



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5875

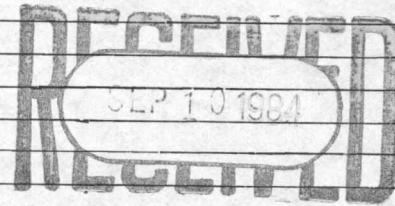
P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2348 KB Formation Toronto Eff. Pay Ft.

District Wakeeney Date 9-9-89 Customer Order No.  
COMPANY NAME Dean Petroleum Co Inc  
ADDRESS 300 Sutton Place Wichita, KS 67202  
LEASE AND WELL NO. Duane 9-29 COUNTY Lane STATE KS Sec. 24 Twp. 16 Rge. 30a  
Mail Invoice To Same #4-24 DUANE No. Copies Requested Reg  
Co. Name Same Address No. Copies Requested Reg  
Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 3900 ft. to 3926 ft. Total Depth 3926 ft.  
Packer Depth 3895 ft. Size 6 3/4 in. Packer Depth ft. Size in.  
Packer Depth 3900 ft. Size 6 3/4 in. Packer Depth ft. Size in.  
Depth of Selective Zone Set  
Top Recorder Depth (Inside) 3919 ft. Recorder Number 6234 Cap. 4500  
Bottom Recorder Depth (Outside) 3922 ft. Recorder Number 7569 Cap. 3150  
Below Straddle Recorder Depth ft. Recorder Number Cap.  
Drilling Contractor Red Tiger #10 Drill Collar Length I. D. in.  
Mud Type Viscosity 42 Weight Pipe Length 1081 I. D. 3.0 in.  
Weight 9.8 Water Loss 9.6 cc. Drill Pipe Length 2799 I. D. 3.6 in.  
Chlorides 10,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.  
Jars: Make no Serial Number Anchor Length 26 ft. Size 5 1/2 in.  
Did Well Flow? Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
Main Hole Size 7 1/8 in. Tool Joint Size 1 1/2 x 4 in.

Blow: JFP: steady building blow - bottom of bucket in 22  
FFP: steady building blow - bottom of bucket in 30 min  
Recovered 590 ft. of muddy water  
Recovered ft. of  
Recovered ft. of  
Recovered ft. of  
Recovered ft. of  
Chlorides 49,000 P.P.M. Sample Jars used 2 Remarks:



Time On Location 2:00 A.M. Time Pick Up Tool 3:45 A.M. Time Off Location A.M.  
Time Set Packer(s) 5:40 P.M. Time Started Off Bottom 8:25 A.M. Maximum Temperature 115°F  
Initial Hydrostatic Pressure (A) 2085 P.S.I.  
Initial Flow Period Minutes 30 (B) 57 P.S.I. to (C) 148 P.S.I.  
Initial Closed In Period Minutes 60 (D) 1132 P.S.I.  
Final Flow Period Minutes 45 (E) 205 P.S.I. to (F) 308 P.S.I.  
Final Closed In Period Minutes 30 (G) 1108 P.S.I.  
Final Hydrostatic Pressure (H) 2090 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Casey Gally  
Signature of Customer or his authorized representative

Western Representative Steve Waggoner  
Thank You

FIELD INVOICE

Open Hole Test \$ 450  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$

## WESTERN TESTING CO., INC.

## Pressure Data

Date 9/4/84Test Ticket No. 5875Recorder No. 4234 Capacity \_\_\_\_\_ Location \_\_\_\_\_

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_

| Point                          | Pressure           | Open Tool                  | Time Given  | Time Computed |
|--------------------------------|--------------------|----------------------------|-------------|---------------|
| A Initial Hydrostatic Mud      | <u>2064</u> P.S.I. |                            |             | M             |
| B First Initial Flow Pressure  | <u>54</u> P.S.I.   | First Flow Pressure        | _____ Mins. | _____ Mins.   |
| C First Final Flow Pressure    | <u>145</u> P.S.I.  | Initial Closed-in Pressure | _____ Mins. | _____ Mins.   |
| D Initial Closed-in Pressure   | <u>1132</u> P.S.I. | Second Flow Pressure       | _____ Mins. | _____ Mins.   |
| E Second Initial Flow Pressure | <u>186</u> P.S.I.  | Final Closed-in Pressure   | _____ Mins. | _____ Mins.   |
| F Second Final Flow Pressure   | <u>302</u> P.S.I.  |                            |             |               |
| G Final Closed-in Pressure     | <u>1102</u> P.S.I. |                            |             |               |
| H Final Hydrostatic Mud        | <u>2048</u> P.S.I. |                            |             |               |

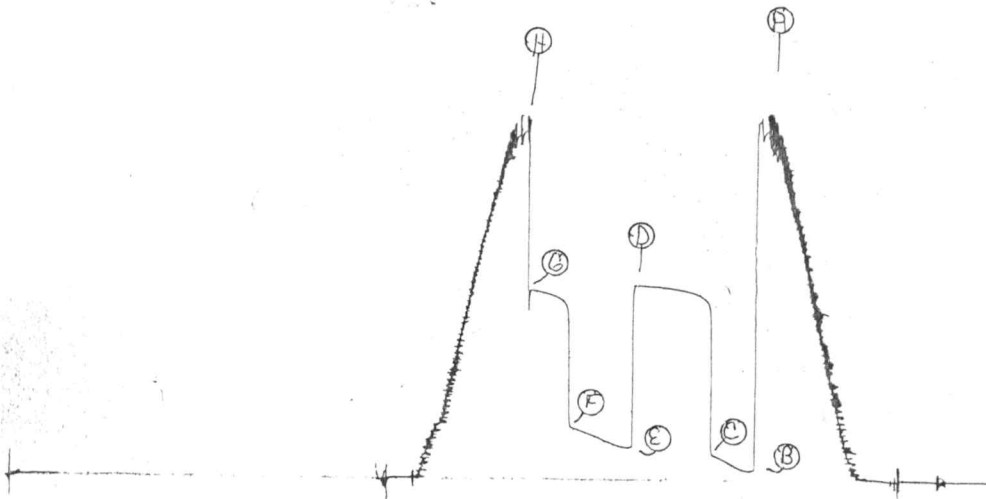
## PRESSURE BREAKDOWN

| First Flow Pressure         |            | Initial Shut-In             |             | Second Flow Pressure        |            | Final Shut-In               |             |
|-----------------------------|------------|-----------------------------|-------------|-----------------------------|------------|-----------------------------|-------------|
| Breakdown: <u>7</u> Inc.    |            | Breakdown: <u>20</u> Inc.   |             | Breakdown: <u>16</u> Inc.   |            | Breakdown: <u>11</u> Inc.   |             |
| of <u>5</u> mins. and a     |            | of <u>3</u> mins. and a     |             | of <u>5</u> mins. and a     |            | of <u>3</u> mins. and a     |             |
| final inc. of <u>0</u> Min. |            | final inc. of <u>0</u> Min. |             | final inc. of <u>0</u> Min. |            | final inc. of <u>0</u> Min. |             |
| Point Mins.                 | Press.     | Point Minutes               | Press.      | Point Minutes               | Press.     | Point Minutes               | Press.      |
| P 1 0                       | <u>54</u>  | 0                           | <u>145</u>  | 0                           | <u>184</u> | 0                           | <u>302</u>  |
| P 2 5                       | <u>54</u>  | 3                           | <u>1034</u> | 5                           | <u>184</u> | 3                           | <u>1028</u> |
| P 3 10                      | <u>65</u>  | 6                           | <u>1057</u> | 10                          | <u>195</u> | 6                           | <u>1047</u> |
| P 4 15                      | <u>82</u>  | 9                           | <u>1077</u> | 15                          | <u>210</u> | 9                           | <u>1061</u> |
| P 5 20                      | <u>105</u> | 12                          | <u>1085</u> | 20                          | <u>226</u> | 12                          | <u>1071</u> |
| P 6 25                      | <u>124</u> | 15                          | <u>1093</u> | 25                          | <u>245</u> | 15                          | <u>1078</u> |
| P 7 30                      | <u>145</u> | 18                          | <u>1100</u> | 30                          | <u>260</u> | 18                          | <u>1086</u> |
| P 8 35                      |            | 21                          | <u>1105</u> | 35                          | <u>274</u> | 21                          | <u>1090</u> |
| P 9 40                      |            | 24                          | <u>1109</u> | 40                          | <u>291</u> | 24                          | <u>1094</u> |
| P10 45                      |            | 27                          | <u>1112</u> | 45                          | <u>302</u> | 27                          | <u>1098</u> |
| P11 50                      |            | 30                          | <u>1115</u> | 50                          |            | 30                          | <u>1102</u> |
| P12 55                      |            | 33                          | <u>1118</u> | 55                          |            | 33                          |             |
| P13 60                      |            | 36                          | <u>1120</u> | 60                          |            | 36                          |             |
| P14                         |            | 39                          | <u>1122</u> | 65                          |            | 39                          |             |
| P15                         |            | 42                          | <u>1124</u> | 70                          |            | 42                          |             |
| P16                         |            | 45                          | <u>1126</u> | 75                          |            | 45                          |             |
| P17                         |            | 48                          | <u>1128</u> | 80                          |            | 48                          |             |
| P18                         |            | 51                          | <u>1130</u> | 85                          |            | 51                          |             |
| P19                         |            | 54                          | <u>1131</u> | 90                          |            | 54                          |             |
| P20                         |            | 57                          | <u>1132</u> |                             |            | 57                          |             |
|                             |            | 60                          |             |                             |            | 60                          |             |

