

FORM

2

Rev
05/22

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

403574387

(SUBMITTED)

Date Received:

12/28/2023

APPLICATION FOR PERMIT TO

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate
Amend ☐
 TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____
Refill ☐
 ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐
Sidetrack ☐

Well Name: State Bierstadt 4-65

Well Number: 35-34 2BH

Name of Operator: CRESTONE PEAK RESOURCES OPERATING LLC

COGCC Operator Number: 10633

Address: 555 17TH STREET SUITE 3700

City: DENVER

State: CO

Zip: 80202

Contact Name: Jeff Annable

Phone: (303)312-8529

Fax: ()

Email: jannable@civiresources.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 20160104

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ _____

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SENE Sec: 35 Twp: 4S Rng: 65W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 2109 Feet FNL 600 Feet FEL

Latitude: 39.661529

Longitude: -104.624449

GPS Data:

GPS Quality Value: 1.5

Type of GPS Quality Value: PDOP

Date of Measurement: 02/27/2018

Ground Elevation: 5870

Field Name: DJ HORIZONTAL NIOBRARA

Field Number: 16950

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 35 Twp: 4S Rng: 65W

Footage at TPZ: 2230 FNL 150 FEL

Measured Depth of TPZ: 8440

True Vertical Depth of TPZ: 8030 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)Sec: 34 Twp: 4S Rng: 65WFootage at BPZ: 2230 FNL 330 FWLMeasured Depth of BPZ: 18508True Vertical Depth of BPZ: 8030 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 34 Twp: 4S Rng: 65WFootage at BHL: 2230 FNL 330 FWL

FNL/FSL

FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATIONCounty: ARAPAHOEMunicipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? No

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I) (A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ 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 disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 01/20/2023

Comments: Arapahoe County Case No. AA22-009 (Amendment to AE18-007)

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: ☐ Fee ☒ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☐ Fee ☒ State ☐ Federal ☐ Indian

Surface Owner Protection Bond (if applicable):

Surety ID Number (if applicable):

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

☐ Fee☒ State☐ Federal☐ Indian☐ N/A**LEASE INFORMATION**

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

See attached Lease Map

Total Acres in Described Lease: 21037

Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian

Federal or State Lease # 1960.12

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2431 Feet
Building Unit: 3117 Feet
Public Road: 2102 Feet
Above Ground Utility: 614 Feet
Railroad: 5280 Feet
Property Line: 613 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

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	535-1455	1278	T4S R65W SEC 34: ALL, SEC 35: ALL

Federal or State Unit Name (if appl):

Unit Number:

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 150 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 558 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: Feet

Exception Location

- ☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers.

SPACING & FORMATIONS COMMENTS

DRILLING PROGRAM

Proposed Total Measured Depth: 18508 Feet

TVD at Proposed Total Measured Depth 8030 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 Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

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

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</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	26	16	A53B	36.95	0	80	105	80	0
SURF	13+1/2	9+5/8	J-55	36	0	3380	1376	3380	0
1ST	8+1/2	5+1/2	P-110	20	0	18508	2909	18508	3380

☐ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Denver	24	24	894	894	0-500	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Groundwater	Arapahoe	894	894	1599	1594	0-500	Groundwater Atlas	USGS HA-647 (Robson & Romero, 1981)
Groundwater	Laramie	1599	1594	1903	1894	0-500	Groundwater Atlas	USGS HA-650 (Robson et al, 1981)
Groundwater	Fox Hills	1903	1894	2146	2134	0-500	Groundwater Atlas	USGS HA-650 (Robson et al, 1981)
Confining Layer	Pierre Formation	2146	2134	2714	2694			
Groundwater	Upper Pierre Formation	2714	2694	3322	3294	501-1000	Electric Log Calculation	Sun-State #1 (05-005-06575)
Confining Layer	Base of Upper Pierre	3322	3294	4264	4224			
Hydrocarbon	Parkman Sandstone	4264	4224	4436	4394			Not productive in this area
Confining Layer	Pierre Formation	4436	4394	5541	5484			
Hydrocarbon	Sussex Sandstone	5541	5484	5657	5599			Not productive in this area
Confining Layer	Pierre Formation	5657	5599	6412	6344			
Hydrocarbon	Shannon Sandstone	6412	6344	6539	6469			Not productive in this area
Confining Layer	Pierre Formation	6539	6469	7852	7754			
Subsurface Hazard	Sharon Springs	7852	7754	7964	7844			Sloughing shales
Hydrocarbon	Niobrara	7964	7844	18508	8030			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formation" tab is measured to the proposed State Bierstadt 4-65 35-34 3AH. This distance was measured in 2-dimensional space.

There are no existing or proposed wellbores belonging to another operator, including plugged wells within 1500' of this proposed wellbore.

This application is in a Comprehensive Area Plan _____

CAP #: _____

Oil and Gas Development Plan Name State Bierstadt/State Pikes

OGDP ID#: 485256

Location ID: 467266

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

Signed: _____

Print Name: Jeff Annable _____

Title: Manager, Regulatory _____

Date: 12/28/2023 _____

Email: jannable@civiresources.com _____

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: _____

Expiration Date: _____

API NUMBER

05

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

0 COA

Best Management Practices

No BMP/COA Type

Description

1	Drilling/Completion Operations	One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. 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 will state "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.
2	Drilling/Completion Operations	Anti-collision: 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.

Total: 2 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403576402	WELL LOCATION PLAT
403576404	DEVIATED DRILLING PLAN
403576408	DIRECTIONAL DATA
403586890	LEASE MAP

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

