

FORM  
2A

Rev  
08/19

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:

401832354

Date Received:

02/05/2019

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 <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

**466974**

Expiration Date:

**08/22/2022**

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: 8960  
 Name: BONANZA CREEK ENERGY OPERATING COMPANY LLC  
 Address: 410 17TH STREET SUITE #1400  
 City: DENVER State: CO Zip: 80202

Contact Information

Name: Kate Miller  
 Phone: (720) 440-6133  
 Fax: ( )  
 email: regulatory@bonanzacr.com

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20120018     Gas Facility Surety ID (Rule 711): \_\_\_\_\_
- Waste Management Surety ID (Rule 704): \_\_\_\_\_

LOCATION IDENTIFICATION

Name: ANTELOPE Number: C-33  
 County: WELD  
 Quarter: NWSW Section: 33 Township: 5N Range: 62W Meridian: 6 Ground Elevation: 4582  
 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: 2581 feet FSL from North or South section line  
                                   334 feet FWL from East or West section line  
 Latitude: 40.356020 Longitude: -104.337080  
 PDOP Reading: 2.0 Date of Measurement: 08/02/2018  
 Instrument Operator's Name: Duncan Hotchkiss

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 COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" 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: Weld County Oil and Gas Location Assessment

The local government siting permit was filed on: 07/17/2019

The disposition of the application filed with the local government is: Waived

Additional explanation of local process:

WOGLA

**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 # |
|--|---------------|---------------|
| Well Site is served by Production Facilities | <u>441276</u> |               |

**FACILITIES**

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

|                       |               |                      |               |                      |               |                  |               |                               |               |
|-----------------------|---------------|----------------------|---------------|----------------------|---------------|------------------|---------------|-------------------------------|---------------|
| Wells                 | <u>7</u>      | Oil Tanks*           | <u>      </u> | Condensate Tanks*    | <u>      </u> | Water Tanks*     | <u>      </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>      </u> |
| Pump Jacks            | <u>7</u>      | Separators*          | <u>7</u>      | Injection Pumps*     | <u>      </u> | Cavity Pumps*    | <u>      </u> | Gas Compressors*              | <u>      </u> |
| Gas or Diesel Motors* | <u>7</u>      | Electric Motors      | <u>7</u>      | Electric Generators* | <u>      </u> | Fuel Tanks*      | <u>      </u> | LACT Unit*                    | <u>      </u> |
| Dehydrator Units*     | <u>      </u> | Vapor Recovery Unit* | <u>      </u> | VOC Combustor*       | <u>      </u> | Flare*           | <u>      </u> | Pigging Station*              | <u>      </u> |

**OTHER FACILITIES\***

| Other Facility Type     | Number   |
|-------------------------|----------|
| Gas Lift Meter Building | <u>1</u> |
| Maintenance Tank        | <u>1</u> |

\*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:

One (1) 8" coated steel gas sales pipeline connection  
 One (1) 6" composite plastic oil gathering pipeline connection  
 One (1) 4" composite plastic produced water gathering connections  
 One (1) 4" coated steel gas lift delivery pipeline connection  
 Seven (7) 3" coated steel flowlines from wellheads to separators  
 Seven (7) 2" coated steel gas lift lines from gas lift skids to wellheads

## CONSTRUCTION

Date planned to commence construction: 11/27/2020 Size of disturbed area during construction in acres: 8.00  
Estimated date that interim reclamation will begin: 05/27/2021 Size of location after interim reclamation in acres: 3.30  
Estimated post-construction ground elevation: 4578

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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: Recycle/reuse

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: 70 RANCH LLC

Phone: \_\_\_\_\_

Address: 8301 E Prentice Ave. STE 100

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Greenwood Village State: CO Zip: 80111

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: Yes

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 10/08/2018

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.

|                                   | <b>From WELL</b> | <b>From PRODUCTION FACILITY</b> |
|-----------------------------------|------------------|---------------------------------|
| 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:                      | 5280 Feet        | 5280 Feet                       |
| Above Ground Utility:             | 5280 Feet        | 5280 Feet                       |
| Railroad:                         | 5280 Feet        | 5280 Feet                       |
| Property Line:                    | 334 Feet         | 135 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

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: \_\_\_\_\_

- 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.

## 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: 70 - Valent sand, 3 to 9 percent slopes

NRCS Map Unit Name: \_\_\_\_\_

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:

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: 4282 Feet

water well: 2796 Feet

Estimated depth to ground water at Oil and Gas Location 25 Feet

Basis for depth to groundwater and sensitive area determination:

Down gradient water feature measured on COGCC GIS. Measured from SHL of reference well to unnamed lake to the south. Water well distance measured on COGCC GIS from water well Permit #33810, to the east of SHL of reference well.

Depth to Groundwater based on the static water level reported for DWR Water Well Permit #55238

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 318A

## 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**

Comments The SHL of the Antelope B12-V42-33HNC (Doc ID 401832389) was used as the lat/long for this pad.

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

Signed: \_\_\_\_\_ Date: 02/05/2019 Email: aunoonan@progressivepcs.net

Print Name: Aubrey Noonan Title: Sr. Regulatory Analyst

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: 8/23/2019

**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.

| <u>COA Type</u> | <u>Description</u> |
|-----------------|--------------------|
|                 |                    |

**Best Management Practices**

| <u>No</u> | <u>BMP/COA Type</u>                    | <u>Description</u>  |
|-----------|--|---|
| 1         | Material Handling and Spill Prevention | Well Pad Construction – Bonanza Creek constructs its locations with a compacted road base surface. This surface is at least 4 inches thick and compacted to prevent surface degradation from drilling and production activity and traffic. This layer of road base protects shallow groundwater by containing liquids and preventing vertical migration of a potential spill.   |
| 2         | Material Handling and Spill Prevention | Drilling Activity Containment – Bonanza Creek utilizes a portable containment liner under the drilling rig during drilling activities. This protects shallow groundwater from any potential spills surrounding the rig during drilling. A liquid release would simply be vacuumed up from the liner. When drilling activity is completed, the liner is removed and transferred to the next drilling location.   |
| 3         | Material Handling and Spill Prevention | Separation Equipment Containment - All produced fluids will be routed to new separation equipment. To protect shallow groundwater, Bonanza Creek will use separators with built-in containment. Following separation, the produced fluids will then be routed via flowline to an off-site central production facility with existing tank containment.   |
| 4         | Material Handling and Spill Prevention | Peroduction Equipment - All production equipment are constructed within lined secondary coontainment.   |
| 5         | Drilling/Completion Operations         | 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, Bonanza Creek shall not produce the wells without an approved variance per Rule 805.b.(3)C. |

Total: 5 comment(s)

## Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u>             |
|--------------------|-------------------------|
| 401832354          | FORM 2A SUBMITTED       |
| 401832722          | ACCESS ROAD MAP         |
| 401832726          | HYDROLOGY MAP           |
| 401832729          | LOCATION DRAWING        |
| 401832731          | LOCATION PICTURES       |
| 401832733          | FACILITY LAYOUT DRAWING |
| 401832736          | MULTI-WELL PLAN         |
| 401832747          | REFERENCE AREA MAP      |
| 401832754          | REFERENCE AREA PICTURES |
| 401916583          | NRCS MAP UNIT DESC      |
| 401918871          | WASTE MANAGEMENT PLAN   |
| 401918875          | SURFACE AGRMT/SURETY    |

Total Attach: 12 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u> |
|-------------------|--|---------------------|
| OGLA-181          | 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 did not meet any of the Objective Criteria and is compliant with all applicable COGCC rules.  | 08/20/2019          |
| OGLA              | Per Operator request, added the Material Handling and Spill Prevention BMPs.<br><br>Per Operator request, added the WOGLA Submittal Date.<br>WOGLA was submitted after the Comment from the LGD.   | 08/16/2019          |
| Permit            | Entered the Local Government Information provided by the operator.<br>Entered the School Setback Distances provided by the operator.   | 07/18/2019          |
| Permit            | Permitting Review Complete.  | 04/19/2019          |
| OGLA              | Removed the 0s from the Facilities List.<br><br>Where is this Location producing to?<br>- Well Location is producing to the Antelope 13-21 CPF (Location ID #44127626).<br><br>Changed the estimated depth to groundwater to 25 feet based on the static water level reported for DWR Water Well Permit #55238. Changed the Basis Statement to add Depth to Groundwater reference well DWR Permit #55238.  | 04/17/2019          |
| LGD               | This proposed oil and gas location is situated in the Agricultural Zone District of unincorporated Weld County. A Weld Oil and Gas Location Assessment (WOGLA) is required prior to constructing any improvements related to oil and gas exploration and production.<br><br>At the time of this comment, the operator has not noticed the Weld County LGD of their intent to apply for a WOGLA.<br><br>A building permit is required for the production facilities (tank battery, separators, pump jacks, compressors, generators, etc.) from the Department of Planning Services. Access points from County roads require an Access Permit from the Department of Public Works, which includes any necessary traffic control plans and Improvement Agreements. The use of County right-of-way requires a permit from the Department of Public Works.<br><br>Jason Maxey, Weld Oil/Gas Specialist and LGD 970-400-3579 | 02/27/2019          |
| Permit            | Passed completeness.   | 02/08/2019          |

Total: 7 comment(s)