Size (in)	Number	Mnfctr	Model	Stroke (in)	Liner (in)	Rod Size (in)
	1	National	7-P-50	7 3/4	6 1/4							
Drilling Parameters	Depth Interval	Weight on Bit	RPM	Torque	Pump Press (PSI)	SPM	Average Drill Rate	Avg FPM DP	Avvg FPM DC	FPS	Hydraulic Hp	Jet Impact Force
Bit Record	No./Size	Mnfctr	Type	Serial #	Jets (#/32nd)	Depth In (ft)	Depth Out (ft)	Footage	FPH	Rotating Hours		Dull Gr
	1- 12.25" 2- 7.875"	REED	JR7414	MHT116KPRC	OPEN	30	538	508	53.5	9.5	9.5	WT
		SMITH	Mi616	6 X 16	538							

Surveys	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	TVD	BHA

To Time	Hours	OPERATIONS							WELL COST		TODAY	CUM
0700-0800	1.00	Run 12 jts of 8-5/8" 24#/ft J55 STC casing. Tag bottom w/ 3' of fill.							Rig			
0800-0900	1.00	Circulate out fill. Found TD at 538'. CCM to cement casing.							Mud			
0900-1000	1.00	RU Halliburton. Mix & pump 210 sx of Versacem cement mixed at 12.8 ppg w/ yield of 2.11 cf/sx mixed w/ 11.75 gal/sx water. Pump 10 bbl FW spacer ahead of cement. Pump 78 bbls cement. Return 35 bbls cement to surface. Full returns throughout job. Drop plug and displace cement w/ 78 bbl FW. Bump plug w/ 1100 psi. Floats held. ND cement head and slack off casing to bottom. Set casing in full compression. RD Halliburton.							Set Conductor			
									Bit/ Rmr			
									Rentals			
									Geol/Mudlogger			
									Engineer & Suprvisor			
									Fuel			
1000-1800	8.00	WOC. Cut off conductor cpipe and 8-5/8" casing. Make final cut on csg.							Logs			
1800-0100	7.00	WO wellhead. Pre-heat wellhead to 400 deg F. Weld on wellhead.							Wellhead, Tbg & Csg			
0100-0500	4.00	NU BOPE.							Cementing			
0500-0700	2.00	Test BOPE to max pressure of 2400 psi (80% of 8-5/8" internal yield pressure). Test pipe, blind rams, manifold & casing to 2400 psi. Held ok. Testing annular preventer to 1500 psi at report time.							Damages & Permit			
									Mob/Demob			
									Bond & Insurance			
									Trucking			
									Contract Labor			
									Road/Location			
									Water			
<b>TOTAL</b>	<b>24</b>								<b>TOTAL</b>			

Confidential

Mud Gas Units	BG	Conn	Trip	Gas Chromatograph					Formation %:			Shows	
				C1	C2	C3	C4	C5	Shale: 10	Sand: 90	Chalk:		
Hours	Drilling	Tripping	Rig Service/ Repair	Survey	MIRU/ RDMO	Ream/ Wash	Circ	Log/ Csg	Other	Downtime		Totals:	
Today:	0	0	0.0	0	0		1.0	2	21	Repair	Other	Standby	Daywork
Cum.:	9.5	1.5	3.0	0.5	7.5		2.0	2.5	21.5				48





# TIDEWATER OIL & GAS COMPANY LLC

## DAILY DRILLING REPORT

Report Date: 11/25/10

Report Time: 0700 hrs

Operator: TIDEWATER OIL & GAS COMPANY LLC

Lease No: UTPV003B-TR 1

Field: Wildcat

Well Name: Vanterra Rush Lake #2

API 43-021-50001

Location: 667 FNL, 2015 FWL

Contractor: CapStar

Type: Vertical

Elevation: 5384' graded

Sec 9-T34S- R11W

Rig #: 311

Target: Navajo

Iron County, Utah

Current Operation	Report #/ Days From Spud	Current Depth	24 Hour Footage	Hole Condition	Hole Problems
Drilling 7-7/8" hole at 3731'	5	3731'	976'	GOOD	NONE

**Summary:** Drill 7-7/8" hole from 2755'-3731' and survey at 2942' (1.0 deg), 3449' (4.0 deg). Rig repair on mud pump two times for a total of 1 hour.  
**WEATHER:** Cold and clear. HAPPY THANKSGIVING!

