

FORM  
2A

Rev  
04/01

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:  
400432702

Date Received:  
06/12/2013

Oil and Gas Location Assessment

New Location       Amend Existing Location      Location#: \_\_\_\_\_

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this 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. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:  
**433759**  
Expiration Date:  
**07/30/2016**

This location assessment is included as part of a permit application.

1. 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.

2. Operator

Operator Number: 96850  
 Name: WPX ENERGY ROCKY MOUNTAIN LLC  
 Address: 1001 17TH STREET - SUITE #1200  
 City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Greg Davis  
 Phone: (303) 606-4071  
 Fax: (303) 629-8268  
 email: greg.j.davis@wpxenergy.com

4. Location Identification:

Name: NE Ryan Gulch Wtr Recycling Pit Number: \_\_\_\_\_  
 County: RIO BLANCO  
 QuarterQuarter: NWNE Section: 25 Township: 1S Range: 98W Meridian: 6 Ground Elevation: 6662

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 214 feet FNL, from North or South section line, and 1320 feet FWL, from East or West section line.  
 Latitude: 39.940975 Longitude: -108.337954 PDOP Reading: 2.9 Date of Measurement: 03/15/2013  
 Instrument Operator's Name: W. Kirkpatrick

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text" value="1"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text" value="2"/>	Water Tanks: <input type="text" value="3"/>	Separators: <input type="text"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	

Other: 3 Gunbarrel Tanks, 2 Diesel Pumps, 1 Filter Pad, 1 Filter Press

6. Construction:

Date planned to commence construction: 07/15/2013 Size of disturbed area during construction in acres: 7.61  
Estimated date that interim reclamation will begin: 09/02/2013 Size of location after interim reclamation in acres: 3.20  
Estimated post-construction ground elevation: 6667 Will a closed loop system be used for drilling fluids: Yes  No   
Will salt sections be encountered during drilling: Yes  No  Is H2S anticipated? Yes  No   
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes  No   
Mud disposal: Offsite  Onsite  Method: Land Farming  Land Spreading  Disposal Facility   
Other: \_\_\_\_\_

### 7. Surface Owner:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Date of Rule 306 surface owner consultation: \_\_\_\_\_  
Surface Owner:  Fee  State  Federal  Indian  
Mineral Owner:  Fee  State  Federal  Indian  
The surface owner is:  the mineral owner  committed to an oil and gas lease  
 is the executer of the oil and gas lease  the applicant  
The right to construct the location is granted by:  oil and gas lease  Surface Use Agreement  Right of Way  
 applicant is owner  
Surface damage assurance if no agreement is in place:  \$2000  \$5000  Blanket Surety ID \_\_\_\_\_

### 8. Reclamation Financial Assurance:

Well Surety ID: \_\_\_\_\_  Gas Facility Surety ID: \_\_\_\_\_  Waste Mgnt. Surety ID: \_\_\_\_\_

### 9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes  No   
Distance, in feet, to nearest building: 5900, public road: 5100, above ground utility: 1598,  
railroad: 14800000, property line: 10400

### 10. 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

### 11. 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

### 12. Soils:

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.gov/> 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: 104. Yamac loam, 2 to 15% slopes

NRCS Map Unit Name: 73. Rentsac channery loam, 5 to 50% slopes

NRCS Map Unit Name:

### 13. 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: 12/13/2012

List individual species: Grama, Wheatgrass, Sage, Juniper, Pinyon

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):

### 14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area:  No  Yes Was a Rule 901.e. Sensitive Areas Determination performed:  No  Yes

Distance (in feet) to nearest surface water: 1564, water well: 6281, depth to ground water: 507

Is the location in a riparian area:  No  Yes Was an Army Corps of Engineers Section 404 permit filed  No  Yes

Is the location within a Rule 317B Surface Water Suppl Area buffer zone:

No  0-300 ft. zone  301-500 ft. zone  501-2640 ft. 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  Yes

### 15. Comments:

Reference Area Photos will be sent at a later date.

