

FORM
2A

Rev
08/13

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

400477005

Date Received:

09/13/2013

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 324578

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

324578

Expiration Date:

05/20/2017

☒ This location assessment is included as part of a permit application.

CONSULTATION

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # _____
- ☐ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 10467
Name: TABULA RASA ENERGY LLC
Address: 12012 WICKCHESTER LANE #660
City: HOUSTON State: TX Zip: 77079

Contact Information

Name: Kimberley Rodell
Phone: (303) 942-0506
Fax: ()
email: krodell@upstreampm.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20130055 ☐ Gas Facility Surety ID: _____
☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Andreatta Number: 3
County: HUERFANO
QuarterQuarter: NESW Section: 10 Township: 29S Range: 69W Meridian: 6 Ground Elevation: 7558
Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.
Footage at surface: 1381 feet FSL from North or South section line
1610 feet FWL from East or West section line
Latitude: 37.537623 Longitude: -105.101977
PDOP Reading: 6.0 Date of Measurement: 07/19/2013
Instrument Operator's Name: Gary L. Terry

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	<u>2</u>	Oil Tanks	<u> </u>	Condensate Tanks	<u> </u>	Water Tanks	<u> </u>	Buried Produced Water Vaults	<u> </u>
Drilling Pits	<u> </u>	Production Pits	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits	<u> </u>	Temporary Large Volume Above Ground Tanks	<u> </u>
Pump Jacks	<u> </u>	Separators	<u> </u>	Injection Pumps	<u> </u>	Cavity Pumps	<u> </u>		
Gas or Diesel Motors	<u> </u>	Electric Motors	<u> </u>	Electric Generators	<u> </u>	Fuel Tanks	<u> </u>	Gas Compressors	<u> </u>
Dehydrator Units	<u> </u>	Vapor Recovery Unit	<u> </u>	VOC Combustor	<u> </u>	Flare	<u> </u>	LACT Unit	<u> </u>
								Pigging Station	<u> </u>

OTHER FACILITIES

Other Facility Type

Number

<input type="text"/>	<input type="text"/>
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Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

A CO2 pipeline will be installed.

CONSTRUCTION

Date planned to commence construction: 05/19/2014 Size of disturbed area during construction in acres: 1.30
Estimated date that interim reclamation will begin: 06/25/2014 Size of location after interim reclamation in acres: 0.80
Estimated post-construction ground elevation: 7558

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

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

Will oil based drilling fluids be used? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Theresa Andreatta et al Phone:

Address: 88 CR 442

Fax: _____

Address: _____

Email: _____

City: La Veta State: CO Zip: 81055

Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian

Check all that apply. The Surface Owner: ☒ is the mineral owner

☒ 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 from or produced to this Oil and Gas Location: Yes

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

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

Date of Rule 306 surface owner consultation 07/23/2013

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

Future Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 810 Feet
Building Unit: 1346 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 300 Feet
Above Ground Utility: 150 Feet
Railroad: 5280 Feet
Property Line: 1238 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- 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: _____

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 15 Denver clay loam, 4 to 25 percent slopes

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☒ NRCS or, ☐ field observation Date of observation: _____

List individual species: Western wheatgrass, Blue grama, Green needlegrass, Other perennial forbes, Other perennial grasses, Prairie Junegrass, Rubber rabbitbrush, Sideoats grama, Slender wheatgrass, Bottlebrush squirreltail, Needleandthread, Other shrubs, Spike muhly, Wormwood

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- ☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- ☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- ☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- ☐ Alpine (above timberline)
- ☐ Other (describe): _____

WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: 260 Feet

water well: 1860 Feet

Estimated depth to ground water at Oil and Gas Location 9 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest water well, Permit No. 162634, is north/northeast of the location in Sec. 10 T29S R69W. Depth to groundwater was determined by Water Well Permit No. 139105-A which is located northeast of the location in Sec. 10 T29S R69W. The location is being marked sensitive due to the depth to groundwater.

Is the location in a riparian area: ☒ No ☐ Yes

Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No
zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

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)

RULE 502.b VARIANCE REQUEST

☒ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number 603.a(1)

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	This location is being amended to add the Andreatta 3 onto the existing location of the Andreatta 2. No new surface disturbance is anticipated.
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I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 09/13/2013 Email: krodell@upstreampm.com

Print Name: Kimberly Rodell Title: Permit Agent

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: 5/21/2014

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

<u>COA Type</u>	<u>Description</u>
	Operator shall water the roads and wellsite as necessary to minimize dust and utilize speed control measures to reduce impacts from trucks accessing the well sites.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Operator committed to adhere to the conditions of the Huerfano County Road and Bridge permit.
2	Planning	The power line that is within 200' of the location will be shut in only while stabilizing the mast during rigging up and rigging down and securing all guide wires. Tabula Rasa will not be required to shut in the power when moving equipment in and out of the location.
3	Storm Water/Erosion Control	Tabula Rasa will implement a storm water and erosion plan to prevent sedimentation and erosion.

