

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:
403171882
Date Received:
10/04/2022

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: Gaffney 2920 Well Number: 07H
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: SWNW Sec: 29 Twp: 8N Rng: 61W Meridian: 6
Footage at Surface: 2165 Feet FNL/FSL 559 Feet FEL/FWL _____
Latitude: 40.633802 Longitude: -104.237850
GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 08/23/2022
Ground Elevation: 4991
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: 29 Twp: 8N Rng: 61W Footage at TPZ: 2340 FNL 920 FEL _____
Measured Depth of TPZ: 8210 True Vertical Depth of TPZ: 6650 FNL/FSL _____ FEL/FWL _____

Base of Productive Zone (BPZ)

Sec: 20 Twp: 8N Rng: 61W Footage at BPZ: 300 FNL 917 FEL

Measured Depth of BPZ: 15547 True Vertical Depth of BPZ: 6650 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 20 Twp: 8N Rng: 61W Footage at BHL: 210 FNL 917 FEL

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: 01/27/2022

Comments: 1041WOGLA21-0006

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.)

SW4NW4 Section 29 T8N R61W

Total Acres in Described Lease: 40 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 3870 Feet
Building Unit: 5280 Feet
Public Road: 2114 Feet
Above Ground Utility: 687 Feet
Railroad: 5280 Feet
Property Line: 559 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	535-1392	960	T8N R61W Section 20: All, Section 29: N2

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: 300 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: 579 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

8N 61W Section 20: All, Section 29: N2 960 ACRES

DRILLING PROGRAM

Proposed Total Measured Depth: 15637 Feet TVD at Proposed Total Measured Depth 6650 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: 230 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	1977	537	1977	0
1ST	8+1/2	5+1/2	P110	20	0	15637	1987	15637	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	ARAPAHOE	0	0	210	210	501-1000	USGS	USGS-403908104121101(911 mg/L)
Groundwater	FOX HILLS	210	210	520	520	501-1000	USGS	USGS-403951104134001(570 mg/L)
Confining Layer	PIERRE	520	520	947	940			
Groundwater	UPPER PIERRE POROSITY	947	940	1916	1820	1001-10000	USGS	CO DNR Report Project Number 2141
Confining Layer	PIERRE	1916	1820	3967	3490			
Hydrocarbon	PARKMAN	3967	3490	4582	3990			
Confining Layer	PIERRE	4582	3990	4797	4165			
Hydrocarbon	SUSSEX	4797	4165	5178	4475			
Confining Layer	PIERRE	5178	4475	5639	4850			
Hydrocarbon	SHANNON	5639	4850	5891	5055			
Confining Layer	PIERRE	5891	5055	7476	6340			
Hydrocarbon	SHARON SPRINGS	7476	6340	7573	6410			
Hydrocarbon	NIOBRARA	7573	6410	15637	6650			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The nearest offset well completed in the same formation is the Gaffney 2920 06H measured in 2D. The nearest well belonging to another operator is the Harlequin 28-29-4HN operated by Mallard XX status and measured in 3D using the anti collision report, attached as other. This well has a bottom hole location beyond the unit boundary setback. The bottom of the completed interval will be within the boundary set back at 300 FNL and 917 FEL of Section 20. 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 Gaffney 2920 OGDID#: 481933
Location ID: 435303

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: 10/4/2022 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: 12/9/2022

Expiration Date: 07/26/2025

API NUMBER

05 123 51910 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
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 Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).
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	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) Provide cement coverage from TD to a minimum of 500' 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	Bradenhead Testing 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.
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. ULLMAN FARMS *19-2 (API 123-10402)
6 COAs	

Best Management Practices

No	BMP/COA Type	Description
1	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 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 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 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 open-hole logs were run.
2	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.
3	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.

Total: 3 comment(s)

Attachment List

Att Doc Num	Name
403171882	FORM 2 SUBMITTED
403185518	OffsetWellEvaluations Data
403185525	DEVIATED DRILLING PLAN
403185526	OTHER
403185528	WELL LOCATION PLAT
403185530	DIRECTIONAL DATA
403256002	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	12/07/2022
Permit	Placed back IN PROCESS - Extra well issue has been resolved	12/06/2022
Permit	Placed ON HOLD - Awaiting operator response for extra well on pad.	12/01/2022
Permit	Emailed operator for the following: - Confirm spacing order Made the following changes with concurrence from the operator: - Added missing Twp & Rng in Unit Configuration box. - Revised Spacing order from OGDG to Spacing 535-1392 Permit Review Complete	11/09/2022
Permit	Emailed operator for the following: - Confirm adding missing Twp & Rng in Unit Configuration box.	11/08/2022
Engineer	•Surface Casing Check complete •Offset well review complete 408.t - No wells 408.u - No wells •Engineering review complete	10/20/2022
OGLA	The Commission approved OGDG #481933 on July 27, 2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	10/06/2022

Total: 7 comment(s)