

FORM
2

Rev
05/22

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:

403402904

Date Received:

05/26/2023

APPLICATION FOR PERMIT TO

Drill Deepen Re-enter Recomplete and Operate

Amend

TYPE OF WELL OIL GAS COALBED OTHER: _____

Refile

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: Shallot Well Number: 1930-18H
Name of Operator: VERDAD RESOURCES LLC COGCC Operator Number: 10651
Address: 1125 17TH STREET SUITE 550
City: DENVER State: CO Zip: 80202
Contact Name: Allison Schieber Phone: (720)845-6909 Fax: ()
Email: regulatory@verdadresources.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): 20170009

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: NESW Sec: 19 Twp: 1N Rng: 64W Meridian: 6

Footage at Surface: 1875 Feet FSL 1723 Feet FWL

Latitude: 40.034702 Longitude: -104.596658

GPS Data: GPS Quality Value: 1.2 Type of GPS Quality Value: PDOP Date of Measurement: 04/19/2023

Ground Elevation: 5011

Field Name: WATTENBERG Field Number: 90750

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: 19 Twp: 1N Rng: 64W Footage at TPZ: 2640 FSL 480 FWL

Measured Depth of TPZ: 7639 True Vertical Depth of TPZ: 6950 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 30 Twp: 1N Rng: 64W Footage at BPZ: 460 FSL 480 FWL

Measured Depth of BPZ: 15119 True Vertical Depth of BPZ: 6950 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 30 Twp: 1N Rng: 64W Footage at BHL: 370 FSL 480 FWL

FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD 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.? Yes

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: 10/11/2019

Comments: WOGLA19-0202

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.)

Section 19: Lot A,B, and C Located S2 : 1N 64W Please see attached map

Total Acres in Described Lease: 240 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 772 Feet
Building Unit: 1662 Feet
Public Road: 1693 Feet
Above Ground Utility: 777 Feet
Railroad: 5280 Feet
Property Line: 1723 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	407-3321	2560	Section 7, 18, 19 & 30 1N 64W: 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: 460 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: 705 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

Section 7, 18, 19 & 30 1N 64W: ALL

DRILLING PROGRAM

Proposed Total Measured Depth: 15209 Feet TVD at Proposed Total Measured Depth 6950 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	ASTM	65	0	80	92	80	0
SURF	13+1/2	9+5/8	J55	36	0	2148	577	2148	0
1ST	8+1/2	5+1/2	P110	20	0	15209	1940	15209	

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	ARAPAHOE	0	0	630	630	501-1000	USGS	USGS-400237104354401 600 mg/L
Groundwater	FOX HILLS	630	630	1150	1140	501-1000	USGS	USGS-400111104354501 738 mg/L
Confining Layer	PIERRE	1150	1140	1623	1591			
Groundwater	UPPER PIERRE POROSITY	1623	1591	2094	2037	1001-10000	Other	CO DNR Report Project Number 2141
Confining Layer	PIERRE	2094	2037	4286	4127			
Hydrocarbon	PARKMAN	4286	4127	4485	4316			Non-productive horizon
Confining Layer	PIERRE	4485	4316	4614	4439			
Hydrocarbon	SUSSEX	4616	4439	4969	4777			Non-productive horizon
Confining Layer	PIERRE	4969	4777	5490	5273			
Hydrocarbon	SHANNON	5490	5273	5778	5547			Non-productive horizon
Confining Layer	PIERRE	5778	5547	7331	6886			
Hydrocarbon	SHARON SPRINGS	7331	6886	7368	6900			Non-productive horizon
Hydrocarbon	NIOBRARA	7368	6900	15209	6950			

OPERATOR COMMENTS AND SUBMITTAL

Comments

Verdad is refiling this permit to change the surface hole, top and bottom of the production zone, bottom hole location, and spacing order. These changes required an updated total depth, revisions to the casing and cementing plan, and cultural information. All information on this permit has changed from the original submission
The nearest well belonging to another operator is further then 1500'. Distance measured using 3D anti collision report, attached as other.
The minimum distance from the completed zone of this well to the completed zone of an offset well within the same unit was measured from the Shallot 1930 19H.
This well has a bottom hole location beyond the unit boundary setback. The bottom of the completed interval will be within the boundary setback, labeled as BPZ 460' FSL and 480' FWL of section 30 1N 64W. The wellbore beyond the unit setback will be physically isolated and will not be completed.