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

Signed: \_\_\_\_\_ Date: 06/12/2013 Email: greg.j.davis@wpenergy.com

Print Name: Greg Davis Title: Supervisor Permits

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: Matthew Lee Director of COGCC Date: 7/31/2013

**CONDITIONS OF APPROVAL, IF ANY:**

**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.**

FORM 15 EARTHEN PIT PERMIT COAs;

The multi-well pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

Delivery and vacuum truck hoses will not be allowed to be placed directly onto the pit liner. Operator will construct a loading/unloading station located next to the pit, to deliver fluids to or remove fluids from the pit by truck. The loading/unloading station shall be designed and utilized to prevent hoses from being dropped into the pits and dragged over the liner, which could lead to liner damage. The loading/unloading station will be the only permitted access for manual fluids transfers to or from the pit. Vehicles will not be allowed to approach the pit any closer than the loading/unloading station. Each station will have a catch basin in case a leak occurs while operations personnel are connecting or disconnecting hoses. Signs clearly marking the truck loading/unloading station shall be provided and maintained by the operator.

Operator must submit a professional engineer (PE) approved/stamped as-built drawing (plan view and cross-sections) of the multi-well pit within 30 calendar days of construction.

After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with at least 70 percent of operating capacity of water, measured from the base of the pit (not to exceed the 2-foot freeboard requirement). The operator shall monitor the pit for leaks for a period of 72 hours prior to either draining the pit or commencing operations. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit (via Form 4 Sundry to Dave Kubeczko; email dave.kubeczko@state.co.us) .

In lieu of conducting an initial hydrostatic test of the pit, the operator can monitor fluid levels in the pit continuously using a minimum of two pressure transducers located at the upgradient and downgradient ends of the pit (based on the original topographic profile). These pressure transducers should be linked to the operator's SCADA system such that they can be remotely monitored. In addition, the pit liner will be marked at the two foot freeboard depth line so that operations personnel (as well as COGCC inspectors) can easily verify that the required fluid free board is being maintained. The electronically collected water level measurement data shall be used to confirm changes in pit inflow and outflow during operations based on estimates from truck and/or pipeline delivery or removal activities. Any abnormalities that are noticed during operations will be reported to the operator's field supervisor immediately so that any necessary follow-up can be scheduled.

No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

The nearby downgradient hillside below the pit location must be periodically monitored for any day-lighting of fluids throughout pit operations.

The multi-well pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed.

This multi-well pit will comply with Rule 902. PITS - GENERAL AND SPECIAL RULES. e. Pits used for a period of no more than three (3) years for storage, recycling, reuse, treatment, or disposal of E&P waste or fresh water, as applicable, may be permitted in accordance with Rule 903 to service multiple wells.

Operator has indicated that this facility may be in operation from 3 to 5 years. Should the operation of this facility continue more than three years, a Form 28 shall be submitted and approved prior to the expiration of the Form 2A and Form 15.

The operator shall submit, and receive approval of, a reuse and recycling plan per Rule 907.a.(3), prior to any offsite reuse/recycling of pit fluids.

The multi-well pit shall be closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels; with an approved Site Investigation and Remediation Workplan, Form 27.

Submit additional disposal facilities (wells, pits, etc.), if necessary (i.e., if original disposal option changes), for pit liquid contents to COGCC via a Form 4 Sundry prior to disposal.

At the time of pit closure, operator must submit disposal information for solids, if necessary, via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure.

**TEMPORARY SURFACE PIPELINE COAs:**

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or configuration of the permanent pipeline network.

Operator must implement best management practices to contain any unintentional release of fluids along all portions of the surface pipeline route where temporary pumps and other necessary equipment are located.

Operator must routinely inspect the entire length of the surface pipeline to ensure integrity.

Operator must ensure 110 percent secondary containment for any potential volume of fluids that may be released from the surface pipeline at all stream, intermittent stream, ditch, and drainage crossings.

Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

**GENERAL SITE COAs:**

Notify the COGCC 48 hours prior to start of frac pad construction, pit liner installation, start of hydrostatic test, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Operator must implement best management practices to contain any unintentional release of fluids at the pit location, as well as any fluids conveyed via temporary surface or buried permanent pipelines.

Operator must ensure secondary containment for any volume of fluids contained at frac pad site during completion operations (as described on the BMP tab); including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the frac pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

Flowback and stimulation fluids from nearby wells must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into the multi-well pit or storage vessel on the frac pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the frac pad or nearby well pads in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

Additional containment shall be required where temporary or permanent pumps and other necessary equipment or chemicals are located.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

**GROUNDWATER SAMPLING COA:**

Operator shall comply with Rule 609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING.

