

FORM
2A

Rev
04/18

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:

401694413

Date Received:

07/20/2018

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:

457122

Expiration Date:

08/30/2021

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: 10456

Name: CAERUS PICEANCE LLC

Address: 1001 17TH STREET #1600

City: DENVER State: CO Zip: 80202

Contact Information

Name: Reed Haddock

Phone: (720) 880-6369

Fax: (303) 565-4606

email: rhaddock@caerusoilandgas.com

FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID (Rule 706): 20130021 Gas Facility Surety ID (Rule 711): _____

Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: NPR

Number: P17-596 Pad

County: GARFIELD

Quarter: SESE Section: 17 Township: 5S Range: 96W Meridian: 6 Ground Elevation: 8383

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: 1173 feet FSL from North or South section line

133 feet FEL from East or West section line

Latitude: 39.611066 Longitude: -108.183965

PDOP Reading: 1.5 Date of Measurement: 04/26/2018

Instrument Operator's Name: Bart Hunting

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 # 454238 **FORM 2A DOC #** _____

Well Site is served by Production Facilities

FACILITIES

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

Wells	<u>25</u>	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	<u>1</u>	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	_____	Separators*	_____	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	_____	Flare*	<u>1</u>	Pigging Station*	_____

OTHER FACILITIES*

Other Facility Type

Number

3-Phase Meter Skids	<u>5</u>
Chemical Pumps	<u>10</u>
Gas Lift Meter Skids	<u>7</u>

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:

Sub-surface flow lines for new wells from wellhead to the production meter skids will be 3" steel. A new 12" steel 3-phase flowline will be utilized from the skids to a tie-in point approximately 1/4 mile north where it will tie in to a new 16" gathering line that will run to the new F09 Central Delivery Point.
2" steel lines will be run from the gas lift meter skids to the wellheads.

CONSTRUCTION

Date planned to commence construction: 04/08/2019 Size of disturbed area during construction in acres: 11.15

Estimated date that interim reclamation will begin: 04/06/2020 Size of location after interim reclamation in acres: 2.05

Estimated post-construction ground elevation: 8369

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? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Waste Management Plan attached to Form 2A.

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: Caerus Piceance LLC

Phone: 303-565-4600

Address: 1001 17th Street, Suite 1600

Fax: _____

Address: _____

Email: _____

City: Denver State: CO Zip: 80202

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: applicant is owner

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:	5280 Feet	5280 Feet
Building Unit:	5280 Feet	5280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	5280 Feet	5280 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	1041 Feet	948 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 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: 55—Parachute-Irigul complex, 5 to 30 percent slopes _____

NRCS Map Unit Name: 56—Parachute-Irigul-Rhone association, 25 to 50 percent _____

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: 655 Feet

water well: 8257 Feet

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

Basis for depth to groundwater and sensitive area determination:

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 is a new pad. Caerus Piceance LLC plans to drill 25 wellbores.

A03 3-PHASE GATHERING OPERATIONS
 Gas will be gathered by Caerus to Caerus' F09 CDP (Central Delivery Point), where it will go to either Story Gulch or Middle Fork Compressor Station. Condensate will be trucked off F09 CDP (Central Delivery Point) and water sent to the Divide Road Water Treatment Facility.

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

Signed: _____ Date: 07/20/2018 Email: rhaddock@caerusoilandgas.com

Print Name: Reed Haddock 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: 8/31/2018

