DST # 2

Hobbs

REPORT NO.
115698 DST 3

PAGE NO. 1

TEST DATE:
6-MAY-1989

# S T A R™

A Schlumberger Transient Analysis Report
Of A Schlumberger Drillstem Test

Schlumberger

DST FILE
GEOLOGICAL OPERATIONS

Company: EXXON COMPANY USA

Well: New Mexico "FI" State #1

## TEST IDENTIFICATION
Test Type ..... OH DST Straddle
Test No. ..... Three
Formation ..... Sulirian
Test Interval (ft) ... 13756 to 13771
Reference Depth ..... Kelly Bushing

## WELL LOCATION
Field .....
County ..... Lea
State ..... New Mexico
Sec/Twn/Rng ..... 15-15S-33E
Elevation (ft) ..... 4201

## HOLE CONDITIONS
Total Depth (MD/TVD)(ft) . 13855
Hole Size (in) ..... 8-1/2
Casing/Liner I.D. (in) ...
Perf'd Interv./Nt Pay(ft). - / 15
Shot Density/Diameter(in).

## MUD PROPERTIES
Mud Type ..... Poly-pac My-L0-Jel
Mud Weight (lb/gal) ..... 8.7
Mud Resistivity (ohm.m) ..
Filtrate Resistiv.(ohm.m).
Filtrate Chlorides (ppm) . 12500

## INITIAL TEST CONDITIONS
Initial Hydrostatic (psi). 6368
Gas Cushion Type .....
Surface Pressure (psi) ...
Liquid Cushion Type ..... Fresh Water
Cushion Length (ft) ..... 1753

## TEST STRING CONFIGURATION
Pipe Length (ft)/I.D.(in). 12950 / 3.826
Collar Length ft/I.D.(in). 625 / 2.25
Packer Depths (ft) ..... 13756 - 13771
Bottomhole Choke Size(in). 15/16
Gauge Depth (ft)/Type .... 13721 / J200-524

## NET PIPE RECOVERY

| Volume | Fluid Type | Properties |
|---|---|---|
| 210 feet | Oil | API 45 @ 60F |
| 5053 feet | Fresh Water | 1% oil cut |
| 6891 feet | Form. Water | |
| 1753 feet | Fresh Water | Water Cushion |
| | | |

## NET SAMPLE CHAMBER RECOVERY

| Volume | Fluid Type | Properties |
|---|---|---|
| 0.18 cuft | Gas | |
| 400 cc | Oil | 45 API @ 60F |
| 1800 cc | Water | |
| | | |
| Press. 200 | GOR: 72 | GLR: 13 |

## VALIDATION RESULTS
Model of Behavior .....
Fluid Type Used .....
Reservoir Pressure (psi) .
Transmissivity (md.ft/cp)
Permeability (md) .....
Skin Factor/Damage Ratio .
Storativity Ratio .....
Interporosity Flow Coeff..
Distance to Anomaly (ft).
Investigation Radius (ft).
Potentiometric Surf. (ft).

## ROCK/FLUID/WELLBORE PROPERTIES
Oil Density (deg. API) ...
Basic Solids (%) .....
Gas Gravity .....
Water Cut (%) .....
Viscosity (cp) .....
Tot. Compress. (1/psi) ...
Porosity (%) .....
Reservoir Temperature (F). 194
Form.Vol.Factor (bbl/STB).

## PRODUCTION RATE DURING TEST: DATA REPORT

## COMMENTS:

This drill stem test produced oil, gas, and water. The recovery was reversed out after filling the drill pipe with fresh water. The reported recovery was the best estimate from tank fill up.

The test consisted of one long flow period, as the test valve was not cycled close during the test, although four attempts were made. Note that the drilling jars hit down during each tool cycling attempt.

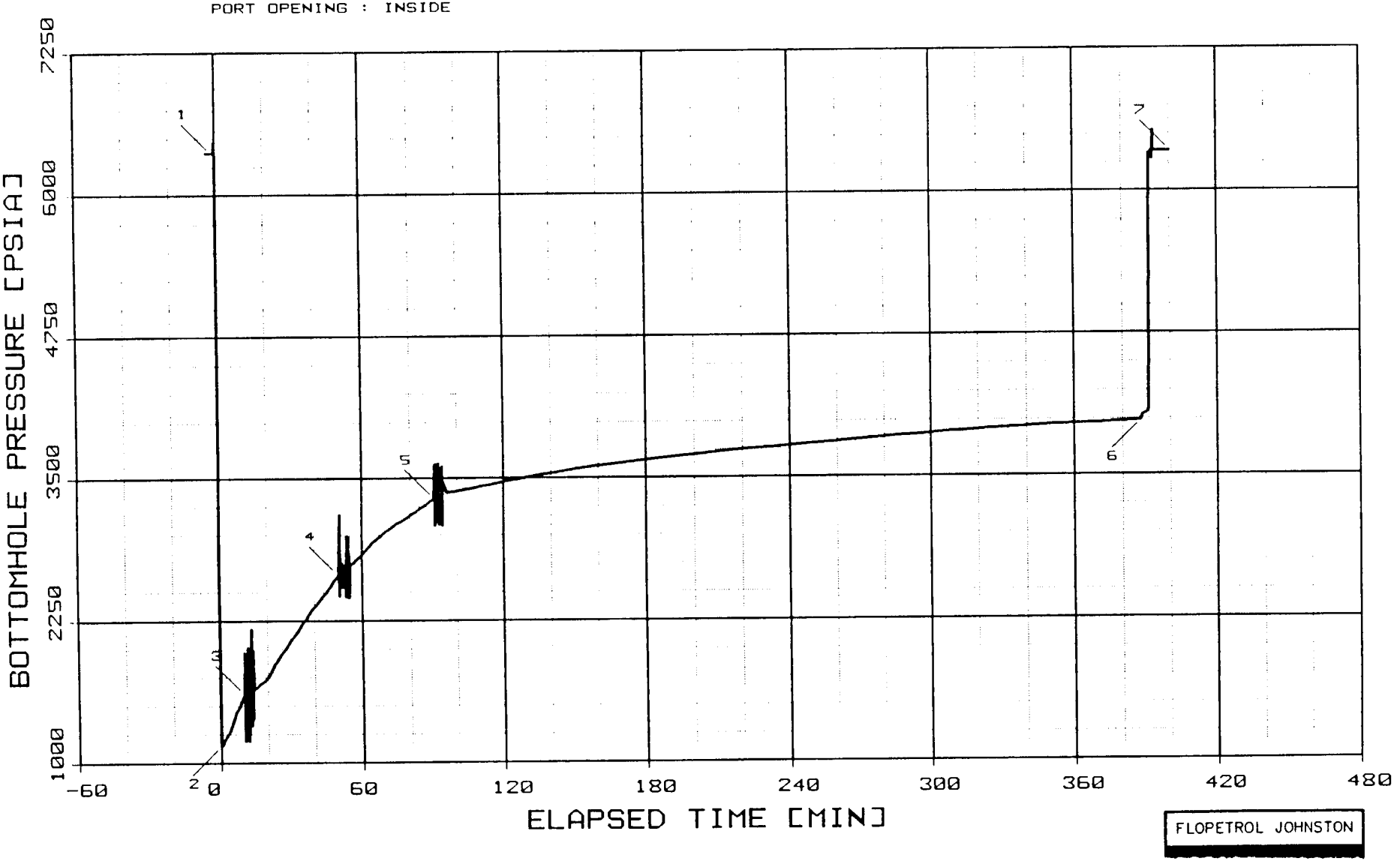
| WELL TEST INTERPRETATION REPORT #:115698 DST 3 | | PAGE: 2, |
|---|---|---|
| CLIENT : EXXON COMPANY USA | | 9-MAY-89 |
| REGION :W.T.D.<br>DISTRICT:Hobbs<br>BASE :MDS<br>Engr :Brooks/ygh | SEQUENCE OF EVENTS | Field:<br>Zone :Silurian<br>Well :N.M. "FI" #1<br>Location:15-15S-33E |

