

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:

401587748

(SUBMITTED)

Date Received:

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

Expiration Date:

This location assessment is included as part of a permit application.

CONSULTATION

- This location is included in a Comprehensive Drilling Plan. CDP # _____
- This location is in a sensitive wildlife habitat area.
- This location is in a wildlife restricted surface occupancy area.
- This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 10311

Name: SRC ENERGY INC

Address: 1675 BROADWAY SUITE 2600

City: DENVER State: CO Zip: 80202

Contact Information

Name: Erin Ekblad

Phone: (720) 616.4319

Fax: (720) 616.4301

email: eekblad@srcenergy.com

FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID (Rule 706): 20090043 Gas Facility Surety ID (Rule 711): _____

Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: McNear

Number: 10-9 Pad

County: WELD

Quarter: NWSE Section: 9 Township: 6N Range: 66W Meridian: 6 Ground Elevation: 4796

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: 1874 feet FSL from North or South section line

2299 feet FEL from East or West section line

Latitude: 40.500681 Longitude: -104.781630

PDOP Reading: 1.6 Date of Measurement: 03/14/2018

Instrument Operator's Name: Rob Wilson

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: Patrick & Claire McNear Phone: _____

Address: 34499 County Road 31 Fax: _____

Address: _____ Email: _____

City: Greeley State: CO Zip: 80631

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 05/18/2017

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:	411 Feet	99 Feet
Building Unit:	731 Feet	611 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	927 Feet	735 Feet
Above Ground Utility:	1848 Feet	1034 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	221 Feet	59 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: 05/02/2018

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 the Production Facility depicted in the Location Drawing has been placed at the request of the Surface Owner. In addition, the location for siting the multi-well Production Facility as described provides easy access, consolidated surface impact and the least disturbance to current and future agricultural operations.

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: 32: Kim loam, 1 to 3 percent slopes

NRCS Map Unit Name: 33: Kim loam, 3 to 5 percent slopes

NRCS Map Unit Name: 38: Nelson fine sandy loam, 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: _____

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: 18 Feet

water well: 2259 Feet

Estimated depth to ground water at Oil and Gas Location 30 Feet

Basis for depth to groundwater and sensitive area determination:

Permit 226872, which is 2259' feet to the West of Pad, with static water level of 30.

SRC Proposed McNear 10-9 Pad is 18 feet from a ditch noted on the hydrology map, that is our nearest downgradient surface water feature.

Attached an Approved Floodplain Permit to the 2A for McNear 10-9 Pad.

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 _____

Operator Proposed Wildlife BMPs

No BMP

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 The reference well for this pad is the McNear 28N-7B-L.

All traffic plans are approved per our access permit, part of the access permitting process.

No existing wells within disturbance area.

SRC 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.

For the 2A McNear 10-9 Pad, we are in a floodplain but none of our wells nor our facility equipment are located in the floodplain. The Floodplain is located on the west side of our proposed pad.

For our WOGLA application, the floodplain touches the edge of the well pad and SRC recently obtained an approved Flood Hazard Development Permit that SRC attached to this 2A.

SRC will comply with all MLVT policies and requirements for this pad. For the MLVT, we will plan on 90 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.

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

Signed: _____ Date: _____ Email: eekblad@srcenergy.com

Print Name: Erin Ekblad Title: Manager Regulatory Affair

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

No	BMP/COA Type	Description
1	Planning	604.c(2)M. Fencing: A meeting with the surface owner will determine a fencing plan. After discussions with the Surface Owner, Sound walls will be placed around the well pad location. No other fencing.
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.

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	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., which we will use Magnesium Chloride to control dust.
5	Traffic control	RULE 604.c.(2)D: If required by the local government, a traffic plan shall be coordinated with the local jurisdiction prior to commencement of move in and rig up. Any subsequent modification to the traffic plan must be coordinated with the local jurisdiction. 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. All Traffic Plans are approved per our access permit, part of the access permitting process.
6	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.
7	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.
8	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.
9	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.
10	Construction	803 Light sources during all phases of operations will 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. The light fixtures need to be specified as "shine down" with appropriate shields.
11	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.
12	Construction	604.c.(2).E. This will be a multi-well pad.
13	Noise mitigation	604.c.(2)A. Sound walls and/or hay bales will be used where necessary to surround the well site during drilling operations. After discussions with the Surface Owner, Sound walls will be placed around the well pad location. No other fencing.
14	Emissions mitigation	604.c.(2)C.i. Green Completions - 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 SRC Energy will turn the gas to a sales line.
15	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.

