

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:

401367749

Date Received:

08/11/2017

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:

452297

Expiration Date:

09/23/2020

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: 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: PA

Number: 23-26 Tank Pad

County: GARFIELD

Quarter: NESW Section: 26 Township: 6S Range: 95W Meridian: 6 Ground Elevation: 5599

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: 1478 feet FSL from North or South section line

2001 feet FWL from East or West section line

Latitude: 39.492565 Longitude: -107.968353

PDOP Reading: 2.1 Date of Measurement: 10/24/2012

Instrument Operator's Name: J. KIRKPATRICK

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 #
	<u>335232</u>	
Production Facilities Location serves Well(s)	<u>335330</u>	<u>401336812</u>

FACILITIES

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

Wells _____	Oil Tanks* _____	Condensate Tanks* _____	2	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* _____	1	Flare* _____	Pigging Station* _____

OTHER FACILITIES*

<u>Other Facility Type</u>	<u>Number</u>
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80 bbl water drain tank	1
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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:

Two 2" flexpipe condensate / produced water lines (approx. 511') will be installed from the PA 23-26 pad units to the proposed PA 23-26 Tank Pad. Pipelines will be installed in the same trench with the proposed gas and water pipelines planned for the PA 23-26 Pad.

CONSTRUCTION

Date planned to commence construction: 09/25/2017 Size of disturbed area during construction in acres: 0.24
Estimated date that interim reclamation will begin: 09/25/2018 Size of location after interim reclamation in acres: 0.24
Estimated post-construction ground elevation: 5598

DRILLING PROGRAM

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

Is H₂S 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? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: _____ Drilling Fluids Disposal Method: _____

Cutting Disposal: _____ Cuttings Disposal Method: _____

Other Disposal Description:

This application is for a tank pad only.

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): Tank Pad

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:	_____ Feet	3702 Feet
Building Unit:	_____ Feet	3702 Feet
High Occupancy Building Unit:	_____ Feet	5280 Feet
Designated Outside Activity Area:	_____ Feet	5280 Feet
Public Road:	_____ Feet	3032 Feet
Above Ground Utility:	_____ Feet	2926 Feet
Railroad:	_____ Feet	3527 Feet
Property Line:	_____ Feet	133 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: 57. Potts-Ildefonso complex, 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: 09/09/2016

List individual species: Halogeton, Bull Thistle, 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, Chokeycherry)
- 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: 220 Feet

water well: 55 Feet

Estimated depth to ground water at Oil and Gas Location 37 Feet

Basis for depth to groundwater and sensitive area determination:

Sensitive Area Determination Map

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 06/20/2017

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 tank pad will be used to store condensate produced from the wells on the PA 23-26 pad (Doc #401336812), and the DOE 1-W-26 pad (OGCC #335232).

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

Signed: _____ Date: 08/11/2017 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: 9/24/2017

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

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 onsite pipeline testing (pipelines from the nearby well pad to onsite storage tanks) 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>Operator must ensure secondary containment for any volume of fluids contained at the tank site during production 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 fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water.</p> <p>The access road will be 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>Strategically apply fugitive dust control measures 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 [or equivalent] with an impervious liner) to contain any spilled or released material around permanent condensate and produced water storage tanks.</p> <p>Since condensate storage tanks are planned to be constructed on location, operator shall submit a scaled as-built drawing (plan view with distances) of this oil and gas location (showing onsite flowlines, offsite pipelines, and production facilities [storage tanks, etc.]) and the nearby well pad location from which the condensate and/or produced water will be sent from via underground pipelines (showing wellheads, onsite flowlines, offsite pipelines, and other production facilities [separators, blowdown tank, etc]) within 30 calendar days of construction of the production equipment on either or both locations.</p>
	<p>Potential odors associated with long term production operations must be controlled/mitigated.</p>

The following COAs will apply to this Form 2A Permit if any temporary surface (COAs 1, 2, 3, and 4) or buried permanent (COA 1) onsite pipelines and/or offsite pipelines (poly or steel) are used during operations at this storage tank location:

COA 1 - Operator shall pressure test pipelines (pipelines from offsite separators to tanks, and take away gas and produced water pipelines) 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 pipelines can be managed under an approved COGCC variance.

COA 2 - Operator must routinely inspect the entire length of the surface pipeline to ensure integrity. Operator shall conduct daily inspections of surface poly pipeline routes for leaks during active transfer of fluids and implement best management practices to contain any unintentional release of fluids along all portions of the surface pipeline route where temporary pumps and other necessary equipment are located. Inspections shall be conducted by viewing the length of the pipeline; operator will endeavor to minimize surface disturbance during pipeline monitoring. In addition, pump stations along the surface poly or steel pipeline route will be continuously monitored when operating in order to swiftly respond to such a failure.

