API Well Number: 43019500260000

**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**
Tidewater State 32-31H-2119

**2. TYPE OF WORK**
DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○

**3. FIELD OR WILDCAT**
WILDCAT

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

**5. UNIT or COMMUNITIZATION AGREEMENT NAME**
CRESCENT

**6. NAME OF OPERATOR**
TIDEWATER OIL & GAS COMPANY, LLC

**7. OPERATOR PHONE**
303 468-0656 201

**8. ADDRESS OF OPERATOR**
110 16th St Ste 1220, Denver, CO, 80202

**9. OPERATOR E-MAIL**
jjones@tidewater-oil.com

**10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)**
ML51628

**11. MINERAL OWNERSHIP**
FEDERAL ○ INDIAN ○ STATE ◉ FEE ○

**12. SURFACE OWNERSHIP**
FEDERAL ○ INDIAN ○ STATE ○ FEE ◉

**13. NAME OF SURFACE OWNER (if box 12 = 'fee')**
Mae Dean Wheeler Trust

**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
713-223-4439

**15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')**
1919 Whitney Street, Suite 100, Houston, TX 77006

**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
tjohnson@tidewater-oil.com

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

**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 | 158 FNL 2224 FEL | NWNE | 32 | 21.0 S | 19.0 E | S |
| Top of Uppermost Producing Zone | 268 FNL 2334 FEL | NENW | 32 | 21.0 S | 19.0 E | S |
| At Total Depth | 1271 FNL 1928 FWL | NENW | 32 | 21.0 S | 19.0 E | S |

**21. COUNTY**
GRAND

**22. DISTANCE TO NEAREST LEASE LINE (Feet)**
49

**23. NUMBER OF ACRES IN DRILLING UNIT**
40

**25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)**
5280

**26. PROPOSED DEPTH**
MD: 3855 TVD: 2662

**27. ELEVATION - GROUND LEVEL**
4861

**28. BOND NUMBER**
394312687392

**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE**
Town of Thompson Springs

### Hole, Casing, and Cement Information

| String | Hole Size | Casing Size | Length | Weight | Grade & Thread | Max Mud Wt. | Cement | Sacks | Yield | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| COND | 20 | 16 | 0 - 60 | 65.0 | H-40 ST&C | 8.4 | Type II | 75 | 1.0 | 14.7 |
| SURF | 12.25 | 9.625 | 0 - 500 | 36.0 | J-55 ST&C | 8.4 | Rockies Lite | 150 | 2.08 | 12.8 |
| PROD | 8.5 | 5.5 | 0 - 3855 | 17.0 | N-80 LT&C | 9.0 | Halliburton Light , Type Unknown | 460 | 2.08 | 12.8 |

### 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** Walter Lowry | **TITLE** Engineer | **PHONE** 303 884-5505

**SIGNATURE** | **DATE** 08/22/2012 | **EMAIL** wlowry@tidewater-oil.com

**API NUMBER ASSIGNED**
43019500260000

**APPROVAL**

Permit Manager

CONFIDENTIAL

RECEIVED: November 05, 2012

# TIDEWATER OIL & GAS COMPANY LLC

**Tidewater State 32-31H-2119**
**NWNE 158' FNL & 2224' FEL Sec. 32-T21S-R19E**
**Grand County, Utah**
**Lease # ML-51628**

## ONSHORE ORDER 1: 9-POINT DRILLING PLAN

### 1. Estimated Tops of Geological & Directional Markers:

| Formation Top | Depth (Est 11' KB) TVD (near wellbore) | Depth (Est 11' KB) Measured Depth |
|---|---|---|
| Mancos Shale | Surface | Surface |
| Kick Off Point (KOP) | 2002' | 2002' |
| Mancos Shale- Top Juana Lopez "M" | 2394' | 2434' |
| End of Build Section | 2573' | 2851' |
| Mancos Shale- Juana Lopez "M" (Target CL) | 2573'-2662' | 2851'-3855' |
| Dakota Silt | 2721' | NA |
| Base Dakota Sand/ Top Brushy Basin | 2748' | NA |
| Proposed TD of pilot hole | 2900' | 2900' |
| Proposed TD of Horizontal Leg | 2662' | 3900' |

- All formation tops are based upon a GL elevation of 4861' and a rig KB height of 11'.

### 2. Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals: (per Proposed Wellbore Construction Diagram attached)

| Formation | Depth (Est 15' KB) | Substance |
|---|---|---|
| Mancos- Juana Lopez "M" | 2394'-2721' TVD near wellbore | Oil |
| Estimated TD Horizontal | 2662' TVD, 3900' MD | |

### 3. Pressure Control Equipment: (3000 psi schematic attached)

A. Type: Eleven (11) inch 3M hydraulic BOP on 9-5/8" SOW x 11" 3M casing head, with 3M psi choke manifold equipped per the attached diagram. BOPE as specified in *Onshore Oil & Gas Order Number 1.*

B. A PVT, stroke counter and flow sensor will be installed to check for flow and monitor pit volume.

C. Pressure Rating: 3,000 psi BOPE.

D. Testing Procedure:

Blow-Out Preventer (Pipe Rams and Blind Rams)

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 yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period





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of at least ten (10) minutes or until the requirements of 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 to the above, 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.

E. Miscellaneous Information:

The blowout 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*.

## 4. Proposed Casing & Cementing Program:

**A. Casing Program**: All New

| Hole Size | Casing Size | Wt./Ft. | Grade | Joint | Depth Set (MD) |
|---|---|---|---|---|---|
| 20” | 16” O.D. | 0.25” w.t. | | | 60’ (BGL) |
| 12-1/4” | 9-5/8” O.D. | 36.0 #/ft | J55 | STC | 0 – 500’ (KB) est. |
| 8-3/4” | 5-1/2” | 17.0 #/ft | N80 | LTC | 0’-3900’ (KB) est. |

The 9-5/8” surface casing will have guide shoe, 1 joint, and float collar. The shoe joint will be centralized with bowspring centralizers in the middle and top of the joint and bowspring centralizers will be placed on every other collar to surface (~6 centralizers total). Thread lock guide shoe and bottom of float collar.

The 5-1/2” production casing will consist of pre-perforated casing from the top of the productive section of the Juana Lopez zone (estimated to be ~2573’ TVD/ 2851’ MD) to TD (projected for 2662’ TVD/ 3900’ MD). Tidewater intends to place an external casing packer (ECP) at 2841’ MD (approximately 10’ above the top of the Juana Lopez productive interval) with a DV tool at 2831’ (approximately 10’ above the ECP). The 5-1/2” production casing will be run with a guide shoe on bottom. Tidewater intends to cement the 5-1/2” casing from the DV tool at 2831’ to 300’ MD/TVD (200’ inside the 9-5/8” surface casing. The 5-1/2” casing will have approximately 30 bow spring centralizers fun in the open hole section.

The surface casing string will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.





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## B. Casing Design Parameters:

| Depth (TVD) | Casing | Collapse (psi)/SF | Burst (psi)/SF | Tension (Mlbs)/SF |
|---|---|---|---|---|
| 60' (GL) | 16" OD | NA | NA | NA |
| 500' (KB) | 9-5/8", 36.0 ppf, J55, STC | 2020/ 8.6 (a) | 3520/ 2.8 (b) | 394M/ 21.8 (c) |
| 0'-3900' | 5-1/2" 17.0 ppf N80 LTC | 6280/ 4.5 (d) | 7740/ 1.6 (e) | 348/ 5.2 (f) |

(a) based on full evacuation of pipe with 9.0 ppg fluid in annulus
(b) based on 9.0 ppg BHP with no fluid in annulus
(c) based on casing string weight in air with no buoyancy
(d) based upon full evacuation of pipe with 10.0 ppg fluid in annulus
(e) based upon 10.0 ppg frac fluid weight plus additional 3500 psi surface pressure
(f) based upon 3900' of casing in air with no buoyancy

## C. Proposed Cementing Program

**Surface Casing -** Cemented to surface

| CASING | SLURRY | FT. of FILL | CEMENT TYPE | SXS | EXCESS (%) | WEIGHT (ppg) | YIELD ($ft^3$/sx) |
|---|---|---|---|---|---|---|---|
| 9-5/8" | Lead/Tail | 500 | Howco Rockies LT cement + 0.25 pps Poly-E-Flake | 150 | 100% | 12.8 | 2.08 |

A cement top job is required if cement fallback is greater than 10' below ground level. Top job (weight 15.8 ppg, yield 1.15 $ft^3$/sx) cement will be premium cement w/ 3% $CaCl_2$.+ 0.25 pps celloflake. Volume as required.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

**Production Casing** – It is anticipated that a DV tool will be run in the production string about 20' above the top of the productive section of the Juana Lopez at approximately 2831' MD. Below the DV tool, it is anticipated that an external casing packer will be run in the openhole lateral to facilitate cementing the 5-1/2" casing from the top of the productive interval to inside the surface casing. The 5-1/2" production casing will be cemented from the DV tool up to ~300' (~200' inside the 9-5/8" surface casing shoe).

| CASING | SLURRY | FT. of FILL | CEMENT TYPE | SXS | EXCESS (%) | WEIGHT (ppg) | YIELD ($ft^3$/sx) |
|---|---|---|---|---|---|---|---|
| 5-1/2" | Lead/Tail | 2531' | Howco Rockies LT cement + 0.25 pps Poly-E-Flake | 460 | 50% in openhole | 12.8 | 2.08 |



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An alternative cementing procedure may be considered depending upon geologic conditions present at the time the lateral section of the well reaches total depth. Tidewater may elect to cement the 5-1/2" production casing throughout the length of the lateral hole. If Tidewater so elects, a cement design will be submitted to the UDOGM for approval via Sundry Notice prior to pumping the cement.

## 5. Drilling Fluids Program:

| Interval (MD) | Mud Weight (ppg) | Fluid Loss (cc/30 min) | Viscosity (sec/qt) | Mud Type |
|---|---|---|---|---|
| 0' – 60' (KB) | <8.4 | NA | 28 | Air/Mist |
| 60'-500' (KB) | 8.4-9.0 | NA | 36-40 | FW Mud LSND |
| 500'-2900' (Pilot Hole) | 8.4-9.0 | <10 | 38-48 | FW Mud LSND |
| 2000'- 3900' Lateral Section | 8.6- 9.5 | NA | 36-42 | 75/25 Oil-Based Mud |

A closed-loop mud system will be utilized while drilling with oil-based mud. Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations. All necessary spill prevention and remediation materials and procedures will be utilized to control any potential discharges of oil-based mud on the surface. A steel tank will be used to collect all of the oil-based mud cuttings. The cuttings will be disposed of at an approved disposal facility in accordance with the rules and regulations of the UDOGM. The viscosities listed above are highly dependent upon wellbore temperature and may exceed the values presented.

## 6. Evaluation Program:

Tests: No drill stem tests are anticipated.

Coring: No cores are currently planned.

Samples: Two (2) sets of cleaned, dried, and labeled formation samples will be taken not less than every 20' from the base of the conductor casing at ~60' to total measured depth of 2900' MD/TVD for the pilot hole and 3900' MD/ 2662' TVD for the horizontal leg.

Logging

A Quad Combo (CNL/FDC/DIL/GR/CAL/BHC or Dipole Sonic) will be run in the 8-3/4" pilot hole from 2900' MD/TVD to the surface casing shoe (~500')' with GR run to surface. If the surface hole is drilled using an MWD or comparable system, a GR module may be run, which would negate the necessity of running the GR log to surface while running openhole logs in the 8-3/4" pilot hole.

A gamma ray module may be run in conjunction with the MWD or equivalent directional drilling system while drilling the curve and the lateral section of the hole.

All actual cement tops will be verified via visual observation or temperature logs, or at Tidewater's discretion, via running of a cement bond log.

Stimulation: A stimulation or frac treatment will be designed for completion of this well based on mud log analysis and surface shows. If a hydraulic fracture treatment is necessary, it will likely be a gelled-diesel or gelled native crude system with approximately 80,000 pounds of 20/40 sand. The drill site, as approved, will be sufficient size to accommodate all completion activities.

## 7. Abnormal Conditions:

No abnormal temperatures or pressures are anticipated. No $H_2S$ has been encountered or known to exist from previous wells drilled to similar depths in the general area.

No lost circulation is expected during the drilling of either the vertical or lateral sections of this well. No water flows are anticipated. Tidewater does not anticipate encountering any zones of potable water during the operations contemplated for this well.

Maximum anticipated bottomhole pressure equals approximately 1245 psi (calculated at 0.434 psi/ft of hole) and maximum anticipated surface pressure equals approximately 979 psi (anticipated bottom hole pressure minus gas gradient of 0.1 psi/ft to surface).

## 8. Anticipated Starting Dates:

- Anticipated Commencement Date- October 1, 2012.
- Drilling Days- Approximately 11 days
- Completion Days - Approximately 10 days
- Anticipate location construction within 30 days of APD approval.

## 9. Variances:

A location exception is being requested, as the proposed surface and bottomhole locations fall outside the 40-acre statewide spacing unit. Tidewater is the lessee for all the leases surrounding the subject lease and well location on all sides, and the State of Utah and the BLM are the only mineral owners within 460' of the proposed wellbore.

## 10. Other:

A Cultural Resource Inventory and Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The reports shall be submitted to the Division of Oil, Gas and Mining and the upon their receipt.

The BHL of the 12-1/4" vertical wellbore and the 8-3/4" vertical pilot hole will be determined by running single shot directional surveys, dropped or run on wireline, at intervals not less than every 500' of vertical hole drilled and on every bit trip in order to verify the location of the wellbore at the proposed KOP. Tidewater may elect to run an MWD while drilling the surface and/or pilot hole(s) in order to verify inclination and azimuth of those holes. Tidewater





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anticipates a GR tool will be run in the MWD package while drilling the curve and the lateral section of the wellbore to assist in maintaining the lateral within the target zone. Kick off point is anticipated to be at approximately 2002' MD/TVD. A curve will be built at a rate of 10 deg/ 100' to a terminal angle of ~85° inclination at an azimuth of approximately 225°.

**General Description of Project:**

The Tidewater State 32-31H-2119 well is intended to be drilled as a horizontal well in the Juana Lopez "M" zone, a member of the Mancos Shale. After ~60' of 16" conductor casing is pre-set, the location will be prepared for oil-based mud operations, including but not limited to, berms around steel circulating tanks, 3 mil plastic pit liner laid under the steel tank, drip pans on key sections of the rig, and other required or prudent preparations. The well will be drilled using a closed system without the use of an earthen reserve pit for the oil-based mud portion of the hole. All oil-based mud formation cuttings will be captured in a steel tank and treated and disposed of in accordance with requirements of the UDOGM, and prudent oilfield operations.

The well will be spud with a 12-1/4" bit and fresh water-based mud to a depth of 500'. At a minimum, wireline directional surveys will be run at intervals not exceeding 500'. At ~500' MD/TVD 9-5/8" 36#/ft J55 STC surface casing will be run and cemented to surface. If cement is not circulated to surface, or if cement falls past 10' BGL, the 9-5/8" x 12-1/4" annulus will be filled to surface from the top of cement to surface using 1" tubing.

The surface casing will be drilled out using an 8-3/4" bit, and a vertical pilot hole will be drilled to a depth of ~2900' MD/TVD. The pilot hole will be logged using a Quad-Combo logging suite with the potential addition of a dipmeter or formation imaging log. The GR will be run to surface, unless a gamma ray module was used on the MWD assembly used to control drill the surface hole.

After logging, a cement plug(s) will be set from 2900' to ~2000' to isolate the vertical pilot hole and provide a kick-off plug for drilling the curve of the Juana Lopez "M" horizontal. The proposed kick-off point and terminal inclination of the proposed horizontal leg will be adjusted after evaluation of the electric logs.

An 8-3/4" bit and directional drilling assembly will be run in the hole to dress off the cement plug to a proposed KOP of 2000' MD/TVD (or an adjusted KOP if openhole logs so dictate). The horizontal wellbore will be drilled pursuant to the attached directional plan. The intended build rate (BUR) of the curve section will be ~10° per 100' at an azimuth of ~225°. The terminal angle is estimated to be ~85°, as it is anticipated the Juana Lopez "M" zone will be dipping down at ~5° along the proposed target line azimuth.

The projected end of build (EOB) at the Juana Lopez "M" target centerline will be at 2851' MD, 2573' TVD. From the EOB, the 8-3/4" lateral will be drilled at a projected inclination of 85° and an azimuth of 225° to a projected total depth of 3900' MD, 2662' TVD. A gamma ray module will be used in conjunction with the directional drilling assembly in order to assist Tidewater in its efforts to maintain the lateral leg within the Juana Lopez "M" zone.





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After reaching TD of the horizontal leg, Tidewater will evaluate all drilling and geologic parameters to determine the appropriate completion technique. The preferred completion procedure will include running pre-perforated 5-1/2" 17.0 #/ft N80 LTC production string in the productive interval of the horizontal leg. An ECP and multi-stage cementing tool (DV tool) combination will be placed at ~2850' MD in order to facilitate cementing of the production string from the DV tool to ~300' MD/TVD (approximately 200' up inside the surface casing shoe) prior to conducting hydraulic fracturing operations.

Depending on geologic conditions existing at the time the horizontal leg reaches TD, Tidewater may elect to cement the production string in place throughout the entire length of the lateral and up inside the surface casing shoe to ~300' In this case the production string in the lateral will be selectively perforated and hydraulically fracture treated.

If after reaching total depth of the lateral Tidewater determines from mud log samples and shows that establishment of commercial production from the Juana Lopez "M" zone is unlikely, the lateral leg will be plugged and abandoned in compliance with UDOGM rules and regulations and requirements. Other potentially productive zones in the vertical section of hole will be evaluated prior to deciding to P&A the entire well.





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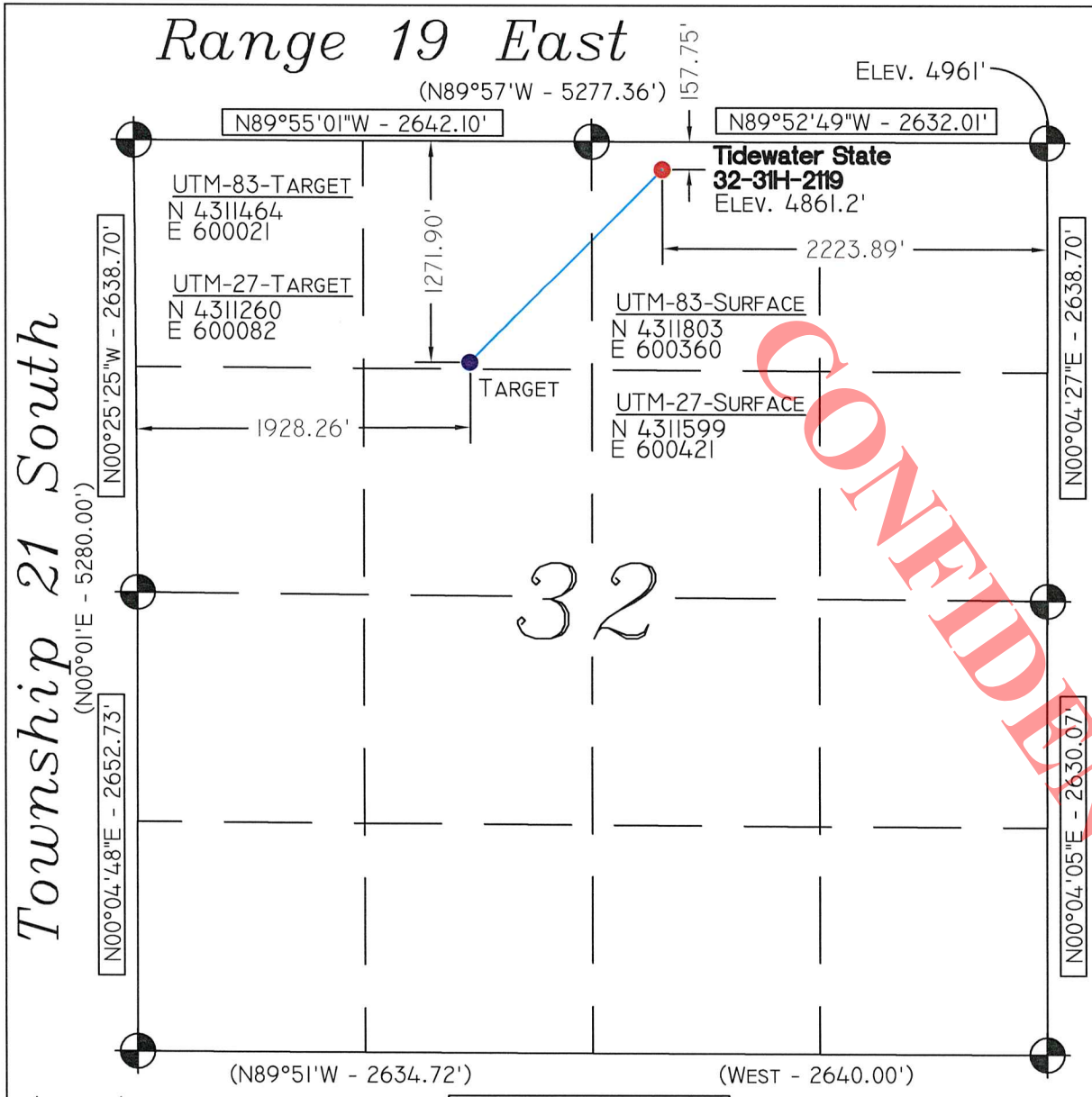


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## Location:
The well location was determined using a Trimble 5700 GPS survey grade unit.

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

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

## Basis of Elevation:
Basis of Elevation of 4961' being at the Northeast Section Corner of Section 32, Township 21 South, Range 19 East, Salt Lake Base and Meridian, as shown on the Crescent Junction Quadrangle 7.5 minute series map.

## Description of Location:
Surface
Proposed Drill Hole located in the NW/4 NE/4 of Section 32, T21S, R19E, S.L.B.&M., being 157.75' South from the North line and 2223.89' West from the East line of Section 32, T21S, R19E, Salt Lake Base & Meridian.

Target
Proposed Target located in the NE/4 NW/4 of Section 32, T21S, R19E, S.L.B.&M., being 1271.90' South from the North line and 1928.26' East from the West line of Section 32, T21S, R19E, Salt Lake Base & Meridian.

## Surveyor's Certificate:
I, John S. Huefner, a Professional Land Surveyor, holding Certificate No. 144842 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.

Professional Land Surveyor
No. 144842
JOHN S. HUEFNER
State of Utah


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


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

UTM and Latitude/Longitude Coordinates are derived using a GPS Pathfinder.

| SURFACE | |
|---|---|
| NAD 83/WGS 84 - LAT / LONG | |
| 38°56'57.975"N | 38.94944°N |
| 109°50'30.634"W | 109.84184°W |
| NAD 27 - LAT / LONG | |
| 38°56'58.079"N | 38.94946°N |
| 109°50'28.181"W | 109.84117°W |

| TARGET | |
|---|---|
| NAD 83/WGS 84 - LAT / LONG | |
| 38°56'47.106"N | 38.94642°N |
| 109°50'44.903"W | 109.84580°W |
| NAD 27 - LAT / LONG | |
| 38°56'47.209"N | 38.94645°N |
| 109°50'42.450"W | 109.84512°W |

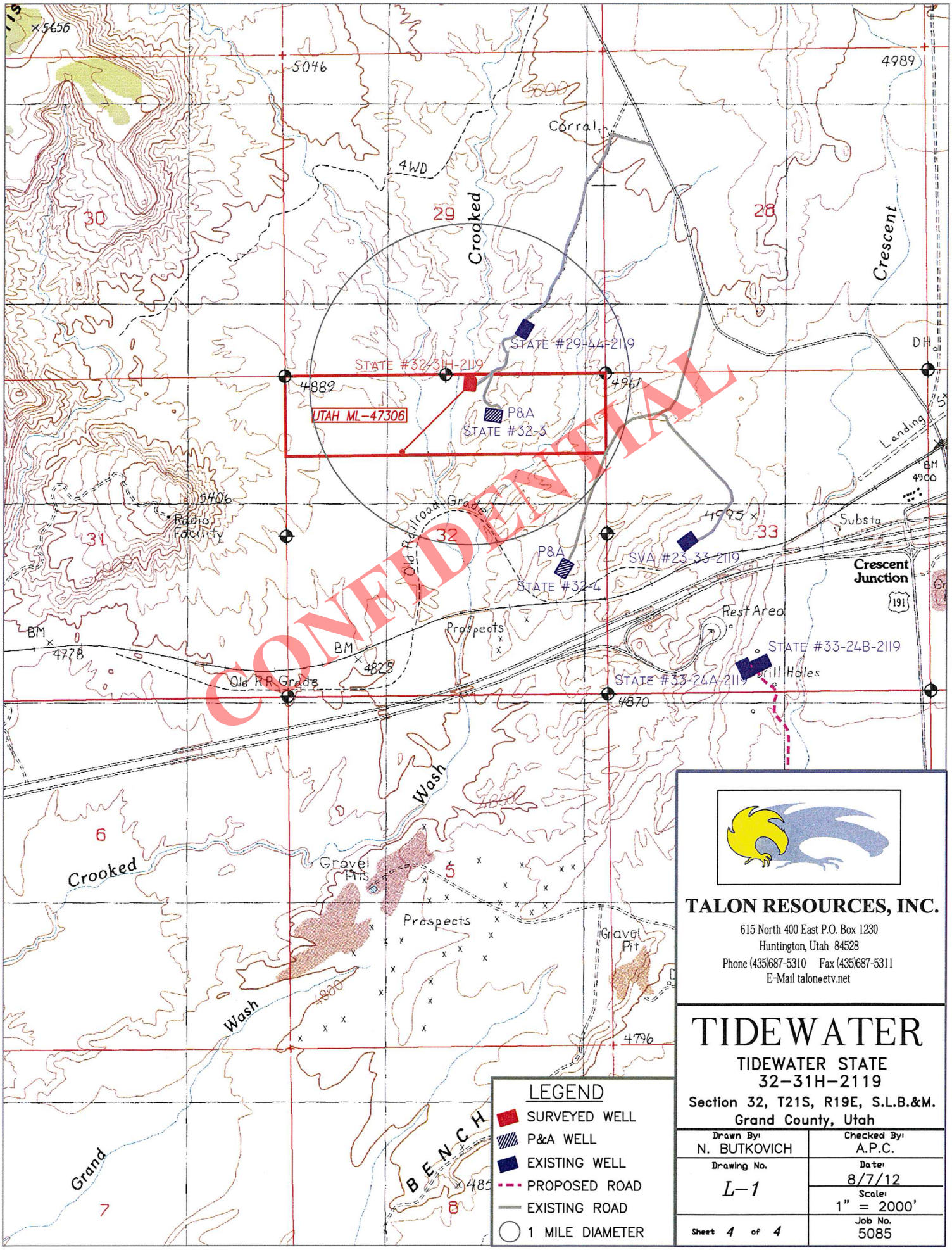
GRAPHIC SCALE
0 500' 1000'
( IN FEET )
1 inch = 1000 ft.