16	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.
17	Drilling/Completion Operations	604.c.(2).O. Drilling and Completion-All loadlines shall be bullplugged or capped.
18	Drilling/Completion Operations	SRC will comply with all MLVT policies and requirements for this pad.
19	Drilling/Completion Operations	604.c.(2)B.i Operator will be utilizing a closed loop system.
20	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) .
21	Drilling/Completion Operations	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 plating process of every location, special consideration is payed 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	603.g. Statewide equipment anchoring requirements. All equipment at drilling and production sites in geological hazard areas shall be anchored. Anchors must be engineered to support the equipment and to resist flotation, collapse, lateral movement, or subsidence. Anchoring requirements in Floodplains are governed by Rule 603.h.

23	Drilling/Completion Operations	<p>When operating within a defined Floodplain:</p> <p>(1) The following requirements apply to new Oil and Gas Locations and Wells:</p> <p>A. Effective August 1, 2015, Operators must notify the Director when a new proposed Oil and Gas Location is within a defined Floodplain, via the Form 2A.</p> <p>B. Effective June 1, 2015, new Wells must be equipped with remote shut-in capabilities prior to commencing production. Remote shut-in capabilities include, at a minimum, the ability to shut-in the well from outside the relevant Floodplain.</p> <p>C. Effective June 1, 2015, new Oil and Gas Locations must have secondary containment areas around Tanks constructed with a synthetic or geosynthetic liner that is mechanically connected to the steel ring or another engineered technology that provides equivalent protection from floodwaters and debris.</p> <p>(2) The following requirements apply to both new and existing Wells, Tanks, separation equipment, containment berms, Production Pits, Special Purpose Pits, and flowback pits:</p> <p>A. Effective April 1, 2016, Operators must maintain a current inventory of all existing Wells, Tanks, and separation equipment in a defined Floodplain. Operators shall ensure that a list of all such Wells, Tanks, and separation equipment is filed with the Director. As part of this inventory, Operators must maintain a current and documented plan describing how Wells within a defined Floodplain will be timely shut-in. This plan must include what triggers will activate the plan and must be made available for inspection by the Director upon request.</p> <p>B. Effective June 1, 2015 for new and April 1, 2016 for existing, tanks, including partially buried tanks, and separation equipment must be anchored to the ground. Anchors must be engineered to support the Tank and separation equipment and to resist flotation, collapse, lateral movement, or subsidence.</p> <p>C. Effective June 1, 2015 for new and April 1, 2016 for existing, containment berms around all Tanks must be constructed of steel rings or another engineered technology that provides equivalent protection from floodwaters and debris.</p> <p>D. Effective June 1, 2015 for new and April 1, 2016 for existing, Production Pits, Special Purpose Pits (other than Emergency Pits), and flowback pits containing E&P waste shall not be allowed within a defined Floodplain without prior Director approval, pursuant to Rule 502.b.</p> <p>E. An Operator may seek a variance from the effective date for the requirements for existing facilities referenced in subparts 603.h(2)B, C or D by filing a request for an alternative compliance plan with the Director on or before February 1, 2016.</p>
24	Final Reclamation	<p>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.</p>

Total: 24 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401596451	WASTE MANAGEMENT PLAN
401596453	ACCESS ROAD MAP
401596456	OTHER
401596461	FACILITY LAYOUT DRAWING
401596469	OTHER
401596472	HYDROLOGY MAP
401596475	LOCATION DRAWING
401596478	OTHER
401596481	OTHER
401596482	LOCATION PICTURES
401625019	SURFACE AGRMT/SURETY
401625553	NRCS MAP UNIT DESC
401625555	NRCS MAP UNIT DESC
401625557	NRCS MAP UNIT DESC
401658962	OTHER
401659933	PRE-APPLICATION NOTIFICATION CERTIFICATION

Total Attach: 16 Files

General Comments

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

Total: 0 comment(s)

Public Comments

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