### Attachment Check List

Att Doc Num	Name
2106678	CORRESPONDENCE
400432702	FORM 2A SUBMITTED
400432745	LOCATION PICTURES
400432747	LOCATION DRAWING
400432748	HYDROLOGY MAP
400432749	ACCESS ROAD MAP
400432751	REFERENCE AREA MAP
400432753	NRCS MAP UNIT DESC
400432754	CONST. LAYOUT DRAWINGS
400432755	PROPOSED BMPs
400432756	SENSITIVE AREA DATA
400432760	OTHER

Total Attach: 12 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	NO LGD or public comments. Final Review-passed.	7/18/2013 11:16:59 AM
OGLA	Initiated/Completed OGLA Form 2A review on 06-26-13 by Dave Kubeczko; placed fluid containment, spill/release BMPs, double-lined pit, fencing and netting, leak dection, as-builts, flowback to tanks, sediment control access road/pad, tank berming, hillside monitoring, dust control, secondary containment, hydrotest, loading station, pit closure, 3-year max, temp pipeline, pipeline testing, and baseline GW and SW sampling COAs on the Form 2A and Form 15; passed by CPW with WMP acceptable; passed OGLA Form 2A review on 07-17-13 by Dave Kubeczko; fluid containment, spill/release BMPs, double-lined pit, fencing and netting, leak dection, as-builts, flowback to tanks, sediment control access road/pad, tank berming, hillside monitoring, dust control, secondary containment, hydrotest, loading station, pit closure, 3-year max, temp pipeline, pipeline testing, and baseline GW and SW sampling COAs.	6/26/2013 9:29:15 PM
DOW	The recycling pit facility is located within the boundary of the Williams Ryan Gulch WMP. The BMPs and COAs were developed and agreed upon in consultation of the Wildlife Mitigation Plan. The BMPs and COAs submitted by the operator and those contained in the Wildlife Mitigation Plan are appropriate for the site and wildlife species effected.  Approved: Taylor Elm, 6/17/2013, 8:40	6/17/2013 8:51:16 AM
Permit	Per operator added on special purpose pit to facilities tab. Added related form 15.	6/13/2013 2:18:39 PM

Total: 4 comment(s)

### BMP

<u>Type</u>	<u>Comment</u>
Site Specific	NE Ryan Gulch Water Recycling Pit Section 15 Language for Form 2A Regardless of the result of the Sensitive Area Determination, WPX will employ the following BMPs to support protection of surface and ground water: <ul style="list-style-type: none"> <li>• WPX will ensure 110 percent secondary containment for any volume of fluids contained at well site during operations.</li> <li>• WPX will implement best management practices to contain any unintentional release of fluids.</li> <li>• The pit will be appropriately lined to meet COGCC requirements.</li> </ul>

Planning	<p>Planning</p> <ul style="list-style-type: none"> <li>• Conduct wildlife surveys to determine presence of game/non-game species/habitat</li> <li>• Site access roads, pads and facilities in locations that minimize habitat impacts</li> <li>• Plan pipelines routes ahead of time to avoid field fitting and reduce excessive ROW widths and reclamation.</li> <li>• Adequately size infrastructure and facilities to accommodate both current and future production</li> </ul>
General Housekeeping	<p>General</p> <ul style="list-style-type: none"> <li>• Treat/control noxious weeds/plants</li> <li>• Focus BMPs on critical wildlife seclusion and “crucial habitats’</li> <li>• Continue to Support Operation Game Thief</li> <li>• Participate in wildlife seminars and conferences (e.g. AFWA)</li> <li>• Focus Ranch and Property Management (WPX owned/managed properties) on wildlife resources</li> <li>• Fence and restrict activities in locations that provide high value habitat</li> <li>• Enforce policies to protect wildlife (e.g., no poaching, no firearms, no dogs on location, no feeding of wildlife, etc.).</li> <li>• Inventory, monitor and remove obsolete, degraded, or hazardous fencing on WPX owned property</li> </ul>
Construction	<p>Construction</p> <ul style="list-style-type: none"> <li>• Surface roads to ensure that the anticipated volume of traffic and the weight and speed of vehicles using the road do not cause environmental damage, including generation of fugitive dust and contribution of sediment to downstream areas.</li> <li>• Protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls</li> <li>• Construct fluid pit fences and nets that are capable of withstanding animal pressure and environmental conditions and that are appropriately sized for the wildlife encountered.</li> <li>• Install impermeable barriers beneath fluid pits to protect groundwater, riparian areas and wetlands.</li> <li>• Salvage topsoil from all road construction and other rights-of-way and re-apply during interim and final reclamation.</li> <li>• Strip and segregate topsoil prior to construction. Appropriately configure topsoil piles to control erosion, prevent weed establishment and maintain soil microbial activity</li> </ul>
Drilling/Completion Operations	<p>Drilling/Completions</p> <ul style="list-style-type: none"> <li>• Continue application of BMPs to prevent wildlife from entering pits including fencing and netting where appropriate</li> <li>• Promptly report spills that affect wildlife to the CDOW.</li> <li>• Store and stage emergency spill response equipment at strategic locations so that it is available to expedite effective spill response.</li> <li>• Limit parking to already disturbed areas that have not yet been reclaimed</li> </ul>