COA 3 - Operator will implement BMPs necessary to mitigate a potential for a release of fluids to impact streams, intermittent streams, ditches, and drainage crossings. For these crossings: if poly pipe is used on the surface, operator will ensure appropriate containment by either installing over-sized pipe "sleeves" which extend the length of the crossing and beyond to a distance deemed adequate to capture (catchment basins) and/or divert any possible release of fluids and prevent fluids from reaching the stream or drainage; installing over-sized pipe "sleeves" which extend the length of the crossing and installing shut off valves on either side of crossing instead of catchment basins; or develop an alternative means for containment. For all other pipeline materials, operator will implement BMPs necessary to mitigate a potential for E&P fluids not to reach groundwater or flowing surface water.

COA 4 - Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the temporary surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>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.</p> <p>Combine and share roads to minimize habitat loss/fragmentation</p> <p>Use existing roads where possible</p> <p>Combine utility infrastructure (gas, electric, and water) planning with roadway planning to avoid separate utility corridors</p> <p>Combine and share roads to minimize habitat fragmentation</p> <p>Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development</p> <p>Maximize the use of directional drilling to minimize habitat loss/fragmentation</p> <p>Maximize use of long-term centralized tank batteries to minimize traffic</p> <p>Maximize use of remote telemetry for well monitoring to minimize traffic</p> <p>Phase and concentrate development activities, so that large areas of undisturbed habitat for wildlife remain.</p> <p>Maintain undeveloped areas within development boundaries sufficient to allow wildlife to persist within development boundaries during all phases of construction, drilling, and production.</p> <p>Minimize the duration of development and avoid repeated or chronic disturbance of developed areas. Complete all anticipated drilling within a phased, concentrated, development area during a single, uninterrupted time period.</p>
2	Drilling/Completion Operations	<p>Use centralized hydraulic fracturing operations.</p> <p>Conduct well completions with drilling operations to limit the number of rig moves and traffic.</p> <p>TEP will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completions operations.</p> <p>TEP will implement best management practices to contain any unintentional release of fluids.</p>
3	Interim Reclamation	<p>Use centralized hydraulic fracturing operations.</p> <p>Conduct well completions with drilling operations to limit the number of rig moves and traffic.</p> <p>TEP will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completions operations.</p> <p>TEP will implement best management practices to contain any unintentional release of fluids.</p>
4	CPW-Wildlife - Mitigation-Deer and Elk	Operator agrees to treating cheatgrass and reseeding area with CPW approved, wildlife benefiting seed mix.
5	CPW-Wildlife - Minimization-Black Bear	The operator will implement Rule 1204.a.1 (also see General Operating Recommendations).

6	CPW-Wildlife - Avoidance- Black Bear	The operator agrees to report bear conflicts immediately to CPW staff.
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Total: 6 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2108215	NRCS MAP UNIT DESC
2108220	CORRESPONDENCE
401367749	FORM 2A SUBMITTED
401371052	ACCESS ROAD MAP
401371053	CONST. LAYOUT DRAWINGS
401371055	HYDROLOGY MAP
401371056	LOCATION DRAWING
401371057	REFERENCE AREA MAP
401371204	NRCS MAP UNIT DESC
401371210	SENSITIVE AREA DATA
401371213	LOCATION PICTURES
401371214	REFERENCE AREA PICTURES
401371216	OTHER

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	09/21/2017
OGLA	09/09/16 - location onsite by COGCC, CPW, BLM, and operator; 08/23/17 - passed by CPW with operator submitted wildlife BMPs, BLM wildlife stipulations and COAs, and operator / BLM / CPW mitigation project (to be determined) being acceptable; 09/08/17 - Initiated / Completed OGLA Form 2A review by Dave Kubeczko; 09/08/17 - sent email to operator indicating that the following COAs will be placed on the Form 2A - notification, fluid containment and spill/release BMPs, tank berming, as-built, sediment and dust control access road, odor control, temporary pipeline placement/inspection/containment, and pipeline testing; 09/08/17 - due to proximity of the tank pad to downgradient surface water (intermittent drainage located 220' to the east-southeast), proximity to a water well (55'), and the potential for shallow groundwater (37' below ground surface), as well as COGCC's review of COGCC's 2015 Aerial Photo Layer, Topo Map layer, and Hydrology Map attachment), COGCC has revised the distance to nearest surface water feature from 3209' to 220' and designated this location a "sensitive area"; 09/08/17 - passed OGLA Form 2A review by Dave Kubeczko with notification, fluid containment and spill/release BMPs, tank berming, as-built, sediment and dust control access road, odor control, temporary pipeline placement/inspection/containment, and pipeline testing COAs.	09/08/2017
DOW	This location is within the BLM Balzac Gulch Master Development Plan Phase I. The operator is working with CPW and BLM on compensatory mitigation to satisfy lease requirements for year-round construction, drilling, and completions. BLMs conditions of approval are adequate to satisfy remaining wildlife concerns associated with the proposed action. Taylor Elm, 8:56 a.m., August 23, 2017	08/23/2017
Permit	Form passes completeness.	08/17/2017

Total: 4 comment(s)