| DATE | TIME (HR:MIN) | DESCRIPTION | ET (MINS) | BHP (PSIA) | WHP (PSIG) |
|---|---|---|---|---|---|
| 6-MAY | 17:00 | Arrive on location | | | |
| | 18:00 | Start picking up tools | | | |
| | 20:00 | Start in hole with DST | | | |
| 7-MAY | 01:30 | Drill pipe Leak, start out of hole (23 stands from bottom) | | | |
| | 03:30 | Hit fluid with 48 stands out | | | |
| | 07:30 | Found leak in drill pipe at 117 stands out | | | |
| | 08:00 | Start back in hole with DST | | | |
| | 13:48 | On bottom, run gamma ray, two feet deep | | | |
| | 17:00 | Rig up surface equipment | | | |
| | 17:15 | Start to set hook | | | |
| | 18:24 | SET PACKER, Hydrostatic | -- | 6368 | |
| | 18:26 | START FLOW, Closed Chamber | 0.00 | 1150 | |
| | 18:30 | 8.5 oz. | | | |
| | 18:36 | Cycled tool, jar hit down, 20 oz. | | | |
| | 19:18 | Cycled tool, jar hit down | | | 6 |
| | 19:28 | Bleed off surface pressure | | | 2.5 |
| | 19:59 | Cycled tool, jar hit down | | | 3.0 |
| | 20:04 | Cycled tool, try to shut tool | | | 3.0 |
| 8-MAY | 00:40 | Bleed off surface pressure | | | 0.0 |
| | 00:53 | END FLOW | 387.71 | 3984 | |
| | 01:06 | PULLED LOOSE, Hydrostatic | 400.47 | 6348 | |
| | 02:27 | Start to fill drill pipe with fresh water | | | |
| | 04:08 | Pipe full of water | | | |
| | 06:38 | Drop bar | | | |
| | 06:55 | Start reverse circulating to tank | | | |
| | 12:50 | Start out of hole with tools | | | |
| | 20:00 | Out of hole | | | |

# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 115698
INSTRUMENT NO. J-524
DEPTH : 13721 FT
CAPACITY : 9000 PSI
PORT OPENING : INSIDE

COMPANY : EXXON COMPANY U.S.A.
WELL : NEW MEXICO "F.I." STATE #1



***  **********
* WELL TEST DATA PRINTOUT *
**********

FIELD REPORT # : 115698

COMPANY : EXXON COMPANY U.S.A.
WELL : NEW MEXICO "F.I." STATE #1

INSTRUMENT # : J-524
CAPACITY [PSI] : 9000.
DEPTH [FT] : 13721.0
PORT OPENING : INSIDE
TEMPERATURE [DEG F] : 194.0

LABEL POINT INFORMATION
**********

| # | TIME OF DAY HH:MM:SS | DATE DD-MM | EXPLANATION | ELAPSED TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|---|
| 1 | 18:24:31 | 7-MY | HYDROSTATIC MUD | -1.49 | 6368 |
| 2 | 18:26: 0 | 7-MY | START FLOW | 0.00 | 1150 |
| 3 | 18:36: 8 | 7-MY | CYCLED TOOL | 10.14 | 1599 |
| 4 | 19:16:29 | 7-MY | CYCLED TOOL | 50.48 | 2642 |
| 5 | 19:56:15 | 7-MY | CYCLED TOOL | 90.25 | 3315 |
| 6 | 0:53:43 | 8-MY | END FLOW | 387.71 | 3984 |
| 7 | 1: 6:28 | 8-MY | HYDROSTATIC MUD | 400.47 | 6348 |

