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

Oil and Gas Location Assessment

Document Number: 400694470

Date Received: 10/07/2014

Location ID:

Expiration Date:

☒ 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.

☐ 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: 46685

Name: KINDER MORGAN CO2 CO LP

Address: 17801 HWY 491

City: CORTEZ State: CO Zip: 81321

Contact Information

Name: Laura Getts

Phone: (970) 564-9100

Fax: (970) 565-8874

email: lgetts@ecosphere-services.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20110027 ☐ Gas Facility Surety ID:

☐ Waste Management Surety ID:

LOCATION IDENTIFICATION

Name: CX Number: 2

County: MONTEZUMA

QuarterQuarter: LOT 8 Section: 12 Township: 38N Range: 19W Meridian: N Ground Elevation: 6686

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: 1595 feet FSL from North or South section line

359 feet FWL from East or West section line

Latitude: 37.563200 Longitude: -108.902290

PDOP Reading: 5.9 Date of Measurement: 09/15/2014

Instrument Operator's Name: R.J. Caffey

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*		Condensate Tanks*		Water Tanks*		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*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type	Number
Glycol Injection Skid	1

*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:

Detailed information associated with this pipeline are still in the planning stages. The pipeline will have the following characteristics:

Number of Lines: 1
Diameter: 10"
Length: 500'
Material: Carbon Steel with HDPE Liner
Fluids: CO2 and Water
Capacity: 30 MMSCFD

CONSTRUCTION

Date planned to commence construction: 11/11/2014 Size of disturbed area during construction in acres: 6.89

Estimated date that interim reclamation will begin: 05/10/2015 Size of location after interim reclamation in acres: 0.83

Estimated post-construction ground elevation: 6685

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H_2S anticipated? Yes

Will salt sections be encountered during drilling: Yes

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:

Fluids: Recycle as much as possible; any excess will go to licensed UIC disposal facility. Cuttings are dewatered in a closed loop system and disposed of at a permitted E&P commercial solid waste 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: SYLVIA KLECZKOWSKI Phone: (864) 574-7527

Address: 4025 OLD SPARTANBURG HWY Fax:

Address: Email:

City: MOORE State: SC Zip: 29369

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: Bond

Surface damage assurance if no agreement is in place: Blanket Surface Surety ID: 20080051

Date of Rule 306 surface owner consultation 09/17/2014

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:	2358 Feet	2333 Feet
Above Ground Utility:	313 Feet	288 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	383 Feet	358 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.

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 FACILTIES 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: Map Unit 20—Cahona-Pulpit complex, 3 to 9 percent slopes

NRCS Map Unit Name: Map Unit 42—Gladel-Pulpit complex, 3 to 9 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 [X] No [ ]

Plant species from: [ ] NRCS or, [X] field observation Date of observation: 10/01/2014

List individual species: Pinus edulis, Juniperus osteosperma, Artemisia tridentata, Aegilops cylindrica, Poa sp., Oryzopsis hymenoides, Opuntia phaeacantha, Amelanchier utahensis, Yucca baccata, Ericameria nauseosa, Erioganum sp., Sclerocactus parviflorus

Check all plant communities that exist in the disturbed area.

- [X] Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- [ ] Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- [X] Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- [ ] Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- [ ] Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- [X] 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: [X] No [ ] Yes

Distance to nearest

downgradient surface water feature: 635 Feet

water well: 7193 Feet

Estimated depth to ground water at Oil and Gas Location 282 Feet

Basis for depth to groundwater and sensitive area determination:

Depth to groundwater is determined by using depth recordings from nearby well permit applications on file with the Colorado Division of Water Resources.

Sensitive Area Determination:
The nearest perennial water source is approximately 5 miles South of the CX-2. The CX-2 CO2 well is not within a local wellhead protection area, is greater than 1/8 mile from a domestic water well, and is greater than 1/4 mile from a public water supply well, ground water basin, or surface water supply area.

Is the location in a riparian area: [X] No [ ] Yes

Was an Army Corps of Engineers Section 404 permit filed [X] No [ ] Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer zone: 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: _____

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

Kinder Morgan CO2 Company may install glycol injection equipment on the well location to address hydrate formation/line obstruction due to freezing. The tanks would be filled by a supply truck every 7 to 10 days, and would be operated between mid-October and June as weather conditions dictate. When not in operation, the skids would either remain installed on location, or be removed from the well location and stored during the off-season to protect them from potential vandalism as determined necessary by Kinder Morgan. The pumps are fairly quiet and should not be audible outside of the well pad area. A plot plan of the glycol skid equipment is attached.

There are no water wells located within a .5 mile radius of the CX-2's well location. A Form 4 will be filed accordingly.

Oil & Gas leases are attached to the Form 2. A Surface Use Agreement will be submitted as soon as it becomes available.

