

FORM
2

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:

400744928

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refilling ☒

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

02/26/2015

Well Name: IGE

Well Number: 132

Name of Operator: ELM RIDGE EXPLORATION COMPANY LLC

COGCC Operator Number: 26625

Address: 12225 GREENVILLE AVE STE 950

City: DALLAS State: TX

Zip: 75243-9362

Contact Name: Terry Lindeman

Phone: (505)632-3476

Fax: (505)632-8151

Email: tlindeman@elmridge.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100130

WELL LOCATION INFORMATION

QtrQtr: SWNW Sec: 11 Twp: 33N Rng: 8W Meridian: N

Latitude: 37.121830

Longitude: -107.691840

Footage at Surface: 1458 feet FNL/FSL FNL 1090 feet FEL/FWL FWL

Field Name: IGNACIO BLANCO

Field Number: 38300

Ground Elevation: 6706

County: LA PLATA

GPS Data:

Date of Measurement: 07/10/2007 PDOP Reading: 1.9 Instrument Operator's Name: Scott Wiebe

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

Footage at Top of Prod Zone: FNL/FSL FNL 1636 FWL 720 FNL 1920 FWL

Sec: 11 Twp: 33W Rng: 8W Sec: 11 Twp: 33N Rng: 8W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: ☐ is the mineral owner beneath the location.

(check all that apply) ☐ 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: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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.)

W/2NW/4, NE/4NW/4 SEC 11, T.33N, R8W, NMPM

Total Acres in Described Lease: 120 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: 596 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2347 Feet
Building Unit: 2347 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 850 Feet
Above Ground Utility: 2437 Feet
Railroad: 5280 Feet
Property Line: 215 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: 746 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 720 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.)
FRUITLAND COAL	FRLDC	112-195	320	W/2

DRILLING PROGRAM

Proposed Total Measured Depth: 34983 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 646 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S 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? No

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 608

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:

Please see Waste Management Plan attached.

Beneficial reuse or land application plan submitted?

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
SURF	12+1/4	8+5/8	24	0	500	400	500	0
1ST	7+7/8	5+1/2	17	0	3498	534	34983	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
- ☐ 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 Please copy me on all correspondence with Operator.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 311970

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: Robert D. Joyce

Title: Agent Date: 2/26/2015 Email: jlr@animas.net

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:  Director of COGCC Date: 3/31/2015

Expiration Date: 03/30/2017

API NUMBER

05 067 09615 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

	Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.
	<p>1) Provide 48 hour notice of spud via form 42</p> <p>2) Run and submit Directional Survey for primary well bore and for each lateral section</p> <p>3) The operator shall comply with Rule 321, and it shall be the operator's responsibility to ensure that the well bore complies with setback requirements in Commission orders and/or rules prior to producing the well.</p> <p>4) Sample and test two closest water wells within 1/2 mile swath of lateral wellbore Fruitland Coal (horizontal dimension – top to bottom of pay).</p> <p>5) Operators are required to obtain a bottom hole pressure utilizing a bottom hole gauge after a minimum 48 hour shut-in period following completion and prior to sales</p> <p>6) Comply with all applicable provisions of Order 112-195</p> <p>7) Borehole problems encountered while drilling that require an unplanned sidetrack: Contact, discuss & receive prior approval from COGCC Regional Engineer – Mark Weems 970-259-4587 off 970-749-0624 cell mark.weems@state.co.us</p> <p>8) Since a plugged and abandoned well (Schull GU#1 API #05-067-05494) is located within a ¼ mile of the proposed gas well, a soil gas vapor monitoring system and program shall be designed and implemented to help determine whether or not there is lack of zonal isolation of formation fluids and whether or not they are migrating to surface.</p>

Best Management Practices

No BMP/COA Type

Description

1	Community Outreach and Notification	Rule 604.a (2)-there are no buildings or building units within 1000' of location.
2	Pre-Construction	Rule 604.c.(2)W-Pre-construction consultation occurred at the time the Surface Damage Agreement was negotiated. In subsequent conversations with, Matt Barnett, agent for Don L. Gosney, the surface owner. No changes were requested and none are anticipated.
3	Traffic control	Rule 604.c.(2)D-From the intersection of State Hwy 172 & County Road 318 in Ignacio, Colorado, travel west on County Road 318 for 5.2 miles; Go right (North) on County Road 311 for 2.0 miles; Go right (East) on County Road 311 for 1.0 miles; Go right (South) for 0.8 miles; Go left (East) for 0.5 miles; Go right (South) for 0.3 miles; Go left (East) for 0.2 miles; Go left (East) for 0.2 miles; Go left (North) for 0.6 miles; Go right (North) well access for 0.1 miles to staked well location on existing IGE 107 well pad. Access is granted by Surface Damage Agreement. Elm Ridge agrees to comply with any La Plata County traffic control measures required for this well.

4	General Housekeeping	Rule 604.c.(2)P- Trash containers will be maintained on site. Trash will be hauled to and disposed at a commercial landfill.
5	Storm Water/Erosion Control	Wattles will be placed, where necessary, around the perimeter of the site prior to, or at the beginning of construction. The size and quantity of the wattles used will vary according to the location to insure adequate protection of drainage areas.
6	Material Handling and Spill Prevention	Rule 604.c.(2)F- Wells are monitored daily by the pumpers. Pressure monitoring is not necessary. Maximum reservoir pressure is approximately 1200 psig. These are low pressure gathering lines. All gathering lines are checked yearly for leaks. Per Rule 604.c.(2)G.- Berms will be constructed with corrugated metal sides and will be sufficient in height and area to contain 150% of the volume of the largest single tank. Synthetic liners are being and will be used under tanks on location. Rule 604.c.(2)N-Any materials not in use that might constitute a fire hazard will be removed a minimum distance of twenty five feet from the wellhead, tanks and separator. No electrical equipment installations are planned inside the bermed area.
7	Construction	Rule 604.c.(2)V.- the IGE 132 well will be located in the immediate vicinity of and partially within the footprint of the existing IGE 107 well pad. Rule 604.c.(2)B.- no fresh water pits are planned. Rule 604.c.(2)E- The existing well access road will be used. No new disturbance is anticipated. Standard specifications for this access road include a driving surface constructed with with 6 inches of 3" minus gravel over a driving surface approximately 12 feet in width, crowned, with ditches and culverts where necessary for drainage. Rule 604.c.(2)M.- The tract of land where the well pad is located is not a designated setback location. Rule 604.c.(2)V-The existing well pad for the Elm Ridge IGE 108 well is being used for this location. 8 Noise mitigation (Rule 604.c.(2)A Drilling and Completion
8	Noise mitigation	(Rule 604.c.(2)A Drilling and Completion: Noise levels will be monitored by operator and if exceeds acceptable levels operator agrees to install sound walls or, if necessary, provide reasonable motel accommodations for the affected party. Post-production: No necessity for engines or motorized equipment is anticipated. If such equipment becomes necessary, Elm Ridge will first try to electrify the location if it is practical and feasible. If not, they will orient exhaust away from the affected party and will use hospital grade mufflers, buried, in series. Elm Ridge will install sound walls if necessary
9	Drilling/Completion Operations	Rule 604.c.(2)B.- A closed loop system will be used. No fresh water pits are planned. Fresh water will be stored in above ground tanks Per Rule 604.c.(2)C.-i.- There are producing wells within one mile of the location of the proposed IGE 132 well. It is anticipated that this will be a producing well and, if so, Elm Ridge will comply with applicable requirements under Rule 805. ii- No uncontrolled venting is anticipated (based on 500 mcf) iii-aa., bb. cc.- Elm Ridge will use a system capable of handling 1.5 Mmcf. Anticipated flowback is 0.5 Mmcf or less. No necessity for flaring is anticipated. Rule 604.c.(2)H.- Elm Ridge will be using a 3M system per BLM specifications. Rule 604.c.(2)I.- BOPE pressure testing will be performed weekly. 604.c.(2)K.- Pit level indicators will be used. 604.c.(2)L- Drill stem tests are not typically done and none are anticipated. Rule 604.c.(2)O- Load lines will be bullplugged Rule 604.c.(2)Q- Guy line anchors will be identified per COGCC rules and are tested before each use. Rule 604.c.(2)S. – Existing well access road will be used and maintained for all weather use and will meet any safety requirements.

Total: 9 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1857555	P&A ASSESSMENT
400744928	FORM 2 SUBMITTED
400800607	DEVIATED DRILLING PLAN
400800608	DRILLING PLAN
400800609	WELL LOCATION PLAT
400800610	SURFACE AGRMT/SURETY
400800611	WASTE MANAGEMENT PLAN
400800612	TOPO MAP
400801578	DIRECTIONAL DATA

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	3/30/2015 4:08:17 PM
Engineer	<p>The proposed gas well is located within an area where unconfined fresh water aquifers are mostly developed in bedrock formations consisting mainly of shale with intermittent sandstone stringers with limited areal extent or having pockets of isolated water reservoirs. Water wells found in these locations can vary in depth from 100' to 650'. These aquifers are commonly identified as the Animas formation.</p> <p>Respective to the proposed gas well, a one (1) mile radius of investigation of all offsetting fresh water wells has determined that the deepest surface casing required to protect the aquifers is a depth of 476' (includes a 50' margin of additional protection). The operator proposed a depth of 500' which exceeds the minimal requirement by a depth of 24'. The surface casing on the proposed well will be cemented from total depth to surface. The production casing on the proposed gas well will also be cemented from total depth to surface. This will serve two purposes (1) it will isolate and confine all hydrocarbon and brackish waters to their respective zones and (2) it will provide double protection for the fresh water aquifers which includes two concentric (2) steel casing strings and two concentric external (2) cement sheaths extending from total depth to surface</p>	3/23/2015 8:37:31 AM
Permit	corrected distances from well to nearest Building from 2477' to 2347' (same as Building Unit).	3/3/2015 11:05:25 AM
Permit	Passed Completeness	3/2/2015 9:47:42 AM

Total: 4 comment(s)