

State of Colorado
Oil and Gas Conservation Commission

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DE	ET	OE	ES
Document Number: 400691841			
Date Received: 09/19/2014			

SUNDRY NOTICE

Submit a signed original. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full in Comments or provide as an attachment. Identify Well by API Number; identify Oil and Gas Location by Location ID Number; identify other Facility by Facility ID Number.

OGCC Operator Number: 57667 Contact Name Derek Petrie
 Name of Operator: MINERAL RESOURCES INC Phone: (720) 420-5700
 Address: PO BOX 328 Fax: (720) 420-5800
 City: GREELEY State: CO Zip: 80632 Email: derek.petrie@iptenergyservices.com

Complete the Attachment
Checklist

OP OGCC

API Number : 05- 123 00 OGCC Facility ID Number: 332837
 Well/Facility Name: Greeley Directional Well/Facility Number: _____
 Location QtrQtr: NENE Section: 20 Township: 5N Range: 65W Meridian: 6
 County: WELD Field Name: WATTENBERG
 Federal, Indian or State Lease Number: _____

Survey Plat		
Directional Survey		
Srvc Eqpmt Diagram		
Technical Info Page		
Other		

CHANGE OF LOCATION OR AS BUILT GPS REPORT

- Change of Location * As-Built GPS Location Report As-Built GPS Location Report with Survey

* Well location change requires new plat. A substantive surface location change may require new Form 2A.

SURFACE LOCATION GPS DATA Data must be provided for Change of Surface Location and As Built Reports.

Latitude _____ PDOP Reading _____ Date of Measurement _____
 Longitude _____ GPS Instrument Operator's Name _____

LOCATION CHANGE (all measurements in Feet)

Well will be: _____ (Vertical, Directional, Horizontal)

Change of **Surface** Footage **From** Exterior Section Lines:

Change of **Surface** Footage **To** Exterior Section Lines:

Current **Surface** Location **From** QtrQtr NENE Sec 20

New **Surface** Location **To** QtrQtr _____ Sec _____

Change of **Top of Productive Zone** Footage **From** Exterior Section Lines:

Change of **Top of Productive Zone** Footage **To** Exterior Section Lines:

Current **Top of Productive Zone** Location **From** Sec _____

New **Top of Productive Zone** Location **To** Sec _____

Change of **Bottomhole** Footage **From** Exterior Section Lines:

Change of **Bottomhole** Footage **To** Exterior Section Lines:

Current **Bottomhole** Location Sec _____ Twp _____ Range _____

New **Bottomhole** Location Sec _____ Twp _____ Range _____

Is location in High Density Area? _____

Distance, in feet, to nearest building _____, public road: _____, above ground utility: _____, railroad: _____,
 property line: _____, lease line: _____, well in same formation: _____

Ground Elevation _____ feet Surface owner consultation date _____

FNL/FSL		FEL/FWL	
<u>381</u>	<u>FNL</u>	<u>1281</u>	<u>FEL</u>
_____	_____	_____	_____
Twp <u>5N</u>	Range <u>65W</u>	Meridian <u>6</u>	
Twp _____	Range _____	Meridian _____	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

** attach deviated drilling plan

OTHER CHANGES

REMOVE FROM SURFACE BOND Signed surface use agreement is a required attachment

CHANGE OF WELL, FACILITY OR OIL & GAS LOCATION NAME OR NUMBER

From: Name GREELEY DIRECTIONAL Number _____ Effective Date: _____

To: Name _____ Number _____

ABANDON PERMIT: Permit can only be abandoned if the permitted operation has NOT been conducted. Field inspection will be conducted to verify site status.

WELL: Abandon Application for Permit-to-Drill (Form2) – Well API Number _____ has not been drilled.

