

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:

401067210

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Date Received:

06/24/2016

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:

**446980**

Expiration Date:

**07/25/2019**

☐ 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: 96155

Name: WHITING OIL & GAS CORPORATION

Address: 1700 BROADWAY STE 2300

City: DENVER State: CO Zip: 80290

Contact Information

Name: Michael Brown

Phone: (307) 237-9310

Fax: ( )

email: ml\_brown@bresnan.net

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20030110

☐ Gas Facility Surety ID: \_\_\_\_\_

☐ Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Horsetail

Number: 07 East CPB

County: WELD

QuarterQuarter: NWSE Section: 7 Township: 10N Range: 57W Meridian: 6 Ground Elevation: 4882

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: 1983 feet FSL from North or South section line

1582 feet FEL from East or West section line

Latitude: 40.851625 Longitude: -103.790958

PDOP Reading: 1.4 Date of Measurement: 03/15/2016

Instrument Operator's Name: Darren Shanks

## 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)

442408

443049

## FACILITIES

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

Wells	Oil Tanks*	16	Condensate Tanks*	Water Tanks*	8	Buried Produced Water Vaults*		
Drilling Pits	Production Pits*		Special Purpose Pits	Multi-Well Pits*		Modular Large Volume Tanks		
Pump Jacks	Separators*	4	Injection Pumps*	Cavity Pumps*		Gas Compressors*	2	
Gas or Diesel Motors*	Electric Motors		Electric Generators*	1	Fuel Tanks*		LACT Unit*	2
Dehydrator Units*	Vapor Recovery Unit*	2	VOC Combustor*	Flare*	1		Pigging Station*	

## OTHER FACILITIES\*

**Other Facility Type**

**Number**

Free Water Knockout	2
6 x 20 Heater Treater	2
8 x 20 Heater Treater	2
VRT	2

\*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:

The approximate length of pipeline to be constructed is 210 feet for the Horsetail 07G Pad and 800 feet for the Horsetail 07H Pad. All displaced materials shall be placed back into the cleared route once construction is completed. Pipeline construction will not block or change the natural course of any drainage. The pipeline will be buried wherever possible. The pipeline will be buried a minimum of 30" below the surface at all locations. Pipeline trenches shall be maintained in order to correct settlement and erosion. The pipelines will be a 8" or 6" production and 6" or 4" test. All lines will be welded steel. On location there will be 200' of pipeline between the treaters and tank batteries and 100' of pipeline between the treaters and the flares.

## CONSTRUCTION

Date planned to commence construction: 07/23/2016

Size of disturbed area during construction in acres: 4.81

Estimated date that interim reclamation will begin: 01/23/2017

Size of location after interim reclamation in acres: 4.20

Estimated post-construction ground elevation: 4880

## 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? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: \_\_\_\_\_

Drilling Fluids Disposal Method: \_\_\_\_\_

Cutting Disposal: \_\_\_\_\_

Cuttings Disposal Method: \_\_\_\_\_

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: Jackie Fiscus

Phone: 970-466-9205

Address: 12800 Everett Way

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

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

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

City: Sterling State: CO Zip: 80751

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 06/20/2016

## 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:	_____ Feet	2645 Feet
Building Unit:	_____ Feet	2645 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

High Occupancy Building Unit:	_____	Feet	5280	Feet
Designated Outside Activity Area:	_____	Feet	5280	Feet
Public Road:	_____	Feet	3348	Feet
Above Ground Utility:	_____	Feet	201	Feet
Railroad:	_____	Feet	5280	Feet
Property Line:	_____	Feet	1582	Feet

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: \_\_\_\_\_

## 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: 12 - Bankard loamy fine sand

NRCS Map Unit Name: 40 - Nunn loam

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: 03/15/2016

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: 320 Feet

water well: 5280 Feet

Estimated depth to ground water at Oil and Gas Location 90 Feet

Basis for depth to groundwater and sensitive area determination:

Water Well 454

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 N/A

## 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

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

Signed: \_\_\_\_\_

Date: 06/24/2016

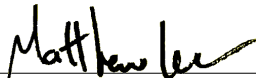
Email: ml\_brown@bresnan.net

Print Name: Michael Brown

Title: Agent

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: 7/26/2016

## 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 manage noxious weeds in accordance with a weed management plan, if required by the Colorado Noxious Weed Act, to prevent the spread of noxious weeds and to eradicate or control, as necessary, existing noxious weeds.
	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 intermittent creek located 320 feet west of the oil and gas location from a release of drilling, completion, produced fluids, and chemical products.

