

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received: 04/03/2019

TYPE OF WELL OIL GAS COALBED OTHER: _____

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Well Name: Volt Well Number: 36N-3B-L

Name of Operator: SRC ENERGY INC COGCC Operator Number: 10311

Address: 1675 BROADWAY SUITE 2600

City: DENVER State: CO Zip: 80202

Contact Name: Erin Ekblad Phone: (720)616.4319 Fax: (720)616.4301

Email: eekblad@srcenergy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20090043

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 5 Twp: 5N Rng: 66W Meridian: 6

Latitude: 40.424562 Longitude: -104.809017

Footage at Surface: 1175 Feet FNL/FSL FSL 1127 Feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4813 County: WELD

GPS Data:

Date of Measurement: 05/04/2018 PDOP Reading: 1.9 Instrument Operator's Name: Ian Carabajal

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

557 FSL 2486 FEL 620 FSL 2538 FWL

Sec: 5 Twp: 5N Rng: 66W Sec: 3 Twp: 5N Rng: 66W

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: GREELEY

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: Municipality

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" below. Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The local government siting permit type is: USR

The local government siting permit was filed on: 07/25/2018

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

SRC worked extensively with the City of Greeley planning department through Greeley's Use by Special Review process to ensure that the Volt 19-5 Well Pad met all necessary requirements of Oil and Gas development within Greeley City Limits. The City of Greeley approved the Use by Special Review Proposal (USR2018-0012) on January 8, 2019.

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) is committed to an Oil and Gas Lease.
 has signed the Oil and Gas Lease.
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: applicant is owner

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

5N-66W 5: Lot 2 (N/2NW/4), S/2NW/4, SW/4, SW/4SE/4, and numerous other lands described in lease

Mineral Lease Map attached.

Total Acres in Described Lease: 5681 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	<u>976</u> Feet
Building Unit:	<u>1294</u> Feet
High Occupancy Building Unit:	<u>4312</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>1131</u> Feet
Above Ground Utility:	<u>469</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>233</u> Feet
School Facility:	<u>5096</u> Feet
School Property Line:	<u>4706</u> Feet
Child Care Center:	<u>5280</u> Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone Exception Zone Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 204 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 546 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

5N-66W 3: S2SW SWSE 4: S2S2 5: S2SE SESW

See attached PSU letter.

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		438	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 17997 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 554 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H2S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
CONDUCTOR	24	16	65	0	40	35	40	0
SURF	13+1/2	9+5/8	36	0	1750	531	1750	0
1ST	8+1/2	5+1/2	20	0	17997	2013	17997	

Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number _____
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

No, wellbore beyond the unit boundary setback for this proposed well.

The acreage was calculated using Title Opinions from our Attorneys. They take into account all official surveys that become record which may add or, in some cases, reduce a quarter/quarter from the standard 40.00 acres.

In Spacing Tab, distance proposed wellbore to offset same formation is 204 feet to Volt 36C-3-L using Plan View Map Measurement. In Drilling Tab, distance proposed wellbore to another operator is 554 feet to TC MOISER HILL 2-9-11 (05.123.43748) using Anti Collision Report.

No Stimulation Consent required for this well.

Also, since SRC Energy is the Surface Owner of this location, we are waiving ourselves from 318A.a. and 318A.c. Also no SUA needed since SRC Energy is the surface owner.

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: _____ Print Name: Erin Ekblad

Title: Manager Regulatory Affair Date: 4/3/2019 Email: eekblad@srcenergy.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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  _____ Director of COGCC Date: 8/9/2019

Expiration Date: 08/08/2021

API NUMBER

05 123 50346 00

Conditions Of Approval

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.

COA Type

Description

1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad.
2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.

Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:
1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.
2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.
3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Operator will comply with COGCC policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg area dated May 29, 2012.
2	Drilling/Completion Operations	Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
3	Drilling/Completion Operations	Alternative Logging Program: One of the first wells on this pad will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall state "Alternative Logging Program - No open-hole logs were run", and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

Attachment Check List

Att Doc Num	Name
401959920	FORM 2 SUBMITTED
401995104	OTHER
401995108	WELL LOCATION PLAT
401995120	DEVIATED DRILLING PLAN
401995125	DIRECTIONAL DATA
401995133	MINERAL LEASE MAP
401995137	PROPOSED SPACING UNIT
401995442	EXCEPTION LOC REQUEST
401995447	OffsetWellEvaluations Data
402138924	OFFSET WELL EVALUATION

Total Attach: 10 Files

General Comments

User Group	Comment	Comment Date
Permit	Permitting review complete, passed Final Review.	08/01/2019
Permit	The Objective Criteria Review Memo (Doc# 2479119) is attached to the Form 2A associated with this APD. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	08/01/2019
Permit	With operator concurrence, the following operator comment was deleted: "The wellbore does not cross the lease described but in the DSU."	07/08/2019
Permit	With operator concurrence, the Local Government disposition was updated.	05/30/2019

Engineer	Offset wells evaluated.	05/20/2019
LGD	<p>On January 8, 2019, the City of Greeley's Planning Commission approved a Use by Special Review (USR) for oil and gas operations known as Volt 19-5 with the following conditions:</p> <ol style="list-style-type: none"> 1. The Roadway Maintenance Agreement must be finalized with appropriate recording fee obtained, prior to being issued a Notice to Proceed; 2. The Infrastructure Agreement must be finalized with appropriate recording fee obtained, prior to being issued a Notice to Proceed; 3. Additional access easement for the access onto 83rd Avenue must be agreed upon and formalized via a recorded access easement, prior to being issued a Notice to Proceed; 4. Improvements to the acceleration and deceleration lanes onto/off of 83rd Avenue to Highway 34 Business, specifically additional concrete to accommodate the turning radii of trucks, must be made prior to being issued a Notice to Proceed. 5. Revisions to the Emergency Response and Fire Protection Plan must be made and accepted by the Greeley Fire Department prior to being issued a Notice to Proceed. <p>The City is currently waiting on final revisions and submittal of construction plans for the site as well as satisfaction of conditions 2 through 5 listed above.</p> <p>The approved USR will allow for up to 30 oil and gas wellheads, 30 separators, six oil tanks, two water tanks, six vapor recovery units, and associated equipment, on a property located east of 83rd Avenue and north of Highway 34 Business. The subject site is approximately 32.25 acres in size and is zoned R-L (Residential Low Density).</p> <p>During drilling SRC is required to erect 30-foot sound walls around the east, west, and southern sides of each drilling pad. All lights must be directed downwards. Exhaust from all engines, motors and related equipment must be vented in a direction away from occupied buildings where practical.</p> <p>Improvements to the auxiliary lanes onto/from Highway 34 Business and 83rd Avenue, are required before a notice to proceed will be issued by the City. Improvements entail laying additional concrete on the curves of the auxiliary lane to accommodate the turning radii of trucks.</p> <p>Upon the first well going into production, SRC must install a five-foot berm around each well pad, as well as the south side of the facility, to help to screen it from adjacent rights-of-ways and properties. Landscaping will consists of a mixture of shade, ornamental, and evergreen trees, as well as a mixture of bushes and shrubs and must be planted according to the approved landscape plan.</p> <p>The City of Greeley previously requested that the associated 2A state permit be amended to include the conditions of approval listed above as sundry comments. The same comments are being attached to the Form 2 notices for clarity. Please contact City staff with any questions on this matter.</p> <p>City of Greeley LGD Comments</p> <p>Brad Mueller</p> <p>Brad.Mueller@greeleygov.com</p> <p>(970) 350-9786</p>	04/26/2019
Permit	Passed completeness.	04/08/2019
Total: 7 comment(s)		