# TIDEWATER
TIDEWATER STATE
32-31H-2119
Section 32, T21S, R19E, S.L.B.&M.
Grand County, Utah

| | |
|---|---|
| Drawn By: N. BUTKOVICH | Checked By: A.P.C./J.S.H. |
| Drawing No. A-1 | Date: 8/6/12 |
| | Scale: 1" = 1000' |
| Sheet 1 of 4 | Job No. 5085 |

API Well Number: 43019500260000

API Well Number: 43019500260000






LEGEND

- SURVEYED WELL
- P&A WELL
- EXISTING WELL
- PROPOSED ROAD
- EXISTING ROAD
- 1 MILE DIAMETER

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

# TIDEWATER

**TIDEWATER STATE 32-31H-2119**

Section 32, T21S, R19E, S.L.B.&M.
Grand County, Utah

| Drawn By: N. BUTKOVICH | Checked By: A.P.C. |
|---|---|
| Drawing No. L-1 | Date: 8/7/12 |
| | Scale: 1" = 2000' |
| Sheet 4 of 4 | Job No. 5085 |

API Well Number: 43019500260000

# Tidewater Oil & Gas, LLC

**Grand County, UT**
**Section 32-T21S-R19E**
**Tidewater State 32-31H-2119**

**Wellbore #1**

**Plan: Preliminary Directional Plan for APD 08-15-12**



# Standard Planning Report

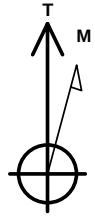
**15 August, 2012**

RECEIVED: August 22, 2012

API Well Number: 43019500260000

**Tidewater Oil & Gas, LLC**
**Tidewater State 32-31H-2119**
**Grand County, UT**

**Geodetic System: US State Plane 1983**
**Zone: Utah Central Zone**
**WELL @ 0.0usft (Original Well Elev)**
**Ground Level: 4861.2**
**Latitude: 38° 56' 57.975 N**
**Longitude: 109° 50' 30.634 W**
**Magnetic North is 10.92° East of True North (Magnetic Declination)**

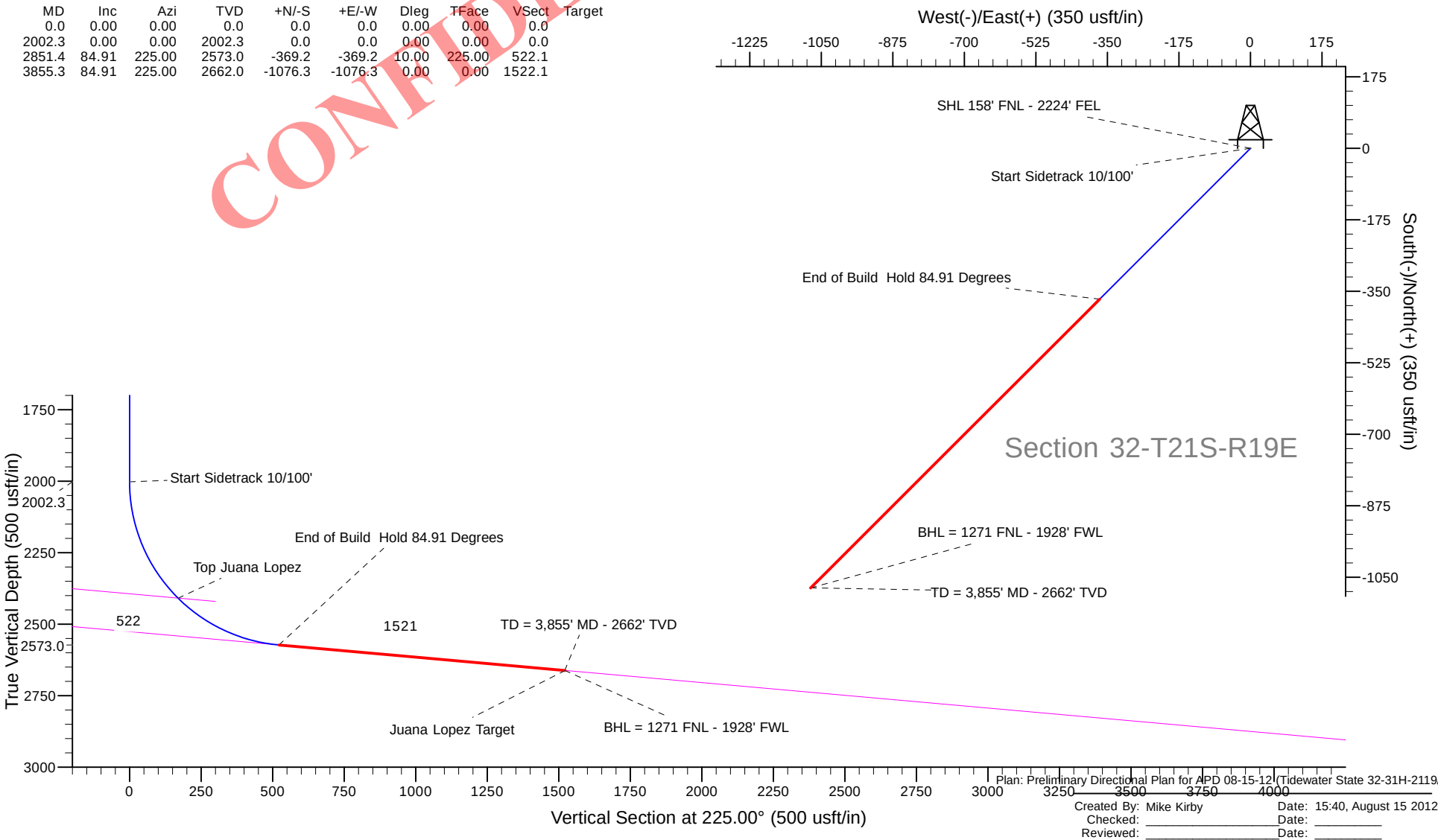



Azimuths to True North
Magnetic North: 10.92°

Magnetic Field
Strength: 51628.3snT
Dip Angle: 64.90°
Date: 8/13/2012
Model: IGRF2010



| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2002.3 | 0.00 | 0.00 | 2002.3 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2851.4 | 84.91 | 225.00 | 2573.0 | -369.2 | -369.2 | 10.00 | 225.00 | 522.1 | |
| 3855.3 | 84.91 | 225.00 | 2662.0 | -1076.3 | -1076.3 | 0.00 | 0.00 | 1522.1 | |




Plan: Preliminary Directional Plan for APD 08-15-12 (Tidewater State 32-31H-2119/Wellbore

Created By: Mike Kirby Date: 15:40, August 15 2012
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: x Date: x

RECEIVED: August 22, 2012

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Rocky Mountain R5000 Database | **Local Co-ordinate Reference:** | Site Section 32-T21S-R19E |
| **Company:** | Tidewater Oil & Gas, LLC | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Project:** | Grand County, UT | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | Section 32-T21S-R19E | **North Reference:** | True |
| **Well:** | Tidewater State 32-31H-2119 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Preliminary Directional Plan for APD 08-15-12 | | |

**Project** Grand County, UT

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | Utah Central Zone | | |

**Site** Section 32-T21S-R19E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 6,790,450.21 usft | **Latitude:** | 38° 56' 57.975 N |
| **From:** | Lat/Long | **Easting:** | 2,111,992.57 usft | **Longitude:** | 109° 50' 30.634 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 1.06 ° |

**Well** Tidewater State 32-31H-2119

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.0 usft | **Northing:** | 6,790,450.21 usft | **Latitude:** | 38° 56' 57.975 N |
| | **+E/-W** | 0.0 usft | **Easting:** | 2,111,992.57 usft | **Longitude:** | 109° 50' 30.634 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | | **Ground Level:** | 4,861.2 usft |

**Wellbore** Wellbore #1

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2010 | 8/13/2012 | 10.92 | 64.90 | 51,628 |

**Design** Preliminary Directional Plan for APD 08-15-12

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PROTOTYPE | **Tie On Depth:** | 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|---|---|---|---|---|
| | 0.0 | 0.0 | 0.0 | 225.00 |

**Plan Sections**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,002.3 | 0.00 | 0.00 | 2,002.3 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,851.4 | 84.91 | 225.00 | 2,573.0 | -369.2 | -369.2 | 10.00 | 10.00 | 0.00 | 225.00 | |
| 3,855.3 | 84.91 | 225.00 | 2,662.0 | -1,076.3 | -1,076.3 | 0.00 | 0.00 | 0.00 | 0.00 | |





RECEIVED: August 22, 2012

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Rocky Mountain R5000 Database | **Local Co-ordinate Reference:** | Site Section 32-T21S-R19E |
| **Company:** | Tidewater Oil & Gas, LLC | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Project:** | Grand County, UT | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | Section 32-T21S-R19E | **North Reference:** | True |
| **Well:** | Tidewater State 32-31H-2119 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Preliminary Directional Plan for APD 08-15-12 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1.0 | 0.00 | 0.00 | 1.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **SHL 158' FNL - 2224' FEL** | | | | | | | | | |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **9 5/8"** | | | | | | | | | |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,002.3 | 0.00 | 0.00 | 2,002.3 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Start Sidetrack 10/100'** | | | | | | | | | |
| 2,100.0 | 9.77 | 225.00 | 2,099.5 | -5.9 | -5.9 | 8.3 | 10.00 | 10.00 | 0.00 |
| 2,200.0 | 19.77 | 225.00 | 2,196.1 | -23.9 | -23.9 | 33.8 | 10.00 | 10.00 | 0.00 |
| 2,300.0 | 29.77 | 225.00 | 2,286.8 | -53.5 | -53.5 | 75.6 | 10.00 | 10.00 | 0.00 |
| 2,400.0 | 39.77 | 225.00 | 2,368.8 | -93.7 | -93.7 | 132.6 | 10.00 | 10.00 | 0.00 |
| 2,433.6 | 43.13 | 225.00 | 2,394.0 | -109.5 | -109.5 | 154.8 | 10.00 | 10.00 | 0.00 |
| **Top Juana Lopez** | | | | | | | | | |
| 2,500.0 | 49.77 | 225.00 | 2,439.7 | -143.5 | -143.5 | 202.9 | 10.00 | 10.00 | 0.00 |
| 2,600.0 | 59.77 | 225.00 | 2,497.3 | -201.2 | -201.2 | 284.5 | 10.00 | 10.00 | 0.00 |
| 2,700.0 | 69.77 | 225.00 | 2,539.9 | -265.0 | -265.0 | 374.8 | 10.00 | 10.00 | 0.00 |
| 2,800.0 | 79.77 | 225.00 | 2,566.1 | -333.2 | -333.2 | 471.2 | 10.00 | 10.00 | 0.00 |
| 2,851.4 | 84.91 | 225.00 | 2,573.0 | -369.2 | -369.2 | 522.1 | 10.00 | 10.00 | 0.00 |
| **End of Build Hold 84.91 Degrees - Juana Lopez Target** | | | | | | | | | |
| 2,900.0 | 84.91 | 225.00 | 2,577.3 | -403.4 | -403.4 | 570.5 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 84.91 | 225.00 | 2,586.2 | -473.9 | -473.9 | 670.1 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 84.91 | 225.00 | 2,595.0 | -544.3 | -544.3 | 769.7 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 84.91 | 225.00 | 2,603.9 | -614.7 | -614.7 | 869.4 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 84.91 | 225.00 | 2,612.8 | -685.2 | -685.2 | 969.0 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 84.91 | 225.00 | 2,621.7 | -755.6 | -755.6 | 1,068.6 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 84.91 | 225.00 | 2,630.5 | -826.0 | -826.0 | 1,168.2 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 84.91 | 225.00 | 2,639.4 | -896.5 | -896.5 | 1,267.8 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 84.91 | 225.00 | 2,648.3 | -966.9 | -966.9 | 1,367.4 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 84.91 | 225.00 | 2,657.1 | -1,037.3 | -1,037.3 | 1,467.0 | 0.00 | 0.00 | 0.00 |
| 3,854.7 | 84.91 | 225.00 | 2,662.0 | -1,075.8 | -1,075.8 | 1,521.5 | 0.00 | 0.00 | 0.00 |
| **BHL = 1271 FNL - 1928' FWL - TD = 3,855' MD - 2662' TVD** | | | | | | | | | |
| 3,855.3 | 84.91 | 225.00 | 2,662.0 | -1,076.3 | -1,076.3 | 1,522.1 | 0.00 | 0.00 | 0.00 |
| **State 32-31H-2119 PBHL** | | | | | | | | | |

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Rocky Mountain R5000 Database | **Local Co-ordinate Reference:** | Site Section 32-T21S-R19E |
| **Company:** | Tidewater Oil & Gas, LLC | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Project:** | Grand County, UT | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | Section 32-T21S-R19E | **North Reference:** | True |
| **Well:** | Tidewater State 32-31H-2119 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Preliminary Directional Plan for APD 08-15-12 | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| State 32-31H-2119 PBH<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 2,662.0 | -1,076.3 | -1,076.3 | 6,789,354.14 | 2,110,936.40 | 38° 56' 47.337 N | 109° 50' 44.257 W |

**Casing Points**

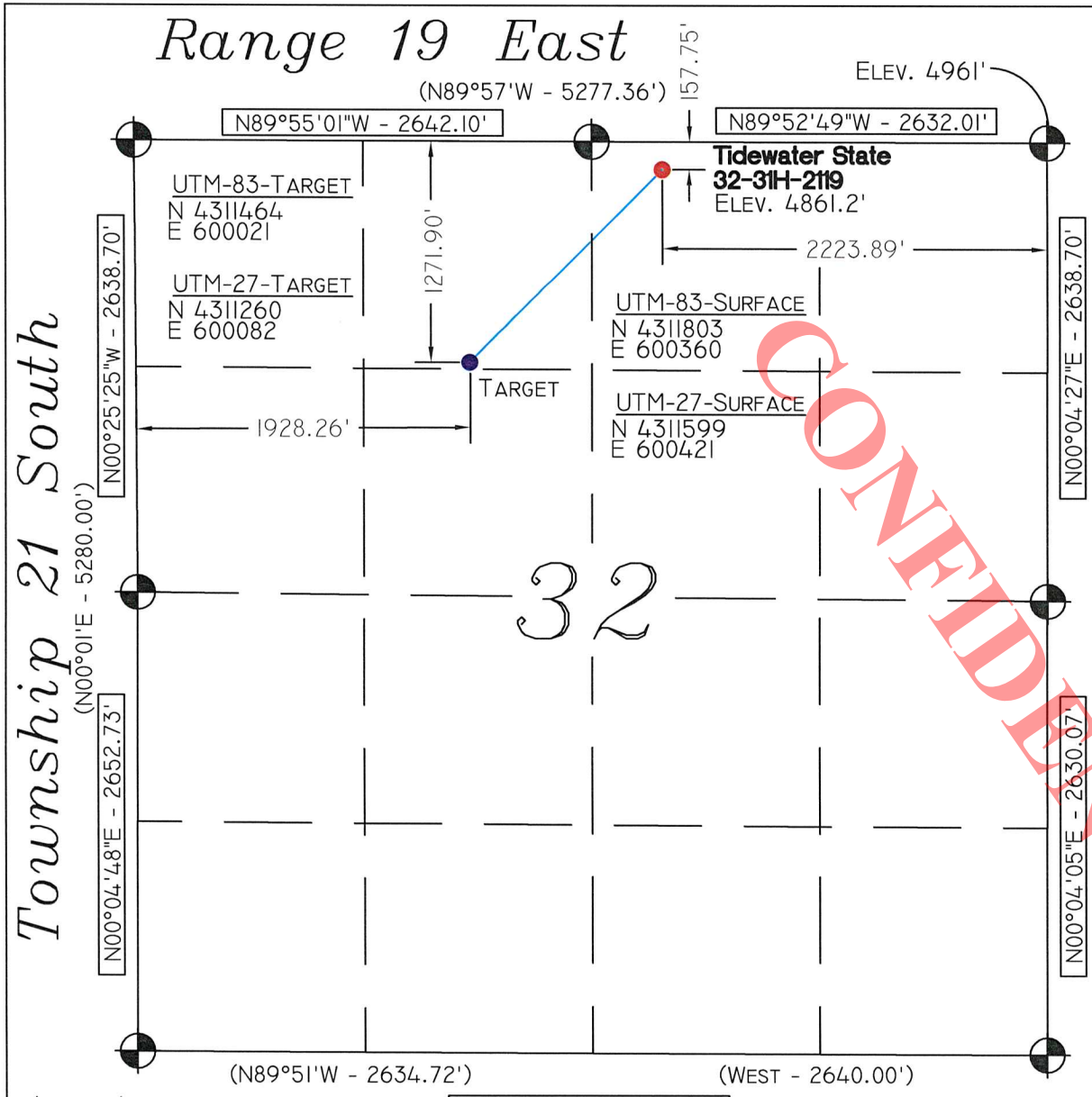
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |
|---|---|---|---|---|
| 400.0 | 400.0 | 9 5/8" | 9-5/8 | 12-1/4 |

**Formations**

| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 2,433.6 | 2,394.0 | Top Juana Lopez | | 0.00 | |
| 2,851.4 | 2,573.0 | Juana Lopez Target | | 0.00 | |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 1.0 | 1.0 | 0.0 | 0.0 | SHL 158' FNL - 2224' FEL |
| 2,002.3 | 2,002.3 | 0.0 | 0.0 | Start Sidetrack 10/100' |
| 2,851.4 | 2,573.0 | -369.2 | -369.2 | End of Build Hold 84.91 Degrees |
| 3,854.7 | 2,662.0 | -1,075.8 | -1,075.8 | BHL = 1271 FNL - 1928' FWL |
| 3,854.7 | 2,662.0 | -1,075.8 | -1,075.8 | TD = 3,855' MD - 2662' TVD |




CONFIDENTIAL

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

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

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

## Basis of Elevation:
Basis of Elevation of 4961' being at the Northeast Section Corner of Section 32, Township 21 South, Range 19 East, Salt Lake Base and Meridian, as shown on the Crescent Junction Quadrangle 7.5 minute series map.

## Description of Location:
Surface
Proposed Drill Hole located in the NW/4 NE/4 of Section 32, T21S, R19E, S.L.B.&M., being 157.75' South from the North line and 2223.89' West from the East line of Section 32, T21S, R19E, Salt Lake Base & Meridian.

Target
Proposed Target located in the NE/4 NW/4 of Section 32, T21S, R19E, S.L.B.&M., being 1271.90' South from the North line and 1928.26' East from the West line of Section 32, T21S, R19E, Salt Lake Base & Meridian.

## Surveyor's Certificate:
I, John S. Huefner, a Professional Land Surveyor, holding Certificate No. 144842 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.

Professional Land Surveyor
No. 144842
JOHN S. HUEFNER
State of Utah


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


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

UTM and Latitude/Longitude Coordinates are derived using a GPS Pathfinder.

| SURFACE | |
|---|---|
| NAD 83/WGS 84 - LAT / LONG | |
| 38°56'57.975"N | 38.94944°N |
| 109°50'30.634"W | 109.84184°W |
| NAD 27 - LAT / LONG | |
| 38°56'58.079"N | 38.94946°N |
| 109°50'28.181"W | 109.84117°W |

| TARGET | |
|---|---|
| NAD 83/WGS 84 - LAT / LONG | |
| 38°56'47.106"N | 38.94642°N |
| 109°50'44.903"W | 109.84580°W |
| NAD 27 - LAT / LONG | |
| 38°56'47.209"N | 38.94645°N |
| 109°50'42.450"W | 109.84512°W |

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

# TIDEWATER
TIDEWATER STATE
32-31H-2119
Section 32, T21S, R19E, S.L.B.&M.
Grand County, Utah

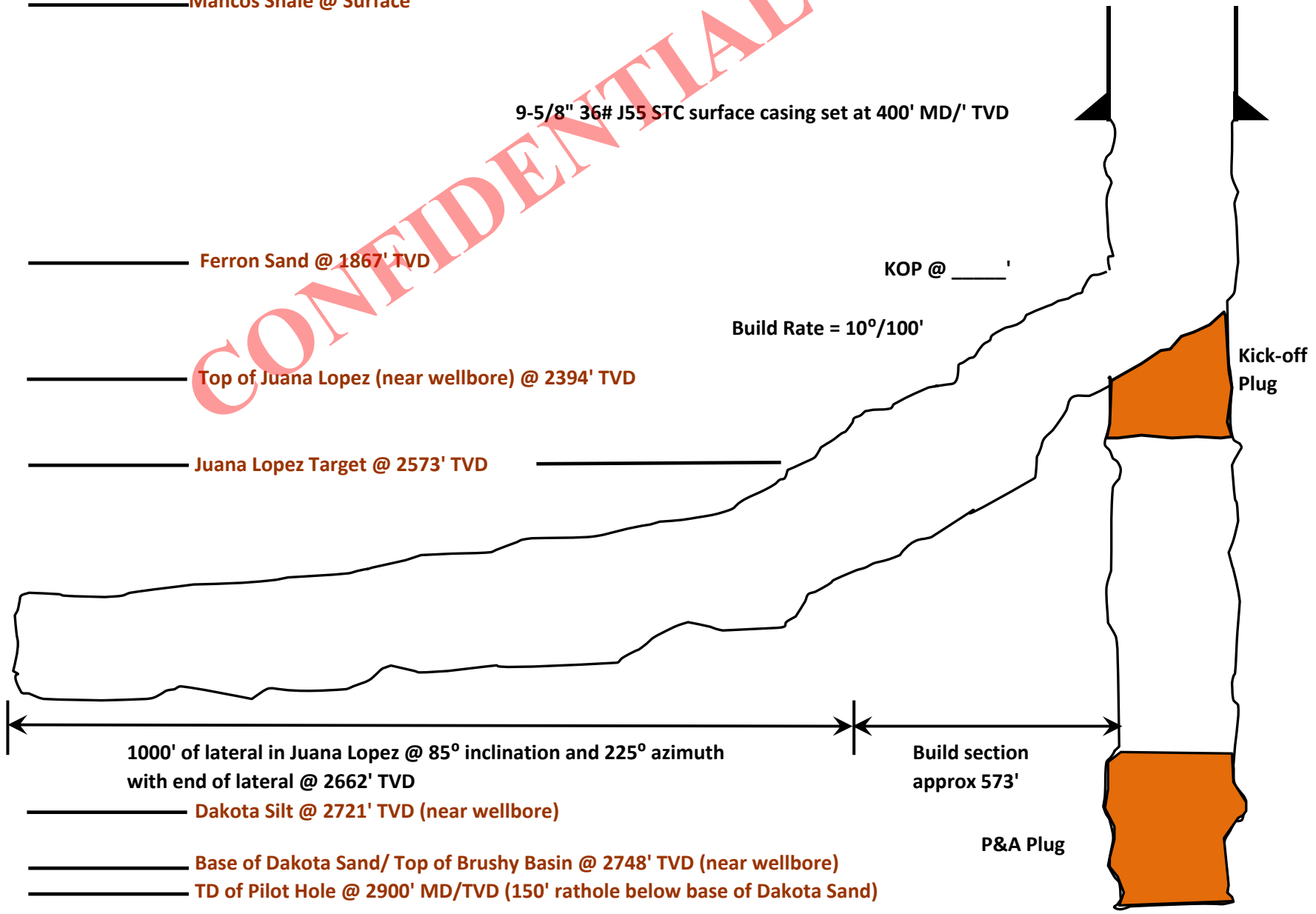
| | |
|---|---|
| Drawn By: N. BUTKOVICH | Checked By: A.P.C./J.S.H. |
| Drawing No. A-1 | Date: 8/6/12 |
| | Scale: 1" = 1000' |
| Sheet 1 of 4 | Job No. 5085 |

API Well Number: 43019500260000

API Well Number: 43019500260000

# Tidewater State 32-31H-2119
## Proposed Wellbore Construction Diagram

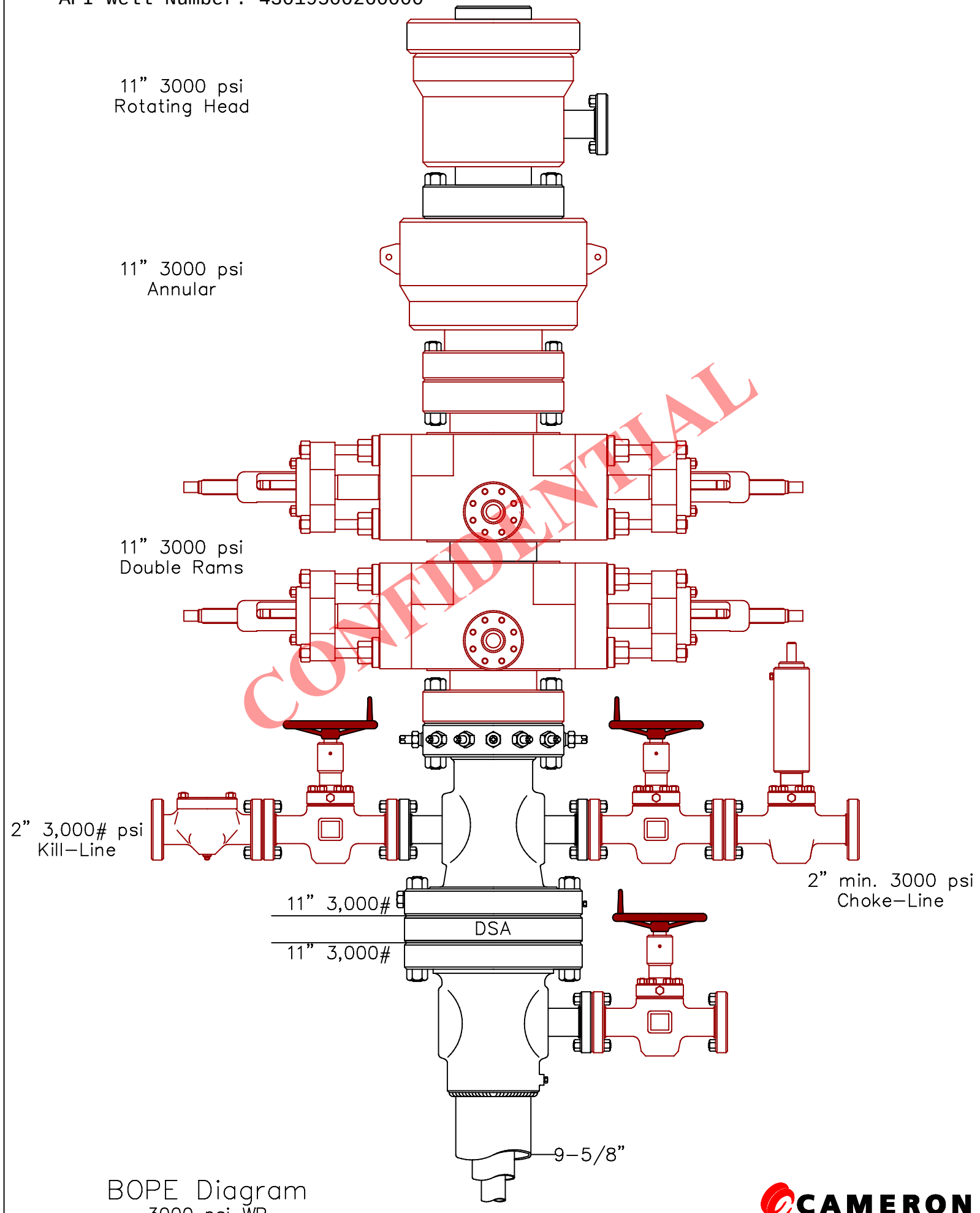





wdl
v1 08-14-12

RECEIVED: August 22, 2012

API Well Number: 43019500260000



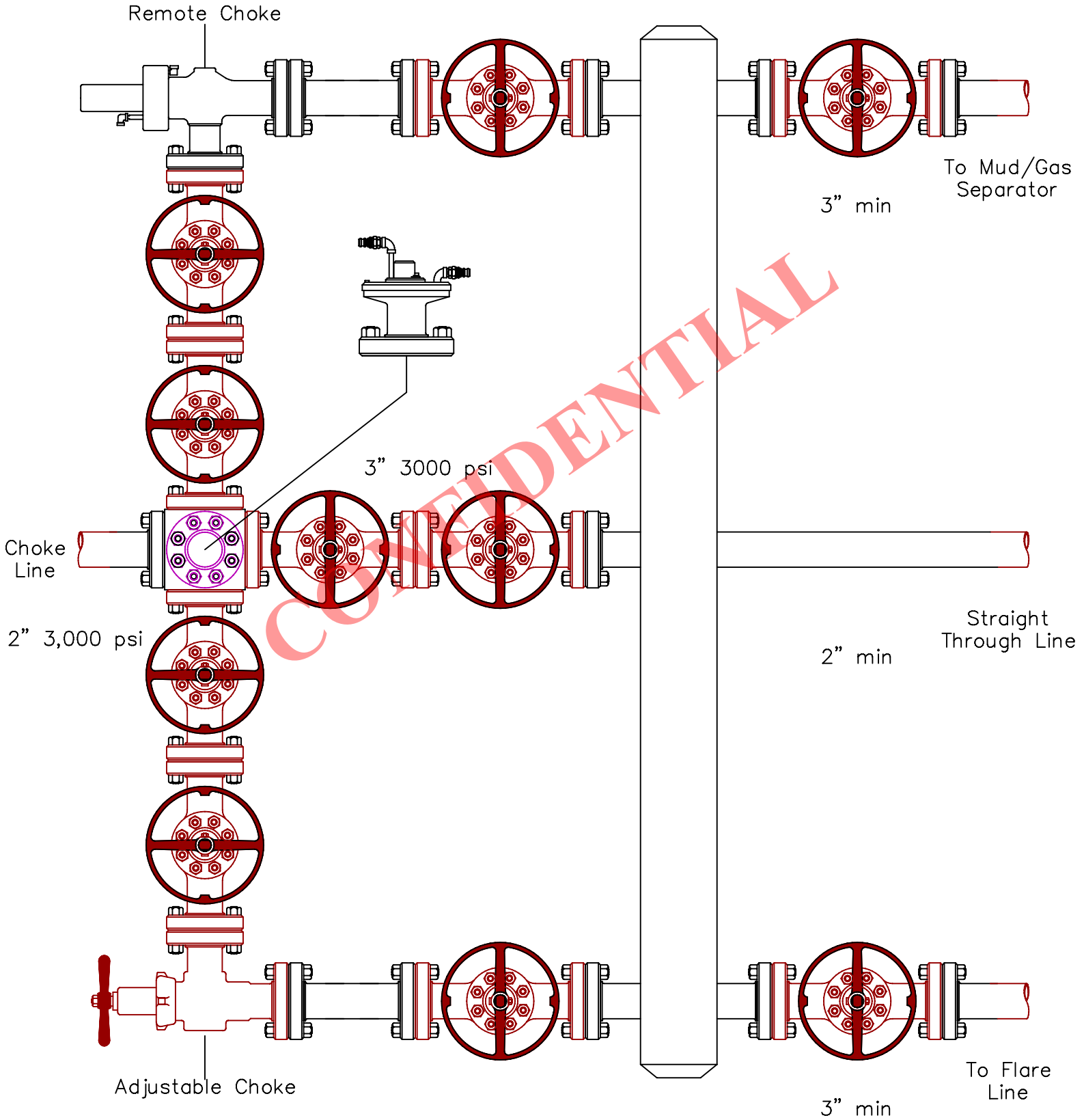



BOPE Diagram
3000 psi WP

Class 2

| Name: | Jeanette | Date: | 8-20-07 | Working Pressure: | 3,000# | J-7746-7 |
|---|---|---|---|---|---|---|

