

State of Colorado  
Oil and Gas Conservation Commission

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



## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

RECEIVED  
2/23/2012

1. OGCC Operator Number: 69175	4. Contact Name Ed Winters	Complete the Attachment Checklist  OP OGCC
2. Name of Operator: PDC Energy	Phone: 970-285-9606	
3. Address: 120 Railroad Ave. STE D City: Parachute State: CO Zip: 81635	Fax: 970-285-9619	
5. API Number 05-045-07638	OGCC Facility ID Number 335809	Survey Plat
6. Well/Facility Name: Unocal	7. Well/Facility Number 23-9D	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): S11WN, Sec 9, T6S, R96W, 6th PM		Surface Egmt Diagram
9. County: Garfield	10. Field Name: Grand Valley	Technical Info Page
11. Federal, Indian or State Lease Number:		Other

## General Notice

<input type="checkbox"/> <b>CHANGE OF LOCATION:</b> Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> F-NLF-SL <input type="checkbox"/> F-ELF-WL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> attach directional survey
Bottomhole location Qtr/Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest bldg, public rd, utility or RR
Ground Elevation	Distance to nearest lease line
	Is location in a High Density Area (rule 603b)? Yes/No
	Distance to nearest well same formation
	Surface owner consultation date:
<b>GPS DATA:</b> Date of Measurement PDOP Reading Instrument Operator's Name	
<input type="checkbox"/> <b>CHANGE SPACING UNIT</b> Formation Formation Code Spacing order number Unit Acreage Unit configuration	
<input type="checkbox"/> <b>Remove from surface bond</b> Signed surface use agreement attached	
<input type="checkbox"/> <b>CHANGE OF OPERATOR (prior to drilling):</b> Effective Date: Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	<input type="checkbox"/> <b>CHANGE WELL NAME</b> NUMBER From: To: Effective Date:
<input type="checkbox"/> <b>ABANDONED LOCATION:</b> Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No Date Ready for Inspection:	<input type="checkbox"/> <b>NOTICE OF CONTINUED SHUT IN STATUS</b> Date well shut in or temporarily abandoned: Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No MIT required if shut in longer than two years. Date of last MIT
<input type="checkbox"/> <b>SPUD DATE:</b>	<input type="checkbox"/> <b>REQUEST FOR CONFIDENTIAL STATUS</b> (6 mos from date casing set)
<input type="checkbox"/> <b>SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK</b> *submit cbl and cement job summaries Method used Cementing tool setting/perf depth Cement volume Cement top Cement bottom Date	
<input type="checkbox"/> <b>RECLAMATION:</b> Attach technical page describing final reclamation procedures per Rule 1004. Final reclamation will commence on approximately Final reclamation is completed and site is ready for inspection.	

## Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent Approximate Start Date:	<input type="checkbox"/> Report of Work Done Date Work Completed:	
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)		
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans
<input type="checkbox"/> Casing/Cementing Program Change	<input type="checkbox"/> Other:	for Spills and Releases

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

Signed: Adell K. Heneghan Digitally signed by Adell K. Heneghan  
DN: cn=Adell K. Heneghan, o=PDC Energy, ou,  
email=a.heneghan@pdcenergy.com Date: 2012.02.23 14:36:30 -0700Print Name: Adell K. Heneghan Title: Environmental Health and Safety DirectorCOGCC Approved: Chris Campfield Title: FOR Date: 03/08/2012

CONDITIONS OF APPROVAL IF ANY:

Chris Campfield  
EPS NW Region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1.	OGCC Operator Number:	69175	API Number:	05-045-07638
2.	Name of Operator:	PDC Energy	OGCC Facility ID #	335809
3.	Well/Facility Name:	Unocal	Well/Facility Number:	23-9D
4.	Location (QtrQtr, Sec, Twp, Rng, Meridian):	SWNW, Sec 9, T6S, R96W, 6 PM		

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

Status Update

PDC Energy (PDC) contacted HRL Compliance Solutions, Inc. (HCSI) on December 28, 2010 in regards to a release from a condensate tank at the PDC Unocal 3 well pad (spill #2523636).

Approximately one hundred and ten (110) bbls of oil and ten (10) bbls of water were released within the secondary steel lined containment. Because the liner was not properly sealed, the fluids migrated into the underlying soils beneath the containment. None of the fluids were contained or recovered. No surface waer features, surface water, or groundwater was impacted as a result of this release.

Site characterization was conducted by HCSI personnel on January 4, 2011. A series of boreholes were drilled to determine the extent of impacts to the underlying soil. It was determined that approximately 4,450 cubic yards of soil had been impacted by the release. The depth of the impact was from the ground surface to approximately fifty (50) feet below ground surface (bgs). It was determined that *in-situ* chemical oxidation would be utilized to remediate the impacted soil. Refer to submitted Form 27 (remediation #5643) .

Deep Earth Technologies, Inc. (DTI) was contracted by PDC to conduct the *in-situ* treatment of the site utilizing their Cool-Ox™ technology. The initial Cool-Ox™ treatment was conducted from April 4, 2011 through April 21, 2011. A total of sixty one (61) injection points were advanced within the impacted area to a depth of approximately forty five (45) feet bgs. The Cool-Ox™ solution was injected into the subsurface at designated intervals utilizing a direct push drilling rig and injection tool.

A site assessment was conducted in July and October, 2011 by HCSI personnel to determine the effectiveness of the initial treatment. Soil samples were collected from nine (9) boreholes that were drilled within the impacted area. Based on the analytical results, it was determined that approximately half of the impacted area had been remediated to levels below COGCC Table 910-1 standards for hydrocarbons in soil. Therefore, a total of 2,222 cubic yards of hydrocarbon impacted soil remained which exceeded Table 910-1 standards. Further treatment was required.

A second Cool-Ox™ treatment was conducted by DTI in November and December, 2011. An additional thrity one (31) injection points were advanced into the remaining impacted area.

A site assessment will be conducted by HCSI approximately six months after the second treatment event (May/June 2012). A series of boreholes will be drilled in the impacted area to depth of approximately fifty (50) bgs. Soil samples will be collected from each borehole and submitted to an accredited analytical laboratory for analysis.

Analytical results from the above noted site assessment will be provided on a Notice of Completion Form 4.