

State of Colorado
Oil and Gas Conservation Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

401249240

Date Received:

04/11/2017

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:

450717

Expiration Date:

05/21/2020☒ 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: 10000

Name: BP AMERICA PRODUCTION COMPANY

Address: 380 AIRPORT RD

City: DURANGO State: CO Zip: 81303

Contact Information

Name: Naomi Azulai

Phone: (970) 3757511

Fax: ()

email: naomi.azulai@bp.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20010158☐ Gas Facility Surety ID: _____☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: STATE MZ

Number: 2

County: LA PLATA

QuarterQuarter: LOT 4 Section: 7 Township: 34N Range: 6W Meridian: N Ground Elevation: 6925

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: 941 feet FSL from North or South section line

221 feet FWL from East or West section line

Latitude: 37.200975 Longitude: -107.549466

PDOP Reading: 1.9 Date of Measurement: 03/02/2017

Instrument Operator's Name: BRIAN BONIFACE

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>1</u>	Oil Tanks*	<u> </u>	Condensate Tanks*	<u> </u>	Water Tanks*	<u>1</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>1</u>	Separators*	<u>1</u>	Injection Pumps*	<u> </u>	Cavity Pumps*	<u> </u>	Gas Compressors*	<u> </u>
Gas or Diesel Motors*	<u>1</u>	Electric Motors	<u>1</u>	Electric Generators*	<u> </u>	Fuel Tanks*	<u> </u>	LACT Unit*	<u> </u>
Dehydrator Units*	<u> </u>	Vapor Recovery Unit*	<u> </u>	VOC Combustor*	<u> </u>	Flare*	<u> </u>	Pigging Station*	<u> </u>

OTHER FACILITIES*

Other Facility Type

Number

Meter, RTU, Solar	<u>1</u>
Electronic Control Box	<u>1</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:

Up to two steel flowlines (4" max) from the wellhead to the separator skid.
A steel line from the separator skid to the tank to the main water gathering line - 3" max.
A steel line from the separator to the main gas gathering line - 4" max.

CONSTRUCTION

Date planned to commence construction: 06/05/2017 Size of disturbed area during construction in acres: 1.39
Estimated date that interim reclamation will begin: 10/05/2017 Size of location after interim reclamation in acres: 0.80
Estimated post-construction ground elevation: 6925

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? Yes

Will oil based drilling fluids be used? No

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:

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: Marcia Morales

Phone: 9708849843

Address: 5182 CR 523

Fax: _____

Address: _____

Email: _____

City: Bayfield State: CO Zip: 81122

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 04/07/2017

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:	551 Feet	645 Feet
Building Unit:	551 Feet	645 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	204 Feet	193 Feet
Above Ground Utility:	243 Feet	235 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	219 Feet	212 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.
- 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: 02/25/2017

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: no nrcs data for this township; however adjacent township to west indicates arboles clay.

NRCS Map Unit Name: 5. Arboles clay, 3 to 12 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: 04/03/2017

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: 363 Feet

water well: 616 Feet

Estimated depth to ground water at Oil and Gas Location 55 Feet

Basis for depth to groundwater and sensitive area determination:

Determined to be a sensitive area based on the distance to a downgradient surface water feature and domestic water well.