SUMMARY OF FLOW PERIODS
**********

| PERIOD | START ELAPSED TIME,MIN | END ELAPSED TIME,MIN | DURATION MIN | START PRESSURE PSIA | END PRESSURE PSIA |
|---|---|---|---|---|---|
| 1 | 0.00 | 387.71 | 387.71 | 1150 | 3984 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 18:26: 0 | 7-MY | 0.00 | 0.00 | 1150 |
| 18:27: 0 | 7-MY | 1.00 | 1.00 | 1175 |
| 18:28: 0 | 7-MY | 2.00 | 2.00 | 1217 |
| 18:29: 0 | 7-MY | 3.00 | 3.00 | 1252 |
| 18:30: 0 | 7-MY | 4.00 | 4.00 | 1288 |
| 18:31: 0 | 7-MY | 5.00 | 5.00 | 1345 |
| 18:32: 0 | 7-MY | 6.00 | 6.00 | 1401 |
| 18:33: 0 | 7-MY | 7.00 | 7.00 | 1452 |
| 18:34: 0 | 7-MY | 8.00 | 8.00 | 1486 |
| 18:35: 0 | 7-MY | 9.00 | 9.00 | 1539 |
| 18:36: 0 | 7-MY | 10.00 | 10.00 | 1595 |
| 18:37: 0 | 7-MY | 11.00 | 11.00 | 1729 |
| 18:38: 0 | 7-MY | 12.00 | 12.00 | 1453 |
| 18:39: 0 | 7-MY | 13.00 | 13.00 | 1908 |
| 18:40: 0 | 7-MY | 14.00 | 14.00 | 1987 |
| 18:41: 0 | 7-MY | 15.00 | 15.00 | 1653 |
| 18:42: 0 | 7-MY | 16.00 | 16.00 | 1670 |
| 18:43: 0 | 7-MY | 17.00 | 17.00 | 1687 |
| 18:44: 0 | 7-MY | 18.00 | 18.00 | 1703 |
| 18:45: 0 | 7-MY | 19.00 | 19.00 | 1721 |
| 18:46: 0 | 7-MY | 20.00 | 20.00 | 1743 |
| 18:47: 0 | 7-MY | 21.00 | 21.00 | 1770 |
| 18:48: 0 | 7-MY | 22.00 | 22.00 | 1814 |
| 18:49: 0 | 7-MY | 23.00 | 23.00 | 1857 |
| 18:50: 0 | 7-MY | 24.00 | 24.00 | 1891 |
| 18:51: 0 | 7-MY | 25.00 | 25.00 | 1921 |
| 18:52: 0 | 7-MY | 26.00 | 26.00 | 1952 |
| 18:53: 0 | 7-MY | 27.00 | 27.00 | 1980 |
| 18:54: 0 | 7-MY | 28.00 | 28.00 | 2009 |
| 18:55: 0 | 7-MY | 29.00 | 29.00 | 2039 |
| 18:56: 0 | 7-MY | 30.00 | 30.00 | 2071 |
| 18:57: 0 | 7-MY | 31.00 | 31.00 | 2101 |
| 18:58: 0 | 7-MY | 32.00 | 32.00 | 2129 |
| 18:59: 0 | 7-MY | 33.00 | 33.00 | 2157 |
| 19: 0: 0 | 7-MY | 34.00 | 34.00 | 2189 |
| 19: 1: 0 | 7-MY | 35.00 | 35.00 | 2220 |
| 19: 2: 0 | 7-MY | 36.00 | 36.00 | 2248 |
| 19: 3: 0 | 7-MY | 37.00 | 37.00 | 2278 |
| 19: 4: 0 | 7-MY | 38.00 | 38.00 | 2310 |
| 19: 5: 0 | 7-MY | 39.00 | 39.00 | 2338 |
| 19: 6: 0 | 7-MY | 40.00 | 40.00 | 2362 |
| 19: 7: 0 | 7-MY | 41.00 | 41.00 | 2383 |
| 19: 8: 0 | 7-MY | 42.00 | 42.00 | 2408 |
| 19: 9: 0 | 7-MY | 43.00 | 43.00 | 2435 |
| 19:10: 0 | 7-MY | 44.00 | 44.00 | 2463 |
| 19:11: 0 | 7-MY | 45.00 | 45.00 | 2487 |
| 19:12: 0 | 7-MY | 46.00 | 46.00 | 2515 |
| 19:13: 0 | 7-MY | 47.00 | 47.00 | 2547 |
| 19:14: 0 | 7-MY | 48.00 | 48.00 | 2577 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 19:15: 0 | 7-MY | 49.00 | 49.00 | 2606 |
| 19:16: 0 | 7-MY | 50.00 | 50.00 | 2630 |
| 19:17: 0 | 7-MY | 51.00 | 51.00 | 3176 |
| 19:18: 0 | 7-MY | 52.00 | 52.00 | 2712 |
| 19:19: 0 | 7-MY | 53.00 | 53.00 | 2680 |
| 19:20: 0 | 7-MY | 54.00 | 54.00 | 2820 |
| 19:21: 0 | 7-MY | 55.00 | 55.00 | 2496 |
| 19:22: 0 | 7-MY | 56.00 | 56.00 | 2744 |
| 19:23: 0 | 7-MY | 57.00 | 57.00 | 2766 |
| 19:24: 0 | 7-MY | 58.00 | 58.00 | 2786 |
| 19:25: 0 | 7-MY | 59.00 | 59.00 | 2805 |
| 19:26: 0 | 7-MY | 60.00 | 60.00 | 2826 |
| 19:27: 0 | 7-MY | 61.00 | 61.00 | 2849 |
| 19:28: 0 | 7-MY | 62.00 | 62.00 | 2873 |
| 19:29: 0 | 7-MY | 63.00 | 63.00 | 2900 |
| 19:30: 0 | 7-MY | 64.00 | 64.00 | 2926 |
| 19:31: 0 | 7-MY | 65.00 | 65.00 | 2944 |
| 19:32: 0 | 7-MY | 66.00 | 66.00 | 2958 |
| 19:33: 0 | 7-MY | 67.00 | 67.00 | 2974 |
| 19:34: 0 | 7-MY | 68.00 | 68.00 | 2992 |
| 19:35: 0 | 7-MY | 69.00 | 69.00 | 3012 |
| 19:36: 0 | 7-MY | 70.00 | 70.00 | 3028 |
| 19:37: 0 | 7-MY | 71.00 | 71.00 | 3042 |
| 19:38: 0 | 7-MY | 72.00 | 72.00 | 3059 |
| 19:39: 0 | 7-MY | 73.00 | 73.00 | 3075 |
| 19:40: 0 | 7-MY | 74.00 | 74.00 | 3090 |
| 19:41: 0 | 7-MY | 75.00 | 75.00 | 3103 |
| 19:42: 0 | 7-MY | 76.00 | 76.00 | 3114 |
| 19:43: 0 | 7-MY | 77.00 | 77.00 | 3126 |
| 19:44: 0 | 7-MY | 78.00 | 78.00 | 3139 |
| 19:45: 0 | 7-MY | 79.00 | 79.00 | 3154 |
| 19:46: 0 | 7-MY | 80.00 | 80.00 | 3169 |
| 19:47: 0 | 7-MY | 81.00 | 81.00 | 3182 |
| 19:48: 0 | 7-MY | 82.00 | 82.00 | 3195 |
| 19:49: 0 | 7-MY | 83.00 | 83.00 | 3208 |
| 19:50: 0 | 7-MY | 84.00 | 84.00 | 3223 |
| 19:51: 0 | 7-MY | 85.00 | 85.00 | 3236 |
| 19:52: 0 | 7-MY | 86.00 | 86.00 | 3248 |
| 19:53: 0 | 7-MY | 87.00 | 87.00 | 3263 |
| 19:54: 0 | 7-MY | 88.00 | 88.00 | 3280 |
| 19:55: 0 | 7-MY | 89.00 | 89.00 | 3299 |
| 19:56: 0 | 7-MY | 90.00 | 90.00 | 3312 |
| 19:57: 0 | 7-MY | 91.00 | 91.00 | 3402 |
| 19:58: 0 | 7-MY | 92.00 | 92.00 | 3257 |
| 19:59: 0 | 7-MY | 93.00 | 93.00 | 3377 |
| 20: 0: 0 | 7-MY | 94.00 | 94.00 | 3172 |
| 20: 1: 0 | 7-MY | 95.00 | 95.00 | 3420 |
| 20: 2: 0 | 7-MY | 96.00 | 96.00 | 3369 |
| 20: 3: 0 | 7-MY | 97.00 | 97.00 | 3372 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 20: 4: 0 | 7-MY | 98.00 | 98.00 | 3375 |
| 20: 5: 0 | 7-MY | 99.00 | 99.00 | 3377 |
| 20: 6: 0 | 7-MY | 100.00 | 100.00 | 3381 |
| 20: 7: 0 | 7-MY | 101.00 | 101.00 | 3385 |
| 20: 8: 0 | 7-MY | 102.00 | 102.00 | 3390 |
| 20: 9: 0 | 7-MY | 103.00 | 103.00 | 3395 |
| 20:10: 0 | 7-MY | 104.00 | 104.00 | 3400 |
| 20:11: 0 | 7-MY | 105.00 | 105.00 | 3404 |
| 20:12: 0 | 7-MY | 106.00 | 106.00 | 3407 |
| 20:13: 0 | 7-MY | 107.00 | 107.00 | 3410 |
| 20:14: 0 | 7-MY | 108.00 | 108.00 | 3414 |
| 20:15: 0 | 7-MY | 109.00 | 109.00 | 3419 |
| 20:16: 0 | 7-MY | 110.00 | 110.00 | 3423 |
| 20:17: 0 | 7-MY | 111.00 | 111.00 | 3427 |
| 20:18: 0 | 7-MY | 112.00 | 112.00 | 3431 |
