

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:

400674152

Date Received:

08/27/2014

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:

439227

Expiration Date:

10/05/2017

☒ 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: Justin Carlile

Phone: (281) 206-5770

Fax: (281) 647-1935

email: Justin.Carlile@conocophillips.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 19920030 ☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Parachute 4-65 5-6 Number: 3H

County: ARAPAHOE

QuarterQuarter: NESE Section: 5 Township: 4S Range: 65W Meridian: 6 Ground Elevation: 5572

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: 1500 feet FSL from North or South section line

450 feet FEL from East or West section line

Latitude: 39.729708 Longitude: -104.679917

PDOP Reading: 1.5 Date of Measurement: 05/23/2014

Instrument Operator's Name: Dallas Nielsen

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	1	Oil Tanks	3	Condensate Tanks		Water Tanks	1	Buried Produced Water Vaults	
Drilling Pits		Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	
Pump Jacks	1	Separators	1	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors		Electric Motors		Electric Generators		Fuel Tanks		Gas Compressors	1
Dehydrator Units	1	Vapor Recovery Unit	1	VOC Combustor	1	Flare	1	LACT Unit	1
								Pigging Station	

OTHER FACILITIES

Other Facility Type

Number

Switch Rack	1
Production Skid	1

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Future pipelines will consist of:

4 inch Carbon Steel Gas pipeline
4 inch Carbon Steel Oil pipeline
4.5 inch Fiberspar Water pipeline

The equipment indicated above may be installed for future use.

CONSTRUCTION

Date planned to commence construction: 02/20/2015 Size of disturbed area during construction in acres: 4.30
Estimated date that interim reclamation will begin: 05/20/2015 Size of location after interim reclamation in acres: 3.68
Estimated post-construction ground elevation: 5571

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:

Drilling cuttings will be taken by a certified transport company and disposed of at a certified disposal 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: Property Reserve Inc.

Phone:

Address: P.O. Box 511196

Fax:

Address:

Email:

City: Salt Lake City State: UT Zip: 84151-1196

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: oil and gas lease

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

Distance to nearest:

Building: 1859 Feet
Building Unit: 1859 Feet
High Occupancy Building Unit: 3141 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 439 Feet
Above Ground Utility: 362 Feet
Railroad: 5280 Feet
Property Line: 240 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.

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: _____

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: _____

NRCS Map Unit Name: AdC-Adena-Colby silt loams, 1 to 5 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: 459 Feet

water well: 554 Feet

Estimated depth to ground water at Oil and Gas Location 45 Feet

Basis for depth to groundwater and sensitive area determination:

Estimated depth to groundwater is based off of DWR Water Wells Permit #84555.

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 609

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

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

Signed: _____ Date: 08/27/2014 Email: Justin.Carlile@conocophillips.com

Print Name: Justin Carlile Title: 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: Matthew Lee Director of COGCC Date: 10/6/2014

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

	Secondary containment areas for tanks shall be constructed of steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation and shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and flowlines and is mechanically connected to the steel ring to prevent leakage.
	Stormwater BMPS (both engineered and administrative controls) shall be implemented to minimize potential impacts to the nearby wetland and stream.
	Operator shall submit a Form 42 to the COGCC 48 hours prior to commencement of construction activities.

Best Management Practices

No BMP/COA Type

Description

1	Planning	10. Emergency Response Plan. Operator will provide the County with an Emergency Response Plan (ERP) to address all potential emergencies that may be associated with an oil and gas facility. Operator shall also provide a copy of such plan to all emergency service providers that would respond to such emergencies. A "will-serve" letter must be obtained from the appropriate emergency provider(s).
---	----------	---

