

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:

400396266

Date Received:

04/01/2013

## Oil and Gas Location Assessment

New Location

Amend Existing Location

Location#: 413761

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:

**413761**

Expiration Date:

**04/30/2016**

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: Williams

Number: GM 245-1

County: GARFIELD

Quarter: SWNE Section: 1 Township: 7S Range: 96W Meridian: 6 Ground Elevation: 5309

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: 1732 feet FNL, from North or South section line, and 1937 feet FEL, from East or West section line.

Latitude: 39.468686 Longitude: -108.056095 PDOP Reading: 1.9 Date of Measurement: 04/10/2012

Instrument Operator's Name: J. Kirkpatrick

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

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

Other: \_\_\_\_\_

### 6. Construction:

Date planned to commence construction: 05/01/2013 Size of disturbed area during construction in acres: 3.89  
Estimated date that interim reclamation will begin: 09/01/2013 Size of location after interim reclamation in acres: 1.29  
Estimated post-construction ground elevation: 5309 Will a closed loop system be used for drilling fluids: Yes   
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: Re-use and evaporation

### 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: 20030107  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: 1400, public road: 3900, above ground utility: 206,  
railroad: 3111, property line: 1004

### 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: 47. Nihill Channery loam, 6 to 25% slopes

NRCS Map Unit Name: \_\_\_\_\_  
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: 03/26/2003  
List individual species: Cheatgrass

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: 279, water well: 4487, depth to ground water: 45  
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:

WPX Energy owns the surface. Injectors: GM 923-1D - UIC #159295; GM 931-1D - UIC #159297; GM 943-1D - UIC #159296; Reference area pictures are required within 12 months from date of Form 2A permit approval.

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

Signed: \_\_\_\_\_ Date: 04/01/2013 Email: greg.j.davis@wpxenergy.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:  Director of COGCC Date: 5/1/2013

**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.**

PIPELINE COAs:

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service.

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.

**SITE SPECIFIC COAs:**

Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, 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).

Surface water samples from Hayes Gulch to the west-southwest (one upgradient and one downgradient from the well pad location), shall be collected prior to injection well operations and every 12 months (until well pad closure) to evaluate potential impacts from operations. At a minimum, the surface water samples will be analyze for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO.

Operator must submit an as-built drawing (plan view and cross-sections) of the SWD injection well pad and associated equipment within 30 calendar days of completion of the injection wells.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface or buried pipelines.

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations; 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 well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

The moisture content of any cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, if the drill cuttings are to be left onsite, they must also meet the applicable standards of table 910-1.

If the wells are to be hydraulically stimulated, flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) located on the well 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 well pad 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.

Operator will use qualified containment devices for all appropriate chemicals/hazardous materials used onsite during the operation of the injection wells.

All tanks and aboveground vessels containing fluids must have secondary containment structures. All secondary containment structures/areas must be lined. Operator must ensure a minimum of 110 percent secondary containment for the largest structure containing fluids within each bermed area the facility during operations. The construction and lining of the secondary containment structures/areas shall be supervised by a professional engineer or their agent.

Operator shall equip and maintain on all tanks an electronic level monitoring device.

Operator shall install a steel containment ring around tank batteries to provide secondary containment and install a synthetic liner that underlies the entire battery and is keyed into the top of the containment ring.

Approval of this Form 2A does not authorize operator the right to inject. Authorization to inject into the selected Formation(s) requires approval of both the Form 31 and the Form 33.

Before hydraulic stimulation of the each well, operator shall collect a groundwater sample from the Ohio Creek and analyze for total dissolved solids (TDS); submit laboratory analytical results to [denise.onyskiw@state.co.us](mailto:denise.onyskiw@state.co.us) and [arthur.koelspell@state.co.us](mailto:arthur.koelspell@state.co.us).

**Attachment Check List**

Att Doc Num	Name
2106576	CORRESPONDENCE
400396266	FORM 2A SUBMITTED
400396279	LOCATION PICTURES
400396280	LOCATION DRAWING
400396281	ACCESS ROAD MAP
400396282	HYDROLOGY MAP
400396283	REFERENCE AREA MAP
400396284	CONST. LAYOUT DRAWINGS
400397038	NRCS MAP UNIT DESC
400397040	PROPOSED BMPs
400397041	MULTI-WELL PLAN
400397042	SENSITIVE AREA DATA
400397043	OTHER

Total Attach: 13 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Amended 2A for built location with no previous 2A. Corrected facility tab: 3 wells on pad. No LGD or public comments. Final Review--passed.	4/26/2013 8:45:20 AM
OGLA	Initiated/Completed OGLA Form 2A review on 04-25-13 by Dave Kubeczko; placed fluid containment, spill/release BMPs, tank berming, flowback to tanks, cuttings low moisture content, secondary containment, SW sampling, tank level monitoring, and injection formation TDS sampling COAs on Form 2A; passed by CPW on 04-03-13 with operator submitted BMPs and WMP acceptable; passed OGLA Form 2A review on 04-25-13 by Dave Kubeczko; fluid containment, spill/release BMPs, tank berming, flowback to tanks, cuttings low moisture content, secondary containment, SW sampling, tank level monitoring, and injection formation TDS sampling COAs.	4/25/2013 4:36:12 PM
LGD	Passed DB	4/12/2013 11:40:10 AM
DOW	This well pad is located within the boundary of the approved WPX-CPW Wildlife Mitigation Plan. The BMPs were developed and agreed upon in the consultation and development of the Wildlife Mitigation Plan. CPW affirms that the BMPs and conditions of approval of the Wildlife Mitigation Plan suffice to address wildlife mitigation concerns.  Approved: Jim Komatinsky 4-3-2013	4/3/2013 3:04:09 PM
Permit	Checked the applicant box for the question the surface owner is to match the operator comments. This form has passed completeness.	4/2/2013 8:50:34 AM