PIT: Abandon Earthen Pit Permit (Form 15) – COGCC Pit Facility ID Number _____ has not been constructed (Permitted and constructed pit requires closure per Rule 905)

CENTRALIZED E&P WASTE MANAGEMENT FACILITY: Abandon Centralized E&P Waste Management Facility Permit (Form 28) – Facility ID Number _____ has not been constructed (Constructed facility requires closure per Rule 908)

OIL & GAS LOCATION ID Number: _____

Abandon Oil & Gas Location Assessment (Form 2A) – Location has not been constructed and site will not be used in the future.

Keep Oil & Gas Location Assessment (Form 2A) active until expiration date. This site will be used in the future.

Surface disturbance from Oil and Gas Operations must be reclaimed per Rule 1003 and Rule 1004.

REQUEST FOR CONFIDENTIAL STATUS

DIGITAL WELL LOG UPLOAD

DOCUMENTS SUBMITTED Purpose of Submission: _____

RECLAMATION

INTERIM RECLAMATION

Interim Reclamation will commence approximately _____

Per Rule 1003.e.(3) operator shall submit Sundry Notice reporting interim reclamation is complete and site is ready for inspection when vegetation reaches 80% coverage.

Interim reclamation complete, site ready for inspection.

Per Rule 1003.e(3) describe interim reclamation procedure in Comments below or provide as an attachment and attach required location photographs.

Field inspection will be conducted to document Rule 1003.e. compliance

FINAL RECLAMATION

Final Reclamation will commence approximately _____

Per Rule 1004.c.(4) operator shall submit Sundry Notice reporting final reclamation is complete and site is ready for inspection when vegetation reaches 80% coverage.

Final reclamation complete, site ready for inspection. Per Rule 1004.c(4) describe final reclamation procedure in Comments below or provide as an attachment.

Field inspection will be conducted to document Rule 1004.c. compliance

Comments:

ENGINEERING AND ENVIRONMENTAL WORK

NOTICE OF CONTINUED TEMPORARILY ABANDONED STATUS

Indicate why the well is temporarily abandoned and describe future plans for utilization in the COMMENTS box below or provide as an attachment, as required by Rule 319.b.(3).

Date well temporarily abandoned _____ Has Production Equipment been removed from site? _____

Mechanical Integrity Test (MIT) required if shut in longer than 2 years. Date of last MIT _____

SPUD DATE: _____

TECHNICAL ENGINEERING AND ENVIRONMENTAL WORK

Details of work must be described in full in the COMMENTS below or provided as an attachment.

NOTICE OF INTENT Approximate Start Date 09/22/2014

REPORT OF WORK DONE Date Work Completed _____

- | | | |
|---|---|--|
| <input type="checkbox"/> Intent to Recomplete (Form 2 also required) | <input type="checkbox"/> Request to Vent or Flare | <input type="checkbox"/> E&P Waste Mangement Plan |
| <input type="checkbox"/> Change Drilling Plan | <input type="checkbox"/> Repair Well | <input type="checkbox"/> Beneficial Reuse of E&P Waste |
| <input type="checkbox"/> Gross Interval Change | <input type="checkbox"/> Rule 502 variance requested. Must provide detailed info regarding request. | |
| <input checked="" type="checkbox"/> Other <u>Additon of MLVT Tank</u> | <input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases | |

COMMENTS:

This already producing location referenced above passed prior to the updated MLVT Policy dated 06/13/2014. Operator will comply with all elements of the policy during Construction and use on location.

See attachments tabs for updated BMP's.

H2S REPORTING

Data Fields in this section are intended to document Sample and Location Data associated with the collection of a Gas Sample that is submitted for Laboratory Analysis.

Gas Analysis Report must be attached.

