

FORM
2A

Rev
02/20

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:

402254036

Date Received:

12/05/2019

Oil and Gas Location Assessment

☒ New Location ☐ Refile ☐ Amend Existing Location Location#: _____

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

472202

Expiration Date:

02/25/2023

☐ This location assessment is included as part of a permit application.

CONSULTATION

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # _____
- ☐ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 10651
Name: VERDAD RESOURCES LLC
Address: 5950 CEDAR SPRINGS ROAD
City: DALLAS State: TX Zip: 75235

Contact Information

Name: Heather Mitchell
Phone: (720) 845-6917
Fax: ()
email: regulatory@verdadoil.com

FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20170009 ☐ Gas Facility Surety ID (Rule 711): _____
☐ Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Timbro Fed Number: 1931
County: WELD
QuarterQuarter: SESW Section: 19 Township: 9N Range: 58W Meridian: 6 Ground Elevation: 4825

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 462 feet FSL from North or South section line
2429 feet FWL from East or West section line

Latitude: 40.730441 Longitude: -103.907839

GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 03/08/2018

Instrument Operator's Name: Eric Purcell

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below. ☒ 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 local government siting permit type is: 1041 WOGLA

The local government siting permit was filed on: 01/27/2020

The disposition of the application filed with the local government is: In Process

Additional explanation of local process:

Permit # 1041WOGLA 19-0059

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is: LOCATION ID # FORM 2A DOC #



FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells <u>8</u>	Oil Tanks* <u>10</u>	Condensate Tanks* <u> </u>	Water Tanks* <u>6</u>	Buried Produced Water Vaults* <u> </u>
Drilling Pits <u> </u>	Production Pits* <u> </u>	Special Purpose Pits <u> </u>	Multi-Well Pits* <u> </u>	Modular Large Volume Tanks <u>1</u>
Pump Jacks <u> </u>	Separators* <u>8</u>	Injection Pumps* <u> </u>	Cavity Pumps* <u> </u>	Gas Compressors* <u>1</u>
Gas or Diesel Motors* <u> </u>	Electric Motors <u> </u>	Electric Generators* <u> </u>	Fuel Tanks* <u> </u>	LACT Unit* <u>1</u>
Dehydrator Units* <u> </u>	Vapor Recovery Unit* <u>3</u>	VOC Combustor* <u>4</u>	Flare* <u> </u>	Pigging Station* <u> </u>

OTHER FACILITIES*

<u>Other Facility Type</u>	<u>Number</u>
Heater Treater	1
Sales Building	1
Vapor Recovery Tower	2

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

The majority of the flowlines will be Schedule 80 FBE welded steel including: (8) 3" flowlines from the wellheads to the separators, (8) 3" gas injections lines from the compressor to the wellheads, (8) 1" gas supply lines from the wellhead to the separators. Poly will be used to supply gas to the tubing motor valves, including (8) 1" lines from the separators to the motor valves on the wellheads.
Verdad will connect to Sterling gas line.

CONSTRUCTION

Date planned to commence construction: 08/01/2020 Size of disturbed area during construction in acres: 7.48
Estimated date that interim reclamation will begin: 02/01/2021 Size of location after interim reclamation in acres: 4.40
Estimated post-construction ground elevation: 4825

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: _____

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Timbro Ranch & Cattle Co

Phone: _____

Address: 5566 S. Sycamore Street

Fax: _____

Address: _____

Email: _____

City: Littleton State: CO Zip: 80120

Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian

Check all that apply. The Surface Owner: ☐ is the mineral owner

☐ is committed to an oil and Gas Lease

☐ has signed the Oil and Gas Lease

☐ is the applicant

The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: No

The right to construct this Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation 03/19/2018

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s): _____

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

Future Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	5280 Feet	5280 Feet
Building Unit:	5280 Feet	5280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	4831 Feet	4900 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	461 Feet	286 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- 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, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? ☐ Yes ☒ No

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:

- ☐ Buffer Zone
☐ Exception Zone
☐ Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.
- Large UMA Facility – as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on- or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*

☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: Nunn Loam, 0 to 6 percent

NRCS Map Unit Name: Stoneham fine sandy loam, 0 to 6 percent

NRCS Map Unit Name: _____

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☒ NRCS or, ☐ field observation Date of observation: _____

List individual species: Western wheatgrass, blue grama, green needlegrass, alkali sacaton, fourwing saltbush

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- ☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- ☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- ☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- ☐ Alpine (above timberline)
- ☐ Other (describe): _____

