

FORM

2

Rev
12/05

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:

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Date Received:

02/11/2013

PluggingBond SuretyID

20090080

APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER _____
 SINGLE ZONE ☐ MULTIPLE ☒ COMMINGLE ☒

Refiling ☐Sidetrack ☐3. Name of Operator: GREAT WESTERN OIL & GAS COMPANY LLC4. COGCC Operator Number: 101105. Address: 1700 BROADWAY SUITE 650City: DENVER State: CO Zip: 802906. Contact Name: Shannon Hartnett Phone: (303)830-9893 Fax: (866)522-1673Email: shartnett@gwogco.com7. Well Name: Raindance FD Well Number: 20-25D

8. Unit Name (if appl): _____ Unit Number: _____

9. Proposed Total Measured Depth: 7550

WELL LOCATION INFORMATION

10. QtrQtr: NENE Sec: 30 Twp: 6N Rng: 67W Meridian: 6Latitude: 40.463239 Longitude: -104.927067

Footage at Surface: 638 feet FNL 169 feet FEL
 FNL/FSL FEL/FWL

11. Field Name: Wattenberg Field Number: 9075012. Ground Elevation: 4790 13. County: WELD

14. GPS Data:

Date of Measurement: 09/28/2012 PDOP Reading: 2.0 Instrument Operator's Name: Robert Kay15. If well is ☒ Directional ☐ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL
660 FSL 660 FWL 660 FSL 660 FWL
 Sec: 20 Twp: 6N Rng: 67W Sec: 20 Twp: 6N Rng: 67W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No17. Distance to the nearest building, public road, above ground utility or railroad: 365 ft18. Distance to nearest property line: 365 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 960 ft

20. LEASE, SPACING AND POOLING INFORMATION

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| Niobrara-Codell | NB-CD | 407-87 | 80 | W2SW/4 |

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: _____22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian23. Is the Surface Owner also the Mineral Owner? ☐ Yes ☒ No Surface Surety ID#:23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☐ Yes ☐ No23b. If 23 is No: ☒ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

See attached map

25. Distance to Nearest Mineral Lease Line: 680 ft

26. Total Acres in Lease: 1230

DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☒ Land Spreading ☐ Disposal Facility Other: _____

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

| Casing Type | Size of Hole | Size of Casing | Wt/Ft | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| SURF | 12+1/4 | 8+5/8 | 24 | 0 | 600 | 277 | 600 | 0 |
| 1ST | 7+7/8 | 4+1/2 | 11.6 | 0 | 7,550 | 788 | 7,550 | 3,334 |

32. BOP Equipment Type: ☐ Annular Preventer ☐ Double Ram ☐ Rotating Head ☐ None

33. Comments Number 19 - 0 feet from a currently permitted location that will be reassigned through this group of permitting. Next nearest BHL is 915 feet. Conductor casing will not be set. Production casing will be set at a minimum of 200' above the Niobrara. This location is outside of the GWA drilling window, a request for approval and proposed spacing unit is attached. Spacing unit description: W2SW/4 section 20

34. Location ID: 427917

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☐ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☒ Yes ☐ No

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

Signed: _____ Print Name: Shannon Hartnett

Title: Permitting Agent Date: 2/11/2013 Email: shartnett@gwogco.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 3/15/2013

API NUMBER

05 123 37005 00

Permit Number: _____ Expiration Date: 3/14/2015

CONDITIONS OF APPROVAL, IF ANY:

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

1)Provide notice of MIRU via an electronic Form 42.

2)Comply with Rule 317.i and provide cement coverage from the 4.5" casing TD to a minimum of 200' above the Niobrara and from 200'. Verify coverage with a cement bond log.

Operator must meet Water Well Testing requirements as per amended Rule 318Ae(4)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

| Att Doc Num | Name |
|-------------|------------------------|
| 2165708 | WAIVERS |
| 2485508 | SURFACE CASING CHECK |
| 400379449 | FORM 2 SUBMITTED |
| 400379451 | DIRECTIONAL DATA |
| 400379452 | DEVIATED DRILLING PLAN |
| 400379453 | PLAT |
| 400379454 | EXCEPTION LOC REQUEST |
| 400379455 | PROPOSED SPACING UNIT |
| 400379456 | MINERAL LEASE MAP |
| 400379457 | SURFACE AGRMT/SURETY |

Total Attach: 10 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|--|----------------------------|
| Permit | Final review complete. | 3/6/2013 8:22:59 AM |
| Permit | Corrected spacing, unit configuration, deleted proposed spacing unit request, and added distance to nearest well completed in same formation as per opr. Operator requests approval of a Rule 318Aa and Rule 318Ac exception location: Wellhead is to be located outside of a GWA drilling window and will be located more than 50' from an existing well location. Request and waivers attached. Ready to pass pending public comment 3/6/13. | 2/14/2013 2:47:41 PM |
| LGD | <p>The applicant shall submit for Conditional Use Grant approval from the Windsor Town Board for this and any other wells drilled within the Town of Windsor prior to initiating any drilling or other related activities. The Town requires the following conditions on the subject oil and gas facilities:</p> <p>CONDITIONS:</p> <p>1. Prior to the commencement of drilling, the applicant shall submit comprehensive "Drilling and Site Improvement Plans" for review and approval by the Town. Such plans shall address initial drilling activities, initial installation of site improvements and details, and on-going perpetual maintenance of the subject site including, but not limited to, the following:</p> <p>a. Site access plan. The Drilling and Site Improvement Plans and supplemental information shall address site access points and haul routes for review and approval.</p> <p>b. Public street clean-up and tracking prevention. The Drilling and Site Improvement Plans and supplemental information shall include a tracking pad for review and approval.</p> | 2/12/2013 10:25:23 AM |

