

FORM  
2A

Rev  
02/20

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:

402001325

Date Received:

04/24/2019

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 <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

**473149**

Expiration Date:

**03/10/2023**

☒ 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: 10311

Name: SRC ENERGY INC

Address: 1675 BROADWAY SUITE 2600

City: DENVER State: CO Zip: 80202

Contact Information

Name: Venessa Chase

Phone: (303) 318-6102

Fax: (720) 616.4301

email: venessa.chase@pdce.com

FINANCIAL ASSURANCE

- ☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20160047 ☐ Gas Facility Surety ID (Rule 711): \_\_\_\_\_
- ☐ Waste Management Surety ID (Rule 704): \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Ridge State

Number: 33-17 Pad

County: WELD

QuarterQuarter: SWSW Section: 17 Township: 5N Range: 66W Meridian: 6 Ground Elevation: 4963

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: 843 feet FSL from North or South section line

694 feet FWL from East or West section line

Latitude: 40.394563 Longitude: -104.810719

GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP

Date of Measurement: 06/06/2018

Instrument Operator's Name: Aaron Rivera

LOCAL GOVERNMENT INFORMATION

County: WELD

Municipality: Greeley

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: Municipality

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition 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: USR

The local government siting permit was filed on: 08/15/2018

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

Additional explanation of local process:

City of Greeley USR was approved on 4/23/19.

## RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is: LOCATION ID # FORM 2A DOC #



## FACILITIES

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

Wells	<u>32</u>	Oil Tanks*	<u>6</u>	Condensate Tanks*	<u>      </u>	Water Tanks*	<u>2</u>	Buried Produced Water Vaults*	<u>      </u>
Drilling Pits	<u>      </u>	Production Pits*	<u>      </u>	Special Purpose Pits	<u>      </u>	Multi-Well Pits*	<u>      </u>	Modular Large Volume Tanks	<u>1</u>
Pump Jacks	<u>      </u>	Separators*	<u>32</u>	Injection Pumps*	<u>      </u>	Cavity Pumps*	<u>      </u>	Gas Compressors*	<u>      </u>
Gas or Diesel Motors*	<u>      </u>	Electric Motors	<u>      </u>	Electric Generators*	<u>2</u>	Fuel Tanks*	<u>      </u>	LACT Unit*	<u>4</u>
Dehydrator Units*	<u>      </u>	Vapor Recovery Unit*	<u>6</u>	VOC Combustor*	<u>5</u>	Flare*	<u>      </u>	Pigging Station*	<u>      </u>

## OTHER FACILITIES\*

Other Facility Type	Number
MeOH	1
Gas Buster	3
Two Phase Separators	6
Instrument Air Building	2
Chiller	1
NGL Tanks	3
Inlet	1
Gas Lift Compressor	2
2nd Stage	1
Electrical Rack	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:

1 inch, 2 inch, 3 inch, schedule 40/80/160 bare and fusion bonded epoxy, threaded and welded. water, oil, gas.  
4, 6, 8 inch schedule 40/80 bare and fusion bonded epoxy, welded, water, oil, gas.  
2, 4, and 6 inch stainless steel, schedule 40, water  
6 inch, 8 inch, 10 inch schedule 40 welded, oil and combustion vapors.  
Flowlines 3, 4, 6, 8" fusion bonded epoxy and welded scheduled 10/40/80/160 steel.

## CONSTRUCTION

Date planned to commence construction: 05/31/2020 Size of disturbed area during construction in acres: 21.88  
Estimated date that interim reclamation will begin: 05/01/2021 Size of location after interim reclamation in acres: 6.85  
Estimated post-construction ground elevation: 4963

## 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? Yes

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

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: SRC Energy, Inc.

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

Address: 1675 Broadway Suite 2600

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Denver State: CO Zip: 80202

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: applicant is owner

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation 11/17/2016

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s): \_\_\_\_\_

## 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:	543 Feet	828 Feet
Building Unit:	685 Feet	969 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	340 Feet	209 Feet
Above Ground Utility:	375 Feet	242 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	211 Feet	143 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: 02/21/2019

## 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.

The location of this site as depicted in the Location Drawing has been designed to minimize the impact to existing, as well as future development. The placement of the Multi-Well Production Facility was designed in an effort to provide optimal screening from both 83rd avenue and Highway 34. In addition, the location for siting the multi-well Production Facility as described provides easy access, consolidated surface impact and the least amount of disturbance to surrounding areas.

## 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: 77: Vona sandy loam, 3 to 5 percent slopes

NRCS Map Unit Name: 74: Vona loamy sand, 5 to 9 percent slopes

NRCS Map Unit Name: 70: Valent sand, 3 to 9 percent slopes

## 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: 07/26/2018 .

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: 218 Feet

water well: 391 Feet

Estimated depth to ground water at Oil and Gas Location 31 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest water wells:

Water Permit receipt 0905511, 441 feet

Water Permit receipt 0492678, 391 feet is the nearest water well, but this water well does not have estimated depth to ground water at Oil and Gas location listed. Since this water well did not have estimated depth to ground water, SRC is listing Permit 796 WCB that is 3664 feet to the NW which has ground water/static water level at 31 feet.

Water Permit receipt 0912421, 816 feet

Nearest concrete ditch, 218 feet

Boomerang Ditch, 727 feet

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 318A

## WILDLIFE

☐ This location is included in a Wildlife Mitigation Plan

☐ This location was subject to a pre-consultation meeting with CPW held on \_\_\_\_\_

## 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 All traffic plans are approved per our access permit, part of the access permitting process. Operator anticipates pipeline to this location and all future locations to eliminate trucks on road. Our access permit to location is our notification to Weld County, the city of Greeley, or additional municipality if necessary for approved traffic routes, and traffic control.

Please note we notified all BU's & LGD on 2.5.2019 but we had one BU not receive their certified mailer so we hand delivered and included the photo in our pre-application notice certification for COGCC records which that date was on 2.21.2019, for the last BU to get a formal hand delivery. This is why Operator noted 2.21.2019 as the date Buffer notices went out.

SRC is the owner of the subject property. SRC plans to install security fencing as well as landscaping, in compliance with City of Greeley's Use By Special Review.

The City of Greeley unanimously approved the Ridge Pad USR this afternoon, April 23, 2019. SRC held a neighborhood meeting for this location on December 12, 2018 to provide information to surrounding landowners regarding SRC's plans to develop the Ridge Pad.

There are new items in our Facility List that SRC is adding for our NGL equipment, and describing what the items are and what they are used for:

1. MeOH : NGL Processing equipment
2. Inlet : Header for gas processing
3. Electrical Rack : Electrical hub for NGL skid, houses all fuses and main disconnect to power all Equipment.
4. 2nd Stage : NGL processing equipment, compressing gas
5. Chiller, NGL processing equipment, cools gas stream.

The reference well for this pad is Ridge State 38N-16C-M.

SRC will comply with all MLVT policies and requirements for this pad. For the MLVT, we will plan on 140 days on location.  
42,000 bbl capacity  
12' high x 160' diameter  
Manufacturer is unknown at this time. Potential: PCI Manufacturing, Pinnacle, Southern Frac, or Big Holdings.  
SRC will comply with all MLVT policies and requirements for this pad.


SRC is the surface owner, and we agreed to waive Exception and Twinning 318A.a. and 318A.c.

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

Signed: \_\_\_\_\_ Date: 04/24/2019 Email: venessa.chase@pdce.com

Print Name: Venessa Chase Title: Permitting Supervisor

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: 3/11/2020

## 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.



<b>COA Type</b>	<b>Description</b>
Emissions mitigation	Operator shall not begin well drilling operations on the location until a site specific Air Monitoring Plan has been submitted to the COGCC and approved by the Director.
Construction	Due to possible shallow groundwater, the operator shall line the secondary containment areas for the tanks and separators with an impervious material.
Planning	Operator shall post a copy of the approved Form 2A on the location during all construction, drilling, and well completion activities.