WATER RESOURCES

Is this a sensitive area: ☒ No ☐ Yes

Distance to nearest

downgradient surface water feature: 618 Feet

water well: 3300 Feet

Estimated depth to ground water at Oil and Gas Location 90 Feet

Basis for depth to groundwater and sensitive area determination:

Basis for depth to ground water was determined from Water well permit number 98770

Is the location in a riparian area: ☒ No ☐ Yes

Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: _____

Is the Location within a Floodplain? ☒ No ☐ Yes Floodplain Data Sources Reviewed (check all that apply)

☒ Federal (FEMA)

☐ State

☐ County

☐ Local

☐ Other _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

WILDLIFE

☐ This location is included in a Wildlife Mitigation Plan

☐ This location was subject to a pre-consultation meeting with CPW held on _____

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area

☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)

☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)

☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)

☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Referenced to Fed 1931 01H.
Waste management plan attached
Facility Layout not required
These wells will tie into Sterling gas line.

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

Signed: _____ Date: 12/05/2019 Email: regulatory@verdadoil.com

Print Name: Heather Mitchell Title: Regulatory Manager

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 2/26/2020

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type**Description**

Planning	Operator shall post a copy of the approved Form 2A on the location during all construction, drilling, and well completion activities.
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Best Management Practices

No BMP/COA Type**Description**

1 Planning	Verdad will submit a WOGLA application with Weld county that addresses site safety and contains an emergency action and tactical response plan. Each location is assigned a physical address for emergency responders to locate the site in the event of an emergency.
2 General Housekeeping	Cleanup of trash, scrap, and discarded materials will be conducted at the end of each workday.
3 General Housekeeping	Mud control: Operator will implement effective, temporary vehicle tracking control at the location egress to prevent transport of sediment offsite and onto the public road during construction, drilling, completions, stimulation, and flowback operations. Appropriate vehicle tracking control, such as a properly sized cattle guard or 2-inch to 4-inch stone, will still be required during production operations.
4 Storm Water/Erosion Control	The location will have stormwater control measures consisting of a berm around the perimeter of the location to divert clean water away from disturbed areas and to divert onsite runoff into a sediment trap, a ditch around the location to collect and divert runoff to a sediment trap, and two to four sediment traps to allow sediment to settle out of diverted stormwater runoff. Sediment trap spill way will use rip-rap, aggregate and/or wattles to further filter runoff. These control measures will be inspected at the following frequencies: Storm water controls are inspected every 14 days during construction, drilling and completions. Once per month after that, until interim reclamation is completely established (approximately 2 years). Once per year after that until facility abandoned
5 Material Handling and Spill Prevention	During drilling operations, we anticipate 4-5 loads, @ 20 yards per load, of cuttings per day will be transported off-site to an approved disposal facility in accordance with Operator's waste management plan. All loads leaving the location will have a manifest and will be documented. Water-based and Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site. No cuttings will be stored on location.

6	Material Handling and Spill Prevention	Containment will be used during fueling of equipment to contain spills and leaks all phases of operations. Tank secondary containment will be impervious lined (either poly or spray in liner) steel berms with capacity > 150% volume of the largest tank. Pad will also have tertiary containment of ditch and berm to prevent any spills from leaving site. All spills will be immediately cleaned up and will be reported if volume meets reporting limit.
7	Material Handling and Spill Prevention	To prevent dust from becoming a nuisance to the public, water trucks will be utilized to spread water across any dust problem areas.
8	Material Handling and Spill Prevention	During drilling operations 12 inches of cement is placed under the rig surrounded by a compacted soil berm to prevent any soil contamination. Drilling mud is stored in large volume tanks that will be surrounded by impervious secondary containment.
9	Material Handling and Spill Prevention	Separators are encompassed by steel berms and surrounded by road base that is approximately 1-2 feet thick and it is sufficiently impervious to greatly minimize impact to the soil from any potential leak or drip from the separators. Sites are visited daily so a spill would be detected and cleaned up before any significant infiltration could occur. The berms would contain a spill from leaving the area around the separators.
10	Material Handling and Spill Prevention	To minimize potential impacts to soil, the operator shall line the secondary containment areas for the tanks with an impervious poly or spray in liner.
11	Material Handling and Spill Prevention	Verdad wells have remote shut-in capabilities to mitigate spills and safety issues. Remote shut-in will allow Verdad to immediately shut a well in the event of a reported problem on location or in the event of a potential threat such as a grass fire or flood.
12	Emissions mitigation	Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C.
13	Emissions mitigation	AVO (Audio, Visual, Olfactory) inspections of pipe and connections will be performed daily on production equipment to detect leaks which will be immediately corrected, repaired and reported to COGCC as required.
14	Emissions mitigation	Verdad will employ automated tank gauges to allow for the gauging of liquids without opening the thief hatch. This will minimize the number of times a thief hatch will be opened and further reduce the vapor emissions from tank.
15	Odor mitigation	To reduce odors during drilling and completion, the rig will be washed of oily debris before moving in. D822 is our base fluid which is a distillate and has the benefits of lower BTEX levels and is recognized as having lower odor than traditional oil based mud. We will utilize drying shakers or vertical dryers which will minimize residual oil on cuttings prior to transport and will promptly remove 4-5 loads of cuttings per day during drilling operations which should help to reduce odors.
16	Drilling/Completion Operations	MLVT Size is 120'DX14'H and the volume is 25,000 BBLS. Vendor/Manufacture will be Select Energy Services. It will be on location for 45 days during completion operations. Verdad will follow the COGCC guidance policy dated June 13, 2014 on the use of MLVTs.

