

FORM
2A

Rev
04/01

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:

400215194

Date Received:

02/21/2012

Oil and Gas Location Assessment

New Location Amend Existing Location Location#: _____

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this 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. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

431015

Expiration Date:

12/02/2015

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

1. 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.

2. Operator

Operator Number: 57667
 Name: MINERAL RESOURCES, INC.
 Address: PO BOX 328
 City: GREELEY State: CO Zip: 80632

3. Contact Information

Name: Collin Richardson
 Phone: (970) 352-9446
 Fax: (800) 850-9334
 email: collin@mineralresourcesinc.com

4. Location Identification:

Name: Sheep Draw Directional Number: #1
 County: WELD
 Quarter: NWNE Section: 9 Township: 5N Range: 66W Meridian: 6 Ground Elevation: 4786

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 1019 feet FNL, from North or South section line, and 1749 feet FEL, from East or West section line.
 Latitude: 40.418540 Longitude: -104.781340 PDOP Reading: 1.7 Date of Measurement: 11/09/2011
 Instrument Operator's Name: Jim Peck

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="23"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text"/>	Water Tanks: <input type="text" value="2"/>	Separators: <input type="text" value="14"/>	Electric Motors: <input type="text" value="1"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text" value="2"/>
Gas Compressors: <input type="text" value="1"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text" value="8"/>	Fuel Tanks: <input type="text"/>	

Other: Gas motor and compressor are part of VRU

6. Construction:

Date planned to commence construction: 08/01/2012 Size of disturbed area during construction in acres: 9.00
Estimated date that interim reclamation will begin: 08/01/2013 Size of location after interim reclamation in acres: 3.50
Estimated post-construction ground elevation: 4786 Will a closed loop system be used for drilling fluids: Yes
Will salt sections be encountered during drilling: Yes No Is H2S anticipated? Yes No
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes No
Mud disposal: Offsite Onsite Method: Land Farming Land Spreading Disposal Facility
Other: _____

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: _____
Surface Owner: Fee State Federal Indian
Mineral Owner: Fee State Federal Indian
The surface owner is: the mineral owner committed to an oil and gas lease
 is the executer of the oil and gas lease the applicant
The right to construct the location is granted by: oil and gas lease Surface Use Agreement Right of Way
 applicant is owner
Surface damage assurance if no agreement is in place: \$2000 \$5000 Blanket Surety ID _____

8. Reclamation Financial Assurance:

Well Surety ID: 20090133 Gas Facility Surety ID: _____ Waste Mgnt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes No
Distance, in feet, to nearest building: 226, public road: 485, above ground utilit: 231
, railroad: 26000, property line: 196

10. 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

11. 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

12. Soils:

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.gov/> 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: Otero sandy loam, 1 to 3 percent slopes

NRCS Map Unit Name: Nelson fine sandy loam, 3 to 9 percent slopes

NRCS Map Unit Name: Otero sandy loam, 3 to 5 percent slopes

13. 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: _____

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): _____

14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: No Yes Was a Rule 901.e. Sensitive Areas Determination performed: No Yes

Distance (in feet) to nearest surface water: 1193, water well: 544, depth to ground water: 32

Is the location in a riparian area: No Yes Was an Army Corps of Engineers Section 404 permit filed No Yes

Is the location within a Rule 317B Surface Water Suppl Area buffer zone:

No 0-300 ft. zone 301-500 ft. zone 501-2640 ft. 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: No Yes

15. Comments:

1. Depth to groundwater determined from the static water level of nearby water well, Permit 66234. 2. The drilling of the wells will be completed in phases.

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

Signed: _____ Date: 02/21/2012 Email: dan.hull@LRA-inc.com

Print Name: Dan Hull Title: Senior Project Manager

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: 12/3/2012

CONDITIONS OF APPROVAL, IF ANY:

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.

Operator must meet the water well testing requirements as per Rule 318A.e.(4).

Attachment Check List

Att Doc Num	Name
2086156	LOCATION DRAWING
2086161	MULTI-WELL PLAN
2113448	VARIANCE REQUEST
400215194	FORM 2A SUBMITTED
400253230	SURFACE AGRMT/SURETY
400253232	WAIVERS
400253236	WAIVERS
400253245	OIL & GAS LEASE
400253249	NRCS MAP UNIT DESC
400253252	NRCS MAP UNIT DESC
400253253	NRCS MAP UNIT DESC
400253495	WASTE MANAGEMENT PLAN
400253897	ACCESS ROAD MAP
400253903	HYDROLOGY MAP
400253928	LOCATION PICTURES

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Variance request 502.b for 303.3.(5) letter attached. Reviewed with Director okay to approve. Final Review Completed. No LGD or public comment received.	11/29/2012 1:41:30 PM
OGLA	Uploaded new Location Drawing and Multi-Well Plan and made changes to Form after consultation with the Operator.	11/29/2012 9:54:45 AM
Permit	Form continues on hold. Location drawing doesn't show 400'. Corrected site location from 3647 FWI to 1749' FEL. Requested update from opr on status of missing items.	10/15/2012 1:58:01 PM
Permit	Form continues on hold for missing BMP's.	8/15/2012 11:40:38 AM
Permit	On hold for meeting internal meeting.	4/17/2012 3:28:26 PM
Permit	Rule 502.b Variance requested for Rule 303.d.(5); request letter has been received and attached.	3/26/2012 11:39:54 AM

Total: 6 comment(s)

