

**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:

400498044

Date Received:

11/15/2013

**Oil and Gas Location Assessment**☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 311909

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:

**311909**

Expiration Date:

☒ 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: 26625

Name: ELM RIDGE EXPLORATION CO LLC

Address: 12225 GREENVILLE AVE STE 950

City: DALLAS State: TX Zip: 75243-9362

**Contact Information**

Name: Terry Lindeman

Phone: (505) 632-3476

Fax: (505) 632-8151

email: tlindeman@elmridge.net

**RECLAMATION FINANCIAL ASSURANCE**

☐ Plugging and Abandonment Bond Surety ID: 20100131 ☐ Gas Facility Surety ID: \_\_\_\_\_

☐ Waste Management Surety ID: \_\_\_\_\_

**LOCATION IDENTIFICATION**

Name: IGE Number: 141

County: LA PLATA

QuarterQuarter: NWNW Section: 17 Township: 33N Range: 8W Meridian: N Ground Elevation: 6665

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: 1214 feet FNL from North or South section line

1102 feet FWL from East or West section line

Latitude: 37.107920 Longitude: -107.746230

PDOP Reading: 2.1 Date of Measurement: 04/03/2008

Instrument Operator's Name: Scott Weibe

## 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 #**

Well Site is served by Production Facilities

311909

## FACILITIES

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

|                      |   |                     |   |                      |  |                 |   |   |  |
|----------------------|---|---------------------|---|----------------------|--|-----------------|---|---|--|
| Wells                | 2 | Oil Tanks           |   | Condensate Tanks     |  | Water Tanks     | 3 | Buried Produced Water Vaults              |  |
| Drilling Pits        |   | Production Pits     |   | Special Purpose Pits |  | Multi-Well Pits |   | Temporary Large Volume Above Ground Tanks |  |
| Pump Jacks           | 1 | Separators          | 2 | Injection Pumps      |  | Cavity Pumps    |   |   |  |
| Gas or Diesel Motors | 1 | Electric Motors     |   | Electric Generators  |  | Fuel Tanks      |   | Gas Compressors                           |  |
| Dehydrator Units     |   | Vapor Recovery Unit |   | VOC Combustor        |  | Flare           |   | LACT Unit                                 |  |
|                      |   |                     |   |                      |  |                 |   | Pigging Station                           |  |

## OTHER FACILITIES

**Other Facility Type**

**Number**

|             |   |
|-------------|---|
| Meter Run   | 1 |
| Meter House | 1 |

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Existing gas line location-tie-in on pad. No water lines. Electric motors will be used if electricity is available.

## CONSTRUCTION

Date planned to commence construction: 03/15/2014 Size of disturbed area during construction in acres: 0.09  
Estimated date that interim reclamation will begin: 06/15/2014 Size of location after interim reclamation in acres: 2.93  
Estimated post-construction ground elevation: 6665

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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? No

## 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:

Where is commercial disposal facility?

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: Opal Lechner

Phone: 970-563-4560

Address: 12922 C.R. 310

Fax: None

Address: \_\_\_\_\_

Email: None

City: Ignacio State: CO Zip: 81137

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: Surface Use Agreement

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

Date of Rule 306 surface owner consultation 09/15/2008

## 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: 464 Feet  
Building Unit: 501 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 1082 Feet  
Above Ground Utility: 634 Feet  
Railroad: 5280 Feet  
Property Line: 169 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: 10/15/2013

## 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: Arboles Clay, 3 to 12 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, big sagebrush, blue gramma, bottleneck squirreltail, India ricegrass, muttongrass, prairie junegrass, Rocky Mountain Juniper, rubber rabbitbrush, twoneedle pinon

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: 5280 Feet

water well: 434 Feet

Estimated depth to ground water at Oil and Gas Location 37 Feet

Basis for depth to groundwater and sensitive area determination:

Distance to closest water well (on Lechner property) as surveyed and shown by 500' Radius Visible Improvement Detail Map (attached)  
Downgradient surface water feature measured from wellhead to nearest drainage shown to lie to the Southwest of the well location as determined by using the topography feature and measurement tools on La Plata County GIS website.  
Ground water level determined by averaging the static water table data prior to test from wells in the vicinity as shown on DWR reports. Well #130274 located on parcel # 595317200199 owned by Opal Lechner-static water levels = 40'; well #0216892 located on Parcel #595317200333 owned by AmyLou Peterson, static water level = 30'; well #0432576 located on parcel #595318100443 owned by Mildred Helton, static water level = 40'; well # 9122130 located on parcel #595317200342 owned by Stephen D. Waters, static water level = 38'.

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 608

## 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 \_\_\_\_\_

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

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

Signed: \_\_\_\_\_ Date: 11/15/2013 Email: jlr@animas.net

Print Name: Robert Joyce Title: 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: \_\_\_\_\_ Director of COGCC Date: \_\_\_\_\_

## 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.

### COA Type

### Description

|  |  |
|--|--|
|  |  |
|--|--|

## Best Management Practices

### No BMP/COA Type

### Description

|   |  |  |
|---|--|--|
| 1 | Community Outreach and Notification    | Rule 604.a (2)-Notices sent 9-24-13-Certified Mail/Return Receipt Requested. All notices were delivered and return receipts were signed by addressee and returned. Return Receipts are scanned and uploaded as attachments.  |
| 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 the surface owner, Opal Lechner, no changes were requested and none are anticipated.  |
| 3 | Traffic control                        | Rule 604.c.(2)D- Access is off County Road 309A, approximately 0.8 miles North of its intersection with County Road 318. Access gate is on the East side of the County Road. Access is granted by existing Surface Damage Agreement (attached). 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                   | <p>Rule 604.c.(2)V.- the IGE 141 well will be located in the immediate vicinity of and partially within the footprint of the existing Harmon Gas Unit A 2 well pad.</p> <p>Rule 604.c.(2)B.- no fresh water pits are planned.</p> <p>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.</p> <p>Rule 604.c.(2)M.- The tract of land where the well pad is located is perimeter fenced with a cattle guard at entrance to well access on CR 309A.</p> <p>Rule 604.c.(2)V-The existing well pad for the Harmon Gas Unit A 2 well is being used for this location.</p>  |
| 8 | Noise mitigation               | <p>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.</p> <p>Post-production:</p> <p>No necessity for engines or motorized equipment is anticipated.</p> <p>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.</p> <p>Elm Ridge will install sound walls if necessary</p>  |
| 9 | Drilling/Completion Operations | <p>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</p> <p>Per Rule 604.c.(2)C.)-i.- There are producing wells within one mile of the location of the proposed IGE 127 well. It is anticipated that this will be a producing well and, if so, Elm Ridge will comply with applicable requirements under Rule 805.</p> <p>ii- No uncontrolled venting is anticipated (based on 500 mcf)</p> <p>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.</p> <p>Rule 604.c.(2)H.- Elm Ridge will be using a 3M system per BLM specifications.</p> <p>Rule 604.c.(2)I.- BOPE pressure testing will be performed weekly.</p> <p>604.c.(2)K.- Pit level indicators will be used.</p> <p>604.c.(2)L- Drill stem tests are not typically done and none are anticipated.</p> <p>Rule 604.c.(2)O- Load lines will be bullplugged</p> <p>Rule 604.c.(2)Q- Guy line anchors will be identified per COGCC rules and are tested before each use.</p> <p>Rule 604.c.(2)S. – Existing well access road will be used and maintained for all weather use and will meet any safety requirements.</p> |

Total: 9 comment(s)

### **Attachment Check List**

#### **Att Doc Num      Name**

|           |                         |
|-----------|-------------------------|
| 400513450 | LOCATION DRAWING        |
| 400513451 | ACCESS ROAD MAP         |
| 400513452 | WELL LOCATION PLAT      |
| 400513453 | FACILITY LAYOUT DRAWING |
| 400513456 | LOCATION DRAWING        |
| 400513458 | NRCS MAP UNIT DESC      |
| 400513725 | LOCATION PICTURES       |
| 400514184 | HYDROLOGY MAP           |
| 400514346 | MULTI-WELL PLAN         |
| 400514750 | CORRESPONDENCE          |
| 400514753 | SURFACE AGRMT/SURETY    |
| 400515604 | WASTE MANAGEMENT PLAN   |

Total Attach: 12 Files

## General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u>      |
|-------------------|--|--------------------------|
| Permit            | Returned to draft: SUA not signed. The surface owner shouldn't be committed to a lease if he doesn't he is not the mineral owner. This looks like the third well on the pad and this well looks like it is on facility 311909 and not 325150. Need some evidence that person /persons have been notified by mail that they are within the buffer zone. Hydrology map is for the IGE 127 not 141. Multi well diagram does not show the IGE 401. Reference are map does not show reference area and reference area map is needed when there are reference area photo's when land use is rangeland. this may be rangeland instead of dry land. Per rule 303b(3)j a waste manangement plan describing how the Operator intends to satisfy the general requirements of Rule 907a. | 11/18/2013<br>6:12:21 AM |

Total: 1 comment(s)