API Well Number: 43019500260000

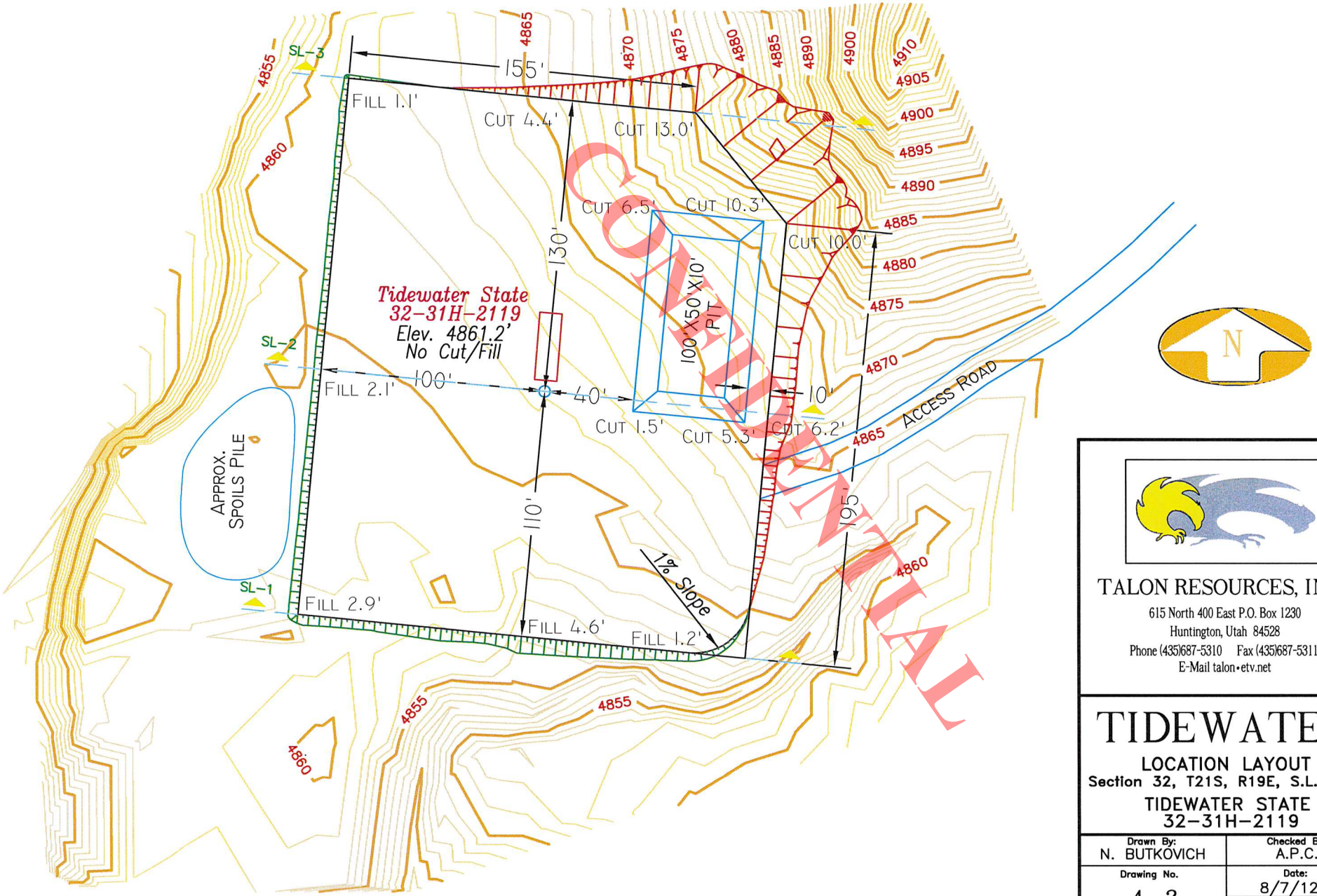





Choke Manifold
(Typical)
Class 2

| Name: | Jeanette | Date: | 8-20-07 | Working Pressure: | 3,000 # | J-7746-5 |
|---|---|---|---|---|---|---|

ELEVATION OF GRADED GROUND AT LOCATION STAKE = 4861.2'





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


# TIDEWATER

## LOCATION LAYOUT

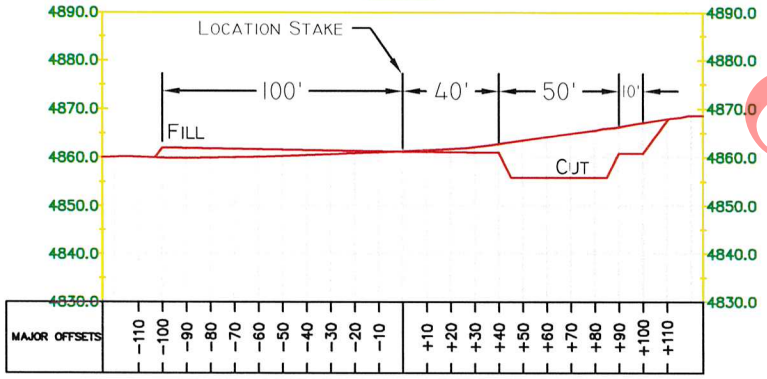
Section 32, T21S, R19E, S.L.B.&M.

TIDEWATER STATE
32-31H-2119

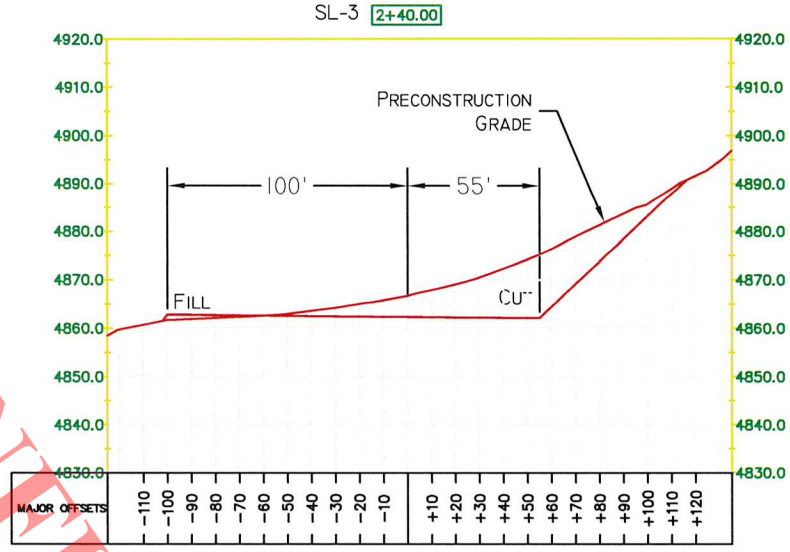
| | |
|---|---|
| Drawn By: N. BUTKOVICH | Checked By: A.P.C. |
| Drawing No. A-2 | Date: 8/7/12 |
| | Scale: 1" = 60' |
| Sheet 2 of 4 | Job No. 5085 |

API Well Number: 43019500260000

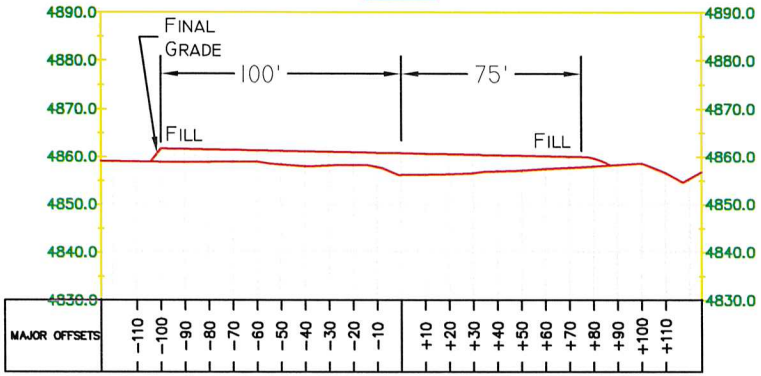
SL-2 1+10.00




SL-3 2+40.00




SL-1 0+00.00






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

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

## APPROXIMATE YARDAGES

TOTAL CUT (INCLUDING PIT) = 5,210 CU. YDS.
TOTAL FILL = 1,535 CU. YDS.

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

# TIDEWATER

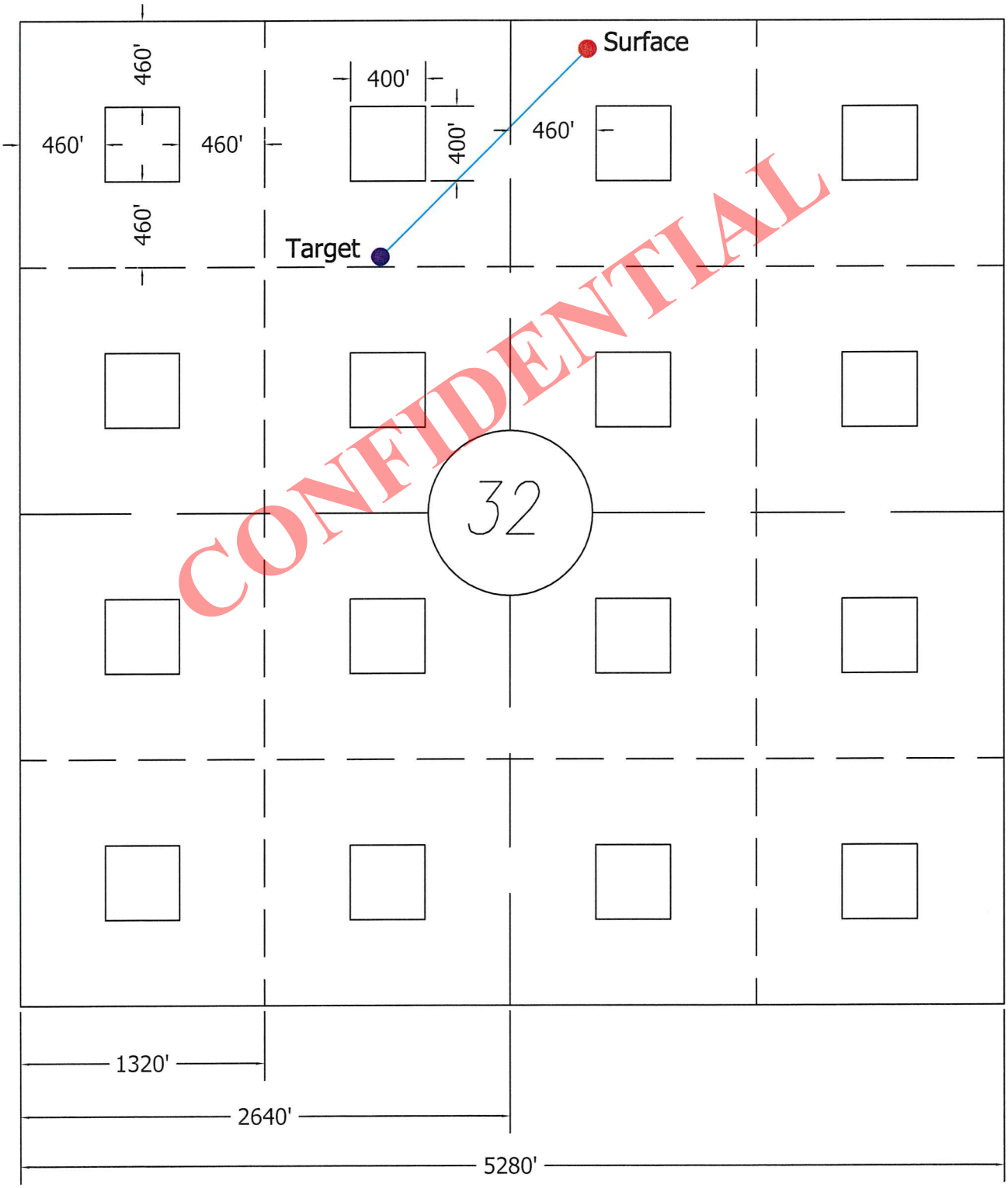
**TYPICAL CROSS SECTION**
**Section 32, T21S, R19E, S.L.B.&M.**

**TIDEWATER STATE 32-31H-2119**

| | |
|---|---|
| Drawn By: N. BUTKOVICH | Checked By: A.P.C. |
| Drawing No. C-1 | Date: 8/7/12 |
| | Scale: 1" = 80' |
| Sheet 3 of 4 | Job No. 5085 |

API Well Number: 43019500260000

# 40 Acre Spacing
# Well Name: 32-31H-2119



# TIDEWATER OIL & GAS COMPANY LLC

110 16th Street, Suite 405 Denver, Colorado 80202 (303) 468-0656

August 22, 2012

Ms. Diana Whitney
Utah Division of Oil, Gas and Mining
1594 West North Temple
Suite 1210
Salt Lake City, Utah 84114-5801

Re: Application for Permit to Drill – Location Exception Letter
Tidewater State 32-31H-2119
NWNE Sec 32, T21S, R19E
158' FNL, 2224' FEL
ML-51628
Grand County, Utah



Dear Ms. Whitney:

Pursuant to Utah Administrative Code §R649-3-3 Exception to Location and Siting of Wells, Tidewater Oil & Gas Company LLC ("Tidewater") hereby requests an exception location for the referenced well. Tidewater is the lessee of the following leases:

- UTU-88364: S/2 of Sections 29 & 30 and N/2 of Section 31 of T21S-R19E
- UTU-79788: S/2 of Section 28-T21S-R19E
- ML-47441: S/2 N/2 Section 32-T21S-R19E
- ML-47441: All of Section 33-T21S-R19E

and therefore controls all offsetting acreage to the proposed well. As such, Tidewater has met its notification obligation under UAC §§R649-3-3-1.2 and 1.3.

This proposed drill site is located within the Crescent Unit, and Tidewater is the operator of said Federal Unit. Tidewater is the only mineral lease holder within a 460' radius of the proposed location. Please see the attached plat showing the location of the proposed well as a red circle, and the location where the well could be drilled to negate the necessity of requesting an exception location, and this "legal" location is shown with a red "X" inside the 40-acre drilling window.

This request for an exception location is necessary for the following reasons:

- Tidewater has commissioned a very detailed and comprehensive analysis of the 3-D seismic data underlying the proposed location. The results of said analysis strongly indicate the proposed location offers the highest chance of drilling and completing a commercially productive oil and gas well.
- The well is designed and planned as a horizontal well at this location and as such it is necessary to locate the surface and bottomhole locations outside the 40-acre statewide

spacing drilling window in order to effectuate efficient and equitable drainage of the oil and gas resource.

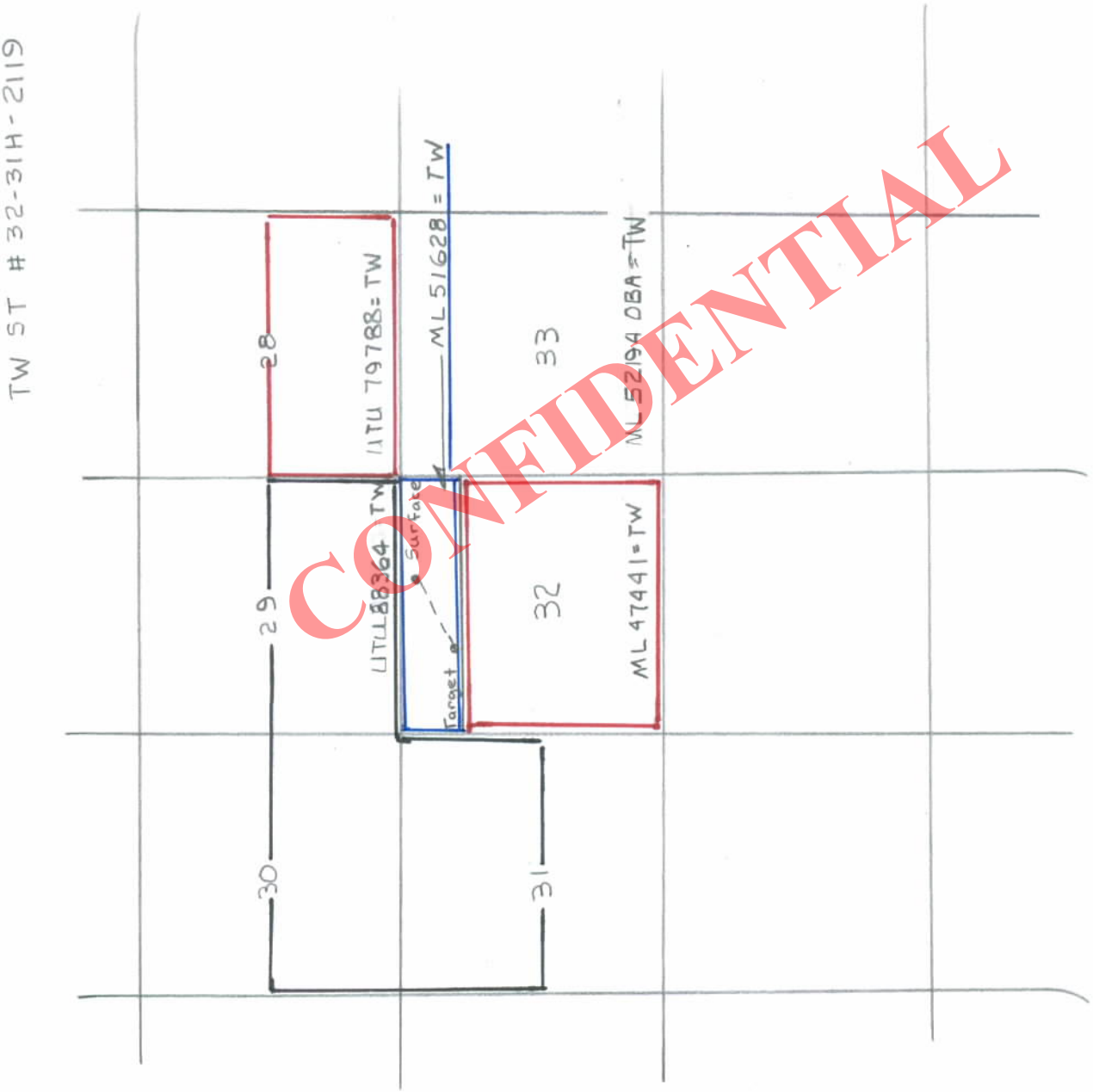
- The subject well is located within the Federal Crescent Unit, and Tidewater anticipates this well will be drilled as the Unit obligation well to satisfy Tidewater's obligations under the Unit Agreement.

Please accept the foregoing as Tidewater's application for an exception location pursuant to §§R649-3-2 and R649-3-3 of the Utah Administrative Code. Feel free to call me at (720) 881-7341 with any questions you may have.

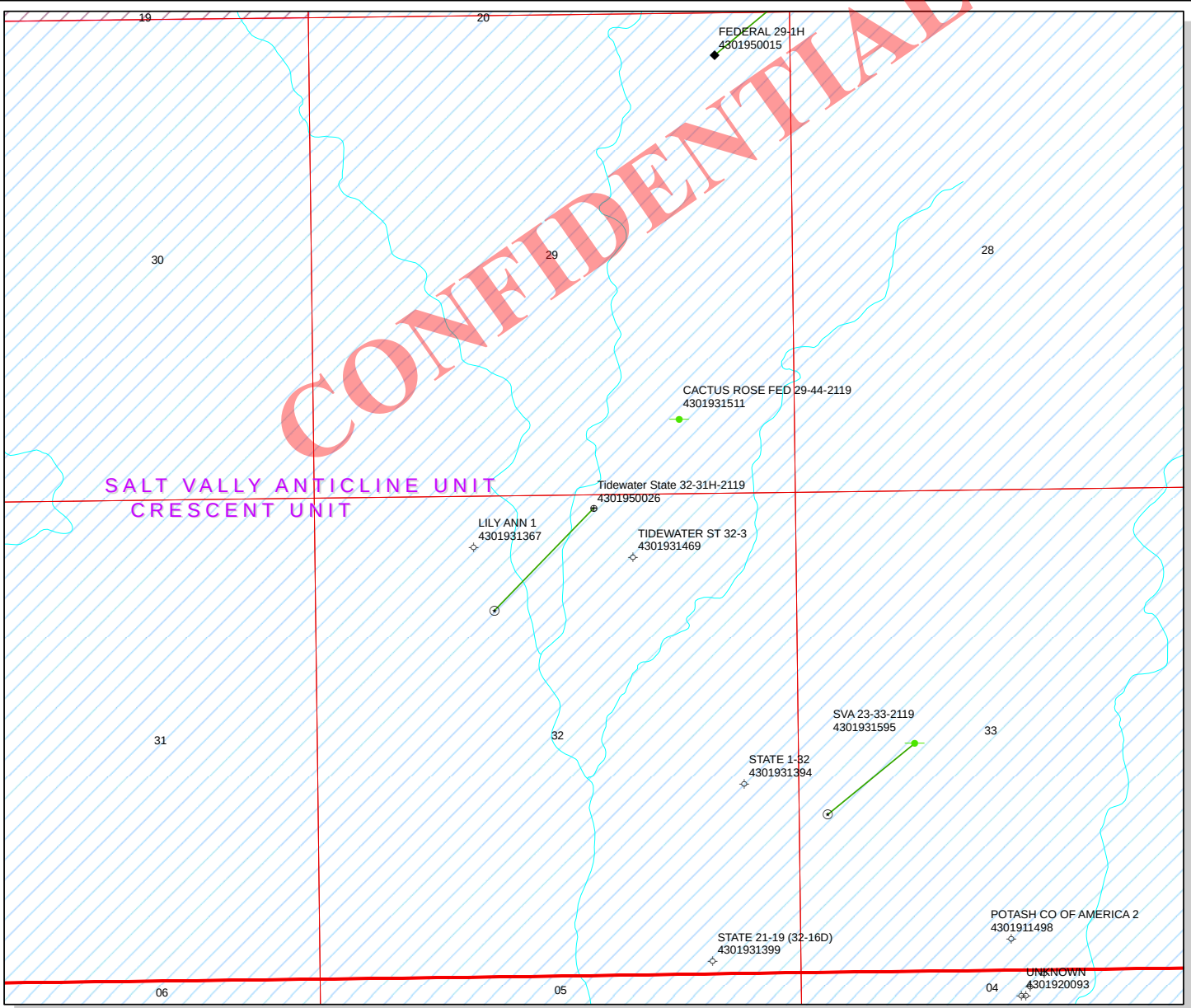
Sincerely,
Tidewater Oil & Gas Company LLC

Walter Lowry
Operations Manager

API Well Number: 43019500260000



API Well Number: 43019500260000




**API Number: 4301950026**

**Well Name: Tidewater State 32-31H-2119**

**Township T21.0S Range R19.0E Section 32**

**Meridian: SLBM**

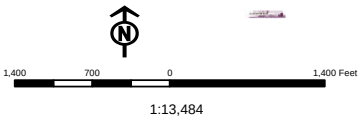
Operator: TIDEWATER OIL & GAS COMPANY, LLC

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

**Wells Query**
**Status**
APD - Aproved Permit
DRL - Spuded (Drilling Commenced)
GIW - Gas Injection
GS - Gas Storage
LOC - New Location
OPS - Operation Suspended
PA - Plugged Abandoned
PGW - Producing Gas Well
POW - Producing Oil Well
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
Bottom Hole Location - OilGasDb


1:13,484

RECEIVED: August 23, 2012

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

**Utah State Office**
**P.O. Box 45155**
**Salt Lake City, Utah 84145-0155**

**IN REPLY REFER TO:**
**3160**
**(UT-922)**

August 29, 2012

Memorandum

To: AFM-Resources, Moab Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Crescent Unit Grand County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2012 within the Crescent Unit, Grand County, Utah.

| API # | WELL NAME | LOCATION |
|---|---|---|
| (Proposed PZ Juana Lopez) | | |
| 43-019-50026 | Tidewater State 32-31H-2119 | Sec 32 T21S R19E 0158 FNL 2224 FEL<br>Lateral 1 Sec 32 T21S R19E 1271 FNL 1928 FWL |

This office has no objection to permitting the well at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.08.29 15:17:46 -06'00'



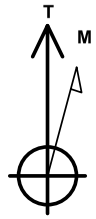
bcc: File - Crescent Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:8-29-12

RECEIVED: August 30, 2012

**Tidewater Oil & Gas, LLC**
**Tidewater State 32-31H-2119**
**Grand County, UT**

**Geodetic System: US State Plane 1983**
**Zone: Utah Central Zone**
**WELL @ 0.0usft (Original Well Elev)**
**Ground Level: 4861.2**
**Latitude: 38° 56' 57.975 N**
**Longitude: 109° 50' 30.634 W**
**Magnetic North is 10.92° East of True North (Magnetic Declination)**

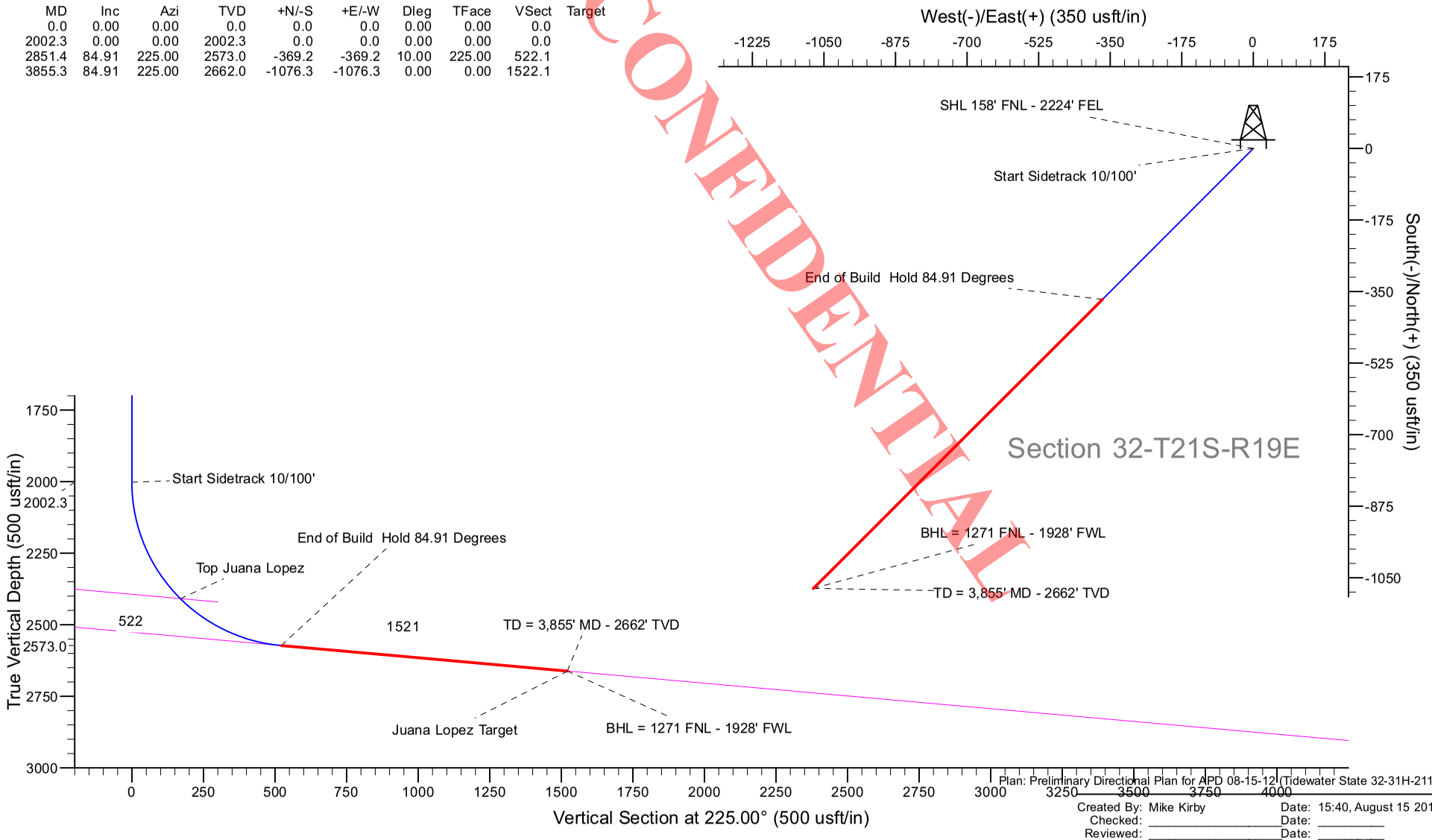



Azimuths to True North
Magnetic North: 10.92°

Magnetic Field
Strength: 51628.3snT
Dip Angle: 64.90°
Date: 8/13/2012
Model: IGRF2010

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2002.3 | 0.00 | 0.00 | 2002.3 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2851.4 | 84.91 | 225.00 | 2573.0 | -369.2 | -369.2 | 10.00 | 225.00 | 522.1 | |
| 3855.3 | 84.91 | 225.00 | 2662.0 | -1076.3 | -1076.3 | 0.00 | 0.00 | 1522.1 | |






Plan: Preliminary Directional Plan for APD 08-15-12 (Tidewater State 32-31H-2119/Wellbore

Created By: Mike Kirby Date: 15:40, August 15 2012
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: x Date: x

# SURFACE USE AGREEMENT

THIS AGREEMENT ("Agreement") is entered into this 5th day of September, 2012 by and between Mae Dean Wheeler, Trustee of both the F. W. Bert Wheeler Trust and the Mae Dean Wheeler Trust ("75% Surface Owner"), 1919 Whitney Street, Suite 100, Houston, TX 77006, and TIDEWATER OIL & GAS COMPANY LLC ("Tidewater"), 110 16th Street, Suite 405, Denver, Colorado 80202. 75% Surface Owner and Tidewater may hereinafter be referred to individually as a "Party" or collectively as the "Parties."