BMP

Type	Comment
Material Handling and Spill Prevention	<p>Spill Prevention</p> <ul style="list-style-type: none"> • All materials, waste, and fluids kept on-site will be stored in an appropriate manner to prevent contamination of the environment. • If a spill occurs, it will be cleaned up using absorbent material and by removing the contaminated soil. • Any contaminated soil will be disposed of appropriately. • All efforts will be made to prevent the spill from migrating off-site or coming into contact with stormwater runoff. • The Spill Control and Countermeasures plan will address and control all spill procedures.
Planning	<p>Project Phasing</p> <ul style="list-style-type: none"> • The drilling of the wells at this location will be phased. • Phasing the drilling schedule will minimize impacts to surrounding neighbors by reducing the length of continued drilling periods.
Drilling/Completion Operations	<p>Public Notice</p> <ul style="list-style-type: none"> • A sign with Mineral Resources' contact information and a 24 hour contact number will be placed at or near the access road entrance. • For this project, per City of Greeley Use by Special Review process, public notice will be provided by the county staff. • Mineral Resources will conduct a neighborhood meeting prior to planning commission. The City of Greeley will help organize the meeting through the Use by Special Review process.
Construction	<p>Noxious Weeds</p> <ul style="list-style-type: none"> • The site will be inspected for weed infested areas. • Prompt action will be taken to mitigate infested areas. • All noxious weeds identified will not be allowed to reach the flowering or seed dispersal stage. • Vehicles will not be allowed to drive through weed infested areas. • Machinery will not be parked in weed infested areas. • Vehicles sent off-site regularly will be inspected to assure that undercarriages and grill works are kept free of weed seed. • Undercarriages of vehicles or machinery potentially contaminated with noxious weed seeds will be washed before entry is made into noninfested areas.
General Housekeeping	<p>Solid Waste</p> <ul style="list-style-type: none"> • The site will be cleaned of all trash and waste as soon as practical. • All waste will be stored in sealed containers until it can be disposed of appropriately. • Solid waste will be removed from the site and disposed of per state regulations for solid waste.
Drilling/Completion Operations	<p>Noise abatement measures: To the extent economically practicable and technically feasible, operator will minimize nuisance noise through the following measures:</p> <ol style="list-style-type: none"> 1. Schedule conspicuous noise producing activities to avoid the hours of 9:00 p.m. to 6:00 a.m. To the extent practicable the operator will avoid tripping pipe, moving heavy equipment, handling drill pipe or casing, and receiving deliveries during nighttime hours. 2. Attempt to conduct hydraulic fracturing operations during daylight hours (7:00 a.m. to 7:00 p.m.). If it is necessary to conduct 24 hour hydraulic fracturing operations, the operator shall make a effort to limit the operations to no more than a 72 hour continuous period, and notice will be given to COGCC as soon as practicable prior to the start of 24 hour operations. 3. Construct a temporary buffer using hay bales between the neighborhood to the south to aid in attenuation of noise generated on the location during drilling and hydraulic fracturing. Additional noise mitigation will be contemplated if the measures employed are deemed insufficient.
Site Specific	<p>Any compressor or vapor recovery unit installed on the location will be equipped with hospital grade mufflers and quiet design fans.</p>
Material Handling and Spill Prevention	<p>Land-farming of E&P waste will not be conducted on the location. This shall not preclude on-site disposal of E&P waste in accordance with COGCC Rules and permit conditions.</p>
Interim Reclamation	<p>Interim and or final reclamation of the site will be completed per the COGCC rules and regulations.</p>

Drilling/Completion Operations	The first phase of drilling for the Sheep Draw Directional project will consist of 2-3 horizontal wells. The second phase of drilling is not expected to commence for 2-5 years after completion of the first.
Drilling/Completion Operations	Lighting abatement measures beyond the requirements of Rule 803 will be implemented, including the following, at a minimum: 1. Rig oriented to direct light away from nearby residents. 2. Install lighting shield devices on all of the more conspicuous lights. 3. Rig shrouded on the south side.
Drilling/Completion Operations	Reduced emissions completions: Operator will employ completion practices that will ensure compliance with COGCC Rule 805.b.(3).
Storm Water/Erosion Control	Stormwater <ul style="list-style-type: none"> • Mineral Resources maintains a Field Wide Stormwater Management Permit, Certification No. COR03H509. This site falls under this permit. • Stormwater best management practices will be completed per the site specific stormwater management plan. • Permanent seeding will be installed once all drilling and completion activities are finalized. • All stormwater best management practices will remain in place until final stabilization is achieved.
Site Specific	Emissions from condensate, crude oil, and produced water tanks and from glycol dehydrators shall be controlled with devices capable of achieving 95% efficiency destruction of volatile organic compounds. Operator shall comply with applicable Colorado Department of Public Health and Environment, Air Pollution Control Division permitting requirements.
Storm Water/Erosion Control	Fugitive Dust and Vehicle Tracking <ul style="list-style-type: none"> • Traffic speeds will be limited to control fugitive dust. • Watering will be completed to control fugitive dust as needed. • Graveled entries will be provided for vehicle tracking control. Refer to the Stormwater Management Plan for location. • Furrowing of disturbed soil will be provided at right angles to prevailing winds as needed.
Planning	The operator will obtain a Use by Special Review permit for the location through the city of Greeley. The USR requires a traffic control plan be developed and reviewed by the City of Greeley and the Colorado Department of Transportation (CDOT).
Material Handling and Spill Prevention	A Waste Management Plan for the land application or other beneficial reuse of drill cuttings will be submitted to COGCC for review and approval prior to moving drill cuttings from the location.
Planning	Operator will make best efforts to reduce truck traffic related to water hauling by using an on-site water source, if available in sufficient supply from the City of Greeley, to supply drilling and completion water.

Total: 18 comment(s)