

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

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

Form C-103  
Revised 10-1-7

3a. Indicate Type of Lease  
State ☒ Fee ☐

3. State Oil & Gas Lease No.  
E-4201

SUNDARY 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. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-		7. Unit Agreement Name	
2. Name of Operator ARCO Oil and Gas Company ✓		8. Farm or Lease Name Empire Abo Unit "B"	
3. Address of Operator P.O. Box 1610, Midland, Texas 79702		9. Well No. 45	
4. Location of Well UNIT LETTER <u>E</u> <u>2310</u> FEET FROM THE <u>North</u> LINE AND <u>330</u> FEET FROM THE <u>West</u> LINE, SECTION <u>30</u> TOWNSHIP <u>17S</u> RANGE <u>29E</u> NMPM.		10. Field and Pool, or Wildcat Empire Abo	
15. Elevation (Show whether DF, RT, GR, etc.) 3670 DF		12. County Eddy	

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐

OTHER Recomplete Abo Zone ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPS. ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER ☐

ALTERING CASING ☐  
PLUG AND ABANDONMENT ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Propose to abandon existing perfs below 6270'; swab test perfs 6207-6260' to determine productivity, and add perfs 6212-6246'.

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

SIGNED Kenn A. Gosnell TITLE Engr. Tech. 915-688-5672 DATE 8-17-88

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. B-45, is located in Section 30, T17S-R29E of Eddy County, New Mexico. Originally completed as an oil well on January 30, 1961 this well was temporarily abandoned due to low oil production on October 1, 1973. At the time of abandonment the well was producing 6 bbl. of oil, 3 bbl. water, and 1 MCF a day.

The purpose of this project is to abandon perforations below 6270'. Swab test the existing perforations in 6207'-6260' interval to determine productivity of the remaining perforations. And finally, add perforations at 6212', 6218', 6234', 6236', 6245', 6246', and stimulate. Each of these intervals will be perforated with 2 JSPF, treated with a 60/40 mixture of 15% NEFE HCL acid and Xylene, 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 10 days and cost \$39,700. The anticipated upper limit which includes money for potential casing repair, replacement of bad tubing joints, extended swabbing and testing, would be \$64,000 (the amount required will depend on location and size of the leak(s), and number of tubing joints to be replaced). The "lower" limit based on a successful test with no complications is \$30,000.

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. POH with a string of 2-7/8" tubing. Visually inspect tubing coming out of hole.

Note: this string of tubing has not been utilized for over 15 years and is probably badly corroded. Have enough inspected tubing on the location for replacement or PU rental work string.

3. PU bit, casing scraper and TIH to  $\pm$  6300' (BPTD). Check for obstructions in the casing.
4. Pick up a CIBP and TIH on WL. Set CIBP at  $\pm$  6270'.
5. PU 5-1/2" packer, SN, and TIH. Set pkr. at  $\pm$  6175'. Load back side with clean produced water, close BOP and pressure test casing 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).

6. Swab test the original set of perforations at 6207-6260'.
7. RU to perforate. Perforate additional intervals in the Empire Abo as follows: 6212', 6218', 6234', 6236', 6245', and 6246' with 2 JSPF. Correlate to LL-GR-N log dated 1-13-61 (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.
8. TIH with packer and tubing to 6246'. Spot 100 gal. of 15% NEFE acid across the perforations. PU packer to  $\pm$

6100' or 100' above the top of perforations. Reverse 5 bbls of water up tubing and set packer.

9. Pressure up the back side to 500 psi. Acidize 6207'-6260' interval with 2500 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

10. Flush to the bottom perforation with clean produced water. Maximum wellhead treating pressure should be held below 1000 psi.
11. SI and Record ISIP, 5 min, 10 min, 15 min. SION and swab test.

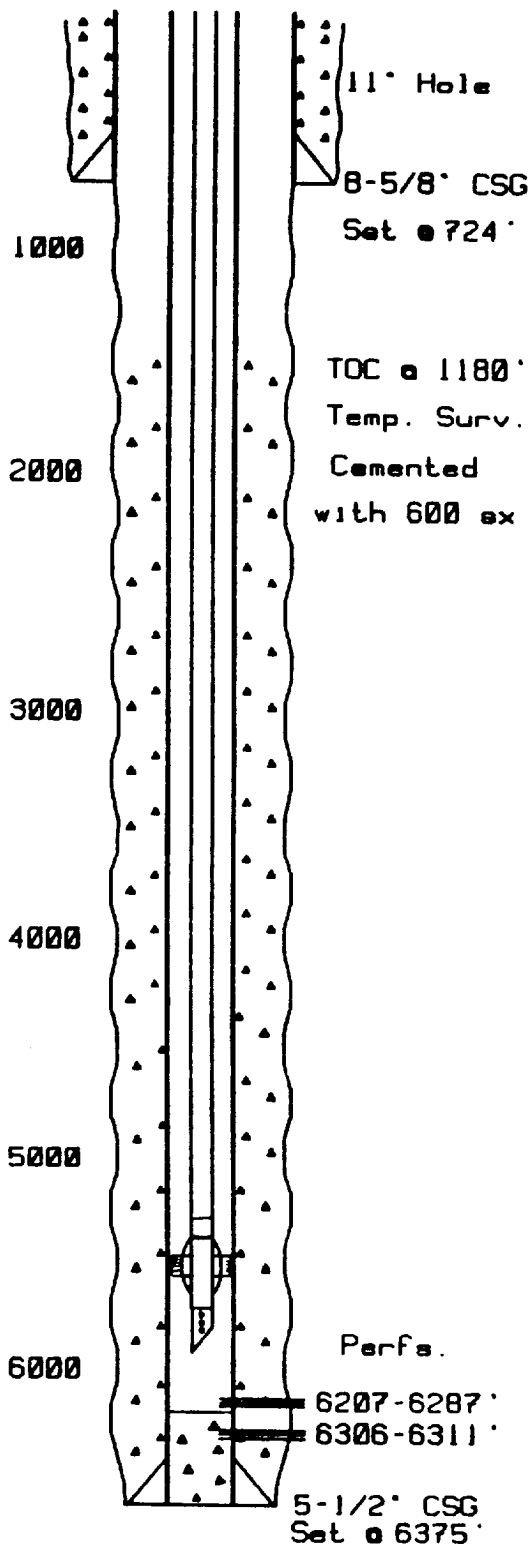
If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.

KOK

# ARCO OIL AND GAS COMPANY

April 8, 1988

## CURRENT WELLBORE CONFIGURATION



## GENERAL INFORMATION

Well Name: Empire Abo Unit No. B-45

Location: 2310' FNL & 330' FWL, Sec. 30, T17S, R29E  
Eddy County, New Mexico

Spud Date: December 30, 1980  
Completion Date: January, 1981  
TD: 6375'; PBTD: 6315'

Elevation GL: 3680' RKB: 3671'

## CASING INFORMATION

Depth (ft)	Hole Size	Casing (lbs)	Weight (lbs)	Grade	Cpl. (sxs)	Cmt.	Top (ft)
0-724'	11"	8-5/8"	24#	J-55	STC	300	Surface
0-6375'	7-7/8"	5-1/2"	14&15.5#	J-55	STC	600	1180'

## TUBING INFORMATION

Length (ft)	Tubing Size	Weight (lbs)	Grade	Cpl.
6054'	2-7/8"		J-55	

## PERFORATIONS

Interval	Number of Shots	Comments
6270-6288'	4 JSPF	
6298-6311'	4 JSPF	
6269-6334'	Squeezed	

## COMMENTS

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