H2S Concentration: _____ in ppm (parts per million) Date of Measurement or Sample Collection _____

Description of Sample Point:

Absolute Open Flow Potential _____ in CFPD (cubic feet per day)

Description of Release Potential and Duration (If flow is not open to the atmosphere, identify the duration in which the container or pipeline would likely be opened for servicing operations.):

Distance to nearest occupied residence, school, church, park, school bus stop, place of business, or other areas where the public could reasonably be expected to frequent: _____

Distance to nearest Federal, State, County, or municipal road or highway owned and principally maintained for public use: _____

COMMENTS:

Best Management Practices

No	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	5. Security cameras will be installed allowing Mineral Resources to monitor the facility.
2	Planning	Secondary containment will be provided around the tank battery and separators per COGCC Rules and regulations. Secondary containment around the tank battery will include a steel containment system, 30-44 inches tall; with either a geomembrane top mounted or sprays on liner.
3	Planning	To minimize impacts from lighting used during the drilling phase, lighting shield devices will be installed on all of the more conspicuous lights and the rig floor will be shrouded.
4	Planning	13. The operator shall identify the location of plugged and abandoned wells with a permanent monument which shall include the well number and date of plugging inscribed on the monument.
5	Planning	Exhaust from all engines, motors, coolers, and other mechanized equipment shall be vented away from all occupied buildings.
5	Noise mitigation	The Noise Study conducted by consultants Behrens and Associates, Inc. for Greeley Directional is in compliance with COGCC Section 802 "Noise Abatement". The site is bordered by industrial zoned property and residential to the northwest and west. No additional mitigation is required for this site of using sound mufflers or sound walls. The Unmitigated noise impact models representing drilling and fracing operations at the site were constructed and the results compared to the COGCC Standard.
5	Dust control	Fugitive Dust Control 1A - Watering shall be completed as needed to control dust on unpaved roads. 1B - Speed limits to prevent dust on unpaved roads.
5	Drilling/Completion Operations	Mineral Resources is responsible for the design and implementation of MLVTs on the Greeley Directional location. Compliance with MLVT policy dated 06/13/2014 will be sole responsibility of Mineral Resources.
6	Planning	Adequate blowout prevention equipment shall be provided for drilling operations and well serving operations.
7	Planning	When feasible, electric compressors shall be utilized.
8	Planning	3. Access to the property will be controlled by an existing motorized gate operated by a Knox box key pad.
9	Planning	To reduce impacts to air quality gas gathering lines will be constructed and installed prior to completion of the wells. Therefore flaring of gas during the flowback process will be limited, if not eliminated.
10	Planning	2. Signage providing company information and a 24 hour contact information will be provided. Refer to landscape plan for location.
11	Planning	The following Best Management Practices will be implemented during MLVT installation: The site shall be prepared in accordance with tank manufacturers specification prior to tank installation; including ensuring that proper compaction requirements have been met. A 36-MIL fabric reinforced liner will be utilized. In the event that a tank breach were to occur, the fabric reinforced liner will prevent a "zippering" failure from occurring.
12	Planning	Temporary above ground water tanks shall be installed on-site to be used for water storage during the completion phase. Tanks will be filled from the city of Greeley's water system. By filling the tank in this manner, water hauling trucks will not back up to the tank to offload water. This process significantly reduces the change of a collision with the tank. In addition, this process also significantly reduces truck traffic associated with water hauling.

