

FORM
2A

Rev
06/19

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

401513496

(SUBMITTED)

Date Received:

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:

Expiration Date:

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: 96850
 Name: TEP ROCKY MOUNTAIN LLC
 Address: PO BOX 370
 City: PARACHUTE State: CO Zip: 81635

Contact Information

Name: Vicki Schoeber
 Phone: (970) 263-2721
 Fax: ()
 email: vschoeber@terraep.com

FINANCIAL ASSURANCE

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

LOCATION IDENTIFICATION

Name: FEDERAL Number: PA 31-26
 County: GARFIELD
 Quarter: LOT 2 Section: 26 Township: 6S Range: 95W Meridian: 6 Ground Elevation: 5484

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: 1170 feet FNL from North or South section line
2183 feet FEL from East or West section line

Latitude: 39.499942 Longitude: -107.964151

PDOP Reading: 2.6 Date of Measurement: 06/11/2015

Instrument Operator's Name: J. KIRKPATRICK

LOCAL GOVERNMENT INFORMATION

County: GARFIELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" below. Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The local government siting permit type is: _____

The local government siting permit was filed on: _____

The disposition of the application filed with the local government is: Waived

Additional explanation of local process:

TEP Rocky Mountain LLC has contacted Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location and determined that per the Garfield County Land Use and Development Code, Table 3-403, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right or Exempt from Land Use Regulation at this site. Garfield County's disposition is not required for the purposes of this submittal.

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: Well Site is served by Production Facilities **LOCATION ID #** 335123 **FORM 2A DOC #** _____

FACILITIES

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

Wells	<u>11</u>	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	_____	Buried Produced Water Vaults*	_____
Drilling Pits	<u>1</u>	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	_____	Separators*	<u>13</u>	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*

<u>Other Facility Type</u>	<u>Number</u>
300 bbl blowdown tank	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:

5-4.5" temporary surface steel frac lines (approx. 4245' each) will be installed following the existing pipeline easements and proposed access road from the PA 23-25 Frac Pad (Loc ID #451921) to the PA 31-26 Pad. Proposed frac lines will deviate from the proposed road near the drainage crossing to ensure pipelines are elevated above the drainage. 2-10" temporary surface poly water lines (approx. 250') will be installed from the existing 10" water pipeline to the PA 23-25 Frac Pad to supply water to the location.

New 8" steel gas pipeline (±4337') will be installed from the separators to the existing 12" gas line near the PA 22-25 pad following the proposed access road and existing pipeline easements. New 4" flexpipe production water pipeline and 2" flexpipe condensate pipeline (±4762' each) will be installed from the proposed separators to the tank battery on the PA 22-25 Pad (Loc ID #335123). 11 -2" steel flow lines, and 1-2" dump line from the blowdown tank will be installed on pad.

CONSTRUCTION

Date planned to commence construction: 05/01/2020 Size of disturbed area during construction in acres: 3.35
Estimated date that interim reclamation will begin: 05/01/2021 Size of location after interim reclamation in acres: 0.74
Estimated post-construction ground elevation: 5486

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: Drilling pit

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: _____

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Bureau of Land Mgmt-CRVO Phone: 970-876-9000

Address: 2300 River Frontage Rd. Fax: _____

Address: _____ Email: _____

City: Silt State: CO Zip: 81652

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

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	4819 Feet	4721 Feet
Building Unit:	4872 Feet	4771 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	4579 Feet	4454 Feet
Above Ground Utility:	4262 Feet	4142 Feet
Railroad:	5053 Feet	4929 Feet
Property Line:	2878 Feet	2713 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? Yes No

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:

- Buffer Zone
- Exception Zone
- Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.
- Large UMA Facility – as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (onl 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: 9- Badland

NRCS Map Unit Name: 47-Nihill channery loam, 6 to 25 percent slopes

NRCS Map Unit Name: 66-Torriorthents-Camborthids-Rock outcrop complex, steep

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: 03/29/2018

List individual species: n/a

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: 0 Feet

water well: 3920 Feet

Estimated depth to ground water at Oil and Gas Location 50 Feet

Basis for depth to groundwater and sensitive area determination:

Attached Sensitive area determination:

"Based on the topographic setting of the proposed facility it could be assumed that the depth to groundwater, if present, would be in excess of 50 feet if not greater."

