

FORM

2

Rev
02/20

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:

402440947

APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate

Date Received:

09/24/2020

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____Refiling ☒ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Cottonwood Creek

Well Number: 4-65 28-27 3AH

Name of Operator: CRESTONE PEAK RESOURCES OPERATING LLC

COGCC Operator Number: 10633

Address: 1801 CALIFORNIA STREET #2500

City: DENVER

State: CO

Zip: 80202

Contact Name: Kathy Denzer

Phone: (720)410-8519

Fax: ()

Email: Kathy.Denzer@crestonepr.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160104

WELL LOCATION INFORMATION

QtrQtr: SWNW Sec: 28 Twp: 4S Rng: 65W Meridian: 6

Latitude: 39.675431

Longitude: -104.676623

Footage at Surface: 2409 Feet FNL/FSL FNL 543 Feet FEL/FWL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 5656

County: ARAPAHOE

GPS Data: GPS Quality Value: 1.6 Type of GPS Quality Value: PDOP Date of Measurement: 04/30/2018

Instrument Operator's Name: Aaron Rivera

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.
 Footage at Top of Prod Zone: FNL/FSL FSL 2631 FSL 330 FNL/FSL FNL 2615 FSL 330 FEL/FWL FEL
 Sec: 28 Twp: 4S Rng: 65W Sec: 27 Twp: 4S Rng: 65W

LOCAL GOVERNMENT INFORMATION

County: ARAPAHOE

Municipality: Aurora

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 location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.

☒ Yes ☐ NoIf 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: Oil and Gas Permit

The local government siting permit was filed on: 10/29/2018

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

Additional explanation of local process:

Permit was resubmitted 7/1/19 and then approved via Administrative approval on 11/1/2019. Case no. 2019-6035-00.

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: Surface Use Agreement

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.)

See attached mineral lease map.

Total Acres in Described Lease: 468 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>1182</u> Feet
Building Unit:	<u>1313</u> Feet
High Occupancy Building Unit:	<u>5280</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>2400</u> Feet
Above Ground Utility:	<u>1446</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>107</u> Feet
School Facility:	<u>4610</u> Feet
School Property Line:	<u>2713</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: 637 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 330 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

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.)
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NIOBRARA	NBRR	535-1255	1280	Sections 27 & 28
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DRILLING PROGRAM

Proposed Total Measured Depth: 18365 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: _____ 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 609

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? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	24	16	42	0	99	86	99	0
SURF	13+1/2	9+5/8	40	0	2319	1248	2319	0
1ST	8+1/2	5+1/2	20	0	18365	2674	18365	

☐ 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 The closest well permitted or completed in the same formation as the Cottonwood Creek 4-65 28-27 2AH well, which is an existing well on the same pad as the 3AH.

There is no well belonging to another operator that is within 1500' of the proposed well.

The surface owner is the property owner on both sides of the property line. Please see attached Exception Location request.

A sundry for the 2A was submitted to update disposal method to commercial disposal as opposed to reuse/recycle.

Crestone Peak is using the API number from the Abandoned Rush 4-65 29-30 2DH for this proposed well on the same pad being drilled in a new DSU. Everything regarding the wellbore has changed including the Well Name and Number. The location has not been built. The location has not been built.

The mineral beneath the location will be developed. This does not match the approved 2A as it was submitted with wells only going west. A new DSU is now associated with the 2A that runs underneath the location.

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

Location ID: 471001

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: Andrea Gross

Title: Permit Agent Date: 9/24/2020 Email: agross@upstreampm.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: 12/31/2020

Expiration Date: 12/30/2022

API NUMBER

05 005 07464 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.

