

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:

401963396

Date Received:

03/07/2019

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:

467266

Expiration Date:

09/05/2022

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: 19160
Name: CONOCO PHILLIPS COMPANY
Address: 925 N ELDRIDGE PARKWAY
City: HOUSTON State: TX Zip: 77079

Contact Information

Name: Liang Yu
Phone: (832) 486-6014
Fax: ()
email: Liang.Yu@conocophillips.com

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20100227 Gas Facility Surety ID (Rule 711): _____
- Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: STATE BIERSTADT Number: 4-65 35-34 2AH
County: ARAPAHOE
Quarter: SENE Section: 35 Township: 4S Range: 65W Meridian: 6 Ground Elevation: 5870
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: 1913 feet FNL from North or South section line
600 feet FEL from East or West section line
Latitude: 39.662067 Longitude: -104.624440
PDOP Reading: 1.3 Date of Measurement: 02/23/2018
Instrument Operator's Name: GREG WEIMER

LOCAL GOVERNMENT INFORMATION

County: ARAPAHOE Municipality: N/A

CONSTRUCTION

Date planned to commence construction: 08/20/2020 Size of disturbed area during construction in acres: 12.76
Estimated date that interim reclamation will begin: 05/01/2021 Size of location after interim reclamation in acres: 3.04
Estimated post-construction ground elevation: 5870

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:

Drillings cuttings will be taken by a certified transport company and disposed of at a certified facility.

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: State Board of Land Commi Phone: _____

Address: 1127 Sherman Street Fax: _____

Address: Suite 300 Email: _____

City: Denver State: CO Zip: 80203

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 _____

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:	2255 Feet	1977 Feet
Building Unit:	2958 Feet	2668 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	1906 Feet	1615 Feet
Above Ground Utility:	1951 Feet	1660 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	600 Feet	439 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 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: Fondis Silt Loam, 1 to 3 percent slopes - Arapahoe County, Colorado

NRCS Map Unit Name: Nunn-Bresser-Ascalon complex, 0 to 3 percent slopes - Arapahoe County, Colorado

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: 02/27/2018

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: 152 Feet

water well: 2681 Feet

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

Basis for depth to groundwater and sensitive area determination:

Permit #178112, Static Water Level 25
Based on the most appropriate well reporting a static water level for shallow groundwater.

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 This Form 2A is a resubmittal of Document #401639665. Conoco Phillips Company has evaluated the potential for pad expansion at the adjacent pad (Location ID #451301) and determined that expanding it is not feasible for production facility placement. Conoco plans to drill 4 additional wells on this Location in the future and will amend this Form 2A upon submittal of those applications.

Dedicated Production Facilities will serve all phases of this Location development.

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.

It is the intent of the County that operators utilize closed-loop or modified closed-loop systems for drilling and completion operations in order to minimize or eliminate the need for earthen pits; however, notwithstanding the foregoing, where appropriate, and subject to prior County approval, the County generally supports: 1) the use of unlined drilling pits when bentonite or a similar clay additive is used during the drilling process, and 2) the use of lined single- or multi-well water storage pits in order to minimize the transport of water and promote recycling, subject to the requirements set forth in this subsection. Permitted modified closed-loop systems include oil and gas wells where air or fresh water is used to drill through the surface casing interval, defined as fifty (50) feet below the depth of the deepest aquifer, and a closed loop system is used for the remainder of the drilling and/or completion or recompletion procedures. Multi-well pits are defined as lined, engineered pits, constructed over an engineered base, with construction or liner specifications meeting or exceeding Commission pit lining rules, that will serve the functions of drilling, completion, and/or flowback pits for more than one well.

Reference area photos will be taken during the growing season and submitted within 12 months of receipt of the Form 2A.

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

Signed: _____ Date: 03/07/2019 Email: adoebele@uintahgroup.com

Print Name: Amy Doebele Title: Authorized Agent

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: 9/6/2019

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>
Interim Reclamation	If no well is spud following location construction, Interim Reclamation timeline shall begin at the commencement of operations with heavy equipment and be completed within 6 months. In the event Interim Reclamation is not completed within 6 months from the date of commencement of construction, Operator shall comply with all provisions of the "Interim Reclamation Procedures for Delayed Operations - Notice to Operators" including submitting the request for variance prior to the end of the 6 month term.