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 08/02/2017

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	Black Bear	Wildlife - Avoidance	The operator agrees to report bear conflicts immediately to CPW staff.
2	Black Bear	Wildlife - Minimization	The operator will implement Rule 1204.a.1 (also see General Operating Recommendations).
3	Deer and Elk	Wildlife - Mitigation	Operator agrees to treating cheatgrass and reseeding area with CPW approved, wildlife benefiting seed mix.

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 location with 11 proposed wells.
A review of the Director's Objective Criteria regarding this location is attached.
The PA 23-25 Frac Pad (Loc ID #451921) will be used to remotely frac the new wells on this location. Water and condensate from this pad will be piped to the tanks on the PA 22-25 pad (Loc ID #335123).

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

Signed: _____ Date: _____ Email: vschoeber@terraep.com

Print Name: Vicki Schoeber Title: Regulatory Specialist

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____

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

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>Prior to submittal of the COGCC Form 2A, TEP conducted an onsite and meeting with the Bureau of Land Management (BLM), Colorado Parks and Wildlife, and the associated private landowners. This onsite and meetings were held to discuss TEP's proposed development plan for the PA 31-26 pad and associated support facilities. Changes were made to the proposed development plan based on feedback received from all stakeholders and included in the COGCC Form 2A permit application.</p> <p>The development plan for the PA 31-26 pad was prepared to minimize surface impacts to the greatest extent possible through the development of multiple wells from one location through the use of directional drilling, collocating access road and utilities corridors within the same area, and through the transportation of fluids to a centralized storage facility on the existing PA 22-25 pad minimizing the surface area needed to conduct operations on the PA 31-26 pad.</p> <p>Access to the PA 31-26 Pad utilizes all available existing roads to minimize the length and surface disturbance of the new access road. The road was designed to provide the best available screen to avoid visual impact.</p> <p>To minimize impacts on wildlife, TEP will conduct construction, drilling, and completion operations outside of the Big Game Winter Range Timing Limitation running from December 1st through April 30th annually as required by BLM and CPW.</p>
2	Pre-Construction	<p>Prior to commencement of construction activities, TEP will hold a pre-construction meeting with contractors to review proposed site construction and installation of stormwater control measures. The site will be staked for construction prior to the pre-construction meeting. Staking will identify the boundaries of the proposed site to protect existing vegetation in areas that should not be disturbed.</p>
3	General Housekeeping	<p>Storage of material and fluids on location during drilling, completion, and production operations will be conducted in a neat and orderly manner and with regards to potential fire hazards on site. All garbage and trash will be stored in enclosed bear proof trash containers and transported to an approved disposal facility. No garbage or trash will be disposed of on location. The well site and access road will be kept free of trash and debris at all time. Disposal of garbage and trash will occur approximately once per week during drilling and completions operations.</p>
4	Wildlife	<p>The PA 31-26 pad location is located within Mule Deer Critical Winter Range. The Big Game Winter Timing Limitation begins December 1st and ends April 30th annually. TEP will not be conducting construction, drilling, or well completion activities during the Big Game Winter Timing Limitation.</p> <p>TEP agrees to report any bear conflicts immediately to CPW. TEP will implement Rule 1204.a.1 by utilizing bear proof dumpsters and trash receptacles for all food related trash. TEP will employ a cheatgrass treatment at the location and reseed the reclaimed portion of the location with a CPW approved, wildlife benefiting seed mix.</p>
5	Storm Water/Erosion Control	<p>Stormwater BMP's will be in place during all phases of development to control stormwater runoff in a manner that minimizes erosion, transportation of sediment offsite, and site degradation. Stormwater BMP's will include perimeter controls such as sediment traps, diversion ditches, check dams, waddles, and others control measures necessary to control stormwater run-on and run-off and minimized offsite movement of sediment. Stormwater BMP's will also include site degradation control measures such as grading, slope stabilization methods (i.e. seeding, mulching, surface roughening), perimeter berms, surfacing materials (i.e. gravel), and others necessary to minimize site degradation. Stormwater controls will be installed with consideration given to worker safety, wildlife, and site access. A post-construction stormwater program will be developed for the facility as required per Rule 1002.f.(3). Stormwater is also addressed under a field-wide Stormwater Management Plan (CDPHE Certification COR404622). See the construction layout or stormwater BMP exhibits for the planned stormwater BMP's proposed for installation at the site for further details.</p>