Walt Lowry (Company Man): 303-884-5505 or (720) 219-8634

**Cum Cost: \$0**

Mud Properties	Depth	Weight	Viscosity	Gel Strength	Water Loss	Filter Cake	pH	Chloride PPM	Calcium PPM	Solids %	Sand %	
	3702	9.3	37	3/16	18	2/32	8.5	500	40	7.0	0.75	
Mud Pump	Number	Mnfctr	Model	Stroke (")	Liner (in)	Rod Size (in)	Number	Mnfctr	Model	Stroke (in)	Liner (in)	Rod Size (in)
	1	National	7-P-50	7 3/4	6 1/4							
Drilling Parameters	Depth Interval	Weight on Bit	RPM	Torque	Pump Press (PSI)	SPM	Average Drill Rate	Avg FPM DP	Avvg FPM DC	FPS	Hydraulic Hp	Jet Impact Force
	2755-3731	0-20	120	800-3000	800-1200	116	46.5	174	207	93	14	
Bit Record	No./Size	Mnfctr	Type	Serial #	Jets (#/32nd)	Depth In (ft)	Depth Out (ft)	Footage	FPH	Rotating Hours		Dull Gr
	1- 12.25" 2- 7.875"	REED	MHT116	JR7414	OPEN	30	538	508	53.5	9.5	9.5	
		SMITH	Mi616	JD3608	6 X 16	538		976	46.5	21.0	55.5	
						TOTAL FTG- BIT #2		3193	57.5			

Surveys	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	TVD	BHA
		2942'	1.0		3449'	4.0					

To Time	Hours	OPERATIONS							WELL COST		TODAY	CUM
0700-0730	0.50	Rig Repair- work on mud pump #1							Rig			
0730-0900	1.50	Drill 7-7/8" hole from 2755'-2768'							Mud			
0900-0930	0.50	Rig Repair- work on mud pump #1							Set Conductor			
0930-1300	3.50	Drill 7-7/8" hole from 2768'-2974'							Bit/ Rmr			
1300-1330	0.50	Circulate & survey at 2942'- 1.0 deg							Rentals			
1330-1500	1.50	Drill 7-7/8" hole from 2974'-3195'							Geol/Mudlogger			
1500-1530	0.50	Service Rig							Engineer & Suprvisor			
1530-1730	2.00	Drill 7-7/8" hole from 3195'-3417'							Fuel			
1730-1800	0.50	Circulate & condition hole to keep hole from loading up with cuttings							Logs			
1800-1930	1.50	Drill 7-7/8" hole from 3417'-3481'							Wellhead, Tbg & Csg			
1930-2000	0.50	Circulate & survey at 3449'- 4.0 deg							Cementing			
2000-0700	11.00	Drill 7-7/8" hole from 3481'-3731'							Damages & Permit			
									Mob/Demob			
									Bond & Insurance			
									Trucking			
									Contract Labor			
									Road/Location			
									Water			
<b>TOTAL</b>	<b>24</b>								<b>TOTAL</b>			

# Confidential

Mud Gas Units	BG	Conn	Trip	Gas Chromatograph						Formation %:			Shows
				C1	C2	C3	C4	C5	Shale:	Sand:	Chalk:		
10									35	65			
Hours	Drilling	Tripping	Rig Service/ Repair	Survey	MIRU/ RDMO	Ream/ Wash	Circ	Log/ Csg	Other	Downtime		Totals:	
										Repair	Other	Standby	Daywork
<b>Today:</b>	21	0	1.5	1	0		0.5	0	0				24
<b>Cum.:</b>	65	2.5	6.5	3.5	7.5		2.5	2.5	30				120

# TIDEWATER OIL & GAS COMPANY LLC

## DAILY DRILLING REPORT

Report Date: 11/26/10

Report Time: 0700 hrs

Operator: TIDEWATER OIL & GAS COMPANY LLC

Lease No: UTPV003B-TR 1

Field: Wildcat

Well Name: Vanterra Rush Lake #2

API 43-021-50001

Location: 667 FNL, 2015 FWL

Contractor: CapStar

Type: Vertical

Elevation: 5384' graded

Sec 9-T34S- R11W

Rig #: 311

Target: Navajo

Iron County, Utah

Current Operation	Report #/ Days From Spud	Current Depth	24 Hour Footage	Hole Condition	Hole Problems
Drilling 7-7/8" hole at 4150'	6	4150'	419'	GOOD	NONE

Summary: Drill 7-7/8" hole from 3731'-4150' and survey at 3951' (4.0 deg). WEATHER: Cold and clear.