### **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Planning	604.c(2)M. Fencing: SRC will be fencing the wellheads associated with the Ridge State 33-17 well pad, as well as the production facility.
2	Planning	804. Visual Impacts: All long term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public. Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately. SRC has an approved Landscaping plan per City of Greeley's Use by Special Review process in which SRC shall abide by. This plan includes earth and berm work around both the wellheads and production facility, as well as numerous plantings to provide additional screening of the site.
3	Planning	604.c.(2)N. Control of fire hazards: All material that is considered a fire hazard shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with API IRP 500 and will comply with the current national electrical code. 606A.d. Flammable liquids shall not be stored within fifty (50) feet of the wellbore, except for the fuel in the tanks of operating equipment or supply for injection pumps. Where terrain and location configuration do not permit maintaining this distance, equivalent safety measures should be taken.
4	Planning	Operator will start construction on this location by end of May, 2020. Additionally, the wells will spud by end of July, 2020.
5	Planning	803 Light sources during all phases of operations will have appropriate shields, and be directed downwards and away from occupied structures where possible. Once the drilling and completion rigs leave the site, lighting usually exists on the entrance/exit doors to the LACT units and Instrument Air skids, all for safety.
6	Traffic control	604.c.(2)S. Access Roads: The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times. Traffic will be routed to minimize local interruption. Dust control measures will also be utilized, including the use of Magnesium Chloride to control dust.
7	Traffic control	RULE 604.c.(2)D: The traffic route for the Ridge State 33-17 location will be primarily North and South on 83rd avenue, with moderate use of HWY 34. This route has been approved by City of Greeley. Per the USR associated with the Ridge State 33-17 well pad, SRC Energy has agreed to make shoulder improvements at 83rd avenue and HWY 34 to improve the turning radius. Additionally, SRC has entered into a Roadway Maintenance Agreement with the City of Greeley to address any necessary repairs needed to 83rd avenue.
8	General Housekeeping	604.c.(2)P. Trash Removal: All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.
9	General Housekeeping	Dust for sandboxes:  Silica dust suppression practices are controlled using Halliburton's sand transportation boxes that are placed on a specialty frame that allows sand to gravity feed directly into mixing tanks thus mitigating airborne silica dust.

10	General Housekeeping	<p>Lights:</p> <p>To minimize impacts from lighting used during the drilling phase, all lights will be pointed in a downward position to limit impacts to neighboring houses. If lights are installed on sound walls, they are placed a minimum of 3' from the top of the wall. Lighting will be assessed once installed to ensure all neighbor houses/business are free from impacts of light. Light plants are placed strategically to ensure there is no direct lighting to the surrounding neighbors.</p> <p>Rig Mast Light only provides enough lighting to ensure the safety of the working environment for personnel on the night shift. Mast lighting will not cause a direct lighting effect on neighboring housing.</p> <p>The mast lights are attached with fixed mounts and cannot be re-aimed and cannot be dimmed for safety reasons. Drilling does not use the sound wall lights as operator has the portable light towers kept as low as possible height wise and pointed specifically at the operation that requires more light at night. When not needed they will not be used to keep the light pollution to a minimum.</p>
11	Material Handling and Spill Prevention	604.c.(2)F. Leak Detention Plan: Pumper will visit the location daily and visually inspect all tanks and fittings for leaks. Additionally, monthly documented SPCCP inspections are conducted pursuant to 40 CFR 112.
12	Material Handling and Spill Prevention	604.c.(2)R Tank Specifications: Tanks will be designed, constructed and maintained in accordance with NFPA Code 30. The tanks are visually inspected once a day for issues, and recorded inspections are conducted once a month.
13	Material Handling and Spill Prevention	Full automation of the facility allows for remote monitoring of production operations. The automation system will notify the operator in the event the production facility is not operating under normal conditions, and automatically shut in wells if certain operating conditions are outside set limits. If necessary, the location can also be manually shut down from a remote location.
14	Construction	604.c.(3)B. Berm Construction. Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material. Tertiary containment, such as an earthen berm, will be installed around production facilities.
15	Construction	604.c.(2).Q. All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.
16	Construction	604.c.(2).E. This will be a multi-well pad.
17	Noise mitigation	604.c.(2)A. 32 foot tall sound walls will be installed on all sides of the well pad.
18	Emissions mitigation	Emission Control System: Test separators and associated flow lines and sand traps shall be installed on-site to accommodate green completions techniques pursuant to COGCC Rules. The flowback gas shall be sold or shall be captured and combusted with an Emissions Control Device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10 mile radius, and will be piped to other or permanent equipment and shall be provided with the equipment needed to maintain combustions where non-combustible gases are present. There is a sales line available, at the first sign of salable quality gas operator will turn the gas to a sales line.
19	Emissions mitigation	As part of the operators Leak Detection and Repair Program (LDAR), using an infrared camera all production equipment including any above ground flowlines will be inspected monthly for the for first 3 years of production. Audio, Visual, and Olfactory (AVO) inspections of the production facility and associated wellheads, pipelines, and fittings will be done at a minimum weekly to a maximum daily frequency.
20	Odor mitigation	Rule 805: Oil & gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.