The CX2, CX5, and CX7 are all being given a November 11th, 2014 start date. The timing of Form 2A/Form 2 approvals, construction delays, and/or whether or not a rig is released will determine which sites are first constructed and drilled.

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

Signed: _____ Date: 10/07/2014 Email: lgetts@ecosphere-services.com

Print Name: Laura Getts Title: Permitting 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: _____

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.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	A Kinder Morgan Fire Mitigation Plan is currently on file with the Montezuma County Planning Office. Any material not in use that might constitute a fire hazard will be moved a minimum of 25 feet from the wellhead, tanks and separator. Any electrical 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.

2	Traffic control	A Road Use Plan, which addresses traffic concerns specific to the CX-2, is currently on file with Montezuma County. Kinder Morgan will consult with the county Road and Bridge Supervisor to ensure that all county-related traffic concerns are addressed. All access roads are fully compliant with local county road standards. Access roads are composed of compacted gravel. This well is covered by Kinder Morgan's Cow Canyon State Highway Access Permit and Method of Handling Traffic plan currently on file with CDOT.
3	General Housekeeping	Erosion control barriers, namely fiber wattles, will be placed at the edge of disturbance where necessary. Care will be taken to avoid disturbance outside of the project area unless it is deemed necessary for equipment stability and fire safety. During the construction, drilling, and completion phases, on-site trash dumpsters are emptied regularly by the local waste management company. During drilling and completion operations, safety officers are present on location to ensure that livestock, wildlife, and unauthorized personnel do not enter the location.
4	Storm Water/Erosion Control	Diversion ditches will be implemented to divert run-on and run-off around the well pad. Compacted earthen berms will also be utilized to control stormwater run-on and runoff. Tackifier will be added to the stored topsoil piles and all slopes to prevent erosion. Stormwater BMPs will be maintained/amended by Kinder Morgan as site conditions change throughout the construction and reclamation process.
5	Material Handling and Spill Prevention	The use of a closed-loop drilling system will reduce the amount of waste produced and water used during drilling operations. Solid cuttings will be disposed of at a solid waste facility. Water that can no longer be reused or recycled will be disposed of in a Class I disposal well. Sufficiently impervious containment devices will be constructed around any condensate and produced water tanks. The containment devices will be sufficiently impervious to contain any spilled or released material. All containment devices will be inspected at regular intervals and maintained in good condition. Tanks are designed to meet all API 650 guidelines.
6	Construction	All equipment will be stored within the right-of-way (ROW) area of disturbance. Top soil will be removed to create a level pad for drilling and access road. Vegetation that does not need to be removed will be avoided during construction and removed vegetation will be cut near ground level, leaving the root system intact except where permanent facilities, roads, or ROWs, and wellpads require the complete removal of vegetation.
7	Noise mitigation	During normal operations, the well will remain within COGCC regulations for noise. However, during the construction phase of the project, this standard may be occasionally exceeded.
8	Emissions mitigation	Non-flammable CO2 will be produced from the Leadville formation and thus green completion per rule 805 (3) does not apply. All CO2 wells are equipped with a CO2 leak detection monitor during drilling.

9	Drilling/Completion Operations	Blowout preventer equipment (BOPE) complies with COGCC equipment regulations. Kinder Morgan conducts a BOPE test and files a 24 hour notice (Form 42) at the initial rig-up time, after each casing emplacement, and/or every 30 days. Adequate blowout prevention equipment is used on all well servicing operations. Backup stabbing valves are used on well servicing operations during reverse circulation and are pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid. No pits are present at the well site.
10	Interim Reclamation	Surface roughening, surface contouring, seeding, and weed control will be employed to facilitate vegetation reestablishment. Tackifier will be added to reclaimed areas.
11	Final Reclamation	All disturbed areas that are not necessary for operational procedures will be restored to at least 80 percent of pre-disturbance vegetative cover.

Total: 11 comment(s)

Attachment Check List

Att Doc Num	Name
400694470	FORM 2A SUBMITTED
400694972	NRCS MAP UNIT DESC
400695806	WELL LOCATION PLAT
400700358	OTHER
400700362	ACCESS ROAD MAP
400700363	HYDROLOGY MAP
400700367	TOPO MAP
400700373	LOCATION DRAWING
400700376	SENSITIVE AREA MAP
400700377	PROPOSED BMPS
400700480	REFERENCE AREA PICTURES
400700519	REFERENCE AREA MAP
400700522	OTHER
400706952	LOCATION PICTURES

Total Attach: 14 Files

General Comments

User Group	Comment	Comment Date
Permit	Returned to Draft: Location pictures have become corrupted and cannot be opened.	10/9/2014 11:54:27 AM

Total: 1 comment(s)