API Well Number: 43013509020000

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

FORM 3

AMENDED REPORT ☐

## APPLICATION FOR PERMIT TO DRILL

**1. WELL NAME and NUMBER**
16-10D-45 BTR

**2. TYPE OF WORK**
DRILL NEW WELL ■ REENTER P&A WELL ☐ DEEPEN WELL ☐

**3. FIELD OR WILDCAT**
ALTAMONT

**4. TYPE OF WELL**
Oil Well Coalbed Methane Well: NO

**5. UNIT or COMMUNITIZATION AGREEMENT NAME**

**6. NAME OF OPERATOR**
BILL BARRETT CORP

**7. OPERATOR PHONE**
303 312-8164

**8. ADDRESS OF OPERATOR**
1099 18th Street Ste 2300, Denver, CO, 80202

**9. OPERATOR E-MAIL**
BHilgers@billbarrettcorp.com

**10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)**
1420D626290

**11. MINERAL OWNERSHIP**
FEDERAL ☐ INDIAN ■ STATE ☐ FEE ☐

**12. SURFACE OWNERSHIP**
FEDERAL ☐ INDIAN ■ STATE ☐ FEE ☐

**13. NAME OF SURFACE OWNER (if box 12 = 'fee')**

**14. SURFACE OWNER PHONE (if box 12 = 'fee')**

**15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')**

**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**

**17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')**
Uintah and Ouray

**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS**
YES ☐ (Submit Commingling Application) NO ■

**19. SLANT**
VERTICAL ☐ DIRECTIONAL ■ HORIZONTAL ☐

| 20. LOCATION OF WELL | FOOTAGES | QTR-QTR | SECTION | TOWNSHIP | RANGE | MERIDIAN |
|---|---|---|---|---|---|---|
| LOCATION AT SURFACE | 1812 FSL 1403 FEL | NWSE | 10 | 4.0 S | 5.0 W | U |
| Top of Uppermost Producing Zone | 1223 FSL 1025 FEL | NWSE | 10 | 4.0 S | 5.0 W | U |
| At Total Depth | 1223 FSL 1023 FEL | SESE | 10 | 4.0 S | 5.0 W | U |

**21. COUNTY**
DUCHESNE

**22. DISTANCE TO NEAREST LEASE LINE (Feet)**
1023

**23. NUMBER OF ACRES IN DRILLING UNIT**
640

**25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)**
1468

**26. PROPOSED DEPTH**
MD: 9301 TVD: 9201

**27. ELEVATION - GROUND LEVEL**
6093

**28. BOND NUMBER**
LPM8874725

**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE**
Duchesne City Culinary Water Dock

### Hole, Casing, and Cement Information

| String | Hole Size | Casing Size | Length | Weight | Grade & Thread | Max Mud Wt. | Cement | Sacks | Yield | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| Cond | 26 | 16 | 0 - 80 | 65.0 | Unknown | 8.8 | Unknown | 0 | 0.0 | 0.0 |
| Surf | 14.75 | 10.75 | 0 - 3000 | 45.5 | J-55 ST&C | 8.8 | Halliburton Light , Type Unknown | 790 | 3.16 | 11.0 |
| | | | | | | | Halliburton Premium , Type Unknown | 360 | 1.36 | 14.8 |
| Prod | 9.875 | 5.5 | 0 - 9301 | 17.0 | P-110 LT&C | 9.7 | Unknown | 870 | 2.31 | 11.0 |
| | | | | | | | Unknown | 1250 | 1.42 | 13.5 |

### ATTACHMENTS

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

- ☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**
- ☑ **COMPLETE DRILLING PLAN**
- ☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**
- ☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
- ☑ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**
- ☑ **TOPOGRAPHICAL MAP**

**NAME** Venessa Langmacher | **TITLE** Senior Permit Analyst | **PHONE** 303 312-8172

**SIGNATURE** | **DATE** 07/28/2011 | **EMAIL** vlangmacher@billbarrettcorp.com

**API NUMBER ASSIGNED**
43013509020000

**APPROVAL**

Permit Manager

# DRILLING PLAN

BILL BARRETT CORPORATION

***16-10D-45 BTR Well Pad***
NW SE, 1812' FSL and 1403' FEL, Section 10, T4S-R5W, USB&M (surface hole)
SE SE, 1223' FSL and 1023' FEL, Section 10, T4S-R5W, USB&M (bottom hole)
Duchesne County, Utah

## 1 - 2. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals

| Formation | Depth – MD | Depth – TVD |
|---|---|---|
| Lower Green River* | 4,793' | 4,731' |
| Douglas Creek | 5,715' | 5,616' |
| Black Shale | 6,611' | 6,511' |
| Castle Peak | 6,776' | 6,676' |
| Uteland Butte | 7,086' | 6,986' |
| Wasatch* | 7,321' | 7,221' |
| TD | 9,301' | 9,201' |

*PROSPECTIVE PAY
Members of the Wasatch and the Lower Green River are primary objectives for oil/gas.

Base of Useable Water = 5,650'

## 3. BOP and Pressure Containment Data

| Depth Intervals | BOP Equipment |
|---|---|
| 0 – 3,000' | No pressure control required |
| 3,000' – TD | 11" 5000# Ram Type BOP<br>11" 5000# Annular BOP |
| - Drilling spool to accommodate choke and kill lines; | |
| - Ancillary equipment and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2; | |
| - The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests. | |
| - BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up To operate most efficiently in this manner. | |

## 4. Casing Program

| Hole Size | SETTING DEPTH (FROM) | (TO) | Casing Size | Casing Weight | Casing Grade | Thread | Condition |
|---|---|---|---|---|---|---|---|
| 26" | Surface | 80' | 16" | 65# | | | |
| 14 3/4" | Surface | 3,000' | 10-3/4" | 45.5# | J or K 55 | BT&C | New |
| 9-7/8" & 8-3/4" | Surface | TD | 5 ½" | 17# | P-110 | LT&C | New |
| **NOTE: If necessary due to lost circulation, BBC would like to request the option to set 7-5/8", 33.70# P-110 LT&C to a depth of 6000', then drill a 6-1/2" hole to TD and run 5-1/2" casing as a 2000' liner (200' liner lap).** | | | | | | | |

Bill Barrett Corporation
Drilling Program
#16-10D-45 BTR
Duchesne County, Utah

## 5. Cementing Program

| Casing | Cement |
|---|---|
| 16" Conductor Casing | Grout |
| 14-3/4" hole for 10-3/4" Surface Casing | *Lead* with approximately 790 sx Halliburton Light Premium with additives mixed at 11.0 ppg (yield = 3.16 $ft^3$/sx) circulated to surface with 75% excess. Planned top of lead cement at surface.<br><br>*Tail* with approximately 360 sx Halliburton Premium cement with additives mixed at 14.8 ppg (yield = 1.36 $ft^3$/sx). Calculated hole volume with 75% excess. Planned top of tail cement at 2,500'. |
| 9-7/8 hole for 5 ½" Production Casing<br>May reduce hole size to 8-3/4" at 6000' if minimal hole problems. | *Lead* with approximately 870 sx Tuned Light cement with additives mixed at 11.0 ppg (yield = 2.31 $ft^3$/sx). Planned top of lead cement at 2,500'<br><br>*Tail* with approximately 1250 sx Halliburton Econocem cement with additives mixed at 13.5 ppg (yield = 1.42 $ft^3$/sx). Planned top of tail cement at 6,111'. |
| **NOTE: If 7-5/8" casing is necessary, cement with Lead with approximately 700 sx Tuned Light cement with additives mixed at 11.0 ppg (yield = 2.31 $ft^3$/sx).**<br>**Tail with approximately 240 sx Halliburton Econocem cement with additives mixed at 13.5 ppg (yield = 1.42 $ft^3$/sx). Planned TOC at surface. We will perform a FIT to 10.2 ppg after drilling 20' of new hole.**<br><br>**The 5-1/2" liner would be cemented with 300 sx of Class G 50/50 Poz w/ 2% gel (14.2 ppg) with additives from TD to 200' above TOL.** | |

## 6. Mud Program

| Interval | Weight | Viscosity | Fluid Loss (API filtrate) | Remarks |
|---|---|---|---|---|
| 0' – 80' | 8.3 – 8.8 | 26 – 36 | NC | Freshwater Spud Mud Fluid System |
| 80' – 3,000' | 8.3 – 8.8 | 26 – 36 | NC | Freshwater Spud Mud Fluid System |
| 3,000' – TD | 8.6 – 9.7 | 42 – 52 | 20 cc or less | DAP Polymer Fluid System |
| Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag. | | | | |

Bill Barrett Corporation
Drilling Program
#16-10D-45 BTR
Duchesne County, Utah

## 7. Testing, Logging and Core Programs

| | |
|---|---|
| Cores | None anticipated |
| Testing | None anticipated; drill stem tests may be run on shows of interest; |
| Sampling | 30' to 50' samples; surface casing to TD. Preserve samples all show intervals; |
| Surveys | MWD as needed to land wellbore; |
| Logging | DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface). FMI & Sonic Scanner to be run at geologist's discretion. |
| **NOTE: If BBC pursues the "Alternate" program, a suite of the above logs will be run on both the intermediate and production hole sections.** | |

## 8. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 4641 psi* and maximum anticipated surface pressure equals approximately 2617 psi** (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)
**Maximum surface pressure = A – (0.22 x TD)

## 9. Auxiliary Equipment

a) Upper kelly cock; lower Kelly cock will be installed while drilling
b) Inside BOP or stab-in valve (available on rig floor)
c) Safety valve(s) and subs to fit all string connections in use
d) Mud monitoring will be visually observed

## 10. Location and Type of Water Supply

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W.

## 11. Drilling Schedule

| | |
|---|---|
| Location Construction: | January 2012 |
| Spud: | January 2012 |
| Duration: | 15 days drilling time |
| | 45 days completion time |

**PRESSURE CONTROL EQUIPMENT** – Schematic Attached

**A. Type: Eleven (11) Inch Double Gate Hydraulic BOP with Eleven (11) Inch Annular Preventer.** The blow out preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
4. 3-inch diameter choke line.
5. Two (2) choke line valves (3-inch minimum).
6. Kill line (2-inch minimum).
7. Two (2) chokes with one (1) remotely controlled from the rig floor.
8. Two (2) kill line valves, and a check valve (2-inch minimum).
9. Upper and lower kelly cock valves with handles available.
10. Safety valve(s) & subs to fit all drill string connections in use.
11. Inside BOP or float sub available.
12. Pressure gauge on choke manifold.
13. Fill-up line above the uppermost preventer.

**B. Pressure Rating:** 5,000 psi

**C. Testing Procedure:**

*Annular Preventer*

At a minimum, the Annular Preventer will be pressure tested to 50% of the rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition, the Annular Preventer will be functionally operated at least weekly.

*Blow-Out Preventer*

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yieldstrength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be

maintained for a period of at least ten (10) minutes or until the requirmentsof the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

**D. Choke Manifold Equipment:**

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

**E. Accumulator:**

The accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir will be maintained at the manufacturer's recommendations.

The BOP system will have two (2) independent power sources to close the preventers. Nitrogen bottles (3 minimum) will be one (1) of these independent power sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in the *Onshore Oil & Gas Order Number 2.*

A manual locking device (i.e. hand wheels) or automatic locking device will be installed on all systems of 2M or greater. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls for all 3M or greater systems will be capable of closing all preventers. Remote controls for 5M or greater systems will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

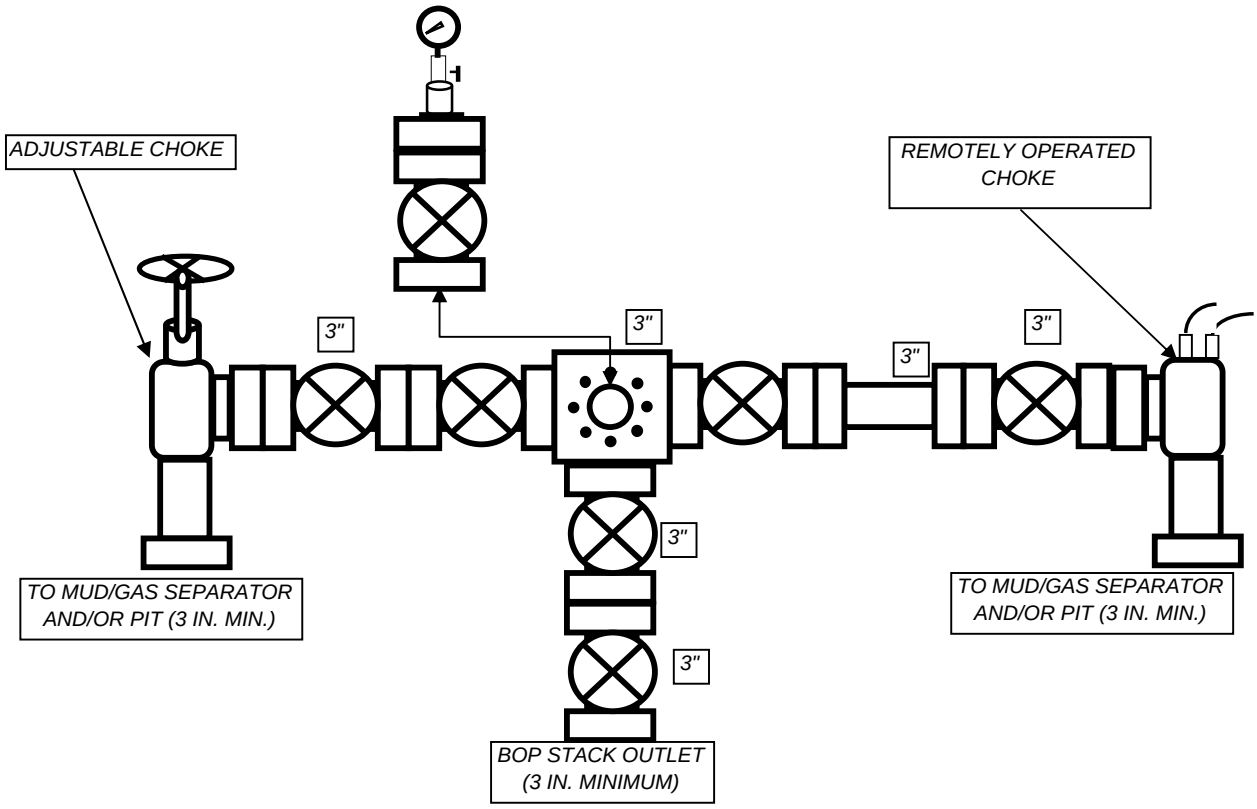
**F. Miscellaneous Information:**

The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2.* The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold, extending 125 feet (minimum) from the center of the drill hole to a separate flare pit.

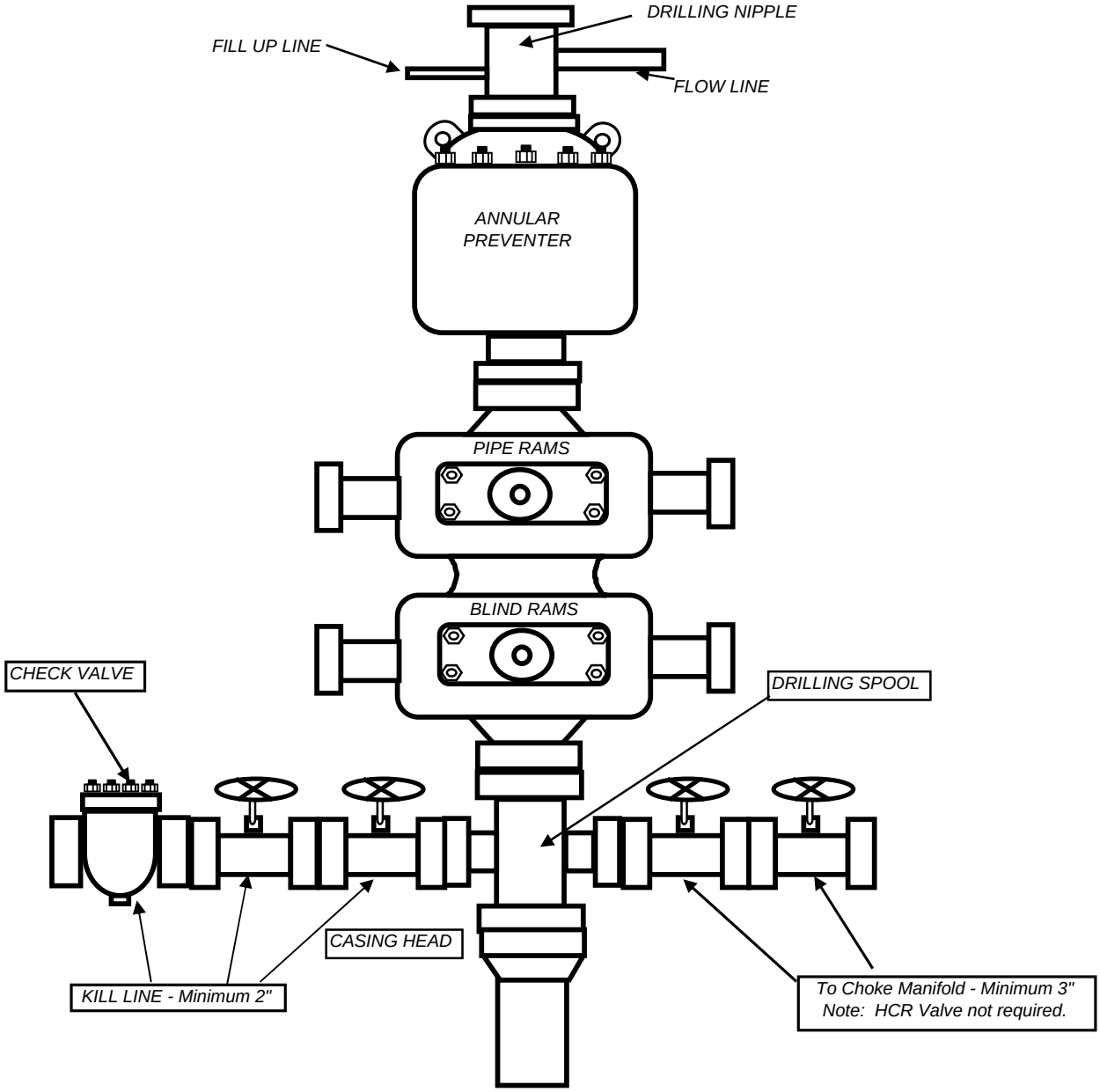
# BILL BARRETT CORPORATION

## *TYPICAL 5,000 p.s.i. CHOKE MANIFOLD*



# BILL BARRETT CORPORATION

## *TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER*



API Well Number: 43013509020000

# Bill Barrett Corporation

## LAKE CANYON & BLACK TAIL RIDGE CEMENT VOLUMES

| Well Name: | 16-10D-45 BTR |
|---|---|

### Surface Hole Data:

| | |
|---|---|
| Total Depth: | 3,000' |
| Top of Cement: | 0' |
| OD of Hole: | 14.750" |
| OD of Casing: | 10.750" |

### Calculated Data:

| | | |
|---|---|---|
| Lead Volume: | 2433.9 | $ft^3$ |
| Lead Fill: | 2,500' | |
| Tail Volume: | 486.8 | $ft^3$ |
| Tail Fill: | 500' | |

### Cement Data:

| | | |
|---|---|---|
| Lead Yield: | 3.16 | $ft^3/sk$ |
| % Excess: | 75% | |
| Top of Lead: | 0' | |
| Tail Yield: | 1.36 | $ft^3/sk$ |
| % Excess: | 75% | |
| Top of Tail: | 2,500' | |

### Calculated # of Sacks:

| | |
|---|---|
| # SK's Lead: | 790 |
| # SK's Tail: | 360 |

### Production Hole Data:

| | |
|---|---|
| Total Depth: | 9,301' |
| Top of Cement: | 2,500' |
| Top of Tail: | 6,111' |
| OD of Hole: | 9.875" |
| OD of Casing: | 5.500" |

### Calculated Data:

| | | |
|---|---|---|
| Lead Volume: | 1987.2 | $ft^3$ |
| Lead Fill: | 3,611' | |
| Tail Volume: | 1755.7 | $ft^3$ |
| Tail Fill: | 3,190' | |

### Cement Data:

| | | |
|---|---|---|
| Lead Yield: | 2.31 | $ft^3/sk$ |
| Tail Yield: | 1.42 | $ft^3/sk$ |
| % Excess: | 50% | |

### Calculated # of Sacks:

| | |
|---|---|
| # SK's Lead: | 870 |
| # SK's Tail: | 1250 |

# 16-10D-45 BTR Proposed Cementing Program

**Job Recommendation** — **Surface Casing**

**Lead Cement - (2500' - 0')**

Halliburton Light Premium
- 5.0 lbm/sk Silicalite Compacted
- 0.25 lbm/sk Kwik Seal
- 0.125 lbm/sk Poly-E-Flake
- 2.0% Bentonite

| | | |
|---|---|---|
| Fluid Weight: | 11.0 | lbm/gal |
| Slurry Yield: | 3.16 | $ft^3/sk$ |
| Total Mixing Fluid: | 19.48 | Gal/sk |
| Top of Fluid: | 0' | |
| Calculated Fill: | 2,500' | |
| Volume: | 433.46 | bbl |
| **Proposed Sacks:** | **790** | **sks** |

**Tail Cement - (TD - 2500')**

Premium Cement
- 2.0% Calcium Chloride

| | | |
|---|---|---|
| Fluid Weight: | 14.8 | lbm/gal |
| Slurry Yield: | 1.36 | $ft^3/sk$ |
| Total Mixing Fluid: | 6.37 | Gal/sk |
| Top of Fluid: | 2,500' | |
| Calculated Fill: | 500' | |
| Volume: | 86.69 | bbl |
| **Proposed Sacks:** | **360** | **sks** |

**Job Recommendation** — **Production Casing**

**Lead Cement - (6111' - 2500')**

Tuned Light™ System

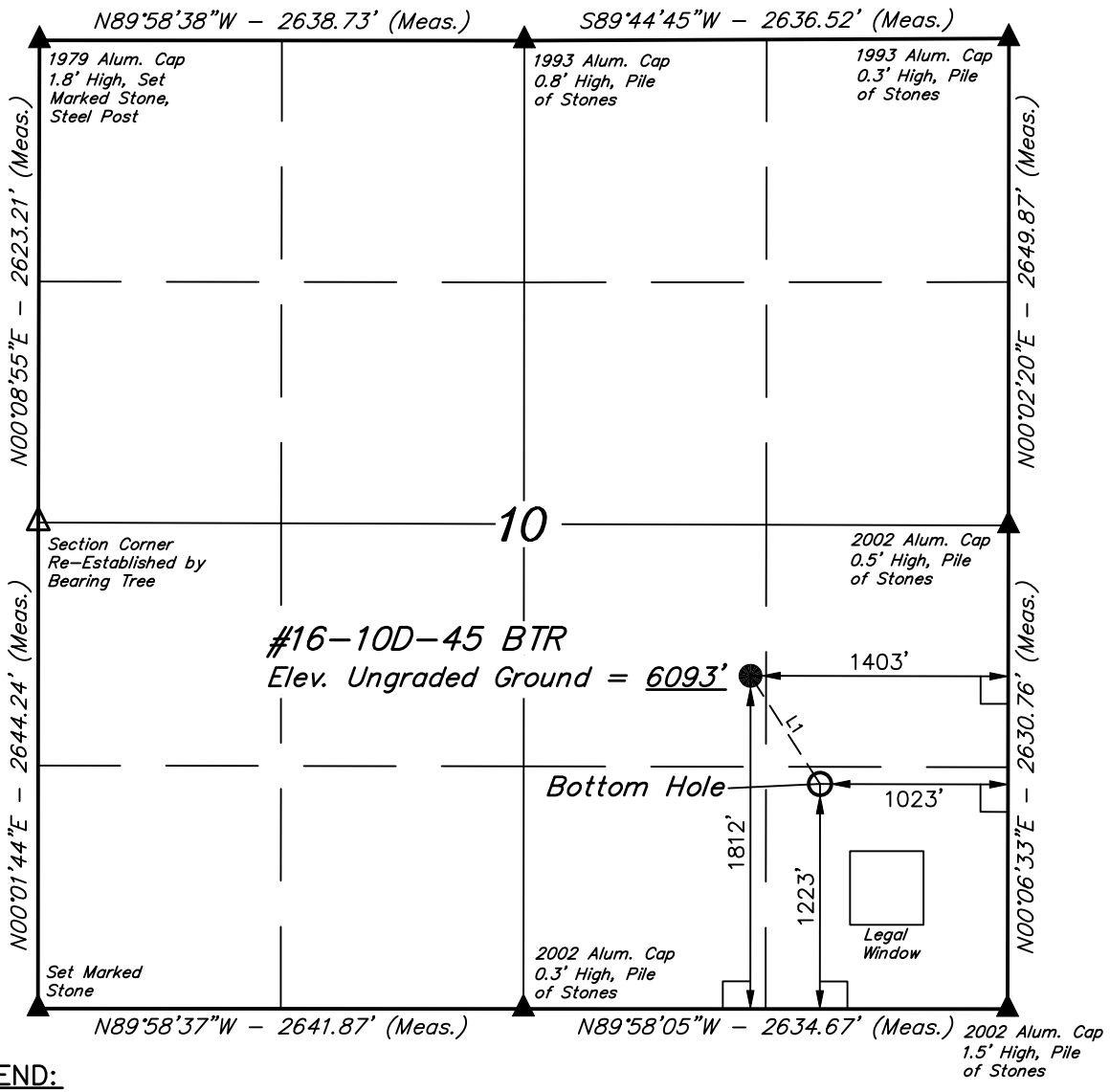
| | | |
|---|---|---|
| Fluid Weight: | 11.0 | lbm/gal |
| Slurry Yield: | 2.31 | $ft^3/sk$ |
| Total Mixing Fluid: | 10.65 | Gal/sk |
| Top of Fluid: | 2,500' | |
| Calculated Fill: | 3,611' | |
| Volume: | 353.90 | bbl |
| **Proposed Sacks:** | **870** | **sks** |

**Tail Cement - (9301' - 6111')**

Econocem™ System
- 0.125 lbm/sk Poly-E-Flake
- 1.0 lbm/sk Granulite TR 1/4

| | | |
|---|---|---|
| Fluid Weight: | 13.5 | lbm/gal |
| Slurry Yield: | 1.42 | $ft^3/sk$ |
| Total Mixing Fluid: | 6.61 | Gal/sk |
| Top of Fluid: | 6,111' | |
| Calculated Fill: | 3,190' | |
| Volume: | 312.67 | bbl |
| **Proposed Sacks:** | **1250** | **sks** |

# T4S, R5W, 6th P.M.




## BILL BARRETT CORPORATION

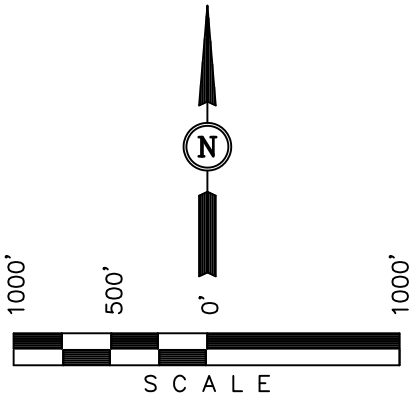
Well location, #16-10D-45 BTR, located as shown in the NW 1/4 SE 1/4 of Section 10, T4S, R5W, U.S.B.&M., Duchesne County, Utah.

## BASIS OF ELEVATION

BENCH MARK (M67) LOCATED IN THE SW 1/4 OF SECTION 9, T5S, R4W, U.S.B.&M., TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6097 FEET.

## BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.




CERTIFICATE

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

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR NO. 161319 ROBERT L. KAY STATE OF UTAH

API Well Number: 43013509020000

## LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

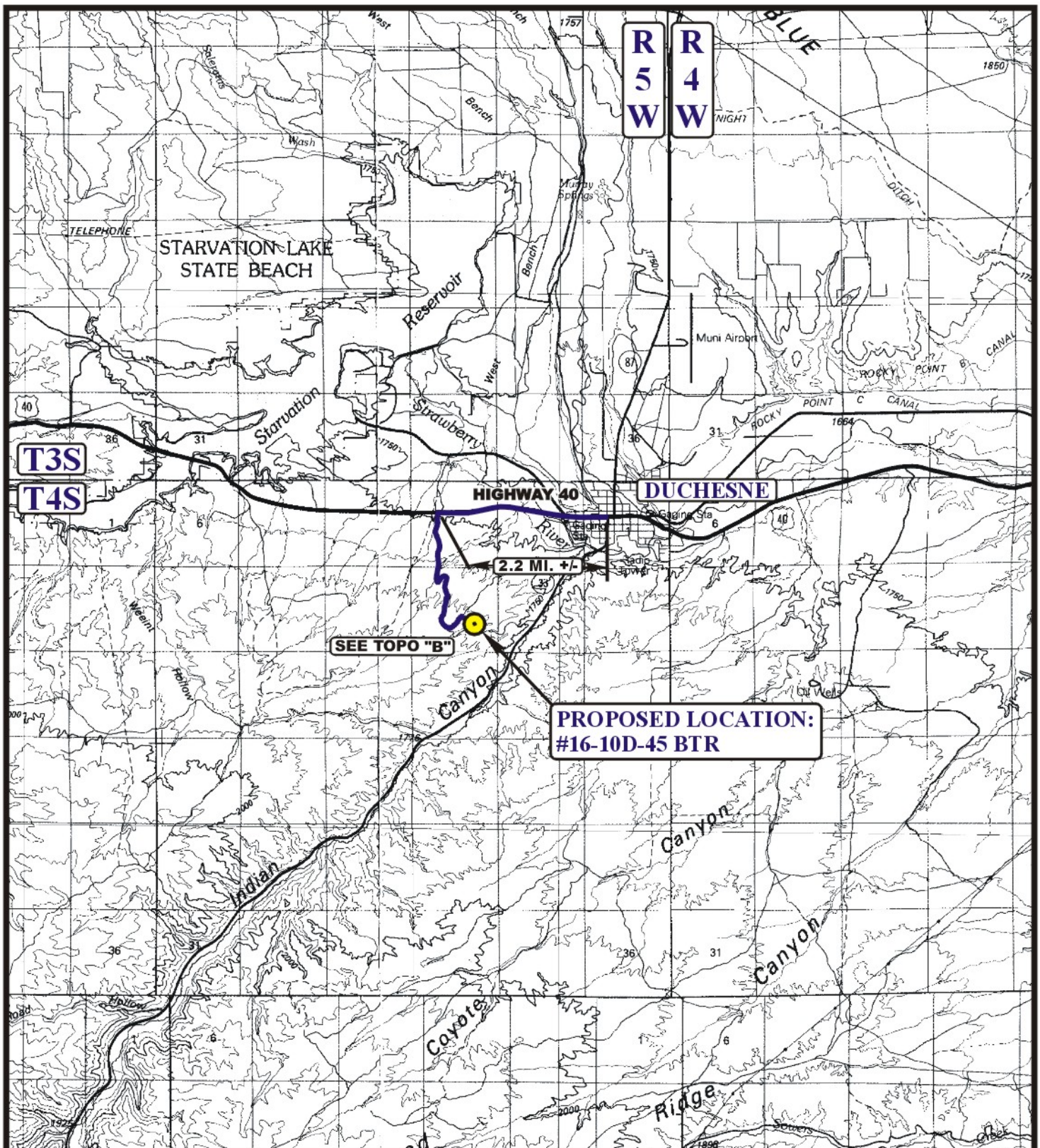
| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | LENGTH |
| L1 | S32°42'45"E | 700.00' |

| NAD 83 (TARGET BOTTOM HOLE) | NAD 83 (SURFACE LOCATION) |
|---|---|
| LATITUDE = 40°08'37.35" (40.143708) | LATITUDE = 40°08'43.17" (40.145325) |
| LONGITUDE = 110°25'50.04" (110.430567) | LONGITUDE = 110°25'54.92" (110.431922) |
| NAD 27 (TARGET BOTTOM HOLE) | NAD 27 (SURFACE LOCATION) |
| LATITUDE = 40°08'37.50" (40.143750) | LATITUDE = 40°08'43.32" (40.145367) |
| LONGITUDE = 110°25'47.49" (110.429858) | LONGITUDE = 110°25'52.36" (110.431211) |

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

| | | |
|---|---|---|
| SCALE 1" = 1000' | DATE SURVEYED: 02-03-11 | DATE DRAWN: 02-21-11 |
| PARTY T.A. C.W. C.C. | REFERENCES G.L.O. PLAT | |
| WEATHER COLD | FILE BILL BARRETT CORPORATION | |

