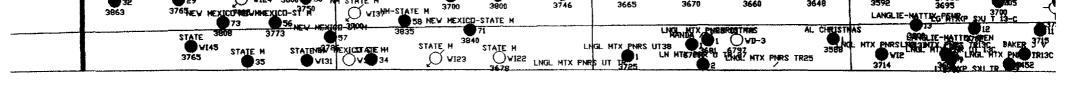
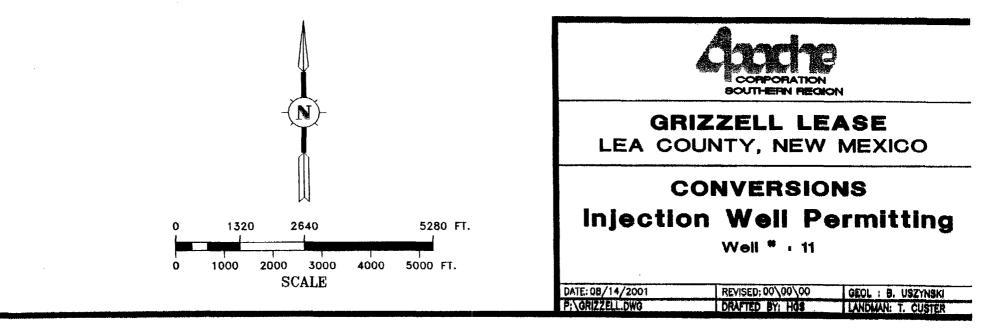


| 7 <b>F0</b>                           | 3825  | 6790   | 21<br>316772   |   |   | :   | 35 -   | - 429   |  |  | D UNITED I  | ACCELO   | 7477  | UVEN B   | 6607<br>34  |             |
|---------------------------------------|---|--|--|---|---|---|--|---|--|--|---|--|---|--|---|-------------|
| /36/<br>1<br>331                      | GILL, DEEP<br>GILL, DEEP<br>F<br>4000                           | GILL DEEP<br>4 J<br>6750   | CEN<br>DYCE_PRUITT<br>2<br>6710  | PRUITT JO<br>NTRAL DRI FI                         | DELAN <u>IE</u> S<br>3 <b>3680</b> 80<br>5<br>5<br>7<br>7<br>7<br>7<br>8<br>7<br>8<br>7<br>8<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8 | 36688   | A MEED 2146 6550<br>65780                        | TRACERNI<br>                                    | 6559 G HARE JUNJ HARECENT                            |  |   | AUBIRITIAN<br>H HELIGAN<br>74 1<br>TRAL DRINKARD | UVEN B  |  | 63735   | RK D<br>65  |
| 2<br>2<br>45                          | GILL DEEP<br>GILL DEEP<br>GILL GEO<br>40098                     | <b>6</b> 8   | PRUIJIORUHAE P   | RUITT JOYCE<br>BUITT<br>67501<br>3771             |   | 5<br>DBWNES IE<br>WNES ANNIE<br>011-3<br>3784<br>6680 | 37982<br>6323                                    | 405<br>39<br>6611<br>6523                       | NKAR DATARE  | 79200<br>6521                                | ARICHARIGAN<br>LEEN ARI<br>HOR Z Solo-                  | H <sup>D</sup> CHEINGAN<br>NKAA44995<br>- 410    | 1<br>6514<br>1<br>1<br>6514<br>1<br>1<br>9<br>4150  | DWEN B<br>65 8<br>4050   | LIBIG SSED  |             |
| HT NGT<br>HT NGT<br>HA<br>6850        | TERN H T (NC<br>IMATTE<br>CERNING L. GKC<br>8890                | T-D)<br>RN H T (NCT-1<br>T-D)<br>10<br>6800  |  |   | 3 3785 <sup>7</sup><br>7700 3785  | 00 v 106<br>2<br>6612                                 | 378385<br>SIMMENS                                | 3755  | 87580114   | 7957   | COMPLETE<br>COMPLETE<br>13<br>4210                      | 76 6604 1200                                     | DWENS EVA   | EVA DVE<br>UVEN 3<br>6550<br>3936  | HANK HANK IS  | н<br> <br>7 |
| RT B-41<br>8<br>60                    | 6850<br>Ø   | 6600   | 3800   | GRIZZEL<br>ST<br>UNITORIZZEL<br>3356<br>3790      | AL<br>EBBINS LEE (NCT-<br>PENROLE SK BOLIR<br>3770  | ANRUSE SKED   | 5014<br>5014                                     | HRISTHADSE SK BOL<br>HRISTHADDIA<br>135<br>6568 |  | 7985 1<br>3758                               | CIGABORT BURNAN<br>CISE STATE<br>118<br>2750<br>BRUNSON | 7645 2<br>3822                                   | SU PENROSE SK   | DWEN EVA A   | MARK OVENS  |             |
| RT B 1<br>                            | PAN DANA-F  | EDERAL DI  | 0 PENROSE 5480<br>3756<br>3756<br>9466   | 8<br>LINENROSE SK 80<br>7 129<br>3783             | 378750  | 3760  | 5<br>UNITGRIZZELLSO<br>2750<br>SE SKELLY U       | PENRUSAKERY 1                                   | STICHER<br>NIT STICHER 4 5<br>BD<br>3721             | STICHER<br>TICHERTA<br>8030                  | $O_1$   | BRBANSBINS'B<br>RUNS 2200<br>3958                |   | CUNELINSING IN<br>BINNING IN THE<br>BINNING IN THE<br>CONTENTS<br>CONTENTS   | 3<br>12<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000 | IT          |
| NRT 11<br>1990 ARI<br>1970 6 1<br>197 | HATTER AND                  | EDERGAL B 5219   | ET-D)<br>ELLIOTT-F6 <b>S</b><br>5<br>3771  | 3778  | URENROSE SKY UN<br>133<br>3780  | ITGRIZZELL<br>1 3780                                  | O - 220<br>GRIZZELLSE<br>3900 €IZZEL<br>3765<br> | PENROSE SKSD<br>LLGP177 353<br>36540 1<br>7504  | 1914(3.15111) #Out<br>P 32097                        | 75501<br>6601                                | BRUNTED 139<br>BRUNTED 139<br>4114                      | 3738   | BRUINSDIN B<br>CANADAR ONIT B<br>SBG2   | PARKINKA 1957<br>RUNSCI 98<br>3740   | BRUSSIE ONI<br>39<br>6542                                       | T           |
| 4250                                  | NATTERN HATT<br>MATTER 10<br>3755                               | 10001 - 9) T NCT-<br>RREIN - 9) T NCT-<br>As (GR<br>6700 - 18:<br>3975                         | ATBORNROSE SK#1  | 2719  | AMENRUSE SKY U<br>151<br>3760   | 3750  | GRIZZELL<br>1<br>3736                            | GRI 177EL P. L.S.<br>4<br>6545 7290             | E 3733 8189  | LILIUH DERAL<br>Contactor<br>376057          | BRUK IN ARG<br>BRUK SIN<br>7581                         | ARGE 7 655 - 11                                  | BRUNSTAN ARGE<br>BRUNSTAN ARGE<br>BRUNSTAN ARGE<br>725<br>7372  | 73215  | 6-3705  | 145<br>\    |
|                                       | 16  | TERMY H. T. (NCT<br>6735<br>(HENRIE ESKANBUR<br>38350  | (-D)<br>SD PENROSE SKY<br>RG 3724  | UNIT 105607 F                                     | ALBY C P YAY FEL  | ER FALBY A  | GRIZZELL<br>GRIZZE<br>3739<br>8 GRIZZE           | 500 GRIZ 55<br>3710 3710                        | 447<br>447<br>447<br>447<br>447<br>447<br>447<br>447 | AL PENRUSE<br>AL                             | IRLINSIN-AREE<br>3740                                   | BRUNSUN-ARG<br>BRUNSUNARG<br>3754                | 72.001<br>97.001<br>97.001<br>10<br>6570  | BRUISE AND S   | D<br>D<br>PADJJUNSCH<br>SZESI6                                  | ,<br>,      |
| 19700<br>                             |   | RG<br>MATTERI<br>IV WEATLOCKER<br>IV WEATLOCKER<br>III AND |  |   | 3 6550  | 3730  | GRIZZECH<br>GRIZZECH<br>165<br>3748<br>US 2640'  |   | 371-3268   | 8150   | 9<br>(612,410,020,988 Y<br>(173<br>8068 15              | GREENVILLE<br>GREENVILLE<br>7501<br>J L GREEN    | 3735<br>6540  | NURB BART  | ANT PADDICK<br>BAKER SEL<br>BAKER SEL<br>15<br>6498<br>6100     | ,0          |
|                                       | RUHEAD (GRA   | 3878<br>AYBURG<br>RELEASE<br>213<br>3778268  | 2744   | RRDVHEAD (GRA)<br>215<br>3886<br>6756             | YTUNGBY CP-FE301  | PENRUSE SKY   | GRIZZELL<br>UNITGS 4<br>3712                     | , <u>-</u> 3/0 <u>3</u> O.                      | + $+$ $/$  | GREENVOOD<br>PENROSE<br>3705                 | JL<br>UNDERENANDODD<br>38650                            | GREENWOOD<br>GREENWOOD<br>77A<br>6545            | DENRIDSE SKY<br>BAK BBB<br>JAK BBB<br>J | BAKEP STO  | PADDICLE<br>PADDICLE<br>S169                                    | ar          |
|                                       | P ISTNAS C<br>S AND MSAL  | (1996)<br>5 DICE) 1 EDA<br>3735<br>6761  | 6765   |   | EVEMEXELINIT/STA  | ELLIUTT-FEI   | B PENNITE PAK 8<br>191<br>66710                  | SUJAENRUSE CESO<br>190<br>3703                  | B-17-7335<br>RENTOLE-STATE A<br>2<br>112<br>7350     | COLE<br>60145-07475<br>30<br>-5705-1<br>6602 | R   | RE CULE-STATE<br>LE R E CULE-TATE<br>7490        | 7397788   | 8910 1<br>7581 654   |   |             |
| 92940<br>6710                         | 37/0,401<br>37/0,401<br>3855                                    | C<br>REFERENCE &<br>1741<br>37<br>228<br>3795  | HRISTMAS A L RUNCHHRISTMAS A L RUNCHHRISTMAS C<br>PERIMUMAN<br>3721 VI-<br>18 3815 | CHRISEMASS AL NO<br>CHRISEMAS<br>YBURG 707<br>229 | CT-C<br>C STATE<br>Be<br>3800   | 3929<br>6700  | 7442   | CHRISTHAN                                       |  |  | OLE STATE   | COLE 2012  | VALBEN A<br>T-AJ DEAL DEN 4<br>4000 100 100   |  | - 7353  |             |
| AD<br>675<br>3881                     | 50 <b>STE</b> MAS C<br>10 10 10 10 10 10 10 10 10 10 10 10 10 1 | STATE P  |  | TE<br>STATE M<br>B<br>3693                        | 3   |   |  | CHRISTMAS                                       | 7383<br>MAS<br>LE COLEOBEEA(NC<br>15<br>378900       | T-ADLE RE NC<br>3935                         | ETLE R E CONTRACTOR                                     | 37/13 <sup>6</sup>                               | 4413 AV   | 13   | N ELLIUT A-1<br>ELLIUT 45<br>7690                               | .5          |
| EINAL D<br>0 (1078<br>239<br>938      | -S ATE<br>BENES AL<br>BENES AL<br>33696                         | BLINBRY-D<br>STATE C<br>PARRIER BURNER<br>VI-240   | RINARD SYT<br>WD-N-1<br>REAN REFACE<br>241R 8720<br>7 8720<br>3980                 | AYBURG STATE M<br>1-242 3710                      | STATE OF NEV II   | CO NPATSY /B<br>2<br>4030                             | CHRISTMAS  | 'BJ'<br><b>3950</b>                             | COLE 6756  | TATE <sup>733</sup><br>COL <u>E</u> -STATE   | RE LEST   | A<br>ATE COLE<br>COLE R ANCT<br>7338             | -A)   |  | A CONST   | 5           |
|                                       | En STATE I  |  | WI4 06N  | IEW MEXICO-ST                                     | N STATE<br>1<br>3600  | PATSY 1   |  | PAISY<br>1<br>4000                              | LINGL MTX PNRS                                       |  |   |  |   | BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZIONITE<br>BELEZI |   | a di n      |
| VALD-S                                | TA E AAM STA<br>PE C<br>17 37:                                  | ATE H<br>) W142 STATE<br>70 3720   | 43 37284   | 3412<br>E M<br>VI46                               | ELLIOTT-FEDER   |   | T B <u>#1</u> LIOTT /B<br>3 22<br>00 3770        | LNG<br>-20/ ELLIGIT 8:<br>91<br>3807            | GL MTX PNRS TR8<br>20 4 LI<br>3700                   | NGL HTX PNRS<br>1<br>3600                    |   | LI<br>ENGE7MTX PARS<br>01<br>3620                | UT TR C 10  | INGL MIX   | 8Y<br>3672<br>22  |             |
|                                       | 371   | 377  | 6 3690   | NH STATE H  |   | NM STATE  | ен зе  | TE SPOO   | GL MTX PNRS TRI<br>O VI4<br>3709                     | Engl HTX PNRS                                |   | 3635<br>E-MATTIX PENR                            | 3628  | AREL HITE IPH<br>36809   | DICHINSTON HIX P  |             |
|                                       | NH STAT   | 953<br>3840<br>EM NM S <u>TA</u>   | M /M/ STATE<br>3816<br>TE M NM STATE<br>29   | 55<br>55<br>53050 Ny 5103<br>5103                 | ATE 3687<br>NEW ME<br>N N STATE M   |   | 7890   | · · · · · · · · · · · · · · · · · · ·           | SLOGLTRITX PNRSL                                     | MANDA<br>Miglt II The NRS<br>67 1<br>3670    | LINGL INFX PHR:   | 5<br>3800<br>SLINGE53ITX PNR:<br>01<br>3648      | S UNSTRATX PAR<br>3<br>3592   | 9790<br>2790<br>2 Millio BHTX P  |   | SA<br>REL   |





#### Surface = Circulated C = Calculated B = Cement Bond Log Liliott B # 6 Greenwood # 3 Greenwood # 2 Greenwood # 1 Grizzell B # 3 State PA # 3 Elliott B-17 # 3 Elliott B-9 # 1 Shell G # 1 South Penrose Skelly Unit # 181 Grizzell B # 4 Grizzell B # 1 Grizzell # 12 Grizzell # 10 Grizzell # 7 Grizzell # 9 Grizzell # 8 CP Faiby B # 1 Grizzell # 3 op of Cement Legend: ole State # 2 enrose # 5 enrose # 4 enrose # 3 enrose # 2 Grizzell # 1 = Temperature Survey liott B-17 # 2 isco State B # 1 Greenwood # 15 Greenwood # 14 rizzell B # 2 rizzell # 4 rizzell # 2 Greenwood # 13 izzell # 6 nizzeli # 5 WELL NAME 30-025-25209 30-025-24864 17/22S/37E 30-025-10322 30-025-10136 30-025-10135 30-025-23691 30-025-26457 30-025-10333 30-025-10330 30-025-10134 30-025-10124 30-025-10123 30-025-32510 30-025-10148 30-025-10147 30-025-10121 30-025-10119 30-025-10103 30-025-10107 30-025-10341 30-025-10146 30-025-23287 30-025-26713 30-025-10110 30-025-26723 30-025-20562 30-025-10114 30-025-10113 30-025-10109 30-025-10111 30-025-10101 30-025-35269 30-025-10116 30-025-10115 30-025-10112 API NO. 17/22S/37E 16/22S/37E 17/22S/37E 9/22S/37E 2086 FNL- 766 FWL 8/22S/37E 2200 FSL- 420 FEL 17/22S/37E 17/22S/37E 9/22S/37E 1980 FSL- 660 FWL O 03/31/38 3714 12-1/4 9-5/8 9/22S/37E 660 FSL- 660 FWL P&A 11/02/38 3705 13-3/8 9-5/8 8/22S/37E 8/22S/37E 1830 FNL- 510 FEL 8/22S/37E 9/22S/37E 1980 FSL- 990 FWL 9/22S/37E 2175 FNL- 660 FWL 8/22S/37E 1980 FSL-1980 FWL 8/22S/37E 1980 FNL- 660 FEL 8/22S/37E 9/22S/37E 1905 FSL- 990 FWL 9/22S/37E 8/22S/37E 8/22S/37E 1940 FSL- 380 FEL 8/22S/37E 810 FSL-1980 FEL 8/22S/37E 2090 FSL- 550 FEL 8/22S/37E 1980 FSL- 660 FEL 9/22S/37E 9/22S/37E 9/22S/37E 9/22S/37E 1980 FNL- 660 FWL 8/22S/37E 1838 FNL-1750 FEL 8/22S/37E 1980 FNL-1980 FEL 8/22S/37E 8/22S/37E 8/22S/37E S/T/R 8/22S/37E 1980 FSL-1980 FEL 2310 FNL- 330 FWL 2310 FSL-1650 FEL 1874 FNL- 766 FWL 660 FNL-1980 FEL 760 FSL- 660 FWL 330 FSL- 500 FWL 330 FSL- 330 FEL 660 FSL- 860 FEL 660 FNL-2100 FEL 660 FNL- 660 FEL 330 FNL-2310 FWL 330 FNL- 330 FEL 660 FNL- 600 FWL 660 FSL-1980 FWL 990 FSL- 330 FEL 660 FSL-1980 FEL 660 FSL- 660 FEL LOCATION WELL COMP P&A P&A D&A D&A 07/08/70 7424 11 0 P&A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ഹ 0 0 G 0 0 0 0 06/20/80 7500 17-1/2 13-3/8 1163 06/23/38 3694 9-7/8 01/17/53 6500 12-1/4 10-3/4 11/20/47 8172 12-1/4 10-3/4 10/26/94 6200 12-1/4 8-5/8 1179 01/20/47 8120 17-1/2 13-3/8 153 06/19/39 12/16/37 5260 13 06/29/01 4300 12-1/4 8-5/8 1160 12/18/62 6577 12-1/4 10-3/4 330 12/19/47 5200 17-1/2 13-3/8 03/31/38 3714 12-1/4 9-5/8 03/26/71 7335 11-1/4 8-5/8 1162 07/02/53 6510 12-1/4 10-3/4 165 03/15/46 5245 17-1/2 13-3/8 03/17/38 3725 12-1/4 10-3/4 03/29/38 6550 12-1/4 10-3/4 11/20/79 7500 17-1/2 13-3/8 1162 700 11/09/37 6580 13 02/03/38 3718 11 04/28/80 7508 14-3/4 11-3/4 1200 03/11/76 11/07/38 08/05/38 3700 12-1/4 10-3/4 11/23/74 03/03/38 3712 12-1/4 07/27/63 6575 12-1/4 8-5/8 09/04/52 6537 17-1/4 13-3/8 10/06/52 6513 17-1/4 13-3/8 08/01/52 12/09/47 5244 11 12/12/38 3712 11 1/09/38 3709 11 **AREA OF REVIEW / WELL DATA** 6650 6650 11 3720 12-1/4 10-3/4 6541 17-1/4 13-3/8 3710 1-9 HOLE CSG SET CMT HOLE CSG SET CMT HOLE CSG SET CMT SURFACE CASING 7-5/8 10-3/4 8-5/8 8-5/8 8-5/8 8-5/8 1193 10-3/4 8-5/8 8-5/8 8-5/8 8-5/8 1128 10-3/4 1162 1149 1150 1160 1175 1139 1163 153 341 329 319 440 339 339 281 293 214 289 297 254 262 329 255 275 500 225 9-1/4 300 9-1/4 350 11 385 460 165 12-1/4 9-5/8 450 125 325 500 500 500 600 640 150 12-1/4 9-5/8 200 700 200 200 300 11 600 300 9-1/4 125 180 9-1/4 300 250 500 300 9-1/4 800 11 225 9-1/4 150 225 9-1/4 300 11 INTERMEDIATE CASING 12-1/4 12-1/4 7-5/8 7-5/8 7-5/8 7-5/8 8-5/8 8-5/8 7-5/8 7-5/8 8/5-6 8-5/8 8-5/8 7-5/8 9-5/8 3910 1162 3178 2780 2796 2798 2805 2785 3910 2790 3823 2799 2775 1195 3900 1500 1500 1300 2328 1600 7-7/8 5-1/2 1400 8-3/4 1400 8-3/4 1800 6-3/4 2200 8-3/4 1485 8-3/4 1275 6-3/4 850 6-3/4 300 6-3/4 425 6-3/4 800 6-3/4 6-3/4 8-3/4 8-3/4 7-7/8 7-7/8 8-3/4 8-3/4 8-3/4 7-7/8 7-7/8 7-7/8 7-7/8 7-7/8 7-7/8 7-7/8 7-7/8 7-7/8 7-7/8 5-1/2 7-3/4 -7/8 5-1/2 4-1/2 5-1/2 5-1/2 5-1/2 PRODUCTION CASING 5-1/2 5-1/2 5-1/2 4-1/2 5-1/2 5-1/2 5-1/2 5-1/2 ဗု 5-1/2 4-1/2 5-1/2 5-1/2 5-1/2 5-1/2 2 6573 5243 3563 3530 6650 3548 6499 5199 8133 6200 1145 6465 7420 3512 4300 3562 3559 3568 3417 6649 3490 3600 3558 7335 8089 5202 3400 3473 7505 3500 7500 7500 1900 425 1250 600 975 1225 800 425 350 400 530 300 80 600 600 800 150 250 200 800 400 500 750 150 240 125 125 125 175 25 6236 (C) 2672 (C) 2469 (C) 2800 (C) 2797 (C 2800 (C) 2431 (C) 6875 (C) 6307 (C) 2079 (C) 3970 (C) 1450 ()) 2864 (C) 2392 (C) 1750 (B) 1840 (B) 2576 (C) 1607 (C) 1616 (T) Surface 1730 (T) 387 (C) 774 (C) 367 (C) 790 (C) 0 (C) 0 0 0 (0) 0 (C) 6-1/4 0 (C) 0 (C)|6-1/4 6-3/4 7-7/8 7-7/8 5-1/2 7-7/8 HOLE LINER 5-1/2 СT 5-1/2 4-1/2 2589-6536 2595-6535 2571-6510 3348-6579 3730-6577 DEPTH 5260 CMT 400 675 700 300 450 110 100 3730 3746 2571 3348 2595 2589