This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name _____ OGDID ID#: _____
Location ID: 470925

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

Signed: _____ Print Name: Allison Schieber
Title: Sr Regulatory Analyst Date: 5/26/2023 Email: regulatory@verdadresources.c

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: 6/30/2023
Expiration Date: 06/29/2026

API NUMBER 05 123 51429 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	Operator will log four (4) wells during the second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the four stratigraphically deepest wells on each side of the pad. Two wells from the Chive 2536 and two wells from the Shallot 1930.
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Construction	If conductors are preset, operator shall comply with Rule 406.e.
Drilling/Completion Operations	Operator will ensure the wellbore beyond the unit boundary setback is physically isolated and is not completed. In the Operator Comments on the Form 5A the operator will (1) report the footages from the section lines of the bottom of the completed interval (2) describe how the wellbore beyond the unit boundary setback is physically isolated and (3) certify that none of the wellbore beyond the setback was completed.
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 is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document Operator using Option 3. Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. 123-07613 ANDREWS #13 123-10611 STEVENS #1 123-15556 BANNER #29-1
Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log. 3) Oil based drilling fluid can only be used after all groundwater has been isolated.
7 COAs	

Best Management Practices

No	BMP/COA Type	Description
1	Construction	If conductors are preset, operator shall comply with Rule 406.e.
2	Drilling/Completion Operations	Operator will log two wells during the rig occupation, with open hole resistivity log and gamma ray log from kick off point into the surface casing for the 2 stratigraphically deepest wells, one well from the Chive 2536 and one well from the Shallot 1930. 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 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.
3	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 shall 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 shall 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.
4	Drilling/Completion Operations	Operator will perform anti-collision evaluation of all active (producing, shut-in, of temporarily abandoned) offset wellbores that have the potential of being within 150' feet of the proposed well prior to drilling operations. Notice shall be given to all offset operators prior to drilling
5	Drilling/Completion Operations	Operator will comply with COGCC policy on brandenhead monitoring during hydraulic fracturing treatments in the Greater Wattenberg Area per policy dated may 29 2012.
6	Drilling/Completion Operations	Operator will ensure the wellbore beyond the unit boundary setback is physically isolated and is not completed. IN the operator comments on the Form 5A the operator will 1. Report the footages from the section lines of the bottom of the completed interval 2. describe how the wellbore beyond the unit boundary setback is physically isolated and 3. certify that non of the wellbore beyond the setback was completed

Total: 6 comment(s)

Attachment List

Att Doc Num	Name
403402904	FORM 2 SUBMITTED
403410487	WELL LOCATION PLAT
403410488	DEVIATED DRILLING PLAN
403410489	OTHER
403410493	DIRECTIONAL DATA
403414652	OffsetWellEvaluations Data
403414658	MINERAL LEASE MAP
403451158	OFFSET WELL EVALUATION

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	06/29/2023
Permit	Made the following changes with concurrence from the operator: - Revised Order No. to correct Spacing Order No. - Revised unit acreage to match acreage of the referenced order - Revised Unit Configuration to include all lands in Order. - Revised TPZ to match MD on attached Drilling Plan. Permit Review Complete	06/26/2023
Engineer	Emailed operator regarding surface casing depth 8-June. Feedback received 12-June. Updated form as per email.	06/22/2023
Permit	Emailed operator for the following: - Spacing Order No. is for pooling. Needs to be revised with Spacing Order - Unit Configuration needs revised to include all spaced land in the DSU and correct unit acreage - Confirm revising TPZ MD to match information on Drilling Plan.	06/22/2023
Permit	SHL error corrected on 20H APD.	06/21/2023
OGLA	This Location and its associated Form 2A materials was fully evaluated during the review of this APD in accordance with current Rules. See Sundry doc #403437426 in Location #470925 file for additional information. This APD complies with all COGCC Rules and Staff concludes that any potential direct adverse impacts to public health, safety, welfare, the environment, and wildlife resources will be minimized and mitigated by the successful implementation of the proposed BMPs for Location #470925. OGLA task passed.	06/20/2023
Engineer	Possible form error. SHL same lat/long as 20H on GIS.	05/30/2023

Total: 7 comment(s)