

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:

400446127

Date Received:

07/16/2013

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:

434399

Expiration Date:

09/25/2016
☒ 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: 10110

Name: GREAT WESTERN OPERATING COMPANY LLC

Address: 1700 BROADWAY SUITE 650

City: DENVER State: CO Zip: 80290

3. Contact Information

Name: Shannon Hartnett

Phone: (303) 830-9893

Fax: ()

email: shartnett@gwogco.com

4. Location Identification:

Name: Willow Bend LD Pad Number: 18-36HN-2

County: ADAMS

QuarterQuarter: NENE Section: 18 Township: 1S Range: 67W Meridian: 6 Ground Elevation: 5236

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: 335 feet FNL, from North or South section line, and 677 feet FEL, from East or West section line.

Latitude: 39.970962 Longitude: -104.924418 PDOP Reading: 1.9 Date of Measurement: 06/05/2013

Instrument Operator's Name: B. Hardenbergh

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="6"/> | 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="6"/> | Electric Motors: <input type="text"/> | 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"/> |
| Gas Compressors: <input type="text"/> | VOC Combustor: <input type="text"/> | Oil Tanks: <input type="text" value="6"/> | Fuel Tanks: <input type="text"/> | |

Other: 2 ECDs

6. Construction:

Date planned to commence construction: 08/31/2013 Size of disturbed area during construction in acres: 10.74
Estimated date that interim reclamation will begin: 12/01/2013 Size of location after interim reclamation in acres: 8.26
Estimated post-construction ground elevation: 5231 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: 06/10/2013
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: 20090080 ☐ 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: 842, public road: 331, above ground utility: 305,
railroad: 5280, property line: 335

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: Platner Loam, 3 to 5 percent slopes

NRCS Map Unit Name: Ulm Loam, 5 to 9 percent slopes

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: _____

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: 542, water well: 2032, depth to ground water: 560

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:

Nearest water well (Permit #55089) does not list a depth to ground water. Depth to ground water taken from water well Permit #153479 located 2,329 feet north.

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

Signed: _____ Date: 07/16/2013 Email: shartnett@gwogco.com

Print Name: Shannon Hartnett Title: Reg. Compl. Spec.

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: 9/26/2013

**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.

Description

| |
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| |
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Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u> |
|---------------------------|------------------------|
| 400446127 | FORM 2A SUBMITTED |
| 400446960 | ACCESS ROAD MAP |
| 400446966 | CONST. LAYOUT DRAWINGS |
| 400446969 | HYDROLOGY MAP |
| 400446971 | LOCATION DRAWING |
| 400446972 | LOCATION PICTURES |
| 400446974 | MULTI-WELL PLAN |
| 400446977 | SURFACE AGRMT/SURETY |
| 400446987 | NRCS MAP UNIT DESC |
| 400446989 | WASTE MANAGEMENT PLAN |

Total Attach: 10 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|---|----------------------------|
| Permit | Final review completed. Note LGD comments. | 9/26/2013 5:43:23 AM |
| Permit | Distance to the nearest railroad supplied by operator. | 8/29/2013 9:53:41 AM |
| Permit | Distance to the nearest railroad is blank. Request that operator furnish the distance. | 8/28/2013 9:45:22 AM |
| OGLA | southwest corner of planned disturbed area appears to overlap Great Western Well - API 05-001-06862 which had shut in status as of January 2013. | 8/7/2013 12:30:22 PM |
| LGD | Although it appears as though this location will use the existing access points, a new access point is being established along the eastern side of this location. This access point is approved. Any additional access points into this location will be approved by Adams County | 7/20/2013 12:15:17 PM |

Total: 5 comment(s)

Best Management Practices

| No | BMP/COA Type | Description |
|----|--|---|
| 1 | General Housekeeping | General housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur prompt cleanup is required to minimize any commingling of waste materials with storm water runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly and promptly. |
| 2 | Storm Water/Erosion Control | Storm Water Management Plans (SWMP) are in place to address construction, drilling and operations associated with Oil and Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE). BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. BMP's used will vary according to the location, and will remain in place until the pad reaches final reclamation. |
| 3 | Material Handling and Spill Prevention | Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spills associated with Oil and Gas operations throughout the state of Colorado in accordance with CFR 112. In accordance with COGCC Rule 1002.f.(2)A. & B., shall provide a designated storage area for dry bulk chemicals and miscellaneous fluids. The storage area shall be covered to prevent contact of precipitation with chemicals, shall be elevated above storm- or standing water, and shall provide sufficient containment to prevent release of spilled fluids or chemicals from impacting soil, surface water or groundwater and will prevent the co-mingling of spilled fluids or chemicals with other E & P Waste. |
| 4 | Noise mitigation | Noise levels will be maintained at levels not to exceed COGCC specifications currently in existence, measured at a point 350' from the noise source, or as defined by current COGCC regulations. Where possible, drilling rig engine exhaust will be vented away from occupied buildings. Light sources will likewise be directed downwards, and away from occupied structures where possible. No special noise mitigation efforts should be required at this site. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site. |

Total: 4 comment(s)