13	Planning	6. The operations of the facility will be completely automated allowing Mineral Resources to monitor all production operations remotely. In the event that the facility is not operating under normal conditions, the automation system will immediately notify Mineral Resources. The automation system also has the ability to remotely perform an emergency shut down if necessary.
14	Planning	1. The site will be fenced in accordance with city and COGCC regulations for public safety. Exterior site fencing and fencing of oil and gas equipment will be provided. Refer to this plan and the landscape plans prepared by TB group for location. At the time of initial installation, all pumps, pits, well heads and production facilities must be adequately fenced to restrict access by unauthorized persons. For security purposes, all such facilities and equipment used in the operation of a completed well must be surrounded by a fence six (6) feet in height, of noncombustible material, and which must include a gate that shall be locked.
15	Planning	4. The site will be monitored daily by mineral resources to ensure operations are functioning properly. Daily reports consist of tank measurements, gas production estimates, pressure readings, and general facility care and maintenance.
16	Dust control	To improve air quality, generated dust from the silica sand used during hydraulic fracturing will be contained using a dust suppression vacuum system.
17	Construction	12. Any material not in use that might constitute a fire hazard shall be placed a minimum m of twenty-five (25) feet from the well head, tanks and separator. Within Ninety (9) days after a well is plugged and abandoned, the well site shall be cleared of all nonessential equipment.
18	Noise mitigation	A noise impact modeling report was prepared by Behrens and Associates, Inc. Refer to the report for specifics pertaining to anticipated noise from the proposed use.
19	Emissions mitigation	8. Regular fugitive emissions air quality and general facility inspections will be conducted by CGRS, an Environmental compliance specialist. Inspections include <ul style="list-style-type: none"> • Perform general tank battery inspection to document any obvious issues based on the CDHPE-APCD oil and gas condensate spot check inspection check list. • Identify all potential fugitive emission sources by utilizing a forward looking infrared (flir) optical imaging camera; model Flir GF-320. • Document and record by means of physical documentation, video and or photo all fugitive emission sources. • Label tank battery, separator, emission control device (EC) well head, and other equipment that exhibit fugitive emissions with a unique numbered fugitive emissions inspection tag. • Mark individual leak sources with a temporary yellow marking (as applicable) in order to facilitate improving efficiency of subsequent repairs. • Perform fugitive emission minor equipment repairs (as applicable) on low-pressure components using basic hand tools at the tank battery and will pad. • Prepare a fugitive emissions inspection and optical gas imaging report to document areas that require additional repair or maintenance.
20	Emissions mitigation	7. Emissions control devices (ECD) and vapor recovery units (VRU) will be installed. Both units function to reduce volatile organic compound (VOC) emissions that are generated from the crude oil and condensate tanks. The ECD and VRU devices reduce VOC emissions by at least 95% through combustion and sequestration.
21	Drilling/Completion Operations	A closed loop system will be utilized for all drilling fluids. No open pits will be used.

Total: 24 comment(s)

Operator Comments:

- 1. Manufacturer Name and Number: Commander Series Tanks manufactured by PCI Manufacturing. The tank vendor is Resource West (see attached operations manual for contact information).
 - 2. Number of tanks: 2
 - 3. Size and Dimensions of tanks: 175' Diameter, 50,000 BBL
- Anticipated timeframe: The anticipated timeframe that the MLVTs will be onsite will vary depending on how many wells are being completed. On average, the tanks will be onsite for a duration of 1.5 days per well.
- 5. Drawing where they will be located: See attached.

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

Signed: _____ Print Name: Derek Petrie
 Title: Regulatory Supervisor Email: derek.petrie@iptenergyservices.com Date: 9/19/2014

Based on the information provided herein, this Sundry Notice (Form 4) complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: ANDREWS, DOUG Date: 9/24/2014

CONDITIONS OF APPROVAL, IF ANY:

<u>COA Type</u>	<u>Description</u>

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Operator provided a certification BMP on the use of MLVTs, a more specific noise mitigation BMP and additional dust control BMPs for unpaved roads.	9/24/2014 8:39:03 AM
OGLA	Requested required Operator Certification on compliance with MLVT Policy, more specific noise mitigation measure, and addition of dust control BMPs for unpaved roads.	9/23/2014 8:41:26 AM
OGLA	Return to DRAFT - BMPs to be listed on the BMP tab not just as an Attachment. For the MLVTs, need the following additional information: the number of MLVTs, vendor/maufactoror of the MLVT, size/volume of the MLVTs, the anticipated timeframe they will be onsite, and a Location Drawing showing where the MLVTs will be placed onsite.	9/22/2014 10:54:57 AM
Routing Review	Routed to Doug Andrews for review again.	9/22/2014 8:12:59 AM

Total: 4 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668549	CORRESPONDENCE
400691841	FORM 4 SUBMITTED
400693160	OTHER
400693161	OTHER
400693162	OTHER
400693171	FORM 4 SUBMITTED

Total Attach: 6 Files