Walt Lowry (Company Man): 303-884-5505 or (720) 219-8634 Cum Cost: \$0

Mud Properties	Depth	Weight	Viscosity	Gel Strength	Water Loss	Filter Cake	pH	Chloride PPM	Calcium PPM	Solids %	Sand %	
	4134'	9.3	38	4/19	11.0	2/32	8.0	500	40	7.0	0.75	
Mud Pump	Number	Mnfctr	Model	Stroke (")	Liner (in)	Rod Size (in)	Number	Mnfctr	Model	Stroke (in)	Liner (in)	Rod Size (in)
	1	National	7-P-50	7 3/4	6 1/4							
Drilling Parameters	Depth Interval	Weight on Bit	RPM	Torque	Pump Press (PSI)	SPM	Average Drill Rate	Avg FPM DP	Avvg FPM DC	FPS	Hydraulic Hp	Jet Impact Force
	3731-4150	0-20	120	800-3000	700-900	116		174	207	93	14	
Bit Record	No./Size	Mnfctr	Type	Serial #	Jets (#/32nd)	Depth In (ft)	Depth Out (ft)	Footage	FPH	Rotating Hours		Dull Gr
	1- 12.25" 2- 7.875"	REED	MHT116	JR7414	OPEN	30	538	508	53.5	9.5	9.5	
		SMITH	Mi616	JD3608	6 X 16	538		419	18.2	23.0	78.5	
						TOTAL FTG- BIT #2		3612	46.0			

Surveys	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	TVD	BHA
	3951'	4.0									

To Time	Hours	OPERATIONS							WELL COST			TODAY	CUM
0700-1300	6.00	Drill 7-7/8" hole from 3731'-3855'							Rig				
1300-1330	0.50	Service Rig							Mud				
1330-1900	5.50	Drill 7-7/8" hole from 3855'-3983'							Set Conductor				
1900-1930	0.50	Circulate & survey at 3951'- 4.0 deg							Bit/ Rmr				
1930-0700	11.50	Drill 7-7/8" hole from 3983'-4150'							Rentals				
									Geol/Mudlogger				
									Engineer & Suprvisor				
									Fuel				
									Logs				
									Wellhead, Tbg & Csg				
									Cementing				
									Damages & Permit				
									Mob/Demob				
									Bond & Insurance				
									Trucking				
									Contract Labor				
									Road/Location				
									Water				
<b>TOTAL</b>	<b>24</b>								<b>TOTAL</b>				

Confidential

Mud Gas Units	BG	Conn	Trip	Gas Chromatograph						Formation %:			Shows
	10			C1	C2	C3	C4	C5	Shale:	Sand:	Chalk:		
									35	65			
Hours	Drilling	Tripping	Rig Service/ Repair	Survey	MIRU/ RDMO	Ream/ Wash	Circ	Log/ Csg	Other	Downtime		Totals:	
										Repair	Other	Standby	Daywork
Today:	23	0	0.5	0.5	0		0.0	0	0				24
Cum.:	88	2.5	7.0	4	7.5		2.5	2.5	30				144

# TIDEWATER OIL & GAS COMPANY LLC

## DAILY DRILLING REPORT

Report Date: 11/27/10

Report Time: 0700 hrs

Operator: TIDEWATER OIL & GAS COMPANY LLC

Lease No: UTPV003B-TR 1

Field: Wildcat

Well Name: Vanterra Rush Lake #2

API 43-021-50001

Location: 667 FNL, 2015 FWL

Contractor: CapStar

Type: Vertical

Elevation: 5384' graded

Sec 9-T34S- R11W

Rig #: 311

Target: Navajo

Iron County, Utah

Current Operation	Report #/ Days From Spud	Current Depth	24 Hour Footage	Hole Condition	Hole Problems
TFNB	7	4582'	432'	GOOD	NONE

**Summary:** Drill 7-7/8" hole from 4150'-4582' and survey at 4422' (5.5 deg). Trip for new bit. Bit #2 had 2 plugged jets. Braising was suspect on 3 PDC cutters on Bit #2. Decide to run new STC Mi616 bit. WEATHER: Cold and clear.  
Received verbal approval from Dustin Doucet with the UDOGM to extend permitted TD from 5000' to 5500' at 1609 hours on 11/26/2010.

