

**FORM  
INSP**Rev  
05/11**State of Colorado  
Oil and Gas Conservation Commission**1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109

DE ET OE ES

Inspection Date:

05/07/2015

Document Number:

674102280

Overall Inspection:

SATISFACTORY**FIELD INSPECTION FORM**

Location Identifier	Facility ID	Loc ID	Inspector Name:	On-Site Inspection	2A Doc Num:
	439816	439811	Rickard, Jeff	<input type="checkbox"/>	

**Operator Information:**OGCC Operator Number: 69175Name of Operator: PDC ENERGY INCAddress: 1775 SHERMAN STREET - STE 3000City: DENVER State: CO Zip: 80203

- ☐ THIS IS A FOLLOW UP INSPECTION
- ☐ FOLLOW UP INSPECTION REQUIRED
- ☐ NO FOLLOW UP INSPECTION REQUIRED
- ☐ INSPECTOR REQUESTS FORM 42 WHEN CORRECTIVE ACTIONS ARE COMPLETED

**Contact Information:**

Contact Name	Phone	Email	Comment
General, All inspections	(970) 332-3520	cogccinspection@pdce.com	All PDC inspection

**Compliance Summary:**QtrQtr: SESE Sec: 18 Twp: 4N Range: 67W**Inspector Comment:****Related Facilities:**

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	Insp Status	
439810	WELL	XX	11/14/2014		123-40565	Rieder 18T-321	XX	<input checked="" type="checkbox"/>
439812	WELL	XX	11/14/2014		123-40566	Rieder 18Y-301	XX	<input checked="" type="checkbox"/>
439813	WELL	XX	11/14/2014		123-40567	Rieder 18Y-241	XX	<input checked="" type="checkbox"/>
439814	WELL	XX	11/14/2014		123-40568	Rieder 18T-401	XX	<input checked="" type="checkbox"/>
439815	WELL	XX	11/14/2014		123-40569	Rieder 18T-221	XX	<input checked="" type="checkbox"/>
439816	WELL	XX	11/14/2014		123-40570	Rieder 18Y-441	XX	<input checked="" type="checkbox"/>

**Equipment:****Location Inventory**

Special Purpose Pits: _____	Drilling Pits: _____	Wells: <u>6</u>	Production Pits: _____
Condensate Tanks: _____	Water Tanks: <u>6</u>	Separators: <u>6</u>	Electric Motors: _____
Gas or Diesel Mortors: _____	Cavity Pumps: _____	LACT Unit: _____	Pump Jacks: _____
Electric Generators: _____	Gas Pipeline: _____	Oil Pipeline: _____	Water Pipeline: _____
Gas Compressors: _____	VOC Combustor: <u>4</u>	Oil Tanks: <u>18</u>	Dehydrator Units: _____
Multi-Well Pits: _____	Pigging Station: _____	Flare: _____	Fuel Tanks: _____

**Location**

Emergency Contact Number (S/A/V): \_\_\_\_\_ Corrective Date: \_\_\_\_\_

Comment: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

**Spills:**

Inspector Name: Rickard, Jeff

Type	Area	Volume	Corrective action	CA Date
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☐ Multiple Spills and Releases?

<b>Venting:</b>	
Yes/No	Comment

<b>Flaring:</b>				
Type	Satisfactory/Action Required	Comment	Corrective Action	CA Date

**Predrill**

Location ID: 439816

**Site Preparation:**

Lease Road Adeq.: SATISFACTORY

Pads: \_\_\_\_\_

Soil Stockpile: \_\_\_\_\_

**S/A/V:** \_\_\_\_\_

Corrective Action: \_\_\_\_\_ Date: \_\_\_\_\_ CDP Num.: \_\_\_\_\_

**Form 2A COAs:**

Group	User	Comment	Date
OGLA	treitzr	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42.	11/07/2014

