

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:

401671641

Date Received:

06/20/2018

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:

**456106**

Expiration Date:

**07/21/2021**

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: 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: DOE 1-M-18 Cuttings

Number: Management Area

County: GARFIELD

Quarter: LOT 5    Section: 17    Township: 6S    Range: 94W    Meridian: 6    Ground Elevation: 5836

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: 2649 feet FNL from North or South section line

60 feet FWL from East or West section line

Latitude: 39.525160    Longitude: -107.921099

PDOP Reading: 1.9    Date of Measurement: 01/18/2018

Instrument Operator's Name: CODY RICH

## 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 #**  
Production Facilities Location serves Well(s)                      335744                      401655680

## FACILITIES

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

Wells _____	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\*

<u>Other Facility Type</u>	<u>Number</u>
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<input type="text"/>	<input type="text"/>
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\*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:

## CONSTRUCTION

Date planned to commence construction: 08/01/2018                      Size of disturbed area during construction in acres: 1.69  
Estimated date that interim reclamation will begin: 09/01/2019                      Size of location after interim reclamation in acres: 1.69  
Estimated post-construction ground elevation: 5837

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: \_\_\_\_\_  
Is H<sub>2</sub>S anticipated? \_\_\_\_\_  
Will salt sections be encountered during drilling: \_\_\_\_\_  
Will salt based mud (>15,000 ppm Cl) be used? \_\_\_\_\_  
Will oil based drilling fluids be used? \_\_\_\_\_

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: \_\_\_\_\_                      Drilling Fluids Disposal Method: \_\_\_\_\_  
Cutting Disposal: ONSITE                      Cuttings Disposal Method: Other

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: No

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.

	<b>From WELL</b>	<b>From PRODUCTION FACILITY</b>
Building:	_____ Feet	_____ Feet
Building Unit:	_____ Feet	_____ Feet
High Occupancy Building Unit:	_____ Feet	_____ Feet
Designated Outside Activity Area:	_____ Feet	_____ Feet
Public Road:	_____ Feet	_____ Feet
Above Ground Utility:	_____ Feet	_____ Feet
Railroad:	_____ Feet	_____ Feet
Property Line:	_____ Feet	_____ 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: \_\_\_\_\_

**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: 35—Ildefonso-Lazear complex, 6 to 65 percent slopes
- NRCS Map Unit Name: \_\_\_\_\_

**PLANT COMMUNITY:**

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No

Plant species from:  NRCS or,  field observation Date of observation: \_\_\_\_\_

List individual species:

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): \_\_\_\_\_

**WATER RESOURCES**

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 199 Feet

water well: 4533 Feet

Estimated depth to ground water at Oil and Gas Location 100 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 03/19/2018

## 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

TEP Rocky Mountain LLC requests approval to manage drill cuttings produced from the DOE 1-M-18 pad (COGCC Location ID 335744, Amended Form 2A Doc #401655680) at the DOE 1-M-18 Cuttings Management Area.

Drilling activities will commence at the DOE 1-M-18 well pad in March 2019, where 15 new wells are planned to be drilled. Due to the size and physical constraints / limitations of the proposed DOE 1-M-18 well pad, there will be no permanent disposal of drill cuttings on the well pad itself. The drill cuttings from these new wells will need to be transported to, and managed in separate off-site drill cuttings management areas. The primary drill cuttings management area for the drill cuttings will be located approximately 0.5 miles south of the actual DOE 1-M-18 well pad at the DOE 1-M-18 Cuttings Management Area. This primary cuttings management area will accommodate approximately 4000 cubic yards of cuttings. However, the total volume of drill cuttings expected to be produced from these 15 new wells is expected to be between 8000 – 9000 cubic yards; therefore a secondary cuttings management area will be needed, and is proposed to be constructed at the RWF 44-18 well pad (COGCC Location ID 335146, Form 4 Doc #401674816), which is located approximately 1.25 miles from the DOE 1-M-18 well pad (and 0.75 miles below the primary cuttings management area).

