

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:

403287100

Date Received:

08/08/2023

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: Tiger 0916 Well Number: 04H
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)8456909 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: NWNW Sec: 10 Twp: 1N Rng: 64W Meridian: 6

Footage at Surface: 245 Feet FNL 1355 Feet FWL

Latitude: 40.072546 Longitude: -104.541525

GPS Data: GPS Quality Value: 2.3 Type of GPS Quality Value: PDOP Date of Measurement: 12/01/2022

Ground Elevation: 5105

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: 9 Twp: 1N Rng: 64W Footage at TPZ: 460 FNL 2331 FWL
Measured Depth of TPZ: 8868 True Vertical Depth of TPZ: 7150 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 16 Twp: 1N Rng: 64W Footage at BPZ: 460 FSL 2331 FWL
Measured Depth of BPZ: 18625 True Vertical Depth of BPZ: 7150 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 16 Twp: 1N Rng: 64W Footage at BHL: 370 FSL 2331 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: 05/16/2017

Comments: WOGLA17-0020

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 16 1N 64W: ALL

Total Acres in Described Lease: 620 Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian

Federal or State Lease # OG-108620

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2065 Feet
Building Unit: 2065 Feet
Public Road: 234 Feet
Above Ground Utility: 210 Feet
Railroad: 5280 Feet
Property Line: 245 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 | 407-3467 | 1280 | T1N, R64W, Sections 9 and 16: 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: 668 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

T1N, R64W, Sections 9 and 16: ALL

DRILLING PROGRAM

Proposed Total Measured Depth: 18715 Feet

TVD at Proposed Total Measured Depth 7150 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: 947 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 | 2502 | 679 | 2502 | 0 |
| 1ST | 8+1/2 | 5+1/2 | P110 | 20 | 0 | 18715 | 2301 | 18715 | |

☐ 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 | 606 | 605 | 501-1000 | USGS | USGS-400202104335801 (1070mg/L) |
| Groundwater | FOX HILLS | 606 | 605 | 1013 | 1005 | 501-1000 | USGS | USGS-400537104320901 (649 mg/L) |
| Confining Layer | PIERRE | 1013 | 1005 | 1676 | 1621 | | | |
| Groundwater | UPPER PIERRE POROSITY | 1676 | 1621 | 2441 | 2255 | 1001-10000 | Other | CO DNR Report Project Number 2141 |
| Confining Layer | PIERRE | 2441 | 2255 | 4808 | 4165 | | | |
| Hydrocarbon | PARKMAN | 4808 | 4165 | 5130 | 4425 | | | NON PRODUCTIVE HORIZON |
| Confining Layer | PIERRE | 5130 | 4425 | 5253 | 4524 | | | |
| Hydrocarbon | SUSSEX | 5253 | 4524 | 5625 | 4825 | | | NON PRODUCTIVE HORIZON |
| Confining Layer | PIERRE | 5625 | 4825 | 6208 | 5295 | | | |
| Hydrocarbon | SHANNON | 6208 | 5295 | 6418 | 5465 | | | NON PRODUCTIVE HORIZON |
| Confining Layer | PIERRE | 6418 | 5465 | 8168 | 6868 | | | |
| Hydrocarbon | SHARON SPRINGS | 8168 | 6868 | 8186 | 6881 | | | NON PRODUCTIVE HORIZON |
| Hydrocarbon | NIOBRARA | 8186 | 6881 | 18715 | 7150 | | | |

OPERATOR COMMENTS AND SUBMITTAL

Comments

The nearest well belonging to another operator is the State 1 operated by Karen Oil, well status DA. 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 Tiger 0916-05H.
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 2331' FWL of section 16 1N 64W. The wellbore beyond the unit setback will be physically isolated and will not be completed.
The Brnak 01N-64W-10 location is Built.

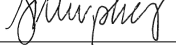
This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name _____ OGDID #: _____
Location ID: 451129

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: 8/8/2023 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: 9/14/2023
Expiration Date: 09/13/2026

API NUMBER

05 123 52210 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 one (1) additional well 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 two stratigraphically deepest wells on each side of the pad |
| Interim Reclamation | 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 ECMC 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 ECMC 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. 123-07770 STATE #14-16 123-10886 MCMILLAN #1 123-11050 STATE #1 123-11425 " EAST HUDSON B STATE #1-16" |
| Drilling/Completion Operations | 1) Submit Form 42 electronically to ECMC 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. |
| 6 COAs | |

Best Management Practices

| No | BMP/COA Type | Description |
|-----------|--------------------------------|---|
| 1 | 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. |
| 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 | 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 to 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. |
| 4 | 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. |
| 5 | 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: 5 comment(s)

Attachment List

| Att Doc Num | Name |
|--------------------|----------------------------|
| 403287100 | FORM 2 SUBMITTED |
| 403434567 | WELL LOCATION PLAT |
| 403434569 | DEVIATED DRILLING PLAN |
| 403434571 | OTHER |
| 403434623 | OffsetWellEvaluations Data |
| 403434760 | DIRECTIONAL DATA |
| 403529966 | OFFSET WELL EVALUATION |

Total Attach: 7 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|--|---------------------|
| Permit | Final Review Completed. | 09/11/2023 |
| OGLA | This Location and its associated Form 2A materials was fully evaluated during the review of this APD in accordance with the current Rules. This APD complies with all CECMC Rules and Staff does not anticipate any significant potential direct adverse impacts to public health, safety, welfare, the environment, and wildlife resources. OGLA task passed. | 09/11/2023 |
| Permit | Operator corrected issues. Permitting Review Complete. | 08/09/2023 |
| Permit | Emailed the SLB to notify them of this pending application. SLB has no concerns with this application. | 08/01/2023 |
| Permit | <p>RETURNED TO DRAFT: This application has been reviewed by CECMC staff and cannot be approved based on the information submitted; therefore, the CECMC is returning this form to DRAFT for the applicant to ?resolve the issues. In compliance with § 24-65.1-108(1), C.R.S., ?the CECMC is returning this application to the applicant to ??remedy the deficiencies. The applicant may resubmit this application for CECMC review; upon resubmittal of any application, the CECMC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review.</p> <p>In addition to all standard required information and attachments, the CECMC hereby confirms the following information is necessary for review:</p> <ol style="list-style-type: none"> 1. A permit that is developing state minerals/leases should have the "state" box checked. 2. Lease description only includes section 10 which does not include any of the minerals developed in the unit. Need lease description to include minerals in the unit. 3. Operator should have a comment on the submit tab stating that "location is built" | 08/01/2023 |

Total: 5 comment(s)