

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:

400311402

Date Received:

08/28/2012

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 LLC

4. COGCC Operator Number: 10110

5. Address: 1700 BROADWAY SUITE 650

City: DENVER State: CO Zip: 80290

6. Contact Name: Janni Keidel Phone: (303)398-0388 Fax: (866)742-1784

Email: jkeidel@gwogco.com

7. Well Name: Greenspire FD Well Number: 23-H

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

9. Proposed Total Measured Depth: 11061

WELL LOCATION INFORMATION

10. QtrQtr: NWNE Sec: 16 Twp: 6N Rng: 67W Meridian: 6

Latitude: 40.492989 Longitude: -104.896883

Footage at Surface: 386 feet FNL 2212 feet FEL

11. Field Name: Wattenberg Field Number: 90750

12. Ground Elevation: 4808 13. County: WELD

14. GPS Data:

Date of Measurement: 06/15/2012 PDOP Reading: 2.5 Instrument Operator's Name: Robert Kay

15. 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
994 FNL 2061 FEL 500 FSL 1980 FEL
Sec: 16 Twp: 6N Rng: 67W Sec: 16 Twp: 6N Rng: 67W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 417 ft

18. Distance to nearest property line: 302 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 2850 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	NBRR		640	GWA

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: _____

22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

23. 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 ☐ No

23b. 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):

Please see attached mineral lease map.

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 488

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	9+5/8	36	0	600	316	600	0
1ST	8+3/4	7	26	0	7,340	791	7,340	3,322
2ND	6+1/4	4+1/2	11.6	0	11,061	437	11,061	6,445

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

33. Comments Conductor casing will not be set. Production casing cement will be set at a minimum of 200' above the Niobrara. This is one of 7 wells for this proposed location. Great Western Oil & Gas Co., LLC has leased the surface and minerals on this location.

34. Location ID: _____

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: Janni Keidel

Title: Permit & Reg Analyst Date: 8/28/2012 Email: jkeidel@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: 12/31/2012

API NUMBER

05 123 36504 00

Permit Number: _____ Expiration Date: 12/30/2014

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.

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

- 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.
- 2) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 3) Comply with Rule 321. Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
1699260	PROPOSED SPACING UNIT
1771902	SURFACE CASING CHECK
400311402	FORM 2 SUBMITTED
400316100	WELL LOCATION PLAT
400316104	TOPO MAP
400316282	DIRECTIONAL DATA
400317931	DEVIATED DRILLING PLAN
400319175	EXCEPTION LOC WAIVERS
400319179	EXCEPTION LOC REQUEST
400319186	MINERAL LEASE MAP

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Horizontal well bore crosses multiple leases; distance to the lease line is 0'; distance to the nearest unit boundary is 500. Combined acreage of two large leases within the unit is 488 acres. Final Review Completed.	12/31/2012 8:19:49 AM
Final Review	ON HOLD to verify surface and mineral ownership	12/23/2012 11:06:15 AM
Permit	Attached Proposed Spacing Unit with 30 Day Certification letter.	12/20/2012 11:08:00 AM
Permit	Opr states that the 30 Day cert letters actually went out on 11/20/12 and they will move forward on Dec 20th.	12/10/2012 9:16:21 AM
Permit	Opr states that 30 day cert letter was mailed today, more acreage has been acquired, new lease map being updated.	10/25/2012 11:00:20 AM
Permit	Corrected TOP as per opr. Operator requests approval of a Rule 318Aa exception location: Wellhead is to be located outside of a GWA drilling window. Request and Waiver attached. Needs proposed wellbore spacing and cert letter, clarification on mineral acres and lease map, (not all of sec 16).	10/3/2012 10:33:12 AM
Permit	Requested TOP from OPR. Operator requests approval of a Rule 318Ac exception location: Wellhead is to be located more than 50' from an existing well location. Request and waiver attached.	9/20/2012 9:16:01 AM
LGD	Below please find the conditions of approval that are typically applied to conditional use grants for oil and gas operations located within Town. Therefore, the Town recommends the following conditions be placed on the abovementioned oil and gas facilities:	8/31/2012 10:32:10 AM

	<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> <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.</p> <p>f. 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>g. 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>h. 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>i. 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>		
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	<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>j.Emergency containment.The secondary containment berm surrounding all storage vessels shall be designed and constructed to contain a minimum of 110% of the volume of the largest vessel located within the containment area or to State of Colorado standards, whichever requirements are more stringent.</p> <p>k.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>l.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>m.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>		
Permit	Operator corrected 19 and 22a. This form has passed completeness.	8/31/2012 7:04:15 AM	
Permit	Return to Draft: Missing Question No. 19 Missing Question 22a. (if no, complete 22b. or note SUA attached).	8/29/2012 1:48:35 PM	

Total: 10 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	Anti-Collision BMP - for wellbores within 150' - Prior to drilling operations, Great Western Oil & Gas Company, LLC will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Great Western may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.
Drilling/Completion Operations	Great Western Oil & Gas Company, LLC - Best Management Practices - Summary Storm water management Plans (SWMP) will be 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 (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. Spill Prevention Control and Counter Measures (SPCC) plans will be 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. 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.

Total: 2 comment(s)