## RECITALS

A. Tidewater plans to drill, complete, and produce or plug and abandon certain oil & gas well(s) located on 75% Surface Owner's property in Section 32, Township 21 South, Range 19 East, SLM, Grand County, Utah ("Property").

B. 75% Surface Owner owns an undivided 75% share of the surface of the Property and desires to accommodate Tidewater's intended use of the Property for its oil & gas exploration and development efforts.



## AGREEMENT

NOW THEREFORE, in consideration of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Parties, Tidewater and 75% Surface Owner agree as follows:

1. Tidewater shall pay to 75% Surface Owner an amount of Five Thousand Dollars ($5,000.00) as one time blanket consideration for execution of this Surface Use Agreement, and this payment shall cover any and all wells drilled on the Property ("Blanket Surface Use Payment") during the term of this Agreement. In addition to the Blanket Surface Use Payment, Tidewater shall pay to 75% Surface Owner an additional Three Thousand Dollars ($3,000.00) as a surface damage payment for each well drilled on the Property ("Surface Damage Payment") during the term of this Agreement.

2. The Blanket Surface Use Payment and the Surface Damage Payment(s) constitute the full and entire consideration to be paid 75% Surface Owner by Tidewater for the use of the surface and all damages (except as provided in paragraph 2 hereof) to the Property associated with the drilling, testing, completion, recompletion, reworking, reentry, pumping, producing, and maintenance operations on the drillsite(s) located on the Property, including, but not limited to: i) damages to growing crops, if any; ii) removal, transportation, and care of livestock, if any; iii) construction of access roads, including, low water crossings, culverts, berms, drainage cuts, cattle guard installation, and fence cuts and reroutes; iv) preparation and use of the drillsite area; v) preparation and use of reserve pits, burn bits, and cuttings pits; and, vi) construction, installation and maintenance of production equipment and facilities, such as pumping units, flowlines, gas gathering lines and pipelines, separators, treaters, LACT meters, tank batteries, remote monitoring equipment, and other equipment or facilities necessary or convenient to the production, transportation and sale of oil, gas and other materials produced by or used for production of oil and/or gas from the Well(s) (collectively the "Production Facilities"). With respect to the construction, access roads, preparation and use of the

drillsite area, preparation and use of reserve pits, and construction, installation and maintenance of Production Facilities, Tidewater may exercise the rights granted in this Agreement without further additional consideration being payable to 75% Surface Owner. The "drillsite" or "drillsite area" plat for each well will be sent to 75% Surface Owner with a check for the amount indicated in this Agreement for each drilling location Tidewater elects to construct. At such time as Tidewater determines a need for gas pipelines that cannot be laid along the access roads, the Parties will enter into a mutually acceptable agreement as to the location of such gas pipelines and the consideration to be paid for any additional use of the surface not described herein.

3. If, by reason of Tidewater's operations, damage occurs to personal property located on the Property, or if there is damage to the Property caused by the negligence of Tidewater or an unreasonable use of the Property by Tidewater that is not associated with reasonable and normal drilling, testing, completion, recompletion, reworking, reentry, pumping, producing and maintenance operations, such as damage to structures, fences, culverts and cement ditches, such damage shall be repaired or replaced by Tidewater or Tidewater shall promptly pay 75% Surface Owner for such damage.

4. 75% Surface Owner agrees the Utah Division of Oil, Gas & Mining ("UDOGM"), and any other regulatory body with jurisdiction over the Property and/or Tidewater's operations, may conduct onsite inspections without advance notice to, and/or representation of, the 75% Surface Owner.

5. As between 75% Surface Owner and Tidewater, 75% Surface Owner shall have no liability for the release or discharge by Tidewater, its contractors or agents, of oil, gas or any other substance on or under the Property, except as any such release or discharge is caused in whole or in part by 75% Surface Owner. Tidewater will indemnify and hold 75% Surface Owner harmless from and against all costs and expenses (including reasonable attorney's fees) for any such release or discharge by Tidewater.

6. Tidewater agrees to restore the surface of the land as close to the pre-disturbed topography and surface condition as possible but not less than the minimum wellsite restoration requirements established by the UDOGM.

7. This Agreement constitutes written consent of 75% Surface Owner for Tidewater to proceed with the drilling, testing, completion, recompletion, reworking, reentry, pumping, operation and maintenance of any wells on the Property.

8. Upon completion of a producing well, Tidewater agrees to furnish 75% Surface Owner with a formal written release as to the surface usage covered by this Agreement with the exception of:

    a. One service road to be used by Tidewater us the only means of ingress and egress to the drillsite area.

    b. The immediate acreage around the Well(s), large enough in size to provide ample space for storage tanks and other production facilities, and also large enough for vehicle turnaround and other required use to properly maintain and operate the Well(s) in accordance with the rules and regulations of the UDOGM.

9. 75% Surface Owner agrees to provide a copy of this Agreement to any potential successor or assign of 75% Surface Owner prior to the closing of any sale of all or any portion of the property owned by 75% Surface Owner, and this Agreement shall run with the Property.

10. Except for Paragraph 3 hereof, which will survive the term of this Agreement, this Agreement will terminate at the end of two (2) years from the date hereof, or if any Well(s) is/are productive, at such time as all such Well(s) are plugged and abandoned and the surface reclaimed and restored.

11. This Agreement shall be binding upon and inure to the benefit of the parties hereto.

12. Any notice or document required under this Agreement shall be deemed delivered to a party if it is sent either by certified mail (return receipt requested) or by nationally recognized courier service (return receipt requested) to such party's address in the first sentence of this Agreement. Either party may change its address by giving written notice to the other party.

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

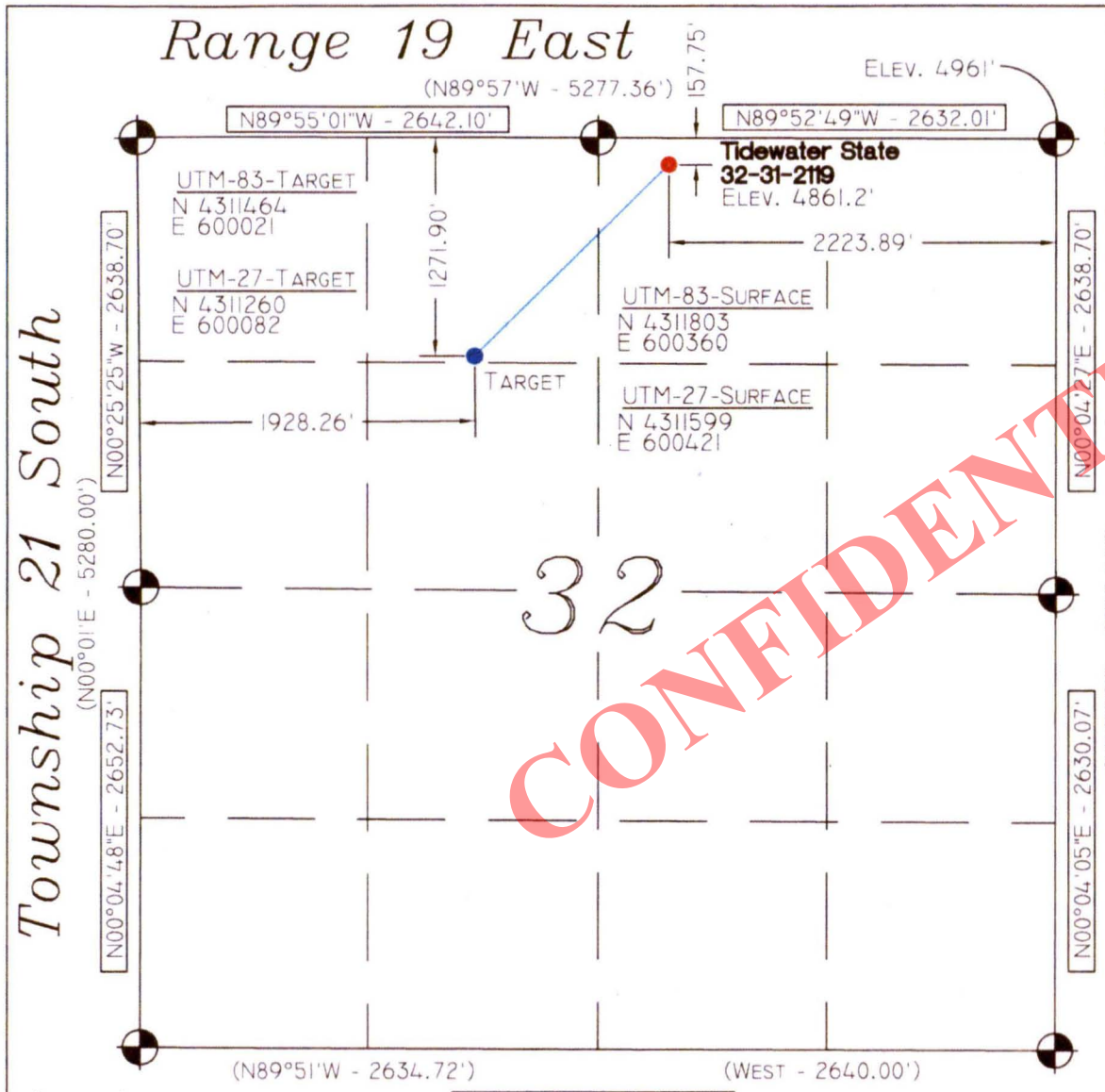
TIDEWATER OIL & GAS COMPANY LLC

By: _____
James S. Jones, Manager

75% SURFACE OWNER:

By: Mae Dean Wheeler
Mae Dean Wheeler, Trustee of the
F.W. Bert Wheeler Trust (Tax I.D. # 76-6118953)
and the Mae Dean Wheeler Trust (Tax ID. No. 76-6118954)

API Well Number: 43019500260000




Legend

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

UTM and Latitude/Longitude Coordinates are derived using a GPS Pathfinder.

| SURFACE | | TARGET | |
|---|---|---|---|
| NAD 83/WGS 84 - LAT / LONG | | NAD 83/WGS 84 - LAT / LONG | |
| 38°56'57.975"N | 38.94944°N | 38°56'47.106"N | 38.94642°N |
| 109°50'30.634"W | 109.84184°W | 109°50'44.903"W | 109.84580°W |
| NAD 27 - LAT / LONG | | NAD 27 - LAT / LONG | |
| 38°56'58.079"N | 38.94946°N | 38°56'47.209"N | 38.94645°N |
| 109°50'28.181"W | 109.84117°W | 109°50'42.450"W | 109.84512°W |

GRAPHIC SCALE

0 500' 1000'

( IN FEET )

1 inch = 1000 ft.

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

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

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

*Basis of Elevation:*
Basis of Elevation of 4961' being at the Northeast Section Corner of Section 32, Township 21 South, Range 19 East, Salt Lake Base and Meridian, as shown on the Crescent Junction Quadrangle 7.5 minute series map.

*Description of Location:*
Surface
Proposed Drill Hole located in the NW/4 NE/4 of Section 32, T21S, R19E, S.L.B.&M., being 157.75' South from the North line and 2223.89' West from the East line of Section 32, T21S, R19E, Salt Lake Base & Meridian.
Target
Proposed Target located in the NE/4 NW/4 of Section 32, T21S, R19E, S.L.B.&M., being 1271.90' South from the North line and 1928.26' East from the West line of Section 32, T21S, R19E, Salt Lake Base & Meridian.

*Surveyor's Certificate:*
I, John S. Huefner, a Professional Land Surveyor, holding Certificate No. 144842 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.

Professional Land Surveyor
No. 144842
JOHN S. HUEFNER
State of Utah



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

# TIDEWATER

TIDEWATER STATE
32-31-2119
Section 32, T21S, R19E, S.L.B.&M.
Grand County, Utah

| | |
|---|---|
| Drawn By: N. BUTKOVICH | Checked By: A.P.C./J.S.H. |
| Drawing No. A-1 | Date: 8/6/12 |
| | Scale: 1" = 1000' |
| Sheet 1 of 4 | Job No. 5085 |

# SURFACE USE AGREEMENT

THIS AGREEMENT ("Agreement") is entered into this 5th day of September, 2012 by and between Gay Shlenker Block, Executrix of the Estate of Irvin M. Shlenker ("25% Surface Owner"), 1530 Bishop's Lodge Road, Santa Fe, New Mexico 87506 and TIDEWATER OIL & GAS COMPANY LLC ("Tidewater"), 110 16th Street, Suite 405, Denver, Colorado 80202. 25% Surface Owner and Tidewater may hereinafter be referred to individually as a "Party" or collectively as the "Parties."

## RECITALS

A. Tidewater plans to drill, complete, and produce or plug and abandon certain oil & gas well(s) located on 25% Surface Owner's property in Section 32, Township 21 South, Range 19 East, SLM, Grand County, Utah ("Property").

B. 25% Surface Owner owns an undivided 25% share of the surface of the Property and desires to accommodate Tidewater's intended use of the Property for its oil & gas exploration and development efforts.



## AGREEMENT

NOW THEREFORE, in consideration of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Parties, Tidewater and 25% Surface Owner agree as follows:

1. Tidewater shall pay to 25% Surface Owner an amount of One Thousand Six Hundred Sixty-Seven Dollars ($1,667.00) as one time blanket consideration for execution of this Surface Use Agreement, and this payment shall cover any and all wells drilled on the Property ("Blanket Surface Use Payment") during the term of this Agreement. In addition to the Blanket Surface Use Payment, Tidewater shall pay to 25% Surface Owner an additional One Thousand Dollars ($1,000.00) as a surface damage payment for each well drilled on the Property ("Surface Damage Payment") during the term of this Agreement.

2. The Blanket Surface Use Payment and the Surface Damage Payment(s) constitute the full and entire consideration to be paid 25% Surface Owner by Tidewater for the use of the surface and all damages (except as provided in paragraph 2 hereof) to the Property associated with the drilling, testing, completion, recompletion, reworking, reentry, pumping, producing, and maintenance operations on the drillsite(s) located on the Property, including, but not limited to: i) damages to growing crops, if any; ii) removal, transportation, and care of livestock, if any; iii) construction of access roads, including, low water crossings, culverts, berms, drainage cuts, cattle guard installation, and fence cuts and reroutes; iv) preparation and use of the drillsite area; v) preparation and use of reserve pits, burn bits, and cuttings pits; and, vi) construction, installation and maintenance of production equipment and facilities, such as pumping units, flowlines, gas gathering lines and pipelines, separators, treaters, LACT meters, tank batteries, remote monitoring equipment, and other equipment or facilities necessary or convenient to the production, transportation and sale of oil, gas and other materials produced by or used for production of oil and/or gas from the Well(s) (collectively the "Production

Facilities"). With respect to the construction, access roads, preparation and use of the drillsite area, preparation and use of reserve pits, and construction, installation and maintenance of Production Facilities, Tidewater may exercise the rights granted in this Agreement without further additional consideration being payable to 25% Surface Owner. The "drillsite" or "drillsite area" plat for each well will be sent to 25% Surface Owner with a check for the amount indicated in this Agreement for each drilling location Tidewater elects to construct. At such time as Tidewater determines a need for gas pipelines that cannot be laid along the access roads, the Parties will enter into a mutually acceptable agreement as to the location of such gas pipelines and the consideration to be paid for any additional use of the surface not described herein.

3. If, by reason of Tidewater's operations, damage occurs to personal property located on the Property, or if there is damage to the Property caused by the negligence of Tidewater or an unreasonable use of the Property by Tidewater that is not associated with reasonable and normal drilling, testing, completion, recompletion, reworking, reentry, pumping, producing and maintenance operations, such as damage to structures, fences, culverts and cement ditches, such damage shall be repaired or replaced by Tidewater or Tidewater shall promptly pay 25% Surface Owner for such damage.

4. 25% Surface Owner agrees the Utah Division of Oil, Gas & Mining ("UDOGM"), and any other regulatory body with jurisdiction over the Property and/or Tidewater's operations, may conduct onsite inspections without advance notice to, and/or representation of, the 25% Surface Owner.

5. As between 25% Surface Owner and Tidewater, 25% Surface Owner shall have no liability for the release or discharge by Tidewater, its contractors or agents, of oil, gas or any other substance on or under the Property, except as any such release or discharge is caused in whole or in part by 25% Surface Owner. Tidewater will indemnify and hold 25% Surface Owner harmless from and against all costs and expenses (including reasonable attorney's fees) for any such release or discharge by Tidewater.

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   a. One service road to be used by Tidewater us the only means of ingress and egress to the drillsite area.

   b. The immediate acreage around the Well(s), large enough in size to provide ample space for storage tanks and other production facilities, and also large enough for vehicle turnaround and other required use to properly maintain and operate the Well(s) in accordance with the rules and regulations of the UDOGM.

9. 25% Surface Owner agrees to provide a copy of this Agreement to any potential successor or assign of 25% Surface Owner prior to the closing of any sale of all or any portion of the property owned by 25% Surface Owner, and this Agreement shall run with the Property.

10. Except for Paragraph 3 hereof, which will survive the term of this Agreement, this Agreement will terminate at the end of two (2) years from the date hereof, or if any Well(s) is/are productive, at such time as all such Well(s) are plugged and abandoned and the surface reclaimed and restored.

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

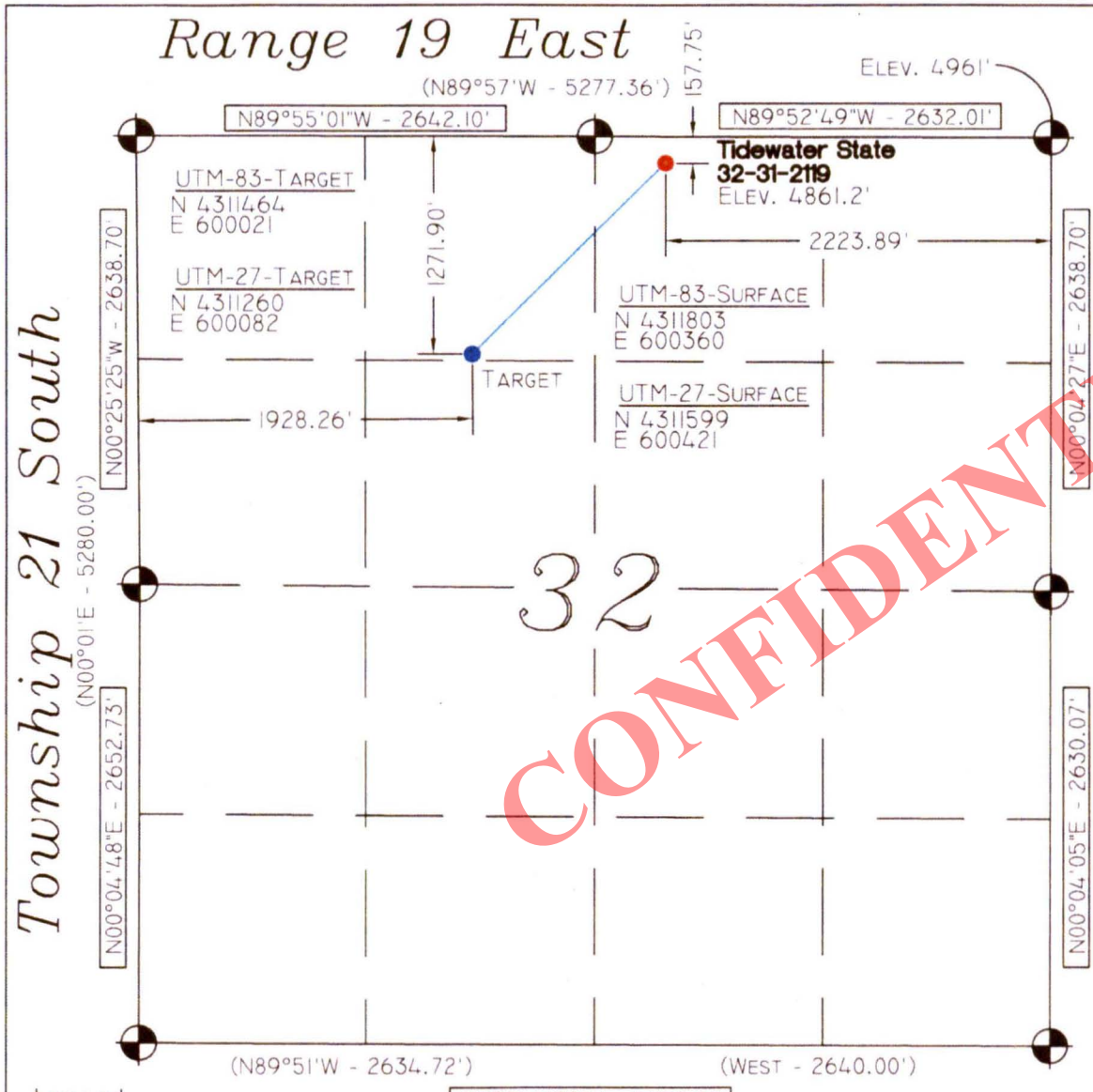
TIDEWATER OIL & GAS COMPANY LLC

By: _____
James S. Jones, Manager

25% SURFACE OWNER:

By: _____
Gay Shlenker Block
Executrix of the Estate of Irvin M. Shlenker

API Well Number: 43019500260000




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

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

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

*Basis of Elevation:*
Basis of Elevation of 4961' being at the Northeast Section Corner of Section 32, Township 21 South, Range 19 East, Salt Lake Base and Meridian, as shown on the Crescent Junction Quadrangle 7.5 minute series map.

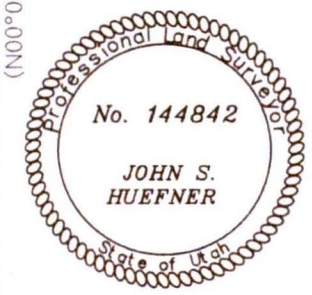
*Description of Location:*

Surface
Proposed Drill Hole located in the NW/4 NE/4 of Section 32, T21S, R19E, S.L.B.&M., being 157.75' South from the North line and 2223.89' West from the East line of Section 32, T21S, R19E, Salt Lake Base & Meridian.

Target
Proposed Target located in the NE/4 NW/4 of Section 32, T21S, R19E, S.L.B.&M., being 1271.90' South from the North line and 1928.26' East from the West line of Section 32, T21S, R19E, Salt Lake Base & Meridian.



*Surveyor's Certificate:*
I, John S. Huefner, a Professional Land Surveyor, holding Certificate No. 144842 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.




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

Legend
- Drill Hole Location
- Metal Cap (Found)
- Brass Cap (Searched for, but not found)
- Calculated Corner
- ( ) GLO

GPS Measured

UTM and Latitude/Longitude Coordinates are derived using a GPS Pathfinder.

SURFACE

| NAD 83/WGS 84 - LAT / LONG | |
|---|---|
| 38°56'57.975"N | 38.94944°N |
| 109°50'30.634"W | 109.84184°W |

| NAD 27 - LAT / LONG | |
|---|---|
| 38°56'58.079"N | 38.94946°N |
| 109°50'28.181"W | 109.84117°W |

TARGET

| NAD 83/WGS 84 - LAT / LONG | |
|---|---|
| 38°56'47.106"N | 38.94642°N |
| 109°50'44.903"W | 109.84580°W |

| NAD 27 - LAT / LONG | |
|---|---|
| 38°56'47.209"N | 38.94645°N |
| 109°50'42.450"W | 109.84512°W |

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

# TIDEWATER

TIDEWATER STATE
32-31-2119
Section 32, T21S, R19E, S.L.B.&M.
Grand County, Utah

| | |
|---|---|
| Drawn By: N. BUTKOVICH | Checked By: A.P.C./J.S.H. |
| Drawing No. A-1 | Date: 8/6/12 |
| | Scale: 1" = 1000' |
| Sheet 1 of 4 | Job No. 5085 |

# Tidewater Oil & Gas Company LLC

*Exploration for Non-Renewable Resources - www.tidewater-oil.com*

September 5, 2012

Gay Shlenker Block
1530 Bishop's Lodge Road
Santa Fe, New Mexico 87506

Re: Surface Use Agreement for Section 32-T21S-R19E
Grand County, Utah

Dear Ms. Block:

Enclosed you will find a Surface Use Agreement ("SUA") and a well plat for the Tidewater State 32-31H-2119 in the NWNE Section 32-T21S-R19E, Grand County, Utah. The attached SUA is essentially the same as one you have signed before for wells in this section.

Please review the attached SUA and if you do not have any questions or comments, please execute both originals, keep one fully executed original for your records, and return one fully executed original to Tidewater in the enclosed pre-paid mailing envelope. You will also find a check in the amount of $1,667.00 for the 2-year blanket surface use agreement and a check in the amount of $1,000.00 as payment for surface damages for the referenced proposed well. If you are in agreement with the terms of the SUA, and after you have signed same, please feel free to cash or deposit the checks at your convenience.



Thank you for your time and cooperation on this matter.

