

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:

401386670

Date Received:

08/30/2017

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:

**453244**

Expiration Date:

**11/29/2020**

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: 26580

Name: BURLINGTON RESOURCES OIL & GAS LP

Address: PO BOX 4289

City: FARMINGTON    State: NM    Zip: 87499

Contact Information

Name: Jennifer Dixon

Phone: (832) 486-3345

Fax: ( )

email: jennifer.a.dixon@cop.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 19920030     Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Cottonwood Creek    Number: 4-65 27-28

County: ARAPAHOE

Quarter: SWSE    Section: 27    Township: 4S    Range: 65W    Meridian: 6    Ground Elevation: 5754

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: 430 feet FSL from North or South section line

1410 feet FEL from East or West section line

Latitude: 39.668572    Longitude: -104.645950

PDOP Reading: 1.4    Date of Measurement: 06/07/2017

Instrument Operator's Name: Greg Weimer, C.T.

## 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>4</u>	Oil Tanks*	<u>12</u>	Condensate Tanks*	<u>      </u>	Water Tanks*	<u>4</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>4</u>	Separators*	<u>4</u>	Injection Pumps*	<u>      </u>	Cavity Pumps*	<u>      </u>	Gas Compressors*	<u>      </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>1</u>	VOC Combustor*	<u>      </u>	Flare*	<u>1</u>	Pigging Station*	<u>1</u>

## OTHER FACILITIES\*

Other Facility Type

Number

\*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:

Future pipelines will consist of 4" Carbon Steel Gas Pipeline; 4" Carbon Steel Liquid Pipeline; 4" Composite Water Pipeline.

## CONSTRUCTION

Date planned to commence construction: 01/01/2018 Size of disturbed area during construction in acres: 11.94

Estimated date that interim reclamation will begin: 04/01/2018 Size of location after interim reclamation in acres: 4.47

Estimated post-construction ground elevation: 5750

## 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:

Burlington Resources uses a closed loop, pitless system for their drilling fluids. They use tanks and shakers, recondition and reuse the fluids on the next location.

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: Cottonwood Creek Investor

Phone:

Address: 4915 S Gaylord St

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

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

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

City: Cherry Hills State: CO Zip: 80113  
Village

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 \_\_\_\_\_

**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:	1639 Feet	1259 Feet
Building Unit:	1639 Feet	1259 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	382 Feet	231 Feet
Above Ground Utility:	1497 Feet	1104 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	318 Feet	168 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

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 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: Bresser-Truckton Sandy Loam 3-5%

NRCS Map Unit Name: Bresser Truckton Sandy Loams 5-20%

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: Truckton Loamy Sand: Most of this soil is cultivated. Winter wheat, barley and sorghums are commonly grown. The remainder is native grassland comprised of: deep-mid rooted and tall grasses such as bluestem, sandreed, etc.

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: 180 Feet

water well: 1693 Feet

Estimated depth to ground water at Oil and Gas Location 245 Feet

Basis for depth to groundwater and sensitive area determination:

The nearest water well as established by Colorado Division of Water Resources with associated depth to groundwater information is well numbers #106304 located approximately 1693 feet to the east. Depth to groundwater in the permitted water well is 245 feet below ground surface, based on the static water level as reported for DWR Permit #178111.

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

Comments Storm Water Management Plan (SWMP) will be in place to address construction, drilling and operations associated with oil and gas development through the state of Colorado in accordance with CDPHE General Permit Rules.

Spill prevention control and countermeasure plan is in place to address construction, drilling and operations associated with oil and gas development throughout the state of Colorado in accordance with CFR 112.

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

Signed: \_\_\_\_\_ Date: 08/30/2017 Email: dduffy@ltenv.com

Print Name: Deidre Duffy Title: Project Ecologist

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: 11/30/2017

## 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 comply with 1000-Series Rules for Interim Reclamation. All areas not in use for production activities shall be reclaimed in accordance with the 1000-Series Rules within 6 months of the spud date for the approved well. In the event additional operations are to occur within 12 months of the spud date, Operator shall submit a Rig Schedule showing a scheduled timeline of additional drilling operations via Form 4 Sundry. If additional drilling operations have not commenced at 12 months, Operator shall submit a Variance Request via Form 4 Sundry for compliance with additional bonding requirements as identified in the NTO for Interim Reclamation prior to the 12 month deadline.
	Operator shall comply with all requirements as set forth in the COGCC Notice to Operators for Interim Reclamation

## **Best Management Practices**

**No BMP/COA Type**

**Description**

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### **Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
401386670	FORM 2A SUBMITTED
401386856	NRCS MAP UNIT DESC
401386870	LOCATION PICTURES
401386871	MULTI-WELL PLAN
401386873	HYDROLOGY MAP
401386875	LOCATION DRAWING
401386878	ACCESS ROAD MAP
401400301	REFERENCE AREA PICTURES
401400302	REFERENCE AREA MAP
401400310	SURFACE AGRMT/SURETY
401400485	CONST. LAYOUT DRAWINGS

Total Attach: 11 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Final review complete.	11/27/2017
Permit	Status Active - Corrections made with Operator concurrence: - changed Operator Contact and eForm Submitter names and contact info. - Operator confirmed Surface Owner is not Mineral Owner. - Operator confirmed planned construction date is acceptable.  Permitting review complete.	11/13/2017
Permit	Status Pending - Contacted Operator for corrections: - Change Contact info to direct employee of Operator, and Submit info to consultant preparing/submitting form. - No boxes checked for Surface Owner is mineral owner, is committed, or has signed lease, but all associated APDs have these boxes checked. Verify and correct where needed. - Revise planned construction date for November construction per Operator email.	10/23/2017
OGLA	Changed the estimated depth to groundwater to 245 feet based on the static water level reported for DWR Permit #178111.  Changed the Basis Statement to read: The nearest water well as established by Colorado Division of Water Resources with associated depth to groundwater information is well numbers #106304 located approximately 1693 feet to the east. Depth to groundwater in the permitted water well is 245 feet below ground surface, based on the static water level as reported for DWR Permit #178111.  Moved the following BMPs to the Submit Tab as these are not enforceable under COGCC Rules.  "Storm Water Management Plan (SWMP) will be in place to address construction, drilling and operations associated with oil and gas development through the state of Colorado in accordance with CDPHE General Permit Rules."  "Spill prevention control and countermeasure plan is in place to address construction, drilling and operations associated with oil and gas development throughout the state of Colorado in accordance with CFR 112."	10/11/2017
OGLA	Per Operator request, changed size of disturbed area during construction to acres and to 4.472 acres after interim reclamation.  Per Operator request, changed the Consultation Contact Information and Submit Tab Contact Information.  Per Operator concurrence, added the following comment to the Drilling Waste Mangement section: "Burlington Resources uses a closed loop, pitless system for their drilling fluids. They use tanks and shakers, recondition and reuse the fluids on the next location."	10/10/2017
Permit	Passed Completeness.	09/19/2017
Permit	Returned to draft: - Contact and Submitter info should be switched. - If Surface Owner is not Mineral Owner, they cannot be committed to or sign lease. - Missing NRCS Bresser Truckton Sandy Loams 5-20% map unit name and attachment. - Missing Related Forms document numbers for 4 wells. - Attachment labeled "Constr. Layout" should be labeled "Other". - Attachment labeled "Other" should be labeled "Constr. Layout Drawing". - Constr. Layout Drawing is missing required cross-sectional diagrams. - Missing Reference Area Map and Reference Area Pictures.	09/11/2017

Total: 7 comment(s)