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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

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MAY 16 1977

## SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR APPLICATIONS TO OIL OR GAS RESERVOIR, OR FOR APPLICATION FOR PERMIT TO DRILL OR RE-ENTER A WELL IN A DIFFERENT RESERVOIR. USE APPLICATION FOR PERMIT TO DRILL OR RE-ENTER A WELL IN A DIFFERENT RESERVOIR.)

|                                                                                                                                                |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER                               | 5a. Indicate Type of Lease<br>State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> |
| 2. Name of Operator<br>Atlantic Richfield Company                                                                                              | 5. State Oil & Gas Lease No.<br>B-11594-1                                                            |
| 3. Address of Operator<br>Box 1710, Hobbs, New Mexico 88240                                                                                    | 7. Unit Agreement Name<br>Empire Abo Pressure Maintenance Project                                    |
| 4. Location of Well<br>UNIT LETTER F 1350 FEET FROM THE North LINE AND 1572 FEET FROM THE West LINE, SECTION 6 TOWNSHIP 18S RANGE 28E N.M.P.M. | 8. Farm or Lease Name<br>Empire Abo Unit "J"                                                         |
| 15. Elevation (Show whether DF, RT, GR, etc.)<br>3656.7' GL                                                                                    | 9. Well No.<br>222                                                                                   |
|                                                                                                                                                | 10. Field and Pool, or Wildcat<br>Empire Abo                                                         |
|                                                                                                                                                | 12. County<br>Eddy                                                                                   |

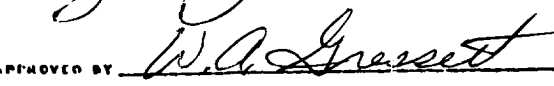
Check Appropriate Box To Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

|                                                |                                           |                                                                                    |                                               |
|------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------|
| 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"/> |
| PULL OR ALTER CASING <input type="checkbox"/>  | OTHER <input type="checkbox"/>            | CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/> Production          |                                               |
|                                                |                                           | OTHER Core, DST, Log, Perf, Acidize & Complete <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.

Drld to 5860' @ 1:30 PM 3/3/77. WIH w/core head & bbl. Cored 5860-5972' w/4 runs of core tools. Rec total of 112' of 4" core. Resumed drlg 7-7/8" hole @ 8:30 PM 3/6/77. Fin drlg 7-7/8" hole to 6303' TD @ 7:30 AM 3/8/77. Ran BHC, GRN, GR-DLL-RXO & CNL-FDC logs. DST #1, Abo 5844-69'. Flwd 1 1/2 hrs, FTP 731#, no fluid, sep press 200#. Gas rate 1.86 MMCFPD. Closed tool @ 4:30 PM. POH w/test tools. DST #2, Abo 5916-41'. Set pkr @ 5:30 AM 3/12/77. 20 min preflow, 2 hr SI, op tool @ 7:50 AM 3/12/77 for flow period. Fluid to surf in 90 mins, flow to pit 4 hrs. Tstd 1 hr, rec 14.43 BO, 200 MCFPD, GOR 578:1. Sep press 20 psi, FTP 42 psi. Closed tool @ 1:30 PM 3/12/77. Rel pkr & reset @ 5780-5905' for DST #3. Set pkr @ 3:27 PM 3/12/77. Op tool @ 3:35 PM, GTS in 30 mins. Closed tool @ 8:20 PM, failed to flow fluid to surf. POH w/test tools. Ran 3947' of 5 1/2" OD 15.5# K-55 csg & 2340' of 5 1/2" OD 14# K-55 csg w/FC, FS & DV tool. Csg set @ 6293'. DV tool @ 4291'. Cmt'd 5 1/2" csg 1st stage w/200 bbls 9# brine cont'g J-40 surfactant, 25 BFW, 500 sx 50/50 Pozmix Cl C cmt w/2% gel, 8#/sk salt, 6/10 of 1% friction reducer, 5#/sk gilsonite. Bumped plug @ 3:45 AM 3/14/77 w/2000#. Circ 30 sx cmt thru DV tool to pit. Cmt'd thru DV tool @ 4291' w/1000 sx BJ lite cmt cont'g 8#/sk salt followed by 100 sx Cl C cont'g 8#/sk salt. Circ 30 sx cmt to pit. Drld out IV tool @ 4291' & pressure tstd csg to 1500# for 30 mins, OK. PBD 6210'. Ran CBL & TDT logs. Perf'd Abo 6097-6117' w/2 JSPF (40 - .48" holes). RIH w/Lok-set pkr on 2-3/8" OD EUE tbg, set pkr @ 6027', btm tbg @ 6062'. Acidized perfs 6097-6117' w/1000 gals 15% HCL-NE acid. MP 2950#, Min 1700#, ISP 2100#, 15 mins 600#. Swbd perfs 6097-6117' 3 hrs, rec 27 BLO, 1 BNO & 20 BLW, gas incr. 15 hr SITP 200#. Reset pkr @ 5965', btm @ 6000'. (cont'g on attached Page #2).

