

Base of Productive Zone (BPZ)

Sec: _____ Twp: _____ Rng: _____ Footage at BPZ: _____
 Measured Depth of BPZ: _____ True Vertical Depth of BPZ: _____ FNL/FSL _____ FEL/FWL _____

Bottom Hole Location (BHL)

Sec: _____ Twp: _____ Rng: _____ Footage at BHL: _____
 FNL/FSL _____ FEL/FWL _____

LOCAL GOVERNMENT PERMITTING INFORMATION

County: CHEYENNE 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 and §37-90.5-107(2)(b)(I) C.R.S, the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas or Deep Geothermal Locations.

The Energy and Carbon Management Act and the Geothermal Resources Act provide 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.

Does the Relevant Local Government regulate the siting of Oil and Gas and Deep Geothermal 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: Other Date of Final Disposition: _____

Comments: Cheyenne County does not require a local permit.

GEOTHERMAL

Well Overview

The following questions determine informational requirements based on Well type:

Which type of Geothermal Well is this? Select one of the following:

Will this well be constructed using cementing methodologies other than those listed in Rule 408.f?

If Yes, what method will be used:

Please describe the cementing method to be used in detail:

Geothermal Resource Units

Fill out the information below to submit an application for a Geothermal Resource Unit (GRU) as part of the current permit application. This may also be completed later using a Form 4 Sundry.

Will this Well be in an existing GRU?

Are you submitting your application for a new GRU as part of the current application?

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

Surface Owner of the land at this Well's Oil and Gas Or Deep Geothermal Location: Fee State Federal Indian

Mineral Owner beneath this Well's Oil and Gas Or Deep Geothermal 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.)

T13S-R43W Section 14: S2

Total Acres in Described Lease: 320 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2187 Feet
Building Unit: 2187 Feet
Public Road: 887 Feet
Above Ground Utility: 922 Feet
Railroad: 5280 Feet
Property Line: 1767 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.)
MORROW V-3	MRRW3	477-3	320	T13S-R43W Section 14: S½

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: 891 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: 1442 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. 401.c.(2)

SPACING & FORMATIONS COMMENTS

Wavetech Helium, Inc., is the 100% mineral owner of Section 23, T13S-R42W, offsetting the proposed #1 Wavetech Hadacheck 24-14 Well, hereby voluntarily waives the 1,000' location setback in Order 477-3.

DRILLING PROGRAM

Proposed Total Measured Depth: 5500 Feet

TVD at Proposed Total Measured Depth 5500 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: 1232 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? No

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

Beneficial reuse or land application plan submitted? No

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
SURF	12+1/4	8+5/8	J-55	24	0	575	300	575	0
1ST	7+7/8	5+1/2	J-55	15.5	0	5500	464	5500	2750
				Stage Tool	0	2750	676	2750	0

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	High Plains Aquifer	0	0	400	400	0-500	Groundwater Atlas	
Confining Layer	Pierre Shale	400	400	1502	1502			
Confining Layer	Fort Hayes	1502	1502	1574	1574			
Confining Layer	Codell	1574	1574	1798	1798			
Confining Layer	Graneros Shale	1798	1798	1962	1962			
Groundwater	Dakota	1962	1962	2148	2148	1001-10000	Groundwater Atlas	
Confining Layer	Skull Creek	2148	2148	2300	2300			
Groundwater	Cheyenne	2300	2300	2460	2460	0-500	Groundwater Atlas	
Confining Layer	Morrison	2460	2460	2780	2780			
Confining Layer	Blaine	2780	2780	3094	3094			
Confining Layer	Stone Corral	3094	3094	3730	3730			
Confining Layer	Neva	3730	3730	3798	3798			
Confining Layer	Foraker	3798	3798	4116	4116			
Confining Layer	Shawnee	4116	4116	4304	4304			
Confining Layer	Heebner	4304	4304	4337	4337			
Confining Layer	Toronto	4337	4337	4357	4357			
Confining Layer	Lansing	4357	4357	4723	4723			
Confining Layer	Marmaton	4723	4723	4752	4752			
Confining Layer	Pawnee	4752	4752	4817	4817			
Confining Layer	Fort Scott	4817	4817	4886	4886			
Confining Layer	Cherokee	4886	4886	5037	5037			
Confining Layer	Atoka	5037	5037	5166	5166			
Hydrocarbon	Top Morrow	5166	5166	5298	5298			
Confining Layer	Lower Morrow Limestone	5298	5298	5344	5344			
Confining Layer	St. Louis	5344	5344	0	0			

OPERATOR COMMENTS AND SUBMITTAL

Comments

This well will not be hydraulically fractured.

Nearest well permitted or completed in the same formation is the Pickard 34-14 #1(Plugged well). This well did not produce.

This section is under pressured. Therefore, an annual preventor is sufficient for well control.

General Comments

User Group

Comment

Comment Date

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Stamp Upon Approval

Total: 0 comment(s)

