

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

Date Received: 09/04/2013

TYPE OF WELL   OIL    GAS    COALBED    OTHER \_\_\_\_\_

ZONE TYPE   SINGLE ZONE    MULTIPLE ZONES    COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: Caddell      Well Number: 2

Name of Operator: TABULA RASA ENERGY LLC      COGCC Operator Number: 10467

Address: 12012 WICKCHESTER LANE #660  
City: HOUSTON      State: TX      Zip: 77079

Contact Name: Kimberly Rodell      Phone: (303)942-0506      Fax: ( )  
Email: krodell@upstreampm.com

**RECLAMATION FINANCIAL ASSURANCE**

Plugging and Abandonment Bond Surety ID: 20130055

**WELL LOCATION INFORMATION**

QtrQtr: NESE      Sec: 4      Twp: 29S      Rng: 69W      Meridian: 6  
Latitude: 37.551826      Longitude: -105.112081

|                                      |         |                  |         |
|--------------------------------------|---------|------------------|---------|
|                                      | FNL/FSL |                  | FEL/FWL |
| Footage at Surface: <u>1349</u> feet | FSL     | <u>1306</u> feet | FEL     |

Field Name: OAKDALE      Field Number: 60610  
Ground Elevation: 7833      County: HUERFANO

GPS Data:  
Date of Measurement: 07/19/2013      PDOP Reading: 6.0      Instrument Operator's Name: Gary Terry

If well is  Directional       Horizontal (highly deviated)      **submit deviated drilling plan.**

|                              |         |                 |                 |               |         |                 |                 |
|------------------------------|---------|-----------------|-----------------|---------------|---------|-----------------|-----------------|
| Footage at Top of Prod Zone: | FNL/FSL |                 | FEL/FWL         | Bottom Hole:  | FNL/FSL |                 | FEL/FWL         |
| <u>1924</u>                  | FSL     | <u>1106</u>     | FEL             | <u>1924</u>   | FSL     | <u>1106</u>     | FEL             |
| Sec: <u>4</u>                |         | Twp: <u>29S</u> | Rng: <u>69W</u> | Sec: <u>4</u> |         | Twp: <u>29S</u> | Rng: <u>69W</u> |

**LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT**

Surface Ownership:  Fee       State       Federal       Indian

The Surface Owner is:  
(check all that apply)  is the mineral owner beneath the location.  
 is committed to an Oil and Gas Lease.  
 has signed the Oil and Gas Lease.  
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is:  Fee       State       Federal       Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: \_\_\_\_\_      Surface Surety ID: \_\_\_\_\_

**LEASE INFORMATION**

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

T29S R69W Sec. 4: SE/4

Total Acres in Described Lease: 160 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 643 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 880 Feet  
 Building Unit: 1010 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 460 Feet  
 Above Ground Utility: 225 Feet  
 Railroad: 5280 Feet  
 Property Line: 225 Feet

**INSTRUCTIONS:**

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).  
 - Enter 5280 for distance greater than 1 mile.  
 - Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.  
 - Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

**DESIGNATED SETBACK LOCATION INFORMATION**

Check all that apply. This location is within a:  Buffer Zone  
 Exception Zone  
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit  
 - Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.  
 - Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

**SPACING and UNIT INFORMATION**

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 650 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 643 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| ENTRADA                | ENRD           | 520-1                   | 160                           | SE                                   |

**DRILLING PROGRAM**

Proposed Total Measured Depth: 5994 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 650 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type:  Annular Preventor  Double Ram  Rotating Head  None

### GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

### DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

### CASING PROGRAM

| Casing Type | Size of Hole | Size of Casing | Wt/Ft | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR   | 17+1/2       | 13+3/8         | 48    | 0             | 100           | 110       | 100     | 0       |
| SURF        | 12+1/4       | 9+5/8          | 36    | 0             | 600           | 300       | 600     | 0       |
| S.C. 1.1    | 8+3/4        | 7              | 26    | 0             | 5394          | 271       | 5394    | 0       |
| S.C. 1.2    | 8+3/4        | 7              | 29    | 5394          | 5994          | 130       | 5994    | 0       |

Conductor Casing is NOT planned

### DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

### GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

### RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

### OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number 520-1
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

**OPERATOR COMMENTS AND SUBMITTAL**

Comments: The closest well in the same formation has been abandoned. The applied for well will be drilled directionally off the existing Caddell 1 wellpad as referenced below. The Caddell 1 well (API No. 05-055-06285) will share the pad with the new Caddell 2 well. No new surface disturbance is anticipated.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 324565

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Kimberly Rodell

Title: Permit Agent Date: 9/4/2013 Email: krodell@upstreampm.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: *Matthew Lee* Director of COGCC Date: 11/15/2013