Total: 3 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1642134	CDPHE CONSULTATION
1642141	VARIANCE REQUEST
1642142	CORRESPONDENCE
1642172	VARIANCE REQUEST
1642177	CORRESPONDENCE
1642178	CORRESPONDENCE
1642179	CONST. LAYOUT DRAWINGS
1642180	CORRESPONDENCE
400477005	FORM 2A SUBMITTED
400480615	LOCATION DRAWING
400480622	NRCS MAP UNIT DESC
400480623	REFERENCE AREA PICTURES
400480628	LOCATION PICTURES
400480630	VARIANCE REQUEST
400480915	REFERENCE AREA MAP
400480999	ACCESS ROAD MAP
400481001	CONST. LAYOUT DRAWINGS
400481003	HYDROLOGY MAP

Total Attach: 18 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed.	5/19/2014 10:43:08 AM
OGLA	COGCC requested additional detail from operator regarding comments from public and LGD. Operator provided additional information 5/15/14 (correspondence doc #1642180). Operator provided revised BMP to protect power lines within 200' during MIRU, as required by variance request. Changed construction date to 5/19/14 (from 10/23/13) and interim reclamation date to 6/25/14 (from 4/25/14). Review process complete--Form 2A off hold.	5/19/2014 7:49:02 AM
OGLA	On 3/28/14, received updated disturbance acreages and reclamation drawings (1642179) from operator. Changed disturbance during construction from 0.1 acres to 1.3 acres and interim reclamation acreage from 0.5 acre to 0.8 acre per operator email (1642178).	5/12/2014 6:00:23 PM
OGLA	On 3/26/14 Operator requested change to COA language, OGLA requested operator provide revised language in BMP. (1642178)	5/12/2014 5:56:36 PM
Final Review	Final Review on hold - requested revised disturbance acreage and add'l info WRT comments (see correspondence 1642177).	3/18/2014 4:31:45 PM
OGLA	Operator provided updated variance request with correct rule citation (1642172).	3/14/2014 1:49:44 PM
OGLA	From February 12 through March 13, COGCC and Operator discussed the Variance Request to reduce the required distance to the overhead power lines. Operator also provided commitment to conduct these permitted operations in the summer, such that muddy/icy roads should not present a safety issue during mobilization. Added COA for dust control and variance approval. OGLA review complete. Form 2A taken OFF HOLD.	3/13/2014 11:03:51 AM
OGLA	Operator has decided to move forward with this location as originally proposed and has provided a request for a variance from the overhead utility line setback of 200' which meets the requirements of Rule 502.b. (See doc 1642141). Variance request incorrectly cites Rule 604.b.(1)A.; actual variance request is from 603.a.(1).	2/21/2014 9:57:31 AM

OGLA	Met with operator 11/8. Discussed access, power line and site grading. Operator will evaluate whether they wish to pursue this permit applicaiton at this time. COGCC will put application on hold for approx 2 weeks. Operator may choose to continue this permit application or withdraw until a later date.	11/11/2013 8:47:04 AM
OGLA	COGCC visited location 10/22. Access road has very steep grades, which may be a concern during construction, MIRU, & water hauling. Overhead utility line appears to serve CO2 plant to the west. Location currently has steep fill slopes on south and east side.	10/28/2013 10:26:36 AM
OGLA	CDPHE consultation conference call with CDPHE, COGCC, LGD, and Operator. Recommendation letter from CDPHE forthcoming. CDPHE Consultation letter received 10/18/13, attached 10/28.	10/11/2013 3:17:20 PM
OGLA	"Pre-consultation" phone conference held with COGCC, CDPHE, & LGD.	10/9/2013 3:34:38 PM
Public	<p>I am the one who started the move-on petition.The purpose was to gain support to request a public meeting with Tabula Rasa.If some of the 142 petition signers contacted Director Lepore, it was on their own initiative, and not at my suggestion.In the absence of a response from Tabula Rasa to date, I request that approval of this permit be postponed</p> <p>until such a time that a meeting is held.There are a number of issues that need explanation, including these.</p> <p>(1) Gas plant venting.Will this new well increase venting volume?What is being vented?</p> <p>(2)Lighting.Will this well be illuminated at night?</p> <p>(3)Enhanced Oil Recovery.What is it?Will it be done in Huerfano County?</p> <p>(4)The Blue Lake CO2 pipeline.Where is it located?</p> <p>(5) Local jobs and tax revenues.Is Huerfano County getting a fair deal?</p>	10/3/2013 3:46:12 PM

