



02055366

FORM 4 Rev 12/05

Page 1

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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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.)

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Complete the Attachment Checklist

OP OGCC

1. OGCC Operator Number: 66571 4. Contact Name: Joan Proulx
2. Name of Operator: OXY USA WTP LP, Attn: Glenda Jones
3. Address: P.O. Box 27757 City: Houston State: TX Zip 77227-7757
5. API Number 05-045-20361-00 OGCC Facility ID Number
6. Well/Facility Name: Cascade Creek 7. Well/Facility Number 697-05-22A
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): Lot 14 S5 6S 97W 6 PM
9. County: Garfield 10. Field Name: Grand Valley
11. Federal, Indian or State Lease Number: N/A

General Notice

CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)
CHANGE SPACING UNIT
CHANGE OF OPERATOR (prior to drilling):
CHANGE WELL NAME
ABANDONED LOCATION:
NOTICE OF CONTINUED SHUT IN STATUS
SPUD DATE:
REQUEST FOR CONFIDENTIAL STATUS
SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK
RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.

Technical Engineering/Environmental Notice

X Notice of Intent Approximate Start Date: approx 1/5/2012
Request to Vent or Flare
Request to Repair Well
Rule 502 variance requested
Casing/Cementing Program Change

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

Signed: Joan Proulx Date: 12/20/2011 Email: joan\_proulx@oxy.com
Print Name: Joan Proulx Title: Regulatory Analyst

COGCC Approved: David [Signature] Title PE II Date: 12/22/2011

CONDITIONS OF APPROVAL, IF ANY:

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

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1. OGCC Operator Number:	66571	API Number:	05-045-20361-00
2. Name of Operator:	OXY USA WTP LP	OGCC Facility ID #	
3. Well/Facility Name:	Cascade Creek	Well/Facility Number:	697-05-22A
4. Location (QtrQtr, Sec, Twp, Rng, Meridian):	Lot 14 S5 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 bottom of the casing to the surface. Oxy has made a good faith effort to comply, and is unable to comply with Rule 317.h. because pursuing any further operation will compromise the technical integrity of the surface casing. The primary cementing operation was performed per design, with 50% excess that should have been sufficient to bring cement to the surface in this well.

While running 9 5/8" casing, had to wash casing from 2030' to 2020' and washed tight spot 2650' to 2693'. Lost returns while working casing to bottom. After pumping 300 bbls to lead cement, lost returns. While displacing cement with 204 bbls of fresh water at 6 BPM, observed a lift pressure of 410 psi. Slowed pump rate to 2 BPM, lift pressure decreased to 355 psi. Bumped plug with 855 psi. Tested casing to 1500 psi, held OK for 5 minutes. A surface top job was performed by pumping 10.5 bbls of cement and 2.5 bbls of cement was circulated to surface. After the top job, the fluid remained static at the surface.

Oxy is proposing to perform a 2-stage primary cement job on the 4 1/2" casing to ensure a full column of cement from the well TD to surface (see attached schematic). The casing and cement configuration will protect the groundwater by having a full column of cement between the 9 5/8" casing and the 4 1/2" casing. This will be accomplished by setting a swellable packer ( see attached data sheets) at the base of the 9 5/8" casing below the parasite string outlet. It is imperative that the packer be set in the 9 5/8" to minimize the risk of packer seat failure which is more likely if the packer were set in open hole.

The first stage will be designed for cement top at 2800' with 50% excess. The parasite string will be cleared with water and the 9 5/8" x 4 1/2" circulated clean. The well will be shut in for two weeks to ensure the packer swelling is complete. The 4 1/2" x 9 5/8" casing annulus will be circulated with water through the parasite string and pressure tested to 1,750 psi. Cement will be circulated down the parasite and the 4 1/2" x 9 5/8" will be cemented to surface.

Besides the modified isolation recommendation for the production casing, Oxy experience indicates that there is no or limited groundwater in shallow formations (from surface to at least 1,000') based on the following:

- During drilling of the surface hole section from surface to 2,715' air is added to reduce the drilling fluid density and mitigate the mud losses, which occurred throughout the surface hole. Despite the use of an aerated drilling fluid with a lower density than the hydrostatic, Oxy experienced partial to total losses during drilling or running casing on this well.
- While drilling the surface section, there has not been any drilling fluid contamination or water flows or gas detected at the surface. Laboratory measurements to determine mud properties do not show any fluctuation in mud properties, indicating that the mud is not being contaminated by any type of formation fluid.
- Nearest offset to the 697-05C pad, the 609-1 (1.9 miles to the south), was logged through casing from the base of the surface casing (2070' to 100') with gamma ray when 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 2950.

\* Surface casing was set at 2693' KB in the 697-05-22A which is 300' above the top of the Wasatch. The surface casing in this well has good cement from 2693' to 1300'. This should be sufficient to prohibit any gas or other fluids from the Wasatch formation contaminating the formations above 2693'. The Wasatch "G" top is at approximately 4500', or 1700' below the top of the proposed first stage cement top.

The only Wasatch bottom hole pressure (BHP) data located was from the Wasatch (2622' - 2489') and Fort Union (3334' - 3335') commingled in the 629-1 (6063' KB) well located 5 miles south of the subject well pad. A BHP/Temperature survey, taken at 3200' after a 16-day shut in (11/27/2007) during the completion of this well, recorded BHO of 1150 psig (.36 psi/ft gradient) and BHT of 144.6 F.

Therefore, the requested variance will not violate the basic intent of the Oil and Gas Conservation Act.

\* SOME CEMENT APPEARS TO BE PRESENT ABOVE THE "GOOD" CEMENT TOP UP TO APPROXIMATELY 1180' ON THE 11/1/2011 CBL, AND TOP-OUT CEMENT IS APPARENT FROM APPROXIMATELY 120' TO SURFACE.

D.A.





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Cased Hole Completions

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## ***GENISIS® Annulus Swellable Packer***

Weatherford's *GENISIS* series of annulus swellable packers provide a one-trip, self-setting isolation system designed to activate and seal through the natural contact of in-situ wellbore fluids. Suitable for cased-hole and openhole well environments, *GENISIS* swellable packers are easily deployed by integrating them into tubing or casing strings or through conventional well-service operations such as coiled tubing and slickline. A wide range of configurations is available to suit specific size and well-performance requirements.

### ***Applications***

- Interzonal and point-anomaly (shale, fracture, water) isolation
- Isolation of fluid contacts
- Gas and water coning management
- Reservoir compartmentalization
- Cementing and perforating replacement
- Isolation in stimulation and/or frac jobs
- Straddle isolation systems
- Multilateral junction isolation
- Ensuring casing-shoe integrity, stopping sustained casing pressure

### ***Features, Advantages and Benefits***

- Absence of mechanical or moving parts allows for easy deployment, reducing well construction costs and required rig personnel.
- Conforming element enables isolation in irregular hole shapes and changing annular geometries.
- Bonded swellable elastomer element is activated through natural contact with wellbore fluids, increasing the OD and progressively sealing off the annulus enabling reseal capability for the life of the well.
- Solid metal gauge ring functions as a radial standoff device that protects the swelling element during installation.



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Weatherford International Ltd.  
515 Post Oak Blvd., Suite 600  
Houston, Texas 77027 USA  
Tel: 713-893-4000  
weatherford.com

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**GENISIS® Annulus Swellable Packer**

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**Specifications**

Feet	5	10	15	20
Maximum Differential Pressure (psi/MPa)	1,500 10.342	3,000 20.684	5,000 34.474	7,500 51.710
Maximum Operating Temperature (°F/°C)	150° 300°			
Swell Ratio	Up to 150%			
Setting Time	Customizable			
Activation Fluid	Aqueous, hydrocarbon, both			

Hole Size' (in./mm)	Mandrel (in./mm)	Standard Element OD (in./mm)
4-1/8 104.78	2-3/8 60.33	3-3/4 95.25
	2-7/8 73.03	
6 152.40	2-3/8 60.33	5-5/8 142.88
	2-7/8 73.03	
	3-1/2 88.90	
	4-1/2 114.3	
6-1/8 155.58	2-3/8 60.33	5-3/4 146.05
	2-7/8 73.03	
	3-1/2 88.90	
	4-1/2 114.3	
	5 127.0	
8-1/2 215.90	2-3/8 60.33	8 203.20
	2-7/8 73.03	
	3-1/2 88.90	
	4-1/2 114.3	
	5 127.0	8-1/4 209.55
	5-1/2 139.7	
	6-5/8 168.3	
	7 177.8	

\*Additional sizes available upon request.

Weatherford International Ltd.  
 515 Post Oak Blvd., Suite 800  
 Houston, Texas 77027 USA  
 Tel: 713-893-4000  
 weatherford.com

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