TK1 2815

6254  
DST 1

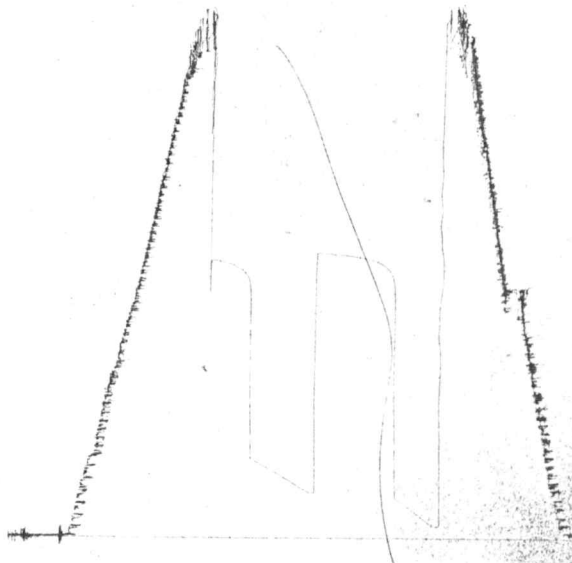
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TKT #5875

1569  
DST #1

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WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/4/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 1  
ELEVATION (KB): 2348  
SECTION: 24  
RANGE: 30W  
GAUGE SN #6234

TICKET #5875  
LEASE: DUANE  
GEOLOGIST: GALLOWAY  
FORMATION: TORONTO  
TOWNSHIP: 16S  
COUNTY: LANE  
STATE: KANSAS  
RANGE: 4500  
CLOCK: 12

INTERVAL TEST FROM: 3900 FT TO: 3926 FT TOTAL DEPTH: 3926 FT  
DEPTH OF SELECTIVE ZONE:  
PACKER DEPTH: 3895 FT SIZE: 6 3/4 IN PACKER DEPTH: 3900 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 42  
WEIGHT: 9.8 WATER LOSS (CC): 9.6  
CHLORIDES (P.P.M.): 10000

JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?

|                      |       |       |                           |
|----------------------|-------|-------|---------------------------|
| DRILL COLLAR LENGTH: | FT    | I.D.: | IN                        |
| WEIGHT PIPE LENGTH:  | 1081  | FT    | I.D.: 3.0                 |
| DRILL PIPE LENGTH:   | 2799  | FT    | I.D.: 3.6                 |
| TEST TOOL LENGTH:    | 20    | FT    | TOOL SIZE: 5 1/2          |
| ANCHOR LENGTH:       | 26    | FT    | SIZE: 5 1/2               |
| SURFACE CHOKE SIZE:  | 3/4   | IN    | BOTTOM CHOKE SIZE: 3/4    |
| MAIN HOLE SIZE:      | 7 7/8 | IN    | TOOL JOINT SIZE: 4 1/2 XH |

BLOW: INITIAL FLOW PERIOD: STEADY BUILDING BLOW: BOTTOM  
OF BUCKET IN 22 MINUTES. FINAL FLOW PERIOD:  
STEADY BUILDING BLOW: BOTTOM OF BUCKET IN 30  
MINUTES.

|                |    |                         |
|----------------|----|-------------------------|
| RECOVERED: 590 | FT | OF: MUDDY WATER         |
| RECOVERED:     | FT | OF: CHLORIDES 49000 PPM |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |

REMARKS:

TIME SET PACKER(S): 5:40 P.M.

TIME STARTED OFF BOTTOM: 8:25 P.M.

WELL TEMPERATURE: 115 °F

INITIAL HYDROSTATIC PRESSURE:

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 57

FINAL FLOW PERIOD MIN: 45

FINAL CLOSED IN PERIOD MIN: 30

FINAL HYDROSTATIC PRESSURE

|          |                |
|----------|----------------|
| (A) 2066 | PSI            |
| (B) 56   | PSI TO (C) 145 |
| (D) 1132 | PSI            |
| (E) 186  | PSI TO (F) 302 |
| (G) 1102 | PSI            |
| (H) 2048 | PSI            |





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5801

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2398 KB Formation Lansing Eff. Pay Ft.  
"B" zone

District 14 Date 9-5-84 Customer Order No.

COMPANY NAME Sean Petroleum Co Snc

ADDRESS 300 Sutton Place Wichita KS 67202

LEASE AND WELL NO. Duane 4-24 COUNTY Lane STATE KS Sec. 29 Twp. 16 Rge. 30W

Mail Invoice To Same #4-24 DUANE No. Copies Requested Reg

Co. Name Same Address No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 3956 ft. to 3978 ft. Total Depth 3978 ft.

Packer Depth 3951 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3956 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3972 ft. Recorder Number 6234 Cap. 4500

Bottom Recorder Depth (Outside) 3975 ft. Recorder Number 1564 Cap. 3150

Below Scaddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Red Tiger #10 Drill Collar Length I. D. in.

Mud Type starch Viscosity 42 Weight Pipe Length 1081 I. D. 3.0 in.

Weight 9.6 Water Loss 4.0 cc. Drill Pipe Length 2855 I. D. 3.6 in.

Chlorides 8,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make no Serial Number Anchor Length 22 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 x 4 in.

Blow: SFP: Steady building blow to 12 inches in bucket

FFP: Steady building blow to 8 inches in bucket

Recovered 320 ft. of muddy water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 46,000 P.P.M. Sample Jars used 2 Remarks:

RECEIVED  
SEP 10 1984

Time On Location 10:30 A.M. Time Pick Up Tool 10:40 A.M. Time Off Location A.M.

Time Set Packer(s) 11:55 A.M. Time Started Off Bottom 3:10 A.M. Maximum Temperature 116°F

Initial Hydrostatic Pressure (A) 2062 P.S.I.

Initial Flow Period Minutes 30 (B) 57 P.S.I. to (C) 91 P.S.I.

Initial Closed In Period Minutes 60 (D) 376 P.S.I.

Final Flow Period Minutes 45 (E) 148 P.S.I. to (F) 194 P.S.I.

Final Closed In Period Minutes 60 (G) 365 P.S.I.

