

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: 11/05/2019

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

Additional explanation of local process:

WOGLA#19-0039 was approved on 12/19/2019

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: Well Site is served by Production Facilities **LOCATION ID #** 438946 **FORM 2A DOC #** _____

FACILITIES

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

Wells	<u>13</u>	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	_____	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	<u>13</u>	Separators*	<u>32</u>	Injection Pumps*	_____	Cavity Pumps*	<u>4</u>	Gas Compressors*	_____
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	<u>1</u>	VOC Combustor*	<u>1</u>	Flare*	_____	Pigging Station*	<u>6</u>

OTHER FACILITIES*

<u>Other Facility Type</u>	<u>Number</u>
Automation System	<u>1</u>
IA Building	<u>1</u>
Line Heater	<u>1</u>
Maintenance Tank	<u>1</u>
Meter Building	<u>3</u>
Pump Building	<u>2</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:

Two (2) 4"-8" steel gas gathering
 Two (2) 4"-6" composite plastic oil gathering
 Thirteen (13) 2"-4" steel gas lift lines
 Two (2) 4"-6" composite plastic produced water gathering
 Thirteen (13) 2"-4" steel three phase flowlines
 Two (2) 4" -10" temporary layflat fresh water pipelines

CONSTRUCTION

Date planned to commence construction: 09/04/2020 Size of disturbed area during construction in acres: 7.60
Estimated date that interim reclamation will begin: 03/04/2021 Size of location after interim reclamation in acres: 3.50
Estimated post-construction ground elevation: 4526

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: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: The Riverside Club

Phone:

Address: 6635 W. Prentice Ave.

Fax:

Address:

Email:

City: Littleton State: CO Zip: 80123

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 09/19/2019

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:	5280 Feet	5280 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	409 Feet	236 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: 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: 02/07/2019

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: 441 Feet

water well: 2908 Feet

Estimated depth to ground water at Oil and Gas Location 12 Feet

Basis for depth to groundwater and sensitive area determination:

Sensitive area was based off the distance to the Riverside Reservoir 441' NE and depth to ground water. DWR Permit# 165930 located in the SENE of Sec. 24 T5N-R62W was used for estimated depth to ground water, based on recorded static water level of 11.5'. Nearest water well based on DWR Permit # 64751.

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 zone: No

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 _____

Operator Proposed Wildlife BMPs

No BMP

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 State Pronghorn Federal C-W-30HNB well lat/long was used for the location identification.

Attached "Siting Rationale" is the Alternative Siting Analysis for this location as requested by COGCC due to the sensitive area determination.

Location Exhibit includes distance to property line, page 3.

Alternative Siting Analysis "Siting Rationale" attachment includes exhibits with flowline routes.

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

Signed: _____ Date: 01/28/2020 Email: regulatory@bonanzacrk.com

Print Name: Aubrey Noonan Title: 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: _____

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

Best Management Practices

No	BMP/COA Type	Description
1	General Housekeeping	Waste Management- General housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, permitted facilities. If spills occur, cleanup will be implemented within 24-48 hours, as appropriate, to minimize any commingling of waste materials with storm water runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil.
2	Storm Water/Erosion Control	Storm Water Control - Storm water controls will be constructed around the perimeter of the site prior to construction. Typically, Operator utilizes a ditch and berm system of storm water controls on location. BMP's used are determined just prior to construction by a third party storm water contractor and may vary according to the location. Storm water controls will remain in place until the pad reaches final reclamation.
3	Storm Water/Erosion Control	Site Specific Storm Water Control - Due to the proximity of an adjacent surface water feature, Operator will install erosion control blankets on the disturbed (non-stabilized) areas. This additional control will significantly reduce the potential for wind and water erosion of the disturbed areas on location.
4	Material Handling and Spill Prevention	Pipeline Protection- Operator Shall use protective barriers at pipeline risers when they are adjacent to areas with onsite traffic.