2	Traffic control	<p>12. Private Roads. The Operator agrees to construct (unless already constructed) and maintain an access road designed to support an imposed load of 75,000 pounds that will accommodate emergency response vehicles such as, but not limited to, law enforcement, emergency command vehicles (cars/SUVs), ambulances, hazardous materials response vehicles, water tenders, and fire apparatus during construction and operation of new tank batteries (post MOU), new drilling activity and reworks or recompletions of existing wells, unless a local fire department or fire district agrees to a different or lesser standard or waived by the County. With respect to new roads to new tank batteries, the Operator agrees to construct access roads at least sixteen (16") feet wide with at least four (4") inch road base. Best efforts will be made to improve inadequate access to existing tank battery sites identified by the fire district or County, based on service calls and demonstrated problems of accessing the site. Operator and County agree that spot inspections of access roads may be done by the County and/or appropriate emergency response agency, at such County or agency's sole risk and expense, to insure that emergency access in accordance with this section is maintained.</p> <p>13. Public Roads. a. Operator agrees to apply for and obtain access permits for its oil and gas facilities from the Public Works and Development Department. Requirements for the access permit may include the following: a) access location providing for a safe entrance/exit and utilization of main roadways to minimize impact /conflict with residents on local roadways; b) haul route and traffic data; c) pre/post inspection of roadways used by the Operator; d) collateral or bond to insure that road damage caused by the Operator is repaired; e) dust control (material used for dust control must be pre-approved by the County); f) road maintenance agreement during drilling phase; and g) payment of all applicable filing fees.</p> <p>Operator also agrees to exercise reasonable efforts to minimize heavy truck traffic on local roads within residential neighborhoods between the hours of 9 p.m. and 6 a.m. and further agrees to work with the applicable school district(s) to minimize traffic conflicts with school buses. b. Operator agrees to obtain any legally valid and applicable oversize and/or over weight moving permit from the Public Works and Development Department for all vehicles that exceed legal vehicle dimensions or weights as specified by the Colorado Department of Transportation.</p>
3	General Housekeeping	15. Painting of Oil and Gas Facilities. Except for such facilities that must be painted a certain color for safety reasons, Operator agrees to paint all new (post-MOU) production facilities with uniform, non-contrasting, non-reflective color tones and with colors matched to, but slightly darker, than surrounding landscapes.
4	Storm Water/Erosion Control	<p>3. Berms. Berms shall be inspected by Operator on a weekly basis for evidence of discharge. Berms shall be inspected within 48 hours of a precipitation event.</p> <p>11. Erosion Control. When required by the County's Grading and Erosion/Sedimentation ("GESC") Regulations, the Operator agrees to apply for and obtain a GESC permit through the Public Works and Development Department. The County will permit the Operator to submit a standard GESC plan applicable to all of the Operator's oil and gas facilities in cases where GESC collateral is required, and the County will also accept a blanket collateral in a form and amount acceptable to the County so that separate collateral will not be required for each oil and gas facility with a GESC permit. A general performance bond in a form and amount acceptable to the County will also be allowed to guarantee performance under sections 10 and 11 of this MOU.</p>
5	Storm Water/Erosion Control	14. Floodplain. Any disturbance within a floodplain will be allowed if the Operator has obtained a Floodplain Development Permit from the County and has complied with all the County's legally adopted floodplain and engineering regulations. Pits will not be allowed in floodplains, as defined in the County's Stormwater Management Manual.
6	Material Handling and Spill Prevention	7. Spill and Release Management. Any spill or release that is reportable to the Commission shall be simultaneously reported to the County.
7	Construction	16. Lighting. All permanent lighting of oil and gas well sites shall be directed downward and internally. Temporary lighting shall conform to the Commission's Rules and Regulations.

8	Noise mitigation	9. Noise. Operator shall provide and post 24-hour, 7 days per week contact information to deal with all noise complaints arising from Operator's oil and gas facilities.
9	Drilling/Completion Operations	<p>a. Preferred Option: 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.</p> <p>b. Water Storage Pits to Contain Fresh Water or Brine Water: Water stored in pits approved by the County and allowed under Commission Rules, must meet the definition of fresh water or brine water, except for water stored in pits listed in 2c below. Fresh water is defined as containing total dissolved solids (TDS) less than or equal to 5,000 milligrams/liter (mg/l). Brine water is defined as water produced from an oil and/or gas well with TDS of greater than 5,000 mg/l. The Operator is required to remove all free and visible oil within 24 hours of discovery. Upon closure of the pit, the Operator will ensure the protection of the public health and environment by following all Commission pit closure rules, including collecting analytical data to ensure compliance with state standards. As long as the pit is open and containing fluid, a representative water sample shall be taken every six months from the surface of the pit fluids, the first sample to be taken within 6 months of the pit becoming operational. Water quality data will also include an analysis of Sodium Adsorption Ratio (SAR). The County will review water quality data provided by the Operator every six (6) months. TDS, pH, and specific conductance can be measured with a field meter. TEPH (total extractable petroleum hydrocarbons), BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), and SAR will be analyzed by an accredited laboratory. If the presence of TEPH and/or BTEX is indicated after County review and/or inspection, other water quality analyses may be required by the County.</p> <p>c. Additional Pits that Require County Review and Approval: Skimming, settling, percolation, evaporation, and any type of netted pits are generally discouraged by the County; however such pits may be approved on a case-by-case basis through the Use by Special Review ("USR") process. A copy of the Pit Plan submitted to the Commission will be provided to the County at the same time as the plans are submitted to the Commission. Construction of these pits will be preceded by collection of "baseline" soil samples from the center of the planned pit at 6 and 18 inches depth. Soil samples will be analyzed for pH, Sodium Adsorption Ratio (SAR), and Electrical Conductivity (EC). The Operator shall stake and photograph from the center of the planned pit (toward north, south, east, and west directions) for inclusion in the County's copy of the Pit Plan. Upon closure of these pits, pH, SAR, EC, BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), and TEPH (total extractable petroleum hydrocarbons) analyses may be required if there is evidence of leaks or spills in the immediate area of the pits.</p> <p>d. Pits That Do Not Require County Approval: Flare, Emergency, Plugging, and Workover pits will not require county review or approval prior to construction (unless within 1/4 mile of a residence as set forth below); however, the County will be copied on the notification(s) sent to the Commission and any pit plans, remediation plans, or analytical results submitted to the Commission.</p> <p>e. Pit Setbacks: All pit construction within ¼ mile of a residence or water well is generally discouraged by the County and may have additional County requirements, such as fencing. Such pits will be reviewed on a case-by-case basis by the County.</p>

		<p>f. Multi-Well Pits: In addition to any requirements stated above, multi-well pits will be lined per the Commission's lining standards. If a multi-well pit is planned for use over a 2-year or greater period, the pit will be double-lined with leak detection. Fluids stored in multi-well pits will be circulated through a four-phase separator or an API-approved settling tank or similar equipment prior to such fluids entering the pit, specifically designed to remove solids and reduce hydrocarbon content and emissions. Retention time in a settling tank and the volume of the tank must be sufficient to separate out any floating, dissolved, or emulsified hydrocarbon phases. Lined multi-well pits may be inspected and/or reviewed on an as-needed basis, over the life of the pit, to determine if the water to be stored in the pit or already stored in the pit meets the definition of fresh water or brine water. Upon closure of the pit, the Operator will ensure the protection of the public health and environment by following all Commission pit closure rules, including collecting analytical data to ensure compliance with state standards. As long as the pit is open and containing fluid, a representative water sample shall be taken from the surface of the pit every six months. Additional requirements, such as fencing, may be required by the County, pre- or post-construction, if such a pit is determined by the County to be adversely impacting residences, water wells, or wildlife habitats and migrations.</p> <p>g. Technological Advances: The County may require additional measures, if new technological methods for pit construction or maintenance are developed pre- or post-construction and such methods are technologically sound, economically practical, and reasonably available to the Operator.</p> <p>4. Regular Meetings to Monitor and Discuss MOU Issues. The County and Operator agree to meet quarterly or as necessary, to monitor and discuss any pertinent issues associated with oil and gas facilities within the County.</p> <p>5. Water Supply and Quality. In an effort to reduce truck traffic, where feasible, the Operator will identify a water source lawfully available for industrial use, including oil and gas development, close to the facility location, to be utilized by Operator and its suppliers. Operator may be permitted to utilize County Road Right-of-Way, and County drainage culverts, where practical, for the laying and operation of temporary water lines on the surface. If necessary, operator will bury temporary water lines at existing driveway and gravel road crossings, or utilize existing culverts, if available.</p>
10	Final Reclamation	8. Weed Control and Management. Operator will be responsible for noxious weed control on any well pad, facility, or disturbed area, from the drilling or installation phase to the closure of the well or facility.

Total: 10 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400674152	FORM 2A SUBMITTED
400674327	FACILITY LAYOUT DRAWING
400674329	ACCESS ROAD MAP
400674330	CONST. LAYOUT DRAWINGS
400674331	HYDROLOGY MAP
400674332	LOCATION PICTURES
400674334	LOCATION DRAWING
400674335	NRCS MAP UNIT DESC
400674336	NRCS MAP UNIT DESC
400674337	NRCS MAP UNIT DESC

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. LGD comment addressed (see COA's added); no public comment received.	9/29/2014 1:16:59 PM
OGLA	Removed "TrC-Truckton loamy sand, 1 to 5 percent slopes" and "Lv-Loamy alluvial land" from the Soils Section per Operator request.	9/26/2014 10:11:55 AM
OGLA	Reference Area Map and Pictures are not required for cropland.	9/24/2014 11:08:11 AM
OGLA	Changed the distance to the nearest public road, aboveground utility, and property line based on the measurements from the wellhead as opposed to the edge of the pad.	9/24/2014 9:18:06 AM
OGLA	Rearranged Operator BMPs and added the remaining applicable BMPs as provided in the Arapahoe County MOU.	9/24/2014 9:02:21 AM
OGLA	Proposed Location is located in a sensitive area, approximately 225 feet north of an existing wetland as mapped on the USFWS National Wetland Inventory Map and Hydrology Map submitted by the Operator. COAs for secondary containment and stormwater added.	9/23/2014 6:01:30 PM
OGLA	Changed Estimated Dept to Groundwater to 45 feet based on DWR Water Well Permit #84555. Changed Basis statement to "Estimated depth to groundwater is based off of DWR Water Wells Permit #84555."	9/23/2014 5:48:40 PM
LGD	If the applicant or its contractors plan to use Arapahoe County roads for construction, drilling, or completion of the Parachute 4-65 5-6 3H well, well pad, or access road, the applicant will need to meet with the Arapahoe County Engineering Services Division inspector.	9/18/2014 3:11:16 PM
Permit	Passed Completeness	8/29/2014 1:03:47 PM

Total: 9 comment(s)