Sincerely,
TIDEWATER OIL & GAS COMPANY LLC

James S. Jones, Manager

Enclosures: Surface Use Agreement
Survey Plat for Tidewater State 32-31H-2119
Two (2) checks for the SUA and for Surface Damages

110 16th Street, Suite 405 Denver, CO 80202 (303) 468-0656

API Well Number: 43019500260000

**BOPE REVIEW TIDEWATER OIL & GAS COMPANY, LLC dewater State 32-31H-2119 43019500260000**

| Well Name | TIDEWATER OIL & GAS COMPANY, LLC Tidewater State 32-31H-211 | | | |
|---|---|---|---|---|
| String | COND | SURF | PROD | |
| Casing Size(") | 16.000 | 9.625 | 5.500 | |
| Setting Depth (TVD) | 60 | 500 | 3855 | |
| Previous Shoe Setting Depth (TVD) | 0 | 60 | 500 | |
| Max Mud Weight (ppg) | 8.4 | 8.4 | 9.0 | |
| BOPE Proposed (psi) | 500 | 500 | 3000 | |
| Casing Internal Yield (psi) | 1000 | 3520 | 7740 | |
| Operators Max Anticipated Pressure (psi) | 1190 | | 5.9 | |

| Calculations | COND String | 16.000 | " | |
|---|---|---|---|---|
| Max BHP (psi) | .052*Setting Depth*MW= | 26 | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? | |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | 19 | YES | air/mist system |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | 13 | YES | |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 13 | NO | |
| Required Casing/BOPE Test Pressure= | | 60 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe= | | 0 | psi | *Assumes 1psi/ft frac gradient |

| Calculations | SURF String | 9.625 | " | |
|---|---|---|---|---|
| Max BHP (psi) | .052*Setting Depth*MW= | 218 | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? | |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | 158 | YES | fresh water spud mud |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | 108 | YES | OK |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 121 | NO | OK |
| Required Casing/BOPE Test Pressure= | | 500 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe= | | 60 | psi | *Assumes 1psi/ft frac gradient |

| Calculations | PROD String | 5.500 | " | |
|---|---|---|---|---|
| Max BHP (psi) | .052*Setting Depth*MW= | 1804 | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? | |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | 1341 | YES | |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | 956 | YES | OK |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 1066 | NO | OK |
| Required Casing/BOPE Test Pressure= | | 3000 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe= | | 500 | psi | *Assumes 1psi/ft frac gradient |

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

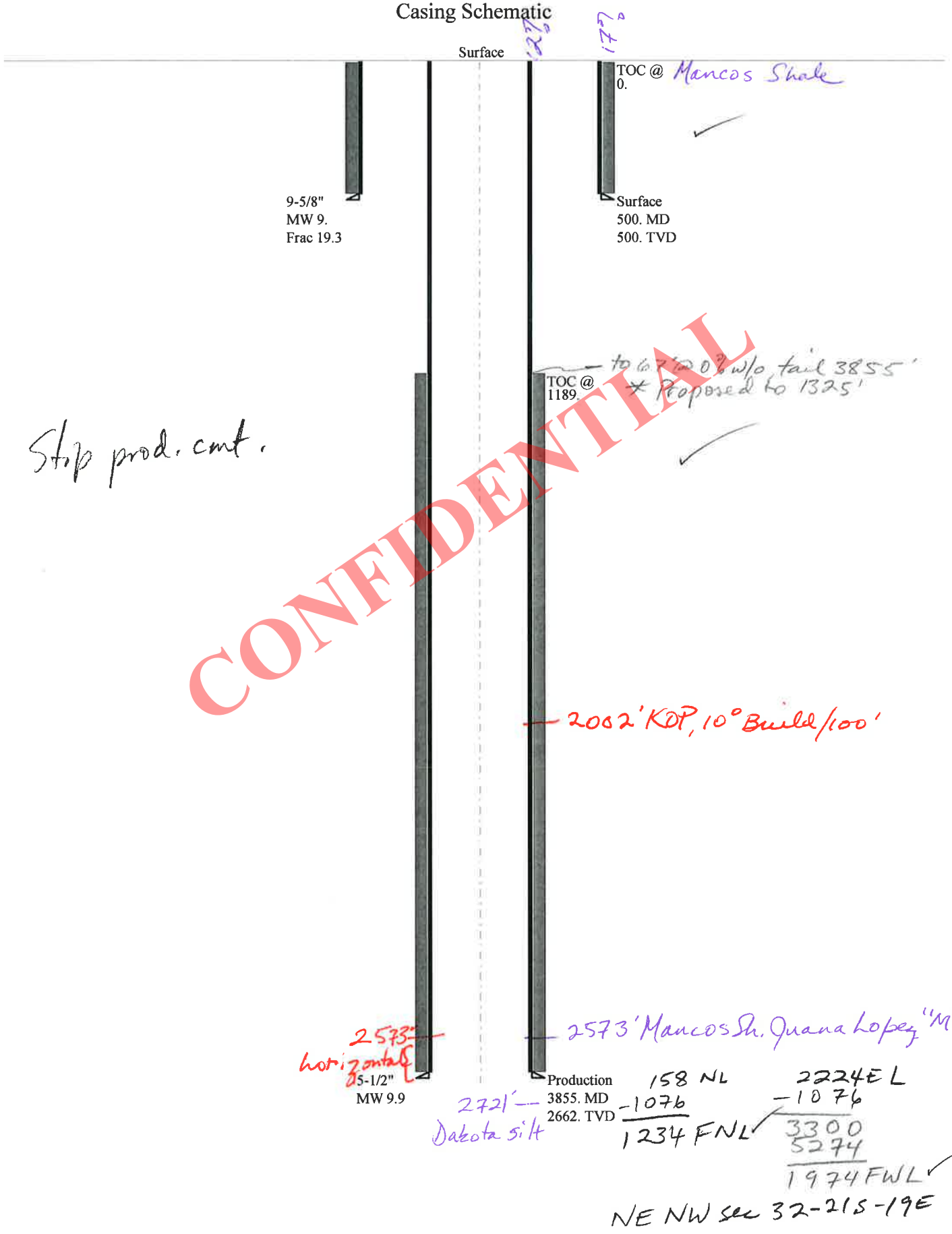


RECEIVED: October 31, 2012

API Well Number: 43019500260000

# 43019500260000 Tidewater State 32-31H-2119

## Casing Schematic



API Well Number: 43019500260000

| | |
|---|---|
| Well name: | **43019500260000 Tidewater State 32-31H-2119** |
| Operator: | **TIDEWATER OIL & GAS COMPANY, LLC** |
| String type: | Surface |
| Project ID: | 43-019-50026 |
| Location: | GRAND COUNTY |

**Design parameters:**

**Collapse**
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

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

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

**Tension:**
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 433 ft

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

Cement top: Surface

**Non-directional string.**

**Re subsequent strings:**
Next setting depth: 2,662 ft
Next mud weight: 9.200 ppg
Next setting BHP: 1,272 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 500 ft
Injection pressure: 500 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 500 | 9.625 | 36.00 | J-55 | ST&C | 500 | 500 | 8.796 | 4346 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 234 | 2020 | 8.641 | 500 | 3520 | 7.04 | 18 | 394 | 21.89 J |

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: October 18,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 500 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

API Well Number: 43019500260000

| | |
|---|---|
| Well name: | **43019500260000 Tidewater St 32-31H-2119** |
| Operator: | **TIDEWATER OIL & GAS COMPANY, LLC** |
| String type: | Production |
| Project ID: | 43-019-50026 |
| Location: | GRAND COUNTY |

**Design parameters:**

**Collapse**
Mud weight: 9.500 ppg
Design is based on evacuated pipe.

**Burst**
Max anticipated surface pressure: 728 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 1,314 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

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

Tension is based on air weight.
Neutral point: 2,291 ft

**Environment:**
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 111 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,189 ft

**Directional Info - Build & Hold**
Kick-off point 2002 ft
Departure at shoe: 1522 ft
Maximum dogleg: 10 °/100ft
Inclination at shoe: 84.91 °



| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3855 | 5.5 | 17.00 | N-80 | LT&C | 2662 | 3855 | 4.767 | 21728 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1314 | 6290 | 4.788 | 1314 | 7740 | 5.89 | 45.3 | 348 | 7.69 J |

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: October 16,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2662 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

**Plan for Use of Oil-Based Drilling Fluid for Drilling the Production Hole**
**Tidewater State 32-31H-2119**

Pursuant to the Application for Permit to Drill the Tidewater State 32-31H-2119 well, Tidewater has proposed drilling the vertical pilot hole and the subsequent horizontal leg via utilization of a closed loop system, which would contain the oil-based mud in steel pits and tanks on the well pad. Cuttings would be separated from the mud with the use of drying shakers and centrifuges. The mud would be reused as drilling continues to the target depth. Cuttings from oil-based mud would be deposited in the reserve pit for solidification and burial/disposal or land-farmed after drilling is complete. Use of a closed loop system and waste disposition would be subject to UDOGM approval and would not result in additional surface disturbance beyond that which has already been proposed and discussed onsite during the onsite inspection.

In preparation for use of oil-based mud, Tidewater will construct the drilling pad with the following procedures to insure protection of the surface pad and surrounding lands beyond the boundaries of the pad:

- Tidewater intends to construct 2 separate and distinct earthen reserve pits, one for the water-based cuttings and fluids while drilling the surface hole and one for oil-based drilling fluids and cuttings. The earthen pits will be 40'x40'x10' each and will be lined with 24 mil nylon reinforced plastic pit lining material.
- Tidewater intends to lay the same pit lining material under the rig's steel mu tanks and mud pumps.
- Tidewater proposes to construct earthen berms around the entire location to contain any unplanned releases of oil-based fluids on the drill site.
- Tidewater will use a drying shaker, a 3-sided tank, and a centrifuge to manage and contain the oil-based mud cuttings, while stripping as much of the oil-based drilling fluid from the cuttings as possible prior to being deposited in the oil-based mud reserve pit. Immediately upon rig release, Tidewater will install bird netting material over the earthen pit containing the oil-based mud cuttings.

Regarding the disposition of the oil-based cuttings and any drilling fluids containing diesel or hydrocarbons, Tidewater proposes the following procedure:

- After release of the drilling rig, Tidewater will have the cuttings and the fluid contained in the oil-based lined earthen pit tested to identify the chemical components and approximate concentrations of various hydrocarbon elements and chemicals.
- Tidewater will then obtain proposals and cost estimates from several licensed disposal sites, e.g. Danish Flats, LaPointe, etc.
- Once a disposal site is selected and approved by the UDOGM, Tidewater will commence disposal of the oil-based mud cuttings and fluids contained in the oil-based mud earthen pit by trucking said cuttings and fluids to the approved disposal site.



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Tidewater is fully aware of the UDOGM requirements and expectations for handling and disposal of oil-based mud cuttings and excess fluids, and will fully comply with any and all environmental and safety requirements for handling, containing, testing, and disposal of all oil-based cuttings and fluids generated during the drilling of the Tidewater State 32-31H-2119 well. Tidewater is committed to handling and disposing all oil-based mud cuttings and fluids in a safe and environmentally conscious manner.

Walter Lowry
Operations Manager
Tidewater Oil & Gas Company LLC
303.884.5505 (cell)
970.986.4832 (Rig satellite phone)
wlowry@tidewater-oil.com
walter.lowry@comcast.net



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# ON-SITE PREDRILL EVALUATION
## Utah Division of Oil, Gas and Mining

**Operator** TIDEWATER OIL & GAS COMPANY, LLC
**Well Name** Tidewater State 32-31H-2119
**API Number** 43019500260000 **APD No** 6609 **Field/Unit** WILDCAT
**Location: 1/4,1/4** NWNE **Sec** 32 **Tw** 21.0S **Rng** 19.0E 158 FNL 2224 FEL
**GPS Coord (UTM)** **Surface Owner** Mae Dean Wheeler Trust

**Participants**

Bart Kettle-Division of Oil, Gas and Mining (DOGM), Jim Davis-Trust Lands Administration (SITLA), Jeff Conley-SITLA, Walter Lowery-Tidewater Oil & Gas Company, LLC, Mike Davis-K-Sue, Allen Childs-Talon Resources, Inc., Lee Shenton-Grand County.

**Regional/Local Setting & Topography**

Proposed project site is located1.3 miles northwest of Crescent Junction, in Grand County Utah. Annual precipitation is 6-8", vegetation is sparse at the project site, but would be described as salt scrub rangelands. Topography immediately adjacent to the project site is gently rolling clay flats. Drainage is to the south entering the Green River within 20 miles. No perennial water was observed in close proximity to the proposed project site. Drainages in the immediate area are ephemeral in nature, being dry throughout a majority of the year. On a regional setting the project is located in the Cisco Desert at the base of the Bookcliffs, a region known for it's harsh growing conditions due to low precipitation, and poorly developed salty soils. I-70, Hwy 191, east bound Crescent Junction rest area, DOE uranium tailings transfer site and Union Pacific train tracks are all located in close proximity to the proposed project.



**Surface Use Plan**

**Current Surface Use**
Grazing
Wildlfe Habitat

| New Road Miles | Well Pad | Src Const Material | Surface Formation |
|---|---|---|---|
| 0.1 | **Width** 200 **Length** 240 | | MNCS |

**Ancillary Facilities** N

Waste Management Plan for oil based drilling operations has not been submitted with APD.

**Waste Management Plan Adequate?** N

**Environmental Parameters**

**Affected Floodplains and/or Wetlands** Y

As proposed well pad is bordered on two sides by ephemeral washes capable of substantial flown in intense rain events.

**Flora / Fauna**

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Flora:
Grass: Curly galleta, Salina rye, Indian rice grass, annual wheatgrass.
Forbs: Funnel lily, purple mustard, rocky mountain aster, halogeton
Shrubs: Mat salt brush, winterfat, broom snakeweed, Nuttles salt brush.
Trees: None
Other: Cactus spp.

**Soil Type and Characteristics**

NRCS Soils Classification list soils as Mesa-Chipeta-Thedalund Family. Heavy gray clays typical of recently weathered Mancos shale.

**Erosion Issues** Y

Soils prone to wind erosion once disturbed, watering of access road and well pad while drilling recommended.

**Sedimentation Issues** N

**Site Stability Issues** Y

Ephemeral wash on the southern portions of proposed well pad may flood well pad. Southeast corner shall be rounded to avoid wash.

**Drainage Diverson Required?** N

**Berm Required?** Y

Berms shall be constructed and maintained around well pad and all containers holding fluids for any period of time.

**Erosion Sedimentation Control Required?** Y

Apply fresh water as needed to control dust and stabilize disturbed soils.

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



**Reserve Pit**

| Site-Specific Factors | | Site Ranking | |
|---|---|---|---|
| **Distance to Groundwater (feet)** | >200 | 0 | |
| **Distance to Surface Water (feet)** | >1000 | 0 | |
| **Dist. Nearest Municipal Well (ft)** | >5280 | 0 | |
| **Distance to Other Wells (feet)** | 300 to 1320 | 10 | |
| **Native Soil Type** | Low permeability | 0 | |
| **Fluid Type** | Oil Base Mud Fluid | 15 | |
| **Drill Cuttings** | Normal Rock | 0 | |
| **Annual Precipitation (inches)** | | 0 | |
| **Affected Populations** | | | |
| **Presence Nearby Utility Conduits** | Not Present | 0 | |
| | **Final Score** | 25 | 1 Sensitivity Level |

**Characteristics / Requirements**

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Proposed drilling system includes the use of a oil based mud dilling system to stabilize hole through water sensitive shales in the Juana Lopez member of the Mancos Shale. As such a40' x 40' x 10' reserve pit is being proposed along with a 40' x 40' x 10' cuttings pit. Proposed drilling program includes a 2900' vertical hole followed by a horizontal of 3900'. Duration to complete drilling program is anticipated to exceed 30 days. Reserve pits at sites with comparable drilling programs have had TDS in excess of 50,000 mg/l.

**Closed Loop Mud Required?** N **Liner Required?** Y **Liner Thickness** 20 **Pit Underlayment Required?** N

**Other Observations / Comments**

Grand County required notification in the event drilling activity is directed towards the current DOE uranium tails disposal site. Currently the well is located 1.5 miles from the site and is not of concern.

| Bart Kettle | 9/24/2012 |
|---|---|
| **Evaluator** | **Date / Time** |



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# Application for Permit to Drill
# Statement of Basis
## Utah Division of Oil, Gas and Mining

| APD No | API WellNo | Status | Well Type | Surf Owner | CBM |
|---|---|---|---|---|---|
| 6609 | 43019500260000 | LOCKED | OW | P | No |
| **Operator** | TIDEWATER OIL & GAS COMPANY, LLC | | **Surface Owner-APD** | Mae Dean Wheeler Trust | |
| **Well Name** | Tidewater State 32-31H-2119 | | **Unit** | CRESCENT | |
| **Field** | WILDCAT | | **Type of Work** | DRILL | |
| **Location** | NWNE 32 21S 19E S 158 FNL 2224 FEL GPS Coord (UTM) 600368E 4311802N | | | | |

**Geologic Statement of Basis**

The proposed well is to spud into the poorly permeable soil that is formed from the erosion of the Blue Gate Member of the Mancos Shale. No high quality water resources are expected to be encountered during drilling. The proposed casing and cement program should adequately protect any groundwater encountered. No underground water rights are within one mile of the proposed well.

Ammon McDonald — **APD Evaluator**

10/16/2012 — **Date / Time**

**Surface Statement of Basis**

Presite evaluation completed September 24, 2012. In attendance: Bart Kettle-Division of Oil, Gas and Mining (DOGM), Jim Davis-Trust Lands Administration (SITLA), Jeff Conley-SITLA, Walter Lowery-Tidewater Oil & Gas Company, LLC, Mike Davis-K-Sue, Allen Childs-Talon Resources, Inc., Lee Shenton-Grand County.

Proposed project is located in a potentially environmentally controversial location. Several environmental organizations maintain operations less then 45 minutes from project site in Moab Utah. National Parks, slick rock trails, river rafting and scenic views attract thousands of tourist to the region annually. Due to recent awareness of mineral exploration in the area it is reasonable to expect scrutiny of drilling operations for proposed project. Operator instructed to monitor drilling operations and ROW activity closely. Problems should be addressed immediately.

A ROW has been granted by the Moab BLM for portion of access road on BLM administered lands. Soils observed along the access road will require frequent fresh water applications to prevent break up of road surface and powdering of soils in periods of hot dry conditions. A panel gate shall be installed with H-braces at fence crossing.

DOGM requiring additional precautions for reserve pit and cuttings pits proposed to contain oil based drilling medium. Slopes of pit walls should not exceed 2:1. Pits shall be lined as determined by site evaluation ranking. The geomembrane shall consist for 20 mil string reinforced LDPE or equivalent liner. The geomembrane liner should be composed of an impervious synthetic material resistant to hydrocarbons, salts and alkaline solutions. Liner edges should be secured. Liner should be protected from fluid force or mechanical damage at points of discharge or suction.



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Due to anticipated prolonged drilling operations precautions should be taken to prevent punctures from drilling related activities. Weekly inspection of liner should be conducted. Surface water run off should not be allowed to enter pits.

While drilling three sides of pits should be fenced. Fencing should include reinforced corner braces, 42" woven net wire on the bottom and two strands of barbed wire on top spaced at 6" apart. Following completion of drilling activities pits will require fencing on the fourth side, removal of free standing oil and netting to prevent entry by water fowl.

Pits will require reclamation to be completed one year following the removal of drilling rig. Reclamation intents shall be submitted to DOGM for approval following analysis of pit contents.

Two significant ephemeral washes are locating adjacent to the proposed well pad. The southeast corner of the well pad shall be rounded to prevent disturbance into wash corridor. All portions of the well pad in fill shall be bermed with a minimum of a 12" berm. No fluids should be stored on the cut portions of the well pad, and all fluid containers shall be bermed.

| Bart Kettle | 9/24/2012 |
|---|---|
| **Onsite Evaluator** | **Date / Time** |

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

| Category | Condition |
|---|---|
| Pits | Cuttings pit liner edges must be secured. |
| Pits | Liners shall be protected from fluid force or mechanical damage at points of discharge or suction. |
| Pits | Slopes of pit walls shall not exceed 2:1 |
| Pits | All free standing oil shall be removed from pits. |
| Pits | A geomembrane liner with a minimum thickness of 20 mils shall be properly installed and maintained in the cutting pit. The geomembrane liner shall consist of a string reinforced impervious synthetic material, resistant to hydrocarbons, salts and alkaline solutions. |
| Pits | Weekly inspections of cutting pit and liners shall be conducted and documented until reclaimed. |
| Pits | The Division shall be consulted prior to reclamation of reserve pit and cuttings pit. |



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API Well Number: 43019500260000

# WORKSHEET
# APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 8/22/2012 **API NO. ASSIGNED:** 43019500260000

**WELL NAME:** Tidewater State 32-31H-2119

**OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC (N3000) **PHONE NUMBER:** 303 884-5505

**CONTACT:** Walter Lowry

**PROPOSED LOCATION:** NWNE 32 210S 190E **Permit Tech Review:** ☑

**SURFACE:** 0158 FNL 2224 FEL **Engineering Review:** ☑

**BOTTOM:** 1271 FNL 1928 FWL **Geology Review:** ☑

**COUNTY:** GRAND

**LATITUDE:** 38.94942 **LONGITUDE:** -109.84174

**UTM SURF EASTINGS:** 600368.00 **NORTHINGS:** 4311802.00

**FIELD NAME:** WILDCAT

**LEASE TYPE:** 3 - State

**LEASE NUMBER:** ML51628 **PROPOSED PRODUCING FORMATION(S):** DAKOTA

**SURFACE OWNER:** 4 - Fee **COALBED METHANE:** NO



**RECEIVED AND/OR REVIEWED:**

- ☑ **PLAT**
- ☑ **Bond:** STATE - 394312687392
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Town of Thompson Springs
- ☐ **RDCC Review:**
- ☑ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

**Commingling Approved**

**LOCATION AND SITING:**

- ☐ **R649-2-3.**

**Unit:** CRESCENT

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

**Board Cause No:** R649-3-2.6

**Effective Date:**

**Siting:**

- ☐ **R649-3-11. Directional Drill**

**Comments:** Presite Completed
TEMP 640 ACRE SPACING:

**Stipulations:**
1 - Exception Location - bhill
5 - Statement of Basis - bhill
13 - Cement Volume Formation (3a) - hmacdonald
23 - Spacing - dmason
25 - Surface Casing - hmacdonald
26 - Temporary Spacing - bhill
27 - Other - bhill

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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:** Tidewater State 32-31H-2119
**API Well Number:** 43019500260000
**Lease Number:** ML51628
**Surface Owner:** FEE (PRIVATE)
**Approval Date:** 11/5/2012

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

**Authority:**
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2.6. The expected producing formation or pool is the DAKOTA 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

**Exception Location:**
Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

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

A temporary 640 acre spacing unit is hereby established in Section 32, Township 21 S, Range 19 E, SLBM for the drilling of this well (R649-3-2.6). No other horizontal wells may be drilled in this section unless approved by the Board of Oil, Gas and Mining.

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

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Cement volume for the 5 1/2 production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 1300' MD in order to adequately isolate any fresh water.

Surface casing shall be cemented to the surface.

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

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

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

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

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

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

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

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

**Approved By:**

For John Rogers
Associate Director, Oil & Gas

43 019 50026
21S 19E 32

**From:** "Walt Lowry" <wlowry@tidewater-oil.com>
**To:** <bartkettle@utah.gov>
**Date:** 10/25/2012 10:34 AM
**Subject:** Proposed procedure for handling oil-based mud and cuttings for the Tidewater State 32-31H-2119
**CC:** "James Jones" <JJones@tidewater-oil.com>, "Tom Johnson" <TJohnson@tidewa...
**Attachments:** Tidewater State 32-31H-2119 Oil Based Mud Handling Procedures.docx

Bart-

Pursuant to our recent discussions, please find attached Tidewater's proposed procedure for handling the oil-based mud and cuttings for the Tidewater State 32-31H-2119 production hole. Please let me know as soon as you can if you require additional information.

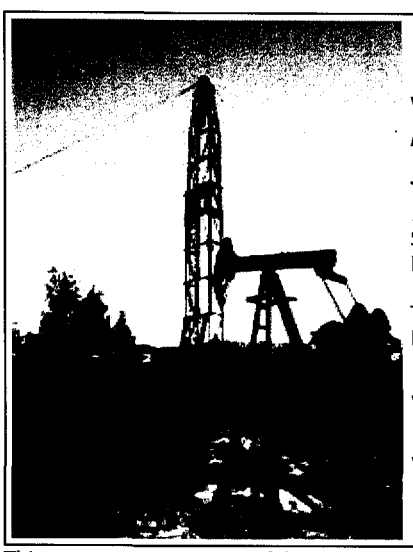
Tidewater has just TD'd the Tidewater Federal 12-24D-2118 well and we will be running electric logs in the well this evening. Tidewater utilized oil-based drilling fluids for this well and will utilize similar procedures for the 32-31H-2119 well.

We will be moving the rig from the current well to the Tidewater State 15-13-2219 well, which is permitted to be drilled with water-based drilling fluids. That well is a 7 day well and then the rig will be moving to the Tidewater State 32-31H-2119 well. We commenced construction of the location and access road for the Tidewater State 15-13-2219 well yesterday.

You can reach me via satellite phone on the rig at 970.986-4832 or via email at walter.lowry@comcast.net or wlowry@tidewater-oil.com.

Thank you,

Walter Lowry



**Walt Lowry**
***Engineer***

**Tidewater Oil & Gas Company LLC**
110 16th Street
Suite 405
Denver CO 80202

Tel: (303) 884-5505
Fax: 303-534-1022

wlowry@tidewater-oil.com

www.tidewater-oil.com

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

FORM 9

**5.LEASE DESIGNATION AND SERIAL NUMBER:** ML51628

## 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:**

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** Tidewater State 32-31H-2119

**2. NAME OF OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC

**9. API NUMBER:** 43019500260000

**3. ADDRESS OF OPERATOR:** 110 16th St Ste 1220 , Denver, CO, 80202

**PHONE NUMBER:** 303 468-0656 Ext 201

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0158 FNL 2224 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWNE Section: 32 Township: 21.0S Range: 19.0E Meridian: S

**COUNTY:** GRAND

**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: 1/16/2014 | ☐ 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.**

Requesting a one (1) year extension of the Permit Approval (see Approved Permit)

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

**Date:** December 30, 2013

**By:**

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Thomas Johnson | 303 468-0656 | Office Manager |
| **SIGNATURE** N/A | | **DATE** 11/26/2013 |

RECEIVED: Nov. 26, 2013

**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 43019500260000

**API:** 43019500260000
**Well Name:** Tidewater State 32-31H-2119
**Location:** 0158 FNL 2224 FEL QTR NWNE SEC 32 TWNP 210S RNG 190E MER S
**Company Permit Issued to:** TIDEWATER OIL & GAS COMPANY, LLC
**Date Original Permit Issued:** 11/5/2012

**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:** Thomas Johnson **Date:** 11/26/2013
**Title:** Office Manager **Representing:** TIDEWATER OIL & GAS COMPANY, LLC

RECEIVED: Nov. 26, 2013

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 51628

# SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT or CA AGREEMENT NAME: UTU88212X

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

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

8. WELL NAME and NUMBER: Tidewater State 32-31H-2119

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

9. API NUMBER: 4301950026

3. ADDRESS OF OPERATOR: 110 16th Street Suite 405 CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (720) 881-7344

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 158 FNL 2224 FEL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 32 21S 19E S

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 |
| | ☐ 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: Request for extension of Permit approval |
| | ☐ CONVERT WELL TYPE | ☐ RECOMPLETE - DIFFERENT FORMATION | |

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

Requesting a one (1) year extension of the Permit Approval (see Approved Permit)

NAME (PLEASE PRINT) Thomas F Johnson TITLE Office Manager

SIGNATURE Thomas F. Johnson DATE 11/26/2013

(This space for State use only)

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

FORM 9

**5.LEASE DESIGNATION AND SERIAL NUMBER:** ML51628

## 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:**

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** Tidewater State 32-31H-2119

**2. NAME OF OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC

**9. API NUMBER:** 43019500260000

**3. ADDRESS OF OPERATOR:** 110 16th St Ste 1220 , Denver, CO, 80202

**PHONE NUMBER:** 303 468-0656 Ext 201

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0158 FNL 2224 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWNE Section: 32 Township: 21.0S Range: 19.0E Meridian: S

**COUNTY:** GRAND

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT Approximate date work will start: 4/11/2014 | ☐ ACIDIZE | ✓ ALTER CASING | ☐ CASING REPAIR |
| ☐ SUBSEQUENT REPORT Date of Work Completion: | ☐ 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 |
| ☐ SPUD REPORT 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 Report Date: | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ✓ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: Mud System |

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

1. Adding a 7"OD 23#,J-55,LT&C from surface through the curve to the horizontal at a drilled depth of 2900' in a 8 3/4" hole. 2. The 7"will be cemented back into the 9 5/8" surface pipe (300') from surface with approximately 400 sacks of Howco Light. 3. The 51/2' csg is replaced with 4 1/2" 11.6# N-80 LTC 4. A61/8" hole will be drilled out of the 7"csg for 1000'of horizontal hole to drilled depth of 3900'. 5. A4 1/2" liner string with Hydraulic set packers will be run in 6 1/8" hole and the packer will be set using pressure and the liner will be set in the vertical section of the 7" csg (approx. 2000'). The drill pipe used to set the liner string will be laid down and 41/2" csg will be run to the liner an attached from the liner to the surface wellhead. 6. The 4 1/2'csg will not be cemented and will be held in place with the liner and packers. See Attached for additional information.