5	Material Handling and Spill Prevention	Separation Equipment Containment - Operator shall use separators with built-in containment to protect shallow groundwater, .
6	Material Handling and Spill Prevention	Leak Detection Plan - Operator shall have personnel on location daily conducting routine operations and maintenance activity. If any leaks occur on site, they will be quickly identified and mitigated by operator's personnel. Operator shall use SCADA information systems that have the ability to remotely monitor well production and shut in wells to stop a fluid release during upset conditions. In addition to daily operations and maintenance performed at the location, operator shall conduct required inspections for SPCC, Stormwater, and LDAR compliance .
7	Material Handling and Spill Prevention	Pigging Activity– Operator shall conduct closed loop pigging to maintain flowlines. This practice removes deposits in flowlines without open-ended liquid collection. The deposits are flushed through the active flowlines to the production equipment. This practice reduces the potential for releases and emissions related to open loop methods. Operator shall use a small containment under the receiver when removing the pig to reduce the potential for spills.
8	Material Handling and Spill Prevention	Removal of Onsite Produced Fluid Storage - To protect shallow groundwater and nearby surface water, Operator shall transfer, via flowlines, produced fluids to an offsite location for storage or final transportation to sales/disposal. This does not include the maintenance tank which is for well maintenance and only stores produced fluid temporarily for final disposal.
9	Material Handling and Spill Prevention	Maintenance Tank Containment– Operator shall construct maintenance tanks inside lined containment. The containment will be constructed to hold the entire contents of the maintenance tank in the event of a potential fluid release.
10	Material Handling and Spill Prevention	Monitoring Wells: Operator shall install one cross- and one down-gradient monitoring well in order to monitor and confirm that shallow groundwater has not been impacted by onsite activity. Monitoring wells will be installed and initial samples collected prior to well spud. Operator shall collect groundwater samples from each monitoring well semi-annually and analyze each sample for benzene, toluene, ethylbenzene, and total xylenes. If a release threatens to impact shallow groundwater, Operator shall collect groundwater samples from each well within 60 days of the release if a semi-annual monitoring event is not already scheduled.
11	Material Handling and Spill Prevention	Offsite Produced Liquid Storage – To further reduce the risk of release, Operator will route all produced fluids offsite to a central production facility outside the floodplain approx. 9800-ft SE of the proposed Pronghorn 13-30 well location.
12	Construction	Construction – Operator shall construct this location 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.
13	Drilling/Completion Operations	Closed Loop Drilling - Operator shall utilize a closed loop drilling system
14	Drilling/Completion Operations	Green Completions (Rule 604.c.(2)C.) - Operator shall install test separators, associated flow lines, sand traps, and emission control systems 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.
15	Drilling/Completion Operations	Flowback Activity Containment – Operator Shall utilize portable containment beneath temporary produced liquid storage tanks. This will protect shallow groundwater from any potential spills during completions activity. When flowback activity is complete, the containment and temporary produced liquid storage tanks will be removed and transferred to the next location.
16	Drilling/Completion Operations	Completions Activity Containment – Operator will utilize portable containment beneath the liquid storage and mixing equipment. Containment will be constructed in a manner consistent with good engineering practices to prevent migration of contaminants into the underlying soil and groundwater.

17	Drilling/Completion Operations	Drilling Activity Containment – Operator shall utilize 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.
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Total: 17 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402008729	FORM 2A RESUBMITTED
402280566	FORM 2A REJECTED
402291843	LOCATION DRAWING
402292007	NRCS MAP UNIT DESC
402292008	ACCESS ROAD MAP
402292009	WASTE MANAGEMENT PLAN
402292010	LOCATION PICTURES
402292011	MULTI-WELL PLAN
402292012	REFERENCE AREA MAP
402292016	REFERENCE AREA PICTURES
402292029	SURFACE AGRMT/SURETY
402296244	HYDROLOGY MAP
402296321	SITING RATIONALE

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	This Form is being returned to Draft for the following issues: 3. Facility Layout Drawing is not attached. 5. No map showing the flowline routes is attached. 13. No attachment listing objective criteria met and applicable BMPs was attached.	02/05/2020