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

|                                                                                                |                               |                  |
|------------------------------------------------------------------------------------------------|-------------------------------|------------------|
| SIGNED       | TITLE Dist. Drlg. Supt.       | DATE 5/9/77      |
| APPROVED BY  | TITLE SUPERVISOR, DISTRICT II | DATE MAY 16 1977 |
| CONDITIONS OF APPROVAL, IF ANY:                                                                |                               |                  |

Trtd Abo perfs 6097-6117' Stage #1 w/500 gals slick 2% KCL wtr w/15# WG11, 10 gal parasperse/1000 gal & 500 gal 15% HCL acid w/radioactive agent, cont'g 22 sx CaCl, 1 gal H-150, 1 sk citric acid, 10 gal FELA, 3 gals 15 NEA (wt acid 10#/gal) & 31 bbls lse crude flush. Breakdown press 0, MP 1200#, Min 800#, ISIP 1000#, 10 mins 0#. Stage #2, pmpd 500 gals slick KCL wtr followed by 500 gals 15% HCL acid w/additives as above w/radioactive agent, followed by 31 bbls lse oil crude flush. MP 2500#, Min 900#, ISIP 2300#, 15 mins 1300#. Tracer surveys found acid went in fm horizontally. 12 hr SITP 0#. Swbd Abo 6097-6117' 9 hrs, rec 50 BLO, 24 BLW, gas light w/gradual incr. 15 hr SITP 100#. Swbd perfs 6097-6117' 9 hrs, rec 12 BLO, 23 BNO & 7 BLW, gas light. Trtd perfs 6097-6117' w/500 gals slick 2% KCL wtr followed by 2000 gals 15% HCL-NE acid w/iron sequestrant, flushed w/31 BLC, MP 2600#, ISIP 2300#, 15 min SIP 100#. Acidized Abo perfs 6097-6117' w/1500 gals gelled 2% KCL wtr pad, 1500 gals FE-NE 15% HCL acid cont'g radioactive mat'l, 10.5# wt, 500 gals gelled 2% KCL wtr pad, 1500 gals FE-NE acid, 15% HCL 10.5# wt, 500 gals gelled 2% KCL wtr pad, 1000 gals FE-NE 15% HCL 10.5# wt acid w/radioactive mat'l. Used 2982 gals lse crude flush. MP 3000#, Min 1000#, ISIP 2600#, 5 mins 2400#, 10 mins 2100#, 15 mins 1900#. Swbd Abo perfs 6097-6117' 2 hrs, rec 44 BLO, 4 BLW, tr gas. 15 hr SITP 150#. RIH w/BP, set @ 6075'. Perf'd Abo 6036-6052' w/2 JSPF (32 - .44" holes). RIH w/Lok-set pkr on 2-3/8" OD tbg, set pkr @ 5938'. Acidized perfs 6036-6052' w/250 gals NE-FE 15% HCL acid followed by 25 BLC flush. MP 750#, Min 0#, ISIP 450#, 5 mins vac. Swbd perfs 5 hrs, rec 25 BLO, 3 BNO, 6 BAW & 38 BLW, no gas. Acidized Abo 6036-52' w/250 gals gelled 2% KCL wtr pad cont'g RA mat'l, 1000 gal 15% HCL-NE-FE acid, 10# wt, cont'g adomall, Mor-flo, parasperse & CaCl, followed by 30 BLC flush. MP 1100#, Min 0#, ISIP vac. Swbd 3 hrs, rec 16 BLO & 20 BLW. 15 hr SITP 200#. Trtd Abo perfs 6036-6052' w/4000 gals KCL pad, 1500 gals Mod 202 acid, 500 gals KCL wtr pad, 1500 gals acid, flushed w/30 BLC. MP 4000#, Min 4000#, ISIP 1050#. Swbd Abo perfs 6036-6052' 2½ hrs, rec 24 BLO & 20 BLW, show gas. 15 hr SITP 400#. Acidized perfs 6036-6052' w/8000 gals 50/50 15% HCL/xylene w/FE agent dispersant followed by 12 BLC flush. MP 1400#, Min 1200#, ISIP 800#, 5 mins 100#, 10 mins 0#. 36 hr SITP 0#. Flwd 8 hrs, rec 12 BLO, 167 BNO & 20 BLW, FTP 200#. On 24 hr potential test 5/3/77, flwd 192 BO, 0 BW & 314 MCFG, FTP 395#, 16/64" ck, GOR 1635:1. Final Report.