

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:

400658921

Date Received:

09/05/2014

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

Submit signed original form. 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:

439204

Expiration Date:

10/03/2017

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: 10459
 Name: EXTRACTION OIL & GAS LLC
 Address: 1888 SHERMAN ST #200
 City: DENVER State: CO Zip: 80203

Contact Information

Name: NICK CURRAN
 Phone: (720) 420-5745
 Fax: (720) 420-5800
 email: NICK.CURRAN@IPTENERGYSERVICES.COM

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20130028 Gas Facility Surety ID: _____
- Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: WAAG SOUTH SESW Number: PAD #1
 County: WELD
 Quarter: SESW Section: 19 Township: 7N Range: 65W Meridian: 6 Ground Elevation: 4868

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: 365 feet FSL from North or South section line
2423 feet FWL from East or West section line

Latitude: 40.554470 Longitude: -104.707150

PDOP Reading: 1.8 Date of Measurement: 07/02/2014

Instrument Operator's Name: ADAM KELLY

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 #

Production Facilities Location serves Well(s) _____

400647900

FACILITIES

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

Wells 7 Oil Tanks 30 Condensate Tanks _____ Water Tanks 6 Buried Produced Water Vaults _____
Drilling Pits _____ Production Pits _____ Special Purpose Pits _____ Multi-Well Pits _____ Temporary Large Volume
Above Ground Tanks _____
Pump Jacks _____ Separators 13 Injection Pumps _____ Cavity Pumps _____
Gas or Diesel Motors _____ Electric Motors _____ Electric Generators _____ Fuel Tanks _____ Gas Compressors 1
Dehydrator Units _____ Vapor Recovery Unit _____ VOC Combustor _____ Flare _____ LACT Unit _____
Pigging Station _____

OTHER FACILITIES

Other Facility Type

Number

<u>Other Facility Type</u>	<u>Number</u>
ELECTRIC CONVERSION DEVICE	<u>4</u>
VAPOR RECOVERY TOWERS	<u>2</u>

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

INTRA FLOWLINES ARE GENERALLY 3" (ALTHOUGH 2") FUSION BONDED SCHEDULED 40 STEEL

CONSTRUCTION

Date planned to commence construction: 10/15/2014 Size of disturbed area during construction in acres: 5.50
Estimated date that interim reclamation will begin: 04/15/2015 Size of location after interim reclamation in acres: 3.20
Estimated post-construction ground elevation: 4868

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? No

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

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1543 Feet
Building Unit: 1543 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 40 Feet
Above Ground Utility: 1185 Feet
Railroad: 3786 Feet
Property Line: 50 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.

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.

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: _____

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: 40—Nunn loam, 1 to 3 percent slopes
NRCS Map Unit Name: _____
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: _____
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: 241 Feet

water well: 1661 Feet

Estimated depth to ground water at Oil and Gas Location 21 Feet

Basis for depth to groundwater and sensitive area determination:

-NEAREST WELL WITH STATIC WATER WELL INFO IS PERMIT #13447-R -

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: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- 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

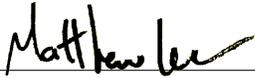
The Waag Middle SESW Pad #1 flows back to the Waag South SESW Pad. Production facilities will be located at this location for both the Middle and the South pads.

We are submitting 7 Form 2's 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: 09/05/2014 Email: NICK.CURRAN@IPTENERGYSERVICES.COM