<p>OGLA (Rejected)</p>	<p>This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is rejecting this application consistent with the Rejection Process – Form 2 and 2A (May 21, 2019) posted in the Form 2 and Form 2A Instructions section of our website. In compliance with § 24-65.1-108(1), C.R.S., the COGCC is returning this application to the applicant to remedy the deficiencies. The applicant may resubmit this application for COGCC review; upon determination of completeness for any resubmitted application, the COGCC 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 COGCC hereby confirms the following information is necessary prior to determination of completeness:</p> <ol style="list-style-type: none"> 1. Please revise the Hydrology Map to identify Sanborn Draw and to show where Sanborn Draw enters the Riverside Reservoir. 2. Please revise the Location Drawing to identify the water body located to the southwest of the Location. 3. Please revise the Facility Layout Drawing as the current Facility Layout Drawing does not show the actual production facilities. 4. Please modify the Alternative Location Analysis as the current, as submitted, Alternative Location Analysis attachment has a critical typo - Site A is referenced in 5N61W in the text, but should be 5N 62W. 5. Please provide a flowline map showing the flowlines from the well Location to the Production Facility serving these wells. 6. Location ID 438946 is reported as a Centralized Production Facility without permitted wells. Please identify which Remote Related Location will be served by the production facilities (separators). 7. Please identify the Property Line either by comment or on the Location Drawing or other attachment. 8. Please revise the following BMP as the Location will not have hydrocarbon storage. "Leak Detection Plan- Operator shall have personnel on location daily conducting routine operations and maintenance activity. If any leaks are to occur on site, they will be quickly identified by Operator personnel. Operator shall utilize SCADA information systems that have the ability to remotely monitor production tank levels onsite and activate specific valves, which can stop a release on location." 9. Please provide a BMP stating that wells will have remote automated shut-in capabilities. 10. Please revise the wording in BMP 9 from "Operator constructs its locations..." to "Operator shall construct this location..." 11. Due to the proximity of surface water, please revise BMP 1 to state that the storm water controls will remain in place until the pad reaches final reclamation. 12. Please provide a BMP to install cross- and down-gradient monitoring wells and a monitoring plan for, at a minimum, biannual sampling with an emergency contingency sampling protocol. 13. This Form 2A application meets one or more Objective Criteria. This application will not be determined to be complete until the applicant provides a stand-alone attachment that lists the applicable Objective Criteria and all Best Management Practices included in the permit which address the Objective Criteria and demonstrate that the approval of this application is protective of public health, safety, and welfare and the environment, including wildlife resources. 	<p>01/08/2020</p>
<p>OGLA</p>	<p>Moved the following to the Submit Tab: In addition to daily operations and maintenance performed at the location, Operator shall conduct required inspections for SPCC, Stormwater, and LDAR compliance.</p> <p>Location ID 438946 is reported as a Centralized Production Facility without permitted wells. Please identify which Remote Related Location will be served by the production facilities (separators).</p> <p>Please identify the Property Line.</p> <p>DWR Permit #64751 does not have a static water level reported on the permit. Changed the estimated depth to groundwater to 12 feet based on the static water level reported for DWR Water Well Permit #165930. Changed the Basis Statement to reflect DWR Permit #165930 located in the SE 1/4, NE 1/4 of Section 24, TS 5N, Range 62W. Static water level reported at 11.5.</p> <p>Please revise the following BMPs:</p>	<p>01/06/2020</p>

	Leak Detection Plan- Operator shall have personnel on location daily conducting routine operations and maintenance activity. If any leaks are to occur on site, they will be quickly identified by Operator personnel. Operator shall utilize SCADA information systems that have the ability to remotely monitor production tank levels onsite and activate specific valves, which can stop a release on location.	
OGLA	Passed Completeness Check	11/12/2019

Total: 4 comment(s)



Public Comments

No public comments were received on this application during the comment period.

