

FORM 2 Rev 05/22

State of Colorado Oil and Gas Conservation Commission

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APPLICATION FOR PERMIT TO

Application type selection: Drill (checked), Deepen, Re-enter, Recomplete and Operate, Amend, Refile, Sidetrack. Well type: OIL (checked), GAS, COALBED, OTHER. Zone type: SINGLE ZONE (checked), MULTIPLE ZONES, COMMINGLE ZONES.

Well Name: Alamosa 5-64 Well Number: 6-1 1BH 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: Nathan Bennett Phone: (303)312-8166 Fax: () Email: nbennett@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: NENE Sec: 6 Twp: 5S Rng: 64W Meridian: 6 Footage at Surface: 834 Feet FNL 300 Feet FEL Latitude: 39.650164 Longitude: -104.585818 GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 06/23/2021 Ground Elevation: 5997 Field Name: DJ HORIZONTAL NIOBRARA Field Number: 16950 Well Plan: is Directional Horizontal (highly deviated) (checked) Vertical

Subsurface Locations: Top of Productive Zone (TPZ) Sec: 6 Twp: 5S Rng: 64W Footage at TPZ: 350 FNL 150 FEL Measured Depth of TPZ: 8179 True Vertical Depth of TPZ: 7799 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 1 Twp: 5S Rng: 65W Footage at BPZ: 1244 FNL 330 FWL
Measured Depth of BPZ: 18464 True Vertical Depth of BPZ: 7799 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 1 Twp: 5S Rng: 65W Footage at BHL: 1244 FNL 330 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: ARAPAHOE Municipality: 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? [X] Yes [] No

[X] 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: 07/01/2021

Comments: Approved AEUSR: Approved 07/01/21

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

Surface Owner of the land at this Well's Oil and Gas Location: [X] Fee [] State [] Federal [] Indian

Mineral Owner beneath this Well's Oil and Gas Location: [X] 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):

- [X] Fee
[X] 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.)

T5S-R65W: Sec. 1: All (638.08 acres) and other lands in State Lease OG 1960.12

Total Acres in Described Lease: 21109 Described Mineral Lease is: [] Fee [X] State [] Federal [] Indian

Federal or State Lease # 1960.12

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2107 Feet
 Building Unit: 5280 Feet
 Public Road: 4421 Feet
 Above Ground Utility: 4679 Feet
 Railroad: 5280 Feet
 Property Line: 300 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	535-1403	3200	T5S R64W Sec. 3, 4, 5; T5S R65W Sec. 1; T5S R64W Sec. 6

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: 611 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

Spacing Order 535-1404: DSU #2: 1,280-acre drilling and spacing unit, (7) horizontal wells - Niobrara Formation. T5S R64W Sec. 6: All; T5S R65W Sec. 1: All

DRILLING PROGRAM

Proposed Total Measured Depth: 18464 Feet

TVD at Proposed Total Measured Depth 7799 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

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	A53B	42.09	0	100	114	100	0
SURF	13+1/2	9+5/8	J55	36	0	3275	1092	3275	0
1ST	8+1/2	5+1/2	P110	17	0	18464	2904	18464	

Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Denver	0	0	1675	1665	0-500	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Groundwater	Laramie	1675	1666	1997	1985	0-500	Groundwater Atlas	USGS HA-650 (Robson & Romero, 1981)
Groundwater	Fox Hills	1997	1985	2240	2226	0-500	Groundwater Atlas	USGS HA-650 (Robson & Romero, 1981)
Confining Layer	Pierre Shale	2240	2226	2511	2495			
Groundwater	Upper Pierre Aquifer	2511	2495	3251	3229	501-1000	Electric Log Calculation	Texaco-Chandler 2 (05-005-06662)
Confining Layer	Base of Upper Pierre Aqu	3251	3229	5125	5089			
Hydrocarbon	Larimer	5125	5089	5452	5414			
Hydrocarbon	Sussex	5452	5414	6284	6239			
Confining Layer	Shannon	6284	6239	6438	6392			
Confining Layer	Pierre Shale	6438	6392	7859	7712			
Subsurface Hazard	Sharon Springs	7859	7712	8179	7799			
Hydrocarbon	Niobrara	8179	7799	8179	7799			

OPERATOR COMMENTS AND SUBMITTAL

Comments

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

Att Doc Num	Name
403237551	OffsetWellEvaluations Data
403237558	DIRECTIONAL DATA
403237560	DEVIATED DRILLING PLAN
403237561	OTHER
403241021	WELL LOCATION PLAT

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)