| | | | |
|--|--|--|--|
| | <p>c.Site grading.The Drilling and Site Improvement Plans and supplemental information shall address site grading, including any earth berms for emergency containment.</p> <p>d.Site lighting.The Drilling and Site Improvement Plans and supplemental information shall include details regarding site lighting fixtures and locations.Security and other site lighting shall utilize full cutoff light fixtures to mitigate light pollution.</p> <p>e.Temporary screening. The applicant shall install a buffer to screen the initial drilling activities and installation of site improvements from surrounding neighborhoods and streets. The temporary buffer shall include hay bales to enclose the drilling operations to provide noise mitigation.</p> <p>f.Permanent screening. Given the close proximity to residential neighbors, the Drilling and Site Improvement Plans shall depict proposed long-term screening materials including landscaping, earth berms and any other screening methods to mitigate visual impacts.</p> <p>g.Fencing.The Drilling and Site Improvement Plans shall depict fencing of the perimeter of the site.Fencing materials shall be reviewed for approval by the Town based upon the character of the surrounding neighborhood.</p> <p>h.Oil and gas equipment.</p> <p>(1)The applicant shall utilize electric motors in order to mitigate the noise impacts to the neighboring properties.</p> <p>(2)The applicant shall ensure that the wells and tanks are of the minimum size required to satisfy present and future functional requirements to mitigate visual impacts.</p> <p>(3)Low profile tanks shall be utilized and shall be installed in the least visible manner possible.</p> <p>(4)All tanks and equipment shall be painted to blend-in with the surrounding landscape.</p> <p>i.Air quality.</p> <p>(1)The applicant shall participate in any required Environmental Protection Agency (EPA) air quality monitoring and/or testing by allowing EPA to install equipment on site for said monitoring and testing.</p> <p>(2)The applicant shall install and operate an emissions control device (ECD) capable of reducing Volatile Organic Compound (VOC) emissions on the subject oil and gas equipment in accordance with Colorado Oil and Gas Conservation Commission (COGCC) and/or the Colorado Department of Public Health and Environment (CDPHE) rules and regulations.</p> <p>(3)The applicant shall submit to the Town copies of all air emissions reporting as required by the COGCC and/or the CDPHE's Air Pollution Control Division.</p> <p>j.Water quality.</p> <p>(1)The applicant shall ensure that any hydrocarbon discharges from the site comply with all state and federal water quality requirements.</p> <p>(2)The applicant shall participate in the Colorado Oil and Gas Association (COGA) Baseline Groundwater Quality Sampling Program utilizing independent third party sampling and laboratories and shall provide to the Town test results obtained before and after drilling operations.</p> <p>k.Emergency containment.The secondary containment berm surrounding all storage vessels shall be designed and constructed to contain a minimum of 110% of the</p> | | |
|--|--|--|--|

| | | | |
|--------|---|-------------------------|--|
| | <p>volume of the largest vessel located within the containment area or to State of Colorado standards, whichever requirements are more stringent.</p> <p>l.Waste disposal.The applicant shall submit to the Town copies of all waste management reports as required by the COGCC and/or the CDPHE rules and regulations.</p> <p>m.The following certification blocks shall be included on the Drilling and Site Improvement Plans:</p> <p>(1)A signed owner's acknowledgement certification block.</p> <p>(2)A signed drilling operator's acknowledgement certification block.</p> <p>n.The following notes shall be included on the Drilling and Site Improvement Plans:</p> <p>(1)The applicant shall comply with all rules and regulations of the Colorado Oil and Gas Conservation Commission (COGCC).</p> <p>(2)The applicant shall comply with all rules and regulations of the Colorado Department of Public Health and Environment (CDPHE).</p> <p>(3)The applicant shall maintain on-going compliance with all conditions of the Town and Windsor-Severance Fire Rescue.</p> <p>(4)The facilities shall be kept clean and otherwise properly maintained at all times.</p> <p>(5)The existing access may be utilized for oil and gas well activities.This access point is temporary and will be required to be removed at such time that permanent access is available in the future.</p> <p>2.The applicant shall address and comply with the conditions of Windsor-Severance Fire Rescue.</p> <p>ACCESS COMMENTS:</p> <p>If access to the site is proposed from a Town of Windsor street, such access point (s) shall require approval of an access permit from the Town of Windsor Engineering Department and any required access improvements, street clean-up, tracking pads, etc., shall be addressed per said access permit.</p> | | |
| Permit | Passed completeness | 2/12/2013 7:58:21 AM | |
| Permit | There is already a permitted location on this bottom hole location | 2/12/2013 7:28:27 AM | |

Total: 5 comment(s)

BMP

| <u>Type</u> | <u>Comment</u> |
|---------------|---|
| Site Specific | <p>Sensitive Area</p> <p>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 & 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> |

| | |
|--|--|
| Drilling/Completion Operations | <p>Noise and Light Pollution Mitigation</p> <p>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> |
| General Housekeeping | <p>Housekeeping</p> <p>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.</p> |
| Storm Water/Erosion Control | <p>Storm Water Management Plans (SWMP)</p> <p>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>Material Handling and Spill Prevention (SPCC)</p> <p>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. & 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.</p> |
| Site Specific | <p>Town of Windsor</p> <p>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"> 1. Traffic associated with drilling, completion, and production activities shall be limited to a reasonable speed and posted signs. 2. Appropriate signs for crossing the Poudre Trail for the safety of the town users of the trail and the vehicles crossing. |

Total: 6 comment(s)