**S/A/V:** \_\_\_\_\_ **Comment:** \_\_\_\_\_**CA:** \_\_\_\_\_ **Date:** \_\_\_\_\_**Wildlife BMPs:**

BMP Type	Comment
Planning	604c.(2).I. BOPE Testing for Drilling Operations: PDC's contractors will supply a double ram BOPE (Blinds and pipes). BOPE is always function tested and all seals and ram block rubbers are inspected. After installation of the BOPE, PDCE conducts a pressure test on the BOPE at a low pressure of (200-400 psi) and a high pressure test with a third party tester, all tests are digitally recorded and any failed equipment or seals are replaced and re-tested.
Planning	604c.(2).L. Drill Stem Tests: PDC does not conduct drill stem tests, but will seek prior approval from the director if a drill stem test will be preformed.
Storm Water/Erosion Control	This Stormwater Management Plan contains required elements associated with PDC's construction activities, as defined in the CDPS General Permit for Stormwater Discharges Associated with Construction Activity, Authorization to Discharge Under the Colorado Discharge Permit System (Permit No. COR-030000, re-issued and effective July 1, 2007).BMPs for sediment and erosion control will be accomplished through a combination of construction techniques, vegetation and re-vegetation, administrative controls, and structural features.
Construction	604c.(2).S. Access Roads: PDC will utilize the lease access road off of CR 44 (gravel) for drilling operations and maintenance equipment. The lease access road will be properly constructed and maintained to accommodate for local emergency vehicle access. Dust will be mitigated as necessary on lease access road and CR 44. Temporary access off of CR 15 may be utilized for the MLVT area. CR 15 is paved.
Planning	PDC Energy Inc. hereby certifies to the Director that the Modular Large Volume Tanks, utilized for the afore mentioned location, will be designed and implemented consistent with the Colorado Oil and Gas Conservation Commission policy dated June 13, 2014.

General Housekeeping	604c.(2).N. Control of Fire Hazards: PDC will ensure that any material that might be deemed a fire hazard will be will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s). PDC installs automation equipment for tank level and pressure monitoring inside the bermed area that complies with API RP 500 classifications and with the current national electrical code as adopted by the State of Colorado.
Material Handling and Spill Prevention	604c.(2).F. Leak Detection Plan: See attached.
Construction	604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.
Drilling/Completion Operations	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.
Emissions mitigation	604c.(2).C. Green Completions: Flowlines, 48" HLPs, sand traps all capable of supporting green completions as described in rule 805 shall be installed at any Oil and Gas location at which commercial quantities of gas and or oil are reasonable expected to be produced based on existing wells. All green flow back equipment will be able to handle more than 1.5 times the amount of any know volumes in the surrounding field. First sign of salable gas will be put into production equipment and turned down line.
Noise mitigation	604c.(2).A. Noise: WELL PAD: PDC has conducted baseline noise surveys for all drilling rigs that are being contracted and has also conducted a baseline noise survey for hydraulic fracture stimulation operations on a representative horizontal well. These baseline surveys are utilized for site specific noise modeling to determine if any mitigation measures are warranted. A review was conducted to identify potential receptors within 1000 feet of the proposed pad site. There are 2 building units of concern located east 516 feet and southwest 896 feet of the proposed pad. Based on the results, projected noise levels are not anticipated to exceed the Light Industrial Zone standard of 65 decibels (db) at the receptors locations. Therefore, noise mitigation will not be necessary. If noise mitigation is deemed necessary after drilling and completion activities begin, methods of noise mitigation shall include but not be limited to hay bales, noise walls, or customized semi-trailers. PRODUCTION FACILITIES: It is not anticipated that noise mitigation will be necessary at the proposed tank battery location. After construction is completed, equipment installed and production begins, noise levels will be assessed to determine if mitigation measures will be required to be compliant with Rule 802.
General Housekeeping	604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.
Construction	604c.(2).R. Tank Specifications: Condensate storage tanks will be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). PDC will maintain written records to verify proper design, construction and maintenance. All records will be available for inspection by the Director.
Planning	604c.(2).E. Multiwell Pads: This 2A application is for a 6-well pad. No suitable existing locations are in the area. PDC has worked with the landowners to select the proposed site. Placement of the wells and facility maximize the reclaimable and farmable ground that can be used by the landowner.
Construction	604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate. PDC personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or PDC personnel shall be on-site during drilling and completion operations.
Material Handling and Spill Prevention	To prevent adverse impacts to shallow groundwater, buried produced water vault shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner.
Traffic control	604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.

Planning	604c.(2).V. Development From Existing Well Pads: An existing pad was not available to utilize to develop these wells.
Planning	804. Visual Impact: Production facilities, regardless of construction date, which are observable from any public highway will be painted with uniform, non-contrasting, non-reflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to but slightly darker than the surrounding landscape.
Planning	604c.(2).J. BOPE for Well Servicing Operations: All valves will also be tested to maximum rating by a third party prior to being delivered to location. Whenever snubbing operations are being used the snubbing stack will be pressure tested at the same time the BOPE is being tested which consist of a single pipe ram and a annular bag.
Planning	<p>PDC Energy, Inc. (PDC) has developed Best Management Practices (BMPS) to prevent injuries, property damage or environmental impacts and a Contingency Plan for any Modular Large Volume Tank (MLVT) leak or catastrophic failure of the tank integrity and resulting loss of fluid. These BMPs include, but not limited, by the following:</p> <ol style="list-style-type: none"> <li>1) PDC determines MLVT locations based on size of location, nearby surface waters, site visibility, surrounding land use, property lines, onsite traffic, site security, tear-away tank fill connections, topography (high, low, slope, direction), nearby building units, roads, access points, and surface owner requests.</li> <li>2) Signs shall be posted on each MLVT to indicate that the contents are fresh water and that no E&amp;P waste fluids are allowed. Location and additional signage shall conform to Rule 210.</li> <li>3) MLVTs will be operated with a minimum of 1 foot freeboard at all times.</li> <li>4) Access to the tanks shall be limited to operational personnel.</li> <li>5) Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications. PDC follows manufacturer's Standard Operating Procedures (SOPs) and will provide these SOPs upon request to the COGCC.</li> <li>6) PDC will conduct daily, visual inspections of the exterior wall and general area for any integrity deficiencies before, during, and after filling the MLVTs. PDC uses Construction Sign-Off, Site Preparation Sign-Off, Completion Sign-Off, Pre-Fill, and Site Visit checklists to maintain a written record of inspections. However, when the fluid level in the MLVTs is less than two (2) feet and there is no activity going on (i.e. during holidays or a small break between completions), only intermittent inspections will be conducted. Two feet is the safe volume of fluid level that is needed to hold the liner down and keep the MLVT stable.</li> <li>7) Each location where MLVT's are used will have its own set of unique site-specific characteristics and associated risks (e.g., rural vs. urban setting, grade of the location, etc.) to be considered in a worst case scenario. These characteristics must be identified and addressed prior to the MLVT construction phase and should be documented in the MLVT construction checklist. Ensuring the safety of our employees, contractors, and the public are a top priority. This can be addressed with the implementation of MLVT pre-construction risk assessment measures to address safety concerns, and minimize environmental impacts and property damage in the unlikely event of a MLVT release.</li> <li>8) In the event of a catastrophic MLVT failure, the Operator shall notify the COGCC as soon as practicable but not more than 24 hours after discovery, submit a Form 22-Accident Report within 10 days after discovery, conduct a "root cause analysis", and provide same to COGCC on a Form 4-Sundry Notice within 30 days of the failure.</li> <li>9) The MLVT shall be constructed and operated in accordance with a design package certified and sealed by a Licensed Professional Engineer either in Colorado or the state where the MLVT was designed or manufactured.</li> <li>10) COGCC Rules 605.a.(3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of this MLVT.</li> <li>11) All MLVT liner seams shall be welded and tested in accordance with applicable ASTM international standards. Any repairs to liners shall be made using acceptable practices and applicable standards.</li> <li>12) PDC Energy Inc. hereby certifies to the Director that the Modular Large Volume Tanks, utilized for the afore mentioned location, will be designed and implemented consistent with the Colorado Oil and Gas Conservation Commission policy dated June 13, 2014.</li> </ol>

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Construction	604c.(2).G. Berm Construction: Containment berms will be constructed using steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation. Secondary containment will be constructed with a geosynthetic liner that contains all tanks and flowlines at this location and will be mechanically connected to the steel ring to prevent leakage. Operator will implement site-specific best management practices in accordance with good engineering practices.
Dust control	805.b(1)-(c) Odors and Dust: Oil and gas facilities and equipment will operate in a manner that odors and dust do not constitute a nuisance or hazard to public welfare. Odors: Oil and gas operations will be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII. Dust; PDC will employ practices for control of fugitive dust caused by operations include but not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high-wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. When necessary, PDC coordinates dust mitigation with the county on gravel roads, places road base where allowed by surface owner around tanks and wellheads to minimize dust, and will water the roads and locations when dry. In addition, automation is used on all new wells to minimize truck traffic.
Planning	604.c.(2).W. Site Specific Measures: Lights should be turned downward and away from building units within the 1,000 foot buffer area. Dust mitigation will be provided as necessary on lease access roads.
Material Handling and Spill Prevention	604c.(2).K. Pit Level Indicators: PDC uses an Electronic Drilling Recorder (EDR) with pit level monitor(s) and alarm(s) for production rigs. Basic level gages are used on steel pits utilized for the surface rig.
Planning	604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, PDC will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.

**S/AV:** \_\_\_\_\_ **Comment:** \_\_\_\_\_

**CA:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Stormwater:**

**Comment:** \_\_\_\_\_

**Staking:**

**On Site Inspection (305):**

**Surface Owner Contact Information:**

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

Phone Number: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

**Operator Rep. Contact Information:**

Landman Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Date Onsite Request Received: \_\_\_\_\_ Date of Rule 306 Consultation: \_\_\_\_\_

Request LGD Attendance: \_\_\_\_\_

**LGD Contact Information:**

Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_ Agreed to Attend: \_\_\_\_\_

**Summary of Landowner Issues:**

\_\_\_\_\_

**Summary of Operator Response to Landowner Issues:**

\_\_\_\_\_

**Onsite Inspection Memorandum Summarizing Discussions at Inspection as Attachment:**

**Facility**

Facility ID: 439810 Type: WELL API Number: 123-40565 Status: XX Insp. Status: XX

Facility ID: 439812 Type: WELL API Number: 123-40566 Status: XX Insp. Status: XX

Facility ID: 439813 Type: WELL API Number: 123-40567 Status: XX Insp. Status: XX

Facility ID: 439814 Type: WELL API Number: 123-40568 Status: XX Insp. Status: XX

Facility ID: 439815 Type: WELL API Number: 123-40569 Status: XX Insp. Status: XX

Facility ID: 439816 Type: WELL API Number: 123-40570 Status: XX Insp. Status: XX

**Environmental****Spills/Releases:**

Type of Spill: Description: Estimated Spill Volume:

Comment:

Corrective Action: Date:

Reportable: GPS: Lat Long

Proximity to Surface Water: Depth to Ground Water:

**Water Well:**

DWR Receipt Num: Owner Name: GPS : Lat Long

**Field Parameters:**

Sample Location:

Emission Control Burner (ECB):

Comment:

Pilot: Wildlife Protection Devices (fired vessels):

**Reclamation - Storm Water - Pit****Interim Reclamation:**

Date Interim Reclamation Started: Date Interim Reclamation Completed:

Land Use: IRRIGATED

Comment:

1003a. Debris removed? CM

CA CA Date

Waste Material Onsite? CM

CA CA Date

Unused or unneeded equipment onsite? CM

CA CA Date

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Pit, cellars, rat holes and other bores closed? \_\_\_\_\_ CM \_\_\_\_\_

CA \_\_\_\_\_ CA Date \_\_\_\_\_

Guy line anchors removed? \_\_\_\_\_ CM \_\_\_\_\_

CA \_\_\_\_\_ CA Date \_\_\_\_\_

Guy line anchors marked? \_\_\_\_\_ CM \_\_\_\_\_

CA \_\_\_\_\_ CA Date \_\_\_\_\_

1003b. Area no longer in use? \_\_\_\_\_ Production areas stabilized ? \_\_\_\_\_

1003c. Compacted areas have been cross ripped? \_\_\_\_\_

1003d. Drilling pit closed? \_\_\_\_\_ Subsidence over on drill pit? \_\_\_\_\_

Cuttings management: \_\_\_\_\_

1003e. Areas no longer needed for drilling or subsequent operations for have been re-vegetated to 80% of pre-existing? \_\_\_\_\_

Production areas have been stabilized? \_\_\_\_\_ Segregated soils have been replaced? \_\_\_\_\_

#### RESTORATION AND REVEGETATION

##### Cropland

Top soil replaced \_\_\_\_\_ Recontoured \_\_\_\_\_ Perennial forage re-established \_\_\_\_\_

##### Non-Cropland

Top soil replaced \_\_\_\_\_ Recontoured \_\_\_\_\_ 80% Revegetation \_\_\_\_\_

1003 f. Weeds Noxious weeds? \_\_\_\_\_

Comment: \_\_\_\_\_

Overall Interim Reclamation \_\_\_\_\_

#### **Final Reclamation/ Abandoned Location:**

Date Final Reclamation Started: \_\_\_\_\_ Date Final Reclamation Completed: \_\_\_\_\_

Final Land Use: IRRIGATED \_\_\_\_\_

Reminder: \_\_\_\_\_

Comment: \_\_\_\_\_

Well plugged \_\_\_\_\_ Pit mouse/rat holes, cellars backfilled \_\_\_\_\_

Debris removed \_\_\_\_\_ No disturbance /Location never built \_\_\_\_\_

Access Roads Regraded \_\_\_\_\_ Contoured \_\_\_\_\_ Culverts removed \_\_\_\_\_

Gravel removed \_\_\_\_\_

Location and associated production facilities reclaimed \_\_\_\_\_ Locations, facilities, roads, recontoured \_\_\_\_\_

Compaction alleviation \_\_\_\_\_ Dust and erosion control \_\_\_\_\_

Non cropland: Revegetated 80% \_\_\_\_\_ Cropland: perennial forage \_\_\_\_\_

Weeds present \_\_\_\_\_ Subsidence \_\_\_\_\_

Comment: \_\_\_\_\_

Corrective Action: \_\_\_\_\_ Date \_\_\_\_\_

Overall Final Reclamation \_\_\_\_\_ Well Release on Active Location ☐ Multi-Well Location ☐

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<b>Storm Water:</b>						
Loc Erosion BMPs	BMP Maintenance	Lease Road Erosion BMPs	Lease BMP Maintenance	Chemical BMPs	Chemical BMP Maintenance	Comment
Other	Pass					Trackin pad.
S/A/V: SATISFACTOR Y						
Corrective Date: _____						
Comment: Road mantainance equipment on CR 44, road is being bladed to address tracking and truck damage.						
CA: _____						
<b>Pits:</b> <input type="checkbox"/> NO SURFACE INDICATION OF PIT						