| 20:19: 0 | 7-MY | 113.00 | 113.00 | 3435 |
| 20:20: 0 | 7-MY | 114.00 | 114.00 | 3438 |
| 20:21: 0 | 7-MY | 115.00 | 115.00 | 3443 |
| 20:22: 0 | 7-MY | 116.00 | 116.00 | 3447 |
| 20:23: 0 | 7-MY | 117.00 | 117.00 | 3451 |
| 20:24: 0 | 7-MY | 118.00 | 118.00 | 3455 |
| 20:25: 0 | 7-MY | 119.00 | 119.00 | 3459 |
| 20:26: 0 | 7-MY | 120.00 | 120.00 | 3463 |
| 20:27: 0 | 7-MY | 121.00 | 121.00 | 3467 |
| 20:28: 0 | 7-MY | 122.00 | 122.00 | 3471 |
| 20:29: 0 | 7-MY | 123.00 | 123.00 | 3475 |
| 20:30: 0 | 7-MY | 124.00 | 124.00 | 3479 |
| 20:31: 0 | 7-MY | 125.00 | 125.00 | 3482 |
| 20:32: 0 | 7-MY | 126.00 | 126.00 | 3486 |
| 20:33: 0 | 7-MY | 127.00 | 127.00 | 3490 |
| 20:34: 0 | 7-MY | 128.00 | 128.00 | 3494 |
| 20:35: 0 | 7-MY | 129.00 | 129.00 | 3497 |
| 20:36: 0 | 7-MY | 130.00 | 130.00 | 3501 |
| 20:37: 0 | 7-MY | 131.00 | 131.00 | 3505 |
| 20:38: 0 | 7-MY | 132.00 | 132.00 | 3508 |
| 20:39: 0 | 7-MY | 133.00 | 133.00 | 3512 |
| 20:40: 0 | 7-MY | 134.00 | 134.00 | 3516 |
| 20:41: 0 | 7-MY | 135.00 | 135.00 | 3520 |
| 20:42: 0 | 7-MY | 136.00 | 136.00 | 3524 |
| 20:43: 0 | 7-MY | 137.00 | 137.00 | 3527 |
| 20:44: 0 | 7-MY | 138.00 | 138.00 | 3531 |
| 20:45: 0 | 7-MY | 139.00 | 139.00 | 3534 |
| 20:46: 0 | 7-MY | 140.00 | 140.00 | 3537 |
| 20:47: 0 | 7-MY | 141.00 | 141.00 | 3541 |
| 20:48: 0 | 7-MY | 142.00 | 142.00 | 3544 |
| 20:49: 0 | 7-MY | 143.00 | 143.00 | 3548 |
| 20:50: 0 | 7-MY | 144.00 | 144.00 | 3551 |
| 20:51: 0 | 7-MY | 145.00 | 145.00 | 3555 |
| 20:52: 0 | 7-MY | 146.00 | 146.00 | 3558 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 20:53: 0 | 7-MY | 147.00 | 147.00 | 3562 |
| 20:54: 0 | 7-MY | 148.00 | 148.00 | 3565 |
| 20:55: 0 | 7-MY | 149.00 | 149.00 | 3568 |
| 20:56: 0 | 7-MY | 150.00 | 150.00 | 3571 |
| 20:57: 0 | 7-MY | 151.00 | 151.00 | 3574 |
| 20:58: 0 | 7-MY | 152.00 | 152.00 | 3578 |
| 20:59: 0 | 7-MY | 153.00 | 153.00 | 3581 |
| 21: 0: 0 | 7-MY | 154.00 | 154.00 | 3584 |
| 21: 1: 0 | 7-MY | 155.00 | 155.00 | 3587 |
| 21: 2: 0 | 7-MY | 156.00 | 156.00 | 3590 |
| 21: 3: 0 | 7-MY | 157.00 | 157.00 | 3593 |
| 21: 4: 0 | 7-MY | 158.00 | 158.00 | 3596 |
| 21: 5: 0 | 7-MY | 159.00 | 159.00 | 3600 |
| 21: 6: 0 | 7-MY | 160.00 | 160.00 | 3602 |
| 21: 7: 0 | 7-MY | 161.00 | 161.00 | 3605 |
| 21: 8: 0 | 7-MY | 162.00 | 162.00 | 3607 |
| 21: 9: 0 | 7-MY | 163.00 | 163.00 | 3610 |
| 21:10: 0 | 7-MY | 164.00 | 164.00 | 3613 |
| 21:11: 0 | 7-MY | 165.00 | 165.00 | 3615 |
| 21:12: 0 | 7-MY | 166.00 | 166.00 | 3618 |
| 21:13: 0 | 7-MY | 167.00 | 167.00 | 3620 |
| 21:14: 0 | 7-MY | 168.00 | 168.00 | 3623 |
| 21:15: 0 | 7-MY | 169.00 | 169.00 | 3625 |
| 21:16: 0 | 7-MY | 170.00 | 170.00 | 3628 |
| 21:17: 0 | 7-MY | 171.00 | 171.00 | 3630 |
| 21:18: 0 | 7-MY | 172.00 | 172.00 | 3633 |
| 21:19: 0 | 7-MY | 173.00 | 173.00 | 3636 |
| 21:20: 0 | 7-MY | 174.00 | 174.00 | 3638 |
| 21:21: 0 | 7-MY | 175.00 | 175.00 | 3641 |
| 21:22: 0 | 7-MY | 176.00 | 176.00 | 3643 |
| 21:23: 0 | 7-MY | 177.00 | 177.00 | 3646 |
| 21:24: 0 | 7-MY | 178.00 | 178.00 | 3648 |
| 21:25: 0 | 7-MY | 179.00 | 179.00 | 3651 |
| 21:26: 0 | 7-MY | 180.00 | 180.00 | 3653 |
| 21:27: 0 | 7-MY | 181.00 | 181.00 | 3656 |
| 21:28: 0 | 7-MY | 182.00 | 182.00 | 3658 |
| 21:29: 0 | 7-MY | 183.00 | 183.00 | 3661 |
| 21:30: 0 | 7-MY | 184.00 | 184.00 | 3663 |
| 21:31: 0 | 7-MY | 185.00 | 185.00 | 3666 |
| 21:32: 0 | 7-MY | 186.00 | 186.00 | 3668 |
| 21:33: 0 | 7-MY | 187.00 | 187.00 | 3670 |
| 21:34: 0 | 7-MY | 188.00 | 188.00 | 3673 |
| 21:35: 0 | 7-MY | 189.00 | 189.00 | 3675 |
| 21:36: 0 | 7-MY | 190.00 | 190.00 | 3678 |
| 21:37: 0 | 7-MY | 191.00 | 191.00 | 3680 |
| 21:38: 0 | 7-MY | 192.00 | 192.00 | 3683 |
| 21:39: 0 | 7-MY | 193.00 | 193.00 | 3685 |
| 21:40: 0 | 7-MY | 194.00 | 194.00 | 3687 |
| 21:41: 0 | 7-MY | 195.00 | 195.00 | 3689 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 21:42: 0 | 7-MY | 196.00 | 196.00 | 3691 |
| 21:43: 0 | 7-MY | 197.00 | 197.00 | 3693 |
| 21:44: 0 | 7-MY | 198.00 | 198.00 | 3695 |
| 21:45: 0 | 7-MY | 199.00 | 199.00 | 3697 |
| 21:46: 0 | 7-MY | 200.00 | 200.00 | 3699 |
| 21:47: 0 | 7-MY | 201.00 | 201.00 | 3701 |
| 21:48: 0 | 7-MY | 202.00 | 202.00 | 3703 |
| 21:49: 0 | 7-MY | 203.00 | 203.00 | 3705 |
| 21:50: 0 | 7-MY | 204.00 | 204.00 | 3708 |
| 21:51: 0 | 7-MY | 205.00 | 205.00 | 3710 |
| 21:52: 0 | 7-MY | 206.00 | 206.00 | 3712 |
| 21:53: 0 | 7-MY | 207.00 | 207.00 | 3715 |
| 21:54: 0 | 7-MY | 208.00 | 208.00 | 3717 |
| 21:55: 0 | 7-MY | 209.00 | 209.00 | 3719 |
| 21:56: 0 | 7-MY | 210.00 | 210.00 | 3722 |
| 21:57: 0 | 7-MY | 211.00 | 211.00 | 3724 |
| 21:58: 0 | 7-MY | 212.00 | 212.00 | 3726 |
| 21:59: 0 | 7-MY | 213.00 | 213.00 | 3728 |
| 22: 0: 0 | 7-MY | 214.00 | 214.00 | 3730 |
| 22: 1: 0 | 7-MY | 215.00 | 215.00 | 3732 |
| 22: 2: 0 | 7-MY | 216.00 | 216.00 | 3734 |
| 22: 3: 0 | 7-MY | 217.00 | 217.00 | 3737 |
| 22: 4: 0 | 7-MY | 218.00 | 218.00 | 3739 |
| 22: 5: 0 | 7-MY | 219.00 | 219.00 | 3741 |
| 22: 6: 0 | 7-MY | 220.00 | 220.00 | 3743 |
| 22: 7: 0 | 7-MY | 221.00 | 221.00 | 3745 |
| 22: 8: 0 | 7-MY | 222.00 | 222.00 | 3747 |
| 22: 9: 0 | 7-MY | 223.00 | 223.00 | 3748 |
| 22:10: 0 | 7-MY | 224.00 | 224.00 | 3750 |
| 22:11: 0 | 7-MY | 225.00 | 225.00 | 3752 |
| 22:12: 0 | 7-MY | 226.00 | 226.00 | 3753 |
| 22:13: 0 | 7-MY | 227.00 | 227.00 | 3755 |
| 22:14: 0 | 7-MY | 228.00 | 228.00 | 3757 |
| 22:15: 0 | 7-MY | 229.00 | 229.00 | 3758 |
| 22:16: 0 | 7-MY | 230.00 | 230.00 | 3760 |
| 22:17: 0 | 7-MY | 231.00 | 231.00 | 3762 |
| 22:18: 0 | 7-MY | 232.00 | 232.00 | 3764 |
| 22:19: 0 | 7-MY | 233.00 | 233.00 | 3766 |
| 22:20: 0 | 7-MY | 234.00 | 234.00 | 3768 |
| 22:21: 0 | 7-MY | 235.00 | 235.00 | 3770 |
| 22:22: 0 | 7-MY | 236.00 | 236.00 | 3771 |
| 22:23: 0 | 7-MY | 237.00 | 237.00 | 3773 |
| 22:24: 0 | 7-MY | 238.00 | 238.00 | 3775 |
| 22:25: 0 | 7-MY | 239.00 | 239.00 | 3777 |
| 22:26: 0 | 7-MY | 240.00 | 240.00 | 3779 |
| 22:27: 0 | 7-MY | 241.00 | 241.00 | 3781 |
| 22:28: 0 | 7-MY | 242.00 | 242.00 | 3782 |
| 22:29: 0 | 7-MY | 243.00 | 243.00 | 3784 |
| 22:30: 0 | 7-MY | 244.00 | 244.00 | 3786 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 22:31: 0 | 7-MY | 245.00 | 245.00 | 3788 |
| 22:32: 0 | 7-MY | 246.00 | 246.00 | 3790 |
| 22:33: 0 | 7-MY | 247.00 | 247.00 | 3791 |
| 22:34: 0 | 7-MY | 248.00 | 248.00 | 3793 |
| 22:35: 0 | 7-MY | 249.00 | 249.00 | 3795 |
| 22:36: 0 | 7-MY | 250.00 | 250.00 | 3797 |
| 22:37: 0 | 7-MY | 251.00 | 251.00 | 3799 |
| 22:38: 0 | 7-MY | 252.00 | 252.00 | 3800 |
| 22:39: 0 | 7-MY | 253.00 | 253.00 | 3802 |
| 22:40: 0 | 7-MY | 254.00 | 254.00 | 3804 |
| 22:41: 0 | 7-MY | 255.00 | 255.00 | 3806 |
| 22:42: 0 | 7-MY | 256.00 | 256.00 | 3808 |
| 22:43: 0 | 7-MY | 257.00 | 257.00 | 3809 |
| 22:44: 0 | 7-MY | 258.00 | 258.00 | 3811 |
| 22:45: 0 | 7-MY | 259.00 | 259.00 | 3813 |
| 22:46: 0 | 7-MY | 260.00 | 260.00 | 3815 |
| 22:47: 0 | 7-MY | 261.00 | 261.00 | 3816 |
| 22:48: 0 | 7-MY | 262.00 | 262.00 | 3818 |
| 22:49: 0 | 7-MY | 263.00 | 263.00 | 3820 |
| 22:50: 0 | 7-MY | 264.00 | 264.00 | 3821 |
| 22:51: 0 | 7-MY | 265.00 | 265.00 | 3823 |
| 22:52: 0 | 7-MY | 266.00 | 266.00 | 3825 |
| 22:53: 0 | 7-MY | 267.00 | 267.00 | 3826 |
| 22:54: 0 | 7-MY | 268.00 | 268.00 | 3828 |
| 22:55: 0 | 7-MY | 269.00 | 269.00 | 3830 |
| 22:56: 0 | 7-MY | 270.00 | 270.00 | 3832 |
| 22:57: 0 | 7-MY | 271.00 | 271.00 | 3834 |
| 22:58: 0 | 7-MY | 272.00 | 272.00 | 3836 |
| 22:59: 0 | 7-MY | 273.00 | 273.00 | 3838 |
| 23: 0: 0 | 7-MY | 274.00 | 274.00 | 3840 |
| 23: 1: 0 | 7-MY | 275.00 | 275.00 | 3841 |
| 23: 2: 0 | 7-MY | 276.00 | 276.00 | 3843 |
| 23: 3: 0 | 7-MY | 277.00 | 277.00 | 3845 |
| 23: 4: 0 | 7-MY | 278.00 | 278.00 | 3846 |
| 23: 5: 0 | 7-MY | 279.00 | 279.00 | 3848 |
| 23: 6: 0 | 7-MY | 280.00 | 280.00 | 3849 |
| 23: 7: 0 | 7-MY | 281.00 | 281.00 | 3851 |
| 23: 8: 0 | 7-MY | 282.00 | 282.00 | 3852 |
| 23: 9: 0 | 7-MY | 283.00 | 283.00 | 3854 |
| 23:10: 0 | 7-MY | 284.00 | 284.00 | 3855 |
| 23:11: 0 | 7-MY | 285.00 | 285.00 | 3857 |
| 23:12: 0 | 7-MY | 286.00 | 286.00 | 3858 |
| 23:13: 0 | 7-MY | 287.00 | 287.00 | 3860 |
| 23:14: 0 | 7-MY | 288.00 | 288.00 | 3861 |
| 23:15: 0 | 7-MY | 289.00 | 289.00 | 3863 |
| 23:16: 0 | 7-MY | 290.00 | 290.00 | 3864 |
| 23:17: 0 | 7-MY | 291.00 | 291.00 | 3866 |
| 23:18: 0 | 7-MY | 292.00 | 292.00 | 3867 |
| 23:19: 0 | 7-MY | 293.00 | 293.00 | 3869 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 23:20: 0 | 7-MY | 294.00 | 294.00 | 3870 |
| 23:21: 0 | 7-MY | 295.00 | 295.00 | 3872 |
| 23:22: 0 | 7-MY | 296.00 | 296.00 | 3873 |
| 23:23: 0 | 7-MY | 297.00 | 297.00 | 3875 |
| 23:24: 0 | 7-MY | 298.00 | 298.00 | 3877 |
| 23:25: 0 | 7-MY | 299.00 | 299.00 | 3879 |
| 23:26: 0 | 7-MY | 300.00 | 300.00 | 3881 |
| 23:27: 0 | 7-MY | 301.00 | 301.00 | 3882 |
| 23:28: 0 | 7-MY | 302.00 | 302.00 | 3884 |
| 23:29: 0 | 7-MY | 303.00 | 303.00 | 3886 |
| 23:30: 0 | 7-MY | 304.00 | 304.00 | 3888 |
| 23:31: 0 | 7-MY | 305.00 | 305.00 | 3890 |
| 23:32: 0 | 7-MY | 306.00 | 306.00 | 3891 |
| 23:33: 0 | 7-MY | 307.00 | 307.00 | 3893 |
| 23:34: 0 | 7-MY | 308.00 | 308.00 | 3894 |
| 23:35: 0 | 7-MY | 309.00 | 309.00 | 3896 |
| 23:36: 0 | 7-MY | 310.00 | 310.00 | 3897 |
| 23:37: 0 | 7-MY | 311.00 | 311.00 | 3898 |
| 23:38: 0 | 7-MY | 312.00 | 312.00 | 3900 |
| 23:39: 0 | 7-MY | 313.00 | 313.00 | 3901 |
| 23:40: 0 | 7-MY | 314.00 | 314.00 | 3902 |
| 23:41: 0 | 7-MY | 315.00 | 315.00 | 3904 |
| 23:42: 0 | 7-MY | 316.00 | 316.00 | 3905 |
| 23:43: 0 | 7-MY | 317.00 | 317.00 | 3907 |
| 23:44: 0 | 7-MY | 318.00 | 318.00 | 3908 |
| 23:45: 0 | 7-MY | 319.00 | 319.00 | 3910 |
| 23:46: 0 | 7-MY | 320.00 | 320.00 | 3911 |
| 23:47: 0 | 7-MY | 321.00 | 321.00 | 3913 |
| 23:48: 0 | 7-MY | 322.00 | 322.00 | 3915 |
| 23:49: 0 | 7-MY | 323.00 | 323.00 | 3916 |
| 23:50: 0 | 7-MY | 324.00 | 324.00 | 3918 |
| 23:51: 0 | 7-MY | 325.00 | 325.00 | 3919 |
| 23:52: 0 | 7-MY | 326.00 | 326.00 | 3921 |
| 23:53: 0 | 7-MY | 327.00 | 327.00 | 3922 |
| 23:54: 0 | 7-MY | 328.00 | 328.00 | 3924 |
| 23:55: 0 | 7-MY | 329.00 | 329.00 | 3925 |
| 23:56: 0 | 7-MY | 330.00 | 330.00 | 3926 |
| 23:57: 0 | 7-MY | 331.00 | 331.00 | 3927 |
| 23:58: 0 | 7-MY | 332.00 | 332.00 | 3928 |
| 23:59: 0 | 7-MY | 333.00 | 333.00 | 3930 |
| 0: 0: 0 | 8-MY | 334.00 | 334.00 | 3931 |
| 0: 1: 0 | 8-MY | 335.00 | 335.00 | 3932 |
| 0: 2: 0 | 8-MY | 336.00 | 336.00 | 3933 |
| 0: 3: 0 | 8-MY | 337.00 | 337.00 | 3935 |
| 0: 4: 0 | 8-MY | 338.00 | 338.00 | 3936 |
| 0: 5: 0 | 8-MY | 339.00 | 339.00 | 3938 |
| 0: 6: 0 | 8-MY | 340.00 | 340.00 | 3939 |
| 0: 7: 0 | 8-MY | 341.00 | 341.00 | 3940 |
| 0: 8: 0 | 8-MY | 342.00 | 342.00 | 3942 |