## **Best Management Practices**

<b><u>No</u></b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>
1	Storm Water/Erosion Control	Stormwater management plans (SWMP) are in place to address construction, drilling and operations associated with oil and gas development throughout the State of Colorado. BMPs will be constructed as necessary to prevent stormwater from leaving the construction site. BMPs used will vary according to the location, and will remain until the pad is reclaimed.
2	Material Handling and Spill Prevention	<p>Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spill associated with oil and gas operations throughout the State of Colorado.</p> <ul style="list-style-type: none"> <li>• Materials and fluids will be stored in a neat and orderly fashion.</li> <li>• Waste will be collected regularly and disposed of at an offsite facility.</li> <li>• Prompt cleanup is required of spills to minimize waste materials entering the stormwater runoff.</li> <li>• Drip pans will be used during fueling and maintenance to contain spills or leaks.</li> <li>• Cleanup of trash and discarded material will be done at the end of the work day.</li> <li>• Cleanup will consist of monitoring the road, location and any other work areas.</li> <li>• Material to be cleaned up includes trash, scrap, and contaminated soil.</li> </ul>

Total: 2 comment(s)

## **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
2477946	CORRESPONDENCE
401067210	FORM 2A SUBMITTED
401067299	WELL LOCATION PLAT
401067300	ACCESS ROAD MAP
401067301	LOCATION DRAWING
401067304	REFERENCE AREA PICTURES
401067445	HYDROLOGY MAP
401067447	WASTE MANAGEMENT PLAN
401067463	NRCS MAP UNIT DESC
401067465	NRCS MAP UNIT DESC
401068083	SURFACE AGRMT/SURETY
401070886	LOCATION PICTURES
401070894	REFERENCE AREA MAP

Total Attach: 13 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	7/22/2016 11:02:17 AM
Permit	Permitting task complete.	7/22/2016 11:01:49 AM
OGLA	OGLA task passed.	7/22/2016 7:43:50 AM
OGLA	IN PROCESS - Operator concurred to clear the Drilling Program and Drilling Waste Management Program sections as no wells are proposed, remove musk thistle from the list of individual species in the Plant Community section, change Sensitvie Area designation to YES and add a Condition of Approval due to the nearby surface water feature, clear the groundwater baseline sampling Rule as that is only required when wells are on a location, and withdraw the related Horsetail 07G & 07H Form 2As as they were submitted only to indicate they would now produce to this location and that is captured in the Related Remote Locations section of this 2A.  OGLA review complete. Waiting on Public Comment period.	7/18/2016 9:35:39 AM
LGD	Oil and Gas Exploration and Production activities are currently considered a Use by Right in the Agricultural Zoned Districts of Weld County and no land use permitting is required.A building permit is required for the production facilities (tank battery, separators, pump jacks, compressors, etc.) from the Department of Planning Services.Troy Swain, Weld Oil and Gas Liaison and LGD (970) 400-3579.	7/18/2016 9:09:20 AM
OGLA	ON HOLD - Requested concurrence to clear the Drilling Program and Drilling Waste Management Program sections as no wells are proposed, remove musk thistle from the list of individual species in the Plant Community section, change Sensitvie Area designation to YES and add a Condition of Approval due to the nearby surface water feature, clear the groundwater baseline sampling Rule as that is only required when wells are on a location, and withdraw the related Horsetail 07G & 07H Form 2As as they were submitted only to indicate they would now produce to this location and that is captured in the Related Remote Locations section of this 2A. Due by 8/14/16.	7/14/2016 11:30:10 AM
Permit	Passed completeness.	7/1/2016 11:15:07 AM
Permit	Returned to draft: -- missing Location Pictures -- Reference Area Map is corrupt; will not open	6/29/2016 12:41:46 PM

Total: 8 comment(s)