API Well Number: 43013509020000




**LEGEND:**

PROPOSED LOCATION

N

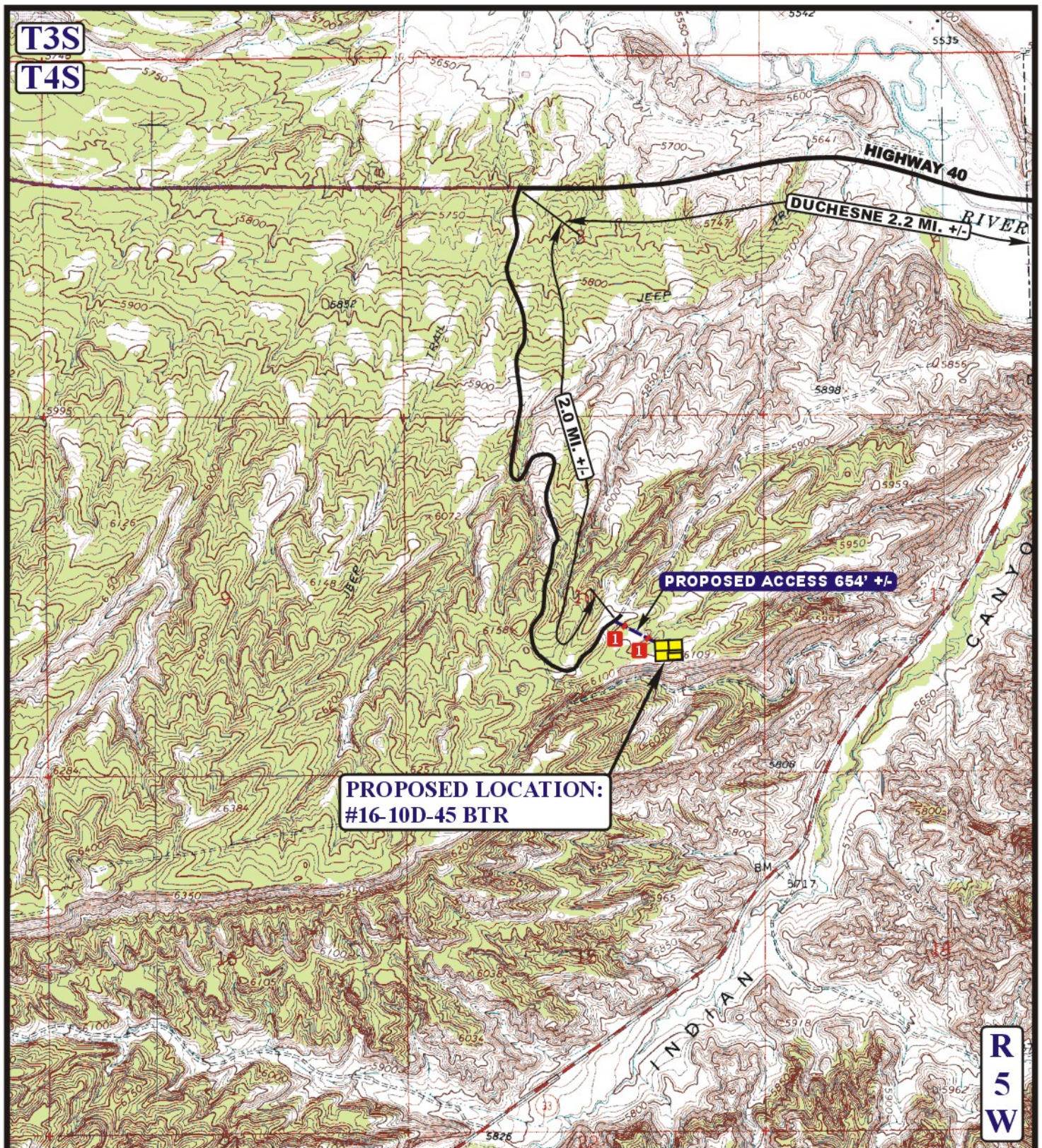
**BILL BARRETT CORPORATION**

**#16-10D-45 BTR**
**SECTION 10, T4S, R5W, U.S.B.&M.**
**1812' FSL 1403' FEL**


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


| TOPOGRAPHIC MAP | 02 MONTH | 04 DAY | 11 YEAR | A TOPO |
|---|---|---|---|---|
| SCALE: 1 : 100,000 | DRAWN BY: J.L.G. | REV: C.A.G. 06-23-11 | | |

API Well Number: 43013509020000




**LEGEND:**

EXISTING ROAD
PROPOSED ACCESS ROAD
1 LOW WATER CROSSING

N

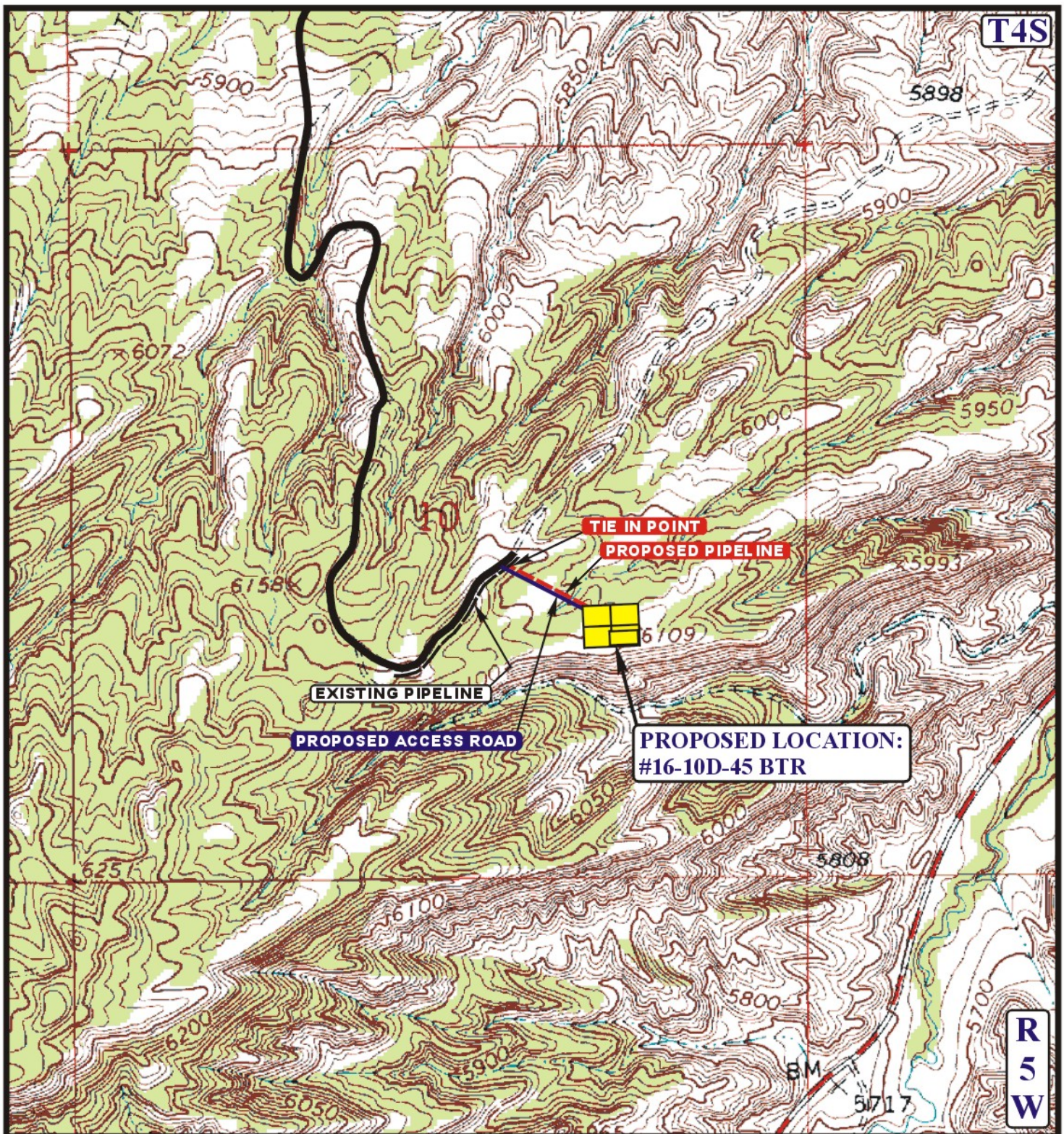
**BILL BARRETT CORPORATION**

**#16-10D-45 BTR**
**SECTION 10, T4S, R5W, U.S.B.&M.**
**1812' FSL 1403' FEL**


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


| TOPOGRAPHIC MAP | 02 MONTH | 04 DAY | 11 YEAR | B TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: J.L.G. | REV: C.A.G. 06-23-11 | | |

API Well Number: 43013509020000




APPROXIMATE TOTAL PIPELINE DISTANCE = 622' +/-

**LEGEND:**

EXISTING PIPELINE

PROPOSED PIPELINE

PROPOSED ACCESS

N

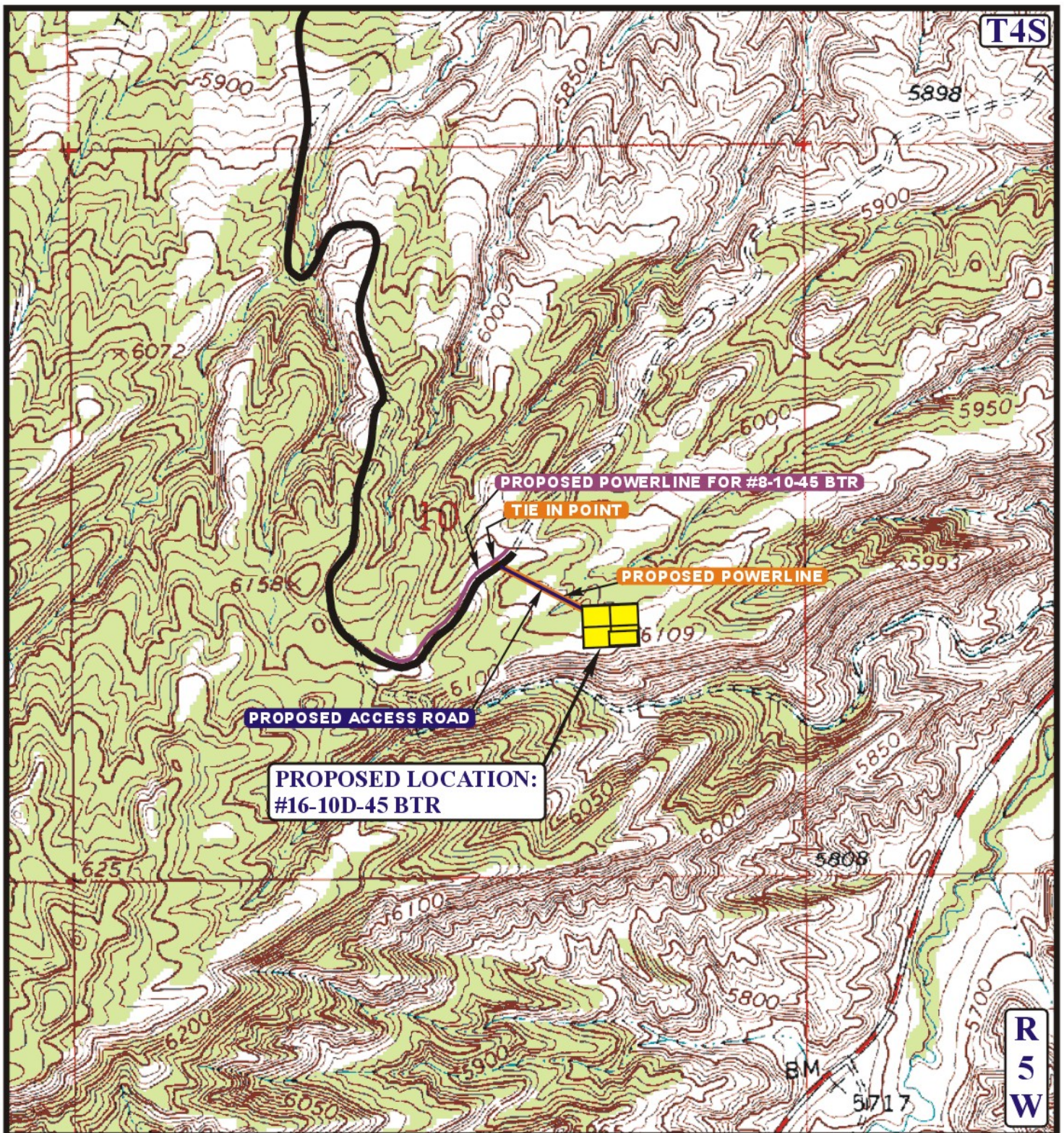
**BILL BARRETT CORPORATION**

**#16-10D-45 BTR**
**SECTION 10, T4S, R5W, U.S.B.&M.**
**1812' FSL 1403' FEL**


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


| TOPOGRAPHIC MAP | 02 MONTH | 04 DAY | 11 YEAR | C TOPO |
|---|---|---|---|---|
| SCALE: 1" = 1000' | DRAWN BY: J.L.G. | REV: C.A.G. 06-23-11 | | |

API Well Number: 43013509020000




APPROXIMATE TOTAL POWERLINE DISTANCE = 708' +/-

**LEGEND:**

- EXISTING POWERLINE
- PROPOSED POWERLINE
- PROPOSED ACCESS

N

**BILL BARRETT CORPORATION**

**#16-10D-45 BTR**
**SECTION 10, T4S, R5W, U.S.B.&M.**
**1812' FSL 1403' FEL**


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


| TOPOGRAPHIC MAP | 02 MONTH | 04 DAY | 11 YEAR | D TOPO |
|---|---|---|---|---|
| SCALE: 1" = 1000' | DRAWN BY: J.L.G. | REV: C.A.G. 06-23-11 | | |

API Well Number: 43013509020000

Project: Duchesne County, UT (NAD 1927)
Site: Sec. 10-T4S-R5W
Well: #16-10D-45 BTR
Wellbore: Plan A Rev 0
Plan: Plan A Rev 0 Proposal

# Bill Barrett Corp

HALLIBURTON
Sperry Drilling

## SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.000 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 3100.00 | 0.000 | 0.000 | 3100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 3126.02 | 0.000 | 0.000 | 3126.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4 | 3726.02 | 18.000 | 147.292 | 3716.20 | -78.65 | 50.51 | 3.00 | 147.29 | 93.48 | |
| 5 | 5325.91 | 18.000 | 147.292 | 5237.79 | -494.65 | 317.66 | 0.00 | 0.00 | 587.87 | |
| 6 | 6045.91 | 0.000 | 0.000 | 5946.00 | -589.03 | 378.27 | 2.50 | 180.00 | 700.04 | |
| 7 | 6145.91 | 0.000 | 0.000 | 6046.00 | -589.03 | 378.27 | 0.00 | 0.00 | 700.04 | #16-10D-45 BTR_ZONE Tgt |
| 8 | 9300.91 | 0.000 | 0.000 | 9201.00 | -589.04 | 378.28 | 0.00 | 0.00 | 700.04 | #16-10D-45 BTR_BHL Tgt |

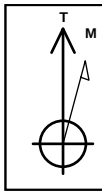
## WELL DETAILS: #16-10D-45 BTR

Ground Level: 6090.00

| Northing | Easting | Latitude | Longitude |
|---|---|---|---|
| 661780.36 | 2298774.13 | 40° 8' 43.321 N | 110° 25' 52.360 W |

## WELLBORE TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|---|---|---|---|---|---|---|
| #16-10D-45 BTR_SHL | 0.00 | 0.00 | 0.00 | 40° 8' 43.321 N | 110° 25' 52.360 W | |
| #16-10D-45 BTR_ZONE Tgt | 6046.00 | -589.03 | 378.27 | 40° 8' 37.500 N | 110° 25' 47.489 W | Rectangle L200.00 W200.00 |
| #16-10D-45 BTR_BHL Tgt | 9201.00 | -589.03 | 378.27 | 40° 8' 37.500 N | 110° 25' 47.489 W | Point |

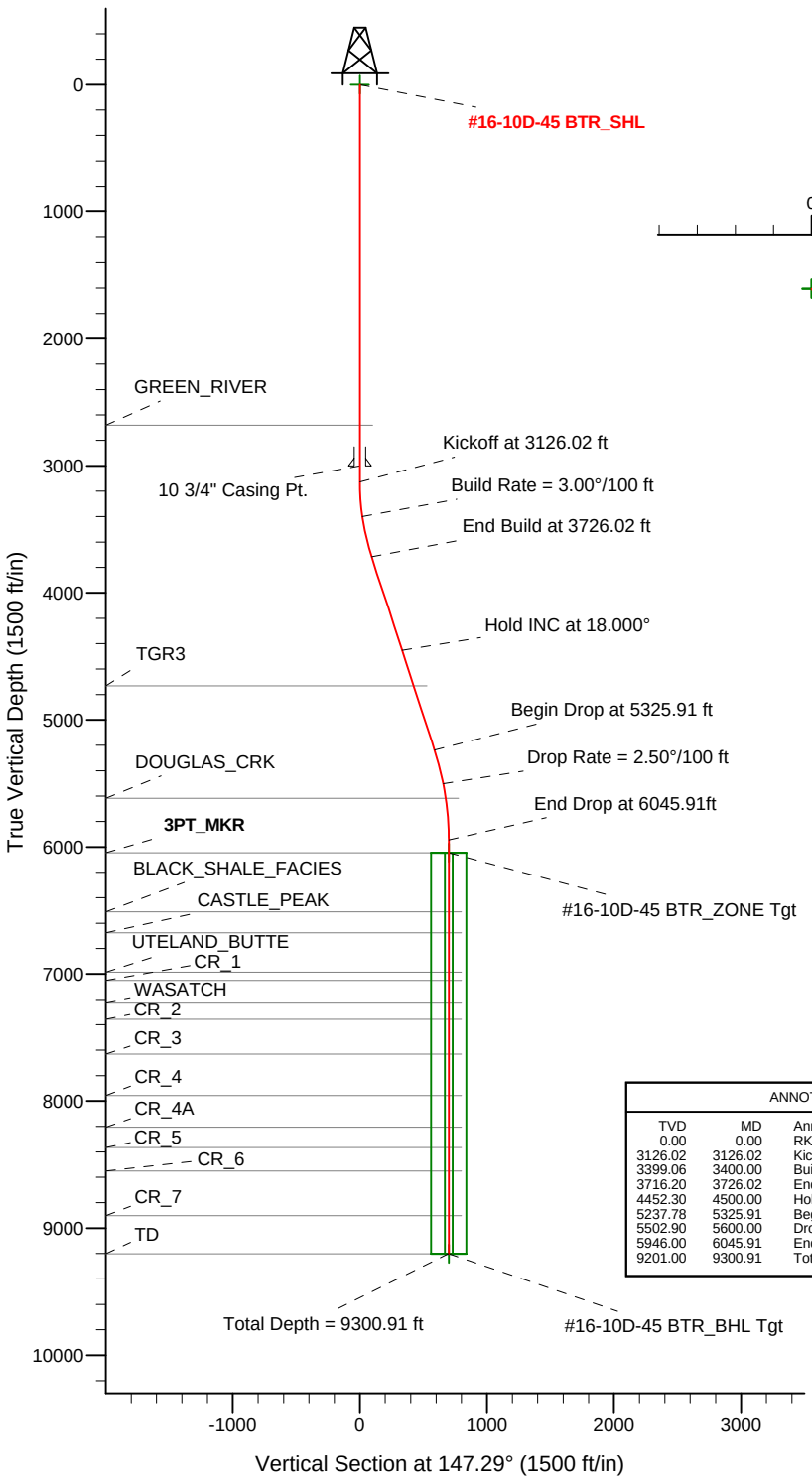


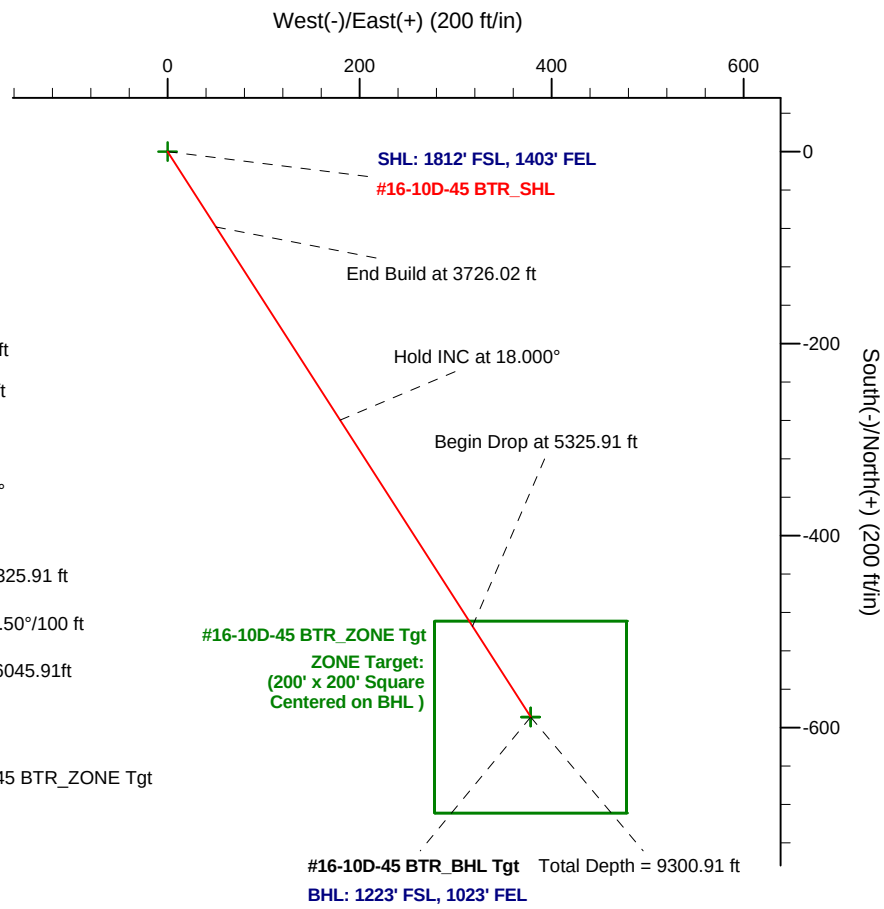

Azimuths to True North
Magnetic North: 11.48°

Magnetic Field
Strength: 52198.1snT
Dip Angle: 65.79°
Date: 2011.09.16
Model: BGGM2011

## FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---|---|---|
| 2681.00 | 2681.00 | GREEN_RIVER |
| 4731.00 | 4793.04 | TGR3 |
| 5616.00 | 5714.76 | DOUGLAS_CRK |
| 6046.00 | 6145.91 | 3PT_MKR |
| 6511.00 | 6610.91 | BLACK_SHALE_FACIES |
| 6676.00 | 6775.91 | CASTLE_PEAK |
| 6986.00 | 7085.91 | UTELAND_BUTTE |
| 7051.00 | 7150.91 | CR_1 |
| 7221.00 | 7320.91 | WASATCH |
| 7356.00 | 7455.91 | CR_2 |
| 7631.00 | 7730.91 | CR_3 |
| 7956.00 | 8055.91 | CR_4 |
| 8206.00 | 8305.91 | CR_4A |
| 8366.00 | 8465.91 | CR_5 |
| 8551.00 | 8650.91 | CR_6 |
| 8901.00 | 9000.91 | CR_7 |
| 9201.00 | 9300.91 | TD |




## ANNOTATIONS

| TVD | MD | Annotation |
|---|---|---|
| 0.00 | 0.00 | RKB 16' EL=6109 (Patterson 506) |
| 3126.02 | 3126.02 | Kickoff at 3126.02 ft |
| 3399.06 | 3400.00 | Build Rate = 3.00°/100 ft |
| 3716.20 | 3726.02 | End Build at 3726.02 ft |
| 4452.30 | 4500.00 | Hold INC at 18.000° |
| 5237.78 | 5325.91 | Begin Drop at 5325.91 ft |
| 5502.90 | 5600.00 | Drop Rate = 2.50°/100 ft |
| 5946.00 | 6045.91 | End Drop at 6045.91ft |
| 9201.00 | 9300.91 | Total Depth = 9300.91 ft |

## PROJECT DETAILS: Duchesne County, UT (NAD 1927)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302

System Datum: Mean Sea Level

**Plan A Rev 0 Proposal (#16-10D-45 BTR)**

Created By: Jerry Popp Date: 06/17/2011

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

## Plan Report for #16-10D-45 BTR - Plan A Rev 0 Proposal

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Toolface Azimuth (°) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.000 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **RKB 16' EL=6109 (Patterson 506)** | | | | | | | | | | |
| 100.00 | 0.000 | 0.000 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.000 | 0.000 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.000 | 0.000 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.000 | 0.000 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.000 | 0.000 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.000 | 0.000 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.000 | 0.000 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.000 | 0.000 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.000 | 0.000 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.000 | 0.000 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.000 | 0.000 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.000 | 0.000 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.000 | 0.000 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.000 | 0.000 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.000 | 0.000 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.000 | 0.000 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.000 | 0.000 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.000 | 0.000 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.000 | 0.000 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.000 | 0.000 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.000 | 0.000 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.000 | 0.000 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.000 | 0.000 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.000 | 0.000 | 2,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.000 | 0.000 | 2,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.000 | 0.000 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,681.00 | 0.000 | 0.000 | 2,681.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **GREEN_RIVER** | | | | | | | | | | |
| 2,700.00 | 0.000 | 0.000 | 2,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 0.000 | 0.000 | 2,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 0.000 | 0.000 | 2,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 0.000 | 0.000 | 3,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **10 3/4" Casing Pt.** | | | | | | | | | | |
| 3,100.00 | 0.000 | 0.000 | 3,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,126.02 | 0.000 | 0.000 | 3,126.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Kickoff at 3126.02 ft** | | | | | | | | | | |
| 3,200.00 | 2.219 | 147.292 | 3,199.98 | -1.21 | 0.77 | 1.43 | 3.00 | 3.00 | 0.00 | 147.29 |
| 3,300.00 | 5.219 | 147.292 | 3,299.76 | -6.66 | 4.28 | 7.92 | 3.00 | 3.00 | 0.00 | 0.00 |
| 3,400.00 | 8.219 | 147.292 | 3,399.06 | -16.51 | 10.60 | 19.62 | 3.00 | 3.00 | 0.00 | 0.00 |
| **Build Rate = 3.00°/100 ft** | | | | | | | | | | |
| 3,500.00 | 11.219 | 147.292 | 3,497.61 | -30.71 | 19.72 | 36.50 | 3.00 | 3.00 | 0.00 | 0.00 |
| 3,600.00 | 14.219 | 147.292 | 3,595.15 | -49.24 | 31.62 | 58.51 | 3.00 | 3.00 | 0.00 | 0.00 |
| 3,700.00 | 17.219 | 147.292 | 3,691.40 | -72.03 | 46.26 | 85.60 | 3.00 | 3.00 | 0.00 | 0.00 |
| 3,726.02 | 18.000 | 147.292 | 3,716.20 | -78.65 | 50.51 | 93.47 | 3.00 | 3.00 | 0.00 | 0.00 |
| **End Build at 3726.02 ft** | | | | | | | | | | |
| 3,800.00 | 18.000 | 147.292 | 3,786.56 | -97.89 | 62.86 | 116.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 18.000 | 147.292 | 3,881.66 | -123.89 | 79.56 | 147.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 18.000 | 147.292 | 3,976.77 | -149.89 | 96.26 | 178.14 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 18.000 | 147.292 | 4,071.88 | -175.89 | 112.96 | 209.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 18.000 | 147.292 | 4,166.98 | -201.90 | 129.66 | 239.94 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 18.000 | 147.292 | 4,262.09 | -227.90 | 146.35 | 270.84 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 18.000 | 147.292 | 4,357.19 | -253.90 | 163.05 | 301.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 18.000 | 147.292 | 4,452.30 | -279.90 | 179.75 | 332.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Hold INC at 18.000°** | | | | | | | | | | |
| 4,600.00 | 18.000 | 147.292 | 4,547.40 | -305.90 | 196.45 | 363.55 | 0.00 | 0.00 | 0.00 | 0.00 |

## Plan Report for #16-10D-45 BTR - Plan A Rev 0 Proposal

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Toolface Azimuth (°) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4,700.00 | 18.000 | 147.292 | 4,642.51 | -331.90 | 213.15 | 394.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,793.04 | 18.000 | 147.292 | 4,731.00 | -356.10 | 228.68 | 423.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| **TGR3** | | | | | | | | | | |
| 4,800.00 | 18.000 | 147.292 | 4,737.61 | -357.91 | 229.84 | 425.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 18.000 | 147.292 | 4,832.72 | -383.91 | 246.54 | 456.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 18.000 | 147.292 | 4,927.83 | -409.91 | 263.24 | 487.16 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 18.000 | 147.292 | 5,022.93 | -435.91 | 279.94 | 518.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 18.000 | 147.292 | 5,118.04 | -461.91 | 296.64 | 548.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 18.000 | 147.292 | 5,213.14 | -487.91 | 313.34 | 579.86 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,325.91 | 18.000 | 147.292 | 5,237.78 | -494.65 | 317.66 | 587.87 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Begin Drop at 5325.91 ft** | | | | | | | | | | |
| 5,400.00 | 16.148 | 147.292 | 5,308.61 | -512.95 | 329.42 | 609.62 | 2.50 | -2.50 | 0.00 | 180.00 |
| 5,500.00 | 13.648 | 147.292 | 5,405.24 | -534.59 | 343.31 | 635.33 | 2.50 | -2.50 | 0.00 | 180.00 |
| 5,600.00 | 11.148 | 147.292 | 5,502.90 | -552.65 | 354.91 | 656.80 | 2.50 | -2.50 | 0.00 | 180.00 |
| **Drop Rate = 2.50°/100 ft** | | | | | | | | | | |
| 5,700.00 | 8.648 | 147.292 | 5,601.40 | -567.11 | 364.20 | 673.98 | 2.50 | -2.50 | 0.00 | -180.00 |
| 5,714.76 | 8.279 | 147.292 | 5,616.00 | -568.94 | 365.37 | 676.16 | 2.50 | -2.50 | 0.00 | 180.00 |
| **DOUGLAS_CRK** | | | | | | | | | | |
| 5,800.00 | 6.148 | 147.292 | 5,700.56 | -577.94 | 371.15 | 686.86 | 2.50 | -2.50 | 0.00 | -180.00 |
| 5,900.00 | 3.648 | 147.292 | 5,800.19 | -585.13 | 375.77 | 695.40 | 2.50 | -2.50 | 0.00 | 180.00 |
| 6,000.00 | 1.148 | 147.292 | 5,900.09 | -588.65 | 378.03 | 699.58 | 2.50 | -2.50 | 0.00 | 180.00 |
| 6,045.91 | 0.000 | 0.000 | 5,946.00 | -589.03 | 378.27 | 700.04 | 2.50 | -2.50 | -320.83 | -180.00 |
| **End Drop at 6045.91ft** | | | | | | | | | | |
| 6,100.00 | 0.000 | 0.000 | 6,000.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 180.00 |
| 6,145.91 | 0.000 | 0.000 | 6,046.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **3PT_MKR - #16-10D-45 BTR_ZONE Tgt** | | | | | | | | | | |
| 6,200.00 | 0.000 | 0.000 | 6,100.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.000 | 0.000 | 6,200.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.000 | 0.000 | 6,300.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.000 | 0.000 | 6,400.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.000 | 0.000 | 6,500.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,610.91 | 0.000 | 0.000 | 6,511.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **BLACK_SHALE_FACIES** | | | | | | | | | | |
| 6,700.00 | 0.000 | 0.000 | 6,600.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,775.91 | 0.000 | 0.000 | 6,676.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CASTLE_PEAK** | | | | | | | | | | |
| 6,800.00 | 0.000 | 0.000 | 6,700.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.000 | 0.000 | 6,800.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 0.000 | 0.000 | 6,900.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,085.91 | 0.000 | 0.000 | 6,986.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **UTELAND_BUTTE** | | | | | | | | | | |
| 7,100.00 | 0.000 | 0.000 | 7,000.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,150.91 | 0.000 | 0.000 | 7,051.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_1** | | | | | | | | | | |
| 7,200.00 | 0.000 | 0.000 | 7,100.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 0.000 | 0.000 | 7,200.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,320.91 | 0.000 | 0.000 | 7,221.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **WASATCH** | | | | | | | | | | |
| 7,400.00 | 0.000 | 0.000 | 7,300.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,455.91 | 0.000 | 0.000 | 7,356.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_2** | | | | | | | | | | |
| 7,500.00 | 0.000 | 0.000 | 7,400.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 0.000 | 0.000 | 7,500.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 0.000 | 0.000 | 7,600.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,730.91 | 0.000 | 0.000 | 7,631.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_3** | | | | | | | | | | |
| 7,800.00 | 0.000 | 0.000 | 7,700.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 0.000 | 0.000 | 7,800.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |

## Plan Report for #16-10D-45 BTR - Plan A Rev 0 Proposal

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Toolface Azimuth (°) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8,000.00 | 0.000 | 0.000 | 7,900.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,055.91 | 0.000 | 0.000 | 7,956.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_4** | | | | | | | | | | |
| 8,100.00 | 0.000 | 0.000 | 8,000.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 0.000 | 0.000 | 8,100.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 0.000 | 0.000 | 8,200.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,305.91 | 0.000 | 0.000 | 8,206.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_4A** | | | | | | | | | | |
| 8,400.00 | 0.000 | 0.000 | 8,300.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,465.91 | 0.000 | 0.000 | 8,366.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_5** | | | | | | | | | | |
| 8,500.00 | 0.000 | 0.000 | 8,400.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 0.000 | 0.000 | 8,500.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,650.91 | 0.000 | 0.000 | 8,551.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_6** | | | | | | | | | | |
| 8,700.00 | 0.000 | 0.000 | 8,600.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 0.000 | 0.000 | 8,700.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 0.000 | 0.000 | 8,800.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 0.000 | 0.000 | 8,900.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,000.91 | 0.000 | 0.000 | 8,901.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **CR_7** | | | | | | | | | | |
| 9,100.00 | 0.000 | 0.000 | 9,000.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 0.000 | 0.000 | 9,100.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 0.000 | 0.000 | 9,200.09 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,300.91 | 0.000 | 0.000 | 9,201.00 | -589.03 | 378.27 | 700.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Depth = 9300.91 ft - #16-10D-45 BTR_BHL Tgt** | | | | | | | | | | |

### *Plan Annotations*

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates +N/-S (ft) | Local Coordinates +E/-W (ft) | Comment |
|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | RKB 16' EL=6109 (Patterson 506) |
| 3,126.02 | 3,126.02 | 0.00 | 0.00 | Kickoff at 3126.02 ft |
| 3,400.00 | 3,399.06 | -16.51 | 10.60 | Build Rate = 3.00°/100 ft |
| 3,726.02 | 3,716.20 | -78.65 | 50.51 | End Build at 3726.02 ft |
| 4,500.00 | 4,452.30 | -279.90 | 179.75 | Hold INC at 18.000° |
| 5,325.91 | 5,237.78 | -494.65 | 317.66 | Begin Drop at 5325.91 ft |
| 5,600.00 | 5,502.90 | -552.65 | 354.91 | Drop Rate = 2.50°/100 ft |
| 6,045.91 | 5,946.00 | -589.03 | 378.27 | End Drop at 6045.91ft |
| 9,300.91 | 9,201.00 | -589.03 | 378.27 | Total Depth = 9300.91 ft |

### *Vertical Section Information*

| Angle Type | Target | Azimuth (°) | Origin Type | Origin +N/_S (ft) | Origin +E/-W (ft) | Start TVD (ft) |
|---|---|---|---|---|---|---|
| Target | #16-10D-45 BTR_BHL Tgt | 147.292 | Slot | 0.00 | 0.00 | 0.00 |

### *Survey tool program*

| From (ft) | To (ft) | Survey/Plan | Survey Tool |
|---|---|---|---|
| 0.00 | 9,300.91 | Plan A Rev 0 Proposal | MWD |

## Plan Report for #16-10D-45 BTR - Plan A Rev 0 Proposal

### *Casing Details*

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---|---|---|---|---|
| 3,000.00 | 3,000.00 | 10 3/4" Casing Pt. | 10-3/4 | 12-1/4 |

### *Formation Details*

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 2,681.00 | 2,681.00 | GREEN_RIVER | | | |
| 4,793.04 | 4,731.00 | TGR3 | | | |
| 5,714.76 | 5,616.00 | DOUGLAS_CRK | | | |
| 6,145.91 | 6,046.00 | 3PT_MKR | | | |
| 6,610.91 | 6,511.00 | BLACK_SHALE_FACIES | | | |
| 6,775.91 | 6,676.00 | CASTLE_PEAK | | | |
| 7,085.91 | 6,986.00 | UTELAND_BUTTE | | | |
| 7,150.91 | 7,051.00 | CR_1 | | | |
| 7,320.91 | 7,221.00 | WASATCH | | | |
| 7,455.91 | 7,356.00 | CR_2 | | | |
| 7,730.91 | 7,631.00 | CR_3 | | | |
| 8,055.91 | 7,956.00 | CR_4 | | | |
| 8,305.91 | 8,206.00 | CR_4A | | | |
| 8,465.91 | 8,366.00 | CR_5 | | | |
| 8,650.91 | 8,551.00 | CR_6 | | | |
| 9,000.91 | 8,901.00 | CR_7 | | | |
| 9,300.91 | 9,201.00 | TD | | | |

### *Targets associated with this wellbore*

| Target Name | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Shape |
|---|---|---|---|---|
| #16-10D-45 BTR_ZONE Tgt | 6,046.00 | -589.03 | 378.27 | Rectangle |
| #16-10D-45 BTR_BHL Tgt | 9,201.00 | -589.03 | 378.27 | Point |
| #16-10D-45 BTR_SHL | 0.00 | 0.00 | 0.00 | Point |

**Bill Barrett Corp**

HALLIBURTON

Duchesne County, UT (NAD 1927)

# North Reference Sheet for Sec. 10-T4S-R5W - #16-10D-45 BTR - Plan A Rev 0

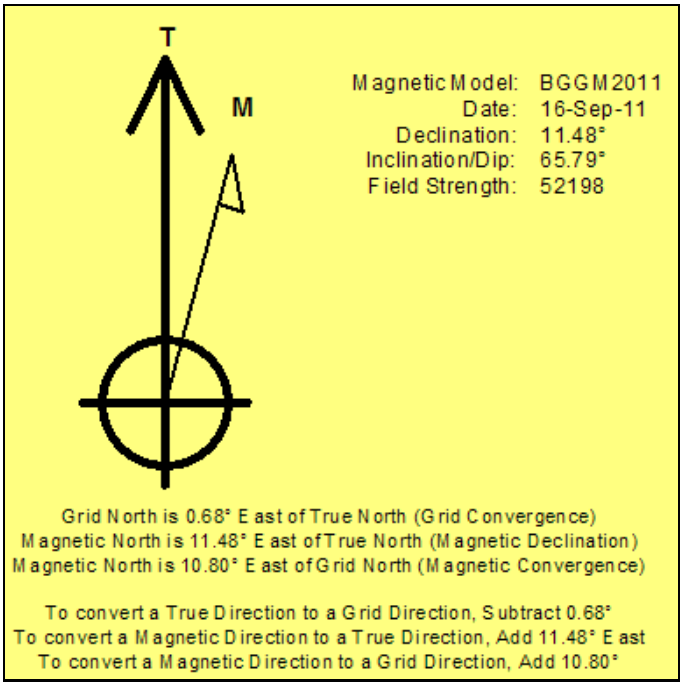
All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
Vertical Depths are relative to RKB 16' @ 6106.00ft (Patterson 506). Northing and Easting are relative to #16-10D-45 BTR
Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Lambert Conformal Conic (2 parallel)
Central Meridian is -111.50°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:40° 39' 0.000 N°
False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99991346

Grid Coordinates of Well: 661,780.36 ft N, 2,298,774.13 ft E
Geographical Coordinates of Well: 40° 08' 43.32" N, 110° 25' 52.36" W
Grid Convergence at Surface is: 0.68°

Based upon Minimum Curvature type calculations, at a Measured Depth of 9,300.91ft
the Bottom Hole Displacement is 700.04ft in the Direction of 147.29° (True).

Magnetic Convergence at surface is: -10.80° (16 September 2011, , BGGM2011)



# SURFACE USE PLAN

BILL BARRETT CORPORATION

***16-10D-45 BTR Well Pad***
NW SE, 1812' FSL and 1403' FEL, Section 10, T4S-R5W, USB&M (surface hole)
SE SE, 1223' FSL and 1023' FEL, Section 10, T4S-R5W, USB&M (bottom hole)
Duchesne County, Utah

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The onsite inspection for this pad occurred on June 10, 2011. Site specific conditions or changes as a result of that onsite are indicated below. Plat changes requested at the onsite are reflected within this APD.

a) Relocate the access, pipeline and powerline corridor to avoid the ridge and provide additional protection to known resources;
b) Relocate access approach entering the pad to corner 8;
c) Relocated pit spoils from corners C-B to corners B-A so spoils do not spill over the edge;
d) Paint color will be beetle green;
e) Interim Reclamation will be maximized by placing the tank battery on cut as the access road enters the pad area. See attached Interim Reclamation Plat;
f) Two low-water crossings will be installed along the proposed access road;
g) Divert Drainages around the pad area as shown in Figure 1;
h) There were 2 archeological sites found along the proposed wellpad and corridor. These sites are not eligible; however, they have been flagged and will be avoided.

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

   a. The proposed well site is located approximately 4.3 miles southwest of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).

   b. The existing State Highway 40 would be utilized for 2.2 miles to the existing BBC maintained 8-10-45 BTR well site access road that would be utilized for 1.8 miles and provides access to the planned new access road.

   c. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.

d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.

e. The use of roads under State and Duchesne County Road Department maintenance are necessary to access the project area with no improvements proposed. No encroachment or pipeline crossing permit are required

f. All existing roads would be maintained and kept in good repair during all phases of operation.

2. Planned Access Road:

a. Approximately 1176 feet of new access road trending east is planned from the existing 8-10-45 BTR well access road (see Topographic Map B).

b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.

c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.

d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes.

e. A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.

f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.

g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction

and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.

h. Turnouts are not proposed.

i. No culverts are anticipated. Two low water crossings will be installed along the proposed access road. Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.

j. No gates or cattle guards are anticipated at this time.

k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.

l. All access roads and surface disturbing activities would conform to the appropriate standard, **no higher than necessary**, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition – Revised 2007.

m. The operator would be responsible for all maintenance needs of the new access road.

3. Location of Existing Wells (see One-Mile Radius Map):

a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed pad:

| | | |
|---|---|---|
| i. | water wells | none |
| ii. | injection wells | none |
| iii. | disposal wells | none |
| iv. | drilling wells | none |
| v. | temp shut-in wells | none |
| vi. | producing wells | two |
| vii. | abandoned wells | one |

4. Location of Production Facilities

a. Surface facilities would consist of a wellhead, separator, gas meter, (1) 500 gal methanol tank, (1) 500 glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or gas lift unit with a natural gas fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached Interim Reclamation Plat.

b. Most wells would be fitted with a pump jack or Roto-flex unit or gas lift to assist liquid production if liquid volumes and/or low formation pressures require it. Plunger lift systems do not require any outside source of energy. The prime mover for pump jacks or Roto-flex units would be small (75 horsepower or less), natural gas-fired internal combustion engines. If a gas lift is installed, it would be set on a 10 ft x 15 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by a generator.

c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.

d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.

e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.

f. Approximately 1127 feet of pipeline corridor (see Topographic Map C) containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed trending southwest to the existing 8-10-45 BTR pipeline corridor. Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the proposed pipeline servicing nearby BBC and El Paso wells. The pipeline crosses entirely Ute Tribe surface.

g. The new segment of gas pipeline would be surface laid within a 30 foot wide pipeline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.

h. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.

i. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the re-establishment of the native plant community.

j. All permanent above-ground structures would be painted a flat, non-reflective color, such as Beetle Green, to match the standard environmental colors. All facilities would be painted the designated color at the time of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.

k. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.

l. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. Location and Type of Water Supply:

a. Water for the drilling and completion would be trucked from any of the following locations:

| Water Right No. and Application or Change No. | Applicant | Allocation | Date | Point of Diversion | Source |
|---|---|---|---|---|---|
| 43-180 | Duchesne City Water Service District | 5 cfs | 8/13/2004 | Knight Diversion Dam | Duchesne River |
| 43-1202, Change a13837 | Myton City | 5.49 cfr and 3967 acre feet | 3/21/1986 | Knight Diversion Dam | Duchesne River |
| 43-10444, Appln A57477 | Duchesne County Upper Country Water | 2 cfs | 1994 | Ditch at Source | Cow Canyon Spring |
| 43-10446, Appln F57432 | Duchesne County Upper Country Water | 1.58 cfs | 1994 | Ditch at Source | Cow Canyon Spring |
| 43-1273, Appln A17462 | J.J.N.P. Company | 7 cfs | 1946 | Strawberry River | Strawberry River |
| 43-1273, Appln t36590 | J.J.N.P. Company | 4 cfs | 6/03/2010 | Strawberry River | Strawberry River |

b. No new water well is proposed with this application.

c. Should additional water sources be pursued they would be properly permitted through the State of Utah – Division of Water Rights.

d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

6. Source of Construction Material:

a. The use of materials would conform to 43 CFR 3610.2-3.

b. No construction materials would be removed from the lease or EDA area.

c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

7. Methods of Handling Waste Disposal:

a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.

b. The reserve pit would be constructed so as not to leak, break or allow any discharge.

c. The reserve would be lined with 12 mil (minimum) thickness polyethylene nylon reinforced liner material. The liner(s) would overlay straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit. A minimum of two feet of free board would be maintained between the maximum fluid level and the top of the reserve pit at all times.

d. To deter livestock from entering the pit, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.

e. Drill cuttings would be contained in the pit and buried on-site for a period not to exceed six months, weather permitting

f. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the state-approved disposal facilities below:

| **Disposal Facilities** |
|---|
| 1. RNI Industries, Inc. – Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W |
| 2. Pro Water LLC – Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W |

| Disposal Facilities |
|---|
| 3. RN Industries, Inc. – Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W |
| 4. Water Disposal, Inc. – Harmston 1-32-A1 Disposal Well (43-013-30224), UTR #00707, Sec. 32, T1S-R1W |
| 5. Unified Water Pits – Sec. 31, T2S-R4W |
| 6. Iowa Tank Line Pits – 8500 BLM Fence Road, Pleasant Valley |

g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.

h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.

i. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and $CO_2$ gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.

j. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.

k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.

l. A flare pit may be constructed a minimum of 110 feet from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.

m. Hydrocarbons would be removed from the reserve pit would as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

8. Ancillary Facilities:

a. Garbage containers and portable toilets would be located on the well pad.

b. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers.

c. A surface powerline corridor 1223 feet in length is proposed for installation by a third-party installer within a 150 foot wide powerline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.

9. Well Site Layout:

a. The well would be properly identified in accordance with 43 CFR 3162.6.

b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).

c. The pad and road designs are consistent with industry specifications.

d. The pad has been staked at its maximum size of 400 feet x 300 feet with an inboard reserve pit size of 205 feet x 100 feet x 8 feet deep. See section 12.d below for disturbance estimates.

e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.

f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.

g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.

h. All cut and fill slopes would be such that stability can be maintained for the life of the activity.

i. Diversion ditches would be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.

j. Water application may be implemented if necessary to minimize the amount of fugitive dust.

k. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

10. Plan for Restoration of the Surface:

a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.

b. Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.

c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.

d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.

e. The reserve pit and that portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours. Areas not used for production purposes would be backfilled and blended into the

surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the Ute Tribe specified seed mix.

f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the Ute Tribe prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

11. Surface and Mineral Ownership:

a. Surface ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

b. Mineral ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

12. Other Information:

a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as MOAC Report No. 10-256 and No. 11-181.

b. BBC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.

c. Project personnel and contractors would be educated on and subject to the following requirements:
- No dogs or firearms within the Project Area.
- No littering within the Project Area.
- Smoking within the Project Area would only be allowed in off-operator active locations or in specifically designated smoking areas. All cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles; personnel and contractors would abide by all fire restriction orders.
- Campfires or uncontained fires of any kind would be prohibited.
- Portable generators used in the Project Area would have spark arrestors.

d. Disturbance estimates:

| **Approximate Acreage Disturbances** | | | |
|---|---|---|---|
| Well Pad | | 3.616 | |
| Access* | | | |
| Pipeline* | | | |
| Powerline | 1223 feet | 4.21 | acres |
| | **Total** | **7.83** | **acres** |

*Access and Pipeline disturbance is included within the Powerline

## OPERATOR CERTIFICATION

Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

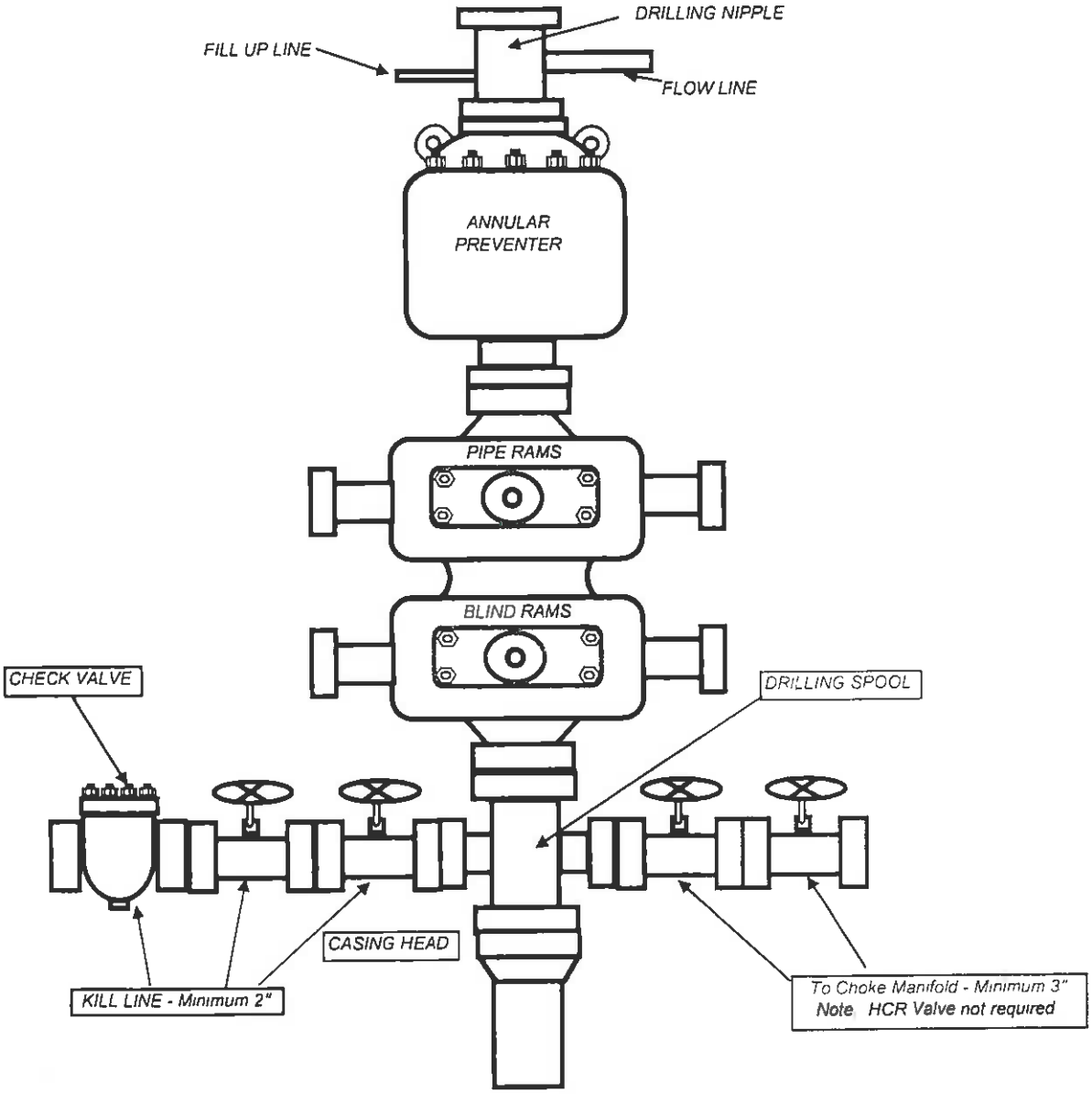
| | |
|---|---|
| Executed this | 28th day of July 2011 |
| Name: | Venessa Langmacher |
| Position Title: | Senior Permit Analyst |
| Address: | 1099 18th Street, Suite 2300, Denver, CO 80202 |
| Telephone: | 303-312-8172 |
| E-mail: | vlangmacher@billbarrettcorp.com |
| Field Representative | Kary Eldredge / Bill Barrett Corporation |
| Address: | 1820 W. Highway 40, Roosevelt, UT 84066 |
| Telephone: | 435-725-3515 (office); 435-724-6789 (mobile) |
| E-mail: | keldredge@billbarrettcorp.com |

Venessa Langmacher

Venessa Langmacher, Senior Permit Analyst

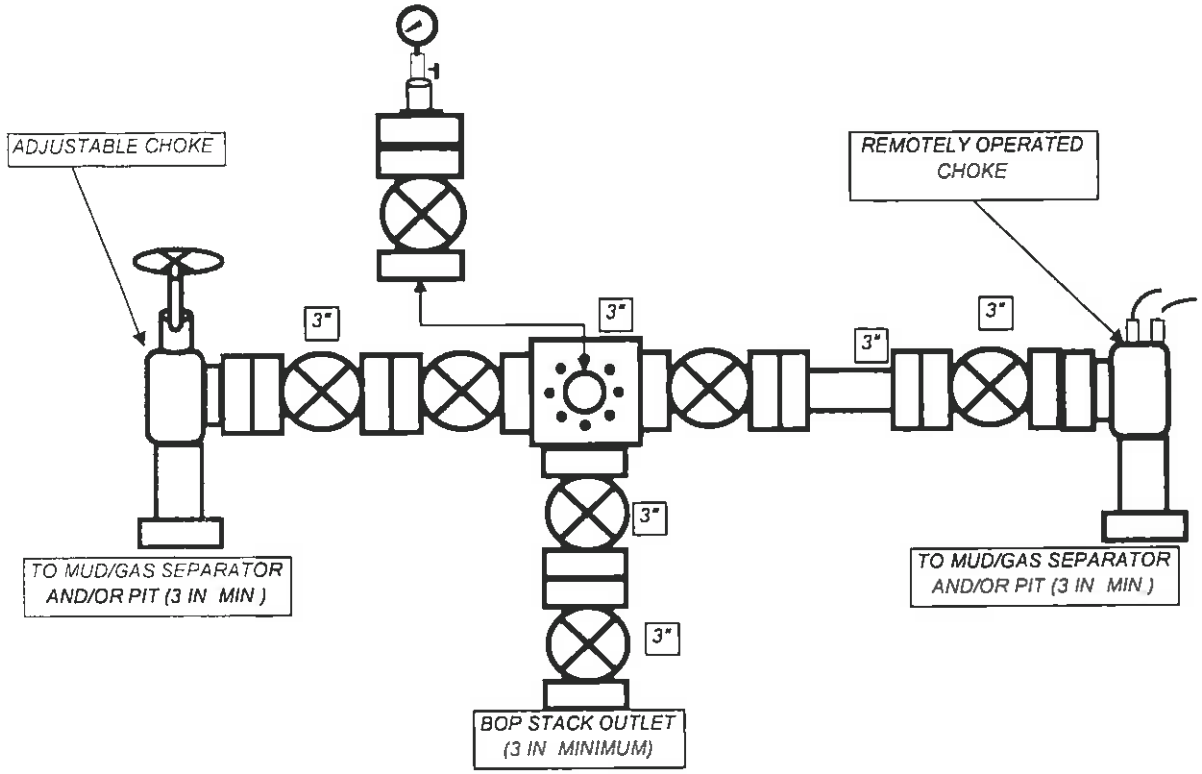
# BILL BARRETT CORPORATION

## TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



# BILL BARRETT CORPORATION

## TYPICAL 5,000 p.s.i. CHOKE MANIFOLD



**Bill Barrett Corporation**

July 28, 2011

Ms. Diana Mason – Petroleum Technician
State of Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Directional Drilling R649-3-11
**Blacktail Ridge Area #16-10D-45 BTR Well**
Surface: 1,812' FSL & 1,403' FEL, NWSE, 10-T4S-R5W, USM
Bottom Hole: 1,223' FSL & 1,023' FEL, SESE, 10-T4S-R5W, USM
Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill the above referenced well, we hereby submit this letter in accordance with Oil & Gas Conservation Rules R649-2, R649-3, R649-10 and R649-11, pertaining to the Location and Siting of Wells.

- The proposed location is within our Blacktail Ridge Area.
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area.
- The well will be drilled under an Exploration and Development Agreement between the Ute Indian Tribe and Ute Distribution Corporation. Ute Energy, LLC owns a right to participate in this well.
- BBC certifies that it is the working interest owner of all lands within 460 feet of the proposed well location, and together with Ute Energy, LLC, we own 100% of the working interest in these lands.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. Should you have any questions or need further information, please contact me at 303-312-8544.

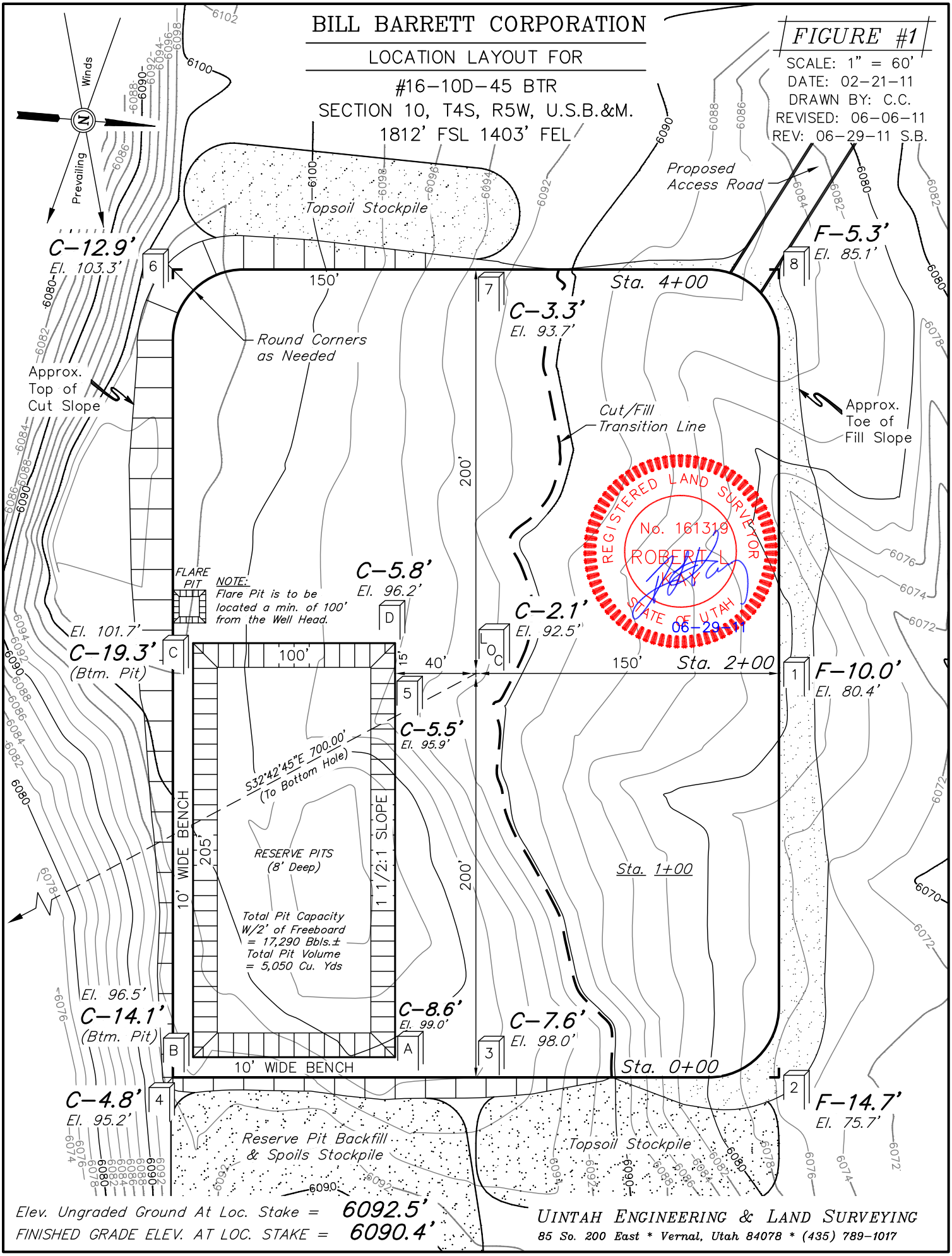
Sincerely,

Venessa Langmacher for

David Watts
Landman

1099 18TH STREET
SUITE 2300
DENVER, CO 80202
P 303.293.9100
F 303.291.0420

API Well Number: 43013509020000



API Well Number: 43013509020000

# BILL BARRETT CORPORATION

## TYPICAL CROSS SECTIONS FOR

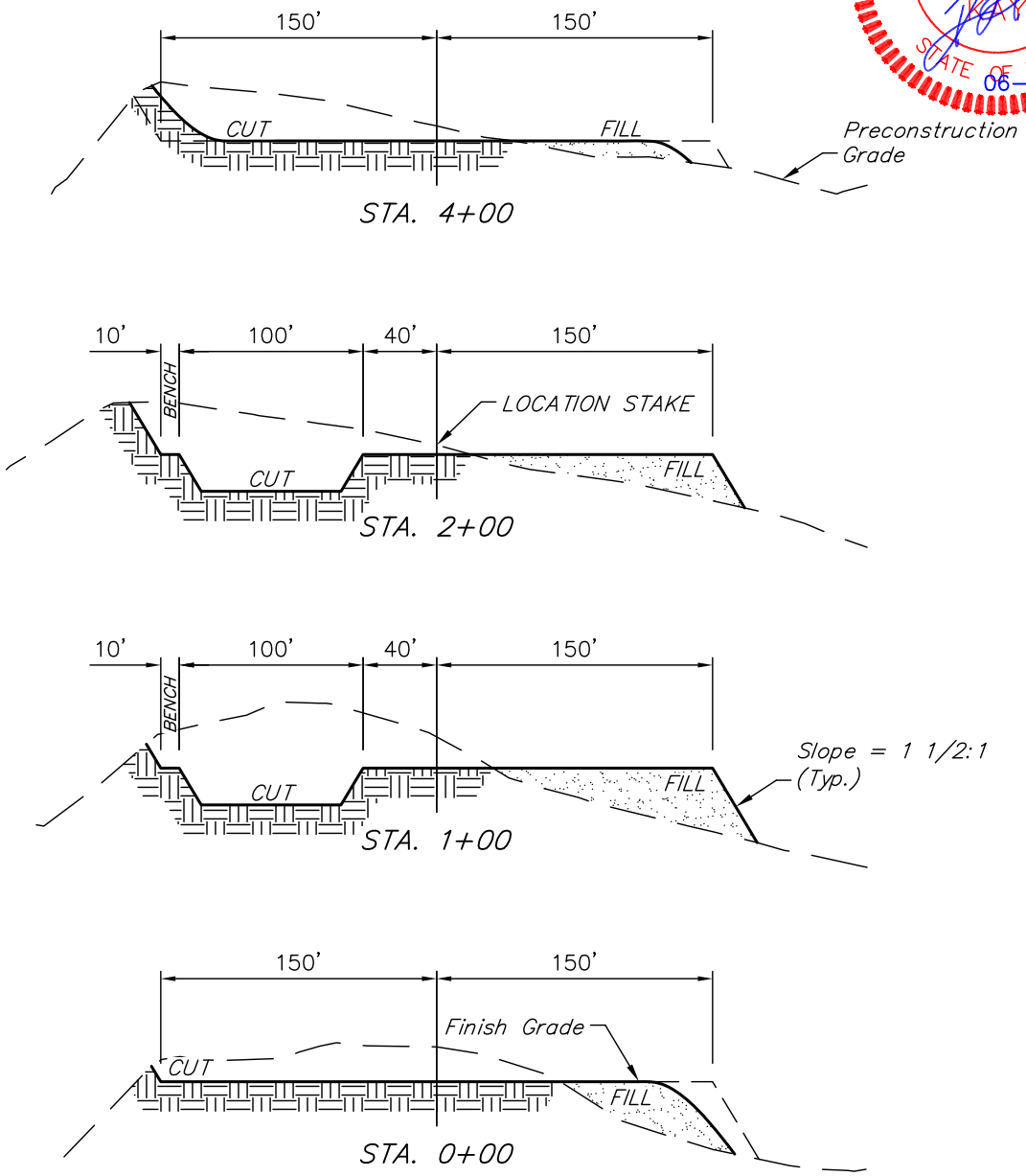
#16-10D-45 BTR
SECTION 10, T4S, R5W, U.S.B.&M.
1812' FSL 1403' FEL

*FIGURE #2*

1" = 40' X-Section Scale
1" = 100'

DATE: 02-21-11
DRAWN BY: C.C.
REVISED: 06-06-11
REV: 06-29-11 S.B.

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH 06-29-11




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

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

## APPROXIMATE YARDAGES

| | | |
|---|---|---|
| (12") Topsoil Stripping | = | 5,280 Cu. Yds. |
| Remaining Location | = | 24,410 Cu. Yds. |
| TOTAL CUT | = | 29,690 CU.YDS. |
| FILL | = | 15,090 CU.YDS. |

| | | |
|---|---|---|
| EXCESS MATERIAL | = | 14,600 Cu. Yds. |
| Topsoil & Pit Backfill (1/2 Pit Vol.) | = | 7,810 Cu. Yds. |
| EXCESS UNBALANCE (After Interim Rehabilitation) | = | 6,790 Cu. Yds. |

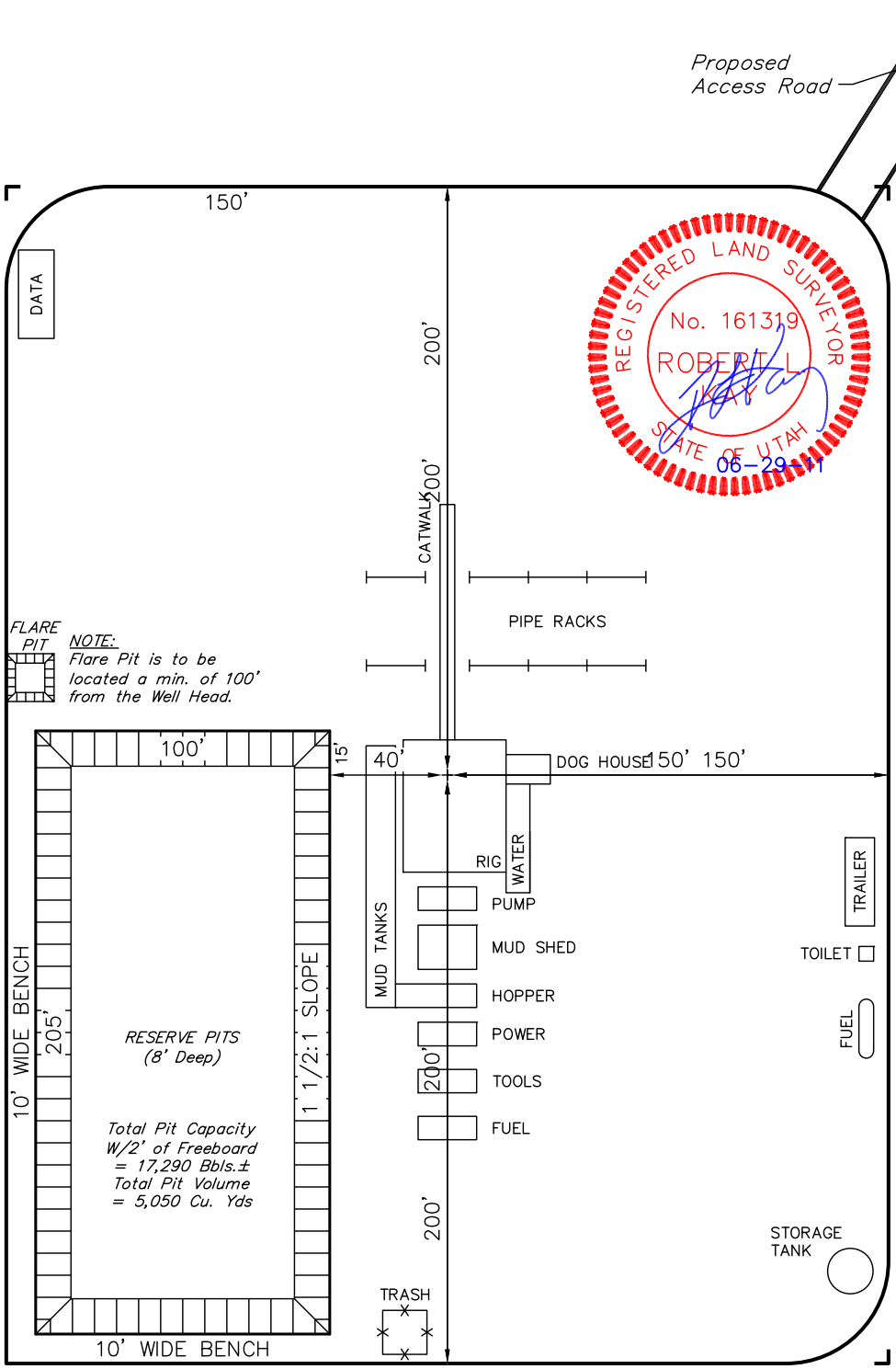

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

# BILL BARRETT CORPORATION

## TYPICAL RIG LAYOUT FOR

#16–10D–45 BTR
SECTION 10, T4S, R5W, U.S.B.&M.
1812' FSL 1403' FEL

*FIGURE #3*
SCALE: 1" = 60'
DATE: 02–21–11
DRAWN BY: C.C.
REVISED: 06–06–11
REV: 06–22–11 S.B.




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

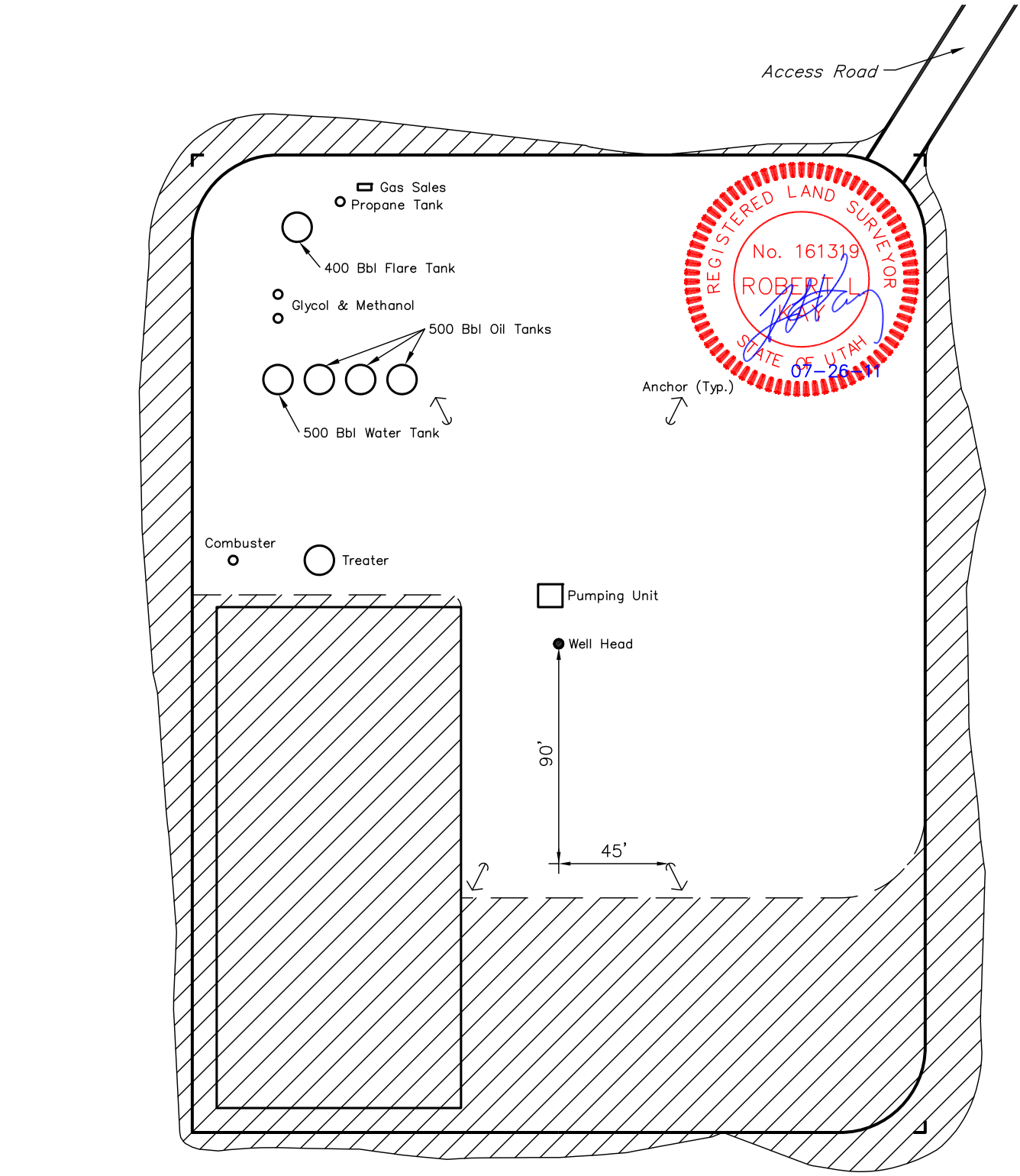
API Well Number: 43013509020000

# BILL BARRETT CORPORATION

## INTERIM RECLAMATION PLAN FOR

#16-10D-45 BTR
SECTION 10, T4S, R5W, U.S.B.&M.
1812' FSL 1403' FEL

FIGURE #4
SCALE: 1" = 60'
DATE: 06-29-11
DRAWN BY: S.B.
REV: 07-26-11

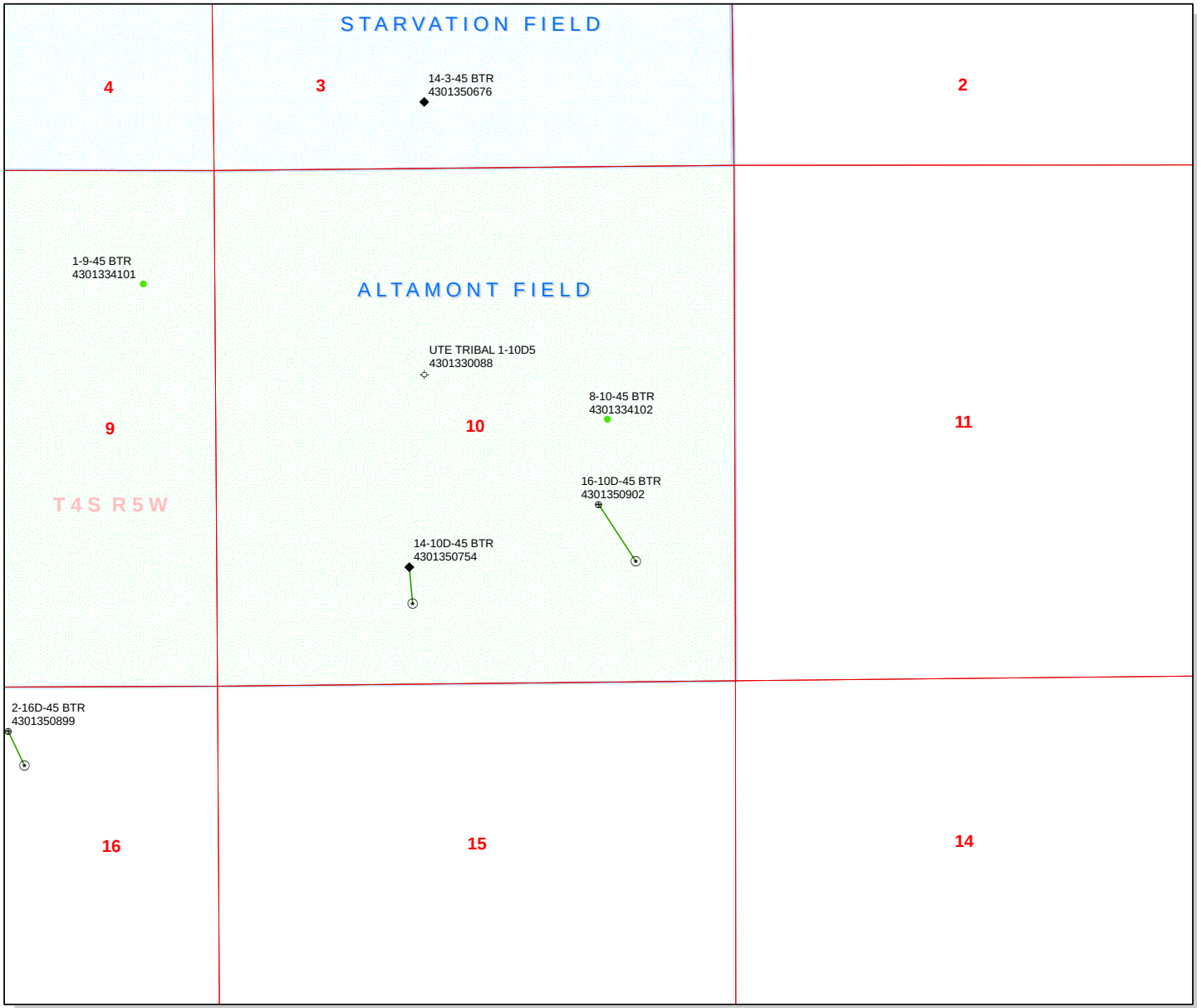



INTERIM RECLAMATION

APPROXIMATE ACREAGES
UN-RECLAIMED = ± 1.763 ACRES

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

API Well Number: 43013509020000




**API Number: 4301350902**

**Well Name: 16-10D-45 BTR**

**Township T0.4 . Range R0.5 . Section 10**

**Meridian: UBM**

Operator: BILL BARRETT CORP

Map Prepared:
Map Produced by Diana Mason

**Units**
**STATUS**
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

**Fields**
**STATUS**
Unknown
ABANDONED
ACTIVE
COMBINED
INACTIVE
STORAGE
TERMINATED
Sections
Township

**Wells Query**
**Status**
APD - Aproved Permit
DRL - Spuded (Drilling Commenced)
GIW - Gas Injection
GS - Gas Storage
LA - Location Abandoned
LOC - New Location
OPS - Operation Suspended
PA - Plugged Abandoned
PGW - Producing Gas Well
POW - Producing Oil Well
RET - Returned APD
SGW - Shut-in Gas Well
SOW - Shut-in Oil Well
TA - Temp. Abandoned
TW - Test Well
WDW - Water Disposal
WIW - Water Injection Well
WSW - Water Supply Well

1,250 625 0 1,250 Feet

1:12,625

# WORKSHEET
# APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 7/28/2011
**API NO. ASSIGNED:** 43013509020000
**WELL NAME:** 16-10D-45 BTR
**OPERATOR:** BILL BARRETT CORP (N2165)
**PHONE NUMBER:** 303 312-8172
**CONTACT:** Venessa Langmacher

**PROPOSED LOCATION:** NWSE 10 040S 050W
**Permit Tech Review:** ☑

**SURFACE:** 1812 FSL 1403 FEL
**Engineering Review:** ☐

**BOTTOM:** 1223 FSL 1023 FEL
**Geology Review:** ☑

**COUNTY:** DUCHESNE
**LATITUDE:** 40.14533
**LONGITUDE:** -110.43120
**UTM SURF EASTINGS:** 548451.00
**NORTHINGS:** 4443832.00
**FIELD NAME:** ALTAMONT
**LEASE TYPE:** 2 - Indian
**LEASE NUMBER:** 1420D626290
**PROPOSED PRODUCING FORMATION(S):** GREEN RIVER-WASATCH
**SURFACE OWNER:** 2 - Indian
**COALBED METHANE:** NO

**RECEIVED AND/OR REVIEWED:**

- ☑ **PLAT**
- ☑ **Bond:** INDIAN - LPM8874725
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Duchesne City Culinary Water Dock
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

**Commingling Approved**

**LOCATION AND SITING:**

- ☐ **R649-2-3.**

**Unit:**

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

**Board Cause No:** Cause 139-85
**Effective Date:** 3/11/2010
**Siting:** 4 Prod LGRRV-WSTC Wells in Drl Units

- ☑ **R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:**
4 - Federal Approval - dmason
15 - Directional - dmason

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*

# Permit To Drill

**********

**Well Name:** 16-10D-45 BTR
**API Well Number:** 43013509020000
**Lease Number:** 1420D626290
**Surface Owner:** INDIAN
**Approval Date:** 8/2/2011

**Issued to:**
BILL BARRETT CORP, 1099 18th Street Ste 2300, 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 Cause 139-85. The expected producing formation or pool is the GREEN RIVER-WASATCH 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:**
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

**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 at 801-538-5284 (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

**Reporting Requirements:**

API Well No: 43013509020000

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:**

For John Rogers
Associate Director, Oil & Gas

Form 3160-3
(August 2007)

RECEIVED
JUL 29 2011
BLM

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
1420H626290

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.
16-10D-45 BTR

2. Name of Operator
BILL BARRETT CORPORATION
Contact: VENESSA LANGMACHER
E-Mail: vlangmacher@billbarrettcorp.com

9. API Well No.
43-013-50902

3a. Address
1099 18TH STREET SUITE 2300
DENVER, CO 80202

3b. Phone No. (include area code)
Ph: 303-312-8172
Fx: 303-291-0420

10. Field and Pool, or Exploratory
ALTAMONT

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NWSE 1812FSL 1403FEL 40.145325 N Lat, 110.431922 W Lon

At proposed prod. zone SESE 1223FSL 1023FEL 40.143708 N Lat, 110.430567 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 10 T4S R5W Mer UBM

14. Distance in miles and direction from nearest town or post office*
4.3 MILES SOUTHWEST OF DUCHESNE, UT

12. County or Parish
DUCHESNE

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1023' (BOTTOM HOLE)

16. No. of Acres in Lease
640.00

17. Spacing Unit dedicated to this well
640.00

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
1468'

19. Proposed Depth
9301 MD
9201 TVD

20. BLM/BIA Bond No. on file
LPM8874725

21. Elevations (Show whether DF, KB, RT, GL, etc.
6093 GL

22. Approximate date work will start
01/01/2012

23. Estimated duration
60 DAYS (D&C)

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
VENESSA LANGMACHER Ph: 303-312-8172

Date
07/28/2011

Title
SENIOR PERMIT ANALYST

Approved by (Signature)

Name (Printed/Typed)
Jerry Kenczka

Date
JAN 17 2012

Title
Assistant Field Manager
Lands & Mineral Resources

Office
VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**Additional Operator Remarks (see next page)**

RECEIVED
JAN 27 2012
DIV. OF OIL, GAS & MINING

**Electronic Submission #114057 verified by the BLM Well Information System**
**For BILL BARRETT CORPORATION, sent to the Vernal**
**Committed to AFMSS for processing by LESLIE ROBINSON on 08/02/2011 ()**

NOTICE OF APPROVAL

UDOGM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

11SS1743AS NOS-5/26/2011

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

## *CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL*

| | | | |
|---|---|---|---|
| **Company:** | **Bill Barrett Corporation** | **Location:** | **NWSE, Sec. 10, T4S, R5W** |
| **Well No:** | **16-10D-45 BTR** | **Lease No:** | **14-20-H62-6290** |
| **API No:** | **43-013-50902** | **Agreement:** | **N/A** |

# OFFICE NUMBER: (435) 781-4400

# OFFICE FAX NUMBER: (435) 781-3420

## A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

## NOTIFICATION REQUIREMENTS

| | | |
|---|---|---|
| Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist) | - | The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday. |
| Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist) | - | Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig. |
| Spud Notice (Notify BLM Petroleum Engineer) | - | Twenty-Four (24) hours prior to spudding the well. |
| Casing String & Cementing (Notify BLM Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to running casing and cementing all casing strings to:blm_ut_vn_opreport@blm.gov. |
| BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to initiating pressure tests. |
| First Production Notice (Notify BLM Petroleum Engineer) | - | Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days. |

## *SURFACE USE PROGRAM*
## *CONDITIONS OF APPROVAL (COAs)*

**Additional Stipulations:**

- Production Equipment will be painted Beetle Green to help blend into the surrounding vegetation.

- See Exhibit One of the approved EA U&O-FY12-Q1-037 for additional mitigation measures that must be followed for each of the proposed well locations.

**General Conditions of Approval:**

- A 30' foot corridor right-of-way shall be approved. Upon completion of each pipeline in corridor, they shall be identified and filed with the Ute Tribe.

- The Ute Tribe Energy & Minerals Department is to be notified, in writing 48 hours prior to construction of pipelines.

- Construction Notice shall be given to the department on the Ute Tribe workdays, which are Monday through Thursday. The Company understands that they may be responsible for costs incurred by the Ute Tribe after hours.

- The Company shall inform contractors to maintain construction of pipelines within the approved ROW's.

- The Company shall assure the Ute Tribe that "ALL CONTRACTORS, INCLUDING SUB-CONTRACTORS, LEASING CONTRACTORS, AND ETC." have acquired a current and valid Ute Tribal Business License and have "Access Permits" prior to construction, and will have these permits in all vehicles at all times.

- You are hereby notified that working under the *"umbrella"* of a company does not allow you to be in the field, and can be subject to those fines of the Ute Tribe Severance Tax Ordinance.

- Any deviation of submitted APD's and ROW applications the Companies will notify the Ute Tribe and BIA in writing and will receive written authorization of any such change with appropriate authorization.

- Bill Barrett Corporation will implement a "Safety and Emergency Plan." The Company's safety director will ensure its compliance.

- All Company employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APD's, COA's, and/or ROW permits/authorizations on their person(s) during all phases of construction.

- All vehicular traffic, personnel movement, construction/restoration operations shall be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.

- The personnel from the Ute Tribe Energy & Minerals Department shall be notified should cultural remains from subsurface deposits be exposed or identified during construction. All construction will cease.

- Upon completion of Application for Corridor Right-Way, the company will notify the Ute Tribe Energy & Minerals Department, so that a Tribal Technician can verify Affidavit of Completion.

## *DOWNHOLE PROGRAM*
## *CONDITIONS OF APPROVAL (COAs)*

**SITE SPECIFIC DOWNHOLE COAs:**

- A CBL shall be run from TD to Surface on the production casing.
- Gamma Ray Log shall be run from TD to Surface.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person

making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

**OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.

    - Well name and number.

    - Well location (¼¼, Sec., Twn, Rng, and P.M.).

    - Date well was placed in a producing status (date of first production for which royalty will be paid).

    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).

    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.

    - Unit agreement and/or participating area name and number, if applicable.

    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if

performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

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

FORM 9

## SUNDRY NOTICES AND REPORTS ON WELLS

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.

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

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

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

**TYPE OF SUBMISSION**

- ✓ NOTICE OF INTENT — Approximate date work will start: 8/2/2012
- ☐ SUBSEQUENT REPORT — Date of Work Completion:
- ☐ SPUD REPORT — Date of Spud:
- ☐ DRILLING REPORT — Report Date:

**TYPE OF ACTION**

| | | |
|---|---|---|
| ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ✓ APD EXTENSION |
| ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

This sundry is being submitted to request an extension on this APD which expires on 8/2/2012.

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

**Date:** July 30, 2012

**By:**

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Megan Finnegan | 303 299-9949 | Permit Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 7/24/2012 |

RECEIVED: Jul. 24, 2012

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

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43013509020000

**API:** 43013509020000
**Well Name:** 16-10D-45 BTR
**Location:** 1812 FSL 1403 FEL QTR NWSE SEC 10 TWNP 040S RNG 050W MER U
**Company Permit Issued to:** BILL BARRETT CORP
**Date Original Permit Issued:** 8/2/2011

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

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

**Signature:** Megan Finnegan **Date:** 7/24/2012
**Title:** Permit Analyst **Representing:** BILL BARRETT CORP

RECEIVED: Jul. 24, 2012

***FEDERAL APPROVAL OF THIS ACTION IS NECESSARY***

**FORM 9**

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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:** UTE

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

**1. TYPE OF WELL**
Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:**
BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:**
1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:**
303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:**
1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:**
Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start:<br>8/15/2012 | ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| | ✓ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ DRILLING REPORT<br>Report Date: | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

BBC hereby requests to revise the surface casing for this well to 9-5/8". See casing and cementing programs attached.

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

**Date:** August 08, 2012

**By:** Dark K Quist

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Venessa Langmacher | 303 312-8172 | Senior Permit Analyst |
| **SIGNATURE** | | **DATE** |
| N/A | | 8/1/2012 |

**RECEIVED: Aug. 01, 2012**

# 16-10D-45 BTR

## Casing Program

| Hole Size | SETTING DEPTH (FROM) | (TO) | Casing Size | Casing Weight | Casing Grade | Thread | Condition |
|---|---|---|---|---|---|---|---|
| 26” | Surface | 80’ | 16” | 65# | | | |
| 12 1/4” | Surface | 3,300’ | 9 5/8” | 36# | J or K 55 | ST&C | New |
| 8 ¾” | Surface | TD | 5 ½” | 17# | P-110 | LT&C | New |

## Cementing Program

| | |
|---|---|
| 16” Conductor Casing | Grout |
| 9 5/8” Surface Casing | Lead: 500 sx Halliburton Light Premium with additives mixed at 11.0 ppg (yield = 3.16 $ft^3$/sx) circulated to surface with 75% excess. TOC @ Surface<br>Tail: 210 sx Halliburton Premium Plus cement with additives mixed at 14.8 ppg (yield = 1.36 $ft^3$/sx), calculated hole volume with 75% excess. TOC @ 2,800’ |
| 5 ½” Production Casing | Lead: 550 sx Tuned Light cement with additives mixed at 11.0 ppg (yield = 2.31 $ft^3$/sx). TOC @ 2,800’<br>Tail: 860 sx Halliburton Econocem cement with additives mixed at 13.5 ppg (yield = 1.42 $ft^3$/sx). Top of cement to be determined by log and sample evaluation; estimated TOC @ 6,110’ |

RECEIVED: Aug. 01, 2012

**FEDERAL APPROVAL OF THIS ACTION IS NECESSARY**

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

**TYPE OF SUBMISSION**

- ✓ NOTICE OF INTENT — Approximate date work will start: 8/15/2012
- ☐ SUBSEQUENT REPORT — Date of Work Completion:
- ☐ SPUD REPORT — Date of Spud:
- ☐ DRILLING REPORT — Report Date:

**TYPE OF ACTION**

| | | |
|---|---|---|
| ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ✓ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

A sundry notice was submitted on 08/01/2012 for this location to revise the casing program. After further research, it was determined that we will need to set surface casing at 2500', instead of the requested 3300' due to the Green River formation's depth of 2717'.

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

**Date:** August 08, 2012

**By:** Dark K Quist

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Venessa Langmacher | 303 312-8172 | Senior Permit Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 8/8/2012 |

RECEIVED: Aug. 08, 2012

SUBMIT AS EMAIL | Print Form

# BLM - Vernal Field Office - Notification Form

Operator Bill Barrett Corporation Rig Name/# Triple A Drilling
Submitted By Venessa Langmach Phone Number 303-312-8172
Well Name/Number 16-10D-45 BTR
Qtr/Qtr NWSE Section 10 Township 4S Range 5W
Lease Serial Number 1420H626290
API Number 4301350902

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 09/20/2012 8:00 AM ☑ PM ☐

Casing – Please report time casing run starts, not cementing times.

☐ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

RECEIVED
SEP 1 9 2012
DIV. OF OIL, GAS & MINING

Date/Time _____ _____ AM ☐ PM ☐

BOPE

☐ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks _____

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

**FORM 9**

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

**TYPE OF SUBMISSION**

- ☐ NOTICE OF INTENT — Approximate date work will start:
- ☐ SUBSEQUENT REPORT — Date of Work Completion:
- ✓ SPUD REPORT — Date of Spud: 9/20/2012
- ☐ DRILLING REPORT — Report Date:

**TYPE OF ACTION**

| | | |
|---|---|---|
| ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

This well was spud by Triple A Drilling on 9/20/2012 at 8:00 am.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
September 28, 2012

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Venessa Langmacher | 303 312-8172 | Senior Permit Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 9/25/2012 |

RECEIVED: Sep. 25, 2012

FORM 6

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

# ENTITY ACTION FORM

Operator: Bill Barrett Corporation
Address: 1099 18th Street, Suite 2300
city Denver
state CO zip 80202

Operator Account Number: N 2165
Phone Number: (303) 312-8172

**Well 1**

| API Number | Well Name | | QQ | Sec | Twp | Rng | County |
|---|---|---|---|---|---|---|---|
| 4301351062 | 10-5-45 BTR | | NWSE | 5 | 4S | 5W | Duchesne |
| **Action Code** | **Current Entity Number** | **New Entity Number** | **Spud Date** | | | **Entity Assignment Effective Date** | |
| A | new | 18724 | 9/13/2012 | | | 9/27/2012 | |

**Comments:** Spudding Operation was conducted by Triple A Drilling @ 8:00 am.
GR-WS

**Well 2**

| API Number | Well Name | | QQ | Sec | Twp | Rng | County |
|---|---|---|---|---|---|---|---|
| 4301350902 | 16-10D-45 BTR | | nwse | 10 | 4S | 5W | Duchesne |
| **Action Code** | **Current Entity Number** | **New Entity Number** | **Spud Date** | | | **Entity Assignment Effective Date** | |
| A | new | 18725 | 9/20/2012 | | | 9/27/2012 | |

**Comments:** Spudding Operation was conducted by Triple A Drilling @ 8:00 am.
GR-WS BHL: SESE

**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
SEP 2 0 2012

Venessa Langmacher
**Name (Please Print)**
Venessa Langmacher
**Signature**
Sr Permit Analyst
**Title**
9/25/2012
**Date**

(5/2000)

BLM - Vernal Field Office - Notification Form

Operator Bill Barrett Corp. Rig Name/# Patterson Rig 506
Submitted By Pat Clark Phone Number 435-828-6095
Well Name/Number 16-10D-45 BTR
Qtr/Qtr NW/SE Section 10 Township 4S Range 5W
Lease Serial Number 1420H626290
API Number 43-013-50902

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time ___ ___ AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

☒ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

Date/Time 10/1/12 6:00 AM ☒ PM ☐

BOPE

☒ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time 10/1/12 2:00 AM ☒ PM ☐

Remarks Times are estimates only.

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OCT 02 2012
DIV. OF OIL, GAS & MINING

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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:** UTE

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☐ NOTICE OF INTENT<br>Approximate date work will start: | ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ✓ DRILLING REPORT<br>Report Date:<br>9/30/2012 | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

September 2012 monthly drilling activity report is attached.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
October 05, 2012

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Megan Finnegan | 303 299-9949 | Permit Analyst |
| **SIGNATURE** N/A | | **DATE** 10/2/2012 |

RECEIVED: Oct. 02, 2012

Bill Barrett Corporation

## 16-10D-45 BTR 9/24/2012 00:00 - 9/24/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | DRILLING | 2,487.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 00:00 | 6.00 | 06:00 | 1 | RIGUP & TEARDOWN | Rigging down from 2-18D-45 |

## 16-10D-45 BTR 9/24/2012 06:00 - 9/25/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | DRILLING | 2,487.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 12.00 | 18:00 | 1 | RIGUP & TEARDOWN | RIgging down and moving off of 2-18D-45 BTR. Derrick and sub still on old location. Rig move 6.9 miles. |

## 16-10D-45 BTR 9/25/2012 06:00 - 9/26/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | DRILLING | 2,487.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 12.00 | 18:00 | 1 | RIGUP & TEARDOWN | Move on rig up. Rig entirely set in and derrick on floor. |

## 16-10D-45 BTR 9/26/2012 06:00 - 9/27/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | DRILLING | 2,487.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 6.00 | 12:00 | 1 | RIGUP & TEARDOWN | Rigging up. Preparing to raise derrick. Found cracks in A legs during preraise inspection. |
| 12:00 | 18.00 | 06:00 | 8 | REPAIR RIG | Repair and inspect A-legs. Wait on daylight. |

## 16-10D-45 BTR 9/27/2012 06:00 - 9/28/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | DRILLING | 2,487.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 12.00 | 18:00 | 1 | RIGUP & TEARDOWN | Raise derrick, RURT. Pre-spud equipment check. |
| 18:00 | 1.00 | 19:00 | 14 | NIPPLE UP B.O.P | N/U conductor/flowline. |
| 19:00 | 5.00 | 00:00 | 20 | DIRECTIONAL WORK | P/U BHA, dir tools, orient same. |
| 00:00 | 6.00 | 06:00 | 2 | DRILL ACTUAL | Drill 96' - 197'. Pason and generator issues, tight hole 100' - 140'. |

## 16-10D-45 BTR 9/28/2012 06:00 - 9/29/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | DRILLING | 2,487.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 5.00 | 11:00 | 2 | DRILL ACTUAL | Drill 197' - 333'. Wob 5-10k(excessive torque and chatter), rpm 40/102, spp 1000 psi, dp 250 psi, rop 27 fph. |
| 11:00 | 0.50 | 11:30 | 7 | LUBRICATE RIG | Rig service. |
| 11:30 | 17.50 | 05:00 | 2 | DRILL ACTUAL | Drill 333' - 911'. wob 10-12k, rpm 50/102, spp 1350 psi, dp 250 psi, rop 33 fph. |
| 05:00 | 0.50 | 05:30 | 5 | COND MUD & CIRC | Pump sweep, Circ bottoms up. |
| 05:30 | 0.50 | 06:00 | 6 | TRIPS | Toh. |

**From:** pat506 <pat506@billbarrettcorp.com>
**To:** "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov"...
**CC:** Tracey Fallang <tfallang@billbarrettcorp.com>, Venessa Langmacher <vlang...
**Date:** 10/8/2012 8:14 AM
**Subject:** 24 HR NOTICE FOR PATT 506

GOOD MORNING ALL; 4S 5W 10

THIS IS A 24 HR NOTICE FOR PATTERSON RIG 506, ON 5.5"CSG. RUN ON THE WELL# 16-10D-45 BTR/API# 43-013-50902. AND A ROUGH 30 HR NOTICE FOR PROD. CSG. CMT JOB...

IF THERE ARE ANY QUESTION'S, COMMENTS, AND/OR CONCERNS CONTACT 435-828-6095 OR 970-361-3264...

BILL BARRETT CORP.
PATTERSON 506
435-828-6095
970-361-3264

RECEIVED
OCT 10 2012
DIV. OF OIL, GAS & MINING

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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:** UTE

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

**TYPE OF SUBMISSION**

- ☐ NOTICE OF INTENT — Approximate date work will start:
- ✓ SUBSEQUENT REPORT — Date of Work Completion: 11/1/2012
- ☐ SPUD REPORT — Date of Spud:
- ☐ DRILLING REPORT — Report Date:

**TYPE OF ACTION**

| | | |
|---|---|---|
| ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ✓ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

This well had first gas sales on 10/29/2012 and first oil sales on 11/01/2012.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
November 02, 2012

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Venessa Langmacher | 303 312-8172 | Senior Permit Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 11/2/2012 |

RECEIVED: Nov. 02, 2012

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

**TYPE OF SUBMISSION**

- ☐ NOTICE OF INTENT — Approximate date work will start:
- ☐ SUBSEQUENT REPORT — Date of Work Completion:
- ☐ SPUD REPORT — Date of Spud:
- ✓ DRILLING REPORT — Report Date: 10/31/2012

**TYPE OF ACTION**

| | | |
|---|---|---|
| ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

October 2012 monthly drilling activity report is attached.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
November 07, 2012

**NAME (PLEASE PRINT)** Brady Riley

**PHONE NUMBER** 303 312-8115

**TITLE** Permit Analyst

**SIGNATURE** N/A

**DATE** 11/7/2012

RECEIVED: Nov. 07, 2012

Bill Barrett Corporation

## 16-10D-45 BTR 10/1/2012 06:00 - 10/2/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 1.00 | 07:00 | 5 | COND MUD & CIRC | C&C mud, raise mw to 9.0 ppg, sweep hole. |
| 07:00 | 2.00 | 09:00 | 6 | TRIPS | ST to dc's. Hole in good shape. |
| 09:00 | 2.50 | 11:30 | 5 | COND MUD & CIRC | C&C to toh f/csg. |
| 11:30 | 3.00 | 14:30 | 6 | TRIPS | Toh. L/D 8" DC'S, dir tools. |
| 14:30 | 7.50 | 22:00 | 12 | RUN CASING & CEMENT | HSM. R/U Kimzey casers, run 9 5/8", 36#, J-55, STC csg as follows: Guide shoe, 1 jt csg, float collar, 56 jts csg. Tag bottom @ 2487', land @ 2487'. (Waited 2 1/2 hours for more csg, Kimzey crossed 3 jts, only had 2 spares). |
| 22:00 | 1.50 | 23:30 | 5 | COND MUD & CIRC | C&C f/cmt. |
| 23:30 | 2.50 | 02:00 | 12 | RUN CASING & CEMENT | HSM. R/U HES and cement well as follows: Press test to 5000 psi. Pump 10 bbls H2O, 40 bbls superflush, 10 bbls H2O. Mix and pump 225 bbls (400 sx) lead cmt @ 11 ppg, 3.16 yld, 19.48 gps H2O. Mix and pump 56 bbls(235 sx) tail cmt @ 14.8 ppg, 1.33 yld, 6.31 gps H2O. Drop plug, wash pumps and lines, displace w/189.7 bbls 9 ppg mud(last 10 bbls H2O to clean pumps and lines). Lost circulation 100 bbls into displacement.Landed plug w/ 350 psi, bump plug to 950 psi. Bled back 2 bbls, floats held. |
| 02:00 | 1.00 | 03:00 | 12 | RUN CASING & CEMENT | Top job # 1 - Ran 140' 1" pipe, pumped 50 sx cmt @ 15.8 ppg w/2% cacl. |
| 03:00 | 2.00 | 05:00 | 13 | WAIT ON CEMENT | Wait on cement. |
| 05:00 | 0.50 | 05:30 | 12 | RUN CASING & CEMENT | Top job # 2 - Pumped 100 sx cmt @ 15.8 ppg w/2% cacl. Cement reached surface and stayed, will watch to see if it drops. |
| 05:30 | 0.50 | 06:00 | 13 | WAIT ON CEMENT | Wait on cmt. Cement holding @ ground level @ report time. |

## 16-10D-45 BTR 10/2/2012 06:00 - 10/3/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 3.00 | 09:00 | 13 | WAIT ON CEMENT | WOC. Hole still standing full. |
| 09:00 | 5.00 | 14:00 | 14 | NIPPLE UP B.O.P | Lift riser, rough cut 9 5/8" csg. L/D csg & riser. Weld on 11" 5M X 9 5/8" SOW csg head. |
| 14:00 | 2.50 | 16:30 | 14 | NIPPLE UP B.O.P | NIPPLE UP BOP'S |
| 16:30 | 5.50 | 22:00 | 15 | TEST B.O.P | TEST BOPS WITH A-1 TESTING... |
| 22:00 | 3.00 | 01:00 | 20 | DIRECTIONAL WORK | DIRECTIONAL WORK...<br>P/U BHA ASSEMBLY, AND ORIENTATE TOOL'S... |
| 01:00 | 1.00 | 02:00 | 6 | TRIPS | T.I.H... |
| 02:00 | 3.00 | 05:00 | 21 | OPEN | DRLG FLOAT EQUIP...<br>DRLG CMT @ 2420.0<br>DRLG FLOAT @ 2441.0<br>DRLG SHOE @ 2487.0<br><br>EMW TEST... HELD PSI @ 273 FOR 10 MIN'S... |

## 16-10D-45 BTR 10/3/2012 06:00 - 10/4/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 8.50 | 14:30 | 2 | DRILL ACTUAL | BIT WT= 10K<br>RPM= 40<br>SPM= 140 |
| 14:30 | 0.50 | 15:00 | 20 | DIRECTIONAL WORK | DIRECTIONAL WORK...<br>TROUBLE SHOOTING SURFACE EQUIP. ISSUES... |
| 15:00 | 0.50 | 15:30 | 2 | DRILL ACTUAL | BIT WT= 10 K<br>RPM= 40<br>SPM= 140 |
| 15:30 | 0.50 | 16:00 | 7 | LUBRICATE RIG | SERVICE RIG |
| 16:00 | 14.00 | 06:00 | 2 | DRILL ACTUAL | BIT WT= 12K<br>RPM= 40<br>SPM= 140 |

## 16-10D-45 BTR 10/4/2012 06:00 - 10/5/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

Bill Barrett Corporation

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 10.50 | 16:30 | 2 | DRILL ACTUAL | BIT WT= 12K<br>RPM= 40<br>SPM= 140 |
| 16:30 | 0.50 | 17:00 | 8 | REPAIR RIG | SERVICE RIG... |
| 17:00 | 13.00 | 06:00 | 2 | DRILL ACTUAL | BIT WT=12K<br>RPM=40<br>SPM= 140 |

## 16-10D-45 BTR 10/5/2012 06:00 - 10/6/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 10.50 | 16:30 | 2 | DRILL ACTUAL | BIT WT= 14K<br>RPM= 40<br>SPM= 140 |
| 16:30 | 0.50 | 17:00 | 7 | LUBRICATE RIG | SERVICE RIG |
| 17:00 | 13.50 | 06:30 | 2 | DRILL ACTUAL | BIT WT= 14K<br>RPM= 40<br>SPM= 140 |

## 16-10D-45 BTR 10/6/2012 06:00 - 10/7/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 11.50 | 17:30 | 2 | DRILL ACTUAL | BIT WT= 15K<br>RPM= 40<br>SPM= 140 |
| 17:30 | 0.50 | 18:00 | 7 | LUBRICATE RIG | SERVICE RIG... |
| 18:00 | 12.00 | 06:00 | 2 | DRILL ACTUAL | BIT WT= 15 K<br>RPM= 40<br>SPM= 140 |

## 16-10D-45 BTR 10/7/2012 06:00 - 10/8/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 21.00 | 03:00 | 2 | DRILL ACTUAL | BIT WT= 16K<br>RPM=40<br>SPM= 140 |
| 03:00 | 1.50 | 04:30 | 5 | COND MUD & CIRC | PUMP SWEEP, AND CIRC. & COND MUD, PUMP DRY JOB... |
| 04:30 | 1.50 | 06:00 | 6 | TRIPS | TRIP FOR LOGS... |

## 16-10D-45 BTR 10/8/2012 06:00 - 10/9/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 3.50 | 09:30 | 6 | TRIPS | T.O.O.H. FOR LOG'S... |
| 09:30 | 2.50 | 12:00 | 20 | DIRECTIONAL WORK | L/D ALL DIRECTIONAL TOOL'S... |
| 12:00 | 5.00 | 17:00 | 11 | WIRELINE LOGS | R/U AND LOG WELL WITH HALLIBURTON, HALLIBURTON BRIDGED OUT @ 5330'<br>LOGGERS DEPTH= 5330.0<br>R/D THE SAME |
| 17:00 | 5.00 | 22:00 | 6 | TRIPS | T.I.H. FOR WIPER L/D D.P. TRIP |
| 22:00 | 2.50 | 00:30 | 5 | COND MUD & CIRC | CIRC. & COND. MUD, AND PUMP SWEEPS... |
| 00:30 | 5.50 | 06:00 | 6 | TRIPS | R/U FRANK'S WESTATES, AND L/D D.P. |

## 16-10D-45 BTR 10/9/2012 06:00 - 10/10/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

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**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 2.00 | 08:00 | 6 | TRIPS | L/D D.P. WITH FRANKS WESTATES... |
| 08:00 | 0.50 | 08:30 | 21 | OPEN | PULL WEAR BUSHING... |
| 08:30 | 0.50 | 09:00 | 22 | OPEN | RIG DOWN L/D TRUCK... |
| 09:00 | 5.50 | 14:30 | 11 | WIRELINE LOGS | R/U HALLIBURTON LOGGERS AND RERUN LOGS ...<br>LOGGERS DEPTH= 8515.0'<br>R/D THE SAME... |
| 14:30 | 0.50 | 15:00 | 7 | LUBRICATE RIG | SERVICE RIG... |
| 15:00 | 7.00 | 22:00 | 12 | RUN CASING & CEMENT | R/U L/D TRUCK & CSG. CREWS...<br>RAN 201 JT'S OF 5.5", P-110, 17.0# CSG. WITH 3 MKR JT'S, & 70 CENTRALIZERS TO A DEPTH OF 8498.0'... |
| 22:00 | 2.00 | 00:00 | 5 | COND MUD & CIRC | CIRC. WITH RIG PUMP... |
| 00:00 | 4.00 | 04:00 | 12 | RUN CASING & CEMENT | PUMP CMT WITH HALLIBURTON...<br>PUMPED 60BBL'S OF WATER & SUPER FLUSH...<br>PUMPED 250 BBL'S/605 SX OF 11.0# LEAD CMT...<br>PUMPED 159 BBL'S/625 SX OF 13.5# TAIL CMT...<br>PUMPED 195.1 BBL'S OF DISPLACEMENT WATER... |
| 04:00 | 2.00 | 06:00 | 22 | OPEN | NIPPLE DOWN STACK FOR SLIPS... |

## 16-10D-45 BTR 10/10/2012 06:00 - 10/11/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 1.00 | 07:00 | 21 | OPEN | SET CSG SLIPS, AND ROUGH CUT CSG...<br>SLIPS SET @ 135K |
| 07:00 | 5.00 | 12:00 | 1 | RIGUP & TEARDOWN | RIG DOWN WITH CREW'S AND CLEAN PIT'S...<br>RIG RELEASED @ 12:00 HR'S ON 10-10-12 |

## 16-10D-45 BTR 10/13/2012 06:00 - 10/14/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 5.00 | 11:00 | LOCL | Lock Wellhead & Secure | Well Secured With 11" Night Cap. BackFill Cellar |
| 11:00 | 2.00 | 13:00 | IWHD | Install Wellhead | Safety Meeting With Cameron, Check Surface Casing & 5.5" For Pressure, 0 Psi On Both Sides.N/D 11" Night Cap, Cleaned And Dressed Up 5.5" Csg Top, Set And N/U 11" x 7 1/16" 5k Tbg. Head With 2 1/16' x 5k Gate Valves. Tested Hanger Seals To 7100 Psi, Good Test. Secured Well Head With 7" 5K Night Cap. |
| 13:00 | 17.00 | 06:00 | LOCL | Lock Wellhead & Secure | WSI Shut In And Secured. |

## 16-10D-45 BTR 10/16/2012 06:00 - 10/17/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 1.00 | 07:00 | GOP | General Operations | WSI And Secured. |
| 07:00 | 0.50 | 07:30 | SRIG | Rig Up/Down | MIRU SLB W/L Crew And Equipment. Hold Safety Meeting. Rig Up Gauge Ring And Logging Tool. |
| 07:30 | 4.25 | 11:45 | LOGG | Logging | P/U Junk Basket/Gauge Ring. RIH, Tagged Up At 8,400', Drilling Report Shows FC At 8,411', 11' Of Fill. POOH, P/U CBL Tool, Rih To PBTD, 8,400', Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012. Run Repeat Section From 8,400 - 8,200', Log Up Hole. Showed Good To Spotty Bond From TD To 3,300, 3,300 - 850' . TOC 850'. Found Short Joints At 7,948 - 7,970' And 7,210 - 7,232', And 5,973 - 5,995'. Ran With Pressure. Pooh, RD Equipment, MOL. |
| 11:45 | 18.25 | 06:00 | LOCL | Lock Wellhead & Secure | WSI And Secured |
| 06:00 | | 06:00 | | | |

## 16-10D-45 BTR 10/21/2012 06:00 - 10/22/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 24.00 | 06:00 | GOP | General Operations | START MOVING IN FRAC LINE. START FILLING FRAC LINE. MOVE IN 2 FBT. |

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## 16-10D-45 BTR 10/22/2012 06:00 - 10/23/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 24.00 | 06:00 | GOP | General Operations | FILLING FRAC LINE |

## 16-10D-45 BTR 10/24/2012 06:00 - 10/25/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 24.00 | 06:00 | GOP | General Operations | Set Frac Mandrel<br>Set Frac Tree, Test Casing<br>Rig Up FlowBack, Test |

## 16-10D-45 BTR 10/25/2012 06:00 - 10/26/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 5.50 | 11:30 | LOCL | Lock Wellhead & Secure | WSI And Secured. 0 Psi. On Well. |
| 11:30 | 1.50 | 13:00 | SRIG | Rig Up/Down | SLB WireLine Arrive On Location, Hold Safety Meeting. Rig Up Equipment. Pick Up Lubricator, Test Lubricator, Arm Gun, Rig Up To Well. |
| 13:00 | 4.00 | 17:00 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 7,948 - 7,970'.<br>Drop Down To Depth, Perforate Stage 1 CR-5/CR-4A/CR-4 Zone, 8,118 - 8,398'. 48 Holes. HAD 2 MISRUNS<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 17:00 | 13.00 | 06:00 | LOCL | Lock Wellhead & Secure | WSI And Secured. SDFD. |

## 16-10D-45 BTR 10/26/2012 06:00 - 10/27/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 0.00 | 06:00 | LOCL | Lock Wellhead & Secure | HES Crew On Location At 0330 Hrs., Prime Chemical And Fluid Pumps, Pressure Test To 9000 Psi., Ran QC On Fluid, Looks Good. |
| 06:00 | 0.17 | 06:10 | SMTG | Safety Meeting | Safety Meeting. Talk About Smoking Area, PPE, Escape And Mustering Areas, Communication, And Red Zone. |
| 06:10 | 1.25 | 07:25 | FRAC | Frac. Job | Frac Stage 1. Fluid System: Hybor G 16<br>Open Well, 0 Psi. ICP. BrokeDown At 9.8 Bpm And 4,169 Psi..<br>Pump 3900 Gals. 15% HCL And 96 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 53.2 Bpm And 6,603 Psi., Get ISIP, 2,781 Psi.. 0.77 Psi./Ft. F.G.. 16/48 Holes.<br>Con't With SlickWater Pad, 45,172 Gals..<br>Stage Into Hybor Pad, 65.5 Bpm At 5,808 Psi..<br>On Perfs, 65.5 Bpm At 5,894 Psi., 11,266 Gals.<br>Stage Into 2# 20/40 White Prop, 65.4 Bpm At 5,906 Psi..<br>On Perfs, 65.1 Bpm At 5,389 Psi., 9,196 Gals.<br>Stage Into 3.0# 20/40 White Prop, 65.1 Bpm At 5,346 Psi..<br>On Perfs, 65.2 Bpm At 4,682 Psi., 16,730 Gals.<br>Stage Into 3.5# 20/40 White Prop, 65.3 Bpm At 4,487 Psi..<br>On Perfs, 65.3 Bpm At 4,328 Psi., 10,111 Gals.<br>Stage Into 4.0# 20/40 White Prop, 65.3 Bpm At 4,309 Psi..<br>On Perfs, 65.4 Bpm At 4,186 Psi., 10,175 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 2,407 Psi.. 0.73 Psi./Ft. F.G.. WSI And Secured.<br>Total 20/40 White - 139,500#<br>Total Clean - 124,763 Gals.. 2,971 Bbls.. 2% KCL - 57,753 Gals. 1,375 Bbls.. Prod. Water - 65,061 Gals. 1,549 Bbls..<br>BWTR - 3,126 Bbls.<br>Max. Rate - 67.6 Bpm<br>Avg. Rate - 65.3 Bpm<br>Max. Psi. - 5,907 Psi.<br>Avg. Psi. - 4,930 Psi. |

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**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 07:25 | 0.25 | 07:40 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up Gun String And CBP Plug Assembly. Equalize To Well Pressure. |
| 07:40 | 1.42 | 09:05 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 7,948 - 7,970'.<br>Drop Down To Depth, Set CBP At 8,113', 2,800 Psi..<br>Perforate Stage 2 CR-4/CR-3 Zone, 7,865 - 8,100'. 45 Holes. 2,750 Psi..<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 09:05 | 0.17 | 09:15 | GOP | General Operations | Well Turned Over To HES. Pressure Test To 8500#. Equalize, Open To Well. |
| 09:15 | 1.17 | 10:25 | FRAC | Frac. Job | Frac Stage 2. Fluid System: Hybor G 16<br>Open Well, 2681 Psi. ICP. BrokeDown At 9.0 Bpm And 4,122 Psi..<br>Pump 3900 Gals. 15% HCL And 90 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 70.9 Bpm And 5,441 Psi., Get ISIP, 2,813 Psi.. 0.79 Psi./Ft. F.G.. 27/45 Holes.<br>Con't With SlickWater Pad, 51,602 Gals..<br>Stage Into Hybor Pad, 71.5 Bpm At 4,483 Psi..<br>On Perfs, 71.3 Bpm At 4,730 Psi., 12,991 Gals.<br>Stage Into 2# 20/40 White Prop, 71.3 Bpm At 4,878 Psi..<br>On Perfs, 70.5 Bpm At 4,480 Psi., 8,859 Gals.<br>Stage Into 3.0# 20/40 White Prop, 70.5 Bpm At 4,377 Psi..<br>On Perfs, 70.5 Bpm At 4,007 Psi., 24,317 Gals.<br>Stage Into 3.5# 20/40 White Prop, 70.5 Bpm At 3,969 Psi..<br>On Perfs, 70.5 Bpm At 3,905 Psi., 9,829 Gals.<br>Stage Into 4.0# 20/40 White Prop, 70.5 Bpm At 3,900 Psi..<br>On Perfs, 70.4 Bpm At 3,859 Psi., 10,163 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 2,337 Psi.. 0.73 Psi./Ft. F.G.. WSI And Secured.<br>Total 20/40 White - 160,700#<br>Total Clean - 138,725 Gals.. 3,303 Bbls.. 2% KCL - 66,159 Gals. 1,575 Bbls.. Prod. Water - 70,799 Gals. 1,686 Bbls..<br>BWTR - 3,468 Bbls.<br>Max. Rate - 71.5 Bpm<br>Avg. Rate - 70.7 Bpm<br>Max. Psi. - 4,881 Psi.<br>Avg. Psi. - 4,196 Psi. |
| 10:25 | 0.25 | 10:40 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up Gun String And CBP Plug Assembly. Equalize To Well Pressure. |
| 10:40 | 1.25 | 11:55 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 7,210 - 7,232'.<br>Drop Down To Depth, Set CBP At 7,852', 2,700 Psi..<br>Perforate Stage 3 CR-3/CR-2 Zone, 7,591 - 7,842'. 45 Holes. 2,650 Psi..<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 11:55 | 0.17 | 12:06 | GOP | General Operations | Well Turned Over To HES. Pressure Test To 8500#. Equalize, Open To Well. |

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**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 12:06 | 1.16 | 13:15 | FRAC | Frac. Job | Frac Stage 3. Fluid System: Hybor G 16<br>Open Well, 2467 Psi. ICP. BrokeDown At 9.0 Bpm And 3,749 Psi..<br>Pump 3900 Gals. 15% HCL And 90 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 70.5 Bpm And 6,077 Psi., Get ISIP, 2,448 Psi.. 0.76 Psi./Ft. F.G.. 26/45 Holes.<br>Con't With SlickWater Pad, 51,629 Gals..<br>Stage Into Hybor Pad, 70.9 Bpm At 4,931 Psi..<br>On Perfs, 71.1 Bpm At 5,083 Psi., 12,980 Gals.<br>Stage Into 2# 20/40 White Prop, 70.1 Bpm At 4,967 Psi..<br>On Perfs, 70.6 Bpm At 4,719 Psi., 8,646 Gals.<br>Stage Into 3.0# 20/40 White Prop, 70.9 Bpm At 4,385 Psi..<br>On Perfs, 70.9 Bpm At 3,894 Psi., 25,003 Gals.<br>Stage Into 3.5# 20/40 White Prop, 70.9 Bpm At 3,826 Psi..<br>On Perfs, 70.9 Bpm At 3,776 Psi., 9,595 Gals.<br>Stage Into 4.0# 20/40 White Prop, 70.9 Bpm At 3,783 Psi..<br>On Perfs, 70.9 Bpm At 3,747 Psi., 10,166 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 2,233 Psi.. 0.73 Psi./Ft. F.G.. WSI And Secured.<br>Total 20/40 White - 160,500#<br>Total Clean - 138,466 Gals.. 3,297 Bbls.. 2% KCL - 66,390 Gals. 1,581 Bbls.. Prod. Water - 70,092 Gals. 1,669 Bbls..<br>BWTR - 3,461 Bbls.<br>Max. Rate - 71.1 Bpm<br>Avg. Rate - 70.7 Bpm<br>Max. Psi. - 5,106 Psi.<br>Avg. Psi. - 4,183 Psi. |
| 13:15 | 0.17 | 13:25 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up Gun String And CBP Plug Assembly. Equalize To Well Pressure. |
| 13:25 | 1.16 | 14:35 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 7,210 - 7,232'.<br>Drop Down To Depth, Set CBP At 7,584', 2,700 Psi..<br>Perforate Stage 4 CR-2/Wasatch Zone, 7,268 - 7,564'. 45 Holes. 2,000 Psi..<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 14:35 | 0.17 | 14:45 | GOP | General Operations | Well Turned Over To HES. Pressure Test To 8500#. Equalize, Open To Well. |
| 14:45 | 1.08 | 15:50 | FRAC | Frac. Job | Frac Stage 4. Fluid System: Hybor G 16<br>Open Well, 940 Psi. ICP. BrokeDown At 10.2 Bpm And 2,992 Psi..<br>Pump 3900 Gals. 15% HCL And 90 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 70.9 Bpm And 4,975 Psi., Get ISIP, 1,983 Psi.. 0.71 Psi./Ft. F.G.. 28/45 Holes.<br>Con't With SlickWater Pad, 45,108 Gals..<br>Stage Into Hybor Pad, 71.3 Bpm At 3,937 Psi..<br>On Perfs, 71.2 Bpm At 4,077 Psi., 11,335 Gals.<br>Stage Into 2# 20/40 White Prop, 71.2 Bpm At 4,127 Psi..<br>On Perfs, 70.5 Bpm At 3,838 Psi., 8,327 Gals.<br>Stage Into 3.0# 20/40 White Prop, 70.5 Bpm At 3,790 Psi..<br>On Perfs, 70.5 Bpm At 3,458 Psi., 19,214 Gals.<br>Stage Into 3.5# 20/40 White Prop, 70.6 Bpm At 3,323 Psi..<br>On Perfs, 70.6 Bpm At 3,307 Psi., 9,352 Gals.<br>Stage Into 4.0# 20/40 White Prop, 70.5 Bpm At 3,335 Psi..<br>On Perfs, 70.5 Bpm At 3,381 Psi., 9,807 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 2,239 Psi.. 0.74 Psi./Ft. F.G.. WSI And Secured.<br>Total 20/40 White - 140,600#<br>Total Clean - 123,274 Gals.. 2,935 Bbls.. 2% KCL - 58,035 Gals. 1,581 Bbls.. Prod. Water - 63,298 Gals. 1,507 Bbls..<br>BWTR - 3,085 Bbls.<br>Max. Rate - 71.4 Bpm<br>Avg. Rate - 70.6 Bpm<br>Max. Psi. - 4,127 Psi.<br>Avg. Psi. - 3,594 Psi. |
| 15:50 | 0.50 | 16:20 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up Gun String And CBP Plug Assembly. Equalize To Well Pressure. |

**Bill Barrett Corporation**

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 16:20 | 1.17 | 17:30 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 5,973 - 5,995'.<br>Drop Down To Depth, Set CBP At 7,260', 1,900 Psi..<br>Perforate Stage 5 CR-1A/CR-1/UteLand Butte Zone, 7,017 - 7,244'. 45 Holes. 1,850 Psi..<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 17:30 | 12.50 | 06:00 | LOCL | Lock Wellhead & Secure | WSI And Secured. SDFD. |

## 16-10D-45 BTR 10/27/2012 06:00 - 10/28/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 0.50 | 06:30 | LOCL | Lock Wellhead & Secure | HES Crew On Location At 0530 Hrs., Prime Chemical And Fluid Pumps, Pressure Test To 9000 Psi., Ran QC On Fluid, Looks Good. |
| 06:30 | 0.25 | 06:45 | SMTG | Safety Meeting | Safety Meeting. Talk About Smoking Area, PPE, Escape And Mustering Areas, Communication, And Red Zone. |
| 06:45 | 1.34 | 08:05 | FRAC | Frac. Job | Frac Stage 5. Fluid System: Hybor G 16<br>Open Well, 978 Psi. ICP. BrokeDown At 10.3 Bpm And 2,371 Psi..<br>Pump 3900 Gals. 15% HCL And 90 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 70.4 Bpm And 4,080 Psi., Get ISIP, 1,498 Psi.. 0.65 Psi./Ft. F.G.. 29/45 Holes.<br>Con't With SlickWater Pad, 64,447 Gals..<br>Stage Into .75# 100 Mesh, 66.2 Bpm At 3,744 Psi..<br>On Perfs, 70.2 Bpm At 3,862 Psi., 19,501 Gals.<br>Stage Into 1# 20/40 White Prop, 70.4 Bpm At 3,831 Psi..<br>On Perfs, 70.2 Bpm At 3,740 Psi., 8,009 Gals.<br>Stage Into 2# 20/40 White Prop, 70.2 Bpm At 3,715 Psi..<br>On Perfs, 70.2 Bpm At 3,512 Psi., 8,091 Gals.<br>Stage Into 3.0# 20/40 White Prop, 70.3 Bpm At 3,474 Psi..<br>On Perfs, 70.2 Bpm At 3,278 Psi., 24,242 Gals.<br>Stage Into 3.5# 20/40 White Prop, 70.2 Bpm At 3,247 Psi..<br>On Perfs, 70.2 Bpm At 3,205 Psi., 9,041 Gals.<br>Stage Into 4.0# 20/40 White Prop, 70.2 Bpm At 3,211 Psi..<br>On Perfs, 70.2 Bpm At 3,188 Psi., 9,421 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 1,934 Psi.. 0.71 Psi./Ft. F.G.. WSI And Secured.<br>100 Mesh - 14,600#<br>Total 20/40 White - 160,000#<br>Total Clean - 162,455 Gals.. 3,868 Bbls.. 2% KCL - 78,305 Gals. 1,864 Bbls.. Prod. Water - 82,134 Gals. 1,956 Bbls..<br>BWTR - 4,035 Bbls.<br>Max. Rate - 70.4 Bpm<br>Avg. Rate - 69.5 Bpm<br>Max. Psi. - 3,879 Psi.<br>Avg. Psi. - 3,551 Psi. |
| 08:05 | 0.25 | 08:20 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up Gun String And CBP Plug Assembly. Equalize To Well Pressure. |
| 08:20 | 1.08 | 09:25 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 5,973 - 5,995'.<br>Drop Down To Depth, Set CBP At 7,009', 1,900 Psi..<br>Perforate Stage 6 Castle Peak Zone, 6,721 - 6,996'. 45 Holes. 1,800 Psi..<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 09:25 | 0.17 | 09:35 | GOP | General Operations | Well Turned Over To HES. Pressure Test To 8500#. Equalize, Open To Well. |

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**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 09:35 | 1.25 | 10:50 | FRAC | Frac. Job | Frac Stage 6. Fluid System: Hybor G 16<br>Open Well, 1,808 Psi. ICP. BrokeDown At 9.4 Bpm And 2,674 Psi..<br>Pump 3900 Gals. 15% HCL And 90 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 69.8 Bpm And 4,356 Psi., Get ISIP, 1,396 Psi.. 0.64 Psi./Ft. F.G.. 24/45 Holes.<br>Con't With SlickWater Pad, 49,599 Gals..<br>Stage Into .75# 100 Mesh, 70.5 Bpm At 4,120 Psi..<br>On Perfs, 70.1 Bpm At 4,261 Psi., 19,451 Gals.<br>Stage Into 1# 20/40 White Prop, 70.4 Bpm At 3,851 Psi..<br>On Perfs, 70.4 Bpm At 3,744 Psi., 7,822 Gals.<br>Stage Into 2# 20/40 White Prop, 70.4 Bpm At 3,718 Psi..<br>On Perfs, 70.1 Bpm At 3,494 Psi., 7,846 Gals.<br>Stage Into 3.0# 20/40 White Prop, 70.1 Bpm At 3,473 Psi..<br>On Perfs, 70.1 Bpm At 3,325 Psi., 24,903 Gals.<br>Stage Into 3.5# 20/40 White Prop, 70.1 Bpm At 3,192 Psi..<br>On Perfs, 70.0 Bpm At 3,156 Psi., 8,814 Gals.<br>Stage Into 4.0# 20/40 White Prop, 70.1 Bpm At 3,175 Psi..<br>On Perfs, 70.0 Bpm At 3,142 Psi., 9,485 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 1,322 Psi.. 0.63 Psi./Ft. F.G.. WSI And Secured.<br>100 Mesh - 14,600#<br>Total 20/40 White - 160,000#<br>Total Clean - 146,698 Gals.. 3,493 Bbls.. 2% KCL - 78,321 Gals. 1,865 Bbls.. Prod. Water - 66,451 Gals. 1,582 Bbls..<br>BWTR - 3,669 Bbls.<br>Max. Rate - 70.7 Bpm<br>Avg. Rate - 70.1 Bpm<br>Max. Psi. - 4,296 Psi.<br>Avg. Psi. - 3,547 Psi. |
| 10:50 | 0.17 | 11:00 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up Gun String And CBP Plug Assembly. Equalize To Well Pressure. |
| 11:00 | 1.08 | 12:05 | PFRT | Perforating | RIH With 3 1/8" PJ Omega 3104 Perf. Gun Configured At 120 Degree Phasing, 3 Spf, .36" Penetration Charges, 16 Gms., .44 Dia. Holes.<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 5,973 - 5,995'.<br>Drop Down To Depth, Set CBP At 6,713', 1,550 Psi..<br>Perforate Stage 7 Castle Peak/Black Shale Zone, 6,469 - 6,690'. 45 Holes. 1,400 Psi..<br>POOH. LayDown Gun, Verify All Shots Fired, WSI And Secured. |
| 12:05 | 0.08 | 12:10 | GOP | General Operations | Well Turned Over To HES. Pressure Test To 8500#. Equalize, Open To Well. |
| 12:10 | 1.08 | 13:15 | FRAC | Frac. Job | Frac Stage 7. Fluid System: Hybor G 16<br>Open Well, 1,192 Psi. ICP. BrokeDown At 9.3 Bpm And 2,432 Psi..<br>Pump 3900 Gals. 15% HCL And 90 Bio Balls, Attempt BallOut. Let Balls Fall.<br>Get Stabilized Injection Of 70.4 Bpm And 3,432 Psi., Get ISIP, 1,181 Psi.. 0.62 Psi./Ft. F.G.. 29/45 Holes.<br>Con't With SlickWater Pad, 40,244 Gals..<br>Stage Into .75# 100 Mesh, 70.6 Bpm At 3,331 Psi..<br>On Perfs, 70.3 Bpm At 3,383 Psi., 18,834 Gals.<br>Stage Into 1# 20/40 White Prop, 70.2 Bpm At 3,347 Psi..<br>On Perfs, 70.0 Bpm At 3,271 Psi., 7,568 Gals.<br>Stage Into 2# 20/40 White Prop, 69.9 Bpm At 3,249 Psi..<br>On Perfs, 70.2 Bpm At 3,054 Psi., 7,570 Gals.<br>Stage Into 3.0# 20/40 White Prop, 70.2 Bpm At 3,022 Psi..<br>On Perfs, 70.1 Bpm At 2,887 Psi., 15,946 Gals.<br>Stage Into 3.5# 20/40 White Prop, 70.2 Bpm At 2,787 Psi..<br>On Perfs, 70.2 Bpm At 2,735 Psi., 8,552 Gals.<br>Stage Into 4.0# 20/40 White Prop, 70.2 Bpm At 2,715 Psi..<br>On Perfs, 70.0 Bpm At 2,142 Psi., 15,300 Gals.<br>Stage Into Flush, Flush 15 Bbls. Over Bottom Perf..<br>Get ISDP, 1,832 Psi.. 0.72 Psi./Ft. F.G.. WSI And Secured.<br>100 Mesh - 15,020#<br>Total 20/40 White - 130,260#<br>Total Clean - 132,342 Gals.. 3,151 Bbls.. 2% KCL - 73,770 Gals. 1,756 Bbls.. Prod. Water - 56,632 Gals. 1,348 Bbls..<br>BWTR - 3,327 Bbls.<br>Max. Rate - 70.6 Bpm<br>Avg. Rate - 70.2 Bpm<br>Max. Psi. - 3,420 Psi.<br>Avg. Psi. - 3,014 Psi. |

