

FORM
2

Rev
12/05

State of Colorado Oil and Gas Conservation Commission

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Document Number:

400247021

Date Received:

03/22/2012

PluggingBond SuretyID

20080107

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: QUICKSILVER RESOURCES INC

4. COGCC Operator Number: 10255

5. Address: 801 CHERRY ST - #3700 UNIT 19

City: FT WORTH State: TX Zip: 76102

6. Contact Name: Pamela Osburn Phone: (817)6654918 Fax: (817)6655009

Email: posburn@qrinc.com

7. Well Name: PIRTLAW PARTNERS Ltd Well Number: 32-09

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

9. Proposed Total Measured Depth: 7600

WELL LOCATION INFORMATION

10. QtrQtr: SWNE Sec: 9 Twp: 6N Rng: 87W Meridian: 6

Latitude: 40.496215 Longitude: -107.152379

Footage at Surface: 1336 feet FNL 2385 feet FEL

11. Field Name: BEAR RIVER Field Number: 5950

12. Ground Elevation: 6616 13. County: ROUTT

14. GPS Data:

Date of Measurement: 11/14/2011 PDOP Reading: 1.8 Instrument Operator's Name: Dowling Land Surveyors

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 _____

Sec: _____ Twp: _____ Rng: _____ Sec: _____ Twp: _____ Rng: _____

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: 1500 ft

18. Distance to nearest property line: 1336 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 4175 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			

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):

SEE ATTACHED MINERAL LEASE

25. Distance to Nearest Mineral Lease Line: 1545 ft 26. Total Acres in Lease: 2342

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
CONDUCTOR	20	16		0	40			
SURF	12+1/4	9+5/8	36	0	1,200	395	1,200	0
1ST	8+3/4	7	26	0	6,158	520	6,158	0
2ND	6+1/8	4+1/2	13.5	0	7,408	155	7,408	5,158

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

33. Comments _____

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: Pamela S. Osburn

Title: Sr. Regulatory Analyst Date: 3/22/2012 Email: posburn@qvinc.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: 10/12/2012

API NUMBER
05 107 06250 00

Permit Number: _____ Expiration Date: 10/11/2014

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.

- 1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED.
- 2) PROVIDE CEMENT COVERAGE FROM THE INTERMEDIATE CASING SHOE TO A MINIMUM OF 200' ABOVE THE TOP OF THE NIOBRARA FORMATION. VERIFY CEMENT WITH A CEMENT BOND LOG.
- 3) PRODUCTION CASING CEMENT TOP VERIFICATION BY CBL REQUIRED.
- 4) THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1 MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1 MILE IS 405 FEET DEEP.

Attachment Check List

Att Doc Num	Name
1533240	SURFACE AGRMT/SURETY
2538005	CORRESPONDENCE
400247021	FORM 2 SUBMITTED
400247039	WELL LOCATION PLAT
400247041	LEGAL/LEASE DESCRIPTION

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
Permit	LGD comments addressed by correspondence attached to 2A #400262066/ No public comments. Final Review--passed.	10/12/2012 12:55:17 PM
Permit	attached updated SUA memorandum. corrected dist. to nearest well to 4175'.	6/25/2012 9:33:32 AM
LGD	<p>This well is the third oil well proposed in this area. The Pirtlaw 24-33 API 05-107-06248-00 and Pirtlaw 14-03 API 05-107-06241-00 are located north of the proposed Pirtlaw 32-09. All of the sites are located east of the Yampa River and will have cumulative impacts on the wildlife in the area, noise impacts, and potential air and water quality impacts. The surface is in a conservation easement intended to protect the visual, wildlife, agriculture and DPW Hunting for Wildlife programs.</p> <p>A Special Use Permit is required for Oil and Gas Operations in Routt County. The petitioner is aware of this process.</p> <p>There are wildlife concerns in this area. The well site is approximately 1,200' from Bald Eagle Winter Concentration area, within Columbian Sharp-tailed Grouse Production area, within Greater Sage Grouse Production area, within Elk Severe Winter Range, within Great Blue Heron foraging area, and abutting Mule Deer Severe Winter range. All conditions placed by the CPW must be complied with. The Columbian Sharpe-tailed Grouse should be closely monitored to determine if any wildlife are being impacted by oil/gas operations. Since this is the third well site in this area and all sites are located within a mile of each other, additional reduction/restriction in hours for site visits/maintenance and hauling to reduce noise and/or human disturbance should be considered for all sites.</p> <p>The site is located approximately 1,600' (1/3 mi.) east of the Yampa River and 600' from a stock pond and intermittent stream. Routt County is concerned with the possible contamination of water. Because of the location of the proposed well, annual surface water monitoring shall be performed at the stock pond and intermittent stream. Baseline samples shall be taken prior to operation.</p> <p>Annual ground water monitoring should be performed at a location down-gradient between the drilling well site and the Yampa River at either a water well, seep or spring. Baseline samples shall be taken prior to operations.</p> <p>Water testing protocol and reporting to Routt County should be in accordance with the COGA program requirements.</p> <p>Routt County requests information from the COGCC after drilling operations are complete for the location of aquifers and showing that casing was completed at minimum requirements to protect all aquifers.</p> <p>Continued best management practices should be used to test or monitor air quality. The COGCC should work with CDPHE to develop monitoring system requirements and schedules for all operators. New technology should be used to prohibit emissions from tanks, equipment and flares at the onset of production.</p>	4/23/2012 11:14:15 AM
Permit	per oper.'s request, APD for horizontal lateral associated with this well was withdrawn.	4/11/2012 7:28:22 AM
Permit	per LGD's request, extended the comment period for ten days past the expiration of the comment period (4/16) for related doc# 400261961	4/3/2012 2:28:44 PM

Total: 5 comment(s)

BMP

<u>Type</u>	<u>Comment</u>

Total: 0 comment(s)