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

**Date:** April 09, 2014

**By:** Dark K Quist

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Thomas Johnson | 303 468-0656 | Office Manager |
| **SIGNATURE** N/A | | **DATE** 3/20/2014 |

RECEIVED: Mar. 20, 2014


**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 43019500260000

**API:** 43019500260000
**Well Name:** Tidewater State 32-31H-2119
**Location:** 0158 FNL 2224 FEL QTR NWNE SEC 32 TWNP 210S RNG 190E MER S
**Company Permit Issued to:** TIDEWATER OIL & GAS COMPANY, LLC
**Date Original Permit Issued:** 11/5/2012

**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.**

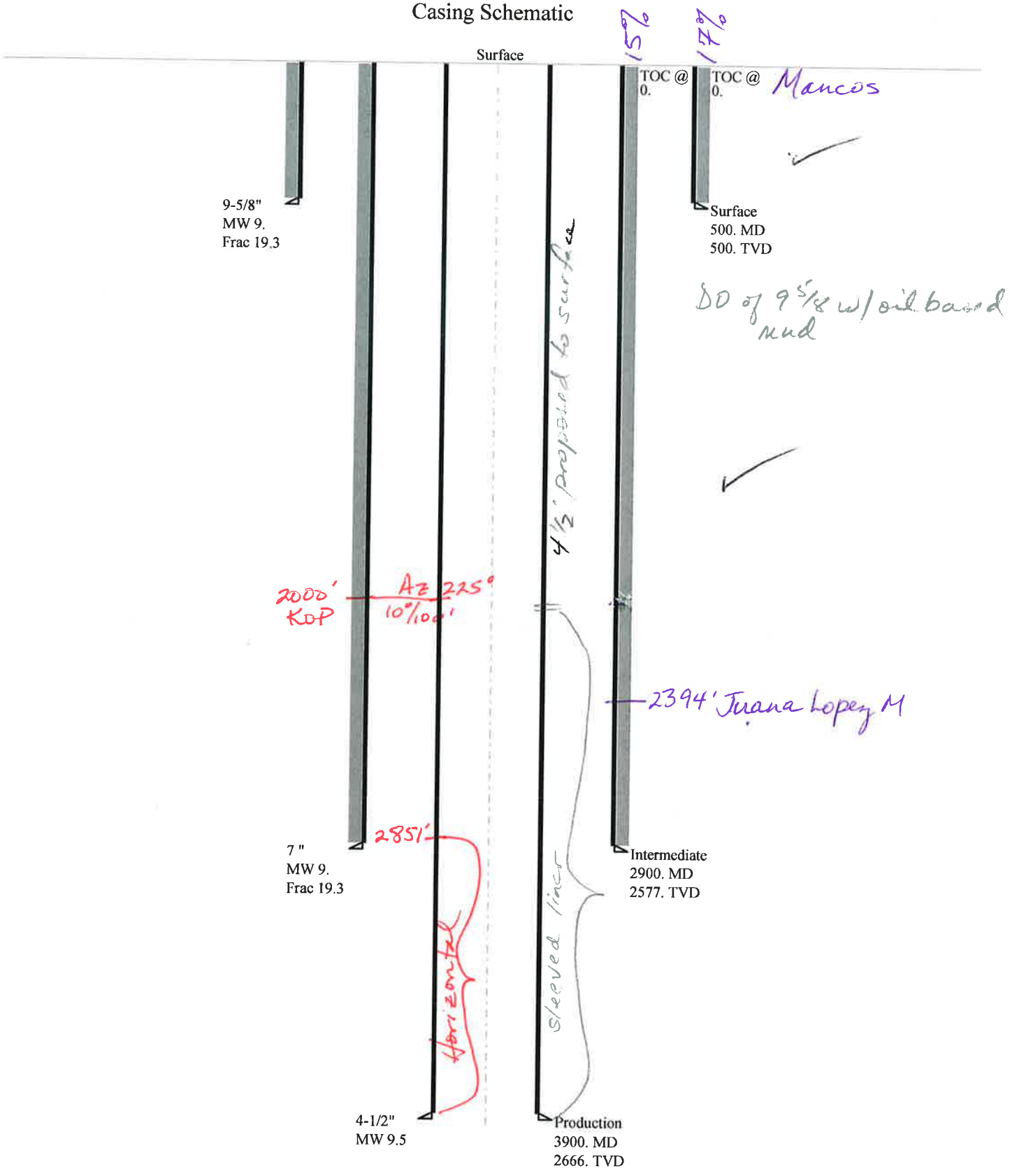
- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ◉ **Yes** ○ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there 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:** Thomas Johnson **Date:** 4/9/2014
**Title:** Office Manager **Representing:** TIDEWATER OIL & GAS COMPANY, LLC

RECEIVED: Mar. 20, 2014

# 43019500260000 Tidewater State 32-31H-2119rev

## Casing Schematic




2721' Dakota Silt
2748 Base Dakota Sd, Top Brushy B.
2900' Proposed Pilot hole TD

| | |
|---|---|
| Well name: | **43019500260000 Tidewater State 32-31H-2119rev** |
| Operator: | **TIDEWATER OIL & GAS COMPANY, LLC** |
| String type: | Surface |
| Project ID: | 43-019-50026 |
| Location: | GRAND COUNTY |

**Design parameters:**

**Collapse**
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

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

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

**Tension:**
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 433 ft

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

Cement top: Surface

**Non-directional string.**

**Re subsequent strings:**
Next setting depth: 2,577 ft
Next mud weight: 9.000 ppg
Next setting BHP: 1,205 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 500 ft
Injection pressure: 500 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 500 | 9.625 | 36.00 | J-55 | ST&C | 500 | 500 | 8.796 | 4345 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 234 | 2020 | 8.643 | 500 | 3520 | 7.04 | 18 | 394 | 21.89 J |

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: April 9,2014
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 500 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

| | |
|---|---|
| Well name: | **43019500260000 Tidewater State 32-31H-2119rev** |
| Operator: | **TIDEWATER OIL & GAS COMPANY, LLC** |
| String type: | Intermediate |
| Project ID: | 43-019-50026 |
| Location: | GRAND COUNTY |

**Design parameters:**

**Collapse**
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

**Burst**
Max anticipated surface pressure: 996 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,305 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

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

Tension is based on air weight.
Neutral point: 2,236 ft

**Environment:**
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 110 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: Surface

**Directional well information:**
Kick-off point 2002 ft
Departure at shoe: 571 ft
Maximum dogleg: 10 °/100ft
Inclination at shoe: 84.91 °

**Re subsequent strings:**
Next setting depth: 2,666 ft
Next mud weight: 9.500 ppg
Next setting BHP: 1,316 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,577 ft
Injection pressure: 2,577 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2900 | 7 | 23.00 | J-55 | LT&C | 2577 | 2900 | 6.25 | 15216 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1205 | 3270 | 2.714 | 1305 | 4360 | 3.34 | 59.3 | 313 | 5.28 J |

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: April 9,2014
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2577 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

| | |
|---|---|
| Well name: | **43019500260000 Tidewater State 32-31H-2119rev** |
| Operator: | **TIDEWATER OIL & GAS COMPANY, LLC** |
| String type: | Production |
| Project ID: | 43-019-50026 |
| Location: | GRAND COUNTY |

**Design parameters:**

**Collapse**
Mud weight: 9.500 ppg
Design is based on evacuated pipe.

**Burst**
Max anticipated surface pressure: 729 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 1,316 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

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

Tension is based on air weight.
Neutral point: 2,301 ft

**Environment:**
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 111 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

**Directional well information:**
Kick-off point 2002 ft
Departure at shoe: 1566 ft
Maximum dogleg: 10 °/100ft
Inclination at shoe: 84.91 °

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3900 | 4.5 | 11.60 | N-80 | LT&C | 2666 | 3900 | 3.875 | 16061 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1316 | 6350 | 4.826 | 1316 | 7780 | 5.91 | 30.9 | 223 | 7.21 J |

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: April 9,2014
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2666 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

## BOPE REVIEW

**Tidewater Tidewater State 32-31H-2119 43-019-50026rev**

| Well Name | Tidewater Tidewater State 32-31H-2119 43-019-50026rev | | | |
|---|---|---|---|---|
| | String 1 | String 2 | String 3 | |
| Casing Size (") | 9 7/8 | 7 | 5 | |
| Setting Depth (TVD) | 500 | 2900 | 2666 | |
| Previous Shoe Setting Depth (TVD) | 100 | 500 | 2900 | |
| Max Mud Weight (ppg) | 9 | 9 | 9.5 | |
| BOPE Proposed (psi) | 500 | 3000 | 3000 | |
| Casing Internal Yield (psi) | 3520 | 4360 | 7780 | |
| Operators Max Anticipated Pressure (psi) | 1245 | | 9.0 ppg | |

| Calculations | String 1 | 9 7/8 " | | |
|---|---|---|---|---|
| Max BHP [psi] | .052*Setting Depth*MW = | 234 | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? | |
| MASP (Gas) [psi] | Max BHP-(0.12*Setting Depth) = | 174 | YES | Air Drill |
| MASP (Gas/Mud) [psi] | Max BHP-(0.22*Setting Depth) = | 124 | YES | |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth) = | 146 | NO | |
| Required Casing/BOPE Test Pressure | | 500 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe = | | 100 | psi | *Assumes 1psi/ft frac gradient |

| Calculations | String 2 | 7 " | | |
|---|---|---|---|---|
| Max BHP [psi] | .052*Setting Depth*MW = | 1357 | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? | |
| MASP (Gas) [psi] | Max BHP-(0.12*Setting Depth) = | 1009 | YES | 3M BOPE-rotating head-annular, dbl rams, kill lines |
| MASP (Gas/Mud) [psi] | Max BHP-(0.22*Setting Depth) = | 719 | YES | |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth) = | 829 | NO | |
| Required Casing/BOPE Test Pressure | | 2900 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe = | | 500 | psi | *Assumes 1psi/ft frac gradient |

| Calculations | String 3 | 5 " | | |
|---|---|---|---|---|
| Max BHP [psi] | .052*Setting Depth*MW = | 1317 | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? | |
| MASP (Gas) [psi] | Max BHP-(0.12*Setting Depth) = | 997 | YES | 3M BOPE-rotating head-annular, dbl rams, kill lines |
| MASP (Gas/Mud) [psi] | Max BHP-(0.22*Setting Depth) = | 730 | YES | |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth) = | 1368 | YES | |
| Required Casing/BOPE Test Pressure | | 2666 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe = | | 2900 | psi | *Assumes 1psi/ft frac gradient |

Sundry Number: 48996 API Well Number: 43019500260000

1. Adding a 7"OD 23#,J-55,LT&C from surface through the curve to the horizontal at a drilled depth of2900' in a 8 3/4" hole.
2. The7"will be cemented back into the 9 5/8" surface pipe (300') from surface with approximately 400sacks of Howco Light.
3. The 51/2' csg is replaced with 4 1/2" 11.6# N-80 LTC
4. A61/8" hole will be drilled out of the 7"csg for 1000'of horizontal hole to drilled depth of 3900'.
5. A4 1/2" liner string with Hydraulic set packers will be run in 6 1/8" hole and the packer will be set using pressure and the liner will be set in the vertical section ofthe7" csg (approx. 2000'). The drill pipe used to set the liner string will be laid down and 41/2" csg will be run to the liner an attached from the liner to the surface wellhead.
6. The4 1/2'csg will not be cemented and will be held in place with the liner and packers.
7.We would like to drill out ofthe9 5/8" surface csg with oil base mud to maintain stability in the 8 3/4" hole for the running of the 7"csg. The oil base mud system is a closed system with no earthen pits.
8. The 500' surface hole will be drilled with a water base Spud mud
9. In summary there will be 3900 feet of 4.5 11.6# N-80 LTC production casing in this wellbore. Surface to 2000 feet attached to the liner. 2000 feet to 3900 feet which is the end of horizontal drill hole.
10. We will be drilling with 9lb per gallon mud out of under 9 5/8 surface casing to the 3900 feet which is TD. The 7inch cement casing will approximately weigh 12.8 lb per gallon and have a yield of 2.08 cubic feet per sack.

RECEIVED: Apr. 09, 2014

# 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:** ML51628

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

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** Tidewater State 32-31H-2119

**2. NAME OF OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC

**9. API NUMBER:** 43019500260000

**3. ADDRESS OF OPERATOR:** 110 16th St Ste 1220 , Denver, CO, 80202

**PHONE NUMBER:** 303 468-0656 Ext 201

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0158 FNL 2224 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWNE Section: 32 Township: 21.0S Range: 19.0E Meridian: S

**COUNTY:** GRAND

**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 |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ 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 |
| ✓ SPUD REPORT<br>Date of Spud:<br>4/11/2014 | ☐ 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: | ☐ 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.**

**Accepted by the**
**Utah Division of**
**Oil, Gas and Mining**
**FOR RECORD ONLY**
April 30, 2014

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Thomas Johnson | 303 468-0656 | Office Manager |
| **SIGNATURE** N/A | | **DATE** 4/30/2014 |

RECEIVED: Apr. 30, 2014

Reset Form

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

AMENDED REPORT ☐ (highlight changes) FORM 8

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML51628
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: CRESCENT
8. WELL NAME and NUMBER: Tidewater State 32-31H-2119
9. API NUMBER: 4301950026
10 FIELD AND POOL, OR WILDCAT: Wildcat

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER
b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR: TIDEWATER OIL & GAS COMPANY, LLC

3. ADDRESS OF OPERATOR: 110 16th St Ste 405 CITY Denver STATE CO ZIP 80202
PHONE NUMBER: (720) 881-7344

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 158 FNL & 2224 FEL NWNE 32 21S 19E S
AT TOP PRODUCING INTERVAL REPORTED BELOW: 1162 FNL & 1157' FWL 32 21S 19E
AT TOTAL DEPTH: 1321 FNL 1961 FWL NENW 32 21S 19E

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 32 21S 19E S
12. COUNTY: Grand
13. STATE: UTAH

14. DATE SPUDDED: 4/11/2014
15. DATE T.D. REACHED: 4/22/2014
16. DATE COMPLETED: 7/21/2014 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 4861 GL 4876 KB

18. TOTAL DEPTH: MD 3,900 TVD 2,539
19. PLUG BACK T.D.: MD TVD
20. IF MULTIPLE COMPLETIONS, HOW MANY? * 4 stages in Juana
21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Triple Combo, Density, Sonic, DIL, Caliper

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

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

| HOLE SIZE | SIZE/GRADE | WEIGHT (#/ft.) | TOP (MD) | BOTTOM (MD) | STAGE CEMENTER DEPTH | CEMENT TYPE & NO. OF SACKS | SLURRY VOLUME (BBL) | CEMENT TOP ** | AMOUNT PULLED |
|---|---|---|---|---|---|---|---|---|---|
| 12 1/4 | 9 5/8 J55 | 36 | 0 | 520 | | 205 | 43 | 0 | |
| 8 3/4 | 7 J55 | 23 | 0 | 2,877 | | 230 | 112 | 1800 | |
| 6 1/8 | 4 1/2 N80 | 11.6 | 1,816 | 3,875 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**25. TUBING RECORD**

| SIZE | DEPTH SET (MD) | PACKER SET (MD) | SIZE | DEPTH SET (MD) | PACKER SET (MD) | SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|---|---|---|---|---|---|---|---|---|
| 2 3/8 | 1,912 | | | | | | | |

**26. PRODUCING INTERVALS**

| FORMATION NAME | TOP (MD) | BOTTOM (MD) | TOP (TVD) | BOTTOM (TVD) |
|---|---|---|---|---|
| (A) Mancos Juana Lo | 2,737 | 3,900 | | 2,539 |
| (B) | | | | |
| (C) | | | | |
| (D) | | | | |

**27. PERFORATION RECORD**

| INTERVAL (Top/Bot - MD) | SIZE | NO. HOLES | PERFORATION STATUS |
|---|---|---|---|
| 3,095 3,096 | slotec | | Open ☑ Squeezed ☐ |
| 3,334 3,335 | slotec | | Open ☑ Squeezed ☐ |
| 3,619 3,620 | slotec | | Open ☑ Squeezed ☐ |
| 3,813 3,814 | slotec | | Open ☑ Squeezed ☐ |

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

WAS WELL HYDRAULICALLY FRACTURED? YES ☑ NO ☐ IF YES -- DATE FRACTURED: 5/23/2014

| DEPTH INTERVAL | AMOUNT AND TYPE OF MATERIAL |
|---|---|
| 3813-3814 | 65% QUALITY FOAM, 88,500 #20/40 SD, 532 BBLS GEL, 1,253,250 SCF N2 |
| 3619-3620 | 67% QUALITY FOAM, 102,231 #20/40 SD, 506 BBLS GEL, 1,063,985 SCF N2 |
| 3334-3335 | 65% QUALITY FOAM, 69,653 #20/40 SD, 378 BBLS GEL, 591,596 SCF N2 |

**29. ENCLOSED ATTACHMENTS:**

☑ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

**30. WELL STATUS:** Testing

(5/2013)

(CONTINUED ON BACK)

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**31. INITIAL PRODUCTION**

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

| DATE FIRST PRODUCED: | TEST DATE: | HOURS TESTED: | TEST PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | PROD. METHOD: |
|---|---|---|---|---|---|---|---|
| 7/20/2014 | | 24 | | 2 | 30 | 0 | |

| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | INTERVAL STATUS: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 37.80 | | | | | | | |

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

| DATE FIRST PRODUCED: | TEST DATE: | HOURS TESTED: | TEST PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | PROD. METHOD: |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | INTERVAL STATUS: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

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

| DATE FIRST PRODUCED: | TEST DATE: | HOURS TESTED: | TEST PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | PROD. METHOD: |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | INTERVAL STATUS: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

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

| DATE FIRST PRODUCED: | TEST DATE: | HOURS TESTED: | TEST PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | PROD. METHOD: |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | OIL – BBL: | GAS – MCF: | WATER – BBL: | INTERVAL STATUS: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

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

Used for Fuel

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

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

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

| Formation | Top (MD) | Bottom (MD) | Descriptions, Contents, etc. | Name | Top (Measured Depth) |
|---|---|---|---|---|---|
| Ferron SS | 1,790 | 1,821 | Oil & Gas | Ferron SS | 1,790 |
| Juana Lopez | 2,434 | 2,441 | Oil & Gas | Mancos Juana Lopez | 2,441 |
| | | | | Dakota Silt | 2,586 |
| | | | | Dakota | 2,731 |
| | | | | Log tops from vert pilot hole. | |

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

Drilled vertical pilot hole to TD 2950'. Set cement plug @ 1650-2150' w/ 212 sx (37.4 bbl) cmt. KO @ 1950': Landed curve @ 289

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

NAME (PLEASE PRINT) Tom Johnson (submitted electronically) TITLE Office Manager

SIGNATURE _____ DATE 8/24/2014

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

(5/2013)

RECEIVED: Sep. 10, 2014

Scientific Drilling

# Directional Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

| | |
|---|---|
| **Operator** | Tidewater Oil & Gas |
| **Well Name & No.** | Tidewater State 32-31H-2119 |
| **County & State** | Grand County, UT |
| **SDI Job No.** | 420414HEF137257 |
| **Rig** | Energy 8 |

I, Janie Collins, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 609 feet to a measured depth of 3,900 feet is true and correct as determined from all available records.

Signature

24-Apr-14
Date

**Janie Collins**
Colorado District Well Planner
Scientific Drilling International

Survey Report

Scientific Drilling

| | | | |
|---|---|---|---|
| **Company:** | Tidewater Oil & Gas, LLC | **Local Co-ordinate Reference:** | Well Tidewater State 32-31H-2119 |
| **Project:** | Grand County, UT NAD83 | **TVD Reference:** | GL 4861.20 @ 4861.20ft |
| **Site:** | Tidewater State 32-31H-2119 | **MD Reference:** | GL 4861.20 @ 4861.20ft |
| **Well:** | Tidewater State 32-31H-2119 | **North Reference:** | True |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | OH | **Database:** | Grand Junction District |

**Project** Grand County, UT NAD83

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | Utah Central Zone | | |

**Site** Tidewater State 32-31H-2119

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 6,790,450.21 usft | **Latitude:** | 38° 56' 57.975 N |
| **From:** | Lat/Long | **Easting:** | 2,111,992.57 usft | **Longitude:** | 109° 50' 30.634 W |
| **Position Uncertainty:** | 0.00 ft | **Slot Radius:** | 13.200 in | **Grid Convergence:** | 1.06 ° |

**Well** Tidewater State 32-31H-2119

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 ft | **Northing:** | 6,790,450.21 usft | **Latitude:** | 38° 56' 57.975 N |
| | **+E/-W** | 0.00 ft | **Easting:** | 2,111,992.57 usft | **Longitude:** | 109° 50' 30.634 W |
| **Position Uncertainty** | | 0.00 ft | **Wellhead Elevation:** | 0.00 ft | **Ground Level:** | 4,861.20 ft |

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | BGGM2013 | 4/17/2014 | 10.78 | 64.87 | 51,334 |

**Design** OH

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | 1.0 | **Phase:** | ACTUAL | **Tie On Depth:** | 0.00 |

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 224.86 |

**Survey Program** **Date** 4/24/2014

| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
|---|---|---|---|---|
| 609.00 | 3,900.00 | Survey #1 (OH) | SDI MWD | SDI MWD - Standard ver 1.0.1 |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 609.00 | 3.22 | 168.90 | 608.68 | -16.79 | 3.29 | 9.58 | 0.53 | 0.53 | 0.00 |
| 671.00 | 2.72 | 167.64 | 670.60 | -19.93 | 3.94 | 11.35 | 0.81 | -0.81 | -2.03 |
| 766.00 | 1.87 | 207.34 | 765.52 | -23.51 | 3.71 | 14.05 | 1.84 | -0.89 | 41.79 |
| 860.00 | 0.18 | 249.15 | 859.51 | -24.93 | 2.87 | 15.64 | 1.85 | -1.80 | 44.48 |
| 954.00 | 1.64 | 2.94 | 953.49 | -23.64 | 2.80 | 14.78 | 1.83 | 1.55 | 121.05 |
| 1,048.00 | 1.51 | 351.67 | 1,047.46 | -21.07 | 2.69 | 13.03 | 0.36 | -0.14 | -11.99 |
| 1,142.00 | 0.96 | 7.13 | 1,141.44 | -19.06 | 2.61 | 11.67 | 0.68 | -0.59 | 16.45 |
| 1,237.00 | 0.18 | 320.83 | 1,236.43 | -18.16 | 2.62 | 11.02 | 0.89 | -0.82 | -48.74 |
| 1,331.00 | 0.08 | 199.46 | 1,330.43 | -18.10 | 2.50 | 11.07 | 0.25 | -0.11 | -129.12 |



RECEIVED: Sep. 10, 2014

Survey Report

Scientific Drilling

| | | | |
|---|---|---|---|
| **Company:** | Tidewater Oil & Gas, LLC | **Local Co-ordinate Reference:** | Well Tidewater State 32-31H-2119 |
| **Project:** | Grand County, UT NAD83 | **TVD Reference:** | GL 4861.20 @ 4861.20ft |
| **Site:** | Tidewater State 32-31H-2119 | **MD Reference:** | GL 4861.20 @ 4861.20ft |
| **Well:** | Tidewater State 32-31H-2119 | **North Reference:** | True |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | OH | **Database:** | Grand Junction District |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 1,426.00 | 1.14 | 45.51 | 1,425.43 | -17.50 | 3.15 | 10.18 | 1.28 | 1.12 | -162.05 |
| 1,520.00 | 1.76 | 13.08 | 1,519.40 | -15.44 | 4.15 | 8.02 | 1.07 | 0.66 | -34.50 |
| 1,614.00 | 1.41 | 12.99 | 1,613.36 | -12.91 | 4.73 | 5.81 | 0.37 | -0.37 | -0.10 |
| 1,709.00 | 1.48 | 35.32 | 1,708.33 | -10.77 | 5.70 | 3.61 | 0.59 | 0.07 | 23.51 |
| 1,804.00 | 1.09 | 56.44 | 1,803.31 | -9.27 | 7.17 | 1.51 | 0.64 | -0.41 | 22.23 |
| 1,828.00 | 1.14 | 55.70 | 1,827.30 | -9.01 | 7.55 | 1.06 | 0.22 | 0.21 | -3.08 |
| 1,860.00 | 1.23 | 31.62 | 1,859.30 | -8.54 | 8.00 | 0.41 | 1.57 | 0.28 | -75.25 |
| 1,891.00 | 1.06 | 18.00 | 1,890.29 | -7.98 | 8.26 | -0.17 | 1.03 | -0.55 | -43.94 |
| 1,923.00 | 3.25 | 253.98 | 1,922.27 | -7.95 | 7.48 | 0.36 | 12.32 | 6.84 | -387.56 |
| 1,954.00 | 7.52 | 244.80 | 1,953.13 | -9.06 | 4.80 | 3.03 | 14.01 | 13.77 | -29.61 |
| 1,986.00 | 10.83 | 241.21 | 1,984.72 | -11.40 | 0.27 | 7.89 | 10.49 | 10.34 | -11.22 |
| 2,018.00 | 14.52 | 237.96 | 2,015.93 | -14.97 | -5.77 | 14.68 | 11.74 | 11.53 | -10.16 |
| 2,049.00 | 17.11 | 241.07 | 2,045.76 | -19.24 | -13.06 | 22.85 | 8.79 | 8.35 | 10.03 |
| 2,081.00 | 19.04 | 241.74 | 2,076.18 | -23.99 | -21.77 | 32.36 | 6.07 | 6.03 | 2.09 |
| 2,113.00 | 20.30 | 241.81 | 2,106.31 | -29.08 | -31.26 | 42.67 | 3.94 | 3.94 | 0.22 |
| 2,144.00 | 22.21 | 240.07 | 2,135.20 | -34.55 | -41.08 | 53.47 | 6.49 | 6.16 | -5.61 |
| 2,175.00 | 23.94 | 238.71 | 2,163.72 | -40.74 | -51.54 | 65.23 | 5.84 | 5.58 | -4.39 |
| 2,207.00 | 26.63 | 236.40 | 2,192.65 | -48.08 | -63.06 | 78.56 | 8.95 | 8.41 | -7.22 |
| 2,238.00 | 30.77 | 232.75 | 2,219.84 | -56.73 | -75.17 | 93.23 | 14.50 | 13.35 | -11.77 |
| 2,270.00 | 33.95 | 231.09 | 2,246.87 | -67.30 | -88.64 | 110.23 | 10.32 | 9.94 | -5.19 |
| 2,301.00 | 37.30 | 231.42 | 2,272.06 | -78.60 | -102.72 | 128.17 | 10.82 | 10.81 | 1.06 |
| 2,332.00 | 40.45 | 232.89 | 2,296.19 | -90.53 | -118.09 | 147.46 | 10.59 | 10.16 | 4.74 |
| 2,364.00 | 45.16 | 231.36 | 2,319.66 | -103.88 | -135.24 | 169.03 | 15.07 | 14.72 | -4.78 |
| 2,395.00 | 47.57 | 226.91 | 2,341.06 | -118.57 | -152.18 | 191.39 | 12.97 | 7.77 | -14.35 |
| 2,427.00 | 49.28 | 223.47 | 2,362.30 | -135.44 | -169.15 | 215.32 | 9.65 | 5.34 | -10.75 |
| 2,459.00 | 49.85 | 218.44 | 2,383.06 | -153.82 | -185.11 | 239.61 | 12.09 | 1.78 | -15.72 |
| 2,490.00 | 52.32 | 216.54 | 2,402.53 | -172.96 | -199.78 | 263.52 | 9.29 | 7.97 | -6.13 |
| 2,522.00 | 55.12 | 215.83 | 2,421.47 | -193.78 | -215.00 | 289.02 | 8.93 | 8.75 | -2.22 |
| 2,553.00 | 58.54 | 215.61 | 2,438.42 | -214.85 | -230.15 | 314.64 | 11.05 | 11.03 | -0.71 |
| 2,584.00 | 63.34 | 216.51 | 2,453.48 | -236.74 | -246.10 | 341.41 | 15.69 | 15.48 | 2.90 |
| 2,616.00 | 66.66 | 217.49 | 2,467.00 | -259.90 | -263.55 | 370.13 | 10.74 | 10.38 | 3.06 |
| 2,648.00 | 68.75 | 219.34 | 2,479.14 | -283.09 | -281.95 | 399.55 | 8.44 | 6.53 | 5.78 |
| 2,679.00 | 69.29 | 223.31 | 2,490.24 | -304.83 | -301.06 | 428.43 | 12.08 | 1.74 | 12.81 |
| 2,710.00 | 71.14 | 224.45 | 2,500.74 | -325.85 | -321.28 | 457.60 | 6.90 | 5.97 | 3.68 |
| 2,742.00 | 71.14 | 224.19 | 2,511.08 | -347.51 | -342.44 | 487.88 | 0.77 | 0.00 | -0.81 |
| 2,773.00 | 73.34 | 225.77 | 2,520.54 | -368.39 | -363.31 | 517.40 | 8.60 | 7.10 | 5.10 |
| 2,805.00 | 77.99 | 228.01 | 2,528.46 | -389.57 | -385.94 | 548.37 | 16.04 | 14.53 | 7.00 |
| 2,827.00 | 82.44 | 227.94 | 2,532.20 | -404.08 | -402.04 | 570.01 | 20.23 | 20.23 | -0.32 |
| 2,895.00 | 84.50 | 227.44 | 2,539.93 | -449.55 | -451.99 | 637.48 | 3.12 | 3.03 | -0.74 |
| 2,926.00 | 84.61 | 227.43 | 2,542.87 | -470.43 | -474.72 | 668.31 | 0.36 | 0.35 | -0.03 |
| 2,957.00 | 84.68 | 227.51 | 2,545.76 | -491.29 | -497.47 | 699.15 | 0.34 | 0.23 | 0.26 |
| 3,051.00 | 84.59 | 224.80 | 2,554.55 | -556.11 | -564.96 | 792.70 | 2.87 | -0.10 | -2.88 |
| 3,145.00 | 84.68 | 224.72 | 2,563.34 | -622.57 | -630.86 | 886.29 | 0.13 | 0.10 | -0.09 |
| 3,241.00 | 85.47 | 224.54 | 2,571.58 | -690.63 | -698.05 | 981.93 | 0.84 | 0.82 | -0.19 |



RECEIVED: Sep. 10, 2014

Survey Report

Scientific Drilling

| | | | |
|---|---|---|---|
| **Company:** | Tidewater Oil & Gas, LLC | **Local Co-ordinate Reference:** | Well Tidewater State 32-31H-2119 |
| **Project:** | Grand County, UT NAD83 | **TVD Reference:** | GL 4861.20 @ 4861.20ft |
| **Site:** | Tidewater State 32-31H-2119 | **MD Reference:** | GL 4861.20 @ 4861.20ft |
| **Well:** | Tidewater State 32-31H-2119 | **North Reference:** | True |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | OH | **Database:** | Grand Junction District |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 3,336.00 | 86.09 | 224.36 | 2,578.58 | -758.27 | -764.40 | 1,076.67 | 0.68 | 0.65 | -0.19 |
| 3,431.00 | 87.23 | 223.57 | 2,584.11 | -826.53 | -830.23 | 1,171.50 | 1.46 | 1.20 | -0.83 |
| 3,526.00 | 88.72 | 224.36 | 2,587.47 | -894.86 | -896.14 | 1,266.42 | 1.77 | 1.57 | 0.83 |
| 3,621.00 | 89.87 | 224.01 | 2,588.64 | -962.98 | -962.35 | 1,361.41 | 1.27 | 1.21 | -0.37 |
| 3,716.00 | 90.75 | 224.01 | 2,588.12 | -1,031.30 | -1,028.35 | 1,456.40 | 0.93 | 0.93 | 0.00 |
| 3,811.00 | 91.28 | 224.80 | 2,586.44 | -1,099.16 | -1,094.81 | 1,551.38 | 1.00 | 0.56 | 0.83 |
| 3,847.00 | 91.89 | 224.54 | 2,585.44 | -1,124.75 | -1,120.11 | 1,587.36 | 1.84 | 1.69 | -0.72 |
| 3,900.00 | 91.89 | 224.54 | 2,583.70 | -1,162.51 | -1,157.27 | 1,640.33 | 0.00 | 0.00 | 0.00 |

Checked By: _____ Approved By: _____ Date: _____



RECEIVED: Sep. 10, 2014

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

**FORM 9**

**5.LEASE DESIGNATION AND SERIAL NUMBER:** ML51628

## 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:**

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** Tidewater State 32-31H-2119

**2. NAME OF OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC

**9. API NUMBER:** 43019500260000

**3. ADDRESS OF OPERATOR:** 110 16th Street, Suite 405 , Denver, CO, 80202 5206

**PHONE NUMBER:** 303 468-0656 Ext 201

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0158 FNL 2224 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWNE Section: 32 Township: 21.0S Range: 19.0E Meridian: S

**COUNTY:** GRAND

**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 |
| ✓ SUBSEQUENT REPORT<br>Date of Work Completion:<br>5/15/2015 | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DRILLING REPORT<br>Report Date: | ☐ 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: workover |

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

Please be advised that a workover was completed on the above-referenced well on 5/15/2015. The procedure is attached. Additional daily reports will be submitted on Friday 6/5/2015. Thank you.