Walt Lowry (Company Man): 303-884-5505 or (720) 219-8634

Cum Cost: \$0

Mud Properties	Depth	Weight	Viscosity	Gel Strength	Water Loss	Filter Cake	pH	Chloride PPM	Calcium PPM	Solids %	Sand %
	4582'	9.3	38	2/15	9.0	2/32	8.0	500	40	7.0	0.7

Mud Pump	Number	Mnfr	Model	Stroke (")	Liner (in)	Rod Size (in)	Number	Mnfr	Model	Stroke (in)	Liner (in)	Rod Size (in)
	1	National	7-P-50	7 3/4	6 1/4							

Drilling Parameters	Depth Interval	Weight on Bit	RPM	Torque	Pump Press (PSI)	SPM	Average Drill Rate	Avg FPM DP	Avvg FPM DC	FPS	Hydraulic Hp	Jet Impact Force
	4150-4582	0-20	120	800-3000	700-900	116	18.2	174	207	93	14	

Bit Record	No./Size	Mnfr	Type	Serial #	Jets (#/32nd)	Depth In (ft)	Depth Out (ft)	Footage	FPH	Rotating Hours		Dull Gr
											Bit	Cum
	1- 12.25"	REED	MHT116	JR7414	OPEN	30	538	508	53.5	9.5	9.5	WT
	2- 7.875"	SMITH	Mi616	JD3608	6 X 16	538	4582	432'	18.2	16.0	94.5	8-IN
	3- 7.875"	SMITH	Mi616	JY9817	6 X 16	TOTAL FTG- BIT #2		4044	27.0			
						4582						

Surveys	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	TVD	BHA
		4422'	5.5								

To Time	Hours	OPERATIONS							WELL COST		TODAY	CUM
0700-1300	6.00	Drill 7-7/8" hole from 4150'-4298'							Rig			
1300-1330	0.50	Service Rig							Mud			
1330-1900	5.50	Drill 7-7/8" hole from 4298'-4452'							Set Conductor			
1900-1930	0.50	Circulate & survey at 4422'- 5.5 deg							Bit/ Rmr			
1930-2400	4.50	Drill 7-7/8" hole from 4298'-4582'							Rentals			
2400-2430	0.50	Circulate for TFNB							Geol/Mudlogger			
2430-0700	6.50	TFNB							Engineer & Suprvisor			
		NOTE: Bit #2 had 4 plugged jets. Cutting structure of Bit #2 was excellent.							Fuel			
		Braising on 3 cutters was very suspect. Decide to run new Mi616 PDC bit.							Logs			
		Bit #2 was in gauge.							Wellhead, Tbg & Csg			
									Cementing			
									Damages & Permit			
									Mob/Demob			
									Bond & Insurance			
									Trucking			
									Contract Labor			
									Road/Location			
									Water			
<b>TOTAL</b>	<b>24</b>								<b>TOTAL</b>			

# Confidential

Mud Gas Units	BG	Conn	Trip	Gas Chromatograph					Formation %:			Shows
				C1	C2	C3	C4	C5	Shale:	Sand:	Chalk:	
10									35	65		

Hours	Drilling	Tripping	Rig Service/ Repair	Survey	MIRU/ RDMO	Ream/ Wash	Circ	Log/ Csg	Other	Downtime		Totals:	
										Repair	Other	Standby	Daywork
Today:	16	6.5	0.5	0.5	0		0.5	0	0				24
Cum.:	104	9.0	7.5	4.5	7.5		3.0	2.5	30				168

# TIDEWATER OIL & GAS COMPANY LLC

## DAILY DRILLING REPORT

Report Date: 11/28/10

Report Time: 0700 hrs

Operator: TIDEWATER OIL & GAS COMPANY LLC

Lease No: UTPV003B-TR 1

Field: Wildcat

Well Name: Vanterra Rush Lake #2

API 43-021-50001

Location: 667 FNL, 2015 FWL

Contractor: CapStar

Type: Vertical

Elevation: 5384' graded

Sec 9-T34S- R11W

Rig #: 311

Target: Navajo

Iron County, Utah

Current Operation	Report #/ Days From Spud	Current Depth	24 Hour Footage	Hole Condition	Hole Problems
Drilling 7-7/8" hole at 5200'	8	5200'	618'	GOOD	NONE

**Summary:** Finish TIH with new Mi616 PDC bit and new mud motor. Build volume- lost 100 bbls during trip. Drill 7-7/8" hole from 4582'-5200'. Survey at 4918'- 5.0 deg. WEATHER: Cold and 4" fresh snow. Snowing.