Interim Reclamation	<p>Production/Reclamation</p> <ul style="list-style-type: none"> <li>• Install automated emergency response systems (e.g., high tank alarms, emergency shut- down systems, etc.).</li> <li>• Implement fugitive dust control program</li> <li>• Skim and eliminate oil from produced water ponds and fluid pits at a rate sufficient to prevent oiling of birds or other wildlife that could gain access to the pit.</li> <li>• Apply an aggressive, integrated, noxious and invasive weed management plan. Utilize an adaptive management strategy that permits effective responses to monitored findings and reflects local site and geologic conditions</li> <li>• Map the occurrence of existing weed infestations prior to development to effectively monitor and target areas that will likely become issues after development.</li> <li>• Evaluate the utility of soil amendment application to achieve effective reclamation.</li> <li>• Use appropriately diverse reclamation seed mixes that mirror an appropriate reference area for the site being reclaimed where approved by landowner.</li> <li>• Conduct seeding in a manner that ensures that seedbed preparation and planting techniques are targeted toward the varied needs of grasses, forbs and shrubs (e.g., seed forbs and shrubs separately from grasses, broadcast big sagebrush but drill grasses, etc.)</li> <li>• Emphasize bunchgrass over sod-forming grasses in seed mixes in order to provide more effective wildlife cover and to facilitate forb and shrub establishment.</li> <li>• Seed during appropriate season to increase likelihood of reclamation success</li> <li>• Establish vegetation with total perennial non-invasive plant cover of at least eighty (80) percent of pre-disturbance or reference area levels.</li> <li>• Observe and maintain a performance standard for reclamation success characterized by the establishment of a self-sustaining, vigorous, diverse, locally appropriate plant community on the site, with a density sufficient to control erosion and non-native plant invasion and diversity sufficient to allow for normal plant community development.</li> <li>• Use early and effective reclamation techniques, including interim reclamation to accelerate return of disturbed areas for use by wildlife</li> <li>• Remove all unnecessary infrastructure during the production phase.</li> <li>• Remediate hydrocarbon spills on disturbed areas prior to reclamation.</li> <li>• Perform interim reclamation to final reclamation species composition and establishment standards.</li> <li>• Perform interim reclamation on all disturbed areas not needed for active support of production operations</li> <li>• Remove and properly dispose of degraded silt fencing and erosion control materials after their utility has expired</li> <li>• Apply certified weed free mulch and crimp or tacyfy to remain in place to reclaim areas for seed preservation and moisture retention</li> <li>• Control weeds in areas surrounding reclamation areas in order to reduce weed competition</li> <li>• Educate employees and contractors about weed issues</li> <li>• Where possible, fence livestock and/or wildlife out of newly reclaimed areas until reclamation standards have been met and plants are capable of sustaining herbivory</li> <li>• Conduct necessary reclamation and invasive plant monitoring.</li> <li>• Maintain pre and post development site inspection records and monitor operations for compliance</li> <li>• Conduct reclamation field trials to match seed mixes, soil preparation techniques, and planting methods to local conditions.</li> </ul>
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Total: 6 comment(s)