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

**Date:** June 04, 2015

**By:** Dark K Quist

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Vanessa Cameron | 303 868-6449 | Regulatory Analyst |
| **SIGNATURE** N/A | | **DATE** 6/3/2015 |

RECEIVED: Jun. 03, 2015

March 4, 2015

Mr. James Jones
Tidewater Oil & Gas Co LLC
110 16th Suite #405
Denver, CO 80202

**RE**: ***Recommended Workover Procedure***
***Tidewater State 32-31H-2119***
***API # 43-019-50026***
***Wildcat Field***
***Grand County, UT***

Dear Mr. Jones,

Please find attached an AFE in the amount of $39,000 gross to perform remedial workover operations and install plunger lift on the referenced well.

In December 2014, the downhole insert pump was pulled from the well in an attempt to return the well to production without success. Since that time, the well has been producing approximately 5 Bbls of oil per week flowing up the casing side. The purpose of this workover is to pull the rods out of the hole and install plunger lift equipment to stabilize and increase production from the well. Production from the referenced well is necessary to hold Crescent Unit acreage by production.

**Statement of Economics**
Based on an initial incremental oil rate of 5 BOPD, $60 per Bbl oil price and a net revenue interest of 0.80, payout should occur within six months.

SIGMA$^3$ appreciates the opportunity to provide this service for you and Tidewater. Please give me a call at (303) 525-3100 if you have any questions regarding this matter.

Sincerely,

Digitally signed by Denny Migl P.E.
DN: cn=Denny Migl P.E., o=SIGMA$^3$ Integrated Reservoir Solutions, Inc., ou=SIGMA$^3$ Integrated Reservoir Solutions, Inc., email=d.migl@sigmacubed.com, c=US
Date: 2015.03.05 10:47:37 -07'00'

Denny Migl, P.E.
Engineering Manager

RECEIVED: Jun. 03, 2015

# Tidewater Oil & Gas Co LLC

110 16th Street, Suite 405
Denver, CO 80202

## AUTHORITY FOR EXPENDITURE
## Workover/Remedial Operations

| Company Name | | | AFE # | Supplement # |
|---|---|---|---|---|
| Tidewater Oil & Gas Co LLC | | | 2015-01 | |
| **Lease Name** | **Well #** | **Field Name** | **County** | **State** |
| Tidewater State 32-31H-2119 | 1 | Wildcat | Grand | UT |
| **AFE Description** | | **Geographic Location** | | |
| Install Plunger Lift | | | | |
| **Type of Project** | | **Company W.I.** | **Total Depth** | **Total AFE Estimate** |
| Workover | | 1.0000 | 3,875' MD, 2,600' TVD | $39,000 |

ROUNDED WHOLE DOLLARS ONLY

| INTANGIBLE COSTS | Acctg Code | Dry Hole | Completion | Total Drill & Compl |
|---|---|---|---|---|
| Surface Damages & Restoration | 820-02 | 0 | 0 | 0 |
| Permits & Fees | 820-03 | 0 | 0 | 0 |
| Survey & Stake | 820-04 | 0 | 0 | 0 |
| Location & Roads | 820-06 | 0 | 0 | 0 |
| Service Rig 2 days @ $6,000 / day | 820-15 | 0 | 12,000 | 12,000 |
| Coil Tubing Unit | 820-15 | 0 | 0 | 0 |
| Fishing Tools & Damages | 820-16 | 0 | 0 | 0 |
| Miscellaneous Material & Supplies | 820-17 | 0 | 0 | 0 |
| Miscellaneous Labor & Services (redress downhole pump) | 820-20 | 0 | 0 | 0 |
| Trucking & Freight | 820-24 | 0 | 2,000 | 2,000 |
| Diesel Fuel | 820-26 | 0 | 0 | 0 |
| Tool & Equipment Rental | 820-30 | 0 | 0 | 0 |
| Bits | 820-34 | 0 | 0 | 0 |
| Directional Drilling Services | 820-38 | 0 | 0 | 0 |
| Mud & Chemicals 9.2 ppg | 820-40 | 0 | 0 | 0 |
| Logging (Open Hole) | 820-44 | 0 | 0 | 0 |
| Mudlogging | 820-46 | 0 | 0 | 0 |
| Coring & Core Analysis | 820-48 | 0 | 0 | 0 |
| Production Testing | 820-50 | 0 | 0 | 0 |
| Cementing & Services | 820-52 | 0 | 0 | 0 |
| Perforating & Logging (Cased Hole) | 820-54 | 0 | 0 | 0 |
| Swab Unit | 820-55 | 0 | 0 | 0 |
| Tubular Inspections & Testing | 820-56 | 0 | 0 | 0 |
| Acidizing | 820-57 | 0 | 0 | 0 |
| Pumping Services (CalFrac)(includes Nitrogen & Safety Svs) | 820-58 | 0 | 0 | 0 |
| Fracturing | 820-59 | 0 | 0 | 0 |
| Geological Services | 820-60 | 0 | 0 | 0 |
| Wellsite Supervision 3 days $2,000 / Day | 820-62 | 0 | 6,000 | 6,000 |
| Engineering Svs Office | 820-62 | 0 | 0 | 0 |
| Overhead Charges | 820-90 | 0 | 0 | 0 |
| Contingencies 15% | 820-97 | 0 | 3,000 | 3,000 |
| TOTAL DRILLING - INTANGIBLE COSTS | ----- | 0 | 23,000 | 23,000 |

| TANGIBLE COSTS | Acctg Code | Dry Hole | Completion | Total Drill & Compl |
|---|---|---|---|---|
| Wellhead Equipment | 850-30 | 0 | 0 | 0 |
| Surface Casing 200' 8 5/8" $14.00 / foot | 850-07 | 0 | 0 | 0 |
| Intermediate Casing | 850-08 | 0 | 0 | 0 |
| Production Casing 5,800' 5 1/2" $10.00 / foot | 850-10 | 0 | 0 | 0 |
| Liner | 850-12 | 0 | 0 | 0 |
| Tubing 5,800' 2 3/8" $5.00 / foot | 850-14 | 0 | 0 | 0 |
| Rods | 850-16 | 0 | 0 | 0 |
| Subsurface Equip ( Liner Hanger, packers, etc. ) | 850-18 | 0 | 0 | 0 |
| Downhole Pump | 850-20 | 0 | 0 | 0 |
| Contingencies 10% | 850-22 | 0 | 0 | 0 |
| TOTAL DRILLING - TANGIBLE COSTS | ----- | 0 | 0 | 0 |

| SURFACE PRODUCTION EQUIPMENT | Acctg Code | Dry Hole | Completion | Total Drill & Compl |
|---|---|---|---|---|
| Noncontrollable Material & Supplies | 850-04 | 0 | 0 | 0 |
| Surface Equip Installation Costs | 850-06 | 0 | 0 | 0 |
| Pumping Unit 228 | 850-32 | 0 | 0 | 0 |
| Gun Barrel | 850-33 | 0 | 0 | 0 |
| Power Unit / Engine | 850-36 | 0 | 0 | 0 |
| Storage Tanks (2) 300 Bbl Steel; (1) 300 Bbl Fiberglass | 850-38 | 0 | 0 | 0 |
| Heater Treater & Separators | 850-40 | 0 | 0 | 0 |
| Electrical System & Trans Lines | 850-50 | 0 | 0 | 0 |
| Building | 850-60 | 0 | 0 | 0 |
| Flowlines | 850-62 | 0 | 0 | 0 |
| Controllable Fittings (Plunger Lift Equipment) | 850-64 | 0 | 15,000 | 15,000 |
| Gas Meters & Meter Runs | 850-66 | 0 | 0 | 0 |
| Fences & Gates | 850-68 | 0 | 0 | 0 |
| Other Prod Equip | 850-70 | 0 | 0 | 0 |
| Contingencies 10% | 850-97 | 0 | 1,000 | 1,000 |
| TOTAL - SURFACE PRODUCTION EQUIPMENT | ----- | 0 | 16,000 | 16,000 |

| | | Dry Hole | Completion | Total Drill & Compl |
|---|---|---|---|---|
| TOTAL DRILLING & COMPLETION COST (100% Gross) | 1.00000000 | 0 | 39,000 | 39,000 |

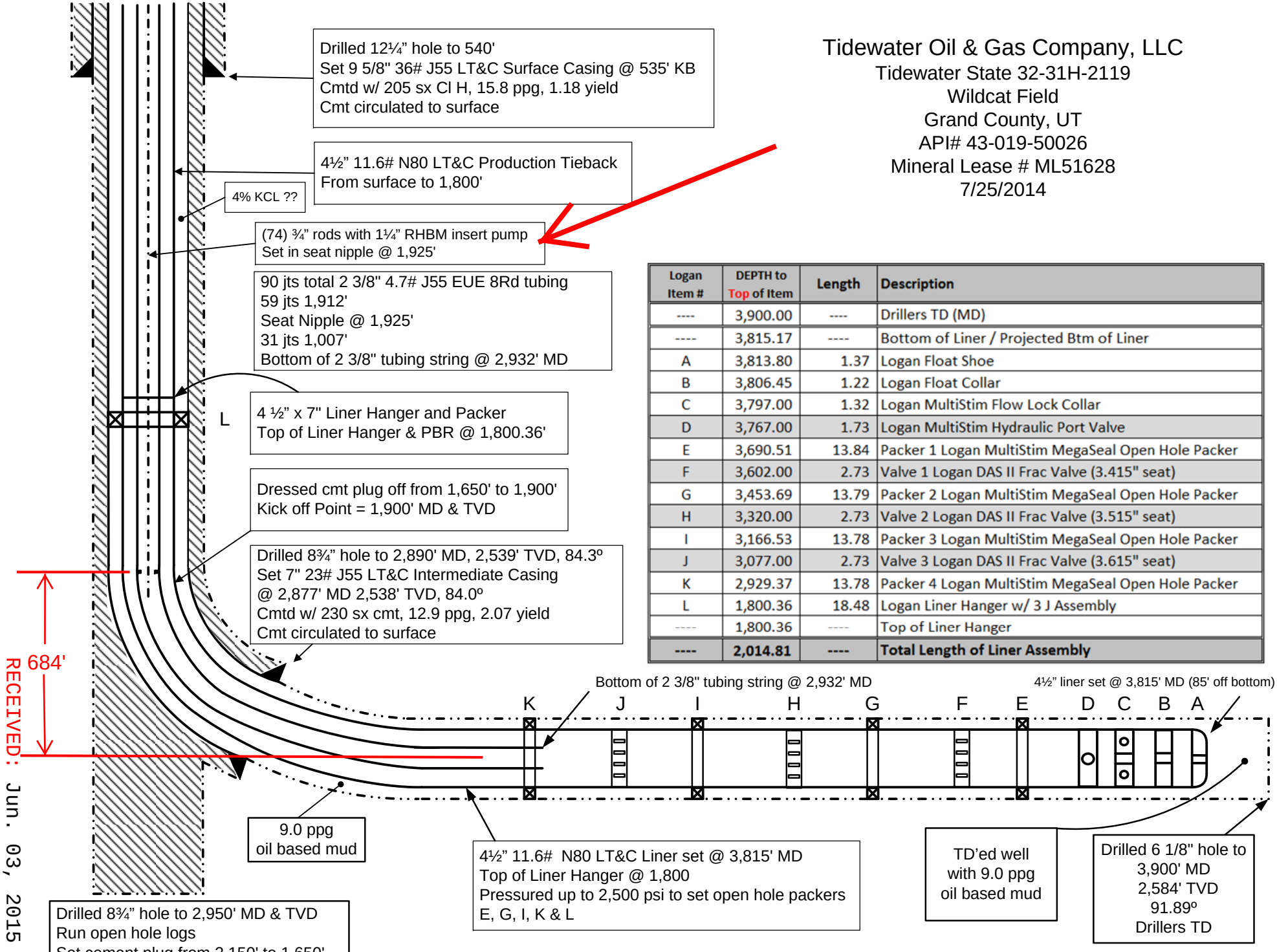
| | Title: | Date Approved: | Prepared By: |
|---|---|---|---|
| Tidewater Oil & Gas Co LLC | | | Denny Migl |
| Approved By: | | | Date Prepared: 3/4/2015 |

| Company: | W.I. | Dry Hole | Completion | Total Drill & Compl |
|---|---|---|---|---|
| | 1.00000000 | 0 | 39,000 | 39,000 |
| Approved By: | Title: | | | Date Approved: |

RECEIVED: Jun. 03, 2015

# Tidewater Oil & Gas Company, LLC

Tidewater State 32-31H-2119
Wildcat Field
Grand County, UT
API# 43-019-50026
Mineral Lease # ML51628
7/25/2014




| Logan Item # | DEPTH to Top of Item | Length | Description |
|---|---|---|---|
| ---- | 3,900.00 | ---- | Drillers TD (MD) |
| ---- | 3,815.17 | ---- | Bottom of Liner / Projected Btm of Liner |
| A | 3,813.80 | 1.37 | Logan Float Shoe |
| B | 3,806.45 | 1.22 | Logan Float Collar |
| C | 3,797.00 | 1.32 | Logan MultiStim Flow Lock Collar |
| D | 3,767.00 | 1.73 | Logan MultiStim Hydraulic Port Valve |
| E | 3,690.51 | 13.84 | Packer 1 Logan MultiStim MegaSeal Open Hole Packer |
| F | 3,602.00 | 2.73 | Valve 1 Logan DAS II Frac Valve (3.415" seat) |
| G | 3,453.69 | 13.79 | Packer 2 Logan MultiStim MegaSeal Open Hole Packer |
| H | 3,320.00 | 2.73 | Valve 2 Logan DAS II Frac Valve (3.515" seat) |
| I | 3,166.53 | 13.78 | Packer 3 Logan MultiStim MegaSeal Open Hole Packer |
| J | 3,077.00 | 2.73 | Valve 3 Logan DAS II Frac Valve (3.615" seat) |
| K | 2,929.37 | 13.78 | Packer 4 Logan MultiStim MegaSeal Open Hole Packer |
| L | 1,800.36 | 18.48 | Logan Liner Hanger w/ 3 J Assembly |
| ---- | 1,800.36 | ---- | Top of Liner Hanger |
| **----** | **2,014.81** | **----** | **Total Length of Liner Assembly** |

# RECOMMENDED WORKOVER PROCEDURE

Prepared for:

**Tidewater Oil & Gas Company LLC**
**Tidewater State 32-31-H-2119**
**API # 43-019-50026**
**Wildcat Field**
**Grand County, UT**

March 4, 2015

Prepared by Denny Migl, P.E.

***SIGMA³ Integrated Reservoir Solutions, Inc.***

2 Inverness Drive East • Suite 201
Englewood, Colorado 80112
U.S.A.
Phone (303) 525-3100
Fax (303) 779-2519

## NOTICE OF DISCLAIMER



RECEIVED: Jun. 03, 2015

# Tidewater Oil & Gas Company LLC

Prepared by Denny Migl

Tidewater State 32-31H-2119
API # 43-019-50026
Wildcat Field
Grand County, UT

March 4, 2015

**Well Data:**

| | | | |
|---|---|---|---|
| Spud: | 4/10/2014 | Elevations: | 4,861' GL |
| Rig Released: | 4/24/2014 | | 4,876' KB |
| Tubing Last Run: | 7/22/2014 | | Zero – 15' above GL |

TD: 3,900' MD, 2,539' TVD
PDTD: 3,858' MD ???

Drilled vertical hole to 2,950' MD and ran open hole logs.
Set kick off plug from 2,150' MD to 1,650' MD.
Start kick off at ~1,900' and build curve to 2,890' MD, 2,540' TVD, 84.5°.
Set 7" intermediate casing @ 2,877' MD, 2,540' TVD, 84° deviation
Drill 6" hole to 3,900' MD, 2,539' TVD

Surface Casing: 9-5/8" 36# J-55 LT&C set at 535' KB
cmtd with 540 sacks, circ to surface
Drill out surface casing (8¾" hole) with 9.0 ppg oil based mud

Intermediate Csg: 7" 23# J55 LT&C @ 2,877' MD, 2,540' TVD, 84°
cmtd with 230 sacks, circ ½ Bbl cmt to surface

Production Liner: 4½" 11.6# N80 LT&C liner from 1,816' MD to 3,875' MD
Logan Completion System (see attached Logan Talley Sheet)
4 packers set at 3,722', 3,482', 3,198' & 2,958' MD
Ported Frac Valves set at 3,813', 3,619', 3,334' & 3,095' MD

Production Casing: 4½" 11.6# N80 LT&C from surface to 1,816' MD

Tubing: 2 3/8" 4.7# J55 EUE 8 Rd, end of tubing @ 2,932' MD, seat nipple @ 1,925' MD

Rods: (74) ¾" rods, no downhole pump

**Description of Workover:** Pull and lay down rods. Pull and inspect tubing. Run tubing to 2,600' MD. Install plunger lift surface equipment.



RECEIVED: Jun. 03, 2015

**Proposed Workover Procedure:**

1. MIRU well servicing unit. Bleed down pressure from tubing and casing.
2. POOH laying down rods.
3. POOH with tubing.
4. TIH with collar stop for plunger lift. Set end of tubing at ≈2,600' MD (≈65° deviation)
5. RDMO well service rig.
6. Install plunger lift surface equipment.



RECEIVED: Jun. 03, 2015

# Tidewater Oil & Gas, LLC

**Grand County, UT NAD83**
**Tidewater State 32-31H-2119**
**Tidewater State 32-31H-2119**

**OH**

**Design: OH**

# Standard Survey Report

**24 April, 2014**

Scientific Drilling

RECEIVED: Jun. 03, 2015

# TABLE OF CONTENTS



Scientific Drilling

Scientific Drilling

Company Name: Tidewater Oil & Gas, LLC
Project: Grand County, UT NAD83
Site: Tidewater State 32-31H-2119
Well: Tidewater State 32-31H-2119

T M

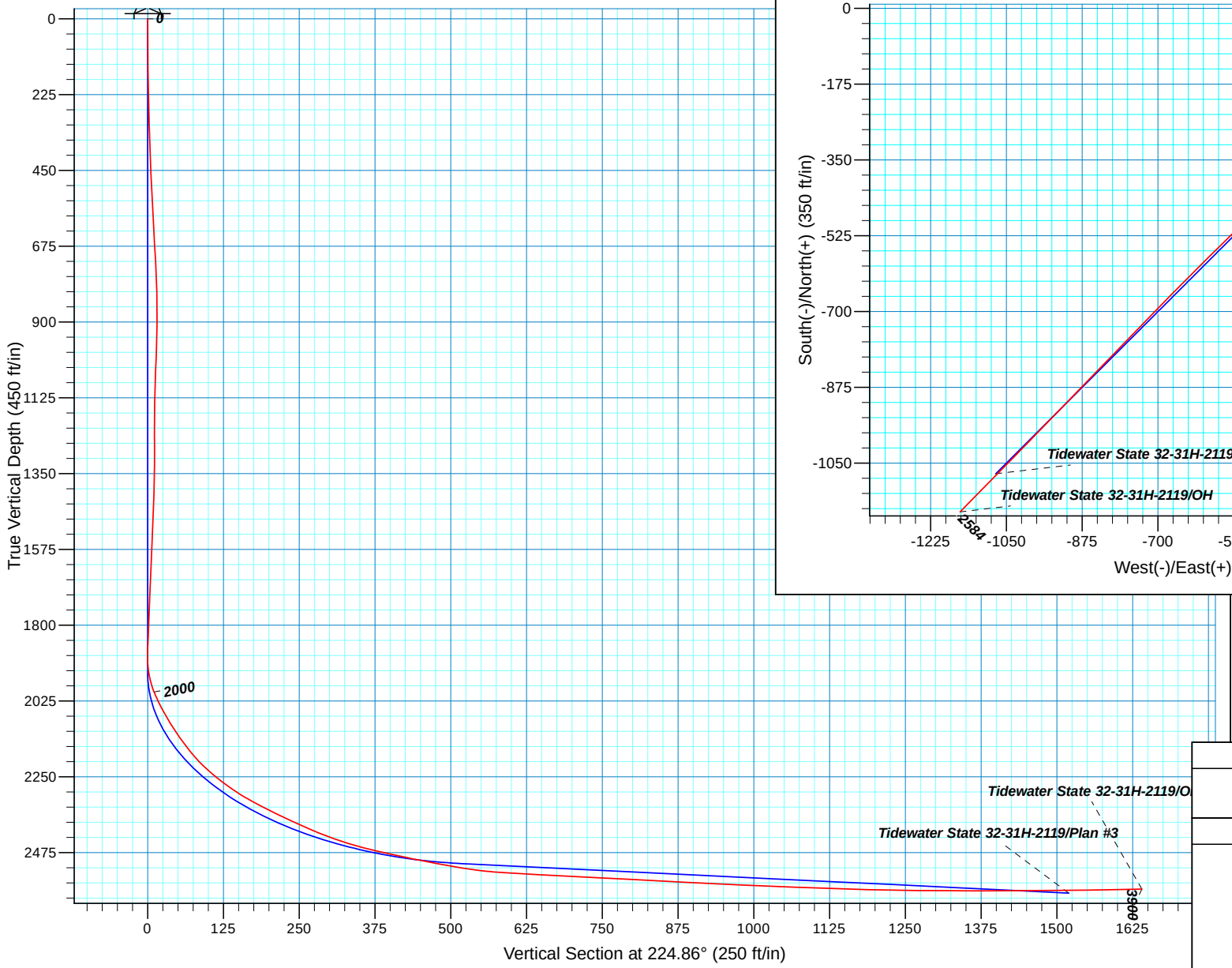
Azimuths to True North
Magnetic North: 10.78°

Magnetic Field
Strength: 51334.1snT
Dip Angle: 64.87°
Date: 4/17/2014
Model: BGGM2013

WELL DETAILS: Tidewater State 32-31H-2119

GL 4861.20 @ 4861.20ft

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 6790450.21 | 2111992.57 | 38° 56' 57.975 N | 109° 50' 30.634 W |







Design: OH (Tidewater State 32-31H-2119/OH)

Created By: Janie Collins Date: 11:05, April 24 2014

PROJECT DETAILS: Grand County, UT NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone

System Datum: Mean Sea Level
Local North: True

RECEIVED: Jun. 03, 2015

Sundry Number: 63754 API Well Number: 43019500260000

Survey Report

Scientific Drilling

| | | | |
|---|---|---|---|
| **Company:** | Tidewater Oil & Gas, LLC | **Local Co-ordinate Reference:** | Well Tidewater State 32-31H-2119 |
| **Project:** | Grand County, UT NAD83 | **TVD Reference:** | GL 4861.20 @ 4861.20ft |
| **Site:** | Tidewater State 32-31H-2119 | **MD Reference:** | GL 4861.20 @ 4861.20ft |
| **Well:** | Tidewater State 32-31H-2119 | **North Reference:** | True |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | OH | **Database:** | Grand Junction District |

**Project** Grand County, UT NAD83

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | Utah Central Zone | | |

**Site** Tidewater State 32-31H-2119

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 6,790,450.21 usft | **Latitude:** | 38° 56' 57.975 N |
| **From:** | Lat/Long | **Easting:** | 2,111,992.57 usft | **Longitude:** | 109° 50' 30.634 W |
| **Position Uncertainty:** | 0.00 ft | **Slot Radius:** | 13.200 in | **Grid Convergence:** | 1.06 ° |

**Well** Tidewater State 32-31H-2119

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 ft | **Northing:** | 6,790,450.21 usft | **Latitude:** | 38° 56' 57.975 N |
| | **+E/-W** | 0.00 ft | **Easting:** | 2,111,992.57 usft | **Longitude:** | 109° 50' 30.634 W |
| **Position Uncertainty** | | 0.00 ft | **Wellhead Elevation:** | 0.00 ft | **Ground Level:** | 4,861.20 ft |

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | BGGM2013 | 4/17/2014 | 10.78 | 64.87 | 51,334 |

**Design** OH

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | 1.0 | **Phase:** | ACTUAL | **Tie On Depth:** | 0.00 |

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 224.86 |

**Survey Program** **Date** 4/24/2014

| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
|---|---|---|---|---|
| 609.00 | 3,900.00 | Survey #1 (OH) | SDI MWD | SDI MWD - Standard ver 1.0.1 |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 609.00 | 3.22 | 168.90 | 608.68 | -16.79 | 3.29 | 9.58 | 0.53 | 0.53 | 0.00 |
| 671.00 | 2.72 | 167.64 | 670.60 | -19.93 | 3.94 | 11.35 | 0.81 | -0.81 | -2.03 |
| 766.00 | 1.87 | 207.34 | 765.52 | -23.51 | 3.71 | 14.05 | 1.84 | -0.89 | 41.79 |
| 860.00 | 0.18 | 249.15 | 859.51 | -24.93 | 2.87 | 15.64 | 1.85 | -1.80 | 44.48 |
| 954.00 | 1.64 | 2.94 | 953.49 | -23.64 | 2.80 | 14.78 | 1.83 | 1.55 | 121.05 |
| 1,048.00 | 1.51 | 351.67 | 1,047.46 | -21.07 | 2.69 | 13.03 | 0.36 | -0.14 | -11.99 |
| 1,142.00 | 0.96 | 7.13 | 1,141.44 | -19.06 | 2.61 | 11.67 | 0.68 | -0.59 | 16.45 |
| 1,237.00 | 0.18 | 320.83 | 1,236.43 | -18.16 | 2.62 | 11.02 | 0.89 | -0.82 | -48.74 |
| 1,331.00 | 0.08 | 199.46 | 1,330.43 | -18.10 | 2.50 | 11.07 | 0.25 | -0.11 | -129.12 |



