

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:  
402392364

APPLICATION FOR PERMIT TO:

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

Date Received:  
06/29/2020

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

Well Name: Eastern Hills 4-65 17-18 Well Number: 3FH  
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: Meghan Mearsha Phone: (720)410-8487 Fax: ( )  
Email: meghan.mearsha@crestonepr.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160104

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 17 Twp: 4S Rng: 65W Meridian: 6  
Latitude: 39.699987 Longitude: -104.680888  
Footage at Surface: 1255 Feet FNL/FSL FSL 700 Feet FEL/FWL FEL  
Field Name: WILDCAT Field Number: 99999  
Ground Elevation: 5641 County: ARAPAHOE  
GPS Data: GPS Quality Value: 1.7 Type of GPS Quality Value: PDOP Date of Measurement: 04/24/2018  
Instrument Operator's Name: Alan Hnizdo

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  
1563 FSL 460 FEL 1595 FSL 460 FWL  
Sec: 17 Twp: 4S Rng: 65W Sec: 18 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 ☐ 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: Oil and Gas Permit

The local government siting permit was filed on: 11/12/2019

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

Additional explanation of local process:

Approval was received via Administrative Decision on February 13, 2020. Case no. 2019-6057-00.

## 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.)

All of Section 17 except an approximately 175' wide strip on the East and approximately 205' wide strip to the south, T4S, R65W.

Total Acres in Described Lease: 604 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>1810</u> Feet
Building Unit:	<u>3917</u> Feet
High Occupancy Building Unit:	<u>5280</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>680</u> Feet
Above Ground Utility:	<u>612</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>492</u> Feet
School Facility:	<u>5280</u> Feet
School Property Line:	<u>5280</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: 624 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

All of Sections 17, 18, 19, 20, 29 & 30 T4S-R65W.

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	535-1167	3840	17,18,19,20,29,30

## DRILLING PROGRAM

Proposed Total Measured Depth: 18130 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 H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S 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	2269	1221	2269	0
1ST	8+1/2	5+1/2	20	0	18130	2638	18130	

☐ 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 This well is being drilled from the Eastern Hills 4-65 17-18 3AH, location id 474845, approved in April 2020.

The closest well permitted or completed in the same formation is the Eastern Hills 4-65 17-18 3EH well, which is proposed on this pad to be operated by Crestone.

The closest well belonging to another operator is the State Smith 1-16 well, API 05-005-06500, operated by Trans Texas Energy Inc.

Anti Collision report is attached as other.

Crestone will be sundrying the approved 2A for offsite commercial disposal as opposed to reuse/recycle.

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

Location ID: 474845

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

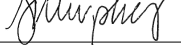
I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Meghan Mearsha

Title: Senior Regulatory Analyst Date: 6/29/2020 Email: megan.mearsha@crestonepr.

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: 9/17/2020  
Expiration Date: 09/16/2022

API NUMBER

05 005 07481 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
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 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.
Drilling/Completion Operations	Operator acknowledges the proximity of the listed non-operated well: Operator agrees to: provide mitigation option 3 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of these wells.  005-06500 State Smith 1-16
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

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	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.
2	Drilling/Completion Operations	Adequate blowout prevention equipment will be used on all well servicing operations.
3	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.
4	Drilling/Completion Operations	No drill stem tests will be performed.
5	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."
6	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.
7	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.

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](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

<b>Att Doc Num</b>	<b>Name</b>
402392364	FORM 2 RESUBMITTED
402426764	FORM 2 REJECTED
402432835	DIRECTIONAL DATA

402432837	DEVIATED DRILLING PLAN
402432838	OTHER
402432839	WELL LOCATION PLAT
402432841	MINERAL LEASE MAP
402432843	SURFACE AGRMT/SURETY
402433837	OffsetWellEvaluations Data
402491771	OFFSET WELL EVALUATION