Bill Barrett Corporation

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 13:15 | 0.42 | 13:40 | CTUW | W/L Operation | Well Turned Over To WireLine. Pick Up CBP Plug Assembly. Equalize To Well Pressure. |
| 13:40 | 1.00 | 14:40 | PFRT | Perforating | RIH With 3 1/8" Sinker Bar And CBP Assembly<br>Correlating To HES Spectral Density/ Dual Spaced Neutron Dated 10-09-2012 And SLB CBL/CCL Dated 10/16/2012.<br>Found And Correlated To Marker Joint At 5,973 - 5,995'.<br>Drop Down To Depth, Set CBP At 6,440', 1,550 Psi..<br>Bleed Down Well To 0 Psi..<br>POOH. LayDown Tools, WSI And Secured. |
| 14:40 | 2.34 | 17:00 | SRIG | Rig Up/Down | RigDown WireLine And Frac Crews, MOL. |
| 17:00 | 13.00 | 06:00 | LOCL | Lock Wellhead & Secure | WSI And Secured. SDFD. |

## 16-10D-45 BTR 10/28/2012 06:00 - 10/29/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 1.00 | 07:00 | CTRL | Crew Travel | CREW TRAVEL. HOLD SAFETY MEETING. |
| 07:00 | 2.00 | 09:00 | RMOV | Rig Move | ROAD RIG F/ 3-1D-45 TO LOCATION. |
| 09:00 | 1.50 | 10:30 | SRIG | Rig Up/Down | R/U RIG & EQUIPMENT. |
| 10:30 | 3.00 | 13:30 | BOPI | Install BOP's | N/D FRAC TREE. N/U BOP. R/U FLOOR & EQUIPMENT. SPOT CATWALK & PIPE RACKS. LOAD TBG ON RACKS & TALLY. |
| 13:30 | 4.50 | 18:00 | RUTB | Run Tubing | P/U 4-3/4 BIT, POBS, 1 JT 2-7/8 TBG & XN- NIPPLE. RIH TO KILL PLUG @ 6440'.<br>R/U CIRC EQUIPMENT. R/U POWER SWIVEL & HANG IN DERRICK. SWIFN. |
| 18:00 | 1.00 | 19:00 | CTRL | Crew Travel | CREW TRAVEL. |
| 19:00 | 11.00 | 06:00 | LOCL | Lock Wellhead & Secure | WELL SHUT IN & SECURE. |

## 16-10D-45 BTR 10/29/2012 06:00 - 10/30/2012 06:00

| API/UWI | State/Province | County | Field Name | Well Status | Total Depth (ftKB) | Primary Job Type |
|---|---|---|---|---|---|---|
| 43013509020000 | UT | Duchesne | Black Tail Ridge | PRODUCING | 8,525.0 | Drilling & Completion |

**Time Log**

| Start Time | Dur (hr) | End Time | Code | Category | Com |
|---|---|---|---|---|---|
| 06:00 | 1.00 | 07:00 | CTRL | Crew Travel | CREW TRAVEL. HOLD SAFETY MEETING. |
| 07:00 | 12.00 | 19:00 | DOPG | Drill Out Plugs | R/U POWER SWIVEL. BREAK CIRC. D/O KILL PLUG @ 6440'. CFP- 850 ON 28/48 CHOKE.<br><br>SWIVEL IN HOLE, TAG SAND @ 6700'. C/O SAND & D/O CBP @ 6713'. CFP- 900.<br><br>SWIVEL IN HOLE TAG SAND @ 6988'. C/O SAND & D/O CBP @ 7009'. CFP- 950.<br><br>SWIVEL IN HOLE, TAG SAND @ 7235'. C/O SAND & D/O CBP @ 7260'. CFP- 700.<br><br>SWIVEL IN HOLE TAG SAND @ 7484'. C/O SAND & D/O CBP @ 7584'. CFP- 1400.<br>MAKING LOTS OF OIL & GAS. N/U HYDRILL & R/U TO SALES LINE F/ SAND TRAP.<br><br>SWIVEL IN HOLE TAG SAND @ 7715'. C/O SAND & D/O CBP @ 7852'. CFP- 1400.<br><br>SWIVEL IN HOLE, TAG SAND @ 8020'. C/O SAND & D/O CBP @ 8113'. CFP- 1200.<br>R/D SWIVEL. |
| 19:00 | 1.00 | 20:00 | PULT | Pull Tubing | L/D 4 JTS. TURN OVER TO FLOW BACK. DRAIN UP CIRC EQUIPMENT. SDFN. |
| 20:00 | 1.00 | 21:00 | CTRL | Crew Travel | CREW TRAVEL. |
| 21:00 | 9.00 | 06:00 | LOCL | Lock Wellhead & Secure | WELL SECURE. |

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** 1420H626290

## SUNDRY NOTICES AND REPORTS ON WELLS

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:** UTE

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** 16-10D-45 BTR

**2. NAME OF OPERATOR:** BILL BARRETT CORP

**9. API NUMBER:** 43013509020000

**3. ADDRESS OF OPERATOR:** 1099 18th Street Ste 2300 , Denver, CO, 80202

**PHONE NUMBER:** 303 312-8164 Ext

**9. FIELD and POOL or WILDCAT:** ALTAMONT

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 1812 FSL 1403 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWSE Section: 10 Township: 04.0S Range: 05.0W Meridian: U

**COUNTY:** DUCHESNE

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☐ NOTICE OF INTENT<br>Approximate date work will start: | ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ✓ DRILLING REPORT<br>Report Date:<br>12/3/2012 | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

No November monthly activity to report.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
December 04, 2012

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Brady Riley | 303 312-8115 | Permit Analyst |
| **SIGNATURE** N/A | | **DATE** 12/3/2012 |

RECEIVED: Dec. 03, 2012

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. 1420H626290

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
BILL BARRETT CORPORATION
Contact: JULIE WEBB
E-Mail: jwebb@billbarrettcorp.com

8. Lease Name and Well No.
16-10D-45 BTR

3. Address 1099 18TH STREET SUITE 2300
DENVER, CO 80202

3a. Phone No. (include area code)
Ph: 303-299-9949

9. API Well No. 43-013-50902

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NWSE 1812FSL 1403FEL

At top prod interval reported below SESE 1228FSL 1013FEL

At total depth SESE 1189FSL 1014FEL BHL by HSM

10. Field and Pool, or Exploratory
ALTAMONT

11. Sec., T., R., M., or Block and Survey or Area Sec 10 T4S R5W Mer UBM

12. County or Parish DUCHESNE

13. State UT

14. Date Spudded 09/20/2012

15. Date T.D. Reached 10/07/2012

16. Date Completed ☐ D & A ☒ Ready to Prod. 10/29/2012

17. Elevations (DF, KB, RT, GL)* 6093 GL

18. Total Depth: MD 8525 TVD 8455

19. Plug Back T.D.: MD 8411 TVD 8341

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL, MUD, BOREHOLE

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

| Hole Size | Size/Grade | Wt. (#/ft.) | Top (MD) | Bottom (MD) | Stage Cementer Depth | No. of Sks. & Type of Cement | Slurry Vol. (BBL) | Cement Top* | Amount Pulled |
|---|---|---|---|---|---|---|---|---|---|
| 26.000 | 16.000 COND | 65 | 0 | 80 | | | | 0 | |
| 12.250 | 9.625 J-55 | 36.0 | 0 | 2487 | 2487 | 635 | 281 | 0 | |
| 8.750 | 5.500 P-110 | 17.0 | 0 | 8525 | 8498 | 1230 | 407 | 1596 | 15000 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

24. Tubing Record

| Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) |
|---|---|---|---|---|---|---|---|---|
| 2.875 | 6445 | | | | | | | |

25. Producing Intervals

| Formation | Top | Bottom |
|---|---|---|
| A) GREEN RIVER | 6470 | 7244 |
| B) WASATCH | 7268 | 8397 |
| C) | | |
| D) | | |

26. Perforation Record

| Perforated Interval | Size | No. Holes | Perf. Status |
|---|---|---|---|
| 6470 TO 7244 | 0.360 | 183 | OPEN |
| 7268 TO 8397 | 0.360 | 135 | OPEN |

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

| Depth Interval | Amount and Type of Material |
|---|---|
| 6470 TO 7244 | GREEN RIVER: SEE TREATMENT 5-7 |
| 7268 TO 8397 | WASATCH: SEE TREATMENT 1-4 |

28. Production - Interval A

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| 10/29/2012 | 11/02/2012 | 24 | → | 835.0 | 430.0 | 304.0 | 52.0 | | FLOWS FROM WELL |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| 18/64 | 1040 | 1750.0 | → | 835 | 430 | 304 | 514 | POW |

28a. Production - Interval B

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | | |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | |

*(See Instructions and spaces for additional data on reverse side)*

ELECTRONIC SUBMISSION #161708 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

RECEIVED
DEC 05 2012
Div. of Oil, Gas & Mining

28b. Production - Interval C

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status | |

28c. Production - Interval D

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status | |

29. Disposition of Gas*(Sold, used for fuel, vented, etc.)*
SOLD

30. 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.

| Formation | Top | Bottom | Descriptions, Contents, etc. |
|---|---|---|---|
| | | | |

31. Formation (Log) Markers

| Name | Top Meas. Depth |
|---|---|
| GREEN RIVER | 2717 |
| MAHOGANY | 3551 |
| DOUGLAS CREEK | 5647 |
| BLACK SHALE | 6467 |
| CASTLE PEAK | 6652 |
| UTELAND BUTTE | 7013 |
| WASATCH | 7248 |
| TD | 8525 |

32. Additional remarks (include plugging procedure):
TOC was calculated by CBL. CBL mailed due to file size. Conductor was cemented with grout. Treatment Data attached.
This well had first gas sales on 10/29/2012 and first oil sales on 11/01/2012.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #161708 Verified by the BLM Well Information System.**
**For BILL BARRETT CORPORATION, sent to the Vernal**

Name *(please print)* JULIE WEBB Title PERMIT ANALYST

Signature (Electronic Submission) Date 12/05/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

## 16-10D-45 BTR Completion Report Continued*

| 44. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. (cont.) | | | | |
|---|---|---|---|---|
| AMOUNT AND TYPE OF MATERIAL | | | | |
| ***Stage*** | ***BBLS Slurry*** | ***lbs 100 Mesh Sand*** | ***lbs 20/40 White Sand*** | ***Lbs 20/40 CRC*** |
| 1 | 3,119 | | 139,500 | |
| 2 | 3,498 | | | 160,700 |
| 3 | 3,469 | | 160,500 | |
| 4 | 3,102 | | | 140,600 |
| 5 | 4,053 | 14,600 | 160,400 | |
| 6 | 3,685 | 14,600 | 160,500 | |
| 7 | 3,307 | 15,020 | 130,260 | |

*Depth intervals for frac information same as perforation record intervals.

# Bill Barrett Corp

**Duchesne County, UT (NAD 1927)**
**Sec. 10-T4S-R5W**
**16-10D-45 BTR**

**Plan A**

**Design: MWD Survey**

# Sperry Drilling Services

# Final Survey Report

**04 December, 2012**

Well Coordinates: 661,780.37 N, 2,298,774.13 E (40° 08' 43.32" N, 110° 25' 52.36" W)
Ground Level: 6,090.00 ft

| | |
|---|---|
| Local Coordinate Origin: | Centered on Well 16-10D-45 BTR |
| Viewing Datum: | KB=17' @ 6107.00ft (Patterson 506) |
| TVDs to System: | N |
| North Reference: | True |
| Unit System: | API - US Survey Feet - Custom |

Geodetic Scale Factor Applied
Version: 2003.16 Build: 43I

HALLIBURTON

## Design Report for 16-10D-45 BTR - MWD Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) |
|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 143.00 | 0.07 | 219.79 | 143.00 | -0.07 | -0.06 | 0.03 | 0.05 |
| **First MWD Survey** | | | | | | | |
| 201.00 | 0.07 | 212.39 | 201.00 | -0.12 | -0.10 | 0.05 | 0.02 |
| 274.00 | 0.17 | 350.47 | 274.00 | -0.06 | -0.14 | -0.03 | 0.31 |
| 335.00 | 0.24 | 298.87 | 335.00 | 0.10 | -0.27 | -0.22 | 0.31 |
| 395.00 | 0.08 | 303.90 | 395.00 | 0.18 | -0.41 | -0.37 | 0.27 |
| 457.00 | 0.27 | 337.16 | 457.00 | 0.34 | -0.50 | -0.56 | 0.34 |
| 518.00 | 0.18 | 332.25 | 518.00 | 0.56 | -0.60 | -0.79 | 0.15 |
| 579.00 | 0.20 | 330.46 | 579.00 | 0.73 | -0.70 | -1.00 | 0.03 |
| 639.00 | 0.54 | 306.49 | 639.00 | 0.99 | -0.98 | -1.36 | 0.61 |
| 700.00 | 0.56 | 320.46 | 699.99 | 1.39 | -1.40 | -1.93 | 0.22 |
| 761.00 | 0.53 | 317.16 | 760.99 | 1.83 | -1.78 | -2.50 | 0.07 |
| 821.00 | 0.61 | 316.90 | 820.99 | 2.27 | -2.19 | -3.09 | 0.13 |
| 883.00 | 0.79 | 294.36 | 882.98 | 2.68 | -2.80 | -3.77 | 0.53 |
| 946.00 | 0.64 | 288.49 | 945.98 | 2.97 | -3.53 | -4.41 | 0.26 |
| 1,009.00 | 0.35 | 232.49 | 1,008.98 | 2.97 | -4.02 | -4.67 | 0.84 |
| 1,073.00 | 0.47 | 190.57 | 1,072.98 | 2.59 | -4.22 | -4.46 | 0.49 |
| 1,136.00 | 0.71 | 179.35 | 1,135.97 | 1.95 | -4.27 | -3.94 | 0.42 |
| 1,200.00 | 0.91 | 164.43 | 1,199.97 | 1.06 | -4.13 | -3.12 | 0.45 |
| 1,263.00 | 0.98 | 146.82 | 1,262.96 | 0.13 | -3.70 | -2.11 | 0.47 |
| 1,326.00 | 0.98 | 133.09 | 1,325.95 | -0.69 | -3.01 | -1.04 | 0.37 |
| 1,390.00 | 0.82 | 119.74 | 1,389.94 | -1.29 | -2.21 | -0.11 | 0.41 |
| 1,453.00 | 0.65 | 116.39 | 1,452.93 | -1.67 | -1.50 | 0.60 | 0.28 |
| 1,517.00 | 0.81 | 129.66 | 1,516.93 | -2.12 | -0.83 | 1.34 | 0.36 |
| 1,580.00 | 0.81 | 146.70 | 1,579.92 | -2.78 | -0.24 | 2.21 | 0.38 |
| 1,644.00 | 1.06 | 157.40 | 1,643.91 | -3.70 | 0.24 | 3.25 | 0.47 |
| 1,707.00 | 1.34 | 154.11 | 1,706.90 | -4.91 | 0.78 | 4.55 | 0.46 |
| 1,770.00 | 2.00 | 138.56 | 1,769.87 | -6.39 | 1.83 | 6.37 | 1.26 |
| 1,834.00 | 2.19 | 142.38 | 1,833.83 | -8.20 | 3.32 | 8.69 | 0.37 |
| 1,897.00 | 2.25 | 151.52 | 1,896.78 | -10.24 | 4.64 | 11.12 | 0.57 |
| 1,961.00 | 2.29 | 170.78 | 1,960.74 | -12.60 | 5.45 | 13.55 | 1.19 |
| 2,024.00 | 2.56 | 173.33 | 2,023.68 | -15.24 | 5.81 | 15.97 | 0.46 |
| 2,088.00 | 3.55 | 168.79 | 2,087.59 | -18.61 | 6.36 | 19.10 | 1.59 |
| 2,151.00 | 4.31 | 165.96 | 2,150.44 | -22.82 | 7.32 | 23.15 | 1.24 |
| 2,214.00 | 4.97 | 158.41 | 2,213.23 | -27.65 | 8.89 | 28.07 | 1.43 |
| 2,278.00 | 5.90 | 155.64 | 2,276.94 | -33.23 | 11.27 | 34.05 | 1.51 |
| 2,341.00 | 6.85 | 154.29 | 2,339.55 | -39.56 | 14.24 | 40.98 | 1.53 |
| 2,405.00 | 7.58 | 153.13 | 2,403.05 | -46.77 | 17.80 | 48.97 | 1.16 |
| 2,427.00 | 7.67 | 152.29 | 2,424.85 | -49.36 | 19.14 | 51.88 | 0.65 |
| 2,509.00 | 7.69 | 151.64 | 2,506.12 | -59.03 | 24.29 | 62.80 | 0.11 |
| 2,573.00 | 7.67 | 150.84 | 2,569.54 | -66.53 | 28.40 | 71.33 | 0.17 |
| 2,636.00 | 9.48 | 151.87 | 2,631.84 | -74.78 | 32.90 | 80.70 | 2.88 |
| 2,699.00 | 11.18 | 151.56 | 2,693.81 | -84.72 | 38.25 | 91.96 | 2.70 |
| 2,763.00 | 11.57 | 147.24 | 2,756.56 | -95.58 | 44.68 | 104.57 | 1.46 |
| 2,826.00 | 12.40 | 149.73 | 2,818.18 | -106.73 | 51.51 | 117.64 | 1.55 |
| 2,953.00 | 13.57 | 145.06 | 2,941.94 | -130.72 | 66.92 | 146.16 | 1.24 |
| 3,017.00 | 12.53 | 143.99 | 3,004.28 | -142.50 | 75.30 | 160.59 | 1.67 |
| 3,080.00 | 12.16 | 141.77 | 3,065.83 | -153.24 | 83.42 | 174.02 | 0.96 |
| 3,143.00 | 12.59 | 142.31 | 3,127.36 | -163.88 | 91.73 | 187.46 | 0.71 |

## Design Report for 16-10D-45 BTR - MWD Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) |
|---|---|---|---|---|---|---|---|
| 3,207.00 | 13.01 | 142.90 | 3,189.77 | -175.15 | 100.34 | 201.59 | 0.69 |
| 3,270.00 | 13.16 | 144.18 | 3,251.14 | -186.62 | 108.81 | 215.83 | 0.52 |
| 3,334.00 | 13.41 | 145.11 | 3,313.42 | -198.61 | 117.32 | 230.52 | 0.51 |
| 3,397.00 | 13.20 | 146.41 | 3,374.73 | -210.60 | 125.48 | 245.01 | 0.58 |
| 3,461.00 | 12.19 | 148.22 | 3,437.17 | -222.43 | 133.08 | 259.07 | 1.70 |
| 3,524.00 | 11.92 | 148.03 | 3,498.78 | -233.60 | 140.03 | 272.23 | 0.43 |
| 3,587.00 | 12.26 | 145.03 | 3,560.38 | -244.60 | 147.31 | 285.42 | 1.13 |
| 3,651.00 | 12.58 | 143.50 | 3,622.88 | -255.77 | 155.35 | 299.16 | 0.72 |
| 3,714.00 | 13.94 | 142.17 | 3,684.20 | -267.28 | 164.08 | 313.57 | 2.21 |
| 3,777.00 | 13.37 | 142.26 | 3,745.42 | -279.04 | 173.20 | 328.38 | 0.91 |
| 3,841.00 | 12.19 | 143.55 | 3,807.84 | -290.32 | 181.74 | 342.49 | 1.90 |
| 3,904.00 | 12.08 | 143.21 | 3,869.43 | -300.95 | 189.64 | 355.71 | 0.21 |
| 3,968.00 | 13.29 | 140.79 | 3,931.86 | -312.02 | 198.30 | 369.70 | 2.06 |
| 4,031.00 | 14.27 | 136.79 | 3,993.05 | -323.29 | 208.20 | 384.53 | 2.17 |
| 4,095.00 | 14.30 | 133.33 | 4,055.07 | -334.46 | 219.35 | 399.95 | 1.33 |
| 4,158.00 | 13.81 | 132.61 | 4,116.19 | -344.89 | 230.54 | 414.78 | 0.83 |
| 4,222.00 | 12.63 | 133.71 | 4,178.49 | -354.90 | 241.22 | 428.97 | 1.89 |
| 4,285.00 | 12.47 | 137.02 | 4,239.99 | -364.63 | 250.84 | 442.36 | 1.17 |
| 4,348.00 | 13.42 | 140.93 | 4,301.39 | -375.28 | 260.08 | 456.31 | 2.05 |
| 4,412.00 | 13.65 | 142.02 | 4,363.61 | -387.00 | 269.41 | 471.22 | 0.54 |
| 4,475.00 | 12.91 | 142.76 | 4,424.92 | -398.47 | 278.24 | 485.63 | 1.21 |
| 4,538.00 | 12.07 | 143.53 | 4,486.43 | -409.37 | 286.42 | 499.22 | 1.36 |
| 4,602.00 | 11.68 | 144.32 | 4,549.06 | -420.01 | 294.17 | 512.37 | 0.66 |
| 4,665.00 | 12.45 | 143.39 | 4,610.67 | -430.64 | 301.94 | 525.51 | 1.26 |
| 4,728.00 | 12.61 | 146.14 | 4,672.17 | -441.80 | 309.82 | 539.16 | 0.98 |
| 4,792.00 | 12.56 | 144.81 | 4,734.63 | -453.29 | 317.73 | 553.10 | 0.46 |
| 4,855.00 | 12.89 | 143.30 | 4,796.09 | -464.52 | 325.87 | 566.95 | 0.74 |
| 4,919.00 | 12.06 | 144.35 | 4,858.57 | -475.68 | 334.04 | 580.75 | 1.34 |
| 4,982.00 | 11.13 | 146.62 | 4,920.29 | -486.11 | 341.22 | 593.41 | 1.64 |
| 5,046.00 | 10.82 | 147.29 | 4,983.12 | -496.32 | 347.86 | 605.59 | 0.52 |
| 5,109.00 | 10.54 | 146.25 | 5,045.03 | -506.08 | 354.26 | 617.26 | 0.54 |
| 5,173.00 | 10.04 | 147.85 | 5,108.00 | -515.67 | 360.48 | 628.70 | 0.90 |
| 5,237.00 | 9.96 | 146.99 | 5,171.02 | -525.04 | 366.46 | 639.81 | 0.26 |
| 5,300.00 | 9.15 | 149.03 | 5,233.15 | -533.90 | 372.01 | 650.26 | 1.39 |
| 5,363.00 | 7.16 | 147.65 | 5,295.51 | -541.52 | 376.69 | 659.20 | 3.17 |
| 5,427.00 | 6.57 | 148.79 | 5,359.05 | -548.02 | 380.72 | 666.85 | 0.95 |
| 5,490.00 | 5.75 | 150.32 | 5,421.69 | -553.84 | 384.15 | 673.60 | 1.33 |
| 5,553.00 | 4.55 | 149.55 | 5,484.43 | -558.74 | 386.98 | 679.25 | 1.91 |
| 5,617.00 | 4.07 | 144.79 | 5,548.25 | -562.78 | 389.58 | 684.06 | 0.93 |
| 5,680.00 | 2.95 | 147.94 | 5,611.13 | -565.98 | 391.73 | 687.91 | 1.80 |
| 5,743.00 | 2.72 | 164.36 | 5,674.06 | -568.80 | 392.99 | 690.96 | 1.33 |
| 5,807.00 | 1.72 | 180.76 | 5,738.01 | -571.22 | 393.39 | 693.21 | 1.84 |
| 5,870.00 | 0.79 | 207.30 | 5,800.99 | -572.55 | 393.17 | 694.22 | 1.70 |
| 5,934.00 | 0.84 | 204.80 | 5,864.99 | -573.37 | 392.78 | 694.69 | 0.10 |
| 5,997.00 | 1.05 | 199.69 | 5,927.98 | -574.33 | 392.39 | 695.29 | 0.36 |
| 6,060.00 | 1.23 | 199.41 | 5,990.96 | -575.51 | 391.97 | 696.06 | 0.29 |
| 6,124.00 | 0.94 | 200.19 | 6,054.95 | -576.65 | 391.56 | 696.80 | 0.45 |
| 6,188.00 | 0.59 | 196.58 | 6,118.95 | -577.46 | 391.28 | 697.33 | 0.55 |
| 6,251.00 | 1.10 | 188.42 | 6,181.94 | -578.37 | 391.10 | 698.00 | 0.83 |
| 6,315.00 | 1.45 | 194.63 | 6,245.92 | -579.76 | 390.81 | 699.01 | 0.59 |
| 6,378.00 | 1.97 | 194.21 | 6,308.90 | -581.58 | 390.34 | 700.29 | 0.83 |

## Design Report for 16-10D-45 BTR - MWD Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) |
|---|---|---|---|---|---|---|---|
| 6,442.00 | 2.24 | 187.78 | 6,372.85 | -583.89 | 389.90 | 701.99 | 0.56 |
| 6,505.00 | 1.51 | 133.49 | 6,435.82 | -585.68 | 390.34 | 703.73 | 2.90 |
| 6,568.00 | 2.16 | 96.43 | 6,498.79 | -586.38 | 392.12 | 705.29 | 2.09 |
| 6,632.00 | 1.99 | 106.45 | 6,562.75 | -586.83 | 394.38 | 706.89 | 0.62 |
| 6,695.00 | 1.85 | 120.49 | 6,625.72 | -587.66 | 396.31 | 708.63 | 0.78 |
| 6,759.00 | 1.74 | 131.00 | 6,689.68 | -588.82 | 397.93 | 710.48 | 0.54 |
| 6,822.00 | 2.08 | 150.59 | 6,752.65 | -590.44 | 399.22 | 712.54 | 1.16 |
| 6,885.00 | 2.59 | 162.25 | 6,815.60 | -592.80 | 400.21 | 715.06 | 1.10 |
| 6,949.00 | 2.41 | 174.03 | 6,879.54 | -595.51 | 400.79 | 717.65 | 0.85 |
| 7,012.00 | 1.27 | 202.75 | 6,942.50 | -597.47 | 400.66 | 719.23 | 2.27 |
| 7,076.00 | 1.36 | 204.32 | 7,006.49 | -598.82 | 400.07 | 720.05 | 0.15 |
| 7,139.00 | 1.36 | 202.96 | 7,069.47 | -600.19 | 399.47 | 720.88 | 0.05 |
| 7,203.00 | 1.72 | 195.40 | 7,133.45 | -601.81 | 398.92 | 721.95 | 0.64 |
| 7,266.00 | 1.68 | 193.32 | 7,196.42 | -603.62 | 398.46 | 723.22 | 0.12 |
| 7,330.00 | 1.01 | 199.20 | 7,260.40 | -605.07 | 398.06 | 724.22 | 1.07 |
| 7,393.00 | 1.60 | 193.03 | 7,323.38 | -606.45 | 397.68 | 725.18 | 0.96 |
| 7,457.00 | 1.45 | 205.57 | 7,387.36 | -608.05 | 397.12 | 726.23 | 0.57 |
| 7,520.00 | 1.13 | 236.47 | 7,450.35 | -609.11 | 396.26 | 726.65 | 1.20 |
| 7,584.00 | 1.29 | 218.80 | 7,514.33 | -610.02 | 395.29 | 726.89 | 0.63 |
| 7,647.00 | 1.32 | 215.05 | 7,577.32 | -611.17 | 394.42 | 727.39 | 0.14 |
| 7,711.00 | 0.97 | 223.36 | 7,641.30 | -612.17 | 393.63 | 727.80 | 0.60 |
| 7,774.00 | 0.85 | 210.83 | 7,704.30 | -612.96 | 393.02 | 728.14 | 0.37 |
| 7,837.00 | 1.03 | 204.71 | 7,767.29 | -613.87 | 392.55 | 728.65 | 0.33 |
| 7,901.00 | 1.37 | 195.92 | 7,831.27 | -615.13 | 392.10 | 729.47 | 0.60 |
| 7,965.00 | 1.25 | 193.02 | 7,895.26 | -616.55 | 391.73 | 730.46 | 0.21 |
| 8,028.00 | 1.08 | 202.44 | 7,958.24 | -617.76 | 391.35 | 731.28 | 0.41 |
| 8,091.00 | 1.41 | 192.99 | 8,021.23 | -619.07 | 390.95 | 732.16 | 0.62 |
| 8,154.00 | 0.90 | 201.62 | 8,084.22 | -620.28 | 390.59 | 732.99 | 0.85 |
| 8,218.00 | 0.55 | 306.16 | 8,148.21 | -620.57 | 390.16 | 732.99 | 1.82 |
| 8,281.00 | 0.48 | 251.85 | 8,211.21 | -620.47 | 389.66 | 732.65 | 0.75 |
| 8,345.00 | 0.52 | 217.76 | 8,275.21 | -620.79 | 389.23 | 732.68 | 0.46 |
| 8,408.00 | 0.79 | 188.15 | 8,338.20 | -621.44 | 388.99 | 733.10 | 0.67 |
| 8,467.00 | 0.87 | 183.60 | 8,397.20 | -622.29 | 388.91 | 733.77 | 0.18 |
| **Final MWD Survey** | | | | | | | |
| 8,525.00 | 0.87 | 183.60 | 8,455.19 | -623.17 | 388.85 | 734.48 | 0.00 |
| **Survey Projection to TD** | | | | | | | |

### *Design Annotations*

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates +N/-S (ft) | Local Coordinates +E/-W (ft) | Comment |
|---|---|---|---|---|
| 143.00 | 143.00 | -0.07 | -0.06 | First MWD Survey |
| 8,467.00 | 8,397.20 | -622.29 | 388.91 | Final MWD Survey |
| 8,525.00 | 8,455.19 | -623.17 | 388.85 | Survey Projection to TD |

# Design Report for 16-10D-45 BTR - MWD Survey

## Vertical Section Information

| Angle Type | Target | Azimuth (°) | Origin Type | Origin +N/_S (ft) | Origin +E/-W (ft) | Start TVD (ft) |
|---|---|---|---|---|---|---|
| Target | 16-10D-45<br>BTR_PlanA - Rev0_BHL Tgt | 147.29 | Slot | 0.00 | 0.00 | 0.00 |

## Survey tool program

| From (ft) | To (ft) | Survey/Plan | Survey Tool |
|---|---|---|---|
| 143.00 | 8,525.00 | Sperry MWD Surveys | MWD |

## Targets

| Target Name<br>- hit/miss target<br>- Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| 16-10D-45 | 0.00 | 0.00 | 5,937.00 | -589.05 | 378.27 | 661,195.93 | 2,299,159.38 | 40° 8' 37.500 N | 110° 25' 47.489 W |
| - actual wellpath misses target center by 20.24ft at 6006.39ft MD (5937.37 TVD, -574.49 N, 392.33 E)<br>- Rectangle (sides W200.00 H200.00 D2,475.00) | | | | | | | | | |
| 16-10D-45 | 0.00 | 0.00 | 8,412.00 | -589.05 | 378.27 | 661,195.93 | 2,299,159.38 | 40° 8' 37.500 N | 110° 25' 47.489 W |
| - actual wellpath misses target center by 37.91ft at 8467.00ft MD (8397.20 TVD, -622.29 N, 388.91 E)<br>- Point | | | | | | | | | |

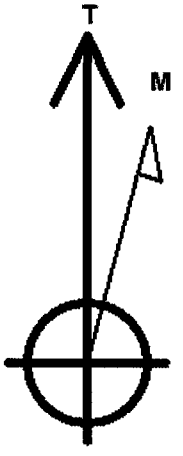
# North Reference Sheet for Sec. 10-T4S-R5W - 16-10D-45 BTR - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
Vertical Depths are relative to KB=17' @ 6107.00ft (Patterson 506). Northing and Easting are relative to 16-10D-45 BTR
Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866
Projection method is Lambert Conformal Conic (2 parallel)
Central Meridian is 111° 30' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:40° 39' 0.000 N°
False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99991346

Grid Coordinates of Well: 661,780.37 ft N, 2,298,774.13 ft E
Geographical Coordinates of Well: 40° 08' 43.32" N, 110° 25' 52.36" W
Grid Convergence at Surface is: 0.68°

Based upon Minimum Curvature type calculations, at a Measured Depth of 8,525.00ft
the Bottom Hole Displacement is 734.54ft in the Direction of 148.04° (True).

Magnetic Convergence at surface is: -10.66° (26 September 2012, , BGGM2012)




| | |
|---|---|
| Magnetic Model: | BGGM2012 |
| Date: | 26-Sep-12 |
| Declination: | 11.35° |
| Inclination/Dip: | 65.75° |
| Field Strength: | 52083 |

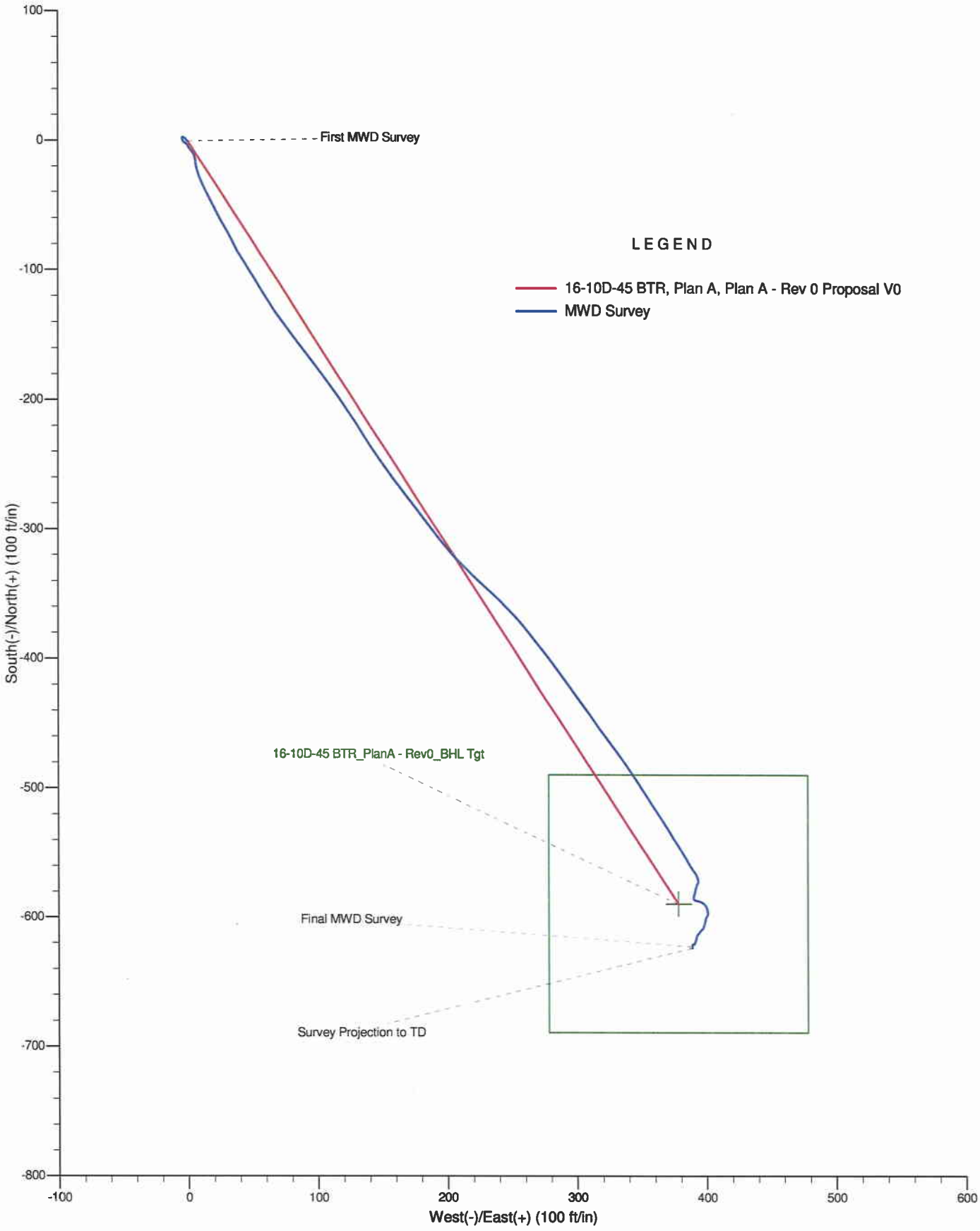
Grid North is 0.68° East of True North (Grid Convergence)
Magnetic North is 11.35° East of True North (Magnetic Declination)
Magnetic North is 10.66° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.68°
To convert a Magnetic Direction to a True Direction, Add 11.35° East
To convert a Magnetic Direction to a Grid Direction, Add 10.66°

Project: Duchesne County, UT (NAD 1927)
Site: Sec. 10-T4S-R5W
Well: 16-10D-45 BTR

# Bill Barrett Corp

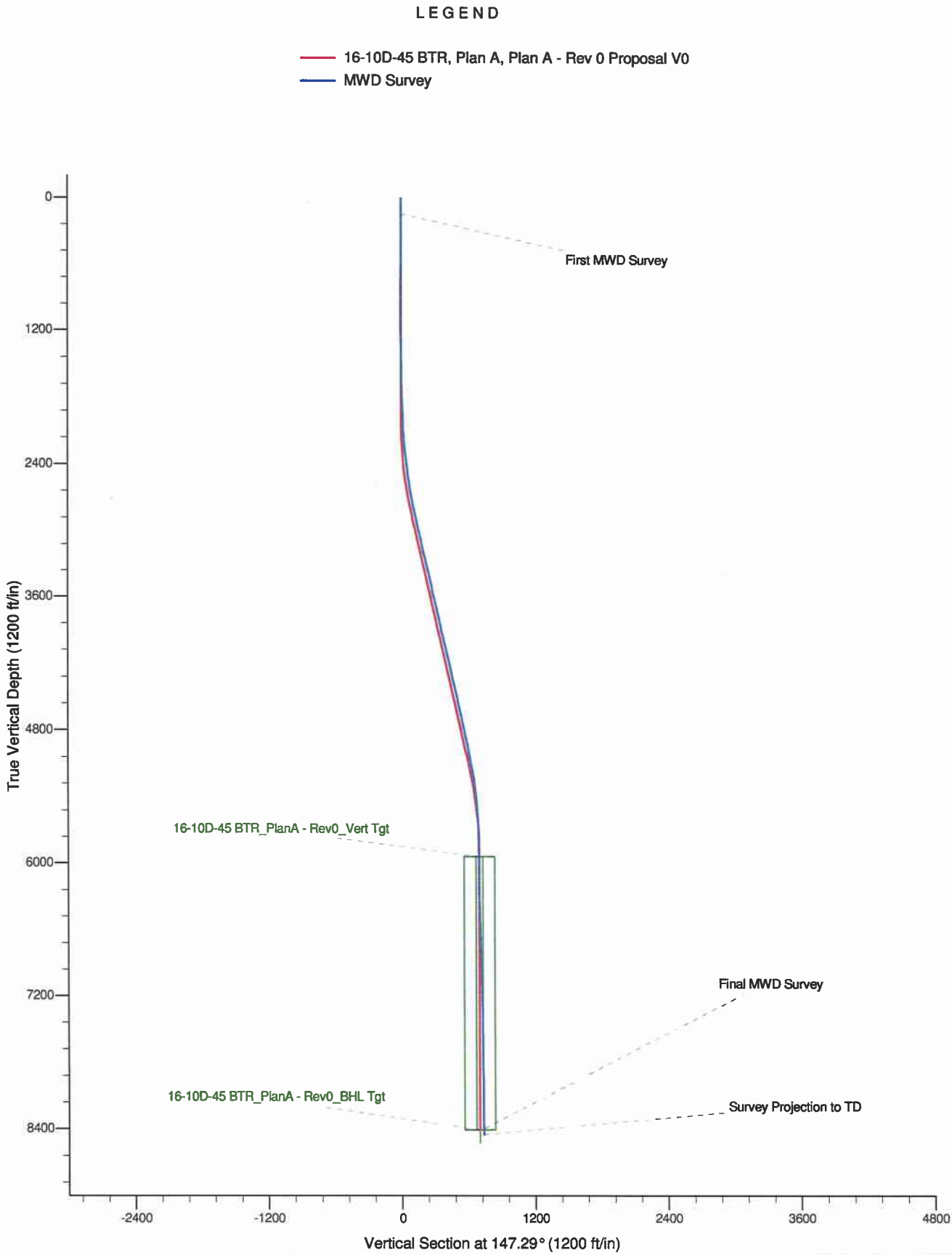
HALLIBURTON
Sperry Drilling



Project: Duchesne County, UT (NAD 1927)
Site: Sec. 10-T4S-R5W
Well: 16-10D-45 BTR

# Bill Barrett Corp

HALLIBURTON
Sperry Drilling



Division of Oil, Gas and Mining
Operator Change/Name Change Worksheet-for State use only

Effective Date: 11/1/2016

| FORMER OPERATOR: | NEW OPERATOR: |
|---|---|
| Bill Barrett Corporation<br>1099 18th Street, Suite 2300<br>Denver, CO 80202 | Rig II, LLC<br>1582 West 2600 South<br>Woods Cross, UT 84087 |
| CA Number(s): | Unit(s): |

**WELL INFORMATION:**

| Well Name | Sec | TWN | RNG | API | Entity | Mineral | Surface | Type | Status |
|---|---|---|---|---|---|---|---|---|---|
| See Attached List | | | | | | | | | |

**OPERATOR CHANGES DOCUMENTATION:**

1. Sundry or legal documentation was received from the **FORMER** operator on: 10/21/2016
2. Sundry or legal documentation was received from the **NEW** operator on: 10/21/2016
3. New operator Division of Corporations Business Number: 8256968-0160

**REVIEW:**

1. Surface Agreement Sundry from **NEW** operator on Fee Surface wells received on: N/A
2. Receipt of Acceptance of Drilling Procedures for APD on: 10/21/2016
3. Reports current for Production/Disposition & Sundries: 11/2/2016
4. OPS/SI/TA well(s) reviewed for full cost bonding: 11/3/2016
5. UIC5 on all disposal/injection/storage well(s) approved on: 11/3/2016
6. Surface Facility(s) included in operator change: None
7. Inspections of PA state/fee well sites complete on (only upon operators request): 11/3/2016

**NEW OPERATOR BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: UTB000712
2. Indian well(s) covered by Bond Number: LPM 922467
3.State/fee well(s) covered by Bond Number(s): 9219529

**DATA ENTRY:**

1. Well(s) update in the **OGIS** on: 11/7/2016
2. Entity Number(s) updated in **OGIS** on: 11/7/2016
3. Unit(s) operator number update in **OGIS** on: N/A
4. Surface Facilities update in **OGIS** on: N/A
5. State/Fee well(s) attached to bond(s) in **RBDMS** on: 11/7/2016
6. Surface Facilities update in **RBDMS** on: N/A

**COMMENTS:**

From: Bill Barrett Corporation
To: Rig II, LLC
Effective 11/1/2016

| Well Name | Sec | TWN | RNG | API Number | Entity | Mineral | Surface | Type | Status |
|---|---|---|---|---|---|---|---|---|---|
| SWD 9-36 BTR | 9 | 030S | 060W | 4301350646 | 18077 | Indian | Fee | WD | A |
| 16-6D-46 BTR SWD | 6 | 040S | 060W | 4301350781 | 18327 | Indian | Fee | WD | A |
| 6-32-36 BTR SWD | 32 | 030S | 060W | 4301350921 | 18329 | Indian | Fee | WD | A |
| LC TRIBAL 8-26D-47 | 26 | 040S | 070W | 4301334024 | | Indian | Indian | OW | APD |
| 16-21D-37 BTR | 21 | 030S | 070W | 4301350758 | | Indian | Fee | OW | APD |
| 14-11D-37 BTR | 11 | 030S | 070W | 4301350862 | | Indian | Fee | OW | APD |
| 7-17D-46 BTR | 17 | 040S | 060W | 4301350883 | | Indian | Indian | OW | APD |
| 14-12D-37 BTR | 12 | 030S | 070W | 4301350894 | | Indian | Fee | OW | APD |
| 1-18D-36 BTR | 18 | 030S | 060W | 4301350922 | | Indian | Fee | OW | APD |
| 13-2D-45 BTR | 2 | 040S | 050W | 4301350931 | | Indian | Indian | OW | APD |
| 5H-16-46 BTR | 16 | 040S | 060W | 4301350992 | | Indian | Indian | OW | APD |
| 9H-17-45 BTR | 17 | 040S | 050W | 4301351098 | | Indian | Indian | OW | APD |
| 13H-8-46 BTR UB | 8 | 040S | 060W | 4301351124 | | Indian | Indian | OW | APD |
| 8H-9-46 BTR | 9 | 040S | 060W | 4301351140 | | Indian | Indian | OW | APD |
| LC TRIBAL 7-31D-37 | 31 | 030S | 070W | 4301351147 | | Indian | Fee | OW | APD |
| 14-16D-45 BTR | 16 | 040S | 050W | 4301351178 | | Indian | Indian | OW | APD |
| 16-19D-37 BTR | 19 | 030S | 070W | 4301351179 | | Indian | Fee | OW | APD |
| 6-2D-45 BTR | 2 | 040S | 050W | 4301351234 | | Indian | Indian | OW | APD |
| 2-2D-45 BTR | 2 | 040S | 050W | 4301351235 | | Indian | Indian | OW | APD |
| 10-26-35 BTR | 26 | 030S | 050W | 4301351248 | | Indian | Fee | OW | APD |
| LC TRIBAL 1H-33-46 | 33 | 040S | 060W | 4301351257 | | Indian | Fee | OW | APD |
| LC TRIBAL 9-25D-46 | 25 | 040S | 060W | 4301351276 | | Indian | Indian | OW | APD |
| LC TRIBAL 8H-30-45 | 30 | 040S | 050W | 4301351277 | | Indian | Indian | OW | APD |
| LC TRIBAL 16H-30-45 | 30 | 040S | 050W | 4301351279 | | Indian | Indian | OW | APD |
| LC TRIBAL 13-30D-45 | 30 | 040S | 050W | 4301351282 | | Indian | Indian | OW | APD |
| LC TRIBAL 16H-36-46 | 36 | 040S | 060W | 4301351291 | | Indian | Indian | OW | APD |
| LC TRIBAL 13H-30-46 | 30 | 040S | 060W | 4301351321 | | Indian | Indian | OW | APD |
| LC TRIBAL 13H-31-46 | 31 | 040S | 060W | 4301351326 | | Indian | Indian | OW | APD |
| LC TRIBAL 16-31D-46 | 31 | 040S | 060W | 4301351328 | | Indian | Indian | OW | APD |
| LC TRIBAL 5H-26-47 | 26 | 040S | 070W | 4301351337 | | Indian | Indian | OW | APD |
| LC TRIBAL 5H-19-45 | 20 | 040S | 050W | 4301351349 | | Indian | Indian | OW | APD |
| LC TRIBAL 16-36D-47 | 36 | 040S | 070W | 4301351363 | | Indian | Indian | OW | APD |
| 15-4D-47 BTR | 4 | 040S | 070W | 4301351377 | | Indian | Fee | OW | APD |
| 16-23D-46 LC TRIBAL | 23 | 040S | 060W | 4301351396 | | Indian | Fee | OW | APD |
| 15-2D-36 BTR | 2 | 030S | 060W | 4301351419 | | Indian | Fee | OW | APD |
| 16-23D-37 BTR | 23 | 030S | 070W | 4301351420 | | Indian | Fee | OW | APD |
| 11-9D-47 BTR | 9 | 040S | 070W | 4301351422 | | Indian | Fee | OW | APD |
| 15-13D-47 BTR | 13 | 040S | 070W | 4301351424 | | Indian | Indian | OW | APD |
| LC TRIBAL 15-19D-46 | 19 | 040S | 060W | 4301351426 | | Indian | Indian | OW | APD |
| 16-13D-45 BTR | 13 | 040S | 050W | 4301351428 | | Indian | Indian | OW | APD |

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|---|---|---|---|---|---|---|---|---|---|
| 14-12D-45 BTR | 12 | 040S | 050W | 4301351444 | | Indian | Indian | OW | APD |
| 16-14D-45 BTR | 14 | 040S | 050W | 4301351445 | | Indian | Indian | OW | APD |
| 5-13D-45 BTR | 13 | 040S | 050W | 4301351446 | | Indian | Indian | OW | APD |
| LC TRIBAL 16-26D-46 | 26 | 040S | 060W | 4301351450 | | Indian | State | OW | APD |
| LC TRIBAL 16-34D-46 | 34 | 040S | 060W | 4301351451 | | Indian | State | OW | APD |
| 16-12D-45 BTR | 12 | 040S | 050W | 4301351452 | | Indian | Indian | OW | APD |
| 8-12D-45 BTR | 12 | 040S | 050W | 4301351453 | | Indian | Indian | OW | APD |
| LC TRIBAL 1-35D-46 | 35 | 040S | 060W | 4301351454 | | Indian | Fee | OW | APD |
| 16-25D-37 BTR | 25 | 030S | 070W | 4301351455 | | Indian | Fee | OW | APD |
| LC TRIBAL 13H-29-46 | 28 | 040S | 060W | 4301351462 | | Indian | Fee | OW | APD |
| LC TRIBAL 14-30D-37 | 30 | 030S | 070W | 4301351494 | | Indian | Fee | OW | APD |
| 7-13D-45 BTR | 13 | 040S | 050W | 4301351497 | | Indian | Indian | OW | APD |
| LC TRIBAL 4H-35-46 | 35 | 040S | 060W | 4301351515 | | Indian | Fee | OW | APD |
| LC TRIBAL 13H-19-46 | 19 | 040S | 060W | 4301351543 | | Indian | Indian | OW | APD |
| 16-26D-37 BTR | 26 | 030S | 070W | 4301351598 | | Indian | Fee | OW | APD |
| LC TRIBAL 16-31D-37 | 31 | 030S | 070W | 4301351610 | | Indian | Fee | OW | APD |
| 5-4-35 BTR | 4 | 030S | 050W | 4301351613 | | Indian | Fee | OW | APD |
| LC TRIBAL 16-31D-47 | 31 | 040S | 070W | 4301351616 | | Indian | Indian | OW | APD |
| LC TRIBAL 13H-31-47 | 31 | 040S | 070W | 4301351617 | | Indian | Indian | OW | APD |
| LC TRIBAL 13-32D-47 | 32 | 040S | 070W | 4301351619 | | Indian | Indian | OW | APD |
| LC TRIBAL 16H-32-47 | 32 | 040S | 070W | 4301351620 | | Indian | Indian | OW | APD |
| LC TRIBAL 1-32D-47 | 32 | 040S | 070W | 4301351624 | | Indian | Indian | OW | APD |
| LC TRIBAL 4H-32-47 | 32 | 040S | 070W | 4301351625 | | Indian | Indian | OW | APD |
| LC TRIBAL 13-28D-47 | 28 | 040S | 070W | 4301351627 | | Indian | Indian | OW | APD |
| LC TRIBAL 13H-29-47 | 28 | 040S | 070W | 4301351628 | | Indian | Indian | OW | APD |
| LC TRIBAL 16H-28-47 | 28 | 040S | 070W | 4301351629 | | Indian | Indian | OW | APD |
| LC TRIBAL 1-28D-47 | 28 | 040S | 070W | 4301351639 | | Indian | Indian | OW | APD |
| LC TRIBAL 1H-27-47 | 28 | 040S | 070W | 4301351640 | | Indian | Indian | OW | APD |
| LC TRIBAL 4H-28-47 | 28 | 040S | 070W | 4301351641 | | Indian | Indian | OW | APD |
| LC TRIBAL 7-25D-58 | 25 | 050S | 080W | 4301351643 | | Indian | Indian | OW | APD |
| LC TRIBAL 6-25D-58 | 25 | 050S | 080W | 4301351644 | | Indian | Indian | OW | APD |
| LC TRIBAL 13H-24-58 | 24 | 050S | 080W | 4301351645 | | Indian | Indian | OW | APD |
| LC TRIBAL 16-24D-58 | 24 | 050S | 080W | 4301351646 | | Indian | Indian | OW | APD |
| LC Tribal 8-23D-46 | 23 | 040S | 060W | 4301351654 | | Indian | Fee | OW | APD |
| LC Tribal 16-35D-45 | 35 | 040S | 050W | 4301351656 | | Indian | Fee | OW | APD |
| LC Tribal 13H-35-45 | 35 | 040S | 050W | 4301351657 | | Indian | Fee | OW | APD |
| LC Tribal 16-36D-45 | 36 | 040S | 050W | 4301351658 | | Indian | Fee | OW | APD |
| LC Tribal 13H-36-45 | 36 | 040S | 050W | 4301351659 | | Indian | Fee | OW | APD |
| LC Tribal 5-36D-45 | 36 | 040S | 050W | 4301351661 | | Indian | Fee | OW | APD |
| LC Tribal 8-26D-46 | 26 | 040S | 060W | 4301351663 | | Indian | Fee | OW | APD |
| 3-29D-36 BTR | 29 | 030S | 060W | 4301351665 | | Indian | Fee | OW | APD |

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|---|---|---|---|---|---|---|---|---|---|
| LC Tribal 5-35D-45 | 35 | 040S | 050W | 4301351666 | | Indian | Fee | OW | APD |
| LC Tribal 5-24D-46 | 24 | 040S | 060W | 4301351668 | | Indian | Indian | OW | APD |
| LC TRIBAL 6-12D-58 | 12 | 050S | 080W | 4301351696 | | Indian | Indian | OW | APD |
| LC TRIBAL 8-12D-58 | 12 | 050S | 080W | 4301351697 | | Indian | Indian | OW | APD |
| LC TRIBAL 16H-22-47 | 21 | 040S | 070W | 4301351700 | | Indian | Indian | OW | APD |
| 5-25D-37 BTR | 25 | 030S | 070W | 4301351803 | | Indian | Fee | OW | APD |
| 8-3D-36 BTR | 3 | 030S | 060W | 4301351804 | | Indian | Fee | OW | APD |
| 14-26D-37 BTR | 26 | 030S | 070W | 4301351805 | | Indian | Fee | OW | APD |
| 9-4-35 BTR | 4 | 030S | 050W | 4301351806 | | Indian | Fee | OW | APD |
| 11-4D-35 BTR | 4 | 030S | 050W | 4301351807 | | Indian | Fee | OW | APD |
| 16-27D-37 BTR | 27 | 030S | 070W | 4301351808 | | Indian | Fee | OW | APD |
| 14-27D-37 BTR | 27 | 030S | 070W | 4301351809 | | Indian | Fee | OW | APD |
| 14-16D-46 BTR | 16 | 040S | 060W | 4301351812 | | Indian | Indian | OW | APD |
| LC Tribal 16-35D-48 | 35 | 040S | 080W | 4301351847 | | Indian | Indian | OW | APD |
| LC Tribal 13H-35-48 | 35 | 040S | 080W | 4301351848 | | Indian | Indian | OW | APD |
| LC Tribal 13-2D-58 | 11 | 050S | 080W | 4301351850 | | Indian | Indian | OW | APD |
| 5-13D-36 BTR | 13 | 030S | 060W | 4301351862 | | Indian | Fee | OW | APD |
| 5-8D-36 BTR | 8 | 030S | 060W | 4301351871 | | Indian | Fee | OW | APD |
| 16-1D-36 BTR | 1 | 030S | 060W | 4301351872 | | Indian | Fee | OW | APD |
| 8-18D-46 BTR | 18 | 040S | 060W | 4301351897 | | Indian | Fee | OW | APD |
| LC Tribal 5-36D-46 | 36 | 040S | 060W | 4301351905 | | Indian | Indian | OW | APD |
| LC Tribal 5-26D-45 | 26 | 040S | 050W | 4301351907 | | Indian | Indian | OW | APD |
| 14-13D-45 BTR | 13 | 040S | 050W | 4301351974 | | Indian | Indian | OW | APD |
| 14-34D-46 DLB | 34 | 040S | 060W | 4301351975 | | Indian | Fee | OW | APD |
| LC Tribal 5-21D-45 | 21 | 040S | 050W | 4301352001 | | Indian | Indian | OW | APD |
| LC Tribal 8-22D-45 | 22 | 040S | 050W | 4301352002 | | Indian | Indian | OW | APD |
| LC Tribal 8-25D-45 | 25 | 040S | 050W | 4301352007 | | Indian | Indian | OW | APD |
| LC Tribal 16-25D-45 | 25 | 040S | 050W | 4301352008 | | Indian | Indian | OW | APD |
| LC Tribal 16-22D-45 | 22 | 040S | 050W | 4301352009 | | Indian | Indian | OW | APD |
| LC Tribal 16-26D-45 | 26 | 040S | 050W | 4301352010 | | Indian | Indian | OW | APD |
| LC Tribal 14-31D-37 | 31 | 030S | 070W | 4301352016 | | Indian | Fee | OW | APD |
| 5-12D-45 BTR | 12 | 040S | 050W | 4301352030 | | Indian | Indian | OW | APD |
| LC Tribal 9-20D-45 | 20 | 040S | 050W | 4301352031 | | Indian | Indian | OW | APD |
| LC Tribal 13-35D-47 | 35 | 040S | 070W | 4301352055 | | Indian | Indian | OW | APD |
| LC Tribal 1-23D-47 | 23 | 040S | 070W | 4301352057 | | Indian | Indian | OW | APD |
| 9-17D-46 BTR | 17 | 040S | 060W | 4301352059 | | Indian | Indian | OW | APD |
| 11-18D-46 BTR | 18 | 040S | 060W | 4301352060 | | Indian | Indian | OW | APD |
| 9-10D-47 BTR | 10 | 040S | 070W | 4301352092 | | Indian | Fee | OW | APD |
| LC Tribal 1-17D-47 | 17 | 040S | 070W | 4301352096 | | Indian | Fee | OW | APD |
| 7-35D-37 BTR | 35 | 030S | 070W | 4301352115 | | Indian | Fee | OW | APD |
| 14-25D-37 BTR | 25 | 030S | 070W | 4301352116 | | Indian | Fee | OW | APD |

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|---|---|---|---|---|---|---|---|---|---|
| LC Tribal 5-25-46 | 25 | 040S | 060W | 4301352126 | | Indian | Indian | OW | APD |
| 8-33D-35 BTR | 33 | 030S | 050W | 4301352161 | | Indian | Fee | OW | APD |
| 5-4D-36 BTR | 4 | 030S | 060W | 4301352175 | | Indian | Fee | OW | APD |
| 7-4D-36 BTR | 4 | 030S | 060W | 4301352176 | | Indian | Fee | OW | APD |
| LC Tribal 4-36D-47 | 36 | 040S | 070W | 4301352186 | | Indian | Indian | OW | APD |
| LC Tribal 4-22D-46 | 22 | 040S | 060W | 4301352944 | | Indian | Indian | OW | APD |
| LC Tribal 16-22D-46 | 22 | 040S | 060W | 4301352945 | | Indian | Indian | OW | APD |
| LC Tribal 11-19D-46 | 19 | 040S | 060W | 4301352946 | | Indian | Indian | OW | APD |
| LC Tribal 7-20D-45 | 20 | 040S | 050W | 4301352947 | | Indian | Indian | OW | APD |
| 15-11D-35 BTR | 11 | 030S | 050W | 4301353056 | | Indian | Fee | OW | APD |
| 13-11D-35 BTR | 11 | 030S | 050W | 4301353057 | | Indian | Fee | OW | APD |
| BTR 16-36D-37 | 36 | 030S | 070W | 4301353059 | | Indian | Fee | OW | APD |
| 4-29D-35 BTR | 30 | 030S | 050W | 4301353060 | | Indian | Fee | OW | APD |
| 1-30D-35 BTR | 30 | 030S | 050W | 4301353061 | | Fee | Fee | OW | APD |
| LC TRIBAL 3-23D-46 | 23 | 040S | 060W | 4301353066 | | Indian | State | OW | APD |
| LC Tribal 14-23D-46 | 23 | 040S | 060W | 4301353067 | | Indian | State | OW | APD |
| LC Tribal 13-25D-46 | 25 | 040S | 060W | 4301353068 | | Indian | Indian | OW | APD |
| LC Tribal 14-26D-46 | 26 | 040S | 060W | 4301353069 | | Indian | State | OW | APD |
| LC Tribal 5-26D-46 | 26 | 040S | 060W | 4301353070 | | Indian | State | OW | APD |
| LC Tribal 11-35D-45 | 35 | 040S | 050W | 4301353071 | | Indian | State | OW | APD |
| LC Tribal 7-35D-45 | 35 | 040S | 050W | 4301353072 | | Indian | State | OW | APD |
| LC Tribal 3-35D-45 | 35 | 040S | 050W | 4301353075 | | Indian | State | OW | APD |
| LC Tribal 14-36D-45 | 36 | 040S | 050W | 4301353076 | | Indian | State | OW | APD |
| LC Tribal 13-36D-45 | 36 | 040S | 050W | 4301353077 | | Indian | State | OW | APD |
| LC Tribal 10-36D-45 | 36 | 040S | 050W | 4301353078 | | Indian | State | OW | APD |
| LC Tribal 8-36D-45 | 36 | 040S | 050W | 4301353079 | | Indian | State | OW | APD |
| LC Tribal 6-36D-45 | 36 | 040S | 050W | 4301353080 | | Indian | State | OW | APD |
| LC Tribal 1-34D-46 | 34 | 040S | 060W | 4301353081 | | Indian | State | OW | APD |
| LC Tribal 9-27D-46 | 27 | 040S | 060W | 4301353082 | | Indian | State | OW | APD |
| LC Tribal 13-35D-45 | 35 | 040S | 050W | 4301353083 | | Indian | State | OW | APD |
| LC Tribal 8-35D-45 | 35 | 040S | 050W | 4301353084 | | Indian | State | OW | APD |
| LC Tribal 15-35D-45 | 35 | 040S | 050W | 4301353085 | | Indian | State | OW | APD |
| LC Tribal 12-25D-45 | 25 | 040S | 050W | 4301353122 | | Indian | Indian | OW | APD |
| LC Tribal 14-25D-45 | 25 | 040S | 050W | 4301353123 | | Indian | Indian | OW | APD |
| LC Tribal 10-25D-45 | 25 | 040S | 050W | 4301353124 | | Indian | Indian | OW | APD |
| LC Tribal 11-26-45 | 26 | 040S | 050W | 4301353125 | | Indian | Indian | OW | APD |
| LC Tribal 13-26D-45 | 26 | 040S | 050W | 4301353126 | | Indian | Indian | OW | APD |
| LC Tribal 7-31D-46 | 31 | 040S | 060W | 4301353127 | | Indian | Indian | OW | APD |
| LC Tribal 7-19D-45 | 19 | 040S | 050W | 4301353128 | | Indian | Indian | OW | APD |
| LC Tribal 5-19D-45 | 19 | 040S | 050W | 4301353130 | | Indian | Indian | OW | APD |
| LC Tribal 7-25D-46 | 25 | 040S | 060W | 4301353132 | | Indian | Indian | OW | APD |