RECEIVED: Jun. 03, 2015

Survey Report

Scientific Drilling

| | | | |
|---|---|---|---|
| **Company:** | Tidewater Oil & Gas, LLC | **Local Co-ordinate Reference:** | Well Tidewater State 32-31H-2119 |
| **Project:** | Grand County, UT NAD83 | **TVD Reference:** | GL 4861.20 @ 4861.20ft |
| **Site:** | Tidewater State 32-31H-2119 | **MD Reference:** | GL 4861.20 @ 4861.20ft |
| **Well:** | Tidewater State 32-31H-2119 | **North Reference:** | True |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | OH | **Database:** | Grand Junction District |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 1,426.00 | 1.14 | 45.51 | 1,425.43 | -17.50 | 3.15 | 10.18 | 1.28 | 1.12 | -162.05 |
| 1,520.00 | 1.76 | 13.08 | 1,519.40 | -15.44 | 4.15 | 8.02 | 1.07 | 0.66 | -34.50 |
| 1,614.00 | 1.41 | 12.99 | 1,613.36 | -12.91 | 4.73 | 5.81 | 0.37 | -0.37 | -0.10 |
| 1,709.00 | 1.48 | 35.32 | 1,708.33 | -10.77 | 5.70 | 3.61 | 0.59 | 0.07 | 23.51 |
| 1,804.00 | 1.09 | 56.44 | 1,803.31 | -9.27 | 7.17 | 1.51 | 0.64 | -0.41 | 22.23 |
| 1,828.00 | 1.14 | 55.70 | 1,827.30 | -9.01 | 7.55 | 1.06 | 0.22 | 0.21 | -3.08 |
| 1,860.00 | 1.23 | 31.62 | 1,859.30 | -8.54 | 8.00 | 0.41 | 1.57 | 0.28 | -75.25 |
| 1,891.00 | 1.06 | 18.00 | 1,890.29 | -7.98 | 8.26 | -0.17 | 1.03 | -0.55 | -43.94 |
| 1,923.00 | 3.25 | 253.98 | 1,922.27 | -7.95 | 7.48 | 0.36 | 12.32 | 6.84 | -387.56 |
| 1,954.00 | 7.52 | 244.80 | 1,953.13 | -9.06 | 4.80 | 3.03 | 14.01 | 13.77 | -29.61 |
| 1,986.00 | 10.83 | 241.21 | 1,984.72 | -11.40 | 0.27 | 7.89 | 10.49 | 10.34 | -11.22 |
| 2,018.00 | 14.52 | 237.96 | 2,015.93 | -14.97 | -5.77 | 14.68 | 11.74 | 11.53 | -10.16 |
| 2,049.00 | 17.11 | 241.07 | 2,045.76 | -19.24 | -13.06 | 22.85 | 8.79 | 8.35 | 10.03 |
| 2,081.00 | 19.04 | 241.74 | 2,076.18 | -23.99 | -21.77 | 32.36 | 6.07 | 6.03 | 2.09 |
| 2,113.00 | 20.30 | 241.81 | 2,106.31 | -29.08 | -31.26 | 42.67 | 3.94 | 3.94 | 0.22 |
| 2,144.00 | 22.21 | 240.07 | 2,135.20 | -34.55 | -41.08 | 53.47 | 6.49 | 6.16 | -5.61 |
| 2,175.00 | 23.94 | 238.71 | 2,163.72 | -40.74 | -51.54 | 65.23 | 5.84 | 5.58 | -4.39 |
| 2,207.00 | 26.63 | 236.40 | 2,192.65 | -48.08 | -63.06 | 78.56 | 8.95 | 8.41 | -7.22 |
| 2,238.00 | 30.77 | 232.75 | 2,219.84 | -56.73 | -75.17 | 93.23 | 14.50 | 13.35 | -11.77 |
| 2,270.00 | 33.95 | 231.09 | 2,246.87 | -67.30 | -88.64 | 110.23 | 10.32 | 9.94 | -5.19 |
| 2,301.00 | 37.30 | 231.42 | 2,272.06 | -78.60 | -102.72 | 128.17 | 10.82 | 10.81 | 1.06 |
| 2,332.00 | 40.45 | 232.89 | 2,296.19 | -90.53 | -118.09 | 147.46 | 10.59 | 10.16 | 4.74 |
| 2,364.00 | 45.16 | 231.36 | 2,319.66 | -103.88 | -135.24 | 169.03 | 15.07 | 14.72 | -4.78 |
| 2,395.00 | 47.57 | 226.91 | 2,341.06 | -118.57 | -152.18 | 191.39 | 12.97 | 7.77 | -14.35 |
| 2,427.00 | 49.28 | 223.47 | 2,362.30 | -135.44 | -169.15 | 215.32 | 9.65 | 5.34 | -10.75 |
| 2,459.00 | 49.85 | 218.44 | 2,383.06 | -153.82 | -185.11 | 239.61 | 12.09 | 1.78 | -15.72 |
| 2,490.00 | 52.32 | 216.54 | 2,402.53 | -172.96 | -199.78 | 263.52 | 9.29 | 7.97 | -6.13 |
| 2,522.00 | 55.12 | 215.83 | 2,421.47 | -193.78 | -215.00 | 289.02 | 8.93 | 8.75 | -2.22 |
| 2,553.00 | 58.54 | 215.61 | 2,438.42 | -214.85 | -230.15 | 314.64 | 11.05 | 11.03 | -0.71 |
| 2,584.00 | 63.34 | 216.51 | 2,453.48 | -236.74 | -246.10 | 341.41 | 15.69 | 15.48 | 2.90 |
| 2,616.00 | 66.66 | 217.49 | 2,467.00 | -259.90 | -263.55 | 370.13 | 10.74 | 10.38 | 3.06 |
| 2,648.00 | 68.75 | 219.34 | 2,479.14 | -283.09 | -281.95 | 399.55 | 8.44 | 6.53 | 5.78 |
| 2,679.00 | 69.29 | 223.31 | 2,490.24 | -304.83 | -301.06 | 428.43 | 12.08 | 1.74 | 12.81 |
| 2,710.00 | 71.14 | 224.45 | 2,500.74 | -325.85 | -321.28 | 457.60 | 6.90 | 5.97 | 3.68 |
| 2,742.00 | 71.14 | 224.19 | 2,511.08 | -347.51 | -342.44 | 487.88 | 0.77 | 0.00 | -0.81 |
| 2,773.00 | 73.34 | 225.77 | 2,520.54 | -368.39 | -363.31 | 517.40 | 8.60 | 7.10 | 5.10 |
| 2,805.00 | 77.99 | 228.01 | 2,528.46 | -389.57 | -385.94 | 548.37 | 16.04 | 14.53 | 7.00 |
| 2,827.00 | 82.44 | 227.94 | 2,532.20 | -404.08 | -402.04 | 570.01 | 20.23 | 20.23 | -0.32 |
| 2,895.00 | 84.50 | 227.44 | 2,539.93 | -449.55 | -451.99 | 637.48 | 3.12 | 3.03 | -0.74 |
| 2,926.00 | 84.61 | 227.43 | 2,542.87 | -470.43 | -474.72 | 668.31 | 0.36 | 0.35 | -0.03 |
| 2,957.00 | 84.68 | 227.51 | 2,545.76 | -491.29 | -497.47 | 699.15 | 0.34 | 0.23 | 0.26 |
| 3,051.00 | 84.59 | 224.80 | 2,554.55 | -556.11 | -564.96 | 792.70 | 2.87 | -0.10 | -2.88 |
| 3,145.00 | 84.68 | 224.72 | 2,563.34 | -622.57 | -630.86 | 886.29 | 0.13 | 0.10 | -0.09 |
| 3,241.00 | 85.47 | 224.54 | 2,571.58 | -690.63 | -698.05 | 981.93 | 0.84 | 0.82 | -0.19 |

Survey Report

Scientific Drilling

| | | | |
|---|---|---|---|
| **Company:** | Tidewater Oil & Gas, LLC | **Local Co-ordinate Reference:** | Well Tidewater State 32-31H-2119 |
| **Project:** | Grand County, UT NAD83 | **TVD Reference:** | GL 4861.20 @ 4861.20ft |
| **Site:** | Tidewater State 32-31H-2119 | **MD Reference:** | GL 4861.20 @ 4861.20ft |
| **Well:** | Tidewater State 32-31H-2119 | **North Reference:** | True |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | OH | **Database:** | Grand Junction District |

**Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 3,336.00 | 86.09 | 224.36 | 2,578.58 | -758.27 | -764.40 | 1,076.67 | 0.68 | 0.65 | -0.19 |
| 3,431.00 | 87.23 | 223.57 | 2,584.11 | -826.53 | -830.23 | 1,171.50 | 1.46 | 1.20 | -0.83 |
| 3,526.00 | 88.72 | 224.36 | 2,587.47 | -894.86 | -896.14 | 1,266.42 | 1.77 | 1.57 | 0.83 |
| 3,621.00 | 89.87 | 224.01 | 2,588.64 | -962.98 | -962.35 | 1,361.41 | 1.27 | 1.21 | -0.37 |
| 3,716.00 | 90.75 | 224.01 | 2,588.12 | -1,031.30 | -1,028.35 | 1,456.40 | 0.93 | 0.93 | 0.00 |
| 3,811.00 | 91.28 | 224.80 | 2,586.44 | -1,099.16 | -1,094.81 | 1,551.38 | 1.00 | 0.56 | 0.83 |
| 3,847.00 | 91.89 | 224.54 | 2,585.44 | -1,124.75 | -1,120.11 | 1,587.36 | 1.84 | 1.69 | -0.72 |
| 3,900.00 | 91.89 | 224.54 | 2,583.70 | -1,162.51 | -1,157.27 | 1,640.33 | 0.00 | 0.00 | 0.00 |

Checked By: _____ Approved By: _____ Date: _____



RECEIVED: Jun. 03, 2015

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

**FORM 9**

**5.LEASE DESIGNATION AND SERIAL NUMBER:** ML51628

## 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:**

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** Tidewater State 32-31H-2119

**2. NAME OF OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC

**9. API NUMBER:** 43019500260000

**3. ADDRESS OF OPERATOR:** 110 16th Street, Suite 405 , Denver, CO, 80202 5206

**PHONE NUMBER:** 303 468-0656 Ext 201

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0158 FNL 2224 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWNE Section: 32 Township: 21.0S Range: 19.0E Meridian: S

**COUNTY:** GRAND

**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 |
| ☑ SUBSEQUENT REPORT<br>Date of Work Completion:<br>5/15/2015 | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DRILLING REPORT<br>Report Date: | ☐ 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: workover |

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

Attached please find the daily reports for the workover procedure performed on this well. If additional information is required, please advise. Thank you.

**Accepted by the**
**Utah Division of**
**Oil, Gas and Mining**
**FOR RECORD ONLY**
June 11, 2015

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Vanessa Cameron | 303 868-6449 | Regulatory Analyst |
| **SIGNATURE** | | **DATE** |
| N/A | | 6/5/2015 |

RECEIVED: Jun. 05, 2015

# WALSH ENGINEERING & PRODUCTION CORPORATION

## WORKOVER AND COMPLETION REPORT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Operator:** | Tidewater Oil & Gas Co. LLC | | **Well Name:** | Tidewater Federal 32-31H-2119 | | | |
| **Date:** | Wednesday, May 13, 2015 | | **Report #:** | 1 | **Sec:** | **TWN:** | **RNG:** |
| **Field:** | Wildcat Field | **Elev: GL** | 5,136' GL | **Cnty:** | Grand | **State:** | Utah |
| **Contractor:** | LOBO Rig #101 | **Supervisor:** | J.Jacobs | | | | |

**Daily Summary:** *Road rig & crew Fr: 12-24D pad to location. MIRU LOBO Rig #101. Hot oil tbg & rods. TOOH laying dwn rod string. Flush tbg W/ another 40 bbls hot water. SISW, SDFN.*

**Detailed Work Summary:**

- Road rig & crew from 12-24D pad to location. (Approx. 12 mile rig move)
- Arrived on location, checked for hazards & held safety meeting prior to R/U. All anchors are on location.
- Spot in SU, & support Equip.
- Retrieve Pressures- SICP- 00PSI, SITP- 00 PSI. Opened up well to frac tank.
- MIRU Hot Oil Express & held safety meeting. Loaded on 45 bbls lease crude from frac tank.
- Hot oiled tbg & rods W/ 45 bbls lease crude @ 275°. Seen a good size gas bubble circulate back to tank while hot oiling.
- RDMO Hot Oil Express.
- POOH W/ laying down Rod string as follows:

(1)- 1-1/2'' x 25' Polished Rod. Pumping T is equipped W/ 2-7/8'' EUE Rod Lock.
(74)- ¾'' Plain Gr. "D" Norris Sucker Rods.
All rods came out in brand new like condtion.

- Tied on & flushed Tbg W/ 40 bbls 2% KCL fluid @ 275°. No gas was seen while circulating water to frac tank.
- Secure location, shut down for night.

24 Hr. Forecast- POOH W/ Tbg string (visually inspecting). Lay dwn x amount of tbg to adjust for new landing depth. RIH W/ BHA & 2-3/8'' Production Tbg String. Land Tbg. NU B2 wellhead. Begin swabbing well. Will swab till gas is recorded & well kicks off.

**Daily Costs:**

| | | | | | |
|---|---|---|---|---|---|
| Hot Oil Trk | $1,435 | Hot Oil Express | | Tubulars | |
| Rig Costs | $1,419 | LOBO WELL SERVICE | | Casing | |
| Port -O- John port o pot | | | | Tool Hand | |
| Mud Bkt Rental | | | | Casing Crew | |
| Flow back tank Rntl | | | | ESP Pmp & Wellhead | |
| Wireline Services | | | | Water Hauling | |
| Trucking (Rig Move) | | Triple PPP (1 Truck) | | 6-1/4" String Mill | |
| Trucking (Rig Move) | | | | DC Rentals | |
| Pull test Guy Line Anchors | | | | Hot Shot Trk | |
| Water Hauling | | | | Trailer Rental | |
| Engr. & Supervision | $0 | WALSH ENG. (J.Jacobs) | | Night Watch | |
| Water Disposal | | D-rate + Mileage & 7%Tax | | Light Tower | |
| Other/Hydro-vac Trk | | | | | |

**Total Daily Costs:** $2,854
**Cumulative Costs:** $2,854

## Well Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TD:** | | **Run in well** | | | | | |
| **PBTD:** | | Tubing: | | Joints: | | Grade: | J-55 |
| | | Weight: | | Thread: | 8RD, EUE | Length: | |
| **SURF. CSG:** | | TBG SUBS: | KB | | | Length: | |
| **PROD. CSG:** | | F-Nipple | | | | Length: | |
| | | PACKER: | | | | Length: | |
| | | **Bottom of Tubing/Production String Landed at:** | | | | | |
| | | **Rods:** | | Size: | | | |
| **Perfs:** | | Rods: | | Size: | | | |
| | | Sinker Bars: | | | | | |
| | | **Pump:** | | | | | |
| | | **Make:** | | | | | |
| | | **PACKER:** | | | | | |
| | | **MISC:** | | | | | |
| | | **How Set:** | | | | | |

RECEIVED: Jun. 05, 2015

# WALSH ENGINEERING & PRODUCTION CORPORATION

## WORKOVER AND COMPLETION REPORT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Operator:** | Tidewater Oil & Gas Co. LLC | | | **Well Name:** | Tidewater Federal 32-31H-2119 | | |
| **Date:** | Thursday, May 14, 2015 | | **Report #:** | 2 | **Sec:** | **TWN:** | **RNG:** |
| **Field:** | Wildcat Field | **Elev: GL** | 5,136' GL | **Cnty:** | Grand | **State:** | Utah |
| **Contractor:** | LOBO Rig #101 | **Supervisor:** | J.Jacobs | | | | |

**Daily Summary:** *Nippled around & TOOH W/ Tbg. SDFN.*

**Detailed Work Summary:**

- R/U truck broke down on way to location. Kept rig crew in town.
- Retrieved pressures- SICP- 00 PSI, SITP- 00PSI. Opened up well to tank.
- Crew was dispatched to location at 10:00.
- Crew travel to location.
- Held PJSM safety meeting W/ all on location.
- Spotted in rig support equipment.
- NDWH/NUBOP & function test.
- R/U floor & 2-3/8'' Tbg Equip.
- TOOH tallying 2-3/8'', 4.7#, J55, 8RD EUE Production Tubing String as follows:

(98)- Jts 2-3/8'' tbg. Tallied 2,916' of tbg. No jewelry was recorded in tbg string.

- SISW, clean & secure location, Dbrief crew, SDFN.

NOTES: We had down time today while moving rig equipment from Blaze pad to location, due to rain & muddy conditions.

**Daily Costs:**

| | | | | | |
|---|---|---|---|---|---|
| Hot Oil Trk | | *Hot Oil Express* | Tubulars 1 Jt Tbg | | |
| Rig Costs | $2,133 | *LOBO WELL SERVICE* | Casing | | |
| Port -O- John port o pot | | | Tool Hand | | *CAMERON* |
| Mud Bkt Rental | | | Casing Crew | | |
| Flow back tank Rntl | | | Rod Pump | | |
| Wireline Services | | | Water Hauling | | |
| Trucking (Rig Move) | | | 6-1/4" String Mill | | |
| Trucking (Rig Move) | | | DC Rentals | | |
| Pull test Guy Line Anchors | | | Hot Shot Trk | | |
| Water Hauling | | | Trailer Rental | | |
| Engr. & Supervision | $1,300 | *WALSH ENG. (J.Jacobs)* | Night Watch | | |
| Water Disposal | | *D-rate + Mileage & 7%Tax* | Light Tower | | |
| Other/Hydro-vac Trk | | | | | |

**Total Daily Costs:** $3,433

**Cumulative Costs:** $6,287

## Well Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TD:** | | **Run in well** | | | | | |
| **PBTD:** | | *Tubing:* | | *Joints:* | | *Grade:* | *J-55* |
| | | *Weight:* | | *Thread:* | | *Length:* | |
| *SURF. CSG:* | | *TBG SUBS:* | *KB* | | | *Length:* | |
| *PROD. CSG:* | | *BHA:* | | | | *Length:* | |
| | | *PACKER:* | | | | *Length:* | |
| | | *Bottom of Tubing/Production String Landed at:* | | | | | |
| | | *Rods:* | | *Size:* | | | |
| *Perfs:* | | *Rods:* | | *Size:* | | | |
| | | *Sinker Bars:* | | | | | |
| | | *Pump:* | | | | | |
| | | *Make:* | | | | | |
| | | *PACKER:* | | | | | |
| | | *MISC:* | | | | | |
| | | *How Set:* | | | | | |

RECEIVED: Jun. 05, 2015

# WALSH ENGINEERING & PRODUCTION CORPORATION

## WORKOVER AND COMPLETION REPORT

| | | | | | | |
|---|---|---|---|---|---|---|
| **Operator:** | Tidewater Oil & Gas Co. LLC | | **Well Name:** | Tidewater Federal 32-31H-2119 | | |
| **Date:** | Friday, May 15, 2015 | **Report #:** | 3 | **Sec:** | **TWN:** | **RNG:** |
| **Field:** | Wildcat Field | **Elev: GL** | 5,136' GL | **Cnty:** | Grand | **State:** Utah |
| **Contractor:** | LOBO Rig #101 | **Supervisor:** | J.Jacobs | | | |

**Daily Summary:** *TIH W/ BHA & 2-3/8" Prod. Tbg. R/D Floor, NDBOP/NUWH. Swab & kicked off well. SDFN.*

**Detailed Work Summary:**

- Crew travel to location.
- Held PJSM safety meeting W/ all on location.
- Retrieve pressures- SICP- 00PSI, SITP- 00PSI. Open up well to tank.
- TIH W/ 2-3/8'', 4.7#, J55, 8RD EUE Production Tbg as follows:

(1)- 2-3/8'' x 1.780 ID X-Nipple.
(80)- Jts 2-3/8'' Tbg.
Land end of tbg/X-Nipple @ 2,603.67 KB/MD.

- R/D Floor & tbg equip.
- NDBOP/ NU 5K WKM B-2 adapter wellhead.
- R/U 2-3/8'' swab equip.
- Swabbed well as follows:

Made a total of 18 swab runs.
Recovered ~92 bbls fluid. 85 bbls oil, 7 water. Transferred fluid up to pad above location.
Beginning fluid level- ~500'.
Ending fluid level- ~1400'.
Beginning SICP- 00 PSI
Ending SICP- 290 PSI
Well kicked off after 18th swab run @ 1400Hrs. Natural flowed well till 1800Hrs & recovered 4 bbls fluid (mostly oil). Ending recorded Csg pressure was 240 PSI.

- Turned over ops for night flow back.

24 Hr. Forecast- 2 rig hands will stay & natural flow well back overnight monitoring fluid returns & recording pressures. Swab as necessary.

**Daily Costs:**

| | | | | | |
|---|---|---|---|---|---|
| Hot Oil Trk | | | Tubulars 1 Jt Tbg | | |
| Rig Costs | $2,666 | LOBO WELL SERVICE | Casing | | |
| Port -O- John port o pot | | | Tool Hand | | |
| Mud Bkt Rental | | | Casing Crew | | |
| Flow back tank Rntl | | | Rod Pump | | |
| Wireline Services | | | Water Hauling | | |
| Trucking (Rig Move) | | | 6-1/4" String Mill | | |
| Trucking (Rig Move) | | | DC Rentals | | |
| Pull test Guy Line Anchors | | | Hot Shot Trk | | |
| Water Hauling | | | Trailer Rental | | |
| Engr. & Supervision | $1,300 | WALSH ENG. (J.Jacobs) | Night Watch | | |
| Water Disposal | | D-rate + Mileage & 7%Tax | Light Tower | | |
| Other/Hydro-vac Trk | | | | | |

**Total Daily Costs:** $3,966
**Cumulative Costs:** $10,253

## Well Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TD:** | | **Run in well** | | | | | |
| **PBTD:** | | **Tubing:** | 2-3/8" | **Joints:** | 80 | **Grade:** | J-55 |
| | | **Weight:** | 4.7# | **Thread:** | EUE | **Length:** | 2592.67 |
| **SURF. CSG:** | | **TBG SUBS:** | KB | | | **Length:** | 10.00 |
| **PROD. CSG:** | | **BHA:** | 2.875 x 1.780 ID X-Nipple | | | **Length:** | 1.00 |
| | | **PACKER:** | | | | **Length:** | |
| | | **Bottom of Tubing/Production String Landed at:** | | | | | 2603.67 |
| | | **Rods:** | | **Size:** | | | |
| **Perfs:** | | **Rods:** | | **Size:** | | | |
| | | **Sinker Bars:** | | | | | |
| | | **Pump:** | | | | | |
| | | **Make:** | | | | | |
| | | **PACKER:** | | | | | |
| | | **MISC:** | | | | | |
| | | **How Set:** | | | | | |

RECEIVED: Jun. 05, 2015

# WALSH ENGINEERING & PRODUCTION CORPORATION

## WORKOVER AND COMPLETION REPORT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Operator:** | Tidewater Oil & Gas Co. LLC | | **Well Name:** | Tidewater Federal 32-31H-2119 | | | |
| **Date:** | Friday, May 15, 2015 | | **Report #:** | 3 | **Sec:** | **TWN:** | **RNG:** |
| **Field:** | Wildcat Field | **Elev: GL** | 5,136' GL | **Cnty:** | Grand | **State:** | Utah |
| **Contractor:** | LOBO Rig #101 | **Supervisor:** | J.Jacobs | | | | |

**Daily Summary:** *Natural flowed well & made 2 swab runs to keep well flowing fluid. Turn over to day flow back report.*

**Detailed Work Summary:**

- Well flowed from 1800Hrs to 2300Hrs & began acting sluggish. Csg pressure was 200 PSI. Fluid recovered- 7 bbls fluid (50/50 water/oil)
- Made 1 swab run, found fluid level @ ~1000'. Swabbed back 3.5 bbls fluid (mostly oil). Csg pressure increased to 220 PSI.
- Natural flowed well from 2300Hrs to 0430Hrs when well completely logged off. Csg pressure- 290 PSI.
- Made 1 swab run @ 0430Hrs, fluid level @ ~800'. Swabbed back 4 bbls fluid (mostly water W/ skim of oil).
- Cont'd natural flowing well Fr: 0430 Hrs > 0700 Hrs & recovered another 1.5 bbls fluid (mostly water).
- Turn over to daylight flowback ops @ 0700 Hrs.

Swab runs made- 2.
Fluid recovered for 5/15/2015 nights- 15 bbls.
Total fluid recovered for job- 105 bbls.
Fluid levels- ~800' > ~1000'.

24 Hr. Forecast- Natural flow well & swab as necessary.

**Daily Costs:**

| | | | | |
|---|---|---|---|---|
| Hot Oil Trk | | | Tubulars 1 Jt Tbg | |
| Rig Costs/2 flowback hands | $840 | LOBO WELL SERVICE | Casing | |
| Port -O- John port o pot | | | Tool Hand | |
| Mud Bkt Rental | | | Casing Crew | |
| Flow back tank Rntl | | | Rod Pump | |
| Wireline Services | | | Water Hauling | |
| Trucking (Rig Move) | | | 6-1/4" String Mill | |
| Trucking (Rig Move) | | | DC Rentals | |
| Pull test Guy Line Anchors | | | Hot Shot Trk | |
| Water Hauling | | | Trailer Rental | |
| Engr. & Supervision | | WALSH ENG. (J.Jacobs) | Night Watch | |
| Water Disposal | | D-rate + Mileage & 7%Tax | Light Tower | |
| Other/Hydro-vac Trk | | | | |

**Total Daily Costs:** $840
**Cumulative Costs:** $11,093

## Well Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TD:** | | **Run in well** | | | | | |
| **PBTD:** | | **Tubing:** | 2-3/8" | **Joints:** | 80 | **Grade:** | J-55 |
| | | **Weight:** | 4.7# | **Thread:** | EUE | **Length:** | 2592.67 |
| **SURF. CSG:** | | **TBG SUBS:** | KB | | | **Length:** | 10.00 |
| **PROD. CSG:** | | **BHA:** | 2.875 x 1.780 ID X-Nipple | | | **Length:** | 1.00 |
| | | **PACKER:** | | | | **Length:** | |
| | | **Bottom of Tubing/Production String Landed at:** | | | | | 2603.67 |
| | | **Rods:** | | **Size:** | | | |
| **Perfs:** | | **Rods:** | | **Size:** | | | |
| | | **Sinker Bars:** | | | | | |
| | | **Pump:** | | | | | |
| | | **Make:** | | | | | |
| | | **PACKER:** | | | | | |
| | | **MISC:** | | | | | |
| | | **How Set:** | | | | | |

RECEIVED: Jun. 05, 2015

# WALSH ENGINEERING & PRODUCTION CORPORATION

## WORKOVER AND COMPLETION REPORT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Operator:** | Tidewater Oil & Gas Co. LLC | | **Well Name:** | Tidewater Federal 32-31H-2119 | | | |
| **Date:** | Saturday, May 16, 2015 | | **Report #:** | 4 | **Sec:** | **TWN:** | **RNG:** |
| **Field:** | Wildcat Field | **Elev: GL** | 5,136' GL | **Cnty:** | Grand | **State:** | Utah |
| **Contractor:** | LOBO Rig #101 | **Supervisor:** | J.Jacobs | | | | |

**Daily Summary:** *Natural flowed well till 1200Hrs. SI well & recorded SI pressures. Made 1 swab run & SIW till Monday. SDFWE.*

**Detailed Work Summary:**

- Well flowed from 0700Hrs to 1100Hrs. Csg pressure was 190 PSI. Fluid recovered- .75 bbls fluid (mostly water). Spoke W/ lease operator Mike Rammstetter & was advised to SIW for a couple days to conserve gas.
- We performed a timed blow down of the Csg. Csg blew dwn from 190 PSI to 00 PSI in 8 minutes & recovered ~1 bbl fluid from csg. Tbg & Csg stayed @ equalized pressures while blowing dwn.
- SIW @ 1230Hrs. Pressures built up to 190 PSI in 10 minutes.

Swab runs made- 1.
Fluid recovered for 5/16/2015 days- 1.75 bbls.
Total fluid recovered for job- 106.75 bbls.
Fluid levels- ~800'.

24 Hr. Forecast- Drive to location & record Tbg/Csg pressures & report back to Jim Jones.

**Daily Costs:**

| | | | | |
|---|---|---|---|---|
| Hot Oil Trk | | | Tubulars 1 Jt Tbg | |
| Rig Costs/2 flowback hands | $451 | LOBO WELL SERVICE | Casing | |
| Port -O- John port o pot | | | Tool Hand | |
| Mud Bkt Rental | | | Casing Crew | |
| Flow back tank Rntl | | | Rod Pump | |
| Wireline Services | | | Water Hauling | |
| Trucking (Rig Move) | | | 6-1/4" String Mill | |
| Trucking (Rig Move) | | | DC Rentals | |
| Pull test Guy Line Anchors | | | Hot Shot Trk | |
| Water Hauling | | | Trailer Rental | |
| Engr. & Supervision | $1,300 | WALSH ENG. (J.Jacobs) | Night Watch | |
| Water Disposal | | D-rate + Mileage & 7%Tax | Light Tower | |
| Other/Hydro-vac Trk | | | | |

**Total Daily Costs:** $1,751
**Cumulative Costs:** $12,844

## Well Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TD:** | | **Run in well** | | | | | |
| **PBTD:** | | **Tubing:** | 2-3/8" | **Joints:** | 80 | **Grade:** | J-55 |
| | | **Weight:** | 4.7# | **Thread:** | EUE | **Length:** | 2592.67 |
| **SURF. CSG:** | | **TBG SUBS:** | KB | | | **Length:** | 10.00 |
| **PROD. CSG:** | | **BHA:** | 2.875 x 1.780 ID X-Nipple | | | **Length:** | 1.00 |
| | | **PACKER:** | | | | **Length:** | |
| | | **Bottom of Tubing/Production String Landed at:** | | | | | 2603.67 |
| | | **Rods:** | | **Size:** | | | |
| **Perfs:** | | **Rods:** | | **Size:** | | | |
| | | **Sinker Bars:** | | | | | |
| | | **Pump:** | | | | | |
| | | **Make:** | | | | | |
| | | **PACKER:** | | | | | |
| | | **MISC:** | | | | | |
| | | **How Set:** | | | | | |

RECEIVED: Jun. 05, 2015

# 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:** ML51628

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

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

**1. TYPE OF WELL** Oil Well

**8. WELL NAME and NUMBER:** Tidewater State 32-31H-2119

**2. NAME OF OPERATOR:** TIDEWATER OIL & GAS COMPANY, LLC

**9. API NUMBER:** 43019500260000

**3. ADDRESS OF OPERATOR:** 110 16th Street, Suite 405 , Denver, CO, 80202 5206

**PHONE NUMBER:** 303 468-0656 Ext 201

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0158 FNL 2224 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: NWNE Section: 32 Township: 21.0S Range: 19.0E Meridian: S

**COUNTY:** GRAND

**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 |
| ☑ SUBSEQUENT REPORT<br>Date of Work Completion:<br>5/20/2015 | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DRILLING REPORT<br>Report Date: | ☐ 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.**

Please be advised that the above-referenced well was returned to production on 5/20/2015. A production report has already been submitted for May, 2015. Thank you.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
July 07, 2015

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Vanessa Cameron | 303 868-6449 | Regulatory Analyst |
| **SIGNATURE** N/A | | **DATE** 6/30/2015 |

RECEIVED: Jun. 30, 2015