Total: 16 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2479346	LOCATION DRAWING
2479347	CORRESPONDENCE
2479370	OBJECTIVE CRITERIA REVIEW MEMO
402254036	FORM 2A SUBMITTED
402255084	WASTE MANAGEMENT PLAN
402255087	LOCATION PICTURES
402255088	ACCESS ROAD MAP
402255089	HYDROLOGY MAP
402255091	REFERENCE AREA MAP
402255093	REFERENCE AREA PICTURES
402255102	NRCS MAP UNIT DESC
402255104	NRCS MAP UNIT DESC
402255106	MULTI-WELL PLAN
402255114	SURFACE AGRMT/SURETY

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Spacing Order 535-995 establishing a 1280-acre DSU in Sections 30-31 for 16 horizontal wells, was approved in January 2019.	02/26/2020
OGLA	Operator clarified their BMPs.	02/25/2020
OGLA	Final Review - request clarification on BMPs. - Based on Operator clarification - Final review passed.	02/25/2020
OGLA	The Objective Criteria Review Memo (Doc #2479370) is attached to this Form 2A. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	02/25/2020
OGLA	COGCC staff conducted its technical review of this Form 2A Oil and Gas Location Assessment within the context of SB 19-181 and the required Objective Criteria. This Form 2A met Objective Criteria #8.	01/09/2020
OGLA	<p>IN PROCESS - Received requested information from operator on 1/8/20; COGCC review will resume and be conducted within 60 days (by 3/8/20).</p> <ol style="list-style-type: none"> 1) Operator has indicated the WOGLA has not yet been submitted 2) Operator has confirmed the count of VRTs and Heater Treaters 3) Operator indicated the topsoil pile area is part of the location and has revised the Location Drawing. 4) Operator has confirmed Future Land Use is Rangeland 5) Operator concurred with revising the estimated depth to groundwater 6) Operator has indicated the size of the oil and water storage tanks will be 400 barrels each. <p>No Public Comments. OGLA technical review completed and task passed.</p>	01/09/2020
OGLA	<p>ON HOLD: This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is placing this form ON HOLD until additional information is received from the applicant. In compliance with § 24-65.1-108(1), C.R.S., the COGCC is providing this written request for all additional information necessary for the COGCC to respond to this application. The applicant may provide all requested additional information to COGCC via email. Upon receipt of all requested information, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review. If the applicant no longer requires this application be approved, the applicant may request to withdraw the application. In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary for review:</p> <ol style="list-style-type: none"> 1) Provide the date the WOGLA permit was submitted to Weld County 2) Confirm the count of VRTs and Heater Treaters. Revise the Location Drawing if necessary 3) Provide more detail concerning the topsoil pile area and revise the Location Drawing if necessary 4) Confirm the Future Land Use 5) Concur with revising the estimated depth to groundwater 6) Provide the size of the oil and water storage tanks 	01/06/2020
OGLA	This Form has passed completeness.	12/19/2019
OGLA	This Form is being returned to Draft for the following corrections: Current and future land use does not match Location Drawing, SUA attachment mis-named, Reference Area Photos mis-named, Facilities pipeline comment and submit pipeline comment do not agree.	12/09/2019

Total: 9 comment(s)