

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:

400296129

Date Received:

06/19/2012

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:

430072

Expiration Date:

08/29/2015

☒ 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: 10255

Name: QUICKSILVER RESOURCES INC

Address: 801 CHERRY ST - #3700 UNIT 19

City: FT WORTH State: TX Zip: 76102

3. Contact Information

Name: Pamela Osburn

Phone: (817) 665-4918

Fax: (817) 665-5009

email: posburn@qrinc.com

4. Location Identification:

Name: WELKER Number: 34-11

County: MOFFAT

QuarterQuarter: SW SE Section: 11 Township: 6N Range: 92W Meridian: 6 Ground Elevation: 6469

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: 660 feet FSL, from North or South section line, and 1898 feet FEL, from East or West section line.

Latitude: 40.479864 Longitude: -107.684242 PDOP Reading: 1.3 Date of Measurement: 05/17/2012

Instrument Operator's Name: UINTAH ENGINEERING

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="1"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text"/>	Water Tanks: <input type="text" value="1"/>	Separators: <input type="text" value="2"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text" value="1"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text" value="1"/>	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"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text" value="1"/>	Oil Tanks: <input type="text" value="2"/>	Fuel Tanks: <input type="text"/>	

Other: _____

6. Construction:

Date planned to commence construction: 09/30/2012 Size of disturbed area during construction in acres: 4.78
Estimated date that interim reclamation will begin: 09/30/2013 Size of location after interim reclamation in acres: 1.00
Estimated post-construction ground elevation: 6473 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: 02/27/2012
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: 2080107 ☐ Gas Facility Surety ID: _____ ☐ Waste Mgmt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 6000, public road: 6700, above ground utilit: 216
, railroad: 15840, property line: 660

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: 112 - Kemmerer-Moyerson complex, 20 to 40 percent slopes

NRCS Map Unit Name: _____
NRCS Map Unit Name: _____

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: ANNUAL CROPS

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: 2651, water well: 2999, depth to ground water: 55
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 Supply 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:

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

Signed: _____ Date: 06/19/2012 Email: posburn@qrinc.com

Print Name: Pamela S. Osburn Title: Sr. Regulatory Analyst

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: 8/30/2012

**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.

SITE SPECIFIC COAs:

Notify the COGCC 48 hours prior to start of pad construction, pit liner installation (if applicable), rig mobilization, spud, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a closed loop system drilling rig is not used/available, then an amended Form 2A will need to be submitted/approved to include a drilling pit, and a Form 15 Earthen Pit Permit will also need to be submitted/approved prior to construction of the pit (the drilling pit will be required to be lined, fenced, and netted). All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in containers, a lined/bermed portion of the well pad, or the lined drilling (if permitted and constructed) prior to offsite disposal. The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface or buried pipelines.

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations (as shown on the Proposed BMPs attachment); including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

The moisture content of any freshwater generated drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, if the freshwater generated drill cuttings are to be onsite, they must also meet the applicable standards of table 910-1.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) located on the well pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

Attachment Check List

Att Doc Num	Name
1533415	WELL LOCATION PLAT
2034475	CORRESPONDENCE
2034476	PROPOSED BMPs
400296129	FORM 2A SUBMITTED
400296142	ACCESS ROAD MAP
400296143	CONST. LAYOUT DRAWINGS
400296145	HYDROLOGY MAP
400296147	LOCATION DRAWING
400296150	LOCATION PICTURES
400296151	SURFACE AGRMT/SURETY
400296152	NRCS MAP UNIT DESC
400296153	REFERENCE AREA MAP
400296154	REFERENCE AREA PICTURES
400296155	TOPO MAP
400296156	WELL LOCATION PLAT
400297108	MINERAL LEASE MAP

Total Attach: 16 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Interim Reclamation subject to timing as specified in Rule 1003.b. If timing restrictions for wildlife prevent compliance with 1003.b., a variance should be sought; otherwise interim reclamation shall commence within 6 months of drilling and subsequent operations.	8/9/2012 10:22:16 AM
Final Review	Changed distance to railroad from 3 to 5280 (rr > 1 mile from location)	8/9/2012 10:08:40 AM
Permit	No LGD or public comments. Final Review--passed.	3/7/2012 4:25:07 PM
OGLA	Initiated/Completed OGLA Form 2A review on 08-07-12 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, cuttings containment, moisture content cuttings, tank berming, and flowback to tanks COAs from operator on 08-07-12; received acknowledgement of COAs from operator on 08-07-12; changed distance to SW to 565' based on Hydrology Map; passed by CPW on 07-19-12 with operator agreed to BMPs acceptable; passed OGLA Form 2A review on 08-13-12 by Dave Kubeczko; fluid containment, spill/release BMPs, cuttings containment, moisture content cuttings, tank berming, and flowback to tanks COAs.	8/7/2012 10:51:55 AM
Permit	added related APD. corrected dist. to prop. line per oper. and attached revised well loc. plat.	7/23/2012 11:00:42 AM
DOW	<p>Wildlife concerns: The proposed pad location is within greater sage-grouse Preliminary General Habitat, 3.71 miles from an active greater sage-grouse lek (known as the "Round Bottom" lek), Pronghorn Antelope Winter Concentration Area, Elk Winter Concentration Area, and Mule Deer Critical Winter Range.</p> <p>The operator has agreed to the following BMPs:</p> <ol style="list-style-type: none"> 1. Conduct oil and gas development activities outside the time period from December 1 through April 15 to minimize disturbance to mule deer, elk, and pronghorn antelope in their winter concentration area. 2. Restrict post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between December 1 and April 15 in mule deer critical winter range, elk winter concentration area, and pronghorn antelope winter concentration area. 3. Establish company guidelines (policies) to minimize wildlife mortality from vehicle collisions on roads (post speed limits on private roads, conduct safety training, etc). 4. Gate single-purpose roads and restrict general public access to reduce traffic disruptions to wildlife if applicable on private roads. 5. Close and immediately reclaim all roads that are redundant, not used regularly, or have been abandoned to the maximum extent possible to minimize disturbance and habitat fragmentation. 6. Reclaim site (interim and final) to match existing vegetation. 7. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1. <p>Jacob Davidson, 8:31, 7-19-2012</p>	7/19/2012 8:30:49 AM

Total: 6 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Site Specific	Quicksilver Resources Inc. is an original participating operator in the COGA Baseline Groundwater Quality Sampling Program and will follow The COGA program on this well.
Wildlife	<ol style="list-style-type: none">1. Conduct oil and gas development activities outside the time period from December 1 through April 15 to minimize disturbance to mule deer, elk, and pronghorn antelope in their winter concentration area.2. Restrict post-development well site visitations to between the hours of 10:00 a.m. and 3:00 p.m. and reduce well site visitations between December 1 and April 15 in mule deer critical winter range, elk winter concentration area, and pronghorn antelope winter concentration area.3. Establish company guidelines (policies) to minimize wildlife mortality from vehicle collisions on roads (post speed limits on private roads, conduct safety training, etc).4. Gate single-purpose roads and restrict general public access to reduce traffic disruptions to wildlife if applicable on private roads.5. Close and immediately reclaim all roads that are redundant, not used regularly, or have been abandoned to the maximum extent possible to minimize disturbance and habitat fragmentation.6. Reclaim site (interim and final) to match existing vegetation.7. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1.

Total: 2 comment(s)