TEST PHASE : FLOW PERIOD # 1

| TIME OF DAY HH:MM:SS | DATE DD-MM | ELAPSED TIME,MIN | DELTA TIME,MIN | BOT HOLE PRESSURE PSIA |
|---|---|---|---|---|
| 0: 9: 0 | 8-MY | 343.00 | 343.00 | 3943 |
| 0:10: 0 | 8-MY | 344.00 | 344.00 | 3945 |
| 0:11: 0 | 8-MY | 345.00 | 345.00 | 3946 |
| 0:12: 0 | 8-MY | 346.00 | 346.00 | 3947 |
| 0:13: 0 | 8-MY | 347.00 | 347.00 | 3948 |
| 0:14: 0 | 8-MY | 348.00 | 348.00 | 3950 |
| 0:15: 0 | 8-MY | 349.00 | 349.00 | 3951 |
| 0:16: 0 | 8-MY | 350.00 | 350.00 | 3952 |
| 0:17: 0 | 8-MY | 351.00 | 351.00 | 3953 |
| 0:18: 0 | 8-MY | 352.00 | 352.00 | 3955 |
| 0:19: 0 | 8-MY | 353.00 | 353.00 | 3956 |
| 0:20: 0 | 8-MY | 354.00 | 354.00 | 3957 |
| 0:21: 0 | 8-MY | 355.00 | 355.00 | 3957 |
| 0:22: 0 | 8-MY | 356.00 | 356.00 | 3958 |
| 0:23: 0 | 8-MY | 357.00 | 357.00 | 3958 |
| 0:24: 0 | 8-MY | 358.00 | 358.00 | 3959 |
| 0:25: 0 | 8-MY | 359.00 | 359.00 | 3959 |
| 0:26: 0 | 8-MY | 360.00 | 360.00 | 3960 |
| 0:27: 0 | 8-MY | 361.00 | 361.00 | 3960 |
| 0:28: 0 | 8-MY | 362.00 | 362.00 | 3960 |
| 0:29: 0 | 8-MY | 363.00 | 363.00 | 3961 |
| 0:30: 0 | 8-MY | 364.00 | 364.00 | 3961 |
| 0:31: 0 | 8-MY | 365.00 | 365.00 | 3962 |
| 0:32: 0 | 8-MY | 366.00 | 366.00 | 3962 |
| 0:33: 0 | 8-MY | 367.00 | 367.00 | 3962 |
| 0:34: 0 | 8-MY | 368.00 | 368.00 | 3963 |
| 0:35: 0 | 8-MY | 369.00 | 369.00 | 3963 |
| 0:36: 0 | 8-MY | 370.00 | 370.00 | 3964 |
| 0:37: 0 | 8-MY | 371.00 | 371.00 | 3965 |
| 0:38: 0 | 8-MY | 372.00 | 372.00 | 3966 |
| 0:39: 0 | 8-MY | 373.00 | 373.00 | 3967 |
| 0:40: 0 | 8-MY | 374.00 | 374.00 | 3968 |
| 0:41: 0 | 8-MY | 375.00 | 375.00 | 3969 |
| 0:42: 0 | 8-MY | 376.00 | 376.00 | 3971 |
| 0:43: 0 | 8-MY | 377.00 | 377.00 | 3972 |
| 0:44: 0 | 8-MY | 378.00 | 378.00 | 3973 |
| 0:45: 0 | 8-MY | 379.00 | 379.00 | 3974 |
| 0:46: 0 | 8-MY | 380.00 | 380.00 | 3975 |
| 0:47: 0 | 8-MY | 381.00 | 381.00 | 3976 |
| 0:48: 0 | 8-MY | 382.00 | 382.00 | 3977 |
| 0:49: 0 | 8-MY | 383.00 | 383.00 | 3978 |
| 0:50: 0 | 8-MY | 384.00 | 384.00 | 3980 |
| 0:51: 0 | 8-MY | 385.00 | 385.00 | 3981 |
| 0:52: 0 | 8-MY | 386.00 | 386.00 | 3982 |
| 0:53: 0 | 8-MY | 387.00 | 387.00 | 3983 |
| 0:53:43 | 8-MY | 387.71 | 387.71 | 3984 |

