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District Office

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P.O. Box 1980, Hobbs, NM 88240

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1000 Rio Brazos Rd., Aztec, NM 87410
ARTESIA OFFICE

State of New Mexico
Energy, Minerals and Natural Resources Department

RECEIVED

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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|-------------|--|
| Santa Fe | |
| Le | |
| SLM | |
| Land Office | |
| B of M | |
| Operator | |

Form C-103
Revised 1-1-89

| | |
|--------------------------------------|--|
| WELL API NO. | 30-015-01542 |
| 5. Indicate Type of Lease | STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No. | 647 |
| 7. Lease Name or Unit Agreement Name | Empire Abo Unit "D" |
| 8. Well No. | 43 |
| 9. Pool name or Wildcat | Empire Abo |

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. Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> | 2. Name of Operator ARCO OIL AND GAS COMPANY | 3. Address of Operator P. O. Box 1610, Midland, Texas 79702 | 4. Well Location Unit Letter 0 : 2310 Feet From The East Line and 990 Feet From The South Line Section 25 Township 17S Range 28E NMPM Eddy County | 10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3677 GR |
|---|---|--|---|---|

| | |
|---|---|
| 11. 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"/> | REMEDIAL WORK <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| PULL OR ALTER CASING <input type="checkbox"/> | COMMENCE DRILLING OPNS. <input type="checkbox"/> |
| OTHER: Recomplete same zone <input checked="" type="checkbox"/> | PLUG AND ABANDONMENT <input type="checkbox"/> |
| | CASING TEST AND CEMENT JOB <input type="checkbox"/> |
| | OTHER: <input type="checkbox"/> |

12. 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 abandon existing Abo perfs 6295-6310 and test upper zones in the Abo.

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

SIGNATURE Ken W. Gosnell TITLE Engr. Tech. DATE 6-1-89
TYPE OR PRINT NAME Ken W. Gosnell 915/688-5672 TELEPHONE NO.

(This space for State Use)

ORIGINAL SIGNED BY
MIKE WILLIAMS
SUPERVISOR, DISTRICT I

APPROVED BY _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

JUN 5 1989

WORKOVER PROCEDURE

DATE: 1-89

WELL NO. & TYPE OF JOB: EAU No. D-43 Abo Recompletion

DRILLED: 9-60 LAST WO: 1981

FIELD: Abo COUNTY: Eddy, NM BY: Joel Talley

TD: 6382' PBD: 6345' DATUM: GL DIST RKB TO GL: _____

| CASING INFORMATION: | SIZE | WEIGHT | GRADE | SET @ | SX CMT | TOC |
|---------------------|---------------|--------------|-------------|--------------|------------|----------------|
| SURFACE: | <u>8-5/8"</u> | <u>28#</u> | <u>J-55</u> | <u>718'</u> | | <u>Surface</u> |
| INTERMEDIATE: | | | | | | <u>Surface</u> |
| PRODUCTION: | <u>5-1/2"</u> | <u>15.5#</u> | <u>J-55</u> | <u>6382'</u> | <u>550</u> | <u>Surface</u> |

LINER:

CASING DETAIL:

PRESENT PERFORATIONS: 6295'-6310'

PROPOSED PERFORATIONS: 6258'-6268', 6230'-6240' & 6190'-6212'

TUBING DATA: SIZE 2-3/8" WT. 4.7 GRADE J-55 THD. 8rd BTMD 6227'
NO. OF JTS. 201 MISC. _____

PACKER & MISC.: _____

PROCEDURE

1. Notify NMOC Commission of intention to recomple the well.
2. Test anchors. MIRUPU. Check well for pressure and bleed off.
3. POH w/ 2-3/8" production tbg. Visually inspect the tbg for workover use.
4. RIH w/ 4.75" GR to PBD @ 6345'. Set CIBP on WL @ 6280'. Load & test csg to 500 psi w/ produced water for 15 minutes. If csg does not hold, RIH w/ pkr and isolate leak for squeeze.
5. Perforate Abo with 2 JSPF f/ 6258'-6268' (correlate with Shlumberger GR-N/LL dated 10-4-60). If well goes on vacuum swab prior to acidizing.
6. TIH w/ treating Pkr and 2-3/8" production tbg, hydro-testing tbg to 4000 psi, to 6268'. Spot 100 gals across perms and pull packer to 6150'. Reverse 5 bbls water up tbg and set pkr.

