

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-

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OPERATOR	<input checked="" type="checkbox"/>

AUG 19 '88

3a. Indicate Type of Lease  
State  Fee   
3. 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. ARTESIAN OFFICE

1.  OIL WELL  GAS WELL  OTHER

2. Name of Operator  
ARCO Oil and Gas Company ✓

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

4. Location of Well  
UNIT LETTER F 2310 FEET FROM THE North LINE AND 1254 FEET FROM  
THE West LINE, SECTION 30 TOWNSHIP 17S RANGE 29E N.M.P.M.

7. Unit Agreement Name

8. Farm or Lease Name  
Empire Abo Unit "B"

9. Well No.  
46

10. Field and Pool, or Wildcat  
Empire Abo

11. Elevation (Show whether DF, RT, GR, etc.)  
3643 GR

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:

REMEDIATION WORK   
COMMENCE DRILLING OPNS.   
CASING TEST AND CEMENT JOB   
ALTERING CASING   
PLUG AND ABANDONMENT   
OTHER \_\_\_\_\_

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 1103.

Propose to test existing perms 6273-6284'. If they are not productive, come up hole and test two other Abo intervals. (6240-6244' and 6216-6222').

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 8-17-88

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-46, is located in Section 30, T17S-R29E of Eddy County, New Mexico. Originally completed as an oil well on July 1, 1961 this well was temporarily abandoned due to low oil production on October 1, 1973. At the time of abandonment the well was producing 13 bbl of oil, 98 bbl water, and 10 MCF a day.

The purpose of this project is to test the existing perforations at 6273'- 6284' and if it is not productive, test two other possibly productive intervals of the Empire Abo. These intervals are: 6240'- 6244', 6216'-6222'. 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 to 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 \$44,500. The anticipated upper limit which includes money for potential casing repair, extended swabbing and testing, would be \$70,000 (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. 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 a work string.

3. PU bit and casing scraper. TIH to +/- 6288' (PBTD), pressure test tubing if necessary. Check for obstructions in the casing.

4. PU 5-1/2" packer, SN, and TIH. Set pkr. at +/- 6200'. 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).

5. Swab test the original set of perforations at 6273'-6284'.

6. If the zone determined to be oil productive by the swab-test, an acid treatment may be required to improve the productivity. Continue with step 7 if acid treatment is necessary.

7. TIH with 5-1/2" treating packer, SN, and tubing to 6288' 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 6273'-6284' interval with 1500 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. 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 6240'- 6244'. Correlate to Schlumberger LL-GR-N log dated 7-19-61 (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 5-1/2" treating packer, SN, and tubing to 6244'. 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 6240'-6244' interval with 800 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.