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|---|---|---|---|---|---|---|---|---|---|
| LC Tribal 7-24D-46 | 24 | 040S | 060W | 4301353134 | | Indian | Indian | OW | APD |
| LC Tribal 14-31D-46 | 31 | 040S | 060W | 4301353135 | | Indian | Indian | OW | APD |
| LC Tribal 14-30D-46 | 30 | 040S | 060W | 4301353136 | | Indian | Indian | OW | APD |
| 13-4-35 BTR SWD | 4 | 030S | 050W | 4301353293 | | Fee | Fee | OW | APD |
| LC FEE 14-26D-47 | 26 | 040S | 070W | 4301353294 | | Fee | Indian | OW | APD |
| LC Fee 5-25D-47 | 25 | 040S | 070W | 4301353295 | | Fee | Indian | OW | APD |
| 7-35-46 LC SWD | 35 | 040S | 060W | 4301353296 | | Fee | Fee | OW | APD |
| LC Fee 1H-33-47 | 32 | 040S | 070W | 4301353309 | | Fee | Indian | OW | APD |
| LC FEE 14-2D-58 | 2 | 050S | 080W | 4301353312 | | Fee | Indian | OW | APD |
| LC FEE 13H-21-47 | 21 | 040S | 070W | 4301353313 | | Fee | Indian | OW | APD |
| LC Fee 16-21D-47 | 21 | 040S | 070W | 4301353326 | | Fee | Indian | OW | APD |
| 16-7D-46 BTR | 7 | 040S | 060W | 4301353328 | | Fee | Indian | OW | APD |
| LC Fee 15-26D-47 | 26 | 040S | 070W | 4301353331 | | Fee | Indian | OW | APD |
| LC Fee 4-24D-47 | 23 | 040S | 070W | 4301353332 | | Fee | Indian | OW | APD |
| LC Fee 5-34D-47 | 34 | 040S | 070W | 4301353333 | | Fee | Indian | OW | APD |
| LC Fee 5-35D-47 | 35 | 040S | 070W | 4301353334 | | Fee | Indian | OW | APD |
| 13-34D-47 LC Fee | 34 | 040S | 070W | 4301353337 | | Fee | Indian | OW | APD |
| 14-35D-35 BTR | 35 | 030S | 050W | 4301352120 | | Fee | Fee | OW | DRL |
| 6-17D-46 BTR | 17 | 040S | 060W | 4301351078 | | Indian | Indian | OW | OPS |
| 5-34D-35 BTR | 34 | 030S | 050W | 4301351187 | | Indian | Fee | OW | OPS |
| 5-10D-45 BTR | 10 | 040S | 050W | 4301351221 | | Indian | Indian | OW | OPS |
| 5-3D-45 BTR | 3 | 040S | 050W | 4301351810 | | Indian | Indian | OW | OPS |
| 9-34D-35 BTR | 34 | 030S | 050W | 4301352117 | | Fee | Fee | OW | OPS |
| 5-35D-35 BTR | 35 | 030S | 050W | 4301352118 | | Fee | Fee | OW | OPS |
| 1-2D-46 BTR | 2 | 040S | 060W | 4301353086 | | Indian | Fee | OW | OPS |
| 7-21-46 DLB | 21 | 040S | 060W | 4301333567 | 16526 | Indian | Indian | OW | P |
| LC TRIBAL 1H-27-46 | 27 | 040S | 060W | 4301333568 | 18175 | Indian | Fee | GW | P |
| 7-29-46 DLB | 29 | 040S | 060W | 4301333584 | 17603 | Indian | Fee | GW | P |
| LC TRIBAL 12H-28-46 | 28 | 040S | 060W | 4301333631 | 18132 | Indian | Indian | GW | P |
| LC TRIBAL 13H-21-46 | 21 | 040S | 060W | 4301333632 | 18107 | Indian | Indian | GW | P |
| 12-36-36 BTR | 36 | 030S | 060W | 4301333638 | 16336 | Indian | Fee | GW | P |
| 5-5-46 BTR | 5 | 040S | 060W | 4301333639 | 16542 | Indian | Fee | OW | P |
| 5-23-36 BTR | 23 | 030S | 060W | 4301333642 | 16675 | Indian | Fee | GW | P |
| 14-29-36 BTR | 29 | 030S | 060W | 4301333643 | 16725 | Indian | Fee | OW | P |
| 14-30-36 BTR | 30 | 030S | 060W | 4301333644 | 16701 | Indian | Fee | GW | P |
| 7-20-46 DLB | 20 | 040S | 060W | 4301333657 | 16584 | Indian | Indian | OW | P |
| LC TRIBAL 5-21D-46 | 21 | 040S | 060W | 4301333658 | 18887 | Indian | Indian | OW | P |
| 5-20-46 DLB | 20 | 040S | 060W | 4301333659 | 18750 | Indian | Indian | GW | P |
| LC TRIBAL 13H-20-46 | 20 | 040S | 060W | 4301333678 | 17979 | Indian | Indian | GW | P |
| 14-7-46 BTR | 7 | 040S | 060W | 4301333806 | 16890 | Indian | Indian | GW | P |
| 7-8-45 BTR | 8 | 040S | 050W | 4301333820 | 16974 | Indian | Indian | OW | P |

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| 1-5-45 BTR | 5 | 040S | 050W | 4301333868 | 16931 | Indian | Indian | OW | P |
| 5-16-36 BTR | 16 | 030S | 060W | 4301333970 | 17195 | Indian | Fee | OW | P |
| 5-29-36 BTR | 29 | 030S | 060W | 4301333972 | 17557 | Indian | Fee | OW | P |
| 4-30-36 BTR | 30 | 030S | 060W | 4301333973 | 17249 | Indian | Fee | OW | P |
| 7-19-46 DLB | 19 | 040S | 060W | 4301334004 | 19018 | Indian | Indian | OW | P |
| 5-25-36 BTR | 25 | 030S | 060W | 4301334021 | 17126 | Fee | Fee | OW | P |
| 5-4-45 BTR | 4 | 040S | 050W | 4301334089 | 17507 | Indian | Indian | OW | P |
| 13-2-46 BTR | 2 | 040S | 060W | 4301334090 | 18618 | Indian | Indian | OW | P |
| 2-3-45 BTR | 3 | 040S | 050W | 4301334099 | 17932 | Indian | Indian | OW | P |
| 7-6-45 BTR | 6 | 040S | 050W | 4301334100 | 17653 | Indian | Indian | OW | P |
| 1-9-45 BTR | 9 | 040S | 050W | 4301334101 | 17910 | Indian | Indian | OW | P |
| 8-10-45 BTR | 10 | 040S | 050W | 4301334102 | 17530 | Indian | Indian | OW | P |
| 7-17-45 BTR | 17 | 040S | 050W | 4301334104 | 17933 | Indian | Indian | OW | P |
| 16-7-45 BTR | 7 | 040S | 050W | 4301334111 | 17665 | Indian | Indian | OW | P |
| 15-18-45 BTR | 18 | 040S | 050W | 4301334112 | 17832 | Indian | Indian | OW | P |
| 6-12-46 BTR | 12 | 040S | 060W | 4301334114 | 17964 | Indian | Indian | OW | P |
| 5-13-46 BTR | 13 | 040S | 060W | 4301334115 | 17833 | Indian | Indian | OW | P |
| 16-26-36 BTR | 26 | 030S | 060W | 4301334132 | 18028 | Indian | Fee | OW | P |
| 1-23-36 BTR | 23 | 030S | 060W | 4301334136 | 17722 | Indian | Fee | OW | P |
| 15-10-36 BTR | 10 | 030S | 060W | 4301334277 | 17419 | Indian | Fee | OW | P |
| 14-5-46 BTR | 5 | 040S | 060W | 4301350307 | 17624 | Fee | Fee | OW | P |
| 14X-22-46 DLB | 22 | 040S | 060W | 4301350351 | 17604 | Indian | Indian | OW | P |
| 16-13-36 BTR | 13 | 030S | 060W | 4301350372 | 17853 | Indian | Fee | OW | P |
| 5-33-46 DLB | 33 | 040S | 060W | 4301350397 | 17765 | Indian | Fee | OW | P |
| 5-34-46 DLB | 34 | 040S | 060W | 4301350415 | 17801 | Indian | State | GW | P |
| LC FEE 12H-32-46 | 32 | 040S | 060W | 4301350431 | 18003 | Fee | Fee | OW | P |
| 1-13D-47 BTR | 13 | 040S | 070W | 4301350445 | 18205 | Indian | Fee | OW | P |
| 16-8D-45 BTR | 8 | 040S | 050W | 4301350466 | 18799 | Indian | Indian | OW | P |
| 7-13D-46 BTR | 13 | 040S | 060W | 4301350470 | 18076 | Indian | Indian | OW | P |
| 14-8D-45 BTR | 8 | 040S | 050W | 4301350567 | 18207 | Indian | Indian | OW | P |
| 14-5D-45 BTR | 5 | 040S | 050W | 4301350568 | 18108 | Indian | Indian | OW | P |
| 16-31D-36 BTR | 31 | 030S | 060W | 4301350573 | 18004 | Indian | Fee | OW | P |
| 5-7D-46 BTR | 7 | 040S | 060W | 4301350574 | 18176 | Indian | Indian | OW | P |
| LC TRIBAL 13H-33-46 | 34 | 040S | 060W | 4301350575 | 18223 | Indian | State | OW | P |
| 5-8-45 BTR | 8 | 040S | 050W | 4301350607 | 18279 | Indian | Indian | OW | P |
| 16-6D-45 BTR | 6 | 040S | 050W | 4301350610 | 18177 | Indian | Indian | OW | P |
| 5-18D-45 BTR | 18 | 040S | 050W | 4301350611 | 18300 | Indian | Indian | OW | P |
| 7-26-37 BTR | 26 | 030S | 070W | 4301350641 | 18131 | Indian | Fee | OW | P |
| 3-11D-36 BTR | 11 | 030S | 060W | 4301350642 | 18299 | Indian | Fee | OW | P |
| 16-1D-46 BTR | 1 | 040S | 060W | 4301350675 | 18525 | Indian | Indian | OW | P |
| 14-3-45 BTR | 3 | 040S | 050W | 4301350676 | 18363 | Indian | Indian | OW | P |

From: Bill Barrett Corporation
To: Rig II, LLC
Effective 11/1/2016

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4-17D-45 BTR | 17 | 040S | 050W | 4301350687 | 18517 | Indian | Indian | OW | P |
| 5-6D-45 BTR | 6 | 040S | 050W | 4301350688 | 18726 | Indian | Indian | OW | P |
| 7-7D-45 BTR | 7 | 040S | 050W | 4301350689 | 18380 | Indian | Indian | OW | P |
| 14-10D-45 BTR | 10 | 040S | 050W | 4301350754 | 18447 | Indian | Indian | OW | P |
| 14-9D-45 BTR | 9 | 040S | 050W | 4301350755 | 18379 | Indian | Indian | OW | P |
| 13-16D-36 BTR | 16 | 030S | 060W | 4301350757 | 18206 | Indian | State | OW | P |
| 5-9D-36 BTR | 9 | 030S | 060W | 4301350843 | 18381 | Indian | Fee | OW | P |
| 16-5D-46 BTR | 5 | 040S | 060W | 4301350844 | 18280 | Fee | Fee | OW | P |
| 5-27D-37 BTR | 27 | 030S | 070W | 4301350847 | 18526 | Indian | Fee | OW | P |
| 7-4D-45 BTR | 4 | 040S | 050W | 4301350884 | 18562 | Indian | Indian | OW | P |
| 2-16D-45 BTR | 16 | 040S | 050W | 4301350899 | 18619 | Indian | Indian | OW | P |
| 16-10D-45 BTR | 10 | 040S | 050W | 4301350902 | 18725 | Indian | Indian | OW | P |
| 5-2D-36 BTR | 2 | 030S | 060W | 4301350913 | 18886 | Indian | Fee | OW | P |
| 13H-27-36 BTR | 27 | 030S | 060W | 4301350918 | 18445 | Indian | State | OW | P |
| 8-16D-46 BTR | 16 | 040S | 060W | 4301350953 | 19027 | Indian | Indian | OW | P |
| 16-16D-46 BTR | 16 | 040S | 060W | 4301350956 | 19028 | Indian | Indian | OW | P |
| 16-9D-45 BTR | 9 | 040S | 050W | 4301350962 | 18662 | Indian | Indian | OW | P |
| 14-31D-36 BTR | 31 | 030S | 060W | 4301350973 | 18524 | Indian | Fee | OW | P |
| 5-10D-36 BTR | 10 | 030S | 060W | 4301350978 | 18989 | Indian | Fee | OW | P |
| 1-32D-36 BTR | 32 | 030S | 060W | 4301350979 | 18648 | Indian | Fee | OW | P |
| 16-12D-36 BTR | 12 | 030S | 060W | 4301350980 | 18748 | Indian | Fee | OW | P |
| 2-18D-45 BTR | 18 | 040S | 050W | 4301350991 | 18776 | Indian | Indian | OW | P |
| 3-1-46 BTR | 1 | 040S | 060W | 4301351017 | 18777 | Indian | Fee | OW | P |
| 10-5-45 BTR | 5 | 040S | 050W | 4301351062 | 18724 | Indian | Indian | OW | P |
| 12-4D-45 BTR | 4 | 040S | 050W | 4301351063 | 18813 | Indian | Indian | OW | P |
| 1-10D-45 BTR | 10 | 040S | 050W | 4301351064 | 18966 | Indian | Indian | OW | P |
| 16-2D-46 BTR | 2 | 040S | 060W | 4301351079 | 18830 | Indian | Indian | OW | P |
| 9H-4-45 BTR | 4 | 040S | 050W | 4301351092 | 18814 | Indian | Indian | OW | P |
| 12-17-45 BTR | 17 | 040S | 050W | 4301351097 | 18984 | Indian | Indian | OW | P |
| 5-9D-46 BTR | 9 | 040S | 060W | 4301351109 | 19313 | Indian | Fee | OW | P |
| 14-9D-36 BTR | 9 | 030S | 060W | 4301351144 | 19004 | Indian | Fee | OW | P |
| 5-31D-36 BTR | 31 | 030S | 060W | 4301351146 | 18691 | Indian | Fee | OW | P |
| 4-9D-45 BTR | 9 | 040S | 050W | 4301351157 | 18883 | Indian | Indian | OW | P |
| 8-12D-46 BTR | 12 | 040S | 060W | 4301351159 | 18911 | Indian | Indian | OW | P |
| LC TRIBAL 16-23D-47 | 23 | 040S | 070W | 4301351180 | 18617 | Indian | Indian | OW | P |
| 14-7D-45 BTR | 7 | 040S | 050W | 4301351222 | 18949 | Indian | Indian | OW | P |
| 5-16D-45 BTR | 16 | 040S | 050W | 4301351223 | 18987 | Indian | Indian | OW | P |
| 4-5D-45 BTR | 5 | 040S | 050W | 4301351242 | 18882 | Indian | Indian | OW | P |
| LC TRIBAL 16H-19-45 | 19 | 040S | 050W | 4301351278 | 18627 | Indian | Indian | OW | P |
| LC TRIBAL 13-19D-45 | 19 | 040S | 050W | 4301351280 | 18628 | Indian | Indian | OW | P |
| LC TRIBAL 5-30D-45 | 30 | 040S | 050W | 4301351281 | 19448 | Indian | Indian | OW | P |

From: Bill Barrett Corporation
To: Rig II, LLC
Effective 11/1/2016

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LC TRIBAL 15-24D-46 | 24 | 040S | 060W | 4301351283 | 18626 | Indian | Indian | OW | P |
| LC TRIBAL 13H-24-46 | 19 | 040S | 050W | 4301351289 | 18629 | Indian | Indian | OW | P |
| 7-16-47 BTR | 16 | 040S | 070W | 4301351296 | 18950 | Indian | Fee | OW | P |
| 14-18D-45 BTR | 18 | 040S | 050W | 4301351313 | 19005 | Indian | Indian | OW | P |
| LC TRIBAL 16-30D-46 | 30 | 040S | 060W | 4301351320 | 19006 | Indian | Indian | OW | P |
| LC TRIBAL 5-20D-45 | 20 | 040S | 050W | 4301351331 | 19449 | Indian | Indian | OW | P |
| 11-8D-46 BTR | 8 | 040S | 060W | 4301351336 | 19314 | Indian | Indian | OW | P |
| 5-7D-45 BTR | 7 | 040S | 050W | 4301351350 | 18951 | Indian | Indian | OW | P |
| 7-5-35 BTR | 5 | 030S | 050W | 4301351599 | 19078 | Indian | Fee | OW | P |
| 13-5D-35 BTR | 5 | 030S | 050W | 4301351600 | 18996 | Indian | Fee | OW | P |
| 11-5D-35 BTR | 5 | 030S | 050W | 4301351601 | 19061 | Fee | Fee | OW | P |
| 15-5D-35 BTR | 5 | 030S | 050W | 4301351602 | 19062 | Fee | Fee | OW | P |
| 9-5D-35 BTR | 5 | 030S | 050W | 4301351609 | 19029 | Indian | Fee | OW | P |
| 3-5D-35 BTR | 5 | 030S | 050W | 4301351638 | 19079 | Indian | Fee | OW | P |
| 7-8-46 BTR | 8 | 040S | 060W | 4301351702 | 19315 | Indian | Indian | OW | P |
| 7-30-46 DLB | 30 | 040S | 060W | 4301351703 | 18997 | Fee | Indian | OW | P |
| 3-13D-46 BTR | 13 | 040S | 060W | 4301351718 | 18881 | Indian | Indian | OW | P |
| 2-13D-46 BTR | 13 | 040S | 060W | 4301351719 | 18885 | Indian | Indian | OW | P |
| 12-12D-46 BTR | 12 | 040S | 060W | 4301351720 | 18867 | Indian | Indian | OW | P |
| 10-12D-46 BTR | 12 | 040S | 060W | 4301351721 | 18856 | Indian | Indian | OW | P |
| 11-11D-47 BTR | 11 | 040S | 070W | 4301352091 | 19633 | Fee | Fee | OW | P |
| 7-12D-47 BTR | 12 | 040S | 070W | 4301352094 | 19600 | Indian | Fee | OW | P |
| 5-12D-47 BTR | 12 | 040S | 070W | 4301352095 | 19634 | Indian | Fee | OW | P |
| 14-33D-35 BTR | 33 | 030S | 050W | 4301352162 | 19450 | Indian | Fee | OW | P |
| 16-33D-35 BTR | 33 | 030S | 050W | 4301352163 | 19451 | Indian | Fee | OW | P |
| 14-22-46 DLB | 22 | 040S | 060W | 4301333660 | 17604 | Indian | Indian | D | PA |
| 13H-31-36 BTR | 31 | 030S | 060W | 4301350465 | 18485 | Indian | Fee | OW | PA |
| 16X-23D-36 BTR | 23 | 030S | 060W | 4301350623 | 18007 | Indian | State | OW | PA |
| 8-6-45 BTR | 6 | 040S | 050W | 4301350900 | 18561 | Indian | Indian | OW | PA |
| 13-13-36 BTR | 13 | 030S | 060W | 4301350919 | 18364 | Indian | Fee | OW | PA |
| 7-28-46 DLB | 28 | 040S | 060W | 4301333569 | 16460 | Indian | Indian | OW | S |
| 5-21-36 BTR | 21 | 030S | 060W | 4301333641 | 16674 | Indian | Fee | GW | S |
| 13-26-36 BTR | 26 | 030S | 060W | 4301333980 | 17569 | Indian | Fee | OW | S |
| 14-1-46 BTR | 1 | 040S | 060W | 4301334113 | 18516 | Indian | Indian | OW | S |
| 16-21-36 BTR | 21 | 030S | 060W | 4301334130 | 17721 | Indian | Fee | OW | S |
| 14-21-36 BTR | 21 | 030S | 060W | 4301334131 | 18006 | Indian | Fee | OW | S |
| 7-16-36 BTR | 16 | 030S | 060W | 4301334133 | 17834 | Indian | Fee | OW | S |
| 1-30-36 BTR | 30 | 030S | 060W | 4301334134 | 17905 | Indian | Fee | OW | S |
| 16-30-36 BTR | 30 | 030S | 060W | 4301334135 | 18005 | Indian | Fee | OW | S |
| 3-23-36 BTR | 23 | 030S | 060W | 4301334137 | 17860 | Indian | Fee | OW | S |
| 16-16-36 BTR | 16 | 030S | 060W | 4301334138 | 17666 | Indian | Fee | OW | S |

From: Bill Barrett Corporation
To: Rig II, LLC
Effective 11/1/2016

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4-26-36 BTR | 26 | 030S | 060W | 4301334139 | 17620 | Fee | Fee | OW | S |
| 9-11-36 BTR | 11 | 030S | 060W | 4301334276 | 17451 | Indian | Fee | OW | S |
| 3-36-36 BTR | 36 | 030S | 060W | 4301350398 | 17955 | Indian | Fee | OW | S |
| 7-10-36 BTR | 10 | 030S | 060W | 4301350437 | 18052 | Indian | Fee | OW | S |
| 16-12D-46 BTR | 12 | 040S | 060W | 4301350467 | 18051 | Indian | Indian | OW | S |
| 13H-13-46 BTR | 13 | 040S | 060W | 4301350468 | 18208 | Indian | Indian | OW | S |
| 13-12-46 BTR | 12 | 040S | 060W | 4301350469 | 18233 | Indian | Indian | OW | S |
| 14-8D-36 BTR | 8 | 030S | 060W | 4301350612 | 18163 | Indian | Fee | OW | S |
| 14-7D-36 BTR | 7 | 030S | 060W | 4301350613 | 18330 | Indian | Fee | OW | S |
| 16-9-36 BTR | 9 | 030S | 060W | 4301350645 | 18078 | Indian | Fee | OW | S |
| 7-27-37 BTR | 27 | 030S | 070W | 4301350647 | 18090 | Indian | Fee | OW | S |
| 16-12D-37 BTR | 12 | 030S | 070W | 4301350785 | 18446 | Indian | Fee | OW | S |
| 14-21D-37 BTR | 21 | 030S | 070W | 4301350859 | 18548 | Indian | Fee | OW | S |
| 10-18D-36 BTR | 18 | 030S | 060W | 4301350915 | 18884 | Indian | Fee | OW | S |
| 5-27D-36 | 27 | 030S | 060W | 4301350917 | 18482 | Indian | State | OW | S |
| 10-36D-36 BTR | 36 | 030S | 060W | 4301351005 | 18523 | Indian | Fee | OW | S |
| 14-6D-45 BTR | 6 | 040S | 050W | 4301351158 | 18967 | Indian | Indian | OW | S |
| 5H-1-46 BTR UTELAND BUTTE | 6 | 040S | 050W | 4301351215 | 18728 | Indian | Indian | OW | S |
| 5H-1-46 BTR WASATCH | 6 | 040S | 050W | 4301351216 | 18727 | Indian | Indian | OW | S |
| 1-25D-36 BTR | 25 | 030S | 060W | 4301351294 | 18798 | Indian | Fee | OW | S |
| 5-5D-35 BTR | 5 | 030S | 050W | 4301351605 | 19055 | Indian | Fee | OW | S |
| 16-23-36 BTR | 23 | 030S | 060W | 4301333971 | 17182 | Indian | Fee | OW | TA |
| LC TRIBAL 14-23D-47 | 23 | 040S | 070W | 4301334022 | 18616 | Indian | Indian | OW | TA |
| 5-32D-36 BTR | 32 | 030S | 060W | 4301350756 | 18328 | Indian | Fee | OW | TA |

**Bill Barrett Corporation**

October 20, 2016

RECEIVED
OCT 21 2016
DIV. OF OIL, GAS & MINING

Re: Bill Barrett Corporation Transfer to New Operator

Dear Ms. Medina:

Attached please find the change of operation Form 9, Form 5's and Request to Transfer APD formchanging the operator from Bill Barrett Corporation to RIG II, LLC, effective 11/1/2016. Badlands Energy – Utah, LLC will be a sub-operator.

**New Operator Contact information:**
RIG II, LLC
1582 West 2600 South
Woods Cross, Utah 84087-0298
Telephone:(801) 683-4245
Fax:(801) 298-9889

Upon reviewing the attached, please contact myself with any questions at 303-312-8115.

Sincerely,

Bill Barrett Corporation

Brady Riley

Brady Riley
Permit Analyst

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

FORM 9

# SUNDRY NOTICES AND REPORTS ON WELLS

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.

5. LEASE DESIGNATION AND SERIAL NUMBER: (see attached well list)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ OTHER

8. WELL NAME and NUMBER: (see attached well list)

2. NAME OF OPERATOR: RIG II, LLC N4055

9. API NUMBER:

3. ADDRESS OF OPERATOR: 1582 West 2600 South CITY Wood Cross STATE UT ZIP 84087 PHONE NUMBER: (801) 683-4245

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE: (see attached well list)

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☑ NOTICE OF INTENT (Submit In Duplicate) | ☐ ACIDIZE | ☐ DEEPEN | ☐ REPERFORATE CURRENT FORMATION |
| Approximate date work will start: | ☐ ALTER CASING | ☐ FRACTURE TREAT | ☐ SIDETRACK TO REPAIR WELL |
| | ☐ CASING REPAIR | ☐ NEW CONSTRUCTION | ☐ TEMPORARILY ABANDON |
| 11/1/2016 | ☐ CHANGE TO PREVIOUS PLANS | ☑ OPERATOR CHANGE | ☐ TUBING REPAIR |
| | ☐ CHANGE TUBING | ☐ PLUG AND ABANDON | ☐ VENT OR FLARE |
| ☐ SUBSEQUENT REPORT (Submit Original Form Only) | ☐ CHANGE WELL NAME | ☐ PLUG BACK | ☐ WATER DISPOSAL |
| Date of work completion: | ☐ CHANGE WELL STATUS | ☐ PRODUCTION (START/RESUME) | ☐ WATER SHUT-OFF |
| | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ RECLAMATION OF WELL SITE | ☐ OTHER: |
| | ☐ CONVERT WELL TYPE | ☐ RECOMPLETE - DIFFERENT FORMATION | |

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

RIG II, LLC IS SUBMITTING THIS SUNDRY AS NOTIFICATION THAT THE WELLS LISTED ON THE ATTACHED LIST HAVE BEEN SOLD TO Rig II, LLC BY BILL BILL BARRETT CORPORATION EFFECTIVE 11/1/2016. PLEASE REFER ALL FUTURE CORRESPONDENCE TO THE ADDRESS BELOW.

RIG II, LLC
1582 West 2600 South
Woods Cross, Utah 84087-0298
801-683-4245
(STATE/FEE BOND # 9219529/ BLM BOND # UTB000712/ BIA BOND # LPM9224670)

BILL BARRETT CORPORATION N2165

Duane Zavadil NAME (PLEASE PRINT)

SIGNATURE

Senior Vice President - EH&S, Government and Regulatory Affairs

RIG II, LLC

Jesse McSwain NAME (PLEASE PRINT)

SIGNATURE

Manager

NAME (PLEASE PRINT) Jesse McSwain TITLE Manager

SIGNATURE DATE 10/20/16

(This space for State use only)

APPROVED

NOV 07 2016

DIV. OIL GAS & MINING

BY: Rachel Medina

(5/2000) (See Instructions on Reverse Side)

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

# Request to Transfer Application or Permit to Drill

(This form should accompany a Sundry Notice, Form 9, requesting APD transfer)

| | |
|---|---|
| **Well name:** | (See attached list) |
| **API number:** | |
| **Location:** | Qtr-Qtr: Section: Township: Range: |
| **Company that filed original application:** | Bill Barrett Corporation |
| **Date original permit was issued:** | |
| **Company that permit was issued to:** | Bill Barrett Corporation |

| Check one | Desired Action: |
|---|---|
| | |
| | **Transfer pending (unapproved) Application for Permit to Drill to new operator** |
| | The undersigned as owner with legal rights to drill on the property, hereby verifies that the information as submitted in the pending Application for Permit to Drill, remains valid and does not require revision. The new owner of the application accepts and agrees to the information and procedures as stated in the application. |
| ✓ | **Transfer approved Application for Permit to Drill to new operator** |
| | The undersigned as owner with legal rights to drill on the property as permitted, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. |

| **Following is a checklist of some items related to the application, which should be verified.** | Yes | No |
|---|---|---|
| If located on private land, has the ownership changed? | ✓ | |
| If so, has the surface agreement been updated? | | ✓ |
| Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? | | ✓ |
| Have there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? | | ✓ |
| Have there been any changes to the access route including ownership or right-of-way, which could affect the proposed location? | | ✓ |
| Has the approved source of water for drilling changed? | | ✓ |
| Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? | | ✓ |
| Is bonding still in place, which covers this proposed well? Bond No. 9219529-UDOGM / UTB000712-BLM / LPM92246/0-BIA | ✓ | |

Any desired or necessary changes to either a pending or approved Application for Permit to Drill that is being transferred, should be filed on a Sundry Notice, Form 9, or amended Application for Permit to Drill, Form 3, as appropriate, with necessary supporting information as required.

Name (please print) Jesse McSwain Title Manager

Signature Jesse McSwain Date 10/20/16

Representing (company name) RIG II, LLC

The person signing this form must have legal authority to represent the company or individual(s) to be listed as the new operator on the Application for Permit to Drill.

(3/2004)

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

UIC FORM 5

# TRANSFER OF AUTHORITY TO INJECT

| | |
|---|---|
| Well Name and Number<br>6-32-36 BTR SWD | API Number<br>4301350921 |
| Location of Well<br>Footage : 1628 FNL 1553 FWL<br>QQ, Section, Township, Range: SENW 32 3S 6W<br>County : DUCHENSE<br>State : UTAH | Field or Unit Name<br>CEDAR RIM<br>Lease Designation and Number<br>2OG0005608 |

**EFFECTIVE DATE OF TRANSFER:** 11/1/2016

**CURRENT OPERATOR**

Company: BILL BARRETT CORPORATION
Address: 1099 18th Street Ste 2300
city DENVER state CO zip 80202
Phone: (303) 293-9100
Comments:

Name: Duane Zavadil
Signature:
Title: Senior Vice President - EH&S, Government and Regulatory Affairs
Date: 10/20/16

**NEW OPERATOR**

Company: RIG II, LLC
Address: 1582 West 2600 South
city Wood Cross state UT zip 84087
Phone: (801) 683-4245
Comments:

Name: Jesse McSwain
Signature:
Title: Manager
Date: 10/20/16

(This space for State use only)

Transfer approved by:
Title: UIC Program
Approval Date: 11/3/16

Comments:

(5/2000)

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

UIC FORM 5

# TRANSFER OF AUTHORITY TO INJECT

| | |
|---|---|
| Well Name and Number<br>16-6D-46 BTR SWD | API Number<br>4301350781 |
| Location of Well<br>Footage : 0200 FSL 0099 FEL County : DUCHESNE<br>QQ, Section, Township, Range: SESE 6 4S 6W State : UTAH | Field or Unit Name<br>ALTAMONT<br>Lease Designation and Number<br>2OG0005608 |

**EFFECTIVE DATE OF TRANSFER:** 11/1/2016

**CURRENT OPERATOR**

Company: BILL BARRETT CORPORATION
Address: 1099 18th Street Ste 2300
city DENVER state CO zip 80202
Phone: (303) 293-9100
Comments:

Name: Duane Zavadil
Signature: Dwn Zavadil
Title: Senior Vice President - EH&S, Government and Regulatory Affairs
Date: 10/20/16

**NEW OPERATOR**

Company: RIG II, LLC
Address: 1582 West 2600 South
city Wood Cross state UT zip 84087
Phone: (801) 683-4245
Comments:

Name: Jesse McSwain
Signature: Jesse McSwain
Title: Manager
Date: 10/20/16

(This space for State use only)

Transfer approved by: Dan Jarvis
Title: UIC

Approval Date: 11/3/16

Comments:

(5/2000)

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

UIC FORM 5

# TRANSFER OF AUTHORITY TO INJECT

| | |
|---|---|
| Well Name and Number<br>SWD 9-36 BTR | API Number<br>4301350646 |
| Location of Well<br>Footage : 0539 FSL 0704 FEL<br>County : DUCHESNE<br>QQ, Section, Township, Range: SESE 9 3S 6W<br>State : UTAH | Field or Unit Name<br>CEDAR RIM<br>Lease Designation and Number<br>2OG0005608 |

**EFFECTIVE DATE OF TRANSFER:** 11/1/2016

**CURRENT OPERATOR**

Company: BILL BARRETT CORPORATION
Address: 1099 18th Street Ste 2300
city DENVER state CO zip 80202
Phone: (303) 293-9100
Comments:

Name: Duane Zavadil
Signature: [signature]
Title: Senior Vice President - EH&S, Government and Regulatory Affairs
Date: 10/20/16

**NEW OPERATOR**

Company: RIG II, LLC
Address: 1582 West 2600 South
city Wood Cross state UT zip 84087
Phone: (801) 683-4245
Comments:

Name: Jesse McSwain
Signature: [signature]
Title: Manager
Date: 10/20/16

(This space for State use only)

Transfer approved by: _____ Approval Date: _____

Title: _____

Comments: This well was approved by US EPA. EPA approval will be required.

(5/2000)