Final Hydrostatic Pressure (H) 2029 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative Steve Waggoner

FIELD INVOICE

Open Hole Test \$ 550  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$

# WESTERN TESTING CO., INC.

## Pressure Data

Date: 9/5/84

Test Ticket No. 5801

Recorder No. 6234 Capacity \_\_\_\_\_ Location \_\_\_\_\_

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_

| Point                          | Pressure           | Open Tool                  | Time Given  | Time Computed |
|--------------------------------|--------------------|----------------------------|-------------|---------------|
| A Initial Hydrostatic Mud      | <u>2048</u> P.S.I. |                            |             |               |
| B First Initial Flow Pressure  | <u>58</u> P.S.I.   | First Flow Pressure        | _____ Mins. | _____ Mins.   |
| C First Final Flow Pressure    | <u>104</u> P.S.I.  | Initial Closed-in Pressure | _____ Mins. | _____ Mins.   |
| D Initial Closed-in Pressure   | <u>365</u> P.S.I.  | Second Flow Pressure       | _____ Mins. | _____ Mins.   |
| E Second Initial Flow Pressure | <u>137</u> P.S.I.  | Final Closed-in Pressure   | _____ Mins. | _____ Mins.   |
| F Second Final Flow Pressure   | <u>184</u> P.S.I.  |                            |             |               |
| G Final Closed-in Pressure     | <u>358</u> P.S.I.  |                            |             |               |
| H Final Hydrostatic Mud        | <u>2010</u> P.S.I. |                            |             |               |

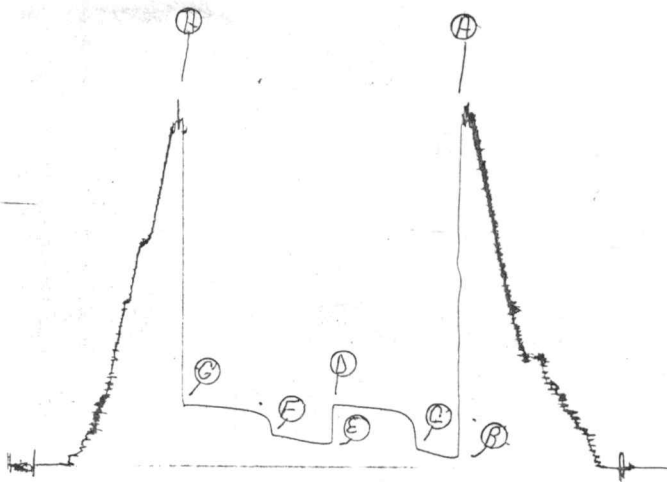
### PRESSURE BREAKDOWN

| First Flow Pressure Breakdown: <u>4</u> Inc.        |            | Initial Shut-In Breakdown: <u>22</u> Inc.           |            | Second Flow Pressure Breakdown: <u>10</u> Inc.      |            | Final Shut-In Breakdown: <u>22</u> Inc.             |            |
|-----------------------------------------------------|------------|-----------------------------------------------------|------------|-----------------------------------------------------|------------|-----------------------------------------------------|------------|
| of <u>5</u> mins. and a final inc. of <u>0</u> Min. |            | of <u>3</u> mins. and a final inc. of <u>0</u> Min. |            | of <u>5</u> mins. and a final inc. of <u>0</u> Min. |            | of <u>3</u> mins. and a final inc. of <u>0</u> Min. |            |
| Point Mins.                                         | Press.     | Point Minutes                                       | Press.     | Point Minutes                                       | Press.     | Point Minutes                                       | Press.     |
| P 1 0                                               | <u>58</u>  | 0                                                   | <u>104</u> | 0                                                   | <u>137</u> | 0                                                   | <u>184</u> |
| P 2 5                                               | <u>58</u>  | 3                                                   | <u>242</u> | 5                                                   | <u>137</u> | 3                                                   | <u>282</u> |
| P 3 10                                              | <u>63</u>  | 6                                                   | <u>282</u> | 10                                                  | <u>139</u> | 6                                                   | <u>299</u> |
| P 4 15                                              | <u>73</u>  | 9                                                   | <u>305</u> | 15                                                  | <u>145</u> | 9                                                   | <u>312</u> |
| P 5 20                                              | <u>82</u>  | 12                                                  | <u>318</u> | 20                                                  | <u>153</u> | 12                                                  | <u>321</u> |
| P 6 25                                              | <u>94</u>  | 15                                                  | <u>327</u> | 25                                                  | <u>140</u> | 15                                                  | <u>326</u> |
| P 7 30                                              | <u>104</u> | 18                                                  | <u>332</u> | 30                                                  | <u>149</u> | 18                                                  | <u>330</u> |
| P 8 35                                              |            | 21                                                  | <u>334</u> | 35                                                  | <u>178</u> | 21                                                  | <u>333</u> |
| P 9 40                                              |            | 24                                                  | <u>340</u> | 40                                                  | <u>184</u> | 24                                                  | <u>334</u> |
| P10 45                                              |            | 27                                                  | <u>343</u> | 45                                                  | <u>186</u> | 27                                                  | <u>339</u> |
| P11 50                                              |            | 30                                                  | <u>344</u> | 50                                                  |            | 30                                                  | <u>342</u> |
| P12 55                                              |            | 33                                                  | <u>348</u> | 55                                                  |            | 33                                                  | <u>345</u> |
| P13 60                                              |            | 36                                                  | <u>350</u> | 60                                                  |            | 36                                                  | <u>347</u> |
| P14                                                 |            | 39                                                  | <u>352</u> | 65                                                  |            | 39                                                  | <u>349</u> |
| P15                                                 |            | 42                                                  | <u>354</u> | 70                                                  |            | 42                                                  | <u>351</u> |
| P16                                                 |            | 45                                                  | <u>356</u> | 75                                                  |            | 45                                                  | <u>353</u> |
| P17                                                 |            | 48                                                  | <u>358</u> | 80                                                  |            | 48                                                  | <u>354</u> |
| P18                                                 |            | 51                                                  | <u>360</u> | 85                                                  |            | 51                                                  | <u>355</u> |
| P19                                                 |            | 54                                                  | <u>362</u> | 90                                                  |            | 54                                                  | <u>356</u> |
| P20                                                 |            | 57                                                  | <u>364</u> |                                                     |            | 57                                                  | <u>356</u> |
|                                                     |            | 60                                                  | <u>365</u> |                                                     |            | 60                                                  | <u>357</u> |
|                                                     |            | <u>63</u>                                           | <u>365</u> |                                                     |            | <u>63</u>                                           | <u>357</u> |
|                                                     |            |                                                     |            |                                                     |            | <u>66</u>                                           | <u>358</u> |

TKT # 5801

6239  
DST #2

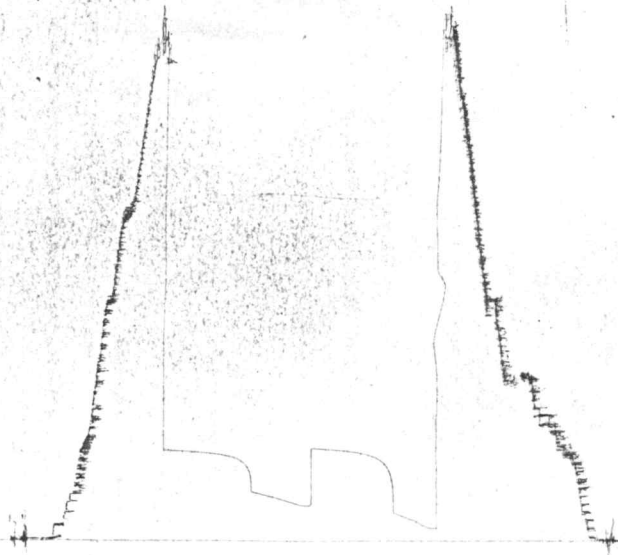
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TKT# 5801

1569  
DST #2

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WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/5/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 2  
ELEVATION (KB): 2348 FORMATION: LANSING "B" ZONE  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 3956 FT TO: 3978 FT TOTAL DEPTH: 3978 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 3951 FT SIZE: 6 3/4 IN PACKER DEPTH: 3956 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 42  
WEIGHT: 9.6 WATER LOSS (CC): 4.0  
CHLORIDES (P.P.M.): 8000  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1081 FT I.D.: 3.0 IN  
DRILL PIPE LENGTH: 2855 FT I.D.: 3.6 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 IN  
ANCHOR LENGTH: 22 FT SIZE: 5 1/2 IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: INITIAL FLOW PERIOD: STEADY BUILDING BLOW TO 12  
INCHES IN BUCKET. FINAL FLOW PERIOD: STEADY  
BUILDING BLOW TO 8 INCHES IN BUCKET.