7. Pressure annulus to 500 psi and acidize perms w/ 1500 gals 15% NEFE HCL acid at 1 BPM. Flush to btm perf w/ produced water. Maximum treating pressure is 1000 psi.
8. SI for 30 minutes and record pressure every 10 minutes. Swab and evaluate.

If zone is productive continue with step 12.
If zone is not productive continue with step 9.
9. POH w/ tbg & pkr. WL set CIBP @ 6250'. Perf Abo f/ 6230'-6240' w/ 2 JSPF. Acidize w/ 1500 gals 15% NEFE HCL and evaluate as in steps 6,7 & 8.

If zone is productive continue with step 12
If zone is not productive continue with step 10.
10. POH w/ tbg & pkr. WL set CIBP @ 6220'. Perf Abo f/ 6190'-6212' w/ 2 JSPF. Acidize w/ 1500 gals 15% NEFE HCL and evaluate as in steps 6,7 & 8.
11. POH w/ tbg & pkr. Set CIBP @ 6162' (Top Abo @ 6162') on WL to TA well pending Engineering Evaluation.
12. POH w/ tbg & pkr. RIH w/ completion assembly as per Production Department specifications. TOTP.

General Purpose Worksheet

| | | | |
|---------|-------------------|----------|------|
| Subject | Well-Bore Diagram | Page No. | Of |
| File | EAU D-43 | By | JOT |
| | | Date | 1-89 |

Current

Drilled 7-60

8 5/8" 28# J-55 csg
@ 718' Circulated cmt

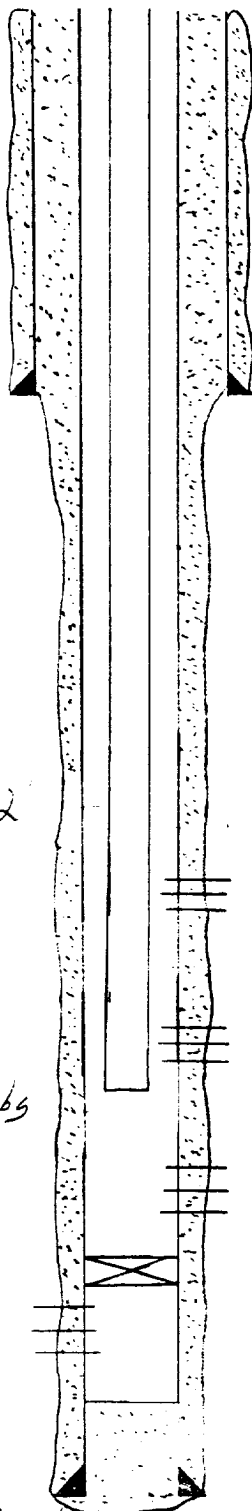
Top of Abo Reef @ 6162'

201 Jts 2 3/8" J-55 tbg
SN @ 6227'

Perfs 6295' - 6310'

PBD @ 6345'

5 1/2" 15.5# J-55 csg @ 6382'
Circulated cmt w/ SSOSX
TO 6382'



Proposed

3rd Objective

Perf 6190' - 6212'

If Plugged Set CIBP @ 6162'

2nd Objective

Perf 6230' - 6240'

If Plugged Set CIBP @ 6220'

1st Objective

Perf 6258' - 6268'

If Plugged Set CIBP @ 6250'

Set CIBP @ 6280'