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

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 608

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

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

Signed: _____ Date: 04/11/2017 Email: naomi.azulai@bp.com

Print Name: Naomi Azulai Title: Well Permitting Analyst

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: 5/22/2017

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
	<p>In addition to the notifications required by Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment; b. Notice of Spud; and c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to rig mobilization and pipeline testing (flowlines from wellheads to separators to tanks; 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>Operator must ensure secondary containment for any volume of fluids contained at the well site during drilling and completion operations (as shown on the Proposed BMPs attachment); including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices [BMPs] associated with fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals as required by CDPHE (at least every 14 days and after precipitation events), and maintained in good condition. The design/build of any perimeter berm shall be sized, constructed, and compacted sufficiently to contain fluids during drilling operations, as well as all fluids contained in temporary frac tanks during completion operations.</p> <p>Strategically apply fugitive dust control measures, including encouraging established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</p> <p>Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner or equivalent protection) to contain any spilled or released material around permanent produced water storage tanks.</p>
	<p>A closed loop system must be implemented during drilling (as indicated on the Form 2 and Form 2A). The moisture content of all drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. All cuttings generated during drilling with salt-based mud (SBM) must be segregated from water/bentonite based mud-(WBM-) generated drill cuttings and placed separately on the well pad. All SBM-generated drill cuttings must be kept in tanks/containers, or placed on a lined/bermed portion of the well pad; prior to disposition. The operator has indicated that 'Cuttings Disposal' will be "OFFSITE" and that the 'Cuttings Disposal Method' will be "COMMERCIAL DISPOSAL" (as shown in the 'DRILLING WASTE MANAGEMENT PROGRAM SECTION' of the Form 2A). All liners associated with salt-based drilling mud and SBM-generated drill cuttings must be disposed of offsite per CDPHE rules and regulations. Any changes to drill cuttings management and disposal at this location will require submittal (via a Form 4 Sundry Notice) and approval of a Waste Management Plan detailing the changes (specifying cuttings characterization methods, cuttings management, amendment, and onsite disposal location[s]).</p> <p>Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel located on the well pad; or into tanker trucks for offsite disposal. 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.</p> <p>Due to proximity to the nearby residence, potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.</p>
	<p>Operator shall pressure test pipelines (flowlines from wellheads to separators to tanks; pipelines from onsite separators to 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, and tested annually, unless agreed to by both parties that the flowlines can be managed under an approved COGCC variance.</p>

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>Rule 604.c.(2). A. Noise – The type of equipment planned for this site during the production operations phase is expected to remain below COGCC's acceptable noise limits. Noise levels will be tested at the request of nearby property owners. Sound levels will be measured in accordance with COGCC Rule 802.c. If the noise levels are found to exceed COGCC permissible levels, then BP will implement measures such as mufflers or sound walls. Production operations phase includes the permanent equipment set on location once drilling and completions has concluded.</p> <p>Rule 604.c.(2). B. Closed-loop Drilling Systems – Addressed in the APDs submitted for the proposed well planned on this site. No pits are planned.</p> <p>Rule 604.c.(2). C. Green Completions/Emission Control Systems - Coal wells do not utilize a flowback process. A post frac clean out is performed to prepare the well for production. During the cleanout procedure, fluids are routed to a temporary tank. Once gas starts to flow, the well is shut in so that gas is not released and can be routed to production. BP does not anticipate venting or flaring. In the unlikely event the well cannot be shut in in a timely manner, the gas would be vented through the temporary tank.</p> <p>Rule 604.c.(2). F. Leak Detection Plan – A wellsite-based monitoring system can automatically shut-in the wells upon the occurrence of anomalous conditions such as pressures outside of normal operating range in the water/gas pipelines on the downstream side of a well's water/gas separator vessel or high water levels in tanks monitored by float switches. In addition, locations are continuously monitored by remote SCADA system. In the event of an unintentional release, BP will report the event as required by COGCC regulations, Rule 906, Spills and Releases. Immediate actions will be taken to stop the source and minimize potential offsite impact. If necessary, clean-up will be initiated as soon as possible, consistent with COGCC 1000 series regulations.</p> <p>Rule 604.c.(2). G. Berm Construction – All secondary containment requirements will be met for buffer/exception zone setback.</p> <p>Rule 604.c.(2). M. Fencing – If livestock is present, then cattle panels around equipment and/or fencing around the interim reclamation may be installed.</p> <p>Rule 604.c.(2). N. Control of Fire Hazards – Any material not in use that might constitute a fire hazard will be removed a minimum of 25 feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.</p> <p>Rule 604.c.(2). P. Removal of Surface Trash – All surface trash, debris, scrap or discarded material connected with the operation will be removed from the premises and disposed of in a legal manner.</p> <p>Rule 604.c.(2). R. Tank Specifications – No crude oil or condensate storage is planned as a result of this operation.</p> <p>Rule 604.c.(2). S. Access Roads – Access roads will accommodate emergency vehicle access and will be maintained in a reasonable condition.</p> <p>Rule 604.c.(2). W. Site Specific Measures – During drilling/completions operations the site lighting shall be directed downward and inward and shielded (to the extent practicable) so as to avoid glare on public roads and building units within 1000'. Once the well is in production operations phase, no permanent lighting will be installed on the pad.</p>
2	Wildlife	Covered in the San Juan Basin Wildlife Mitigation Plan (WMP) dated March 2011.
3	Storm Water/Erosion Control	Covered in the Field Wide Storm Water management Plan. Site specific SWMPs have been developed for this location including sediment control logs and rock rundowns. See attached Construction and Reclamation SWMP drawings for details.
4	Interim Reclamation	All of the disturbed areas not used for routine operations will be reclaimed. This will include re-contouring slopes to 3:1 or greater and seeding/mulching. The seed will be drilled or broadcasted where machinery cannot access. Straw mulch will be spread and crimped over the seeded areas to retain moisture and limit erosion. Weeds will be inspected and treated annually, when necessary, by a certified weed control contractor.

