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FORM 4 Rev 12/05

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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RECEIVED
MAR 21 2012
COGCC

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.)

1. OGCC Operator Number: 66571
2. Name of Operator: OXY USA WTP LP, Attn: Glenda Jones
3. Address: P.O. Box 27757
   City: Houston State: TX Zip 77227-7757
4. Contact Name: Joan Proulx
   Phone: 970-263-3641
   Fax: 970-263-3694
5. API Number 05-045-20710-00 OGCC Facility ID Number
6. Well/Facility Name: Cascade Creek 7. Well/Facility Number 697-09-04B
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWSW 4 6S 97W 6 PM
9. County: Garfield 10. Field Name: Grand Valley
11. Federal, Indian or State Lease Number: N/A

Complete the Attachment Checklist

	OP	OGCC
Survey Plat		
Directional Survey		
Surface Eqpmt Diagram		
Technical Info Page	X	
Other		

General Notice

☐ **CHANGE OF LOCATION:** **Attach New Survey Plat** (a change of surface qtr/qtr is substantive and requires a new permit)

	FNL/FSL		FEL/FWL	
Change of **Surface** Footage **from** Exterior Section Lines:				
Change of **Surface** Footage **to** Exterior Section Lines:				
Change of **Bottomhole** Footage **from** Exterior Section Lines:				
Change of **Bottomhole** Footage **to** Exterior Section Lines:				

attach directional survey

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer

Latitude Distance to nearest property line Distance to nearest bldg, public rd, utility or RR

Longitude Distance to nearest lease line Is location in a High Density Area (rule 603b)? Yes/No

Ground Elevation Distance to nearest well same formation Surface owner consultation date:

GPS DATA:
Date of Measurement PDOP Reading Instrument Operator's Name

☐ **CHANGE SPACING UNIT**

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

☐ **Remove from surface bond** Signed surface use agreement attached

☐ **CHANGE OF OPERATOR (prior to drilling):**
Effective Date:
Plugging Bond: ☐ Blanket ☐ Individual

☐ **CHANGE WELL NAME** **NUMBER**
From:
To:
Effective Date:

☐ **ABANDONED LOCATION:**
Was location ever built? ☐ Yes ☐ No
Is site ready for inspection? ☐ Yes ☐ No
Date Ready for Inspection:

☐ **NOTICE OF CONTINUED SHUT IN STATUS**
Date well shut in or temporarily abandoned:
Has Production Equipment been removed from site? ☐ Yes ☐ No
MIT required if shut in longer than two years. Date of last MIT

☐ **SPUD DATE:**

☐ **REQUEST FOR CONFIDENTIAL STATUS** (6 mos from date casing set)

☐ **SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK** *submit cbl and cement job summaries

Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date

☐ **RECLAMATION:** 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

☐ Notice of Intent
Approximate Start Date:

☒ Report of Work Done
Date Work Completed: 2/5/2012

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

☐ Intent to Recomplete (submit form 2)
☐ Change Drilling Plans
☐ Gross Interval Changed?
☒ Casing/Cementing Program Change
☐ Request to Vent or Flare
☐ Repair Well
☒ Rule 502 variance requested
☐ Other:
☐ E&P Waste Disposal
☐ Beneficial Reuse of E&P Waste
☐ Status Update/Change of Remediation Plans 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: Date: 3/21/2012 Email: joan_proulx@oxy.com

Print Name: Joan Proulx Title: Regulatory Analyst

COGCC Approved: David Andrews Title PE II Date: 3/22/2012

CONDITIONS OF APPROVAL, IF ANY:

FORM 4 Rev 12/05

TECHNICAL INFORMATION PAGE

FOR OGCC USE ONLY

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COGCC

1. OGCC Operator Number: 66571 API Number: 05-045-20710-00
2. Name of Operator: OXY USA WTP LP OGCC Facility ID #
3. Well/Facility Name: Cascade Creek Well/Facility Number: 697-09-04B
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWSW 4 6S 97W 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**

OXY USA WTP LP (OXY) is requesting a Rule 502.b(1) variance to Rule 317.h., which requires that all surface casing shall be cemented with a continuous column from the casing shoe to surface. Oxy to date has performed due diligence to comply, and in this well Oxy was unable to comply with Rule 317.h. Pursuing any further operation may seriously compromise the technical integrity of the surface casing currently cemented in place. The primary cementing operation was performed as per approved program, complete with 50% excess slurry , sufficient to bring cement to the surface of the well.

The 9 5/8" casing string was stuck at 2665' while running, and after several unsuccessful attempts to free and land out 9 5/8" casing it was decided (after written and verbal approval from COGCC) to set 9 5/8" casing with the Texas shoe at 2,665'. With full returns while circulating, prior to the cementing job, the casing was then cemented using 444 bls of 12.3 ppg, 50% excess, of lead slurry and 62.7 bbls of 12.8 ppg, 50% excess, of tail slurry. Bumping the plug with 550 psi at proper calculated volumes. The casing was tested to 1500 psi, held for 5 minutes, test was good. There were no returns during the entire cementing job, as per program; a surface top job was performed by pumping 35 bbls of top out cement through a macaroni string inside the annulus of the 9 5/8" casing, an estimated 7 bbls of cement was seen at surface. After the top job was completed, it was noted that the fluid fall back was approximately 11' from surface (using a nut and a string to measure the cement top).

A CBL/VDL log was run 2/5/2012 from the Texas shoe to surface, the results were e-mailed to David Andrews at the COGCC for review. The results of the log as follows;
-There was excellent cement bond (100%) from 2,420' to 2,156' MD
-There was good cement bond (70%) from 2,156' to 1,225' MD.
-There was excellent hydraulic isolation from 850' to 750' and from 100' to 0'.
adequate

D.A.

As a result of the void in cement from 750 – 100 feet TVD, Oxy proposed to perform a 1-stage primary cement job on the 4 ½" casing to ensure a full column of cement from the well TD to surface. The casing and cement configuration will provide protection to the ground-water by having an additional full column of cement between the 9 5/8" casing and the 4 ½" casing annulus. As well, this will be assisted with the placement of a swellable packer set at 2,564 ft TVD (100 ft inside the 9 5/8" casing and a cement basket placed 100 feet TVD) below the parasite sub check valve inside the 9 5/8" casing. After prior written and verbal approval from COGCC, this too was programmed and performed.

The 4 ½ " inch casing was run and cemented with 505 bbls of 12.4 ppg, 75% excess on lead and 287 bbls of 13.1, 50% excess on tail. Bumped the plug with 1880 psi. Tested the casing with 6500 psi, it was then held for 30 min. Positive test. We had full returns during the entire cement job. Observed an estimated of 150 bbls of good cement to surface.

After noticing some slumping of the cement at surface in the annulus, a top out cementing job was performed 03/11/2012 pumping 77.2 bls of 12.4 ppg lead slurry and observed cement at surface with no slumping.

In addition to the modified isolation recommendation for the production casing, historical Oxy experience indicates that there is very limited groundwater in shallow formations (from surface to at least 1,500') and in many cases no water is present, this is based on the following:
-During drilling of the surface hole section to 2,665' air is added to reduce the hydrostatic head and thereby mitigating the mud losses, which occur throughout the surface hole drilling phase. Despite the use of an aerated drilling fluid, resulting in a lower hydrostatic head, Oxy experienced partial losses during drilling and running casing on this section of the well.
-Different stages of hydraulic isolation can be seen from the CBL/VDL log. The entire 9 5/8" x 4 ½" annular section (2,665' to surface) was cemented with full returns during pumping of the cement, providing excellent isolation between the well and the exposed formations behind the 9 5/8" surface casing.
-While drilling the surface section, there was not any drilling fluid contamination or water flows, as well, no gas was detected on the surface gas reading equipment. Laboratory measurements to determinate mud properties did not show any fluctuation in mud properties, which would indicate the mud was not contaminated by any type of invading fluid.
-Nearest offset to the 697-04D pad, the 609-1 well (3500 ft Southwest), was logged through casing from the base of the surface casing (2,070' to 100') with gamma ray after the well was drilled in 1994. The gamma ray signature does not indicate any detectable water sands behind the surface casing.

The Wasatch A marker top on this pad is at approximately 2,925' MD.

Surface casing was set at 2,665' KB in the 697-08-04B well which is 260' above the top of the Wasatch. The surface casing in this well has excellent cement bond (100%) from 2,420' to 2,156' MD and good cement bond (70%) from 2156' to 1225' MD. This would prohibit any gas or other fluids from the Wasatch formation contaminating the formations above 2,665'. The Wasatch "G" top is at approximately 4,500' or 1,700' below the top of the proposed first stage cement top.

The only Wasatch bottom hole pressure (BHP) data found was from the Wasatch (2,611' – 2,489') and Fort Union (3,334' – 3,335') commingled in the 629-1 (6,063' KB) well located 4 miles south of the subject well. A BHP/Temperature survey, taken at 3,200' after a 16 day shut in (11/27/2007) during the completion of this well, recorded BHP of 1150 psig (0.36 psi/ft gradient) and BHT of 144.6 °F.