

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:

400470269

Date Received:

08/26/2013

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:

**434785**

Expiration Date:

**10/17/2016**

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: 2800

Name: ANADARKO E&P ONSHORE LLC

Address: PO BOX 173779

City: DENVER    State: CO    Zip: 80217

Contact Information

Name: Kenny Trueax

Phone: (720) 929-6383

Fax: ( )

email: kenny.trueax@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20030041     Gas Facility Surety ID: \_\_\_\_\_

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

LOCATION IDENTIFICATION

Name: Caboose    Number: 1548-21-41-H

County: CHEYENNE

Quarter: SESE    Section: 21    Township: 15S    Range: 48W    Meridian: 6    Ground Elevation: 4256

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: 660 feet FSL from North or South section line

660 feet FEL from East or West section line

Latitude: 38.722609    Longitude: -102.778226

PDOP Reading: 1.3    Date of Measurement: 06/20/2013

Instrument Operator's Name: Rob Wilson

## 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	<u>1</u>	Oil Tanks	<u>12</u>	Condensate Tanks	<u>      </u>	Water Tanks	<u>2</u>	Buried Produced Water Vaults	<u>      </u>
Drilling Pits	<u>2</u>	Production Pits	<u>      </u>	Special Purpose Pits	<u>      </u>	Multi-Well Pits	<u>      </u>	Temporary Large Volume Above Ground Tanks	<u>1</u>
Pump Jacks	<u>1</u>	Separators	<u>1</u>	Injection Pumps	<u>      </u>	Cavity Pumps	<u>      </u>		
Gas or Diesel Motors	<u>      </u>	Electric Motors	<u>      </u>	Electric Generators	<u>      </u>	Fuel Tanks	<u>      </u>	Gas Compressors	<u>      </u>
Dehydrator Units	<u>      </u>	Vapor Recovery Unit	<u>      </u>	VOC Combustor	<u>1</u>	Flare	<u>1</u>	LACT Unit	<u>      </u>
								Pigging Station	<u>      </u>

## OTHER FACILITIES

Other Facility Type

Number

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

Water and oil lines: one oil/water line from wellhead to separator; one water line and one oil line each are planned to go from the separator to the tank battery. Gas lines: one gas line will be run to ECD, and if needed one gas gathering line from separator to tie in to the midstream pipeline.

## CONSTRUCTION

Date planned to commence construction: 02/03/2014 Size of disturbed area during construction in acres: 12.91  
Estimated date that interim reclamation will begin: 05/01/2014 Size of location after interim reclamation in acres: 10.41  
Estimated post-construction ground elevation: 4254

## 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: Recycle/reuse

Cutting Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Cuttings will be spread on pad surface in compliance with rule 910; please see Waste Management Plan attached which includes facility IDs of reuse sites.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID:                    or Document Number:                   

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

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Gayla Sue Connelley Phone: 719--962-3303  
Address: P.O. Box 116 Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_

City: Kit Carson State: CO Zip: 80825

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: Bond

Surface damage assurance if no agreement is in place: Blanket Surface Surety ID: 2003004

Date of Rule 306 surface owner consultation 08/09/2013

### 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

Distance to nearest:

Building: 2350 Feet  
Building Unit: 2350 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 608 Feet  
Above Ground Utility: 507 Feet  
Railroad: 5280 Feet  
Property Line: 650 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: 51 Vona Loamy sand, 3 to 6 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: 07/17/2013

List individual species: Dominant species: Russian thistle - Salsola australis blue grama - Bouteloua gracilis slimflower scurfpea - Psoralidium tenuiflorum Texas croton-Croton texensis Fendler hiddenflower- Cryptantha fendleri copper mallow- Sphaeralcea coccinea little hogweed

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): Russian thistle Mixed Grass/Mixed Forb Rangeland

**WATER RESOURCES**

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 586 Feet

water well: 3680 Feet

Estimated depth to ground water at Oil and Gas Location 24 Feet

Basis for depth to groundwater and sensitive area determination:

Depth to groundwater was determined from depth of nearest water well. Sensitive area determination is based on data CDWR records.

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 N/A

**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

Nearest water well permit #: 42949

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

Signed: \_\_\_\_\_ Date: 08/26/2013 Email: kenny.trueax@anadarko.com

Print Name: Kenny Trueax Title: Sr. 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: 10/18/2013

### 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.

<u>COA Type</u>	<u>Description</u>

### Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>
1 Planning	The pad location is in a rural rangeland area. The closest occupied building is 2350' to the North.

Total: 1 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2086380	WELL LOCATION PLAT
2086381	LOCATION DRAWING
2086383	correspondence
20286371	WASTE MANAGEMENT PLAN
400470269	FORM 2A APPROVED
400471894	LOCATION PICTURES
400471901	REFERENCE AREA PICTURES
400472161	HYDROLOGY MAP
400472191	ACCESS ROAD MAP
400472205	30 DAY NOTICE LETTER
400472211	NRCS MAP UNIT DESC
400498760	FORM 2A SUBMITTED

Total Attach: 12 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	10/15/2013 2:21:28 PM
OGLA	operator explanation for large size of location after reclamation - from email:  The size of the Lincoln pad and the other four O2A forms submitted by Anadarko in this area (listed below) is based on the maximum amount of space needed for a multi-stage completion scenario. However, we have a few different completion models being evaluated for this area and actively working to shrink the pads wherever possible with a target size of approximately six acres. Being a new field for Anadarko we may not be able to determine the optimal stimulation design before the well is drilled. We will make sure the surface owner agrees to the maximum size before construction begins.	10/2/2013 4:21:38 PM
OGLA	operator correspondence attached - distance to surface water changed to 586', static water level changed to 24', waste mgt plan replaced, special purpose pit count changed to zero, drilling pit count changed to two, pad size explanation added, noxious weeds present - changed to "yes" due to russian thistle	10/2/2013 4:12:42 PM
OGLA	operator sent new Location Drawing and new Well Location Plat via email - attached to form. email sent to operator to address the following issues: distance to surface water, depth to groundwater, the waste management plan, the special purpose pit, the plant community, and the planned 10.41 acre planned pad size.	9/30/2013 11:33:34 AM
Agency	Pass Completeness. Re-spelled soil type.	8/27/2013 10:13:16 AM

Total: 5 comment(s)