FORM 2A Rev

08/13

State of Colorado
Oil and Gas Conservation Commission

CODE

Document Number:

400639719

Oil and Gas Location Assessment

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

New Location	Refile	Amend Existing Location	Location#:		
prior to any ground distu Assessment will allow fo use rules applied by the	rbance activity associ r the construction of t local land use authori	s Location Assessment is to be submated with oil and gas operations. Aphe below specified Location; howeverty. Please see the COGCC website and Gas Location Assessment.	proval of this C r, it does not so	Oil and Gas Location upersede any land	

Date Received:

08/06/2014

Location ID:

<u>439690</u>

Expiration Date:

11/04/2017

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	Contact Information
Operator Number: 96850	Name: Angela Neifert-Kraiser
Name: WPX ENERGY ROCKY MOUNTAIN LLC	Phone: (303) 606-4398
Address: 1001 17TH STREET - SUITE #1200	Fax: ()
City: DENVER State: CO Zip: 80202	email: Angela.Neifert- Kraiser@wpxenergy.com
RECLAMATION FINANCIAL ASSURANCE Plugging and Abandonment Bond Surety ID: Waste Management Surety ID:	Sas Facility Surety ID:
LOCATION IDENTIFICATION	
Name: Pitchers Mound Water Recycling Nur	mber: Pit 13-35-198
County: RIO BLANCO	
QuarterQuarter: NWSW Section: 35 Township: 1S Range:	98W Meridian: 6 Ground Elevation: 6781
Define a single point as a location reference for the facility location. When the a well location.	location is to be used as a well site then the point shall be
Footage at surface: 2429 feet FSL from North or South section line	
1061 feet FWL from East or West section line	
Latitude: 39.919217 Longitude: -108.365674	
PDOP Reading: 3.0 Date of Measurement: 02/27/2013	
Instrument Operator's Name: J KIRKPATRICK	

RELATED REMOTE LO	CATIONS			
(Enter as many Related Lo	ocations as necessary. Ent	er the Form 2A docum	ent # only if there is no es	stablished COGCC Location ID#)
This proposed Oil and	Gas Location is:	LOCATION ID #	FORM 2A DOC #	
FACILITIES				
Indicate the number of eac	ch type of oil and gas facilit	ty planned on location		
Wells 0	Oil Tanks	2 Condensate Tanks	Water Tanks 3	Buried Produced Water Vaults
Drilling Pits	Production Pits	Special Purpose Pits	Multi-Well Pits 1	Temporary Large Volume
Pump Jacks	Separators	Injection Pumps	Cavity Pumps	Above Ground Tanks ——
Gas or Diesel Motors	Electric Motors	1 Electric Generators	Fuel Tanks	Gas Compressors
Dehydrator Units	Vapor Recovery Unit	VOC Combustor	Flare	LACT Unit
				Pigging Station
OTHER FACILITIES				
Other Facility Type			<u>Number</u>	
Gunbarrel tanks, Filte	r pods		3	
Per Rule 303.b.(3)C, descr	ription of all oil, gas, and/o	r water pipelines:		
CONSTRUCTION	oduction line in Pitcher's N			
Date planned to comme	nce construction: 11/0	3/2014 Size	of disturbed area durir	ng construction in acres: 6.50
Estimated date that inte				im reclamation in acres: 2.60
Estimated post-construc	ction ground elevation:	6789		
DRILLING PROGRAM				
Will a closed loop syster	m be used for drilling flu	ids:		
Is H ₂ S anticipated?	· ·			
Will salt sections be end	countered during drilling	:		
Will salt based mud (>1				
Will oil based drilling flui	ds be used?			
DRILLING WASTE MAI	NAGEMENT PROGRAM	Л		
Drilling Fluids Disposal:		Drilling Fluids	Disposal Method:	
Cutting Disposal:		Cuttings	51 184 41 1	
Other Disposal Descript				
Beneficial reuse or land	application plan submit	ted?		
Reuse Facility ID:	or Docun	nent Number:		
Centralized E&P Waste	Management Facility II	D, if applicable:		

SURFACE & MINERALS & RIGHT TO CONSTRUCT						
Name: BUREAU OF LAND MANAGEMENT Phone: 970-878-3800						
Address: WHITE RIVER FIELD OFFICE Fax: 970-878-3805						
Address: 220 EAST MARKET STREET Email:						
City: MEEKER State: CO Zip: 81641						
Surface Owner: Fee State Federal Indian						
Check all that apply. The Surface 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:						
The right to construct this Oil and Gas Location is granted by: oil and gas lease						
Surface damage assurance if no agreement is in place: Surface Surface Surety ID:						
Date of Rule 306 surface owner consultation						
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	INSTRUCTIONS:
Distance to nearest:	- All measurements shall be provided from center of nearest Well or edge of nearest Production
Building: 5280 Feet	Facility to nearest of each cultural feature as
Building Unit: 5280 Feet	described in Rule 303.b.(3)A Enter 5280 for distance greater than 1 mile.
High Occupancy Building Unit: 5280 Feet	- Building - nearest building of any type. If nearest
Designated Outside Activity Area: 5280 Feet	Building is a Building Unit, enter same distance for both.
Public Road: 377 Feet	- Building Unit, High Occupancy Building Unit, and
Above Ground Utility: 242 Feet	Designated Outside Activity Area - as defined in 100-Series Rules.
Railroad: 5280 Feet	
Property Line: 1061 Feet	
DESIGNATED SETBACK LOCATION INFORMATION	- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
Check all that apply. This location is within a: Buffer Zone	- Exception Zone - as described in Rule 604.a.(1),
Exception Zone	within 500' of a Building Unit Urban Mitigation Area - as defined in 100-Series
Urban Mitigation Area	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:	
report showing the "Map Unit Description" report listing the soil typical vertical prosegregating topsoil. The required information can be obtained from the NRCS web site at http://soilda COGCC web site GIS Online map page found at http://colorado.gov/cogcc. Instruweb site help section.	tamart.nrcs.usda.org/ or from the
NRCS Map Unit Name: 64-Piceance fine sandy loam, 5 to 15 percent slopes	
NRCS Map Unit Name: 70-Redcreek-rentsac complex, 5 to 30 percent slopes	
PLANT COMMUNITY: Complete this section only if any portion of the disturbed area of the location's cur	rrent land use is on non-crop land.
Are noxious weeds present: Yes ☐ No 🗵	
Plant species from: NRCS or, field observation	Date of observation: 07/24/2014
List individual species: Utah Juniper, Wyoming sagebrush, western wheatgrass	
Check all plant communities that exist in the disturbed area. Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)	
 ☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatg 	grass. Brome)
Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)	,,
Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Ta	amarisk)
Mountain Riparian (Cottonwood, Willow, Blue Spruce)	
Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, A	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:652_Feet
water well: 4455 Feet
Estimated depth to ground water at Oil and Gas Location487_ Feet
Basis for depth to groundwater and sensitive area determination:
See Sensetive Area Determination
Is the location in a riparian area: ☒ No ☐ Yes
Was an Army Corps of Engineers Section 404 permit filed 区 No ☐ Yes If yes attach permit.
Is the location within a Rule 317B Surface Water Supply Area buffer No 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:
GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING
Water well sampling required per Rule 609
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 Pitchers Mound Water Recycling Pit 13-35-198

I hereby certify that the statements made in Signed:		m are, to the best of my knowledge, true, correct and complete. 08/06/2014 Email: Angela.Neifert-Kraiser@wpxenergy.com				
Print Name: Angela Neifert-Kraiser	_ Title:	Regulatory Specialist				
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: Mathew les		Director of COGCC Date: 11/5/2014				
	Cond	ditions Of Approval				
constitute representations, stipulations	onditions and co	s of approval stated in this Form 2A for this location shall and it is not approval for any and all subsequent operations on y Sundry Notice, Form 4 or an Amended Form 2A.				

COA Type

Description

GROUNDWATER AND SURFACE WATER SAMPLING COAs:

Groundwater Testing: Prior to pit operations, operator shall sample at a minimum two (2) domestic water wells or springs within a one (1) mile radius of the proposed oil and gas location. Testing preference shall be given to domestic water wells and springs over surface water. If possible, the water wells or springs selected should be on opposite sides of the water recycling pit site not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the water recycling pit site cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the water recycling pit site shall be sampled. The groundwater sample locations shall be surveyed in accordance with Rule 215. Sampling and analysis shall be conducted in conformance with Rule 609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING. Initial baseline testing shall include: pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO3), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime and coliform), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Hydrogen sulfide shall also be measured using a field test method. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included. COGCC recommends that the latest version of EPA SW 846 analytical methods be used where possible and that analyses of samples be performed by laboratories that maintain state or national accreditation programs.

If free gas or a dissolved methane concentration greater than 1.0 milligram per liter (mg/l) is detected in a water well, gas compositional analysis and stable isotope analysis of the methane (carbon and hydrogen: 12C, 13C, 1H and 2H) shall be performed to determine gas type. If test results indicated thermogenic or a mixture of thermogenic and biogenic gas, then the operator shall submit to the Director an action plan to determine the source of the gas. If the methane concentration increases by more than 5.0 mg/l between sampling periods, or increases to more than 10. mg/l, the operator shall notify the Director and the owner of the water well immediately. After 90 days, but less than 180 days of use of the pit for completion operations, a "second" test shall be performed for the same analytical parameters listed above and repeated once every 12 months. Additional test(s) may be required if changes in water quality are identified during follow-up testing. The Director may require further water well sampling at any time in response to complaints from water well owners. Copies of all test results described above shall be provided to the Director and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. The analytical data and surveyed well locations shall also be submitted to the Director in an electronic data deliverable format. Documented refusal to grant access by well owner or surface owner (for water well or spring sampling), or if no water wells or springs are located/identified within one mile. shall not constitute a violation of this COA.

Surface water sample from the unnamed intermittent stream located approximately 662 feet to the north of the pit site (if water is present), shall be collected prior to pit use and every 12 months (until pit closure) to evaluate potential impacts from pit operations. At a minimum, the surface water samples will be analyze for pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO3), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime forming), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Field observations such as odor, water color, sediment, bubbles, and effervescence shall also be documented. The location of the sampled surface water shall be surveyed in accordance with Rule 215.

FORM 15 EARTHEN PIT CONSTRUCTION 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 48 hours prior to start of the hydrotest using the Form 42. 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 a Form 4 Sundry.

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

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

Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location.

Operator will implement measures to ensure that adequate separation of hydrocarbons from the influent occurs to prevent accumulation of oil on the surface of stored completions fluids. Operator shall also employ a method for monitoring buildup of phase-separated hydrocarbons on the surface of stored fluids.

No oil is permitted on the surface of completions fluids.

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. The three year time clock will start from the date of first use after hydrostatic testing and be based on submittal of the Form 42 providing that date.

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.

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

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.

Operator must routinely inspect the entire length of the surface pipeline to ensure integrity. Operator shall conduct daily inspections of surface poly pipeline routes for leaks during active transfer of fluids and 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. Inspections shall be conducted by viewing the length of the pipeline; operator will endeavor to minimize surface disturbance during pipeline monitoring. In addition, pump stations along the surface poly or steel pipeline route will be continuously monitored when operating in order to swiftly respond to such a failure.

Operator will implement BMPs necessary to mitigate a potential for a release of fluids to impact streams, intermittent streams, ditches, and drainage crossings. For these crossings: if poly pipe is used on the surface, operator will ensure appropriate containment by either installing over-sized pipe "sleeves" which extend the length of the crossing and beyond to a distance deemed adequate to capture (catchment basins) and/or divert any possible release of fluids and prevent fluids from reaching the stream or drainage; installing over-sized pipe "sleeves" which extend the length of the crossing and installing shut off valves on either side of crossing instead of catchment basins; or develop an alternative means for containment. For all other pipeline materials, operator will implement BMPs necessary to mitigate a potential for E&P fluids to reach groundwater or flowing surface water.

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 pit located on the nearby well pad where hydraulic stimulation operations are taking place; 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 constructed to be sufficiently impervious to contain any spilled or released material.

FORM 2A OIL AND GAS LOCATION ASSESSMENT SITE CONSTRUCTION COAs:

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 access road will be constructed and maintained as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.

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

Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location.

Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

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

Notify the COGCC 48 hours prior to start of pit site construction, pit liner installation,
start of hydrostatic test, start of first use of pit for operations, pipeline testing, 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).

Best Management Practices

<u>No</u>	BMP/COA Type	<u>Description</u>
1	Planning	* Share/consolidate corridors for pipeline ROWs to the maximum extent possible. * Minimize the number, length, and footprint of oil and gas development roads * Use existing roads where possible * Combine and share roads to minimize habitat fragmentation * Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development
2		* Use only certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife * WPX Energy will use certified, weed free grass hay, straw, hay or other mulch materials used for the reseeding and reclamation of disturbed areas.

Total: 2 comment(s)

Attachment Check List

Att Doc Num	<u>Name</u>
2107122	CORRESPONDENCE PIPELINE COA
2107123	CORRESPONDENCE
400639719	FORM 2A SUBMITTED
400657900	SENSITIVE AREA DATA
400657911	NRCS MAP UNIT DESC
400657917	REFERENCE AREA PICTURES
400657922	CONST. LAYOUT DRAWINGS
400657923	OTHER
400657925	ACCESS ROAD MAP
400657934	REFERENCE AREA MAP
400657940	LOCATION DRAWING
400657942	HYDROLOGY MAP
400658004	LOCATION PICTURES

Total Attach: 13 Files

General Comments			
<u>User Group</u>	Comment	Comment Date	
Permit	Final review complete.	11/3/2014 11:03:22 AM	
OGLA	Initiated/Completed OGLA Form 2A and Form 15 review on 09-17-14 by Dave Kubeczko; requested acknowledgement of notification, 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, dust control, secondary containment, hydrotest, loading station, pit closure, 3-year max, pipeline testing, and GW and SW sampling COAs from operator on 09-17-14; received acknowledgement of COAs from operator on 09-23-14; passed by CPW on 08-11-14 with WMP acceptable; passed OGLA Form 2A and Form 15 review on 10-28-14 by Dave Kubeczko; notification, 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, dust control, secondary containment, hydrotest, loading station, pit closure, 3-year max, pipeline testing, and GW and SW sampling COAs.	9/17/2014 10:24:31 AM	
DOW	The proposed facility is within the approved Ryans Gulch Wildlife Mitigation Plan (WMP) which was developed and agreed upon by the operator and Colorado Parks and Wildlife. The terms and conditions contained within the WMP adequately address wildlife concerns associated with this location. By: Taylor Elm, 8/11/2014, 10:22	8/11/2014 10:24:41 AM	

Total: 3 comment(s)