Total: 5 comment(s)

**BMP**

Type	Comment
Construction	<p>Construction</p> <ul style="list-style-type: none"> <li>• Schedule necessary construction in stream courses to avoid critical spawning times.</li> <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>• Use the minimum right-of-way width and vegetation mats where pipelines cross riparian areas and streams wherever possible</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 and immediately seed to control erosion, prevent weed establishment and maintain soil microbial activity</li> </ul>
Interim Reclamation	<p>Production/Reclamation</p> <ul style="list-style-type: none"> <li>• Gate access roads where necessary to minimize/control access to “crucial habitats”</li> <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>• Avoid direct discharge of pipeline hydrostatic test water to any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.</li> <li>• Locate above-ground facilities to minimize the visual effect (e.g., low profile equipment, appropriate paint color, vegetation screening in wooded areas, etc.).</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 or consider importing topsoil to achieve effective reclamation.</li> <li>• Use locally adapted seed whenever available and approved by landowner.</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>• Do not include aggressive, non-native grasses in reclamation seed mixes</li> <li>• Choose reference areas as goals for reclamation that have high wildlife value, with attributes such a diverse and productive understory of vegetation, productive and palatable shrubs, and a high prevalence of native species.</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>• Establish vegetation with plant diversity of non-invasive species which is at least half that of pre-disturbance or reference area levels. Quantify diversity of vegetation using a metric that considers only species with at least 3 percent relative plant cover.</li> <li>• Establish permanent and monumented photo points and vegetation measurement plots or transects; monitor at least annually until plant cover, composition, and diversity standards have been met.</li> </ul>

	<ul style="list-style-type: none"> <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>• Reclaim reserve pits as quickly as practical after drilling and ensure that pit contents do not contaminate soil.</li> <li>• Remediate hydrocarbon spills on disturbed areas prior to reclamation.</li> <li>• Complete final reclamation activities so that seeding occurs during the first optimal season following plugging and abandonment of oil and gas wells.</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>• Remove and properly dispose of pit contents where contamination of surface water, groundwater, or soil by pit contents cannot be effectively prevented</li> <li>• Apply certified weed free mulch and crimp or tacify 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>• Census and assess the utilization of the reclaimed areas by the target species</li> <li>• Maintain pre and post development site inspection records and monitor operations for compliance</li> <li>• Utilize GIS technologies to assess the extent of disturbance and document the reclamation progression and the footprint of disturbances</li> <li>• Identify native species for which commercial seed sources are not available. Provide support to contractors for developing cultivation and seed production techniques for needed species</li> <li>• Conduct reclamation field trials to match seed mixes, soil preparation techniques, and planting methods to local conditions.</li> </ul>
General Housekeeping	<p>General</p> <ul style="list-style-type: none"> <li>• Treat/control noxious weeds/plants including Tamarisk</li> <li>• Focus BMPs on critical wildlife seclusion and “crucial habitats’</li> <li>• Continue to Support Operation Game Thief</li> <li>• Continue to support CDOW sportsman’s programs</li> <li>• Participate in wildlife seminars and conferences (e.g. AFWA)</li> <li>• Focus Ranch and Property Management (Williams’ owned/managed properties) on wildlife resources</li> <li>• Identify conservation easement opportunities on Williams-owned/managed properties</li> <li>• Acquire water rights and irrigate key habitat areas</li> <li>• Restrict and/or manage grazing to benefit wildlife</li> <li>• Fence and restrict activities in locations that provide high value habitat</li> <li>• Construct habitat improvement projects as practical</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 Williams owned property</li> <li>• Support research to test the effectiveness of specific Best Management Practices</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>• Limit days/hours operations where practical to minimize disturbance and traffic</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> <li>• Screen water suction hoses to exclude fish.</li> <li>• Reduce noise by using effective sound dampening devices or techniques (e.g., hospital-grade mufflers, equipment housing, insulation, installation of sound barriers, earthen berms, vegetative buffers, etc.).</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>• Identify and Protect "crucial habitats"</li> <li>• Site access roads, pads and facilities in locations that minimize habitat impacts</li> <li>• Identify private and Federal land seclusion areas where drilling will be voluntarily deferred in critical seasonal habitats</li> <li>• Identify and protect migration corridors</li> <li>• Minimize well pad density to the extent possible</li> <li>• Minimize the number, size and distribution of well pads and locate pads along existing roads where possible.</li> <li>• Cluster well pads in the least environmentally sensitive areas.</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 gas production.</li> </ul>

Total: 5 comment(s)