Well: Shell G # 1

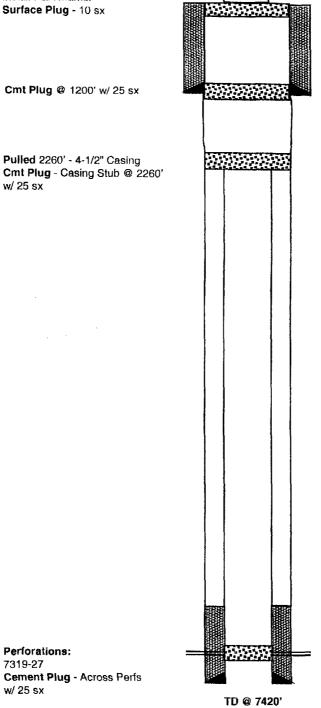
Field: Undesignated

Current Status: D&A (7/70)

Location: 330' FSL & 330' FEL Unit P, Sec. 8, T22S, R37E Lea County, New Mexico

API #: 30-025-23287

Install P&A marker



Elevation: 3399' (GR)

11" Hole 8-5/8" 32# J-55 CSA 1193' Cement w / 385 sx Circulated to Surface

7-7/8" Hole 4-1/2" 9.5/11.6# J-55 CSA 7420' Cement w / 240 sx TOC @ 6307' (Calc)

Well: Grizzell B # 2

1980' FNL & 660' FEL

30-025-10101

Unit H, Sec. 8, T22S, R37E Lea County, New Mexico

Field: Paddock

Location:

API #:

Current Status: P&A (2/89)

Elevation: 3427' (GR) Install P&A marker Surface Plug - 5 sx Perf 1200-01 Cmt sqz 5-1/2" x 7" Annulus w/ 220 sx - Circulated to Surface Tag TOC inside casing @ 107' Cmt Plug 2990' - 3650' (50 sx) . . . CIBP @ 4850' w/ 35' cement Paddock Perfs: 5107-57, 66-80, 5228-60

TD @ 5260'

13" Hole 10-3/4" 40# H-40 CSA 281' Cement w / 200 sx Circulated to Surface

8-3/4" Hole 7" 22# H-40 CSA 3400' Cement w / 600 sx TOC @ Surface (Calc)

6-1/4" Hole 5/5-1/2" 14/17# J-55 CSA 5260' Cement w / 110 sx TOC @ 3746' (Calc) Well: So. Penrose Skelly Unit # 181

Field: Penrose Skelly; Grayburg

660' FSL & 1980' FWL Location: Unit N, Sec. 8, T22S, R37E Lea County, New Mexico

API #: 30-025-10119

> Install P&A marker Surface Plug - 0' - 50'

Perf 1298 - 1301 Cement Retainer @ 1226' Cmt sqz behind 5-1/2" w/ 300 sx TOC @ 60' (Temp Survey)

Cmt Plug 2318' - 2418' (12 sx)

Elevation: 3418' (GR)

111111

12-1/4" Hole 10-3/4" 32# H-40 CSA 339' Cement w / 200 sx Circulated to Surface

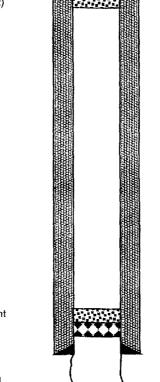
7-7/8" Hole 5-1/2" 17# J-55 CSA 3512' Cement w / 500 sx TOC @ 1607' (Calc)

CIBP @ 3475' w/ 12 sx cement

Grayburg Open Hole: 3512' - 3681'

Dump 10 sx cement on bottom PBTD @ 3681'

Current Status: P&A (11/84)



TD @ 3720'

Greenwood # 1 Well:

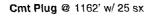
Undesignated Field:

Current Status: D&A (3/71)

Location: 330' FSL & 500' FWL Unit M, Sec. 9, T22S, R37E Lea County, New Mexico

API #: 30-025-23691

> Install P&A marker Surface Plug - 10 sx



Cmt Plug @ 2400' w/ 25 sx

Cmt Plug @ 5035' w/ 25 sx

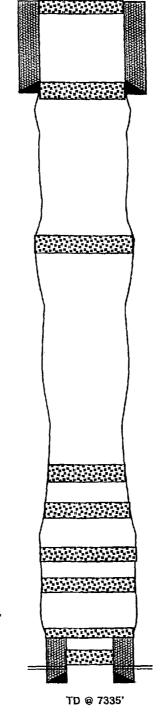
Cmt Plug @ 5485' w/ 25 sx

Cmt Plug @ 6030' w/ 25 sx

Cmt Plug @ 6160' w/ 25 sx

Pulled 6875' - 4-1/2" casing Cmt Plug - Casing Stub @ 6875' w/ 25 sx Cmt Plug @ 7278' w/ 25 sx

Perforations: 7281-7301



Elevation: 3403' (GR)

11-1/4" Hole 8-5/8" 24# J-55 CSA 1162' Cement w / 325 sx Circulated to Surface

7-7/8" Hole 4-1/2" 10.5# J-55 CSA 7335' Cement w / 75 sx TOC @ 6876' (Calc)

4

Well: Greenwood # 3

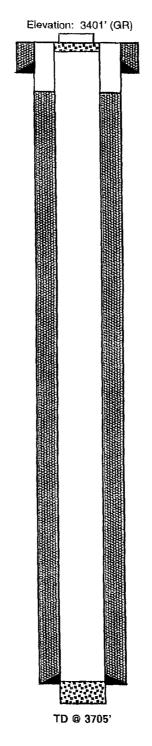
Field: Penrose Skelly; Grayburg

Current Status: P&A (10/70)

Location: 660' FSL & 660' FWL Unit M, Sec. 9, T22S, R37E Lea County, New Mexico

API #: 30-025-10124

Install P&A Marker Surface Plug - 0' - 35' w/ 10 sx



13-3/8" Hole 9-5/8" 36# H-40 CSA 440' Cement w / 125 sx Circulated to Surface

Cmt Plug - 3600-3702 w/ 50 sx

Grayburg Open Hole: 3600 - 3705

8-34" Hole 7" 24# J-55 CSA 3600' Cement w / 400 sx TOC @ 790' (Calculated) Well: Cole State # 2

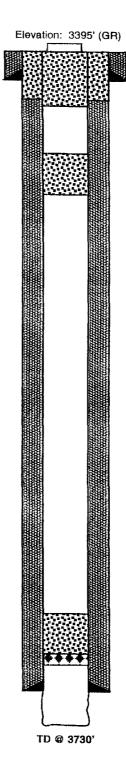
Field: Penrose Skelly; Grayburg

Location: 660' FNL & 660' FWL Unit D, Sec. 16, T22S, R37E Lea County, New Mexico

API #: 30-025-10322

Install P&A Marker Surface Plug - 0' - 411' w/ 40 sx

Cmt Plug - 994 - 1240 w/ 25 sx



9-7/8" Hole 7-5/8" 26# H-40 CSA 289' Cement w / 150 sx Circulated to Surface

Cmt Squeeze @ 322' w/ 100 sx

Cmt Plug - 3244-3490 w/ 25 sx CIBP @ 3490'

Grayburg Open Hole: 3548 - 3730 6-34" Hole 5-1/2" 15# J-55 CSA 3548' Cement w / 250 sx TOC @ 387' (Calculated)

Current Status: P&A (8/98)

South Permian Basin Region 10520 West I-20 East Odessa, TX 79765 (915) 498-9191 Lab Team Leader - Sheila Hernandez (915) 495-7240

## Water Analysis Report by Baker Petrolite

| Company:            | APACHE CORPORATION | Sales RDT:       | 33102                       |
|---------------------|--------------------|------------------|-----------------------------|
| Region:             | PERMIAN BASIN      | Account Manager: | MIKE EDWARDS (505) 910-9517 |
| Area:               | EUNICE, NM         | ID #:            | 22639                       |
| Lease/Platform:     | GRIZZELL UNIT      | Analysis Cost:   | \$40.00                     |
| Entity (or well #): | 12                 |                  |                             |
| Formation:          | SAN ANDRES         |                  |                             |
| Sample Point:       | WELLHEAD           |                  |                             |

| Analysis Date: 11/20/01   Analyst: JAMES AHRLETT   Bicarbonate: 2405.0   39.42 Magnesium: 112.0   DTDS (mg/l or g/m3): 9975.3   Density (g/cm3, tonne/m3): 1.008   Anion/Cation Ratio: 1.0000001   Carbon Dioxide: 0.0 0.42   Dxygen: Final   Dxygen: PH at time of sampling:   pH at time of analysis: 7.47   pH used in Calculation: 7.47   pH used in Calculation: 7.47   pH used in Calculation: 7.47 | S                                       | ummary   | Analysis of Sample 209886 @ 75 °F  |               |             |  |                              |  |  |  |  |
|---|---|--|--|---------------|-------------|--|------------------------------|--|--|--|--|
| Analyst:JAMES AHRLETTGrinoride:4030.0114.24Sodum:2894.3125Bicarbonate:2405.039.42Magnesium:112.09.2TDS (mg/l or g/m3):9975.3Density (g/cm3, tonne/m3):1.008Anion/Cation Ratio:1.0000001Anion/Cation Ratio:1.0000001Phosphate:Barlum:Borate:Silicate:Bicarbon Dioxide:Silicate:Oxygen:Phat time of sampling:PH at time of analysis:7.47PH used in Calculation:7.47Nickel:                                  | Sampling Date:                          | 11/15/01   | Anions   | mg/l          | meq/l       | Cations  | mg/l                         | meq/l  |  |  |  |
| Carbon Dioxide:<br>Dxygen:<br>Comments:<br>Hydrogen Sulfide:<br>pH at time of sampling:<br>pH at time of analysis:<br>pH used in Calculation:<br>T.47<br>Aluminum:<br>Copper:<br>Lead:<br>Manganese:<br>Nickel:   | Density (g/cm3                          | JAMES AHRLETT<br>m3): 9975.3<br>, tonne/m3): 1.008 | Bicarbonate:<br>Carbonate:<br>Sulfate:<br>Phosphate:<br>Borate:            | 2405.0<br>0.0 | 39.42<br>0. | Magnesium:<br>Calcium:<br>Strontium:<br>Barlum:          | 112.0<br>262.0<br>9.0<br>6.0 | 125.9<br>9.21<br>13.07<br>0.21<br>0.09<br>0.14 |  |  |  |
| Conditions Values Calculated at the Given Conditions - Amounts of Scale in Ib/1000 bbl  | Carbon Dioxide:<br>Oxygen:<br>Comments: |  | Hydrogen Sulfide:<br>pH at time of sampling:<br>pH at time of analysis: 7. |               |             | Aluminum:<br>Chromium:<br>Copper:<br>Lead:<br>Manganese: |                              | 5.45   |  |  |  |
|   | Conditions                              | Values Ca  | Iculated at the Given  | Conditions -  | Amounts o   | of Scale in Ib/1000                                      | bbl                          |  |  |  |  |

| Tama | Gauge<br>Press. | Calcite<br>CaCO3 |        | Gypsum<br>CaSO4*2H20 |        | Anhydrite<br>CaSO4 |        | Celestite<br>SrSO4 |        | Barite<br>BaSO4 |        | CO2<br>Press |  |
|------|-----------------|------------------|--------|----------------------|--------|--------------------|--------|--------------------|--------|-----------------|--------|--------------|--|
| °F   | psi             | Index            | Amount | Index                | Amount | Index              | Amount | Index              | Amount | Index           | Amount | psi          |  |
| 80   | 0               | 1.32             | 171.78 | -2.42                | 0.00   | -2.49              | 0.00   | -2.11              | 0.00   | 0.82            | 2.78   | 0.94         |  |
| 100  | 0               | 1.41             | 181.85 | -2.44                | 0.00   | -2.44              | 0.00   | -2.09              | 0.00   | 0.67            | 2.78   | 1.28         |  |
| 120  | 0               | 1.51             | 191.57 | -2.45                | 0.00   | -2.37              | 0.00   | -2.07              | 0.00   | 0.55            | 2.43   | 1.7          |  |
| 140  | 0               | 1.60             | 199.89 | -2.46                | 0.00   | -2.29              | 0.00   | -2.04              | 0.00   | 0.45            | 2.08   | 2.2          |  |

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

RINKAR



# ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

TONEY ANAYA GOVERNOR

June 21, 1985

POST OFFICE BOX 2098 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

APPLICATION OF SHELL WESTERN E & P INC. TO EXPAND ITS WATERFLOOD PROJECT IN THE PENROSE-SKELLY POOL IN LEA COUNTY, NEW MEXICO.

#### ORDER No. WFX-547

### ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Order No. R-2794, Shell Western E & P Inc. has made application to the Division on April 30, 1985, for permission to expand its South Penrose Skelly Unit Waterflood Project in the Penrose-Skelly Pool in Lea County, New Mexico.

NOW, on this 13th day of June, 1985, the Division Director finds:

1. That application has been filed in due form.

2. That satisfactory information has been provided that all offset operators have been duly notified of the application.

3. That no objection has been received within the waiting period as prescribed by Rule 701B.

4. That the proposed injection well is eligible for conversion to water injection under the terms of Rule 701.

5. That the proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.

6. That the application should be approved.

IT IS THEREFORE ORDERED:

That the applicant, Shell Western E & P Inc., be and the same is hereby authorized to inject water into the Grayburg formation through plastic-lined tubing set in a packer at approximately 3600 feet in the following described well for purposes of waterflooding to wit:

Shell Western Grizzell No. 11, 1300' FSL and 1139' FEL Unit P, Sec. 8, T-22-S, R-37-E, Lea County

#### IT IS FURTHER ORDERED:

That the operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

That the casing-tubing annulus (in each well) shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

That the injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 732 psi.

That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Grayburg formation. That such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

That the operator shall notify the supervisor of the Division's Hobbs District Office before injection is commenced through said perforations.

That the operator shall immediately notify the Supervisor of the Division's Hobbs District Office of the failure of the tubing, casing, or packer in said or the leakage of water from or around said wellbore and shall take such steps as may be timely or necessary to correct such failure or leakage.

That the subject injection well shall be governed by all provisions of Division Order No. R-2794 and Rules 702, 703, 704, 705, and 706 not inconsistent herewith.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DEVISION

R. L. STAMETS, Director

SEAL



Shell Western E&P Inc. A Subsidiary of Shell Oil Company

June 5, 1985

P.O. Box 991 Houston, TX 77001

State of New Mexico Energy and Minerals Department Oil Conservation Division ATTN Mr. G. Quintana P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

. see

AUTHORIZATION TO INJECT SHELL WESTERN - GRIZZELL NO. 11 PENROSE SKELLY GRAYBURG POOL UNIT LETTER P, 1300' FSL & 1139' FEL SECTION 8, T22S-R37E, NMPM LEA COUNTY, NEW MEXICO

Further to our application of April 26, 1985, and confirming our discussion on May 24, 1985, the following information is submitted in support of our request for administrative approval to convert the subject well to water injection service.

NMOCD Order #R-2794 dated October 30, 1964, granted Gulf Oil Exploration and Production Company permission to conduct waterflood operations in the subject pool. Subsequent to the formation of the Gulf operated South Penrose Skelly Unit on July 1, 1965, a water injection pilot project was initiated in June of 1967. Active injection was discontinued in April of 1972.

The subject well was one of two 20-acre infill wells drilled and tested by Gulf in June, 1975, for the purpose of evaluating the pilot performance and determining the future of the unit. In May, 1976, Gulf advised unit participants that neither well was capable of being completed as a producer.

The South Penrose Skelly Unit was officially terminated on April 1, 1984, after receiving approvals from the New Mexico State Land Office, State Energy and Minerals Department, United States Bureau of Land Management, and the required 80 percent of the unit's working interest ownership.

On abandonment of the unit and under the terms of the South Penrose Skelly Unit Agreement, Shell Western assumed operations of all wells on its Grizzell lease, including No. 11, formerly SPSU No. 262. We propose to waterflood the Penrose Skelly Grayburg Pool under our Grizzell lease by converting well No. 11 to injection service. We estimate that successful waterflooding will result in the recovery of an additional 85,000 barrels of oil.

BNA8515402

In accordance with the provisions set forth in Rule 701-F, we request an exception to the hearing requirements of Rule 701-A for conversion to injection of additional wells for an authorized project.

If additional information is required, please advise.

Yours very truly,

Driginal Signed By A. J. FORE

JMW:CMM

A. J. Fore Supervisor Regulatory & Permitting Mid-Continent Division

- cc: State of New Mexico Energy and Minerals Department Oil Conservation Division P. O. Box 1980 Hobbs, NM 88240
- bc: B. G. Ratterree D. J. Pfau C. Sauceda