|                |    |                         |
|----------------|----|-------------------------|
| RECOVERED: 320 | FT | OF: MUDDY WATER         |
| RECOVERED:     | FT | OF: CHLORIDES 46000 PPM |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |
| RECOVERED:     | FT | OF:                     |

REMARKS:

TIME SET PACKER(S): 11:55 A.M.  
WELL TEMPERATURE: 116 °F

TIME STARTED OFF BOTTOM: 3:10 P.M.

|                               |         |          |                |     |
|-------------------------------|---------|----------|----------------|-----|
| INITIAL HYDROSTATIC PRESSURE: |         | (A) 2048 | PSI            |     |
| INITIAL FLOW PERIOD           | MIN: 30 | (B) 58   | PSI TO (C) 104 | PSI |
| INITIAL CLOSED IN PERIOD      | MIN: 63 | (D) 365  | PSI            |     |
| FINAL FLOW PERIOD             | MIN: 45 | (E) 137  | PSI TO (F) 186 | PSI |
| FINAL CLOSED IN PERIOD        | MIN: 66 | (G) 358  | PSI            |     |
| FINAL HYDROSTATIC PRESSURE    |         | (H) 2010 | PSI            |     |





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5802

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 2348 KB Formation hanging Eff. Pay Ft.

District 14 Date 9-6-84 Customer Order No.

COMPANY NAME Dear Petroleum Co Inc

ADDRESS 300 Sutton Place Wichita 67202

LEASE AND WELL NO. Duane 4-24 COUNTY Lane STATE Ks Sec. 24 Twp. 16 Rge. 30W

Mail Invoice To Same #4-24 DUANE No. Copies Requested 5

Co. Name " " Address " "

Mail Charts To " " No. Copies Requested 11

Address " "

Formation Test No. 3 Interval Tested From 4166 ft. to 4200 ft. Total Depth 4200 ft.

Packer Depth 4161 ft. Size 63/4 in. Packer Depth 4166 ft. Size 63/4 in.

Packer Depth 4166 ft. Size 63/4 in. Packer Depth 4166 ft. Size 63/4 in.

Depth of Selective Zone Set " "

Top Recorder Depth (Inside) 4193 ft. Recorder Number 6234 Cap. 4500

Bottom Recorder Depth (Outside) 4196 ft. Recorder Number 1569 Cap. 3150

Below Straddle Recorder Depth " " ft. Recorder Number " " Cap. " "

Drilling Contractor Root Tiger #10 Drill Collar Length " " I. D. " " in.

Mud Type Starch Viscosity 40 Weight Pipe Length 1081 I. D. 3.0 in.

Weight 9.8 Water Loss 8.0 cc. Drill Pipe Length 3065 I. D. 3.6 in.

Chlorides 10,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make no Serial Number " " Anchor Length 34 ft. Size 5 1/2 in.

Did Well Flow? " " Reversed Out " " Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 x H in.

Blow: FFP steady building blow - bottom of bucket in 28

FFP: weak to fair - 4 inches in bucket

Recovered 200 ft. of gas in pipe

Recovered 82 ft. of heavy oil cut mud 20% gas 90% oil 90% mud

Recovered 129 ft. of heavy oil cut oil 15% gas 65% oil 20% mud

Recovered 129 ft. of free oil 39% gravity 269°F

Recovered " " ft. of " "

Chlorides " " P.P.M. Sample Jars used 4 Remarks: " "

" "

" "

Time On Location 6:30 A.M. Time Pick Up Tool 7:30 A.M. Time Off Location " " A.M.

Time Set Packer(s) 8:20 P.M. Time Started Off Bottom 12:30 P.M. Maximum Temperature 120°F

Initial Hydrostatic Pressure " " (A) 2179 P.S.I.

Initial Flow Period " " Minutes 30 (B) 79 P.S.I. to (C) 91 P.S.I.

Initial Closed In Period " " Minutes 60 (D) 1020 P.S.I.

Final Flow Period " " Minutes 30 (E) 125 P.S.I. to (F) 198 P.S.I.

Final Closed In Period " " Minutes 60 (G) 1020 P.S.I.

Final Hydrostatic Pressure " " (H) 2191 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By asy-gal-y

Signature of Customer or his authorized representative

Western Representative Steve Waggoner 2305

thank you

FIELD INVOICE

Open Hole Test \$ 595  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$

# WESTERN TESTING CO., INC.

## Pressure Data

Date: 9/6/84 Recorder No. 4234 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft. \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Test Ticket No. 5802

| Point                          | Pressure           | Time Given | Time Computed           |
|--------------------------------|--------------------|------------|-------------------------|
| A Initial Hydrostatic Mud      | <u>2145</u> P.S.I. |            | M                       |
| B First Initial Flow Pressure  | <u>83</u> P.S.I.   |            | Mins. _____ Mins. _____ |
| C First Final Flow Pressure    | <u>103</u> P.S.I.  |            | Mins. _____ Mins. _____ |
| D Initial Closed-in Pressure   | <u>1070</u> P.S.I. |            | Mins. _____ Mins. _____ |
| E Second Initial Flow Pressure | <u>128</u> P.S.I.  |            | Mins. _____ Mins. _____ |
| F Second Final Flow Pressure   | <u>158</u> P.S.I.  |            | Mins. _____ Mins. _____ |
| G Final Closed-in Pressure     | <u>1012</u> P.S.I. |            |                         |
| H Final Hydrostatic Mud        | <u>2121</u> P.S.I. |            |                         |

Open Tool \_\_\_\_\_  
 First Flow Pressure \_\_\_\_\_  
 Initial Closed-in Pressure \_\_\_\_\_  
 Second Flow Pressure \_\_\_\_\_  
 Final Closed-in Pressure \_\_\_\_\_