OGLA	<p>Correspondence from LGD to CDPHE regarding consultation request: there are 3 provisions that area residents have expressed concern about are Public water system protection As I understand it the Concerns of area residents regarding the close proximity of water run off drainage to the proposed well locations fear the potential for contamination to these water ways in times of summer rains and spring run off. The surface water is 240 feet for the caddell and 260 feet for the andratta This drainage flows into middle creek Middle creek is sometimes used to augment water supply to Walsenburg I am not sure if this would be under public water system protection or stormwater management. In view of the flooding up north recently there is a great concern that the caddell location is within the flood plain and there fore at risk to be damaged with contamination of waterways so close to the well site. We are seeking a proposal of safeguards (best management practices) at these well sites to prevent environmental insults in a flooding situation.</p> <p>Odor an dust</p> <p>The county roads leading to these well sites are dirt/gravel roads. These county roads are designed to carry passenger vehicles and pick up trucks some with trailers. The reality of travel characteristic of energy extraction is unique involving intense periods of very large and heavy vehicles. Drilling 2 wells involves approximately 500 truck trips, considerably more if stimulation techniques are used. Rig trucks have 20,000 to 30,000 times the load impact of a passenger car. With these figures in mind and the condition of the county roads leading to the well site it would be impossible to think that this traffic would not impact a substantial increase in fugitive dust production. We would like the CDPHE to recommend practices the permit application operator could employ the mitigate this issue. It is felt that the amount of fugitive dust produce may be a nuisance and a health hazard especially considering a population in a previous coal mining area with respiratory issues being a major heath concern in this area. The Colorado regional health profiles published by the CDPHE in 2010 reports age adjusted rate of mortality due to chronic lower respiratory disease in Huerfano county per 100,000 population is 83.1 as compared to the state at 51.4.</p> <p>Dale Lyons Huerfano County LGD</p>	<p>10/1/2013 3:34:53 PM</p>
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OGLA	<p>COGCC Director Lepore is in receipt of notices regarding a petition circulated by MoveOn.org</p> <p>COGCC has sent the following correspondence to the individual who started the petition:</p> <p>Dear Sir,</p> <p>Thank you for your interest in the Tabula Rasa Energy LLC permits in Huerfano County that are currently under review at the COGCC. We understand that there is a great deal of concern surrounding oil and gas development in Huerfano County. COGCC has an extensive permit review process that provides for inclusion of comments from the public. However, we are unable to accept the thoughtful comments from your petition signatories into our permit documents for review.</p> <p>Since you have initiated this petition, it would be of great benefit to those interested parties if you would provide them with the necessary guidance explaining exactly how to make comments on the permits themselves. The public comment process established by the COGCC gives each individual an opportunity to review the permit applications, including all their attachments so that they can make the most informed and valuable comments possible. Please note that the Local Governmental Designee (LGD) for Huerfano County has posted guidance for making comments on the Huerfano County webpage. I can also provide that information to you directly to distribute to your signatories.</p> <p>The LGD has requested that the public comment periods be extended; COGCC has granted the request and the new public comment due dates are posted on the COGCC website. The LGD has also requested that the Colorado Department of Public Health and Environment (CDPHE) consult on the applications as provided for in COGCC Rules, and that consultation process has begun.</p> <p>While COGCC cannot necessarily respond in writing to each individual comment, those that bring to light specific concerns regarding public health, safety, welfare and environment will be addressed with the operator by COGCC staff during the review of the permit applications.</p> <p>Thank you for your attention to this matter. Please do not hesitate to contact me.</p> <p>Greg Deranleau Oil and Gas Location Assessment Supervisor</p> <p>Colorado Oil & Gas Conservation Commission 1120 Lincoln Street, Suite 801 Denver, CO 80203</p>	9/27/2013 9:46:21 AM
OGLA	Activated CDPHE consultation task per LGD request. Contacted CDPHE to ensure process under way.	9/25/2013 5:07:02 PM
OGLA	Extended public comment period by LGD request from 10/7/13 to 10/17/13.	9/25/2013 5:06:27 PM
Permit	This form has passed completeness.	9/17/2013 1:46:24 PM
Permit	<p>Returned to draft:</p> <ol style="list-style-type: none"> 1) Number of wells on facility tab incorrect. 2) Must include in Comments why amended 2A being submitted. 	9/16/2013 9:50:44 AM

Total: 19 comment(s)