Walt Lowry (Company Man): 303-884-5505 or (720) 219-8634

Cum Cost: \$0

Mud Properties	Depth	Weight	Viscosity	Gel Strength	Water Loss	Filter Cake	pH	Chloride PPM	Calcium PPM	Solids %	Sand %		
	5104'	9.3	42	3/13	9.0	2/32	8.0	400	40	7.0	1.0		
Mud Pump	Number	Mnfctr	Model	Stroke (")	Liner (in)	Rod Size (in)	Number	Mnfctr	Model	Stroke (in)	Liner (in)	Rod Size (in)	
	1	National	7-P-50	7 3/4	6 1/4								
Drilling Parameters	Depth Interval	Weight on Bit	RPM	Torque	Pump Press (PSI)	SPM	Average Drill Rate	Avg FPM DP	Avvg FPM DC	FPS	Hydraulic Hp	Jet Impact Force	
	4582-5200	0-20	120	900-2000	800-1200	116	32.5	174	207	93	14		
Bit Record	No./Size	Mnfctr	Type	Serial #	Jets (#/32nd)	Depth In (ft)	Depth Out (ft)	Footage	FPH	Rotating Hours		Dull Gr	
	1- 12.25"	REED	MHT116	JR7414	OPEN	30	538	508	53.5	Bit	Cum	WT 3-IN	
	2- 7.875"	SMITH	Mi616	JD3608	6 X 16	538	4582	432'	18.2	9.5	9.5		
	3- 7.875"	SMITH	Mi616	JY9817	6 X 16	4582	TOTAL FTG- BIT #2	4044'	27.0	16.0	94.5		
								618	32.5	19.0	113.5		
Surveys	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	Depth (ft)	Degrees	Azimuth	TVD	BHA		
	4918	5.0											
To Time	Hours	OPERATIONS							WELL COST		TODAY	CUM	
0700-1100	4.00	TIH. Tag 25' fill. Lost ~100 bbls mud during trip. Build mud volume.									Rig		
1100-1400	3.00	Drill 7-7/8" hole from 4582'-4638'									Mud		
1400-1430	0.50	Service rig.									Set Conductor		
1430-2330	9.00	Drill 7-7/8" hole from 4638'-4949'									Bit/ Rmr		
2330-2400	0.50	Circulate and survey at 4918'- 5.0 deg									Rentals		
2400-0700	7.00	Drill 7-7/8" hole from 4949'-5200'									Geol/Mudlogger		
											Engineer & Suprvisor		
											Fuel		
											Logs		
											Wellhead, Tbg & Csg		
											Cementing		
											Damages & Permit		
											Mob/Demob		
											Bond & Insurance		
											Trucking		
											Contract Labor		
											Road/Location		
											Water		
<b>TOTAL</b>	<b>24</b>								<b>TOTAL</b>				
Mud Gas Units	BG	Conn	Trip	Gas Chromatograph					Formation %:			Shows	
	10			C1	C2	C3	C4	C5	Shale:	Sand:	Chalk:		
									20	80			
Hours	Drilling	Tripping	Rig Service/ Repair	Survey	MIRU/ RDMO	Ream/ Wash	Circ	Log/ Csg	Other	Downtime		Totals:	
										Repair	Other	Standby	Daywork
Today:	19	4	0.5	0.5	0		0.0	0	0				24
Cum.:	123	13.0	8.0	5	7.5		3.0	2.5	30				192

Confidential







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

FORM 6

ENTITY ACTION FORM

Operator: TIDEWATER OIL & GAS COMPANY LLC Operator Account Number: N 3000  
Address: 110-16th St. SUITE #405  
city DENVER  
state CO zip 80202 Phone Number: 303-468-0656

Well 1

*NENW*

API Number	Well Name		QQ	Sec	Twp	Rng	County
43021500010000	VAN TERRA RUSH LAKE #2		↑	9	345	11W	IRON
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
A	99999	17902	11-20-2010			12/15/10	
Comments: <del>KAI BAS</del> NAVA plugged 12/1/2010							<b>CONFIDENTIAL</b>