*H.P. plugging action*

### PRESSURE BREAKDOWN

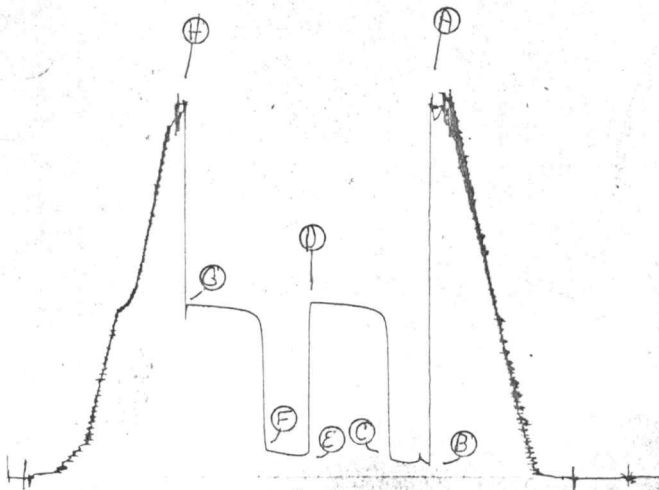
| First Flow Pressure Breakdown: <u>7</u> Inc. |            | Initial Shut-In Breakdown: <u>20</u> Inc. |             | Second Flow Pressure Breakdown: <u>7</u> Inc. |            | Final Shut-In Breakdown: <u>21</u> Inc. |             |
|----------------------------------------------|------------|-------------------------------------------|-------------|-----------------------------------------------|------------|-----------------------------------------|-------------|
| of <u>5</u> mins. and a                      |            | of <u>3</u> mins. and a                   |             | of <u>5</u> mins. and a                       |            | of <u>3</u> mins. and a                 |             |
| final inc. of <u>0</u> Min.                  |            | final inc. of <u>0</u> Min.               |             | final inc. of <u>0</u> Min.                   |            | final inc. of <u>0</u> Min.             |             |
| Point Mins.                                  | Press.     | Point Minutes                             | Press.      | Point Minutes                                 | Press.     | Point Minutes                           | Press.      |
| P 1 0                                        | <u>82</u>  | 0                                         | <u>1020</u> | 0                                             | <u>128</u> | 0                                       | <u>158</u>  |
| P 2 5                                        | <u>103</u> | 3                                         | <u>921</u>  | 5                                             | <u>128</u> | 3                                       | <u>800</u>  |
| P 3 10                                       | <u>92</u>  | 6                                         | <u>960</u>  | 10                                            | <u>130</u> | 6                                       | <u>935</u>  |
| P 4 15                                       | <u>84</u>  | 9                                         | <u>974</u>  | 15                                            | <u>136</u> | 9                                       | <u>958</u>  |
| P 5 20                                       | <u>89</u>  | 12                                        | <u>985</u>  | 20                                            | <u>142</u> | 12                                      | <u>971</u>  |
| P 6 25                                       | <u>98</u>  | 15                                        | <u>994</u>  | 25                                            | <u>152</u> | 15                                      | <u>980</u>  |
| P 7 30                                       | <u>103</u> | 18                                        | <u>999</u>  | 30                                            | <u>158</u> | 18                                      | <u>984</u>  |
| P 8 35                                       |            | 21                                        | <u>1003</u> | 35                                            |            | 21                                      | <u>987</u>  |
| P 9 40                                       |            | 24                                        | <u>1007</u> | 40                                            |            | 24                                      | <u>990</u>  |
| P10 45                                       |            | 27                                        | <u>1009</u> | 45                                            |            | 27                                      | <u>993</u>  |
| P11 50                                       |            | 30                                        | <u>1011</u> | 50                                            |            | 30                                      | <u>994</u>  |
| P12 55                                       |            | 33                                        | <u>1013</u> | 55                                            |            | 33                                      | <u>999</u>  |
| P13 60                                       |            | 36                                        | <u>1015</u> | 60                                            |            | 36                                      | <u>1002</u> |
| P14                                          |            | 39                                        | <u>1017</u> | 65                                            |            | 39                                      | <u>1004</u> |
| P15                                          |            | 42                                        | <u>1019</u> | 70                                            |            | 42                                      | <u>1006</u> |
| P16                                          |            | 45                                        | <u>1021</u> | 75                                            |            | 45                                      | <u>1008</u> |
| P17                                          |            | 48                                        | <u>1023</u> | 80                                            |            | 48                                      | <u>1009</u> |
| P18                                          |            | 51                                        | <u>1024</u> | 85                                            |            | 51                                      | <u>1000</u> |
| P19                                          |            | 54                                        | <u>1025</u> | 90                                            |            | 54                                      | <u>1011</u> |
| P20                                          |            | 57                                        | <u>1024</u> |                                               |            | 57                                      | <u>1012</u> |
|                                              |            | 60                                        |             |                                               |            | 60                                      | <u>1012</u> |

TKT #5802

6234.

DST #3

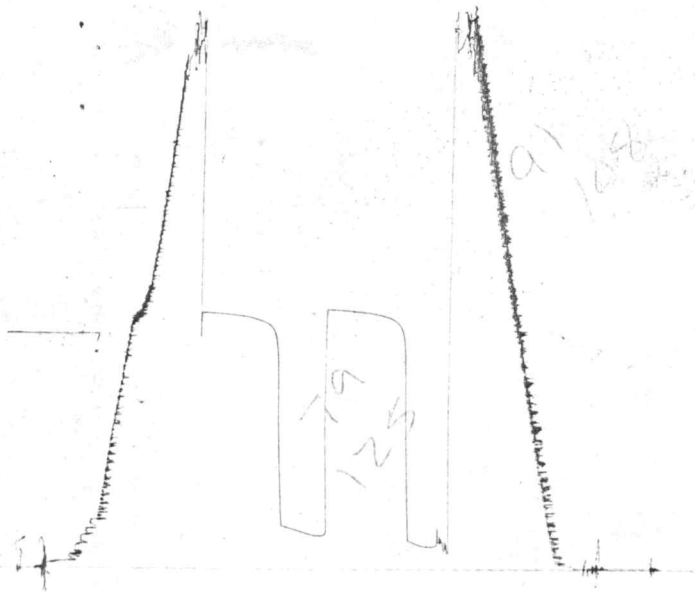
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TK7 #5802

1564  
DSt#3

0



WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/6/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 3  
ELEVATION (KB): 2348 FORMATION: LANSING "B"  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 4166 FT TO: 4200 FT TOTAL DEPTH: 4200 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4161 FT SIZE: 6 3/4 IN PACKER DEPTH: 4166 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 40  
WEIGHT: 9.8 WATER LOSS (CC): 8.0  
CHLORIDES (P.P.M.): 10000

JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?

|                      |          |                    |             |
|----------------------|----------|--------------------|-------------|
| DRILL COLLAR LENGTH: | FT       | I.D.:              | IN          |
| WEIGHT PIPE LENGTH:  | 1081 FT  | I.D.:              | 3.0 IN      |
| DRILL PIPE LENGTH:   | 3065 FT  | I.D.:              | 3.6 IN      |
| TEST TOOL LENGTH:    | 20 FT    | TOOL SIZE:         | 5 1/2 IN    |
| ANCHOR LENGTH:       | 34 FT    | SIZE:              | 5 1/2 IN    |
| SURFACE CHOKE SIZE:  | 3/4 IN   | BOTTOM CHOKE SIZE: | 3/4 IN      |
| MAIN HOLE SIZE:      | 7 7/8 IN | TOOL JOINT SIZE:   | 4 1/2 XH IN |

BLOW: INITIAL FLOW PERIOD: STEADY BUILDING BLOW: BOTTOM  
OF BUCKET IN 28 MINUTES. FINAL FLOW PERIOD: WEAK  
TO FAIR: 4 INCHES IN BUCKET.

|            |     |    |     |                                              |
|------------|-----|----|-----|----------------------------------------------|
| RECOVERED: | 200 | FT | OF: | GAS ABOVE FLUID                              |
| RECOVERED: | 82  | FT | OF: | HEAVY OIL CUT MUD: 20% GAS: 40% OIL: 40% MUD |
| RECOVERED: | 124 | FT | OF: | HEAVY MUD CUT OIL: 15% GAS: 65% OIL: 20% MUD |
| RECOVERED: | 124 | FT | OF: | FREE OIL: 39 DEGREES GRAVITY AT 264 DEGREES. |
| RECOVERED: |     | FT | OF: |                                              |
| RECOVERED: |     | FT | OF: |                                              |
| RECOVERED: |     | FT | OF: |                                              |
| RECOVERED: |     | FT | OF: |                                              |
| RECOVERED: |     | FT | OF: |                                              |

REMARKS: PLUGGING ACTION IN INITIAL FLOW PERIOD.

|                                  |                                     |
|----------------------------------|-------------------------------------|
| TIME SET PACKER(S): 9:20 P.M.    | TIME STARTED OFF BOTTOM: 12:30 A.M. |
| WELL TEMPERATURE: 120 °F         |                                     |
| INITIAL HYDROSTATIC PRESSURE:    | (A) 2145 PSI                        |
| INITIAL FLOW PERIOD MIN: 30      | (B) 83 PSI TO (C) 103 PSI           |
| INITIAL CLOSED IN PERIOD MIN: 57 | (D) 1026 PSI                        |
| FINAL FLOW PERIOD MIN: 30        | (E) 128 PSI TO (F) 158 PSI          |
| FINAL CLOSED IN PERIOD MIN: 60   | (G) 1012 PSI                        |
| FINAL HYDROSTATIC PRESSURE       | (H) 2121 PSI                        |





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET

OK  
Nº 5804

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 2348 KB Formation Marmaton Eff. Pay        Ft.

District Wichita Date 9-8-89 Customer Order No.       

