

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



Document Number:

401189822

(SUBMITTED)

Date Received:

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 334816

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:

**334816**

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

RECLAMATION FINANCIAL ASSURANCE

- ☐ Plugging and Abandonment Bond Surety ID: \_\_\_\_\_ ☐ Gas Facility Surety ID: \_\_\_\_\_
- ☐ Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: MV Number: 34-5  
County: GARFIELD  
Quarter: LOT 7 Section: 5 Township: 7S Range: 96W Meridian: 6 Ground Elevation: 5977  
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: 715 feet FSL from North or South section line  
916 feet FEL from East or West section line  
Latitude: 39.460994 Longitude: -108.125589  
PDOP Reading: 1.3 Date of Measurement: 05/08/2013  
Instrument Operator's Name: BRIAN BAKER

## 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 #**

Well Site is served by Production Facilities

429510

401216271

## FACILITIES

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

Wells	23	Oil Tanks*		Condensate Tanks*	3	Water Tanks*		Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	24	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*	1	Flare*		Pigging Station*	

## OTHER FACILITIES\*

**Other Facility Type**

**Number**

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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:

1 - 10" gas (approx. 390') and 4" waterline (approx. 377') will be buried in access road to main road where they will tie into existing infrastructure.  
3 - 4.5" temporary surface steel frac lines to run between the MV 34-5 pad and Riley Gulch Frac Pad following the existing access road and existing surface pipelines  
1 - 4" surface VOC pipeline  
1 - 2' dump line  
23 - 2" steel buried flowlines from the wellheads to the separators

## CONSTRUCTION

Date planned to commence construction: 05/01/2017

Size of disturbed area during construction in acres: 6.23

Estimated date that interim reclamation will begin: 05/01/2018

Size of location after interim reclamation in acres: 1.44

Estimated post-construction ground elevation: 5977

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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: Other

Other Disposal Description:

Cuttings will be managed and stored on surface of pad in a cuttings management area, and worked into the cut slope. Excess cuttings will be hauled to the MV 16-9 pad. See submitted Form 4, Doc# 401238634.

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 Management

Phone: \_\_\_\_\_

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:	5280 Feet	5280 Feet
Building Unit:	5280 Feet	5280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	5280 Feet	5280 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	1569 Feet	1461 Feet

### INSTRUCTIONS:

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

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:

- ☐ Buffer Zone  
☐ Exception Zone  
☐ Urban Mitigation Area

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

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

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

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

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

- ☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- ☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

## SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

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

NRCS Map Unit Name: 62 - Rock outcrop-Torriorthents complex, very steep

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: 09/21/2016

List individual species: Russian Thistle

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: 412 Feet

water well: 26069 Feet

Estimated depth to ground water at Oil and Gas Location 100 Feet

Basis for depth to groundwater and sensitive area determination:

Attached 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 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:

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

## 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 - Minimization	The operator agrees to preclude the use of aggressive CPW-identified non-native grasses and shrubs in mule deer and elk habitat restoration.
4	Deer and Elk	Wildlife - Minimization	The operator agrees to reclaim mule deer and elk habitats with CPW-identified native shrubs, grasses, and forbs appropriate to the ecological site disturbed.

## 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	<p>This is an existing pad with 5 producing wells and 12 approved drilling permits (3 horizontal and 9 directional). This amended Form 2A will include 6 new wells, which will bring the number of directional wells to be drilled to 15. The 3 horizontal wells will be drilled at a later date.</p> <p>Request for relocation of excess drill cuttings from the MV 34-5 pad (OGCC #334816) to the MV 16-9 pad (OGCC 334717) was submitted 3/22/17, Doc # 401238634.</p>
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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 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.

COA Type	Description

## **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Planning	<ul style="list-style-type: none"> <li>* Maximize the utility of surface facilities by developing multiple wells from a single pad (directional drilling), and by collocating multipurpose facilities (for example, well pads and compressors) to avoid unnecessary habitat fragmentation and disturbance of additional geographic areas.</li> <li>* Combine and share roads to minimize habitat loss/fragmentation</li> <li>* Use existing roads where possible</li> <li>* Maximize the use of directional drilling to minimize habitat loss/fragmentation</li> <li>* Maximize use of long-term centralized tank batteries to minimize traffic</li> <li>* Maximize use of remote completion/frac operations to minimize traffic</li> <li>* Maximize use of remote telemetry for well monitoring to minimize traffic</li> </ul>
2	Drilling/Completion Operations	<ul style="list-style-type: none"> <li>* Use centralized hydraulic fracturing operations.</li> <li>* Install and maintain adequate measures to exclude all types of wildlife (e.g., big game, birds, and small rodents) from all fluid pits (e.g., fencing, netting, and other appropriate exclusion measures).</li> <li>* Conduct well completions with drilling operations on Mesa Verde wells to limit the number of rig moves and traffic.</li> </ul>
3	Interim Reclamation	<ul style="list-style-type: none"> <li>* Remove well pad and road surface materials that are incompatible with post-production land use and re-vegetation requirements</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 reseeded and reclamation of disturbed areas.</li> <li>* Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents and openings.</li> </ul> <p>Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors.</p>

Total: 3 comment(s)

## **Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
401230064	NRCS MAP UNIT DESC
401230065	NRCS MAP UNIT DESC
401230066	SENSITIVE AREA DATA
401230067	LOCATION PICTURES
401230070	REFERENCE AREA PICTURES
401230071	REFERENCE AREA PICTURES
401237578	OTHER
401237620	ACCESS ROAD MAP
401237627	CONST. LAYOUT DRAWINGS
401237630	HYDROLOGY MAP
401237632	LOCATION DRAWING
401237634	MULTI-WELL PLAN
401237637	REFERENCE AREA MAP
401238663	FACILITY LAYOUT DRAWING

Total Attach: 14 Files

## **General Comments**

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

Total: 0 comment(s)

## **Public Comments**

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