Total Attach: 10 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Final Approval ready - no additional corrections needed.	09/17/2020
Permit	With Operator concurrence: 1)Removed surface related BMPs. 2)Corrected distance from completed portion of wellbore to nearest lease line.	09/17/2020
Final Review	Final Approval pending - referred to Permitting staff for follow up.	09/16/2020
Permit	Final Review Completed.	09/04/2020
Permit	Added Operator BMPs for Noise Mitigation and Emissions mitigation per Operator.	09/03/2020
Permit	COGCC conducted the technical review for the related Oil and Gas Location Assessment permit, Form 2A document #402226219 under the statutory authority provided through SB 19-181, including the Objective Criteria. The Director approved the Form 2A on 4/3/2020, establishing Location ID #474845 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# 1010902) can be found in the document file for this Location.	09/03/2020
OGLA	Arapahoe County Public Comments received for this Form 2 are addressed in the OBJECTIVE CRITERIA REVIEW UPDATE (Doc# 1347958) saved in the file for Oil and Gas Location ID# 474845.	09/01/2020
LGD	In response to this COGCC Form 2 application submitted by CRESTONE PEAK RESOURCES OPERATING LLC for the development of Oil and Gas Minerals at the EASTERN HILLS 4-65 17-18/3FH well, the City of Aurora is pleased to submit the following comments:  1.) All comments made by the City of Aurora as LGD on May 29, 2020, are still valid for this well.  2.) The City reminds the Operator to update any changes to well numbering with the City.	07/23/2020
Permit (Rejected)	REJECTION: This APD has been rejected per the COGCC Rejection Process (updated May 21, 2019). "1) The bond ID provided on all 8 APDs on this pad is a Surface Bond and not a Plugging Bond. 2) All 8 APDs on the pad are missing the Local Government Application Case #. 3) All 8 APDs on the pad indicate that drilling fluids will be commercially disposed of, but the 2A for the location indicates that drilling fluids will be reused/recycled. 4) All 8 APDs on the pad have an unnecessary PROPOSED SPACING UNIT attachment, but the wells are not in GWA, are in a DSU, and will not be creating WSUs. 5) All 8 APDs have an SUA attached that is inordinately long at 73 pages, and needs redacted to match the SUAs for the other approved Pads in this DSU. 6) The right to construct is not given on 2 APDs. 7) All 8 APDs indicate the wellheads will be in the NESE of Sec. 17, but the wellheads of 4 APDs will be in the SESE of Sec. 17. 8) 4 APDs have DEVIATED DRILLING PLANS attached which make TPZ & BHL footage calls FNL, but the wellbores will be in the S½ of the Section, so these footage calls need to be made FSL." This entire form was reviewed by permitting staff.	06/19/2020
Engineer	Operator concurs on Option 3 for State Smith 1-16	06/03/2020
LGD	In response to this COGCC Form 2 application submitted by CRESTONE PEAK RESOURCES OPERATING LLC for the development of Oil Gas Minerals at the EASTERN HILLS 4-65 17-18/3FH well, the City of Aurora is pleased to submit the following comments:	05/29/2020

	<p>1) The Operator received local location approval from the City of Aurora on June 5, 2019.</p> <p>2) The Aurora City Council approved the location following a Public Hearing.</p> <p>3) The location was approved via an Operator Agreement between the City of Aurora and ConocoPhillips Company. The City has approved the transfer of the well and Operator Agreement to Crestone Peak Resources.</p> <p>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.</p> <p>5) The BMPs are designed to protect public health, safety, welfare, the environment, and wildlife resources.</p> <p>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.</p> <p>7) The Operator received approval (with conditions) from the City of Aurora for construction of this location on February 13, 2020.</p> <p>8) The City of Aurora reminds the Operator to submit the 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 supports Operator communication with Arapahoe County regarding usage of County roads for access to this well and payment of any required fees.</p>	
Permit	Updated unit configuration at operator request. Passed completeness.	05/14/2020
Permit	Location ID field not filled out. Surface/Location BMPs should not be on form 2s. Box not checked on Surface&Minerals tab. Return to draft.	05/14/2020

Total: 13 comment(s)