

**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



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Inspection Date:
11/13/2012

Document Number:
669300260

Overall Inspection:
Satisfactory

FIELD INSPECTION FORM

Location Identifier	Facility ID	Loc ID	Tracking Type	Inspector Name: <u>NEIDEL, KRIS</u>
	<u>430113</u>	<u>430112</u>		

Operator Information:

OGCC Operator Number: 10421 Name of Operator: PETROLEUM RESOURCE MANAGEMENT CORP.
 Address: 1580 LINCOLN ST., STE 635
 City: DENVER State: CO Zip: 80203

Contact Information:

Compliance Summary:

QtrQtr: TR 37 Sec: 2 Twp: 10N Range: 89W

Inspector Comment:

Energy Drilling #8. Permit was issued with a reserve pit. Energy Drilling #8 is drilling as a closed loop. upon discussion with company man and Duncan (operator) it was discovered that they were planning on burying pit liner, rule 905 was discussed and they are going to remove liner from cuttings trench prior to burying cuttings.

Related Facilities:

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	
430113	WELL	DG	10/23/2012		081-07750	Sheehan 2 4-2	<input checked="" type="checkbox"/>

Equipment:

Location Inventory

Special Purpose Pits: _____	Drilling Pits: <u>1</u>	Wells: <u>1</u>	Production Pits: _____
Condensate Tanks: _____	Water Tanks: _____	Separators: _____	Electric Motors: _____
Gas or Diesel Mortors: _____	Cavity Pumps: _____	LACT Unit: _____	Pump Jacks: _____
Electric Generators: _____	Gas Pipeline: _____	Oil Pipeline: _____	Water Pipeline: _____
Gas Compressors: _____	VOC Combustor: _____	Oil Tanks: _____	Dehydrator Units: _____
Multi-Well Pits: _____	Pigging Station: _____	Flare: _____	Fuel Tanks: _____

Location

Emergency Contact Number: (S/U/V) _____ Corrective Date: _____
 Comment: _____
 Corrective Action: _____

Spills:

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

Venting:

Yes/No	Comment

Flaring:				
Type	Satisfactory/Unsatisfactory	Comment	Corrective Action	CA Date

Predrill

Location ID: 430112

Site Preparation:

Lease Road Adeq.: _____ Pads: _____ Soil Stockpile: _____

Corrective Action: _____ Date: _____ CDP Num.: _____

Form 2A COAs:

Group	User	Comment	Date
OGLA	kubeczkod	<p>BASILINE GROUNDWATER SAMPLING FOR WILDCAT WELLS:</p> <p>Baseline Groundwater Testing: Prior to drilling, operator shall sample the two (2) closest domestic water wells or springs within a one (1) mile radius of the proposed oil and gas location. If possible, the water wells or springs selected should be on opposite sides of the oil and gas location not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the oil and gas location cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the oil and gas location shall be sampled. The sample location shall be surveyed in accordance with Rule 215.</p> <p>Initial baseline testing shall include: field observations (turbidity, odor, sample location description); laboratory analyses will include pH; alkalinity; specific conductance; major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); nutrients (nitrates, nitrites); benzene, toluene, ethylbenzene, total xylenes (BTEX); gasoline range organics (GRO); diesel range organics (DRO); total petroleum hydrocarbons (TPH); polyaromatic hydrocarbons (PAH's [including benzo(a)pyrene]); and metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). Sampling shall be performed by qualified individuals using methods consistent with commonly accepted environmental sampling procedures. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included.</p> <p>After 90 days, but less than 180 days of completion of the first proposed well a "post-completion" test shall be performed for the same analytical parameters listed above and repeated one (1), three (3) and six (6) years thereafter. If the well is a non-producing well, then the one (1), three (3) and six (6) year samples will not be required. If no significant changes from the baseline have been identified after the third test (i.e. the six-year test), no further testing shall be required. Additional "post-completion" 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.</p> <p>If free gas or a methane concentration level greater than 1 mg/l is detected in a water quality testing well, gas compositional analysis, and stable isotopes of both the carbon and hydrogen isotopes of methane shall be performed to determine gas type (thermogenic, biogenic or a mixture).</p> <p>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.</p> <p>Operator may conduct baseline groundwater sampling in accordance with the Colorado Oil and Gas Association (COGA) Voluntary Baseline Groundwater Quality Sampling Program (updated November 15, 2011).</p>	08/15/2012
OGLA	kubeczkod	<p>SITE SPECIFIC COAs:</p> <p>Operator must ensure 110 percent secondary containment for any volume of fluids (excluding freshwater) 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</p>	08/15/2012

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.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface or buried pipelines. Additional containment shall be required where temporary pumps and other necessary equipment or chemicals are located.