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

Well 3

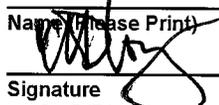
API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

**RECEIVED**

DEC 14 2010

WALTER LOWRY  
Name (Please Print)  
  
Signature  
AGENT  
Title  
12-08-10  
Date

05 January 2012

Mr. Dan Jarvis  
Utah Division of Oil, Gas and Mining  
1594 West North Temple  
Suite 145801  
Salt Lake City, UT 84114-5801

43 021 5000 |  
Vanterra Rush Lake #2  
34S 11W 9

Re: Reclamation of Vanterra Rush Lake #2  
NENW Section 9-T34S-R11W  
Iron County, UT

RECEIVED

JAN 09 2012

DIV. OF OIL, GAS & MINING

Dear Mr. Jarvis:

Please find attached an original and one copy of a Sundry Notice Subsequent Report for the reclamation of the referenced well surface disturbance. I attempted to file the Sundry electronically, but it appears your system was down yesterday. So I printed hard copies and am forwarding them to you via US Mail.

Several months ago I placed a call to Ted Smith, the UDOGM Field Inspector for the referenced area, and indicated Tidewater would be reclaiming the referenced site in the fall of 2011 to facilitate rapid growth of the seed mixture requested by the fee surface owner. I did not receive a return call, and Tidewater went ahead with the reclamation pursuant to the guidance and specific requests of the fee surface owners.

Tidewater requests that the UDOGM inspect the reclamation work, if required, and approve the reclamation as soon as possible. Tidewater would like to have the \$30,000 single well bond released as soon as possible in order to make these funds available for future projects. Please contact me at 303.884.5505 or [wlowry@tidewater-oil.com](mailto:wlowry@tidewater-oil.com) at your earliest convenience and let me know when Tidewater can expect to have its bond released. We can send a representative out to the referenced location if necessary to meet with the UDOGM inspector.

Tidewater recently contacted both impacted fee surface owners (Jon Swenson 435.590.1505 and Brad Schmutz ([brad@cedarcity.net](mailto:brad@cedarcity.net))) regarding the reclamation of the drilling site and the access road, and both surface owners were pleased with and approved the reclamation work.

Dan, thank you for your attention to, and consideration on, this matter. I look forward to hearing from you soon.

Sincerely,



Walter Lowry  
Engineer

Attachments



The Utah Division of Oil, Gas, and Mining  
 - State of Utah  
 - Department of Natural Resources

Electronic Permitting System - Sundry Notices

Complete Report  
 Cancel Report

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTPV003B-TR1
<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.		
1. TYPE OF WELL		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: TIDEWATER OIL & GAS COMPANY, LLC		7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: 110 16th St Ste 1220 , Denver, CO, 80202		8. WELL NAME and NUMBER: VANTERRA RUSH LAKE #2
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0667 FNL 2015 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 09 Township: 34.0S Range: 11.0W Meridian: S		9. API NUMBER: 43021500010000
		10. FIELD and POOL or WILDCAT: WILDCAT
		COUNTY: IRON
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input checked="" type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/07/2011		<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER:
SPUD REPORT Date of Spud:		
DRILLING REPORT Report Date:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. On 10/27/2011 Tidewater Oil & Gas Company LLC awarded the reclamation work for this well to a local Cedar City, UT construction firm, Construction & Mining Services, Inc. (CMSI). On or about 11/02/2011, CMSI commenced reclamation work on the referenced drilling site. The reclamation consisted of the following actions: 1) Mobilize equipment; 2) remove fence around reserve pit; 3) pick up all trash and remove from site; 4) cut corners of reserve pit lining and drop in reserve pit; 5) fill reserve pit with spoil piles and pack; 6) spread remaining soil piles and road berms; 7) prep soil for seeding; 8) spread 138 pounds (~12 pounds per acre) of Psathyrostachys Juncea Russian Wildrye grass seed as per request of surface owner; 9) harrow in seed; and, 10) install gate on fence line for surface owners. Tidewater requests the UDOGM inspect reclamation as soon as possible and release bond The maximum number of characters for the box above is 900. There are 0 Characters remaining.		
NAME (PLEASE PRINT) Walter Lowry	PHONE NUMBER 303 884-5505	TITLE Engineer
SIGNATURE N/A		
		DATE 1/4/2012

Complete Report

RECEIVED

JAN 09 2012

DIV. OF OIL, GAS & MINING