

**FORM
2A**Rev
08/19**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:

401959539

Date Received:

03/13/2019

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

Location ID:

466977

Expiration Date:

08/23/2022☒ 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: 10518

Name: CONFLUENCE DJ LLC

Address: 1001 17TH STREET #1250

City: DENVER State: CO Zip: 80202

Contact Information

Name: Brittany Rothe

Phone: (303) 226-9519

Fax: ()

email: brothe@confluencelp.com

FINANCIAL ASSURANCE

- ☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20160056 ☐ Gas Facility Surety ID (Rule 711): _____
- ☐ Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: Willow

Number: 22 West

County: WELD

Quarter: SWSW Section: 22 Township: 1N Range: 65W Meridian: 6 Ground Elevation: 5091

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: 185 feet FSL from North or South section line

1046 feet FWL from East or West section line

Latitude: 40.030170 Longitude: -104.655850

PDOP Reading: 1.5 Date of Measurement: 02/19/2019

Instrument Operator's Name: Kyle Daley

LOCAL GOVERNMENT INFORMATION

County: WELD

Municipality: N/A

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: County _____

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" 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: _____

The local government siting permit was filed on: _____

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

Additional explanation of local process:

WOGLA not submitted; Weld County has waived their right to precede COGCC with respect to the Form 2A.

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	13	Oil Tanks*	26	Condensate Tanks*	_____	Water Tanks*	13	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	_____	Separators*	13	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	5	VOC Combustor*	_____	Flare*	_____	Pigging Station*	_____

OTHER FACILITIES*

Other Facility Type	Number
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Vapor Recovery Tower	5
Emissions Control Device	5
Gas Sales Meter/Meter House	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:

2" and/or 3" schedule 40 steel flowlines carrying oil, gas, and water from wellheads to production equipment & sales

CONSTRUCTION

Date planned to commence construction: 09/12/2019 Size of disturbed area during construction in acres: 12.10
Estimated date that interim reclamation will begin: 12/12/2019 Size of location after interim reclamation in acres: 5.90
Estimated post-construction ground elevation: 5094

DRILLING PROGRAM

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

Is H₂S 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?

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: DRAKE J C & ASSOC INC

Phone:

Address: C/O JOHN C DRAKE 2550 E
ALAMEDA CIR

Fax:

Address:

Email:

City: DENVER State: CO Zip: 80209

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: Surface Use Agreement

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

Date of Rule 306 surface owner consultation 09/02/2014

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

190400277

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:	1094 Feet	819 Feet
Building Unit:	1288 Feet	1747 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	1483 Feet	1981 Feet
Above Ground Utility:	1444 Feet	1941 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	185 Feet	90 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: _____

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: 47: Olney fine sandy loam, 1 to 3 percent slopes

NRCS Map Unit Name: 73: Vona loamy sand, 3 to 5 percent slopes

NRCS Map Unit Name: 35: Loup-Boel loamy sands, 0 to 3 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: 40 Feet

water well: 1277 Feet

Estimated depth to ground water at Oil and Gas Location 20 Feet

Basis for depth to groundwater and sensitive area determination:

Basis for depth to groundwater based determined from Water Well Permit #284560 approximately 2370 feet to the southwest. Nearest water well is water well permit #198036 with a depth of 443 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: No

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

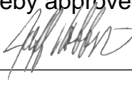
A WOGLA has not yet been submitted for this location. A 1041 WOGLA application will be submitted. There are 3 BU that are outside of the 1000' notification radius per the WOGLA requirements. However, Confluence will be sending them a courtesy WOGLA notice. An Emergency Response Plan will be reviewed and approved by the Fire Department and Weld County Office of Emergency Management for this location.

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

Signed: _____ Date: 03/13/2019 Email: Agross@upstreampm.com

Print Name: Andrea Gross Title: Permit Agent

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: 8/24/2019

Surface Owner Information

Owner Name	Address	Phone	Fax	Email
DRAKE J C & ASSOC INC	C/O JOHN C DRAKE 2550 E ALAMEDA CIR DENVER, CO 80209			
ROWE JAMES E JR FAMILY TR	C/O JOHN C DRAKE 2550 E ALAMEDA CIR DENVER, CO 80209			

2 Surface Owner(s)

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**

	This Form 2A has been approved prior to commission approval of the DSU (Docket #190400277). If the final agency action is denial of the DSU then the operator shall abandon this Oil and Gas Location by submitting a Form 4 Sundry within 45 days of the agency denial; however, if location construction has commenced, then the location will be immediately subject to final reclamation.
	The Approved Form 2A permit will be posted at the location during construction, drilling, and completions operations.

