

FORM
2A

Rev
08/13

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:

400729812

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Date Received:

11/13/2014

Oil and Gas Location Assessment

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

Submit signed original form. 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:

441186

Expiration Date:

03/20/2018

☐ 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: Julie Vigil
Phone: (303) 803-1718
Fax: (720) 279-2331
email: JVGil@BonanzaCrk.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20120018 ☐ Gas Facility Surety ID: _____
☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Pronghorn CPF Number: A-15 Pad
County: WELD
QuarterQuarter: NWNW Section: 15 Township: 5N Range: 61W Meridian: 6 Ground Elevation: 4653
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: 349 feet FNL from North or South section line
346 feet FWL from East or West section line
Latitude: 40.407320 Longitude: -104.203010
PDOP Reading: 1.8 Date of Measurement: 10/29/2014
Instrument Operator's Name: Adam Kelly

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 #

Production Facilities Location serves Well(s)

40777857

428090

FACILITIES

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

Wells	Oil Tanks*	44	Condensate Tanks*	Water Tanks*	28	Buried Produced Water Vaults*	14
Drilling Pits	Production Pits*		Special Purpose Pits	Multi-Well Pits*		Modular Large Volume Tanks	4
Pump Jacks	Separators*	26	Injection Pumps*	Cavity Pumps*	3	Gas Compressors*	24
Gas or Diesel Motors*	Electric Motors	26	Electric Generators*	Fuel Tanks*		LACT Unit*	4
Dehydrator Units*	Vapor Recovery Unit*	12	VOC Combustor*	Flare*	2	Pigging Station*	6

OTHER FACILITIES*

Other Facility Type

Number

Vapor Recovery Tower

12

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) gas sales line connection: 8" coated steel
Four (4) oil gathering lines: 8" coated steel
Four (4) produced water gathering lines: 8" coated steel
Vent/VRU lines: 4@6", 4@10", 4@12" steel

Manufacturer or vendor = HydroLogistics

Number of tanks = 4

Size of tanks = 42,000 bbl - 157' dia

Anticipated timeframe tanks will be on location = 2/1/15 to 2/1/17

BMP-Bonanza Creek Energy acknowledges and will comply with the "COGCC Policy On the Use of Modular Large Volume Tanks in Colorado" dated June 13, 2014.

CONSTRUCTION

Date planned to commence construction: 03/21/2015

Size of disturbed area during construction in acres: 5.70

Estimated date that interim reclamation will begin: 03/21/2015

Size of location after interim reclamation in acres: 5.70

Estimated post-construction ground elevation: 4647

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: No

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? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: _____

Drilling Fluids Disposal Method: _____

Cutting Disposal: _____

Cuttings Disposal Method: _____

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: Dennis Grotheer

Phone: 620-235-9000

Address: 28343 Redbud Rd.

Fax: _____

Address: _____

Email: _____

City: Asbury State: MO Zip: 64832

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 _____

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:	_____ Feet	5280 Feet
Building Unit:	_____ Feet	5280 Feet
High Occupancy Building Unit:	_____ Feet	5280 Feet
Designated Outside Activity Area:	_____ Feet	5280 Feet
Public Road:	_____ Feet	5280 Feet
Above Ground Utility:	_____ Feet	5280 Feet
Railroad:	_____ Feet	5280 Feet
Property Line:	_____ Feet	90 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, and Designated Outside Activity Area - as defined in 100-Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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.

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 (onll 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: 74 Vona loamy sand, 5 to 9 percent slopes

NRCS Map Unit Name: 72 Vona loamy sand, 0 to 3 percent slopes

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: 4550 Feet

water well: 5238 Feet

Estimated depth to ground water at Oil and Gas Location 210 Feet

Basis for depth to groundwater and sensitive area determination:

Colorado Division of Water Resources
Closest water well permit #292812

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: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A _____

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
☐ 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 All cultural distances measured from the closest edge of the disturbance

Owner waives all 30 day notices; paragraph 5 in SUA.

Manufacturer or vendor = HydroLogistics
Number of tanks = 4
Size of tanks = 42,000 bbl - 157' dia
Anticipated timeframe tanks will be on location = 2/1/15 to 2/1/17

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

Signed: _____ Date: 11/13/2014 Email: JVGil@Bonanzacrk.com

Print Name: Julie L. Vigil Title: Sr. Regulatory Specialist

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  _____ Director of COGCC Date: 3/21/2015

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**

	Operator shall manage noxious weeds in accordance with a weed management plan, if required by the Colorado Noxious Weed Act, to prevent the spread of noxious weeds and to eradicate or control, as necessary, existing noxious weeds.
	Unnecessary or excessive flaring is prohibited. Operator shall direct all salable quantity gas to a sales line as soon as practicable or shut in and conserved.
	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42. Operator concurrence - 12/11/2014

Best Management Practices

No	BMP/COA Type	Description
1	Planning	BCEI is working to consolidate its oil and gas facilities when and where possible for the multiple benefits incurred; in this case the Pronghorn CPF A-15 is the proposed central facility location for the following proposed wells: 8 wells from the State Pronghorn P-16 Pad and 7 wells from the Pronghorn F-15 pad. Depending on our drilling program this year our plan is not to build excessive facilities or land disturbance and we will build the proposed facilities in view of that.
2	Construction	The following procedure describes BCEI standard construction practices for setting a partially buried pre-cast cement water vault and new tank battery construction. 1) The excavation will first be lined with 4" of clay or other low permeability soil. 2) A 30 mil liner will be installed on top of the low permeability soil. The 30 mil liner will be a contiguous liner which will underlay the entire tank battery. 3) The tank battery / water vault liner will be keyed into a galvanized steel containment ring installed surrounding the tank battery. 4) Sand bedding will be installed to protect the synthetic liner prior to placing equipment in the containment area.
3	Drilling/Completion Operations	BMP-Bonanza Creek Energy acknowledges and will comply with the "COGCC Policy On the Use of Modular Large Volume Tanks in Colorado" dated June 13, 2014.

Total: 3 comment(s)

Attachment Check List

Att Doc Num	Name
400729812	FORM 2A SUBMITTED
400730134	HYDROLOGY MAP
400730136	LOCATION DRAWING
400730138	ACCESS ROAD MAP
400730149	LOCATION PICTURES
400730261	NRCS MAP UNIT DESC
400730262	NRCS MAP UNIT DESC
400731259	REFERENCE AREA PICTURES
400731261	REFERENCE AREA MAP
400731426	CONST. LAYOUT DRAWINGS
400731459	SURFACE AGRMT/SURETY

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	<p>Requested change to the related 2A. After consolidating facilities from State Pronghorn /P-16 Pad w/ Wells:8 and Pronghorn /F-15 Pad Wells:7 the related 2A no longer exists.</p> <p>requested Change to interim rec area to reflect MLVTs.</p> <p>Requested change to number of tanks to reflect back-up storage only.</p> <p>pushing to HOLD</p> <p>Corrected Well Counts and typo errors per 03/02/2015 email from the Operator. corrected construction date - 03/04/2015 MMH</p>	2/27/2015 12:39:52 PM
Permit	Production facility only. No cultural distances to wellheads.	2/26/2015 10:17:16 AM
OGLA	Per Operator email, added Related Remote Facilities to the list.	2/26/2015 9:30:56 AM
OGLA	Per Operator email - added "BCEI is working to consolidate its oil and gas facilities when and where possible for the multiple benefits incurred; in this case the Pronghorn CPF A-15 is the proposed central facility location for the following proposed wells: 5 wells from the State Pronghorn P-16 Pad and six wells from the Pronghorn F-15 pad. Depending on our drilling program this year our plan is not to build excessive facilities or land disturbance and we will build the proposed facilities in view of that, if you have any questions or require any additional information to process this please let me know" to the Operator BMP tab.	2/25/2015 11:39:12 AM
OGLA	<p>Changed distance to nearest surface water feature to 4550 feet based on the presence of the drainage to the northeast of the proposed Location.</p> <p>Operator concurrence - 12/11/2014</p>	12/8/2014 11:47:46 AM
OGLA	<p>Changed "74 Vona loamy sand, 0 to 3 percent slopes" to "74 Vona loamy sand, 5 to 9 percent slopes" in the Soil Section.</p> <p>Operator concurrence - 12/11/2014</p>	12/8/2014 10:49:42 AM
OGLA	<p>Added MLVT information to Submit tab - 12/11/2014</p> <p>Added MLVT BMP to Operator BMP tab - 12/11/2014</p>	12/8/2014 10:43:34 AM
Permit	Passed Completeness	11/14/2014 12:16:56 PM

Total: 8 comment(s)