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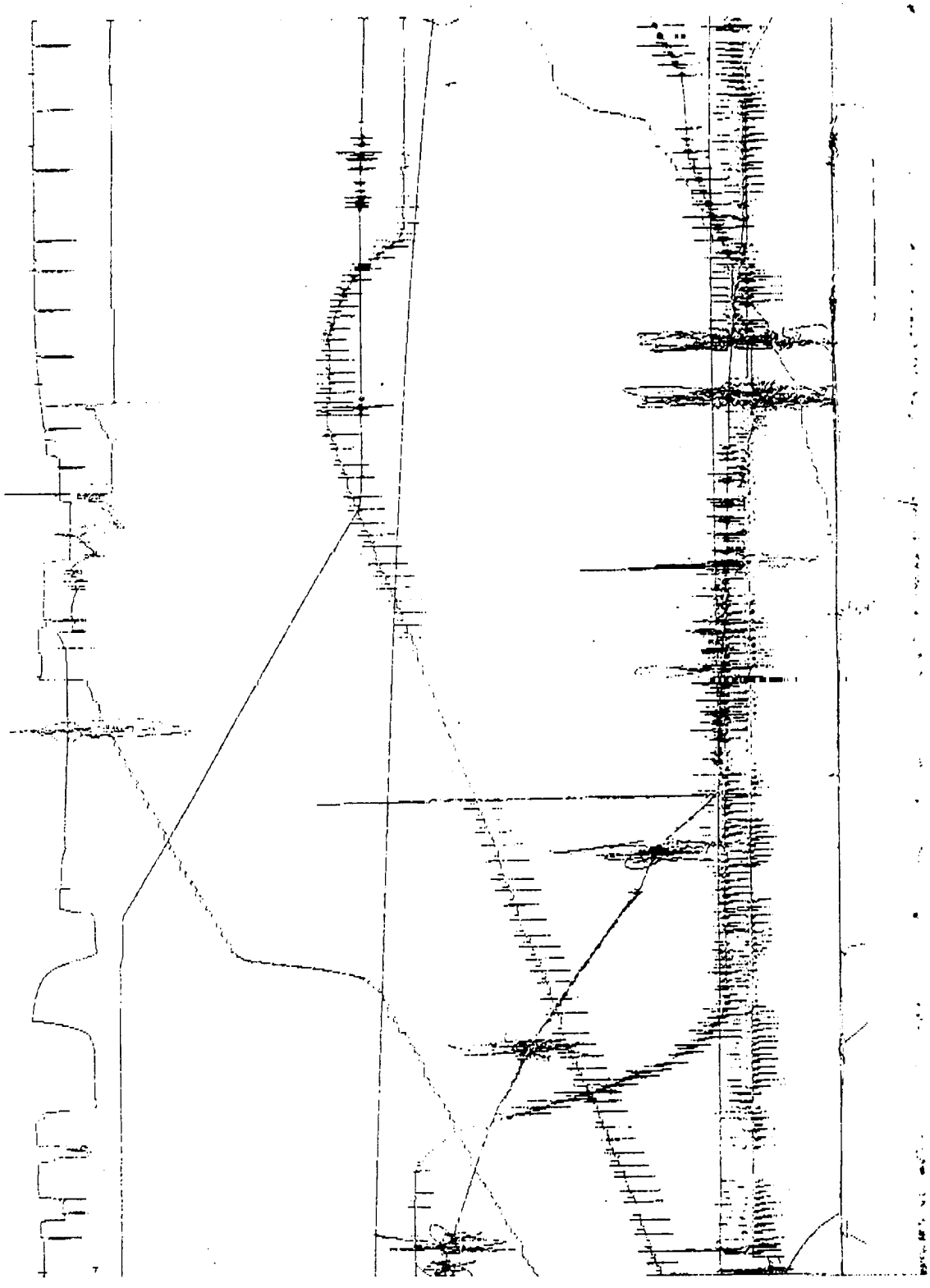

EXXON J-1975 IN ABOUE TEX-

ORIGINAL

FLOPETROL JOHNSTON Schlumberger

# FIELD REPORT

JS-537-A

| TYPE OF SERVICE | DATE | DISTRICT |
|---|---|---|
| OH STRADDLE DST | 5/6/89 | HOBBS 34472 |

WELL OWNER: EXXON COMPANY USA — SERVICE ORDER NUMBER: 115698

REPORTS ADDRESS:

WELL NAME & NO.: NEW MEXICO "FI" STATE #1 — FIELD: — LEASE:

LOCATION: SEC 15 T 15S R 33E — COUNTY: LEA — STATE: NEW MEXICO

☒ ONSHORE ☐ OFFSHORE ☐ INLAND WATERS ☒ WILDCAT ☐ DEVELOPMENT ☐ PRODUCTION

TEST NO. 3 — TEST INTERVAL FROM 13,756 FT TO 13,771 FT - 15 FT

## SURFACE DATA

| DESCRIPTION | DATE | TIME OF DAY | PRESS PSIG | SURFACE CHOKE | PRESS IN-H2O |
|---|---|---|---|---|---|
| SET PACKER | 5/7 | 1824 | | | |
| OPENED TOOL | 5/7 | 1826 | 0 | | |
| | | 1830 | 8½ OZ | CLOSED | |
| | | 1836 | 20 OZ | CHAMBER | |
| CLOSED FOR INITIAL SHUT-IN PRESS. | 5/7 | 1836 | 20 OZ | | |
| STILL BUILDING | | | | | |
| ~~FINISHED SHUT-IN~~ ATTEMPT TO ST. | 5/7 | 1918 | 6# | | |
| ~~RE-OPENED TOOL~~ PRESSURE | 5/7 | 1919 | 6# | | |
| STILL BUILDING - BLEED | | 1928 | BLEED PRESS | | |
| PRESSURE FROM 6# TO 2½# | | | TO ZERO | | |
| CLOSED SURFACE PRESSURE | | 1958 | | | |
| STILL BUILDING - CYCLED TOOL | 5/7 | 20:04 | | | |
| ATTEMPT TO SHUT IN TOOL | | | | | |
| PRESSURE SHEARED J-PIN, | | | | | |
| MFE, DOES NOT POSITION | | | | | |
| TO THE SHUT IN MODE | | | | | |
| EXTEND TOOL DOWN HOLE | | | | | |
| IN ATTEMPT SHUT IN. | | | | | |
| PRESSURE BUILD FROM | | | | | |
| 3 PSI TO 6 PSI ON SHUT | | | | | |
| IN - | | | | | |
| CLOSED FOR FINAL SHUT-IN | | | | | |
| FINISHED SHUT-IN | 5/8 | 0101 | | | |
| PULLED PACKER LOOSE | 5/8 | 0105 | | | |

| CUSHION TYPE | LENGTH | AMOUNT | SURFACE PRESS | TEST TOOL PRESS | BOT. CHOKE SIZE |
|---|---|---|---|---|---|
| FRESH WATER | 1753' | 17.83 BBL | 0 | 759# | 15/16" |