COMPANY NAME Dean Petroleum Co Inc

ADDRESS 300 Sutton Place Wichita 67202

LEASE AND WELL NO. Duane 9-29 COUNTY Lane STATE Ks Sec. 29 Twp. 16 Rge. 30W

Mail Invoice To Same #4-24 DUANE No. Copies Requested 5

Co. Name Same Address       

Mail Charts To        No. Copies Requested 5

Formation Test No. 5 Interval Tested From 4292 ft. to 4319 ft. Total Depth 4319 ft.

Packer Depth 4287 ft. Size 6 3/4 in. Packer Depth        ft. Size        in.

Packer Depth 4292 ft. Size 6 3/4 in. Packer Depth        ft. Size        in.

Depth of Selective Zone Set       

Top Recorder Depth (Inside) 4307 ft. Recorder Number 6239 Cap. 4500

Bottom Recorder Depth (Outside) 4310 ft. Recorder Number 1569 Cap. 3150

Below Straddle Recorder Depth        ft. Recorder Number        Cap.       

Drilling Contractor Tiger #10 Drill Collar Length        I. D.        in.

Mud Type Starch Viscosity 43 Weight Pipe Length 1081 I. D. 3.0 in.

Weight 9.7 Water Loss 17.2 cc. Drill Pipe Length 3191 I. D. 3.6 in.

Chlorides 6,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make        Serial Number        Anchor Length 22 ft. Size 5 1/2 in.

Did Well Flow?        Reversed Out        Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 X 1 1/2 in.

Blow: DFP: Steady building blow to 7 inches

FFP: Steady building blow to 12 inches

Recovered 230 ft. of muddy gassy oil - 10% gas 70% oil

Recovered 250 ft. of gas and pipe 20% mud

Recovered        ft. of       

Recovered        ft. of       

Recovered        ft. of       

Chlorides        P.P.M. Sample Jars used 3 Remarks:       

Time On Location 7:45 A.M. Time Pick Up Tool 8:10 P.M. Time Off Location        A.M.

Time Set Packer(s) 9:30 A.M. Time Started Off Bottom 1:15 P.M. Maximum Temperature 121° F

Initial Hydrostatic Pressure        (A) 2197 P.S.I.

Initial Flow Period 30 Minutes (B) 45 P.S.I. to (C) 68 P.S.I.

Initial Closed In Period 60 Minutes (D) 1076 P.S.I.

Final Flow Period 45 Minutes (E) 79 P.S.I. to (F) 119 P.S.I.

Final Closed In Period 90 Minutes (G) 1076 P.S.I.

Final Hydrostatic Pressure        (H) 2141 P.S.I.

COMPANY TERMS

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Casey F. Gallay  
Signature of Customer or his authorized representative

Western Representative Steve Waggoner

FIELD INVOICE

Open Hole Test \$ 595  
Mistrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$

## WESTERN TESTING CO., INC.

## Pressure Data

Date 9-8-84Test Ticket No. 5804Recorder No. 6234 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

| Point                          | Pressure           | Time Given      | Time Computed   |
|--------------------------------|--------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2184</u> P.S.I. |                 |                 |
| B First Initial Flow Pressure  | <u>40</u> P.S.I.   | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>62</u> P.S.I.   | <u>60</u> Mins. | <u>60</u> Mins. |
| D Initial Closed-in Pressure   | <u>1058</u> P.S.I. | <u>45</u> Mins. | <u>45</u> Mins. |
| E Second Initial Flow Pressure | <u>84</u> P.S.I.   | <u>90</u> Mins. | <u>90</u> Mins. |
| F Second Final Flow Pressure   | <u>110</u> P.S.I.  |                 |                 |
| G Final Closed-in Pressure     | <u>1061</u> P.S.I. |                 |                 |
| H Final Hydrostatic Mud        | <u>2131</u> P.S.I. |                 |                 |

## PRESSURE BREAKDOWN

First Flow Pressure  
Breakdown: 7 Inc.of 5 mins. and a  
final inc. of 0 Min.Initial Shut-In  
Breakdown: 21 Inc.of 3 mins. and a  
final inc. of 0 Min.Second Flow Pressure  
Breakdown: 10 Inc.of 5 mins. and a  
final inc. of 0 Min.Final Shut-In  
Breakdown: 31 Inc.of 3 mins. and a  
final inc. of 0 Min.

| Point<br>Mins. | Press.    | Point<br>Minutes | Press.      | Point<br>Minutes | Press.     | Point<br>Minutes | Press.      |
|----------------|-----------|------------------|-------------|------------------|------------|------------------|-------------|
| P 1 0          | <u>40</u> | 0                | <u>62</u>   | 0                | <u>84</u>  | 0                | <u>110</u>  |
| P 2 5          | <u>40</u> | 3                | <u>183</u>  | 5                | <u>84</u>  | 3                | <u>210</u>  |
| P 3 10         | <u>40</u> | 6                | <u>547</u>  | 10               | <u>84</u>  | 6                | <u>485</u>  |
| P 4 15         | <u>43</u> | 9                | <u>716</u>  | 15               | <u>87</u>  | 9                | <u>657</u>  |
| P 5 20         | <u>48</u> | 12               | <u>795</u>  | 20               | <u>90</u>  | 12               | <u>732</u>  |
| P 6 25         | <u>54</u> | 15               | <u>844</u>  | 25               | <u>94</u>  | 15               | <u>788</u>  |
| P 7 30         | <u>62</u> | 18               | <u>881</u>  | 30               | <u>98</u>  | 18               | <u>822</u>  |
| P 8 35         |           | 21               | <u>902</u>  | 35               | <u>102</u> | 21               | <u>854</u>  |
| P 9 40         |           | 24               | <u>928</u>  | 40               | <u>106</u> | 24               | <u>878</u>  |
| P10 45         |           | 27               | <u>949</u>  | 45               | <u>110</u> | 27               | <u>896</u>  |
| P11 50         |           | 30               | <u>966</u>  | 50               |            | 30               | <u>918</u>  |
| P12 55         |           | 33               | <u>981</u>  | 55               |            | 33               | <u>936</u>  |
| P13 60         |           | 36               | <u>996</u>  | 60               |            | 36               | <u>952</u>  |
| P14            |           | 39               | <u>1007</u> | 65               |            | 39               | <u>964</u>  |
| P15            |           | 42               | <u>1019</u> | 70               |            | 42               | <u>974</u>  |
| P16            |           | 45               | <u>1028</u> | 75               |            | 45               | <u>983</u>  |
| P17            |           | 48               | <u>1036</u> | 80               |            | 48               | <u>992</u>  |
| P18            |           | 51               | <u>1042</u> | 85               |            | 51               | <u>1000</u> |
| P19            |           | 54               | <u>1048</u> | 90               |            | 54               | <u>1008</u> |
| P20            |           | 57               | <u>1054</u> |                  |            | 57               | <u>1014</u> |
|                |           | 60               | <u>1058</u> |                  |            | 60               | <u>1019</u> |

# WESTERN TESTING CO., INC.

## Pressure Data

Date \_\_\_\_\_

Test Ticket No. 5804

Recorder No. \_\_\_\_\_ Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

| Point                                | Pressure |                                  | Time Given  | Time Computed |
|--------------------------------------|----------|----------------------------------|-------------|---------------|
| A Initial Hydrostatic Mud _____      | P.S.I.   | Open Tool _____                  | M _____     |               |
| B First Initial Flow Pressure _____  | P.S.I.   | First Flow Pressure _____        | Mins. _____ | Mins. _____   |
| C First Final Flow Pressure _____    | P.S.I.   | Initial Closed-in Pressure _____ | Mins. _____ | Mins. _____   |
| D Initial Closed-in Pressure _____   | P.S.I.   | Second Flow Pressure _____       | Mins. _____ | Mins. _____   |
| E Second Initial Flow Pressure _____ | P.S.I.   | Final Closed-in Pressure _____   | Mins. _____ | Mins. _____   |
| F Second Final Flow Pressure _____   | P.S.I.   |                                  |             |               |
| G Final Closed-in Pressure _____     | P.S.I.   |                                  |             |               |
| H Final Hydrostatic Mud _____        | P.S.I.   |                                  |             |               |

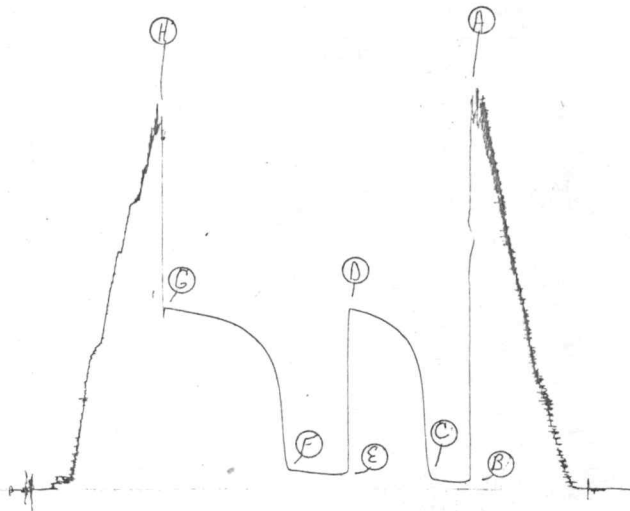
## PRESSURE BREAKDOWN

| First Flow Pressure         |        | Initial Shut-In             |        | Second Flow Pressure        |        | Final Shut-In               |        |
|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|
| Breakdown: _____ Inc.       |        | Breakdown: _____ Inc.       |        | Breakdown: _____ Inc.       |        | Breakdown: _____ Inc.       |        |
| of <u>5</u> mins. and a     |        | of <u>3</u> mins. and a     |        | of <u>5</u> mins. and a     |        | of <u>3</u> mins. and a     |        |
| final inc. of <u>0</u> Min. |        | final inc. of <u>0</u> Min. |        | final inc. of <u>0</u> Min. |        | final inc. of <u>0</u> Min. |        |
| Point Mins.                 | Press. | Point Minutes               | Press. | Point Minutes               | Press. | Point Minutes               | Press. |
| P 1 _____                   | _____  | 63 _____                    | _____  | _____                       | _____  | 63 _____                    | 1024   |
| P 2 _____                   | _____  | 66 _____                    | _____  | _____                       | _____  | 66 _____                    | 1029   |
| P 3 _____                   | _____  | 69 _____                    | _____  | _____                       | _____  | 69 _____                    | 1033   |
| P 4 _____                   | _____  | 72 _____                    | _____  | _____                       | _____  | 72 _____                    | 1037   |
| P 5 _____                   | _____  | 75 _____                    | _____  | _____                       | _____  | 75 _____                    | 1041   |
| P 6 _____                   | _____  | 78 _____                    | _____  | _____                       | _____  | 78 _____                    | 1045   |
| P 7 _____                   | _____  | 81 _____                    | _____  | _____                       | _____  | 81 _____                    | 1049   |
| P 8 _____                   | _____  | 84 _____                    | _____  | _____                       | _____  | 84 _____                    | 1053   |
| P 9 _____                   | _____  | 87 _____                    | _____  | _____                       | _____  | 87 _____                    | 1057   |
| P10 _____                   | _____  | 90 _____                    | _____  | _____                       | _____  | 90 _____                    | 1061   |
| P11 _____                   | _____  | 93 _____                    | _____  | _____                       | _____  | 93 _____                    | _____  |
| P12 _____                   | _____  | 96 _____                    | _____  | _____                       | _____  | 96 _____                    | _____  |
| P13 _____                   | _____  | 99 _____                    | _____  | _____                       | _____  | 99 _____                    | _____  |
| P14 _____                   | _____  | 102 _____                   | _____  | _____                       | _____  | 102 _____                   | _____  |
| P15 _____                   | _____  | 105 _____                   | _____  | _____                       | _____  | 105 _____                   | _____  |
| P16 _____                   | _____  | 108 _____                   | _____  | _____                       | _____  | 108 _____                   | _____  |
| P17 _____                   | _____  | 111 _____                   | _____  | _____                       | _____  | 111 _____                   | _____  |
| P18 _____                   | _____  | 114 _____                   | _____  | _____                       | _____  | 114 _____                   | _____  |
| P19 _____                   | _____  | 117 _____                   | _____  | _____                       | _____  | 117 _____                   | _____  |
| P20 _____                   | _____  | 120 _____                   | _____  | _____                       | _____  | 120 _____                   | _____  |

TKT #5804

0009  
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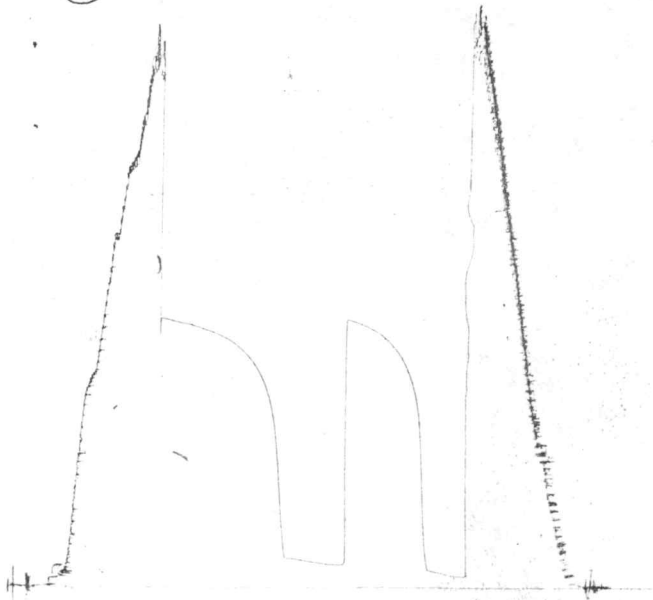
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TKT#5804

1569  
DS# 5

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WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/8/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: #4-24 TEST: 5  
ELEVATION (KB): 2348 FORMATION: MARMATON  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 4292 FT TO: 4314 FT TOTAL DEPTH: 4314 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4287 FT SIZE: 6 3/4 IN PACKER DEPTH: 4292 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 43  
WEIGHT: 9.7 WATER LOSS (CC): 17.2  
CHLORIDES (P.P.M.): 6000  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1081 FT I.D.: 3.2 IN  
DRILL PIPE LENGTH: 3191 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN  
ANCHOR LENGTH: 22 FT SIZE: 5 1/2 O.D. IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: INITIAL FLOW PERIOD STEADY BLOW BUILDING  
TO 7". FINAL FLOW PERIOD STEADY BLOW  
BUILDING TO 12".

RECOVERED: 230 FT OF: MUDDY GASSY OIL: 10% GAS: 70% OIL: 20% MUD.  
RECOVERED: 250 FT OF: GAS ABOVE FLUID.  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 9:30 A.M. TIME STARTED OFF BOTTOM: 1:15 P.M.  
WELL TEMPERATURE: 121 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2184 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 40 PSI TO (C) 62 PSI  
INITIAL CLOSED IN PERIOD MIN: 60 (D) 1058 PSI  
FINAL FLOW PERIOD MIN: 45 (E) 84 PSI TO (F) 110 PSI  
FINAL CLOSED IN PERIOD MIN: 90 (G) 1061 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2131 PSI