21	Odor mitigation	For the OBM system, the base fluid is D822. The fluid is a refined product that has low VOC and BTEX counts. The BTEX counts are trace levels so this provides a much safer work environment as compared to diesel. The product has a reduction in aromatic compounds when compared to diesel so the odor emitted by the fluid is minimal. The flash point is 85°F higher than diesel which increases the overall safety of the product. During our drilling operations we average 5-6 loads of cuttings hauled off per day to a disposal facility. During the platting process of every location, special consideration is paid to the orientation of the rig with respect to surrounding residential units. When possible, the generators will be placed on the far side of location away from surrounding occupied units. Prevailing wind direction is taken into consideration when planning a location in order to mitigate odor, and noise from being a nuisance to the surrounding stakeholders. When possible, the rig is oriented in a way in which residential units are upwind from the location. Hydrocarbon odors from production facilities are minimize and eliminated by keeping all product inside pipe, separators, tanks, and combustors. Uncommon leaks are discovered by frequent FLIR camera inspections and immediately repaired. All tanks are sealed with best available industry thief hatches and gaskets. Tank vapors are captured with properly sized piping and combustors.
22	Drilling/Completion Operations	604.c.(2).K. Pit level Indicators - For the rig pits (steel tanks) we utilize the Pason PVT (Pit Volume Totalizer) system in conjunction with the EDR (Electronic Depth Recorder) systems on both rigs which incorporate digital recording of pit volumes, settable alarms for gain and loss so we are able to track the pit volumes. These items are standard on a 5K system which is what we are permitting for.
23	Drilling/Completion Operations	604.c.(2).O. Drilling and Completion-All loadlines shall be bullplugged or capped.
24	Drilling/Completion Operations	Operator will comply with all MLVT policies and requirements for this pad.
25	Drilling/Completion Operations	604.c.(2)B.i Operator will be utilizing a closed loop system.
26	Drilling/Completion Operations	604.c.(2)T. Within 90 days subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site. Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5)
27	Drilling/Completion Operations	604.c.(2).U. Final Reclamation-The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.
28	Drilling/Completion Operations	Operator will put steel berms around all of our separators at this location.

Total: 28 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2479129	CORRESPONDENCE
2479130	306.e CERTIFICATION LETTER
2479131	ALTERNATE LOCATION ANALYSIS
2479372	OBJECTIVE CRITERIA REVIEW MEMO
2479377	PUBLIC COMMENT CONSIDERATION MEMO
402001325	FORM 2A SUBMITTED
402001336	WASTE MANAGEMENT PLAN
402017773	ACCESS ROAD MAP
402017777	OTHER
402017781	FACILITY LAYOUT DRAWING
402017785	LOCATION PICTURES
402017822	LOCATION DRAWING
402017840	LOCATION PICTURES
402017842	MULTI-WELL PLAN
402017847	OTHER
402017848	OTHER
402017849	REFERENCE AREA MAP
402017850	REFERENCE AREA PICTURES
402018874	NRCS MAP UNIT DESC
402018875	NRCS MAP UNIT DESC
402018876	NRCS MAP UNIT DESC
402018899	PRE-APPLICATION NOTIFICATION CERTIFICATION
402020421	HYDROLOGY MAP

Total Attach: 23 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Public Comment COnsideration Memo has been attached.	03/09/2020
Final Review	Public comments were received on all of the Form 2 Applications for Permit to Drill (APD) related to this Form 2A Oil and Gas Location Assessment. Most public comments expressed concern over already poor air quality in Colorado's Front Range, requested a moratorium on further drilling, and requested COGCC deny these permit applications. Additional concerns included seismicity, water consumption, and produced water disposal.  Changed OGLA staff to Active to complete public comment review and response.	03/07/2020
Final Review	Final Review complete.	03/06/2020
OGLA	Lighting BMP revised and typos in the Objective Criteria Review Memo corrected.	03/06/2020
Final Review	Final Review pending - referred to OGLA staff for additional review.	03/05/2020
OGLA	The Objective Criteria Review Memo (Doc #2479372) is attached to this Form 2A. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	03/04/2020
OGLA	Operator provided additional BMPs and indicated they have sent out Health Study notices to all Building Unit owners and occupants within 2,000 feet of the location. No responses from the notice recipients have been received.	02/26/2020

Permit	<p>Added plugging and abandonment surety ID and municipality with operator concurrence. Updated operator contact information per operator request.</p> <p>DSU Order 407-2725 has been approved. Permitting review complete.</p>	02/26/2020
OGLA	<p>Operator confirmed the count of MLVTs, updated the dates of construction and interim reclamation, confirmed the Surface Owner, revised the Visual Impacts BMP, revised the Fencing BMP, revised the Traffic Plan BMP, revised the Noise mitigation BMP, &amp; provided the Rule 306.e. Certification letter.</p> <p>Operator also voluntarily provided an Alternate Location Analysis which has been added as an attachment to the Form 2A.</p> <p>OGLA review completed and task passed.</p>	09/04/2019
OGLA	<p>Requested operator confirm the count of MLVTs, update the dates of construction and interim reclamation, confirm the Surface Owner, revise the Visual Impacts BMP, revise the Fencing BMP, revise the Traffic Plan BMP, revise the Noise mitigation BMP, &amp; provide the Rule 306.e. Certification letter. Due by 9/20/19.</p>	08/20/2019
OGLA	<p>COGCC staff conducted its technical review of this Form 2A Oil and Gas Location Assessment within the context of SB 19-181 and the required Objective Criteria. This Form 2A met Objective Criteria # 1, 2, 3, &amp; 5c.</p>	08/20/2019
LGD	<p>On April 23, 2019, the City of Greeley's Planning Commission approved a Use by Special Review (USR) for oil and gas operations known as Ridge State 33-17 with the following conditions:</p> <ol style="list-style-type: none"> <li>1. Prior to activity on the site, any remaining engineering construction and design issues must be resolved, to the satisfaction of the City, including the roadway maintenance agreement.</li> <li>2. The applicant shall make the required improvements at the intersection of US Highway 34 Bypass and 83rd Avenue, as indicated under the Transportation, Section 5.</li> </ol> <p>The City is currently waiting on final submittal of construction plans to be routed for signature for the site as well as satisfaction of condition 2 above.</p> <p>The approved USR will allow for up to 32 oil and gas wellheads, 32 separators, six oil tanks, two produced water tanks, six two-phased vapor recovery units, and associated equipment, on a property located south of US Hwy 34, west of 71st Avenue, and north of 28th Street. The subject site is approximately 41.55 acres in size and is zoned H-A (Holding Agriculture).</p> <p>During drilling SRC is required to erect a 32-foot sound walls around the east, west, north and southern side of each well pad during the drilling phase to mitigate noise. All lights must be directed downwards. Exhaust from all engines, motors and related equipment must be vented in a direction away from occupied buildings where practical.</p> <p>As a mitigation measure for the SRC Ridge State site, SRC has agreed to improve and build out the right turn (east bound) lane on 83rd Avenue (at the intersection of US Highway 34 Bypass and 83rd Avenue) as indicated in condition 2 above. The width expansion of this right turn lane must adhere to industry standards to make this right turn lane adequate for truck traffic.</p> <p>The proposed landscaping, installed on five-foot berms, would be installed during the Production Phase – once rigs and sound walls are dismantled and the drilling area is largely restored. These plantings, in conjunction with the berming, and distance from adjacent uses and roads comply with general City buffer yard requirements.</p> <p>The City of Greeley requests that the 2A state permit be amended to include the conditions of approval listed above as sundry comments. Please contact City staff with any questions on this matter.</p> <p>City of Greeley LGD Comments</p>	07/17/2019

	Brad Mueller Brad.Mueller@greeleygov.com (970) 350-9786	
OGLA	Public comment period extended 10 days at the request of the Greeley LGD. The new comment period end date is 7/17/2019.	06/20/2019
Permit	Passed completeness.	06/17/2019
OGLA	Passed Buffer Zone completeness review.	06/17/2019
Permit	Referred to OGLA supervisor for buffer zone review.	06/17/2019
OGLA	Did not pass Buffer Zone completeness review. An MLVT is shown on the Location Drawing but not indicated on the Facilities count. Contacted operator and returned to Draft.	06/13/2019
Permit	Added 2 BMP's per operator.	06/07/2019
Permit	Referred to OGLA supervisor for buffer zone review.	06/03/2019
Permit	Returned to draft: Operator to complete Local Government Information. This form has not been reviewed for completeness.	05/30/2019

Total: 20 comment(s)