Location is in a sensitive area due to close proximity to a water well; therefore, either a closed loop system must be used, or the drilling pit must be lined.

Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction of the well pad, start of construction of the pit (if different), pit liner installation, and start of fracing operations (via Form 42).

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

If the well is 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 pit 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.

The moisture content of any drill 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 remain onsite, they must also meet the applicable standards of table 910-1.

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.

Because of proximity of the well pad to the nearby surface water irrigation ditch to the north and the drainage to the east, operator will grade the well pad surface to slope towards the south, away from the edges of the fill slopes. There should either be a retention trench or retention ponds along the southern pad boundary within the bermed area. In addition, tertiary containment will be required at the well pad location consisting of two lateral collection trenches/ditches along the northwest and northeast sides of the pad (outside of the well pad berm/ditches). The trenches will be graded to flow into one or two oversized rock-filled catchment basins located near the west-southwest corner and/or the east-northeast corner of the well pad. This basins will be surrounded by straw waddle and/or silt fencing.

Berms or other containment devices shall be constructed to be sufficiently impervious to contain any spilled or released material around crude oil, condensate, and/or produced water storage tanks, including temporary facilities. The berms will consist of corrugated steel and an impervious poly (or similar) liner will be installed to the top of the steel berm and beneath the tanks.

At the time of pit closure, operator must submit disposal information via a Form 4 Sundry Notice to Dave Kubeczko (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure. Provide photographs of the pit subsequent to liner

removal along with a minimum of one confirmation soil sample from beneath the pit (analyzed for pH, SAR, major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); benzene, toluene, ethylbenzene, total xylenes (BTEX); gasoline range organics (GRO); diesel range organics (DRO); and metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). Documentation shall be submitted via either a Form 15 Pit Report or Form 27.

Comment: _____

CA: _____ **Date:** _____

Wildlife BMPs:

Comment: _____

CA: _____ **Date:** _____

Stormwater:

Erosion BMPs	Present	Other BMPs	Present

Corrective Action: _____ Date: _____

Comments: Erosion BMPs: _____

Other BMPs: _____

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: 430113 Type: WELL API Number: 081-07750 Status: DG Insp. Status: DG

Well Drilling

Rig: Rig Name: Energy Drilling #8 Pusher/Rig Manager: big al
Permit Posted: Satisfactory Access Sign: Satisfactory

Well Control Equipment:

Pipe Ram: YES Blind Ram: YES Hydril Type: _____
Pressure Test BOP: Pass Test Pressure PSI: 2000 Safety Plan: _____

Drill Fluids

Management:

Lined Pit: _____ Unlined Pit: _____ Closed Loop: YES Semi-Closed Loop: _____
Multi-Well: NO Disposal Location: _____

Comment:

some mud runing on surface of pad, they were attempting to control at request of inspector.

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: RANGELAND

Comment: _____

1003a. Debris removed? _____ CM _____ CA _____ CA Date _____
Waste Material Onsite? _____ CM _____ CA _____ CA Date _____
Unused or unneeded equipment onsite? _____ CM _____ CA _____ CA Date _____
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: RANGELAND _____
 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

Multi-Well Location

Storm Water:

Loc Erosion BMPs	BMP Maintenance	Lease Road Erosion BMPs	Lease BMP Maintenance	Chemical BMPs	Chemical BMP Maintenance	Comment
Berms	Pass					
Silt Fences	Pass					

Inspector Name: NEIDEL, KRIS

Gravel	Pass					
Waddles	Pass					
Blankets	Pass					
Compaction	Pass					

S/U/V: Satisfactory Corrective Date: _____

Comment: location was soggy from melting snow, runoff was controled properly.

CA: