

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:

400819871

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Date Received:

04/09/2015

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:

**441915**

Expiration Date:

**05/28/2018**

☐ 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: Keith Caplan  
Phone: (720) 440-6112  
Fax: (720) 279-2331  
email: kcaplan@bonanzacrk.com

RECLAMATION FINANCIAL ASSURANCE

☐ Plugging and Abandonment Bond Surety ID: 20120018 ☐ Gas Facility Surety ID: \_\_\_\_\_

☐ Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: North Platte Number: T-27 Pad  
County: WELD  
QuarterQuarter: SESW Section: 27 Township: 5N Range: 63W Meridian: 6 Ground Elevation: 4542  
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: 1298 feet FSL from North or South section line  
2380 feet FWL from East or West section line  
Latitude: 40.366780 Longitude: -104.422710  
PDOP Reading: 2.1 Date of Measurement: 01/22/2015  
Instrument Operator's Name: Adam Beauprez

## 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

434730

## FACILITIES

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

Wells	28	Oil Tanks*	14	Condensate Tanks*		Water Tanks*	8	Buried Produced Water Vaults*	2
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	1
Pump Jacks	28	Separators*	35	Injection Pumps*		Cavity Pumps*	4	Gas Compressors*	6
Gas or Diesel Motors*	28	Electric Motors	35	Electric Generators*	4	Fuel Tanks*		LACT Unit*	3
Dehydrator Units*	2	Vapor Recovery Unit*	6	VOC Combustor*	16	Flare*	1	Pigging Station*	4

## OTHER FACILITIES\*

**Other Facility Type**

**Number**

Vapor Recovery Towers

4

\*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:

Twenty-Seven (27) 3-phase flowlines: 3" coated steel  
One (1) gas sales line connection: 6" coated steel  
Two (2) oil gathering lines: 4" coated steel  
Two (2) produced water gathering lines: 4" coated steel  
Vent/VRU lines: 4@6", 4@10", 4@12" steel  
One (1) Gas lift line: 6" coated steel

## CONSTRUCTION

Date planned to commence construction: 07/01/2015

Size of disturbed area during construction in acres: 24.00

Estimated date that interim reclamation will begin: 01/31/2017

Size of location after interim reclamation in acres: 9.00

Estimated post-construction ground elevation: 4541

## 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? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Land application

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 427606 or Document Number: \_\_\_\_\_

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

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: 70 Ranch, LLC

Phone: 3032537850

Address: 8301 E. Prentice Ave.

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

Address: Ste. 100

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: 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:	1197 Feet	1407 Feet
Building Unit:	1197 Feet	1407 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	3194 Feet	2544 Feet
Above Ground Utility:	488 Feet	10 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	538 Feet	450 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: (69) Valent sand, 0-3% slopes

NRCS Map Unit Name: (70) Valent sand, 3-9% 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: \_\_\_\_\_ 21 Feet

water well: \_\_\_\_\_ 35 Feet

Estimated depth to ground water at Oil and Gas Location \_\_\_\_\_ 35 Feet

Basis for depth to groundwater and sensitive area determination:

Permit 272912 used for nearest water well and groundwater depth.

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

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	<p>1 MLVT - 41,000 bbl Rockwater Energy Solutions (157' dia) will be on location approximately 01 August 2015 - 31 December 2015, and subsequent to future drilling on location.</p> <p>The current plan is to run all production from these wells to the State North Platte CPF 42-26 (Location ID 434730). However, if economic conditions or air emissions compliance issues warrant the reduction of wells and or well pads in the area, there is a possibility that the wells on this pad will not be routed to the CPF, and the production facilities will need to be built on this pad. Therefore, we have included all facility equipment for that case in the "Facilities" section of this permit. It is not the intention of Bonanza Creek to build the full amount of permitted equipment on all locations, rather it is the desire to minimize disturbance and optimize our operations to ensure excellent stewardship that we are requesting this flexibility. If we were to run production to the CPF, the equipment on the location would include the following:</p> <ul style="list-style-type: none"> <li>27 Wellheads</li> <li>27 Pumpjacks</li> <li>27 Gas or Diesel Motors</li> <li>5 Oil Tanks</li> <li>27 Separators</li> <li>27 Electric Motors</li> <li>2 Electric Generators</li> <li>2 VOC Combustors</li> <li>4 Water Tanks</li> <li>2 Buried Produced Water Vaults</li> <li>1 MLVT</li> <li>4 Pigging Stations</li> </ul> <p>The final equipment listing for this location will be reported to the COGCC, on a sundry notice to accurately reflect as-built conditions, at the time interim reclamation is completed.</p>
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I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 04/09/2015 Email: kcaplan@bonanzacrk.com

Print Name: Keith Caplan 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: 5/29/2015

## 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
	Location #434730 is currently listed as having a CLOSED status. Operator shall submit an amended/refiled Form 2A prior to producing to this Location.
	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.
	Location lies approximately 21 feet to the north of the Riverside Intake Canal. Operator shall use tertiary containment along the cross- and down-gradient perimeters of the Location.

## **Best Management Practices**

<b>No</b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>
1	Material Handling and Spill Prevention	Wells will be equipped with remote shut-in capabilities prior to commencing production. The shut-in capabilities will be located outside of the associated floodplain and will also have the capability of being remotely operated via the BCEI SCADA system.
2	Material Handling and Spill Prevention	This location will have secondary containment, in the form of a steel ring, constructed around the tanks and will include a synthetic or geosynthetic liner that is mechanically connected to the steel ring.
3	Material Handling and Spill Prevention	Tanks, including partially buried cement vaults, and separation equipment will be anchored to the ground. Anchors will be engineered to support the Tank and separation equipment and to resist flotation, collapse, lateral movement, or subsidence.
4	Material Handling and Spill Prevention	Production Pits, Special Purpose Pits (other than Emergency Pits), and flowback pits containing E&P waste will not be installed or constructed within a defined Floodplain without prior Director approval.
5	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.
6	Construction	Bonanza Creek Energy Operating Company acknowledges and will comply with the "COGCC Policy On the Use of Modular Large Volume Tanks in Colorado" dated June 13, 2014.

Total: 6 comment(s)

## **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
1009888	MULTI-WELL PLAN
400819871	FORM 2A SUBMITTED
400821781	NRCS MAP UNIT DESC
400821782	NRCS MAP UNIT DESC
400822104	WASTE MANAGEMENT PLAN
400822106	ACCESS ROAD MAP
400822107	HYDROLOGY MAP
400822108	CONST. LAYOUT DRAWINGS
400822109	LOCATION PICTURES
400822110	LOCATION PICTURES
400822111	LOCATION DRAWING
400822118	SURFACE AGRMT/SURETY
400824275	REFERENCE AREA MAP
400824276	REFERENCE AREA PICTURES

Total Attach: 14 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	5/27/2015 9:55:57 AM
OGLA	<p>Added the following BMPs per Operator request via email.</p> <p>Wells will be equipped with remote shut-in capabilities prior to commencing production. The shut-in capabilities will be located outside of the associated floodplain and will also have the capability of being remotely operated via the BCEI SCADA system.</p> <p>This location will have secondary containment, in the form of a steel ring, constructed around the tanks and will include a synthetic or geosynthetic liner that is mechanically connected to the steel ring.</p> <p>Tanks, including partially buried cement vaults, and separation equipment will be anchored to the ground. Anchors will be engineered to support the Tank and separation equipment and to resist flotation, collapse, lateral movement, or subsidence.</p> <p>Production Pits, Special Purpose Pits (other than Emergency Pits), and flowback pits containing E&amp;P waste will not be installed or constructed within a defined Floodplain without prior Director approval.</p>	5/21/2015 10:12:38 AM
OGLA	Location lies within the Zone A Floodplain (Areas of 100-year flood; base flood elevations and flood hazard factors not determined). per FEMA Map Panal 0802660800C	5/18/2015 5:28:27 PM
OGLA	Changed number of Wells, Pump Jacks, and Gas or Diesel Motors to 28 from 27 per Operator request via telephone conversation on 05/18/2015.	5/18/2015 4:33:40 PM
OGLA	Changed Distance to nearest surface water feature to 21 feet based on the distance to the Riverside Intake Canal as provided on the Hydrology Map submitted by the Operator.	5/18/2015 4:05:03 PM
Permit	Passed completeness.	4/14/2015 11:25:51 AM
Permit	Reference area map and photos must be separate attachments. Return to draft.	4/13/2015 2:15:26 PM

Total: 7 comment(s)