## SAMPLER DATA

| RECOVERY | | RESISTIVITY | | | CHL CONTENT |
|---|---|---|---|---|---|
| .18 | CU. FT. GAS | RECOVERED WATER | @ °F | | PPM |
| 400 | C.C. OIL | RECOVERED MUD | @ °F | | |
| 1800 | C.C. WATER | REC. MUD FILTRATE | @ °F | | PPM |
| — | C.C. MUD | PIT MUD | @ °F | | |
| GRAVITY 45 °API @ 60 °F | | PIT MUD FILTRATE | @ °F | | PPM |
| G O R | CU. FT/BBL. | SAMPLER PRESSURE | 200 PSI | | |

## INSTRUMENT DATA

| | | | | |
|---|---|---|---|---|
| INSTRUMENT NO. | 1975 | 524 | 1942 | 1979 |
| CAPACITY | 9000# | 9000# | 9000# | 9000# |
| DEPTH | 13702 | 13721 | 13727 | 13788 |
| INSIDE-OUTSIDE | ABOVE TOOL | IN | IN | RECORD STRADDLE |
| CLOCK CAP | 48 HR | 48 HR | 48 HR | 48 HR |
| TEMPERATURE °F | — | 194° | 194° | — |
| I. HYD P.S.I.G. | | 6313 | 6341 | 6362 |
| I. FLOW P.S.I.G. | 1628/3946 | 1120/3971 | 1118 | 6362 |
| I.S.I P.S.I.G. | | | STUCK STARTED | |
| 2nd FLOW P.S.I.G. | | | | |
| 2nd S.I. P.S.I.G. | | | | |
| F. FLOW P.S.I.G. | | | | |
| F.S.I. P.S.I.G. | | | | |
| F. HYD P.S.I.G. | | 6295 | 6323 | 6362 |

## EQUIPMENT SEQUENCE

| COMPONENTS | SERIAL# | OD | ID | LENGTH | DEPTH |
|---|---|---|---|---|---|
| DRILL PIPE | | 6¼ | 3.826 | | |
| DRILL COLLARS | | 6¼ | 2¼ | 117.33 | 12950 |
| DLG. JARS | | 6¼ | 2¼ | 33.41 | 13067 |
| DRILL COLLARS | | 7" | 2¼ | 413.81 | 13100 |
| REV.CIR.SUB P.O. | | 6" | 2⅜ | 1.50 | 13513 |
| DRILL COLLARS | | 7" | 2¼ | 93.53 | 13514 |
| REV.CIR.SUB K.O. | | 6" | 3 1/16 | 1.17 | 13607 |
| DRILL COLLARS | | 7" | 2¼ | 93.28 | 13608 |
| CROSS OVER SUB | | 6¼ | 2 9/16 | 1.00 | 13701 |
| RECORDER | | 5¾ | 1⅛ | 6.29 | 13702 |
| MFE | | 5¾ | 15/16 | 10.00 | 13708 |
| BYPASS | | 5" | 1⅛ | 2.98 | 13718 |
| RECORDER | | 4⅞ | 1⅛ | 5.91 | 13721 |
| RECORDER | | 4⅞ | 1⅛ | 7.21 | 13727 |
| JARS | | 4¾ | 1⅞ | 7.97 | 13734 |
| STRADDLE BYPASS SUB | | 4¾ | ¾ | .67 | 13742 |
| SAFETY J.T. | | 4¾ | 2" | 1.98 | 13743 |
| PACKER | | 7¾ | 1½ | 6.27 | 13750 |
| PACKER | | 7¾ | 1½ | 6.39 | 13756 |
| PERFORATION | | 5¾ | 3" | 5.00 | 13759 |
| CROSS OVER SUB | | 5¾ | 2⅛ | 1.00 | 13762 |
| STRADDLE BYPASS SUB | | 4¾ | ¾ | .67 | 13763 |
| SPACE PIPE | | 4¾ | 2" | 3.00 | 13764 |
| PACKER | | 7¾ | 1½ | 6.26 | 13771 |
| PACKER | | 7¾ | 1½ | 6.37 | 13776 |
| CROSS OVER SUB | | 5¾ | 2⅛ | 1.00 | 13780 |
| HOOK | | 7½ | 2" | 6.99 | 13781 |
| RECORDER | | 2⅞ | — | 4.57 | 13788 |

## WELL BORE DATA

FORMATION TESTED SILURIAN

NET PRODUCTIVE INTERVAL 15' ft — EST. POROSITY %

ELEVATION 4191 GL 4206 KB ft — DEPTH MEASURED FROM KB.

TOTAL MEASURED DEPTH 13855 ft — TRUE VERT DEPTH 13855 ft

O H SIZE 8½" in

CASING SIZE 9⅝" in — CASING WT. #/ft

LINER SIZE in — LINER WT. #/ft

PERF INTERVAL FROM ft TO ft = ft

SHOT DENSITY spf — PERF DIAMETER in

TOTAL SHOTS — OVER/UNDER BALANCE PRESS psi

## MUD DATA

MUD TYPE Poly Pac MI-LO-JEL — MUD WT 8.7 #/gal

VISCOSITY 48 — WATER LOSS 6.8 CC

RESISTIVITY: OF MUD @ °F

: OF FILTRATE @ °F

CHORIDES 12,500 PPM — NITRATES PPM

$H_2S$ DURING TEST PPM

REMARKS: FLUID SAMPLES FROM REVERSE CIRCULATION DP TAKEN BY GEOLOGIST TO MIDLAND

SAMPLE CHAMBER + SAMPLE ABOVE TOOL TAKE TO HOBBS SHOP.

| RECOVERY DESCRIPTION | FEET | BBLS | % OIL | % WATER | % CUSHION | % MUD | % OTHER | API GRAV | RESIST | CHL PPM |
|---|---|---|---|---|---|---|---|---|---|---|
| REVERSED TO TEST TANK | | | | | | | | @ °F | @ °F | |
| | | | | | | | | @ °F | @ °F | |
| OIL - (FREE OIL) EST | 210' | 3 | 100% | | | | | 45 @ 60 °F | @ °F | |
| FRESH WATER CUT WITH OIL | 5053' | 71.99 | 1% | 99% | | | | @ °F | @ °F | |
| (FRESH WATER TO LOAD DRILL PIPE) | | | | | | | | @ °F | @ °F | |
| TO REVERSE OUT | | | | | | | | @ °F | @ °F | |
| OIL + GAS CUT MUD - MUD - | | | | | | | | @ °F | @ °F | |
| FORMATION WATER - | 6891' | 98 | | | | | | @ °F | @ °F | |
| | | | | | | | | @ °F | @ °F | |
| WATER CUSHION | 1753' | 17 | | 100% | | | | @ °F | @ °F | |

REVERSED OUT: TIME STARTED — TIME FINISHED — PUMP PRESSURE PSIG

SERVICE ORDER NUMBER: 115698

FLOPETROL JOHNSTON ENGINEER/TECHNICIAN (PRINT): G. D. BROOKS