6	Dust control	Fugitive dust control measures will be employed during all phase of development to minimize dust pollution. Dust control measures include but are not limited to the application of fresh water via water truck along access road during construction, drilling, and completion operations, speed restrictions, periodic road maintenance, road surfacing (i.e. gravel), and automation of wells to reduce truck traffic. Dust control measures will be employed on an as needed based during all phases of development.
7	Construction	<p>All construction equipment and materials will be contained within the proposed limits of the oil and gas location, access roads, or pipeline corridors. Hydro-axe equipment will be used to clear woody vegetation and trees within the staked and/or flagged pad, road, and pipeline construction limits unless otherwise directed by surface owner. Topsoil will be stripped from the site and segregated from subsoil for reuse during pad reclamation. Fugitive dust control measures implemented as described in the dust control section of this document.</p> <p>A gate will be installed at the intersection with the BLM property boundary to prevent unauthorized access to rights-of-way or utility corridors following completion of construction activities. Other methods, such as placement of rock boulders, may be used to prohibit vehicle access where needed along utility corridors.</p>
8	Emissions mitigation	Dual fuel generators will be utilized during drilling operations to minimize air emission associated with the use of diesel fuel. Green completion practices will be employed to reduce emissions of gas and condensate vapor using separators, tanks, sand traps, and other facilities used during completions operations to minimize emissions.
9	Odor mitigation	To minimize odors during the flowback phase of well completion operations, all fluids will be ran through high pressure separation and low pressure separation before being sent to sealed top flowback tanks. The sealed top flowback tank vents will be manifolded and piped to a combustion unit to incinerate all odor causing vapors. Emergency relief valves (ERV's) on the sealed flowback tanks will be piped to an additional sealed tank. All water flowing into the sealed top flowback tanks will be pumped off site to produced water storage facilities.
10	Drilling/Completion Operations	Closed loop drilling system will be utilized during drilling of all wells at this location. TEP will utilized remote centralized hydraulic fracturing operations during well completion operations. TEP will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completions operations.
11	Interim Reclamation	<p>Onsite production facilities will be minimized on this oil and gas location through installation of water and condensate pipeline to transport fluids to the centralized fluid storage facility on the PA 22-25 pad. This method will be employed to minimize long-term operational activities on the oil and gas location, reduce truck traffic to the location, and minimize the overall disturbance of the location. Facilities will be painted a Shadow Gray color to blend in with the surrounding environment. Remote telemetry equipment will be installed on location to minimize site visits and truck traffic. Exclusionary devices will be installed to prevent bird and other wildlife from accessing equipment stacks, vents, and openings. The proposed gate along the access road to the oil and gas location will remain locked to prevent unauthorized access to the site.</p> <p>Certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife will be used. TEP will use certified, weed free grass hay, straw, hay or other mulch materials used for the reseeding and reclamation of disturbed areas. Soil amendments may be added to topsoil during reclamation actives to promote vegetation growth.</p>

Total: 11 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401571357	NRCS MAP UNIT DESC
401571358	NRCS MAP UNIT DESC
401571359	NRCS MAP UNIT DESC
401734832	LOCATION PICTURES
401871264	SENSITIVE AREA DATA
401871268	REFERENCE AREA PICTURES
401871271	ACCESS ROAD MAP
401871277	HYDROLOGY MAP
401871284	MULTI-WELL PLAN
401871285	REFERENCE AREA MAP
401896989	FACILITY LAYOUT DRAWING
402038554	PROPOSED BMPS
402051576	CORRESPONDENCE
402053107	OTHER
402057409	OTHER
402079371	CONST. LAYOUT DRAWINGS
402079388	LOCATION DRAWING

Total Attach: 17 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

No public comments were received on this application during the comment period.