Print Name: NICK CURRAN Title: REG TECH

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: 10/4/2014

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
	Operator shall install temporary engineering controls during drilling and completion activities to provide noise relief to nearby residents. Permanent equipment on location shall be muffled to reduce noise, or shall be appropriately buffered. Noise mitigation shall be designed and implemented to address both A-scale and C-scale noise. This COA for this Oil and Gas Location shall supersede any noise mitigation Best Management Practices proposed for individual Wells drilled from this multi-well pad.
	Operator must implement site-specific best management practices in accordance with good engineering practices, including, but not limited to, construction of a berm or diversion dike, site grading, or other comparable measures, sufficient to protect the irrigation ditch located 241 feet east of the oil and gas location from a release of drilling, completion, produced fluids, and chemical products.
	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	Multi-well Pads. It is a multi-well pad located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas.
2	Planning	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, there will be no permanently installed lighting on site. Lighting shall be mounted at compressor stations on a pole or building and directed downward to illuminate key areas within the facility, while minimizing the amount of light projected outside the facility.
3	Traffic control	Access roads. The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times
4	General Housekeeping	Fencing requirements. A permanent fencing plan will be reviewed by the surface owner, & the applicant.
5	General Housekeeping	Removal of surface trash. All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as is applicable.
6	Material Handling and Spill Prevention	Leak Detection 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.
7	Material Handling and Spill Prevention	Load-lines. All load-lines shall be bull-plugged or capped.

8	Material Handling and Spill Prevention	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	Noise mitigation	Rig shrouding is not believed necessary as this is an industrial area and the only building unit within 1,000' is owned by the operator, however, at its election the operator may install temporary engineering controls consisting of perimeter sound walls shall be used on the location during drilling and completion activities to provide noise relief. Permanent equipment on location shall be muffled to reduce noise, or shall be appropriately buffered.
10	Odor mitigation	Per 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.
11	Drilling/Completion Operations	Closed Loop Drilling Systems – Pit Restrictions. Not applicable; a closed-loop system will be used for drilling
12	Drilling/Completion Operations	Green Completions – Emission Control Systems. Test separators and associated flow lines and sand traps shall be installed on-site to accommodate Green completions techniques pursuant to COGCC Rules. In the anticipated absence of a viable gas sales line, the flow-back gas shall be thermally oxidized in 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 flow-back within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustion where non-combustible gases are present.
13	Drilling/Completion Operations	Blowout preventer equipment (“BOPE”). A double ram and annular preventer will be used during drilling. At least the drilling company shall have a valid well blowout prevention certifications.
14	Drilling/Completion Operations	BOPE for well servicing operations. Adequate BOP equipment shall be used. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.
15	Drilling/Completion Operations	Pit level indicators. Not applicable; a closed-loop system will be used and no pits shall be dug.
16	Drilling/Completion Operations	Drill stem tests. Not applicable; no Drill Stem tests are planned.
17	Drilling/Completion Operations	Control of fire hazards. All materials which are considered fire hazards shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with API RP 500 and will comply with the current national electrical code. An emergency response plan has been generated for this site.
18	Drilling/Completion Operations	Guy line anchors. All guy line anchors shall be brightly marked pursuant to Rule 604.c (2)Q
19	Final Reclamation	Well site cleared. Within 90-day subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site.
20	Final Reclamation	Final Reclamation 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)

Total: 20 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668542	CORRESPONDENCE
1668543	FACILITY LAYOUT DRAWING
400658921	FORM 2A SUBMITTED
400660050	LOCATION DRAWING
400660051	LOCATION PICTURES
400660053	ACCESS ROAD MAP
400660054	HYDROLOGY MAP
400660067	MULTI-WELL PLAN
400660068	WASTE MANAGEMENT PLAN
400660136	NRCS MAP UNIT DESC

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Removed Operator provided noise BMP, replaced with COA. Operator notified.	10/4/2014 8:02:57 AM
Permit	Final review complete.	10/3/2014 3:11:04 PM
OGLA	IN PROCESS - Operator agreed to revise distance to nearest Building, Building Unit, Public Road, Above Ground Utility, and Property Line, change Sensitive Area Designation to YES, and add COA protecting irrigation ditch. Operator also updated the Facilities list. OGLA review complete. Waiting on Public Comment period.	9/23/2014 2:20:43 PM
OGLA	ON HOLD - Revise distance to nearest Building, Building Unit, Public Road, Above ground Utility, and Property Line, change Sensitive Area designation to YES, and add COA to protect nearby irrigation ditch. Due by 10/22/14.	9/22/2014 2:12:16 PM
Permit	Ready to pass pending public comment 9/30/14.	9/19/2014 2:56:30 PM
Permit	Passed Completeness	9/9/2014 1:15:47 PM

Total: 6 comment(s)