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
	<p>Planning: The following COA will apply: COA 91 - In addition to the notifications required by COGCC listed in the Northwest Notification Policy (Notice of Intent to Construct a New Location, Notice of Intent to Spud Surface Casing, and Notice of Intent to Commence Hydraulic Fracturing Operations) and Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment and c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to pipeline testing (flowlines from wellheads to separators to tanks (if applicable); onsite three-phase pump meter skids and gas lift meter skids; permanent buried take away pipelines; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions). The appropriate COGCC individuals will automatically be email notified.</p>
	<p>Construction: The following COAs will apply: COA 44 - The access road will be constructed and maintained as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water. COA 48 - Operator shall submit an as-built drawing that shows how the 3-phase material is collected and leaves the NPR P17-596 Pad and also provide a schematic diagram showing the nearby production facility with the 3-phase entry point; within 60 calendar days of construction of the production equipment on either or both locations.</p>
	<p>Drilling/Completion Operations: The following COAs will apply: COA 11 - The moisture content of water/bentonite based mud (WBM) generated drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, if any of the WBM drill cuttings will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), they must be sampled and meet the applicable standards of Table 910-1. No liners (if used) are allowed to be disposed of with the drill cuttings. After the drill cuttings have been amended (if necessary) and placed on the well pad, sampling frequency of the drill cuttings (to be determined by the operator) shall be representative of the material left on location. No offsite disposal of cuttings to another oil and gas location shall occur without prior approval of an amended Form 2A for the location where the cuttings will be placed and disposed of and the proposed waste characterization method. Commercial disposal of drill cuttings will require notification (no prior approval) to COGCC via a Form 4 Sundry Notice. COA 25 - Flowback and stimulation fluids must be sent to enclosed tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or into tanker trucks for offsite disposal. No open top tanks can be used for flowback fluids containment. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area constructed to be sufficiently impervious to contain any spilled or released material. No additional downgradient berming is required if operator constructs a sufficiently sized perimeter berm.</p>
	<p>Emissions Mitigation: The following COA will apply: COA 26 - Potential odors associated with the remote frac pad water storage and water transfer operations during the completions process at nearby well pads must be controlled/mitigated.</p>
	<p>Material Handling and Spill Prevention: The following COA will apply if any temporary surface (COAs 45, 49, 54, and 55) or buried permanent offsite pipelines (poly or steel) are used during completion operations at this oil and gas location: COA 45 - Operator shall pressure test pipelines (pipelines from offsite storage tanks and any temporary surface lines used for hydraulic stimulation and/or flowback operations) in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network.</p>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Use or modify existing roads where possible. Maximize the use of directional drilling to minimize habitat loss/fragmentation. Maximize use of remote telemetry for well monitoring to minimize traffic.
2	General Housekeeping	Caerus will comply with Rule 609 Statewide Groundwater Baseline Sampling and Monitoring. Caerus will comply with Rule 603.f. statewide equipment, weeds, waste, and trash requirements.
3	Wildlife	September 2017 - Caerus Piceance LLC (Caerus) agreed to the Amended and Restated Wildlife Mitigation Plan (WMP) for Encana's proposed oil and gas operations on the North Parachute Ranch (NPR) property. Caerus received authorization from Colorado Parks and Wildlife (CPW) to transfer the EnCana Wildlife Mitigation Plan Agreement (WMPA) to Caerus' existing WMPA. Caerus is currently adhering to all aspects of both WMPAs through Caerus' current best management practices.
4	Storm Water/Erosion Control	Stormwater is addressed under a field-wide Stormwater Management Plan (CDPHE Certification #COR037689). Run-on protection and run-off controls will be installed prior to the beginning of construction activities, with consideration given to worker safety, wildlife, and site access.
5	Construction	Any stockpile(s) for topsoil and excess cut material will be located in work areas surrounded by the BMPs as shown on the Construction Layout Drawings. Stormwater BMPs will be installed per details in the Stormwater Management Plan (SWMP) and as shown on the Construction Layout Drawings. Disturbed area of site will be left in a surface roughened condition when feasible. BMPs will be protected, inspected and repaired as necessary. Dust mitigation practices will be utilized. Existing buried flow and water lines in place. Any new flowline installations will be performed in accordance with new flowline guidance provided by the COGCC concerning Rules 1101 and 1102. Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with synthetic liner) to adequately contain any spilled or released material around crude oil, condensate, and produced water storage tanks, while also ensuring the adequate prevention of significant adverse environmental impacts.
6	Drilling/Completion Operations	Closed loop system will be used. No pits will be built. An enclosed flare stack will be used. Caerus will ensure 110 percent secondary containment for any potential volume of fluids that may be released.
7	Interim Reclamation	Once all topsoil has been distributed across the site, the location is then seeded by drill seeding methods or broadcast seeding. Re-vegetation is accomplished as soon as practical following the preparation of a site for final stabilization. Seeding will be done when seasonal or weather conditions are most favorable. On terrain where drill seeding is appropriate, seed may be planted using a drill equipped with a depth regulator to ensure proper depth of planting. Where possible, recountouring to help control run-on and run-off will be done.
8	Final Reclamation	Re-contouring: The disturbed areas surrounding the well location, including the access road will be re-contoured to blend as nearly possible with the natural topography. Final grading of back-filled and cut slopes will be done to prevent erosion and encourage establishment of vegetation. Existing drainages will be re-established. Re-vegetation: The long term objective is to establish a self-perpetuating plant community that is compatible with and capable of supporting the identified land use. Noxious weeds will be treated in accordance with applicable COGCC rules.

Total: 8 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401694413	FORM 2A SUBMITTED
401694487	NRCS MAP UNIT DESC
401694490	NRCS MAP UNIT DESC
401694570	ACCESS ROAD MAP
401694571	ACCESS ROAD MAP
401694573	CONST. LAYOUT DRAWINGS
401694578	HYDROLOGY MAP
401694580	FACILITY LAYOUT DRAWING
401694585	LOCATION DRAWING
401694589	LOCATION PICTURES
401694593	MULTI-WELL PLAN
401694599	REFERENCE AREA PICTURES
401694600	REFERENCE AREA MAP
401694602	OTHER
401707229	WASTE MANAGEMENT PLAN

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	08/30/2018
Permit	Preliminary review complete.	08/22/2018
OGLA	08/01/2018 - initiated / completed OGLA Form 2A review by Dave Kubeczko; placed the following COAs on the Form 2A - notification, non-scaled as-built, sediment control access road, cuttings containment and management, odor control, flowback to tanks only, and pipeline testing; 08/03/2018 - location does fall within 'Sensitive Wildlife Habitat' area, therefore a CPW Wildlife consult is required; passed by CPW with this location within the renewed Caerus North Parachute Ranch Wildlife Mitigation Plan (WMP); 08/13/2018 - passed OGLA Form 2A review by Dave Kubeczko with notification, non-scaled as-built, sediment control access road, cuttings containment and management, odor control, flowback to tanks only, and pipeline testing COAs.	08/01/2018
OGLA	Passed Completeness.	07/20/2018

Total: 4 comment(s)