Expiration Date: 11/14/2015

**API NUMBER**  
05 055 06312 00

**Conditions Of Approval**

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

**COA Type**

**Description**

|  |   |
|--|---|
|  | <p>1) Provide 48 hour notice prior to spud via electronic Form 42. 2) Provide cement coverage of production casing from TD to 50' above surface casing shoe. Verify coverage with cement bond log.</p> <p>3) Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.</p> <p>4) If dry hole set the following plugs: 40 sks cement 50' above the Entrada, 40 sks cement 50' above the Dakota, 50 sks cement from 50' below surface casing shoe up into surface casing, 15 sks cement in top of surface casing, cut 4 ft below GL, weld on plate, 5 sks cement each in rat hole and mouse hole.</p> |
|--|---|

## Best Management Practices

| No | BMP/COA Type                        | Description   |
|----|-------------------------------------|---|
| 1  | Planning                            | Employ an engineer to assess the capacity of the bridge over Abeyta Creek on CR 441, between Hwy 160 and the access road. Inform Huerfano County Road and Bridge department of the results. If bridge is inadequate for rig mobilization, alternative access will be developed. |
| 2  | Community Outreach and Notification | Operator will notify all property owners along CR 441 prior to construction and drilling activities.  |
| 3  | Pre-Construction                    | Operator will repair 2 cattle guards on CR 441 as agreed to with Huerfano County Road and Bridge. Operator will notify Huerfano County of any additional improvements that need to be made.   |
| 4  | Dust control                        | Operator will water the roads on an as needed basis to mitigate dust. Dust control will be conducted during high traffic periods, such as construction, mobilization, and water hauling.  |
| 5  | Planning                            | Coordinate with Huerfano County Road and Bridge regarding access concerns, including bridge capacity and dust.  |

Total: 5 comment(s)

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## Attachment Check List

| Att Doc Num | Name                   |
|-------------|------------------------|
| 1535331     | SURFACE CASING CHECK   |
| 2518732     | EXCEPTION LOC REQUEST  |
| 400469468   | FORM 2 SUBMITTED       |
| 400476022   | DRILLING PLAN          |
| 400476023   | DEVIATED DRILLING PLAN |
| 400476032   | ACCESS ROAD MAP        |
| 400476119   | LOCATION DRAWING       |
| 400476123   | CONST. LAYOUT DRAWINGS |
| 400476138   | DIRECTIONAL DATA       |
| 400476648   | SURFACE AGRMT/SURETY   |
| 400476699   | WELL LOCATION PLAT     |

Total Attach: 11 Files

## General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u>      |
|-------------------|--|--------------------------|
| Permit            | Final review completed; public comment received.   | 11/12/2013<br>9:20:22 AM |
| Permit            | Changed distance to unit boundary to reflect shortest distance to SE/4 unit boundary. Operator will use oil based mud.   | 11/12/2013<br>9:07:48 AM |
| OGLA              | Public comment indicates operator failed to post signage in accordance with Rule 305.g. However, Rule 305.g. requires posting concurrent with statutory notice to surface owner, which is required 30 days prior to commencement of operations with heavy equipment. | 11/11/2013<br>1:05:42 PM |
| Public            | I drove past the area on County Road 441 indicated on the COGCC GIS map, but could not see a sign.This was on September 27, 2013.<br><br>Refer to COGCC rule 305.g. Location signage.  | 10/3/2013<br>2:51:20 PM  |
| Permit            | This permit is Tabula Rasa's priority for review and approval. Exception Loc Request received and attached. Exception request box checked.   | 10/2/2013<br>11:17:41 AM |
| OGLA              | Activated CDPHE consultation on related Form 2A (400477202) per LGD request. Contacted CDPHE to ensure process under way.  | 9/25/2013<br>9:24:16 PM  |
| OGLA              | Extended public comment period by LGD request from 9/26/13 to 10/7/13.   | 9/25/2013<br>9:23:45 PM  |
| Permit            | Discussed with permit contractor the need for an exception location allowing for two wells within the 160 acre unit. Operator will submit an exception location request.   | 9/25/2013<br>10:17:07 AM |
| Permit            | The Caddell #1 (on the same pad)well appears to be potentially be an Entrada produced. Order 520-1 allows for only one well in the 160 acre unit.  | 9/23/2013<br>2:14:42 PM  |
| Permit            | Requested a map showing location of the property described in the SUA.   | 9/23/2013<br>2:02:24 PM  |
| Permit            | Operator revised distances to building and building unit.  | 9/9/2013<br>11:31:07 AM  |
| Permit            | A house a appears to be 1260 feet south of the location and another building appears to be 880 feet SE of the well location on county road 441.  | 9/6/2013 2:00:38<br>PM   |
| Permit            | Is an exception required for the distance between wellbores producing from the same formation?   | 9/6/2013 9:23:00<br>AM   |
| Permit            | Form 2A is in draft, just initiated at the request of the COGCC as a required document.  | 9/6/2013 8:26:05<br>AM   |
| Permit            | Return to Draft: Needs Location Plat. A Form 2A is required since a well is being added to a pad that has no Form 2A.  | 9/5/2013 9:02:45<br>AM   |

Total: 15 comment(s)