

**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:

400379505

Date Received:

02/11/2013

**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:

Expiration Date:

☒ 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 OIL & GAS COMPANY LLC

Address: 1700 BROADWAY SUITE 650

City: DENVER State: CO Zip: 80290

**3. Contact Information**

Name: Shannon Hartnett

Phone: (303) 830-9893

Fax: (866) 522-1673

email: shartnett@gwogco.com

**4. Location Identification:**Name: Raindance FD Pad Number: 29-4DCounty: WELDQuarter: NENE Section: 30 Township: 6N Range: 67W Meridian: 6 Ground Elevation: 4789

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: 653 feet FNL, from North or South section line, and 169 feet FEL, from East or West section line.Latitude: 40.463200 Longitude: -104.927067 PDOP Reading: 2.0 Date of Measurement: 09/28/2012Instrument Operator's Name: Robert Kay**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="10"/>      | Production Pits: <input type="text"/> | Dehydrator Units: <input type="text"/> |
| Condensate Tanks: <input type="text" value="2"/> | Water Tanks: <input type="text" value="2"/>  | Separators: <input type="text" value="10"/> | 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" value="1"/> | Oil Pipeline: <input type="text"/>          | Water Pipeline: <input type="text"/>  | Flare: <input type="text"/>            |
| Gas Compressors: <input type="text" value="1"/>  | VOC Combustor: <input type="text"/>          | Oil Tanks: <input type="text" value="10"/>  | Fuel Tanks: <input type="text"/>      |  |

Other: 4 ECD's, 2 VRU's

**6. Construction:**

Date planned to commence construction: 05/01/2013 Size of disturbed area during construction in acres: 6.61  
Estimated date that interim reclamation will begin: 12/01/2013 Size of location after interim reclamation in acres: 3.00  
Estimated post-construction ground elevation: 4782 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: Raindance aquatic Invest. Phone: \_\_\_\_\_  
Address: 1625 Pelican Lakes Point Fax: \_\_\_\_\_  
Address: Suite 201 Email: \_\_\_\_\_  
City: Windsor State: CO Zip: 80550 Date of Rule 306 surface owner consultation: 11/30/2012  
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: 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: 404, public road: 4487, above ground utilit: 365  
, railroad: 8976, property line: 622

## 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: #32 Kim loam, 1 to 3 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: \_\_\_\_\_

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: 337 , water well: 628 , depth to ground water: 25

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:

Nearest water well is 628' from the proposed location: Receipt: 0534654 Permit #: 62724-F - this data is from the COGCC GIS Online. Surveyor noted an exiting water well 337' from location. No other data provided for such well therefore I used the well 628' away from the location. This location is being reassigned to the Raindance NENE pad Location ID 427917 which it is currently assigned to the Raindance SESE pad 30-54 which is an abandoned location. Please see BMPs in regards to CUG process, light and noise mitigation, and

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

Signed: \_\_\_\_\_ Date: 02/11/2013 Email: shartnett@gwogco.com

Print Name: Shannon Hartnett Title: Permitting 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, 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.**

**Attachment Check List**

| Att Doc Num | Name                    |
|-------------|-------------------------|
| 400379505   | FORM 2A SUBMITTED       |
| 400380395   | SURFACE AGRMT/SURETY    |
| 400380399   | NRCS MAP UNIT DESC      |
| 400380400   | WASTE MANAGEMENT PLAN   |
| 400380420   | OTHER                   |
| 400380421   | ACCESS ROAD MAP         |
| 400380422   | CONST. LAYOUT DRAWINGS  |
| 400380423   | HYDROLOGY MAP           |
| 400380424   | LOCATION DRAWING        |
| 400380425   | LOCATION PICTURES       |
| 400380426   | MULTI-WELL PLAN         |
| 400380427   | TOPO MAP                |
| 400380429   | OTHER                   |
| 400380437   | OTHER                   |
| 400380451   | REFERENCE AREA MAP      |
| 400380452   | REFERENCE AREA PICTURES |

Total Attach: 16 Files

**General Comments**

| <b><u>User Group</u></b> | <b><u>Comment</u></b> | <b><u>Comment Date</u></b> |
|--------------------------|-----------------------|----------------------------|
|                          |                       |                            |

Total: 0 comment(s)

**BMP**

| <b><u>Type</u></b>   | <b><u>Comment</u></b>   |
|----------------------|---|
| General Housekeeping | Housekeeping<br>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. |

|  |  |
|--|--|
| Site Specific                          | <p><b>Sensitive Area</b><br/>The location has been deemed a sensitive area because of the presence of permeable subsurface material and shallow ground water. The tank battery will be constructed with a liner sufficiently impermeable to prevent produced fluids from impacting the ground water.</p> <p>This location is in a sensitive area due to the shallow ground water and the proximity to surface water. Therefore Great Western Oil &amp; Gas will not have flow back or production pits at this location. Berm will be constructed sufficient to protect the location and recreational pond east of the location from any release of completion or produced fluids and chemical products.</p>  |
| Site Specific                          | <p><b>Town of Windsor</b><br/>Great Western is aware of the Conditional Use Grant process with the Town of Windsor and will comply with such process and COA's in addition to the granting of the COGCC permit. In addition to the CUG process Great Western will implement the following for this location:</p> <ol style="list-style-type: none"> <li>1. Traffic associated with drilling, completion, and production activities shall be limited to a reasonable speed and posted signs.</li> <li>2. Appropriate signs for crossing the Poudre Trail for the safety of the town users of the trail and the vehicles crossing.</li> </ol>  |
| Drilling/Completion Operations         | <p><b>Noise and Light Pollution Mitigation</b><br/>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 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. In addition a sound barrier around the vapor recovery compressors will be installed.</p> |
| Storm Water/Erosion Control            | <p><b>Storm Water Management Plans (SWMP)</b><br/>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.</p>  |
| Material Handling and Spill Prevention | <p><b>Material Handling and Spill Prevention (SPCC)</b><br/>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.</p> <p>In accordance with COGCC Rule 1002.f.(2)A. &amp; 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 &amp; P Waste.</p>    |

Total: 6 comment(s)