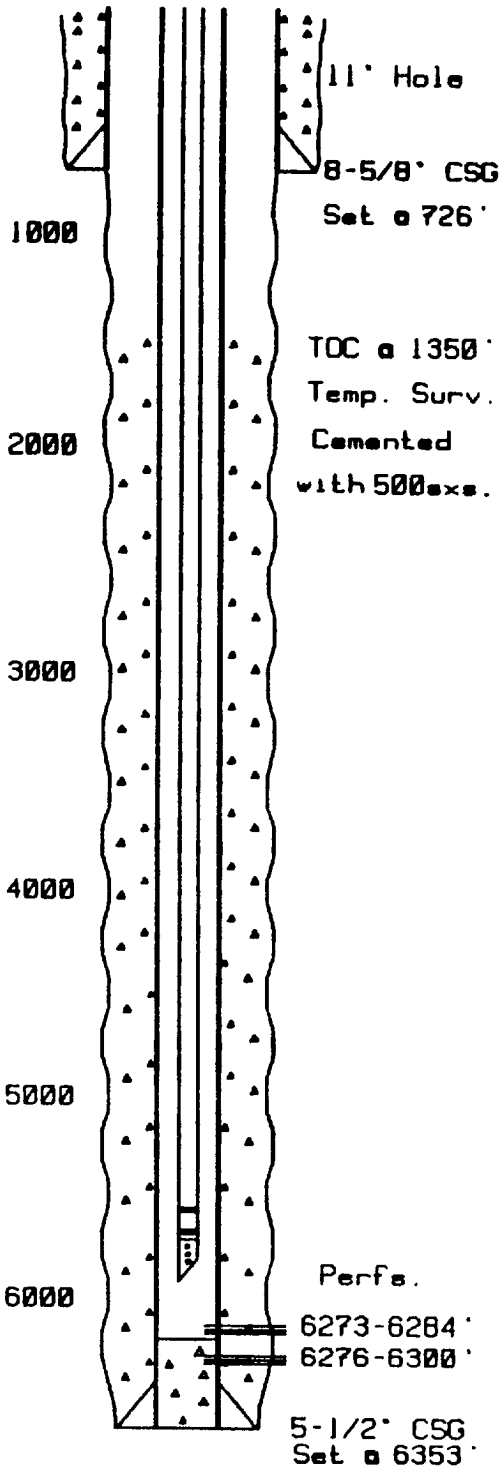
17. PU CIBP and TIH on WL. Set CIBP at +/- 6230'.
18. Perforate 2nd interval in the Empire Abo from 6216' to 6222' with 2 JSPF.
19. Repeat the same stimulation and testing procedure as in the previous steps. If the well is productive POH with tubing and packer. TIH with completion assembly as per production department specifications.

170K

# ARCO OIL AND GAS COMPANY

April 12, 1988

## CURRENT WELLBORE CONFIGURATION



## GENERAL INFORMATION

Well Name: Empire Abo Unit No. B-45  
 Location: 2310' FNL&1254' FWL, Sec. 30, T17S, R29E  
 Eddy County, New Mexico  
 Spud Date: July 1, 1961  
 Completion Date: July 24, 1961  
 TD: 6353'; PBSD: 6288'.  
 Elevation GL: 3658' RKB: 3668'

## CASING INFORMATION

Depth (ft)	Hole Size	Casing (lbs)	Weight Grade	Cpl. (sxs)	Cmt. (ft)	Top
0-726'	11"	8-5/8"	24#	J-55	STC	350 Surface
0-6353'	7-7/8"	5-1/2"	15.5#	J-55	STC	400 1350'

## TUBING INFORMATION

Length (ft)	Tubing Size	Weight (lbs)	Grade	Cpl.
6056'	2-7/8"		J-55	

## PERFORATIONS

Interval	Number of Shots	Comments
6273-6284'	1	JSPF
6276-6300'		Squeezed

## COMMENTS

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

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5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT - " (FORM C-101) FOR SUCH PROPOSALS.)

MAY 1979

1. OIL WELL  GAS WELL  OTHER- **S.W.D.**

2. Name of Operator: **Atlantic Richfield Company**

3. Address of Operator: **P.O. Box 129 Artesia New Mexico 88210**

4. Location of Well  
UNIT LETTER **E** **2310'** FEET FROM THE **North** LINE AND **1254'** FEET FROM  
**West** LINE, SECTION **30** TOWNSHIP **17 S** RANGE **29 E** NMPM.

7. Unit Agreement Name: **Empire Abo Unit**

8. Farm or Lease Name: **EAU B**

9. Well No.: **46**

10. Field and Pool or Wildcat: **Empire Abo**

12. County: **ddy**

15. Elevation (Show whether DF, RT, GR, etc.)  
**G L 3648'**

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
FULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <b>Piping Braiden Head to Surface</b>		OTHER <input checked="" type="checkbox"/>	

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 1103.

**Piping Braiden Head to Surface,**

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

SIGNED: *D.H. Smith* TITLE: Dist. Prod. Supervisor DATE: 5-1-79

APPROVED BY: *Mike Williams* TITLE: OIL AND GAS INSPECTOR DATE: MAY - 2 1979

CONDITIONS OF APPROVAL, IF ANY: