

| F#                            | TIME | DEPTH<br>m | ROP<br>m/hr | TORQUE |      | RPM<br>AVG | JOB<br>AVG | PUMP<br>PRES | RTNS<br>DEPTH | MV lb/gal |      | FLOW/ MIN |     | TEMP (C)<br>IN OUT | PVT  | ---THIS BIT--- |        |     | ---COST--- |      | EST<br>TV | DXC  | NX   | NXB  | ECD  | EST<br>F4 PR |      |
|-------------------------------|------|------------|-------------|--------|------|------------|------------|--------------|---------------|-----------|------|-----------|-----|--------------------|------|----------------|--------|-----|------------|------|-----------|------|------|------|------|--------------|------|
|                               |      |            |             | AVG    | MAX  |            |            |              |               | IN        | OUT  | IN        | OUT |                    |      | REVS           | m      | hrs | INST       | RUN  |           |      |      |      |      |              |      |
| 620                           | 2343 | 2977.6     | 2.17        | 2.83   | 4.04 | 87         | 45.3       | 2950         | 2973.5        | 9.29      | 9.32 | 622       | 537 | 49.6               | 57.3 | 453            | 223133 | 170 | 43.1       | 2117 | 1383      | 1.90 | 1.99 | 1.92 | 4.01 | 9.34         | 8.70 |
| 621                           | 2351 | 2977.9     | 2.23        | 2.76   | 3.91 | 87         | 44.3       | 2960         | 2973.9        | 9.30      | 9.35 | 622       | 608 | 50.2               | 57.6 | 457            | 223930 | 171 | 43.3       | 2207 | 1390      | 1.91 | 1.95 | 1.38 | 4.01 | 9.35         | 3.70 |
| Date Oct 8 '85                |      |            |             |        |      |            |            |              |               |           |      |           |     |                    |      |                |        |     |            |      |           |      |      |      |      |              |      |
| 622                           | 0000 | 2973.2     | 2.19        | 2.37   | 4.10 | 87         | 44.3       | 2950         | 2974.7        | 9.27      | 9.32 | 622       | 641 | 50.1               | 57.6 | 455            | 229651 | 171 | 43.4       | 2355 | 1391      | 1.92 | 1.95 | 1.83 | 4.01 | 9.36         | 8.70 |
| 623                           | 0007 | 2978.5     | 2.61        | 2.93   | 4.21 | 85         | 45.4       | 2950         | 2975.2        | 9.29      | 9.33 | 622       | 538 | 50.3               | 57.7 | 454            | 230254 | 171 | 43.5       | 1857 | 1392      | 1.92 | 1.91 | 1.84 | 4.01 | 9.36         | 8.70 |
| 624                           | 0015 | 2978.8     | 2.17        | 2.94   | 4.04 | 87         | 45.9       | 2940         | 2975.6        | 9.27      | 9.31 | 622       | 636 | 50.1               | 57.9 | 454            | 230959 | 172 | 43.7       | 2239 | 1393      | 1.92 | 1.97 | 1.90 | 4.01 | 9.37         | 8.70 |
| 625                           | 0027 | 2979.1     | 1.52        | 2.78   | 4.06 | 86         | 46.0       | 2950         | 2976.2        | 9.29      | 9.30 | 622       | 631 | 50.3               | 57.6 | 451            | 232023 | 172 | 43.9       | 2032 | 1397      | 1.93 | 2.03 | 2.01 | 4.01 | 9.38         | 8.70 |
| 626                           | 0034 | 2979.4     | 2.95        | 2.92   | 3.90 | 86         | 45.4       | 2960         | 2976.4        | 9.26      | 9.26 | 623       | 634 | 50.0               | 57.9 | 445            | 232575 | 172 | 44.0       | 2023 | 1397      | 1.94 | 1.83 | 1.81 | 4.01 | 9.39         | 8.70 |
| 627                           | 0040 | 2979.7     | 2.87        | 2.39   | 3.84 | 87         | 45.9       | 2970         | 2976.7        | 9.21      | 9.22 | 623       | 676 | 52.1               | 58.1 | 445            | 233121 | 172 | 44.1       | 1817 | 1398      | 1.94 | 1.83 | 1.82 | 4.01 | 9.39         | 8.70 |
| 628                           | 0043 | 2930.0     | 2.20        | 2.92   | 4.09 | 86         | 45.3       | 2930         | 2976.9        | 9.22      | 9.28 | 623       | 690 | 51.9               | 58.0 | 444            | 233319 | 173 | 44.2       | 2166 | 1399      | 1.95 | 1.95 | 1.89 | 4.01 | 9.39         | 8.70 |
| 629                           | 0055 | 2933.3     | 2.70        | 2.95   | 4.09 | 86         | 47.2       | 2970         | 2977.1        | 9.22      | 9.30 | 623       | 688 | 52.3               | 58.3 | 442            | 234400 | 173 | 44.3       | 1722 | 1400      | 1.95 | 1.92 | 1.85 | 4.01 | 9.39         | 8.70 |
| 630                           | 0103 | 2930.6     | 2.13        | 2.72   | 3.81 | 87         | 45.2       | 2970         | 2977.4        | 9.22      | 9.31 | 622       | 695 | 51.3               | 58.4 | 437            | 235124 | 173 | 44.5       | 2230 | 1402      | 1.96 | 1.96 | 1.89 | 4.01 | 9.39         | 8.70 |
| 631                           | 0110 | 2930.9     | 2.09        | 2.76   | 3.96 | 86         | 44.3       | 2970         | 2977.7        | 9.23      | 9.33 | 622       | 684 | 51.2               | 58.3 | 435            | 235668 | 174 | 44.6       | 1815 | 1432      | 1.96 | 1.86 | 1.79 | 4.01 | 9.39         | 8.70 |
| 632                           | 0117 | 2931.2     | 2.39        | 2.32   | 4.13 | 86         | 44.6       | 2950         | 2978.0        | 9.23      | 9.32 | 621       | 679 | 51.1               | 58.1 | 433            | 236324 | 174 | 44.7       | 1939 | 1403      | 1.96 | 1.92 | 1.85 | 4.02 | 9.39         | 8.70 |
| 633                           | 0124 | 2931.6     | 2.87        | 2.74   | 3.96 | 86         | 42.9       | 2950         | 2978.2        | 9.24      | 9.35 | 621       | 655 | 51.4               | 58.3 | 429            | 236372 | 174 | 44.8       | 1753 | 1404      | 1.97 | 1.85 | 1.78 | 4.02 | 9.38         | 8.70 |
| 634                           | 0130 | 2931.9     | 2.63        | 2.73   | 3.32 | 87         | 44.1       | 2940         | 2978.5        | 9.25      | 9.36 | 620       | 656 | 51.3               | 58.6 | 427            | 237473 | 175 | 44.9       | 1953 | 1405      | 1.97 | 1.89 | 1.82 | 4.02 | 9.38         | 8.70 |
| 635                           | 0143 | 2932.5     | 2.60        | 3.03   | 3.92 | 84         | 44.5       | 2940         | 2978.9        | 9.26      | 9.33 | 621       | 702 | 52.2               | 58.4 | 421            | 238483 | 175 | 45.1       | 1992 | 1406      | 1.98 | 1.89 | 1.82 | 4.02 | 9.36         | 8.70 |
| 636                           | 0149 | 2932.8     | 2.72        | 2.99   | 3.85 | 83         | 43.3       | 2940         | 2979.1        | 9.27      | 9.38 | 621       | 660 | 52.4               | 58.7 | 421            | 239040 | 176 | 45.2       | 1733 | 1406      | 1.98 | 1.86 | 1.79 | 4.02 | 9.36         | 8.70 |
| 637                           | 0154 | 2933.1     | 4.16        | 2.94   | 4.17 | 84         | 44.6       | 2930         | 2979.2        | 9.27      | 9.36 | 621       | 642 | 52.5               | 58.5 | 418            | 239433 | 176 | 45.3       | 1378 | 1406      | 1.99 | 1.75 | 1.69 | 4.02 | 9.36         | 8.70 |
| 638                           | 0210 | 2933.4     | 2.34        | 2.67   | 4.20 | 87         | 43.6       | 2940         | 2979.7        | 9.29      | 9.30 | 620       | 650 | 52.6               | 58.1 | 415            | 240001 | 176 | 45.4       | 1471 | 1407      | 1.99 | 1.87 | 1.80 | 4.02 | 9.35         | 8.70 |
| 639                           | 0217 | 2933.7     | 2.56        | 2.63   | 3.55 | 88         | 44.1       | 2940         | 2980.0        | 9.24      | 9.35 | 621       | 654 | 52.5               | 58.2 | 401            | 240626 | 176 | 45.5       | 1626 | 1408      | 2.00 | 1.91 | 1.84 | 4.02 | 9.35         | 8.70 |
| 640                           | 0224 | 2934.0     | 2.53        | 2.34   | 3.35 | 87         | 42.5       | 2960         | 2980.3        | 9.27      | 9.36 | 622       | 672 | 52.6               | 58.6 | 398            | 241251 | 177 | 45.6       | 1815 | 1409      | 2.00 | 1.88 | 1.82 | 4.02 | 9.35         | 8.70 |
| 641                           | 0232 | 2934.3     | 2.43        | 2.67   | 3.55 | 87         | 42.3       | 2960         | 2980.6        | 9.27      | 9.35 | 623       | 655 | 52.8               | 58.5 | 395            | 241935 | 177 | 45.8       | 2134 | 1410      | 2.01 | 1.90 | 1.83 | 4.02 | 9.34         | 8.70 |
| 642                           | 0239 | 2934.6     | 2.52        | 2.76   | 3.52 | 83         | 42.1       | 2970         | 2980.9        | 9.26      | 9.35 | 624       | 679 | 53.0               | 58.6 | 393            | 242541 | 177 | 45.9       | 2014 | 1411      | 2.01 | 1.89 | 1.82 | 4.02 | 9.34         | 8.70 |
| 643                           | 0246 | 2934.9     | 2.63        | 2.82   | 3.53 | 89         | 42.1       | 3000         | 2981.2        | 9.27      | 9.32 | 626       | 673 | 53.3               | 58.5 | 390            | 243154 | 178 | 46.0       | 2040 | 1412      | 2.01 | 1.87 | 1.80 | 4.02 | 9.34         | 8.70 |
| 644                           | 0259 | 2935.2     | 3.06        | 2.90   | 3.53 | 86         | 44.6       | 2900         | 2981.7        | 9.26      | 9.29 | 613       | 667 | 53.3               | 58.4 | 388            | 243729 | 178 | 46.1       | 2020 | 1412      | 2.02 | 1.85 | 1.78 | 4.02 | 9.35         | 8.70 |
| 645                           | 0306 | 2935.5     | 2.41        | 2.92   | 3.50 | 88         | 43.1       | 2890         | 2982.0        | 9.24      | 9.32 | 612       | 669 | 54.3               | 58.1 | 383            | 244353 | 178 | 46.2       | 2073 | 1413      | 2.02 | 1.91 | 1.84 | 4.03 | 9.35         | 8.70 |
| 646                           | 0311 | 2935.8     | 3.40        | 2.85   | 3.60 | 88         | 42.6       | 2890         | 2982.3        | 9.22      | 9.31 | 612       | 673 | 54.4               | 58.2 | 381            | 244822 | 179 | 46.3       | 1552 | 1413      | 2.03 | 1.80 | 1.73 | 4.03 | 9.35         | 8.70 |
| 647                           | 0320 | 2936.1     | 2.17        | 3.00   | 3.55 | 89         | 42.5       | 2900         | 2982.6        | 9.23      | 9.32 | 612       | 675 | 54.5               | 57.9 | 379            | 245565 | 179 | 46.5       | 2333 | 1415      | 2.03 | 1.94 | 1.86 | 4.03 | 9.36         | 8.70 |
| 648                           | 0327 | 2936.4     | 2.50        | 3.00   | 3.36 | 88         | 42.6       | 2890         | 2983.0        | 9.24      | 9.33 | 612       | 643 | 54.7               | 58.1 | 374            | 246246 | 179 | 46.6       | 1839 | 1416      | 2.04 | 1.89 | 1.82 | 4.03 | 9.36         | 8.70 |
| 649                           | 0332 | 2936.8     | 3.58        | 2.94   | 3.38 | 91         | 42.2       | 2910         | 2983.2        | 9.23      | 9.34 | 613       | 634 | 54.8               | 58.0 | 373            | 246709 | 179 | 46.7       | 1496 | 1416      | 2.04 | 1.79 | 1.72 | 4.03 | 9.36         | 8.70 |
| 650                           | 0339 | 2937.1     | 2.66        | 3.09   | 4.34 | 89         | 43.2       | 2890         | 2983.3        | 9.23      | 9.32 | 611       | 607 | 54.9               | 58.0 | 371            | 247315 | 180 | 46.8       | 1838 | 1417      | 2.05 | 1.88 | 1.81 | 4.03 | 9.36         | 8.70 |
| 651                           | 0345 | 2937.3     | 3.04        | 3.15   | 4.22 | 87         | 43.2       | 2890         | 2983.6        | 9.23      | 9.34 | 610       | 612 | 55.3               | 58.1 | 370            | 247813 | 180 | 46.9       | 1625 | 1417      | 2.05 | 1.84 | 1.77 | 4.03 | 9.36         | 8.70 |
| 652                           | 0351 | 2937.7     | 2.88        | 3.20   | 7.53 | 79         | 44.1       | 2860         | 2983.9        | 9.20      | 9.34 | 607       | 600 | 55.3               | 58.3 | 367            | 248374 | 180 | 47.0       | 1757 | 1418      | 2.05 | 1.84 | 1.77 | 4.03 | 9.36         | 8.70 |
| 653                           | 0353 | 2938.0     | 15.3        | 3.71   | 4.75 | 86         | 41.5       | 2850         | 2983.9        | 9.20      | 9.34 | 607       | 601 | 55.3               | 58.3 | 367            | 249472 | 181 | 47.0       | 331  | 1416      | 2.05 | 1.33 | 1.26 | 4.03 | 9.36         | 8.70 |
| 654                           | 0354 | 2938.3     | 14.7        | 3.74   | 4.98 | 87         | 42.7       | 2850         | 2984.0        | 9.22      | 9.34 | 606       | 606 | 55.3               | 58.0 | 366            | 249577 | 181 | 47.0       | 329  | 1414      | 2.06 | 1.37 | 1.30 | 4.03 | 9.36         | 8.70 |
| + Flow check at 2988.5m.      |      |            |             |        |      |            |            |              |               |           |      |           |     |                    |      |                |        |     |            |      |           |      |      |      |      |              |      |
| 656                           | 0359 | 2988.6     | 10.4        | 3.57   | 4.93 | 88         | 44.0       | 2790         | 2984.1        | 9.22      | 9.34 | 334       | 228 | 55.3               | 58.0 | 384            | 248669 | 181 | 47.0       | 455  | 1412      | 2.06 | 1.50 | 1.42 | 4.03 | 9.31         | 8.70 |
| 657                           | 0401 | 2938.9     | 18.9        | 3.29   | 4.37 | 86         | 39.9       | 2330         | 2984.2        | 9.25      | 9.33 | 603       | 564 | 55.4               | 57.9 | 373            | 248780 | 182 | 47.1       | 317  | 1410      | 2.06 | 1.27 | 1.20 | 4.03 | 9.36         | 8.70 |
| 658                           | 0402 | 2939.2     | 8.99        | 3.56   | 4.68 | 85         | 43.7       | 2820         | 2984.2        | 9.25      | 9.33 | 604       | 532 | 55.4               | 57.9 | 370            | 248861 | 182 | 47.1       | 507  | 1408      | 2.06 | 1.52 | 1.45 | 4.03 | 9.36         | 8.70 |
| 659                           | 0403 | 2939.5     | 11.3        | 3.74   | 4.63 | 84         | 42.9       | 2830         | 2984.3        | 9.25      | 9.33 | 604       | 576 | 55.4               | 57.9 | 367            | 249002 | 182 | 47.1       | 475  | 1407      | 2.06 | 1.44 | 1.37 | 4.03 | 9.36         | 8.70 |
| 660                           | 0404 | 2939.8     | 15.2        | 3.71   | 4.79 | 84         | 44.0       | 2830         | 2984.3        | 9.23      | 9.38 | 634       | 574 | 55.4               | 57.8 | 364            | 249102 | 183 | 47.1       | 342  | 1405      | 2.06 | 1.36 | 1.29 | 4.04 | 9.36         | 8.70 |
| + Circulate returns at 2990m. |      |            |             |        |      |            |            |              |               |           |      |           |     |                    |      |                |        |     |            |      |           |      |      |      |      |              |      |
| 662                           | 0542 | 2990.1     | 8.30        | 3.94   | 4.37 | 85         | 45.4       | 2890         | 2989.5        | 9.20      | 9.32 | 614       | 654 | 59.7               | 62.9 | 331            | 249292 | 183 | 47.2       | 511  | 1405      | 2.06 | 1.55 | 1.48 | 4.04 | 9.31         | 8.70 |
| 663                           | 0543 | 2990.4     | 10.7        | 4.02   | 4.35 | 85         | 45.9       | 2900         | 2989.5        | 9.21      | 9.33 | 613       | 645 | 60.0               | 63.1 | 329            | 249337 | 183 | 47.2       | 454  | 1403      | 2.06 | 1.50 | 1.43 | 4.04 | 9.31         | 8.70 |
| 664                           | 0545 | 2990.7     | 8.86        | 4.10   | 6.16 | 82         | 46.9       | 2910         | 2989.5        | 9.21      | 9.33 | 614       | 619 | 60.0               | 63.1 | 330            | 249503 | 183 | 47.3       | 666  | 1402      | 2.06 | 1.56 | 1.49 | 4.04 | 9.31         | 8.70 |
| 665                           | 0549 | 2991.0     | 4.20        | 3.93   | 6.33 | 84         | 46.1       | 2900         | 2989.5        | 9.21      | 9.35 | 614       | 611 | 59.9               | 61.9 | 330            | 249368 | 184 | 47.3       | 1246 | 1401      | 2.06 | 1.78 | 1.71 | 4.04 | 9.31         | 8.70 |
| 666                           | 0552 | 2991.3     | 7.70        | 4.03   | 5.17 | 85         | 45.8       | 2880         | 2989.5        | 9.20      | 9.33 | 612       | 611 | 59.9               | 61.1 | 330            | 250070 | 184 | 47.4       | 679  | 1400      | 2.07 | 1.60 | 1.53 | 4.04 | 9.31         | 8.70 |
| 667                           | 0554 | 2991.6     | 7.41        | 3.88   | 5.45 | 85         | 45.3       | 2890         | 2989.5        | 9.20      | 9.33 | 613       | 622 | 59.9               | 61.1 | 328            | 250200 | 184 | 47.4       | 724  | 1399      |      |      |      |      |              |      |