Form 3160-5 (August 1999)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0135

Expires: November 30, 2000

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NMOCD ARTESIA NMNM62589 SUNDRY NOTICES AND REPORTS ON WEL 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 7. If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on reverse side 1. Type of Well 8. Well Name and No. X Oil Well Gas Well Other Federal 23 #16 2. Name of Operator OXY USA Inc. 16696 9. API Well No. 3a. Address 3b. Phone No. (include area code) 30-015-37341 P.O. Box 50250, Midland, TX 79710-0250 432-685-5717 10. Field and Pool, or Exploratory Area 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Livingston Ridge Delaware SL - 612 FNL 509 FEL NENE(A) Sec 23 T22S R31E 11. County or Parish, State BHL- 380 FNL 1980 FEL NWNE(B) Sec 23 T22S R31E NM CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 12. TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Acidize Deepen Production (Start/Resume) Water Shut-Off Well Integrity Alter Casing Fracture Treat Reclamation Subsequent Report Casing Repair New Construction Recomplete Change Plans Plug and Abandon Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back Water Disposal Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones.

13. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection )

See Attached

	Title Sr. Regulatory Analyst								
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## Sundry Notice of Intent for Remedial Cement Job - Intermediate Section

Well name:

Federal 23 #16

API:

30-015-37341

Operator:

OXY

Date:

February 3, 2010

Subject:

Respectfully request to perform remedial cement job for intermediate section of

Federal 23 #16

## **Sequence of events:**

The Federal 23 016 was spud on 01/21/2010 at 22:00 hrs. 14 3 /4" Surface hole was drilled to 857 ft. Ran and cemented 11 3/4" 42# H-40 casing as per program, circulated 85 bbls cement to surface (272 sx). N/U and tested BOP and TIH with intermediate hole BHA. Tested surface casing, drill out shoe track, and performed FIT. Drilled 10 5/8" intermediate hole to 4266 ft, **Note:** while drilling at 1430 ft and air pocket was encountered. TOOH.

Run 8 5/8" 32# J-55 casing and performed cement job as follows:

Pump 20 bbl of gel spacer (2.5 ppb wg-19 gelling agent) + 950 sks (313 bbl), lead Halliburton light premium plus 12.90 ppg, 1.85 ft3/sk yield, 9.3 gal/sk water + tail 200 sks (48 bbl) premium plus cement , 14.80 ppg , 1.34 ft3/sk, mixing fluid: 6.38 gal/sk, full returns at all times. Drop plug, displacing cement at 9 bpm with 255 bbls fresh water. Final circulating pressure 1500 psi. Bumped plug to 2150 psi, 650 psi over. Circulated 35 bbls (106 sacks) cement to surface.

Open casing valve to drain stack & begin to nipple down flow line and choke line. Well started to flow, proceed to shut annular in order to divert flow through casing valve on wellhead. Subsequently, unloaded cement through casing valve. Fill hole with 10 ppg brine water through trip tank, 5 bbls at a time, every 5 minutes took 109 bbls to fill.

Run in hole with CBL/CCL/GR, log showed TOC at  $\sim 1,391$  ft. Run in hole with temperature survey and also showed TOC at  $\sim 1,390$  ft.

Contact BLM – Mr. Wesley Ingram for verbal approval to proceed with remedial cement job.

Perform a remedial squeeze with cement in attempt to circulate cement to surface. Squeeze job was performed as follows:

- Set drillable bridge plug at 1,420 ft.
- Perforate from 1,381' to 1,382' (2 Shot Per Foot  $\emptyset$  = 0.375" Total 4 perforations)
- Circulated with 10 ppg brine water, hole was static, no losses no flow.
- Performed first remedial job as follow: 20 bbls gel spacer at 6 bpm 800 psi + lead cement premium plus 600sacks (192 bbl), 13.5 ppg, 1.85 yield, mix water 9.50 gal/sk, at 6 bpm at 700 psi + 100 sacks (24 bbl), 14.8 ppg, 1.35 yield, mix water 6.39 gal/sk, at 6 bpm. at 400 psi. Displacement with 74 bbl 8.3 ppg fresh water at 6 bpm at 600psi, slowed to 3 bpm last 10 bbls. leave 10 bbl's in casing.

NOTE: Circulate out 8 bbl cement to surface (25 sxs of cement).

Mr. Tony Tucker with BLM witnessed cement job.

WOC for a total of 30 hrs while set casing slips, N/U BOP's. TIH and tag TOC at 1,180 ft, test casing to 1,500 psi, tested OK. Drill out hard cement from 1,180' to 1,406'.

Pressured up to 500 psi bled down to 260 psi in 4 minutes, pressured to 800 psi bled to 250 psi 1 minute - take injection rate @ 1/2 bbl/minute 670 psi bump 1/2 bbl circulate well one hour and take injection rate:

1/4 bbl per min at 370 psi

1/2 bbl per minute at 470 psi

3/4 bbl per minute at 580 psi stop pump - pressure dropped to 250 psi

Total volume injected 1 1/2 bbl

Decision made to perform second cement squeeze with a cement retainer.

Attempt to set cement retainer a 1376 ft without success, set cement retainer at 1150 ft.

Performed second cement squeeze as follows:

Pump 24 bbls 100sacks 14.8 premium plus lead cement @2 bpm 300psi

Pump 48 bbls 200 sacks 14.8 premium plus with 2% calicum chloride tail cement @ 2bpm final psi 1,300 psi

Wash up pump truck to pit

Pump 10 bbls H2O @ 1bpm start psi 140 final psi 350

Pump 7 bbls H2O @ 1/2 bpm start psi 160 final psi 350

Monitor psi on 8 5/8 x 4 1/2 annulus steady @ 350 psi threw out job

WOC for 16.5 hrs, drilled out cement down to 1415 ft and attempt to test casing first as follows:

Apply 500 psi hold for 5 min ok

Apply 1000 psi hold for 5 min ok

Apply 1500 psi hold for 30 min final psi 1200

Check all surface equipment

Apply 1,500 psi hold for min final psi 1,300

R/U third party testers and tested casing again as follows:

Apply 500 psi hold 5 minutes

Apply 1000psi -pressure dropped to 500psi

Retest line to 2000 psi ok

Apply 1000 psi @1/2 bbl per minute pump 1 bbl -stop pump pressure bleed to 500psi

A bridge plug was set at 1120 ft and it was tested to 1500 psi, OK.

Please see wellbore sketch below.

## FEDERAL 23 016 (API 30-015-37341)