Primary Cuttings Management Area: Due to size and physical constraints of the DOE 1-M-18 well pad, drill cuttings will be hauled by truck to the newly constructed DOE 1-M-18 Cuttings Management Area located immediately adjacent to the off-site DOE 1-M-18 production pad. Drill cuttings will be hauled to this primary cuttings management area first, until that facility has reached its full design capacity (+/- 4000 cubic yards). After the design capacity for the primary cuttings management area has been reached, drill cuttings will then be transported by truck to the secondary cuttings management area to be constructed at the RWF 44-18 well pad. Topsoil will be stripped from the proposed from the primary cuttings management area and will be stockpiled along the south side of the pad. Storm water BMPs will be installed around the perimeter of the cuttings management area to protect against storm water run-on/run-off.

Comments are continued on the attached project summary.

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

Signed: \_\_\_\_\_ Date: 06/20/2018 Email: vschoeber@terraep.com

Print Name: Vicki Schoeber Title: Regulatory Specialist

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 7/22/2018

## 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 COAs will apply:</p> <p>COA 91 - In addition to the notifications required by COGCC listed in the Northwest Notification Policy (Notice of Intent to Construct a New Location) and Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to start of transport of cuttings to this cuttings management area location and placement activities using Form 42 (the appropriate COGCC individuals will automatically be email notified).</p> <p>COA 92 - In order to meet future drilling needs and the operator's plan of development, this cuttings management area location can be used for three (3) additional years. The 3-year extension will not include periods of inactivity when the facility is dormant, or not actively being used.</p>
	<p>Construction: The following COAs will apply:</p> <p>COA 23 - Operator must ensure containment at cuttings trench site during operations; 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 stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.</p> <p>COA 44 - The access road will be constructed and maintained as to not allow sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.</p> <p>COA 76 - Strategically apply fugitive dust control measures to reduce fugitive dust and coating of vegetation and deposition in water sources. Operator shall employ practices for control of fugitive dust caused by other operations, including, but not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers may be used.</p> <p>COA 24 - The location is in an area of moderate to high run-on/run-off potential; therefore standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater run-off.</p> <p>COA 48 - Operator shall submit a scaled as-built drawing (plan and cross-sectional views) of this oil and gas location (showing all trenches, containment features, and stormwater features) within 60 calendar days of conclusion of cuttings placement at the facility and prior to reclamation.</p>

Material Handling and Spill Prevention: The following COAs will apply:  
 COA 11 - The moisture content of water/bentonite based mud (WBM) generated drill cuttings managed at this location 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, the WBM drill cuttings that will be disposed of at this location or another oil and gas location (TEP's existing RWF 44-18 pad [COGCC Location ID 335146, Form 4 Doc #401674816]) 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 in a cuttings pit, trench, or pile at this Cuttings Management Area, 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 (TEP's existing RWF 44-18 pad [COGCC Location ID 335146, Form 4 Doc #401674816]) shall occur without prior approval of a Form 4 Sundry Notice specifying disposal location and waste characterization method. Commercial disposal of drill cuttings will also require notification to COGCC via a Form 4 Sundry Notice.  
 COA 68 - All materials brought to this location that exceed the requirements in Table 910-1 will be placed in an area of the site that is completely segregated from materials that meet the requirements in Table 910-1. This area must be lined and bermed and appropriate BMPs need to be in place during the entire operational lifetime (no more than three years from date of start of construction. Sufficient stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater runoff and /or stormwater runoff.  
 COA 47 - The area where cuttings that exceed the requirements of Table 910-1 will be stored/treated/amended must be constructed to be sufficiently impervious to contain any spill or release of material or any accumulations of fluids.  
 COA 38 - The moisture content of any drill cuttings placed in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

### Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	<ul style="list-style-type: none"> <li>- Combine and share roads to minimize habitat loss/fragmentation</li> <li>- Avoid new surface disturbance and placing new facilities in key wildlife habitats in consultation with CDOW.</li> <li>- Minimize the number, length, and footprint of oil and gas development roads</li> <li>- Use existing roads where possible</li> <li>- Combine utility infrastructure (gas, electric, and water) planning with roadway planning to avoid separate utility corridors</li> <li>- Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development</li> <li>- Design roads with visual and auditory buffers or screens (e.g., topographic barriers, vegetation, and distance).</li> </ul>
2	Interim Reclamation	<ul style="list-style-type: none"> <li>- Utilize staked soil retention blankets for erosion control and reclamation of large surface areas with 1.5:1 or steeper slopes. Avoid use of plastic blanket materials.</li> <li>- Use only certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife</li> <li>- TEP will use certified, weed free grass hay, straw, hay or other mulch materials used for the reseeding and reclamation of disturbed areas.</li> </ul>
3	CPW-Wildlife - Avoidance-Black Bear	The operator agrees to report bear conflicts immediately to CPW staff.
4	CPW-Wildlife - Minimization-Deer and Elk	The operator agrees to preclude the use of aggressive CPW-identified non-native grasses and shrubs in mule deer and elk habitat restoration.
5	CPW-Wildlife - Minimization-Black Bear	The operator will implement Rule 1204.a.1 (also see General Operating Recommendations).

Total: 5 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401671641	FORM 2A SUBMITTED
401675454	NRCS MAP UNIT DESC
401675456	NRCS MAP UNIT DESC
401675458	LOCATION PICTURES
401675460	SENSITIVE AREA DATA
401675461	REFERENCE AREA PICTURES
401675462	FACILITY LAYOUT DRAWING
401675463	LOCATION DRAWING
401675464	REFERENCE AREA MAP
401675466	HYDROLOGY MAP
401675467	CONST. LAYOUT DRAWINGS
401675468	ACCESS ROAD MAP
401677489	OTHER
401679806	WASTE MANAGEMENT PLAN

Total Attach: 14 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Final review complete.	07/20/2018
Permit	Preliminary review complete.	07/09/2018
LGD	Pass KHW	07/02/2018
OGLA	<p>03/19/2018 - location does fall within 'sensitive wildlife habitat' (SWH) areas, therefore a CPW Wildlife Consult is required; the location was onsite by CPW, BLM, COGCC, and operator; although there are no BMPs being recommended by CPW in addition to the COAs that BLM will be implementing, CPW is involved in ongoing negotiations with BLM and the operator regarding wildlife mitigation projects to offset impacts to mule deer winter range;</p> <p>06/29/2018 - initiated / completed OGLA Form 2A review by Dave Kubeczko, placed notification, containment, construction stormwater / erosion control BMPs, sediment and dust control on access road and pad, lined/bermed cuttings treatment areas for cuttings above table 910-1 levels, cuttings low moisture, cuttings trench 3-year timeframe (does not include times of non-use) and final as-built drawing at conclusion of cuttings placement at the facility, prior to reclamation COAs on Form 2A;</p> <p>07/18/2018 - passed OGLA Form 2A review by Dave Kubeczko with notification, containment, construction stormwater / erosion control BMPs, sediment and dust control on access road and pad, lined/bermed cuttings treatment areas for cuttings above table 910-1 levels, cuttings low moisture, cuttings trench 3-year timeframe (does not include times of non-use) and final as-built drawing at conclusion of cuttings placement at the facility, prior to reclamation COAs.</p>	06/29/2018
DOW	<p>This cuttings management area is located directly adjacent to an existing access road. CPW attended an onsite visit of this location on March 19, 2018 with the operator and the Bureau of Land Management. This location will be a cuttings storage area for the DOE 1-M-18 Pad. The lease stipulations and conditions of approval being applied by the BLM are sufficient to address wildlife concerns associated with the proposed action. There are no additional BMPs being recommended at this time.</p> <p>Taylor Elm, June 28, 2018, 13:14</p>	06/28/2018
Permit	Passed Completeness.	06/27/2018

Total: 6 comment(s)