Best Management Practices

No	BMP/COA Type	Description
1	Storm Water/Erosion Control	Conoco Phillips will use engineered controls, constructed in a manner that is consistent with good engineering practices, to prevent offsite migration of sediment/contaminant.
2	Material Handling and Spill Prevention	<p>Conoco Phillips shall use steel secondary containment structures to prevent the discharge of oil from crude oil storage tanks, produced water storage tanks, separator/production skids and portable storage containers.</p> <p>All flowline and piping within the production facilities will be lined using a secondary liner.</p>
3	Material Handling and Spill Prevention	Pollution control containers (spill boxes) will be used on truck loading lines and will be placed within the limits of the secondary containment system.
4	Material Handling and Spill Prevention	<p>To minimize the potential for release from the facilities, all facilities will be capable of being remotely monitored and remotely shut down, which includes isolation at the well head.</p> <p>In addition, Conoco Phillips will install automatic shutdown pressure devices on process vessels with remote monitoring capabilities and installed on flowlines from well heads to facilities with remote monitoring capabilities.</p> <p>Automatic shutdown level devices will be installed on each tank with remote monitoring capabilities and will be installed on all pressure vessels and liquid knockouts.</p>
5	Material Handling and Spill Prevention	Conoco Phillips will use cathodic protection on buried steel lines to mitigate corrosion and will install engineered liner systems within the secondary steel containment systems for the production facilities to prevent migration of contaminants into the underlying soils and groundwater.
6	Drilling/Completion Operations	Conoco Phillips shall operate in compliance with the Colorado Oil and Gas Conservation Commission Policy on the use of Modular Large Volume Tanks in Colorado, dated June 13, 2014.

Total: 6 comment(s)

Attachment Check List

Att Doc Num	Name
1010712	LOCAL GOVERNMENT PERMIT
1010715	NRCS MAP UNIT DESC
1010724	COMPREHENSIVE PLAN OF DEVELOPMENT
1010725	CORRESPONDENCE
1010734	OBJECTIVE CRITERIA REVIEW MEMO
1010735	REFERENCE AREA PICTURES
401963396	FORM 2A SUBMITTED
401963701	ACCESS ROAD MAP
401963703	NRCS MAP UNIT DESC
401963704	HYDROLOGY MAP
401963708	CONST. LAYOUT DRAWINGS
401963712	LOCATION PICTURES
401963715	MULTI-WELL PLAN
401963719	REFERENCE AREA MAP
401963886	SURFACE AGRMT/SURETY
401963928	LOCATION DRAWING

Total Attach: 16 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Updated the Construction and Interim Reclamation Dates.	09/06/2019
OGLA	Per Operator request, added the MLVT BMP.	09/03/2019
OGLA	This proposed Location will overlap the previous Reference Area for the State Bierstadt Location ID #451301. Operator intends to use the new Reference Area, submitted with this Form 2A, for both Locations and will provide a Form 4 Sundry for Location ID #451301.	08/30/2019
OGLA-181	The Objective Criteria Review Memo (Doc# 1010734) is attached to this Form 2A. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	08/29/2019
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 met Objective Criteria #3 and #5.c.	08/29/2019
OGLA	Opreator woking with the City of Aurora in revising the Road Maintenance Agreement with the City of Aurora to incude the portion of Yale Avenue that will be used to access the Location.	08/29/2019
OGLA	Per Operator request, added the BMPs to the Operator BMP list. With Operator concurrence, added the following to the Submit Tab: "Dedicated Production Facilities will serve all phases of this Location development". With Operator concurrence, added "Nunn-Bresser-Ascalon complex, 0 to 3 percent slopes - Arapahoe County, Colorado" to the Soils List. Uploaded the NRCS Map Unit Description	08/07/2019
OGLA	Northern State Bierdstadt was permitted for 8.50 acres to be reclaimed down to 7.42 acres. The addiional proposal is for 12.76 acres to be reclaimed down to 3.04 acres. During construction, drilling and completion operations, the current additional proposal will essentially connect the two discrete Locations via the spoil pile creating essentially one large location disturbing over 21 acres. These proposals are accomodating 6 oil and gas wells only. - Per Operator, the proposed Location will be completed in phases and will accomodate a total of 8 wells for final development of two mile laterals to the east ond to the west, developing 4 miles of minerals from this Location. - Operator provided a schematic showing the final development phases, see Attachment Document #1010724.	07/31/2019
Permit	COGCC Staff has added the Local Government siting permit information and the School and Childcare Center distances provided by the operator.	07/30/2019
OGLA	Changed the estimated depth to groundwater to 25 feet bgs based on the static water level reported for DWR Water Well Permit #178112. Changed the Basis Statement to reflect DWR Permit #178112. The closest water well having a reported static water level is identified as DWR Water Well Permit #178111, located approximately 2255 feet to the northwest of the proposed Location. The static water level reported for this water well is 245 feet with the perferated zone at 330 feet to 595 feet, total depth of the well. Further review of additional wells within the vicinity of the proposed Location were reported as permit canceled or perferated casing was set in the deeper aquifers. The geologic logs for each well, where provided, were reviewed to evaluate the appropriateness of the water well for use in determining an estimated depth to groundwater. Based on the review of the wells within the vicinity of the proposed Location, it was determined that the static water level reported for DWR Water Well #178112 was the most accurate estimate of the depth to shallow groundwater.	07/16/2019
Permit	Passed completeness.	03/15/2019

Total: 11 comment(s)