

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:

400858759

**(SUBMITTED)**

Date Received:

08/10/2015

## 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:

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: 69175  
 Name: PDC ENERGY INC  
 Address: 1775 SHERMAN STREET - STE 3000  
 City: DENVER      State: CO      Zip: 80203

### Contact Information

Name: Halle Milne  
 Phone: (303) 318-6153  
 Fax: ( )  
 email: Halle.Milne@pdce.com

### RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20090078       Gas Facility Surety ID: \_\_\_\_\_  
 Waste Management Surety ID: \_\_\_\_\_

### LOCATION IDENTIFICATION

Name: Spaur      Number: 4N67W10LQ  
 County: WELD  
 Quarter: SESW    Section: 10    Township: 4N    Range: 67W    Meridian: 6    Ground Elevation: 4839

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: 255 feet FSL from North or South section line  
1583 feet FWL from East or West section line

Latitude: 40.320330      Longitude: -104.880850

PDOP Reading: 2.2      Date of Measurement: 05/18/2015

Instrument Operator's Name: Adam Beauprez

## 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 #**                     

Well Site is served by Production Facilities

400858894

## FACILITIES

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

Wells	<u>16</u>	Oil Tanks*	<u>32</u>	Condensate Tanks*	<u>          </u>	Water Tanks*	<u>          </u>	Buried Produced Water Vaults*	<u>4</u>
Drilling Pits	<u>          </u>	Production Pits*	<u>          </u>	Special Purpose Pits	<u>          </u>	Multi-Well Pits*	<u>          </u>	Modular Large Volume Tanks	<u>          </u>
Pump Jacks	<u>          </u>	Separators*	<u>16</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>          </u>	Fuel Tanks*	<u>          </u>	LACT Unit*	<u>          </u>
Dehydrator Units*	<u>          </u>	Vapor Recovery Unit*	<u>4</u>	VOC Combustor*	<u>14</u>	Flare*	<u>          </u>	Pigging Station*	<u>          </u>

## OTHER FACILITIES\*

**Other Facility Type**

**Number**

Meter House

4

\*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:

Each well will have a flow line, oil production line, water production line and a backpressure line, each battery will have a gas sales line. Oil production line and flow lines are 3 inch steel SCH 80FB PE DRL. Water production line and low pressure gas vent lines are 2 inch SDR7 poly. Gas sales lines installed and maintained by Gas Purchaser, normally 6 inch steel .256 FBE

## CONSTRUCTION

Date planned to commence construction: 11/19/2015

Size of disturbed area during construction in acres: 16.60

Estimated date that interim reclamation will begin: 05/19/2016

Size of location after interim reclamation in acres: 12.40

Estimated post-construction ground elevation: 4839

## 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: OFFSITE

Drilling Fluids Disposal Method: Land application

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Drill cuttings will be land applied at PDC spread fields with COGCC Facility ID 429629, 430649, 431183, 434889, or 436033.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 429629 or Document Number:                     

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

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Mark Spaur

Phone: 970-290-9298

Address: 22605 CR 15

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

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

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

City: Johnstown State: CO Zip: 80534

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 08/15/2014

### 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:	1771 Feet	1472 Feet
Building Unit:	1771 Feet	1703 Feet
High Occupancy Building Unit:	2566 Feet	2561 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	245 Feet	113 Feet
Above Ground Utility:	225 Feet	92 Feet
Railroad:	4975 Feet	4508 Feet
Property Line:	225 Feet	121 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.

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 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: 53—Otero sandy loam, 5 to 9 percent slopes

NRCS Map Unit Name: 52—Otero sandy loam, 3 to 5 percent slopes

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: 05/18/2015

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: 6 Feet

water well: 2511 Feet

Estimated depth to ground water at Oil and Gas Location 22 Feet

Basis for depth to groundwater and sensitive area determination:

Sensitive area determination: ground water is more than 20'. Depth to ground water determination: COGCC GIS Map. Receipt #0407666 and Permit #201205- -

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 zone: No

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

## 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 proposed Spaur 10i-201 (400858072) location was used as the reference point for footages and lat/long location.

The following wells will be drilled from this pad Spaur 10i-201 (400858072), Spaur 10i-321 (400858075), Spaur 10L-201 (400858078), Spaur 10L-241 (400858079), Spaur 10L-301 (400858081), Spaur 10L-321 (400858083), Spaur 10L-421 (400858084), Spaur 10Q-241 (400858086), Spaur 10Q-321 (400858087), Spaur 10Q-401 (400858088), Spaur 10T-201 (400858090), Spaur 10T-241 (400858091), Spaur 10T-301 (400858092), Spaur 10T-321 (400858093), Spaur 10T-421 (400858095) and Spaur 10Y-241 (400858096).

Please see Notification Zone Drawing and Leak Detection Plan attached as "Other"

Please note, the surface owner is the mineral owner in the lease covering the SW/4, therefore, some of the wells will pool in these minerals, however, none of the wellbores penetrate said surface owner's minerals, thus a SUA has been obtained.

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

Signed: \_\_\_\_\_ Date: 08/10/2015 Email: Halle.Milne@pdce.com

Print Name: Halle Milne Title: Regulatory Analyst

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: \_\_\_\_\_

### Surface Owner Information

Owner Name	Address	Phone	Fax	Email
Mark Spaur	22605 CR 15 Johnstown, CO 80534	970-290-9298		
Steve Spaur	22605 CR 15 Johnstown, CO 80534	970-302-0253		

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.**

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Storm Water/Erosion Control	Stormwater Management Plan contains required elements associated with PDC's construction activities for Areas 1, 2, 3, and 5, as defined in the CDPS General Permit for Stormwater Discharges Associated with Construction Activity, Authorization to Discharge Under the Colorado Discharge Permit System (Permit No. COR-030000, re-issued and effective July 1, 2007).BMPs for sediment and erosion control will be accomplished through a combination of construction techniques, vegetation and re-vegetation, administrative controls, and structural features.
2	Material Handling and Spill Prevention	To prevent adverse impacts to shallow groundwater, buried produced water vault shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner.
3	Construction	PDC will anchor all equipment at drilling and production sites in geological hazard and floodplain areas to the extent necessary to resist flotation, collapse, lateral movement, or subsidence

Total: 3 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400858759	FORM 2A SUBMITTED
400858837	NRCS MAP UNIT DESC
400858838	NRCS MAP UNIT DESC
400858848	LOCATION DRAWING
400858850	LOCATION PICTURES
400858851	MULTI-WELL PLAN
400858854	OTHER
400858856	WASTE MANAGEMENT PLAN
400858862	SURFACE AGRMT/SURETY
400858872	REFERENCE AREA PICTURES
400858879	OTHER
400879996	FACILITY LAYOUT DRAWING
400885279	ACCESS ROAD MAP
400885280	HYDROLOGY MAP
400885281	REFERENCE AREA MAP

Total Attach: 15 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Returned to draft. 1.) In the Surface & Minerals tab if "is committed to an Oil and Gas Lease" is selected than "is the mineral owner beneath the location" should also be selected. 2.) The Access Road Map, Reference Area Map, & Hydrology Map attachments have a error on the provided map.	8/14/2015 7:33:28 AM
Permit	p.	8/13/2015 7:48:48 AM

Total: 2 comment(s)