STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

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Form C-103
Revised 10-1-

5a. Indicate Type of Lease: State [X] Fee [ ]
5. State Oil & Gas Lease No.: E-4201

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name:

2. Name of Operator: ARCO Oil and Gas Company ✓

8. Farm or Lease Name: Empire Abo Unit "C"

3. Address of Operator: P.O. Box 1610, Midland, Texas 79702

9. Well No.: 45

4. Location of Well
UNIT LETTER L, 1980 FEET FROM THE South LINE AND 330 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 17S RANGE 29E NMPM.

10. Field and Pool, or Wildcat: Empire Abo

15. Elevation (Show whether DF, RT, GR, etc.): 3664 GR

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER Recomplete Abo Zone [X]		OTHER [ ]	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any propose work) SEE RULE 1103.

Propose to test the exisitng perfs 6270-6311'. If they are not productive, come up hole and test three other possible intervals of the Abo Zone. The additional intervals are: 6235-6240', 6216-6221', 6182-6200'.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Ken W Gosnell TITLE Engr. Tech. 915-688-5672 DATE 8-18-88

APPROVED BY Original Signed By Mike Williams TITLE DATE AUG 23 1988

CONDITIONS OF APPROVAL, IF ANY:

WORKOVER DISCUSSION

The Empire Abo Unit Well No.C-45, is located in Section 30, T17S-R29E of Eddy County, New Mexico. Originally completed as an oil well on November 17, 1961 this well was temporarily abandoned due to low oil production on October 1, 1987. A CIBP was placed at 5500'. At the time of abandonment the well was producing 58 bbl of oil, 324 bbl water, and 88 MCF a day.

The purpose of this project is to test the existing perforations at 6270'- 6311' and if it is not productive, test three other possibly productive intervals of the Empire Abo up hole. These three additional intervals are: 6235'-6240', 6216'-6221', 6182'-6200'. Each of these intervals will be perforated with 2 JSPF, treated with 15% NEFE HCL acid, and swab tested. If not productive each interval will be properly abandoned. Upon completion of the workover and testing operations the well will be turned over to Production Department.

The workover is anticipated to take 12 days and cost $66,000. The anticipated upper limit which includes money for potential casing repair, extended swabbing and testing, would be $90,000 (the amount required will depend on location and size of the leak). The "lower" limit based on a successful test of the first set of perforations is $35,000

As operator ARCO is responsible for temporary abandonment of this well if the project is not successful. CIBP will have to be set within 50' above the top of the upper most perforation to comply with State regulations.

WORKOVER PROCEDURE

1. Clean up the location and dig a reserve pit. Test anchors. MIRU workover unit. Check well for pressure and bleed off. Kill well as necessary with produced water. ND wellhead and NU BOP.

2. RU circulating unit. PU a string of 2-3/8" tubing, bit, drill collars, and casing scraper. TIH to +/- 5500' (top of the CIBP). Check for obstructions in the casing.

   Note: 208 Jts of inspected tubing should be delivered to the location prior to the work-over operations. The well has no tubing string.

3. Load the hole with clean produced water, close BOP and pressure test to 500 psi. Hold for 15 min.

   Note: If casing does not hold pressure, procedures will be modified depending on location and size of the casing leak(s).

4. Drill out CIBP and clean out to the +/- 6315'. POH.

5. PU 4-1/2" packer, SN, and TIH. Set pkr. at +/- 6200' and swab test the original set of perforations at 6270'-6288' and 6298'-6311'.

6. If the zone determined to be oil productive, an acid treatment may be required to improve productivity (will be determined by the swab- test).

7. If acid treatment is required - TIH with 4-1/2" treating packer, SN, and tubing to 6311'. Spot 100 gal. of 15% NEFE acid across the perforations. PU packer to +/_ 6200' or 100' above the top of perforations. Reverse 5 bbls of water up tubing and set packer.

8. Pressure up the back side to 500 psi. Acidize 6270'-6311' interval with 3000 gals. 60/40 mixture of 15% HCL

NEFE acid and Xylene at 1-2 BPM @ +/_ 1000 psi. The acid should contain following additives:

1 gal /1000 Inhibitor
5 gal /1000 Iron seq.
1 gal /1000 Demulsifier

9. Flush to the bottom perforation with clean produced water. Maximum wellhead treating pressure should be held below 1000 psi.

10. SI for 30 min. Record ISIP, 5 min, 10 min, 15 min. SION and swab test.

    If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.

    If not, continue with step 11.

11. PU CIBP and TIH on WL. Set CIBP at +/_6260'.

12. RU to perforate. Perforate the 1st new interval in the Empire Abo with 2 JSPF from 6235'- 6240'. Correlate to Schlumberger LL-GR-N log dated 11-8-61 (will be provided with procedure). Note fluctuation in fluid level after perforating. If well goes on a vacuum proceed with swab testing prior to performing the acid job.

13. TIH with 4-1/2" treating packer, SN, and tubing to 6240'. Spot 100 gal. of 15% NEFE acid across the perforations. PU packer to +/_ 6140' or 100' above the top of perforations. Reverse 5 bbls of water up tubing and set packer.

14. Pressure up the back side to 500 psi. Acidize 6235'-6240' interval with 1000 gals. of 15% NEFE HCL at 1-2 BPM @ +/_ 1000 psi. The acid should contain the same additives as in the step 8.

15. Flush to the bottom perforation with clean produced water. Maximum wellhead treating pressure should be held below 1000 psi.

16. SI for 30 min. Record ISIP, 5 min, 10 min, 15 min. and swab test.

    If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.

    If not, continue with step 17.

17. PU CIBP and TIH on WL. Set CIBP at +/_6230'.

18. Perforate 2nd interval in the Empire Abo from 6216' to 6221' with 2 JSPF.

19. Repeat the same stimulation and testing procedure as in the previous steps. If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.

    If not, set CIBP above the second interval and continue with testing of the third zone.

20. Perforate 3rd interval in the Empire Abo from 6182'-6187' and 6192'- 6200' with 2 JSPF.

21. Stimulate with 2500 gals of 15% HCL NEFE acid (all the additives should be the same), SI for 30 min., and swab test.

22. POH with tubing and packer. TIH with completion assembly as per production department specifications.

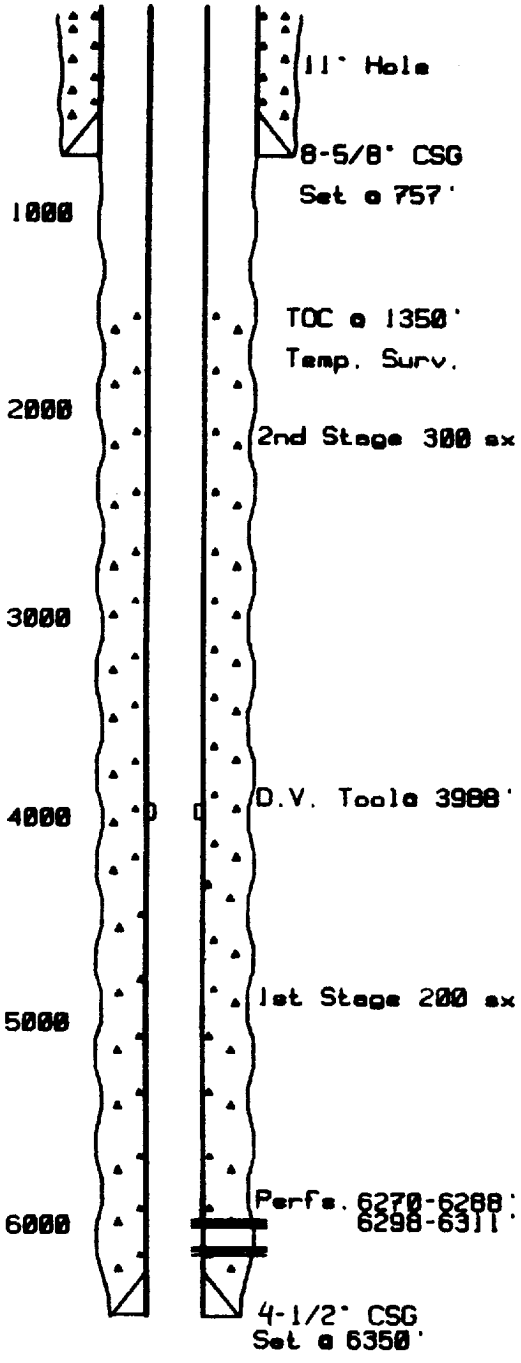
23. Turn the well over to production and monitor. Test the well as required.

16D16

ARCO OIL AND GAS COMPANY

April 4, 1988

CURRENT WELLBORE CONFIGURATION



GENERAL INFORMATION

Well Name: Empire Abo Unit No. C-45

Location: 1980'FSL& 330'FWL,Sec.30,T17S,R29E
Eddy County, New Mexico

Spud Date: October 22, 1961
Completion Date: November 17,1961
TD: 6350'; PBTD: 6345'.

Elevation GL: 3664' RKB:

CASING INFORMATION

Depth (ft)	Hole Size	Casing	Weight (lbs)	Grade	Cpl.	Cmt. (sxs)	Top (ft)
0-757'	11"	8-5/8"	24#	J-55	STC	300	Surface
0-5548'	7-7/8	4-1/2"	9.5#	J-55	STC	300	1350'
5548-6350		4-1/2"	11.6#	J-55	STC	200	

TUBING INFORMATION

Length (ft)	Tubing Size	Weight (lbs)	Grade	Cpl.

No tubing in the wellbore.

PERFORATIONS

Interval	Number of Shots	Comments
6270-6288'	4 JSPF	
6298-6311'	4 JSPF	

COMMENTS

The well was shut in and temporarily abandon due to lack of economic production effective 10-1-73. CIBP set at 5500'.