Best Management Practices**No BMP/COA Type****Description**

1	General Housekeeping	Light Mitigation: Light sources during all phases of operations will be directed downwards and away from occupied structures. Permanent lighting will be installed around the facility to allow both the operator and haulers to conduct safe operations at night. All lights will be directed down toward the location or shielded so no light pollution leaves the facility. Confluence will install an engineered sound wall surrounding the location during all drilling and completion operations in order to block light from the building units to the west, southwest and east.
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2	Storm Water/Erosion Control	<p>Berm Construction: A steel containment berm or structure will be erected around the oil and water storage tanks. The berm will enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank. The berm will be inspected at least every 14 calendar days while the site is under construction and within 24 hours of a precipitation event. Inspection records will be kept on file for a minimum of three (3) years. These records will be made available to the regulatory agencies upon request.</p> <p>Confluence will build an enhanced ditch and berm system on the north side of the pad that is both taller and wider than our normal ditch and berm to trap and direct away from surface water, any liquids that might escape our lined steel tank battery containment in the event of a spill.</p>	
3	Material Handling and Spill Prevention	<p>Material Handling and Spill Prevention</p> <p>Leak Detection Plan: Confluence DJ's lease operators conduct a daily AVO (audio, visual, olfactory) inspection of each producing location when they first arrive to pump the wells. This includes checking all surface equipment to make sure that there are no leaks, all tank thief hatches are closed, all pressure-relief valves are closed, and no emission-control devices are smoking. If they find that any of these items are out of order, they immediately work on fixing the issue.</p> <p>Additionally, Confluence conducts and documents a monthly LDAR (leak detection and repair) inspection. This consists of an environmental scientist trained in surface oilfield equipment walking through each of our locations along with lease operators and an infrared camera to identify any smaller vapor leaks that may be invisible to the naked eye. These leaks are documented and usually repaired immediately onsite. Sometimes repairs take a couple days if new equipment needs to be procured to replace the faulty equipment.</p>	
4	Dust control	<p>Dust mitigation measures shall include but are not limited to the use of speed restrictions, regular road maintenance, restrictions of construction activities during high wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. The access road will be constructed with road base aggregate material. Additional management practices such as road surfacing, wind breaks and barriers may be used.</p> <p>In terms of silica dust controls when handling sand used in hydraulic fracturing operations, Confluence's vendors will use an advanced Containerized Sand System for proppant delivery, storage on location and ultimately delivery to the blender and frac fluid system. The containers use gravity (not pneumatics) to drop sand into the blender's sand hopper that drastically reduces dust generation. This system also removes people and equipment from the proppant handling operations during fracturing treatments, considerably reducing exposures and EHS risks to individuals from dust and older sand handling equipment (like conveyor belts). Remote controls are used to open and close sand gates on the bins to further reduce silica dust exposure to workers and scales are used to weigh the boxes so people are not required to open boxes and visually inspect how much proppant is remaining. PPE is worn as required for each job/ task including respirators when exposure to silica dust require them.</p>	
5	Noise mitigation	<p>Noise mitigation Confluence will install an engineered sound wall surrounding the location during all drilling and completion operations in order to block sound from the building units to the west, southwest and east.</p>	
6	Emissions mitigation	<p>Emission Control: Green Completions -Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C.</p>	

7	Emissions mitigation	Confluence's standard facility design incorporates tank level automation which is displayed at a facility monitor board. Lease operators and oil haulers use this monitor to document top and bottom gauges when loading out oil and water which removes the need for opening hatches and manually gauging tank levels.
8	Odor mitigation	Odor Mitigation: Confluence will comply with Rule 805 and Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII. They will utilize an Emission Control Devices to reduce odor emissions during production. Confluence's primary form of OBM odor control will be a product called 'Odor Armor' that is mixed directly into the mud while drilling wells with OBM. Odor Armor is an enzyme that will help both treat and mask odors on location. Additionally, good housekeeping practices and inventory management will help to mitigate OBM odor. Promptly hauling off cuttings as they are generated will reduce the volume of cuttings on location. Disposal of other trash and rags that have been exposed to oil based mud will also prevent the odor from becoming a nuisance. We will also use solids controls equipment that efficiently handles our cuttings to minimize amount of OBM in our dried cuttings.

Total: 8 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2316568	OBJECTIVE CRITERIA REVIEW MEMO
401959539	FORM 2A SUBMITTED
401970522	ACCESS ROAD MAP
401970524	CONST. LAYOUT DRAWINGS
401970526	HYDROLOGY MAP
401970527	LOCATION DRAWING
401970528	LOCATION PICTURES
401970529	MULTI-WELL PLAN
401970531	NRCS MAP UNIT DESC
401970545	FACILITY LAYOUT DRAWING
401970551	SURFACE AGRMT/SURETY

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Added docket #. Final Review Completed.	08/20/2019
OGLA	The Objective Criteria Review Memo (Doc# 2316568) 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.	08/20/2019
OGLA	Operator provided information regarding information for Local Government process, sending notices, and emergency plan. Operator concurred to changing depth to groundwater to 20 feet and provided additional BMP for containment and stormwater.	08/16/2019
OGLA	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 - Building units within 1,500 feet of the location, #5.c for sensitive water based on distance to surface water, and #8 for greater than 18 tanks of produced hydrocarbons on location.	08/12/2019
OGLA	OGLA review: dryland but has plant community - check with Operator. Should be sensitive water environment based on canal 40 feet from the location. water well at 2,300 feet southwest (permit 284560) has depth to water at 20 feet. Operator provided additional BMPs on 7/25/2019.	08/05/2019
Permit	Initial permitting review complete and task passed.	07/02/2019
Permit	The following changes were made with Operator concurrence: - local government disposition information entered per information provided by Operator	06/13/2019
Permit	Passed completeness.	03/22/2019

Total: 8 comment(s)