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	If location is not built by 2A expiration 1/23/2023, Operator must Refile Form 2A for approval prior to location construction.
Rejected	REJECTED: This APD and 3 other APDs on the Pad should have been submitted as refiles, as abandoned permits with issued API numbers exist on the Location. This entire Form was not reviewed by Permitting staff.
Drilling/Completion Operations	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 500' 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.
Drilling/Completion Operations	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	Prior to drilling operations, Crestone 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, the Operator 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.
2	Drilling/Completion Operations	Crestone will comply with the "COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area", dated May 29, 2012.
3	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point to 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 measuredwhile- 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 openhole logs shall clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which openhole logs were run."
4	Drilling/Completion Operations	No drill stem tests will be performed.
5	Drilling/Completion Operations	Backup stabbing valves shall be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.
6	Drilling/Completion Operations	Adequate blowout prevention equipment will be used on all well servicing operations.
7	Drilling/Completion Operations	Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections will be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results will be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.

Total: 7 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 List

Att Doc Num	Name
1557588	EXCEPTION LOC REQUEST
402440947	FORM 2 RESUBMITTED
402492800	FORM 2 REJECTED
402495329	WELL LOCATION PLAT
402495333	MINERAL LEASE MAP

402495335	SURFACE AGRMT/SURETY
402495346	OffsetWellEvaluations Data
402495348	DIRECTIONAL DATA
402495456	DEVIATED DRILLING PLAN
402564766	OFFSET WELL EVALUATION

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	11/20/2020
Permit	COGCC conducted the technical review for the related Oil and Gas Location Assessment permit, Form 2A document #401764632 under the statutory authority provided through SB 19-181, including the Objective Criteria. The Director approved the Form 2A on 1/24/2020, establishing Location ID #471001 subject to conditions included in the permit. The well proposed by this related Form 2 was contemplated during COGCC's review of the Form 2A. The Objective Criteria Review Memo (Doc# 1347748) can be found in the document file for this Location.	11/19/2020
Permit	Replaced attached Exception Location Request letter with Doc. 1557588, supplied by Operator. Permitting review complete.	11/19/2020
OGLA	COGCC staff reviewed and considered all public comments received for this Form 2.	10/22/2020
LGD	The City of Aurora has no new comments since those submitted on August 11, 2020. We note the well name and other changes. Thank you for the opportunity to submit these comments. Jeffrey S. Moore, P.G. Manager - Oil and Gas Division - City of Aurora	10/19/2020
Permit	With Operator concurrence, indicated a Rule 703.a.(2) exception for the well and attached EXCEPTION LOC REQUEST letter.	08/13/2020
LGD	In response to this COGCC Form 2 application submitted by CRESTONE PEAK RESOURCES OPERATING LLC (Operator) for the development of oil and gas minerals at the COTTONWOOD CREEK 4-65 28-27 3AH well, the City of Aurora is pleased to submit the following comments: 1) The Operator received local location approval from the City of Aurora on June 5, 2019. 2) The Aurora City Council approved the location following a Public Hearing. 3) The location was approved via an Operator Agreement between the City of Aurora and ConocoPhillips Company. The City has since approved the transfer of the well and Operator Agreement to Crestone Peak Resources. 4) The Operator Agreement requires the Operator to employ 49 Best Management Practices (BMPs) and many other provisions contained in the Operator Agreement during the construction, drilling, completion, production, and reclamation of this well. 5) The BMPs are designed to protect public health, safety, welfare, the environment, and wildlife resources. 6) The City of Aurora is in regular communication with staff at Crestone Peak Resources regarding their operations in general and their plans for this well specifically. 7) The Operator received approval (with conditions) from the City of Aurora for construction of this location on November 1, 2019. Case Number: 2019-6035-00, Rush North - Oil and Gas Permit.	08/11/2020

	<p>8) The City of Aurora reminds the Operator to submit any remaining technical items to the Planning Department to receive a Notice to Proceed (NTP). The NTP from the City is required before drilling of this well can begin.</p> <p>9) The City of Aurora has received verification of the change of well name from the Operator.</p> <p>10) The City of Aurora supports Operator communication with Arapahoe County regarding usage of County roads for access to this well and payment of any required fees.</p> <p>Thank you for the opportunity to submit these comments.</p> <p>Jeffrey S. Moore, P.G.</p> <p>Manager - Oil and Gas Division - City of Aurora</p>	
Permit	Passed completeness.	07/22/2020

Total: 8 comment(s)