Total: 4 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2108139	NRCS MAP UNIT DESC
2108142	COIRRESPONDENCE
2108143	Rule 306.e. CERTIFICATION LETTER - May 15, 2017
401249240	FORM 2A SUBMITTED
401252258	CONST. LAYOUT DRAWINGS
401252260	CONST. LAYOUT DRAWINGS
401252264	FACILITY LAYOUT DRAWING
401252269	WASTE MANAGEMENT PLAN
401252270	LOCATION DRAWING
401252272	ACCESS ROAD MAP
401252273	HYDROLOGY MAP
401252274	LOCATION PICTURES
401252275	REFERENCE AREA MAP
401252276	PROPOSED BMPS
401252278	PROPOSED BMPS
401252279	PRE-APPLICATION NOTIFICATION CERTIFICATION
401252825	REFERENCE AREA PICTURES
401261420	SURFACE AGRMT/SURETY

Total Attach: 18 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Contacted operator on 5/22/17 to correct size of disturbed area. Changed entry from 1398 acres to 1.398 acres.	05/22/2017
Permit	Final Review Completed.	05/19/2017
OGLA	Placed "ON HOLD" waiting on BP and Public Comment.	05/04/2017
DOW	The Operator has agreed to incorporate this well into BPs existing San Juan Basin Colorado Wildlife Mitigation Plan (dated March 2011).The well will be subject to the BMPs specified in the Plan, including pre-construction biological surveys, compliance with raptor nest guidelines, and screening of planned day rig activity for conflicts with known eagle nests and roosts prior to commencing rig work. In addition, any new surface disturbance associated with this well pad, access road, and gathering pipeline will be incorporated into Tables 1 and 2 of the Plan and mitigated off-site per the standards identified in the plan. The WMP is currently in a renewal process and an amendment/extension is anticipated 6/2017.	05/04/2017
OGLA	Initiated/Completed OGLA Form 2A review on 05-03-17 by Dave Kubeczko; requested acknowledgement of notification, fluid containment, spill/release BMPs, dust control access road, flowback to tanks, tank berming, odor control, cuttings low moisture/management, and pipeline testing COAs from operator on 05-03-17; received acknowledgement/concurrence of COAs from operator on 05-04-17; received Rule 306.e. Certification Letter from operator on 05-15-17; added NRCS information based on proximity to section to the west (200'); passed by CPW on 05-04-17 with location falling within the operator's Wildlife Mitigation Plan being acceptable; passed OGLA Form 2A review on 05-04-17 by Dave Kubeczko; notification, fluid containment, spill/release BMPs, dust control access road, flowback to tanks, tank berming, odor control, cuttings low moisture/management, and pipeline testing COAs.	05/03/2017
Permit	Passed Completeness	04/24/2017
OGLA	Did not pass Buffer Zone completeness review. Remove 306.e Certification attachment. 306.e meeting requirements are after Form 2A is in Process. Resubmit after comment period. Rename 30 Day Notice Letter attachment to Pre-application Notification. Contacted Operator - Push to Draft	04/18/2017
Permit	notified OGLA for Buffer Zone review	04/13/2017

Total: 8 comment(s)