

FORM
2Rev
12/05

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

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

Document Number:

400194220

PluggingBond SuretyID

20030028

3. Name of Operator: SWEPI LP

4. COGCC Operator Number: 78110

5. Address: 4582 S ULSTER ST PKWY #1400

City: DENVER State: CO Zip: 80237

6. Contact Name: Michael Bergstrom Phone: (303)222-6347 Fax: ()

Email: michael.bergstrom@shell.com

7. Well Name: Trout Creek Well Number: 1-30

8. Unit Name (if appl): Curtis State Unit Number: 127

9. Proposed Total Measured Depth: 6500

WELL LOCATION INFORMATION

10. QtrQtr: 4 Sec: 30 Twp: 6N Rng: 85W Meridian: 6

Latitude: 40.442461 Longitude: -106.972075

Footage at Surface: 461 feet FNL/FSL FSL 753 feet FEL/FWL FWL

11. Field Name: Curtis Field Number: 14250

12. Ground Elevation: 6880 13. County: ROUTT

14. GPS Data:

Date of Measurement: 07/06/2011 PDOP Reading: 1.3 Instrument Operator's Name: B. Hunting

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
1552 FSL 2360 FWL 2225 FSL 2133 FEL
Sec: 30 Twp: 6N Rng: 85W Sec: 30 Twp: 6N Rng: 85W16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 1732 ft

18. Distance to nearest property line: 461 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 34647 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 Shale	NBRR	State Unit		

21. Mineral Ownership: ☐ Fee ☒ State ☐ Federal ☐ Indian Lease #: 9163.722. 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):

The mineral lease area is T6N, R86W, all of Section 30

25. Distance to Nearest Mineral Lease Line: 1500 ft

26. Total Acres in Lease: 640

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	30	20		0	80	149	80	0
SURF	13+1/2	10+3/4	36	0	1,000	265	1,000	0
1ST	9+7/8	7+5/8	29.7	0	4,714	349	4,717	800
2ND	6+3/4	5+1/2	17	0	6,171	0		

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

33. Comments Attachments include a drilling and completion plan. A memorandum stating that a Surface Use Agreement is in place is attached.

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: Michael Bergstrom

Title: Senior Regulatory Advisor Date: 10/4/2011 Email: michael.bergstrom@shell.com

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: David S. Nesline

Director of COGCC Date: 12/11/2011

API NUMBER

05 107 06247 00

Permit Number: _____ Expiration Date: 12/10/2013

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) 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 480 FEET DEEP.

Before placing oil/salt based muds in the pit, operator must file and receive prior approval of a Pit Permit, Form 15. COGCC regulations regarding pit permits can be found in Rule 903.a.(3). PIT PERMITTING/REPORTING REQUIREMENTS.

Attachment Check List

Att Doc Num	Name
400194220	FORM 2 SUBMITTED
400194230	TOPO MAP
400196367	DEVIATED DRILLING PLAN
400205253	WELL LOCATION PLAT
400206379	SURFACE AGRMT/SURETY

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
Permit	LGD comments addressed by OGLA Comprehensive Final Review status -- Passed	12/8/2011 10:39:41 AM
Permit	ON HOLD -- Application incomplete Waiting for address of LGD comments	11/8/2011 10:15:11 AM
Permit	Approved SLB bond clearance from Tim Kelly	11/1/2011 2:22:49 PM
Permit	Changed field from Wildcat to Curtis This well lies completely within the Curtis State Unit Approval pending SLB bond clearance and OGLA confirmation of LGD comment review	11/1/2011 1:21:53 PM
LGD	<p>Routt County permits all oil/gas operations. Shall Oil is working with Routt County to obtain a Special Use Permit.</p> <p>This site is mapped for wildlife concerns and all BMP's with regard to protecting Columbian Sharp-tailed Grouse and Elk shall be adhered to. Routt County wants Shell to take measure to reduce noise and vibration from equipment, utilize raptor perch deterrents on overhead lines and equipment and reduce the width of the access road after drilling to mitigate fragmentation of the environment.</p> <p>After drilling operations, the well pad, disturbed areas and access road should be closely monitored for weed control</p> <p>The operator should work closely with the surface owner to avoid any conflicts with ranching/haying operations which may include dust mitigation, installation of cattle guards, gates and fencing.</p>	10/21/2011 4:26:19 PM

Total: 5 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Wildlife	<p>1) Where oil and gas activities must occur within 1.25 miles of Columbian sharp-tailed grouse leks or within other mapped Columbian sharp-tailed grouse breeding or summer habitat, conduct these activities outside the period between March 15 and July 30.</p> <p>2) Pad construction and drilling operations should occur outside of the sharp-tailed grouse breeding and nesting period (March 15 – July 30).</p> <p>3) Shell agrees to conduct drilling activities –re entry for future, additional wells outside the period of March 15 to July 30.</p> <p>4) Daily operations should be scheduled and carried out between 9:00 A.M. and 4:00 P.M. during the period between March 15 and July 30.</p> <p>5) Shell agrees to use hospital grade mufflers for compressors, pump jacks or other motors necessary to run operations at the site as applicable – if compressors, pump jacks, etc. are necessary. Mufflers will be pointed upward to dissipate potential vibration.</p> <p>6) Shell will use topographical features and constructed earthen berm to provide visual concealment of facilities from known lek locations and as a noise suppressant.</p> <p>7) Shell will establish company guidelines to minimize wildlife mortality from vehicle collisions on roads.</p> <p>8) Shell will gate single-purpose roads and restrict general public access to reduce traffic disruptions to wildlife. Per landowners preference and direction.</p> <p>9) Shell will avoid aggressive non-native grasses in Columbian Sharp-tailed Grouse habitat reclamation.</p> <p>10) Shell will match existing vegetation for interim and final reclamation. Or as directed by surface owner.</p> <p>11) If Shell does not use a closed loop system for drilling: Treat waste water pits and any associated pit containing water that provides a medium for breeding mosquitos with Bti (<i>Bacillus thuringiensis v. israelensis</i>) or take other effective action to control mosquito larvae that may spread West Nile Virus to wildlife, especially grouse. June through September.</p>
Storm Water/Erosion Control	<p>Stormwater Management Plans (SWMP) are in place to comply with both Colorado Department of Public Health and Environment (CDPHE) and Colorado Oil and Gas Conservation Commission (COGCC) stormwater discharge permits. The construction layout for Trout Creek 1-30 details Best Management Practices (BMP) to be installed during initial construction. Note that BMPs may be removed, altered, or replaced with changing conditions in the field and the SWMP will be updated accordingly.</p> <p>The BMPs prescribed for the initial construction phase include, but are not limited to:</p> <ul style="list-style-type: none"> • Construction diversion ditch • Sediment reservoirs • Check dams • Level spreaders • Stabilized construction entrance • Slash • Sediment trap • Wattle • Terrace • Secondary containment berms • Detention ponds
Material Handling and Spill Prevention	<p>Spill Prevention Control & Countermeasure Plans (SPCC) are in place to address material releases and to prescribe materials handling BMPs for the facility. “Good house-keeping” measures will be taken to ensure proper waste disposal.</p>

Total: 3 comment(s)