WESTERN TESTING COMPANY INC.  
PRESSURE DATA

|                                       |                     |
|---------------------------------------|---------------------|
| DATE: 9/8/84                          | TICKET #5804        |
| CUSTOMER: GEAR PETROLEUM COMPANY INC. | LEASE: DUANE        |
| WELL: #4-24                           | TEST: 5             |
| ELEVATION (KB): 2348                  | GEOLOGIST: GALLOWAY |
| SECTION: 24                           | FORMATION: MARMATON |
| RANGE: 30W                            | TOWNSHIP: 16S       |
| GAUGE SN #6234                        | COUNTY: LANE        |
|                                       | STATE: KANSAS       |
|                                       | RANGE: 4500         |
|                                       | CLOCK: 12           |

|                      |                               |      |     |
|----------------------|-------------------------------|------|-----|
| (A)                  | INITIAL HYDROSTATIC PRESSURE: | 2184 | PSI |
| (B)                  | FIRST INITIAL FLOW PRESSURE:  | 40   | PSI |
| (C)                  | FIRST FINAL FLOW PRESSURE:    | 62   | PSI |
| (D)                  | INITIAL CLOSED-IN PRESSURE:   | 1058 | PSI |
| (E)                  | SECOND INITIAL FLOW PRESSURE: | 84   | PSI |
| (F)                  | SECOND FINAL FLOW PRESSURE:   | 110  | PSI |
| (G)                  | FINAL CLOSED-IN PRESSURE:     | 1061 | PSI |
| (H)                  | FINAL HYDROSTATIC PRESSURE:   | 2131 | PSI |
|                      | WELL TEMPERATURE:             | 121  | 'F  |
| OPEN TOOL: 9:30 A.M. |                               |      |     |

|                             | TIME - GIVEN | TIME - ACTUAL |
|-----------------------------|--------------|---------------|
| FIRST FLOW PRESSURE:        | 30 MIN       | 30 MIN        |
| INITIAL CLOSED-IN PRESSURE: | 60 MIN       | 60 MIN        |
| SECOND FLOW PRESSURE:       | 45 MIN       | 45 MIN        |
| FINAL CLOSED-IN PRESSURE:   | 90 MIN       | 90 MIN        |

### PRESSURE BREAKDOWN

[illegible]

PRESSURE BREAKDOWN - CONT. TICKET #5804

| PT | FIRST FLOW |          | INITIAL SHUT-IN |          | SECOND FLOW |          | FINAL SHUT-IN |          |
|----|------------|----------|-----------------|----------|-------------|----------|---------------|----------|
|    | MIN        | PRESSURE | MIN             | PRESSURE | MIN         | PRESSURE | MIN           | PRESSURE |
| 31 |            |          |                 |          |             |          | 90            | 1061     |
| 32 |            |          |                 |          |             |          |               |          |
| 33 |            |          |                 |          |             |          |               |          |
| 34 |            |          |                 |          |             |          |               |          |
| 35 |            |          |                 |          |             |          |               |          |
| 36 |            |          |                 |          |             |          |               |          |
| 37 |            |          |                 |          |             |          |               |          |
| 38 |            |          |                 |          |             |          |               |          |
| 39 |            |          |                 |          |             |          |               |          |
| 40 |            |          |                 |          |             |          |               |          |
| 41 |            |          |                 |          |             |          |               |          |
| 42 |            |          |                 |          |             |          |               |          |
| 43 |            |          |                 |          |             |          |               |          |
| 44 |            |          |                 |          |             |          |               |          |
| 45 |            |          |                 |          |             |          |               |          |
| 46 |            |          |                 |          |             |          |               |          |
| 47 |            |          |                 |          |             |          |               |          |
| 48 |            |          |                 |          |             |          |               |          |
| 49 |            |          |                 |          |             |          |               |          |
| 50 |            |          |                 |          |             |          |               |          |
| 51 |            |          |                 |          |             |          |               |          |
| 52 |            |          |                 |          |             |          |               |          |
| 53 |            |          |                 |          |             |          |               |          |
| 54 |            |          |                 |          |             |          |               |          |
| 55 |            |          |                 |          |             |          |               |          |
| 56 |            |          |                 |          |             |          |               |          |
| 57 |            |          |                 |          |             |          |               |          |
| 58 |            |          |                 |          |             |          |               |          |
| 59 |            |          |                 |          |             |          |               |          |
| 60 |            |          |                 |          |             |          |               |          |
| 61 |            |          |                 |          |             |          |               |          |
| 62 |            |          |                 |          |             |          |               |          |
| 63 |            |          |                 |          |             |          |               |          |
| 64 |            |          |                 |          |             |          |               |          |
| 65 |            |          |                 |          |             |          |               |          |
| 66 |            |          |                 |          |             |          |               |          |
| 67 |            |          |                 |          |             |          |               |          |
| 68 |            |          |                 |          |             |          |               |          |
| 69 |            |          |                 |          |             |          |               |          |
| 70 |            |          |                 |          |             |          |               |          |
| 71 |            |          |                 |          |             |          |               |          |
| 72 |            |          |                 |          |             |          |               |          |
| 73 |            |          |                 |          |             |          |               |          |
| 74 |            |          |                 |          |             |          |               |          |
| 75 |            |          |                 |          |             |          |               |          |
| 76 |            |          |                 |          |             |          |               |          |
| 77 |            |          |                 |          |             |          |               |          |
| 78 |            |          |                 |          |             |          |               |          |
| 79 |            |          |                 |          |             |          |               |          |
| 80 |            |          |                 |          |             |          |               |          |
| 81 |            |          |                 |          |             |          |               |          |
| 82 |            |          |                 |          |             |          |               |          |
| 83 |            |          |                 |          |             |          |               |          |
| 84 |            |          |                 |          |             |          |               |          |
| 85 |            |          |                 |          |             |          |               |          |
| 86 |            |          |                 |          |             |          |               |          |
| 87 |            |          |                 |          |             |          |               |          |
| 88 |            |          |                 |          |             |          |               |          |
| 89 |            |          |                 |          |             |          |               |          |



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET

Nº **5382**

P. O. BOX 1599      PHONE (316) 262-5861  
WICHITA, KANSAS 67201

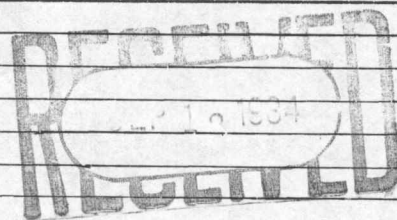
Elevation 2848 K.B. Formation \_\_\_\_\_ Eff. Pay \_\_\_\_\_ Ft. \_\_\_\_\_

District 14 Wakeeney Date 9-8-84 Customer Order No. \_\_\_\_\_  
COMPANY NAME Gear Petroleum Co. INC.  
ADDRESS 300 Sutton Place Wichita Ks. 67202  
LEASE AND WELL NO. Duane 4-24 COUNTY Lane STATE Ks. Sec. 24 Twp. 16 Rge. 30W  
Mail Invoice To Same # 4-24 DUANE No. Copies Requested 5  
Co. Name \_\_\_\_\_ Address \_\_\_\_\_  
Mail Charts To Same No. Copies Requested 5  
Address \_\_\_\_\_

Formation Test No. 6 Interval Tested From 4310 ft. to 4344 ft. Total Depth 4344 ft.  
Packer Depth 4305 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Packer Depth 4310 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 4329 ft. Recorder Number 6234 Cap. 4500  
Bottom Recorder Depth (Outside) 4341 ft. Recorder Number 1564 Cap. 3150  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_  
Drilling Contractor Red Tiger #10 Drill Collar Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.  
Mud Type Starch Viscosity 43 Weight Pipe Length 1081 I. D. 3.2 in.  
Weight 9.7 Water Loss 17.2 cc. Drill Pipe Length 3209 I. D. 3.6 in.  
Chlorides 6,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.  
Jars: Make \_\_\_\_\_ Serial Number \_\_\_\_\_ Anchor Length 34 ft. Size 5 1/2 in.  
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
Main Hole Size 7/8 in. Tool Joint Size 4 1/2 XH. in.

Blow: I.F.P. Weak Dead IN 25 min.  
F.I.P. No Blow

Recovered 10 ft. of mud with few oil spots  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Chlorides 5,000 P.P.M. Sample Jars used 0 Remarks: \_\_\_\_\_



Time On Location 10:30 A.M. Time Pick Up Tool 11:15 A.M. Time Off Location 5:00 A.M.  
Time Set Packer(s) 1:00 A.M. Time Started Off Bottom 3:00 A.M. Maximum Temperature 122°  
Initial Hydrostatic Pressure \_\_\_\_\_ (A) 2242 P.S.I.  
Initial Flow Period \_\_\_\_\_ Minutes 30 (B) 22 P.S.I. to (C) 22 P.S.I.  
Initial Closed In Period \_\_\_\_\_ Minutes 30 (D) 57 P.S.I.  
Final Flow Period \_\_\_\_\_ Minutes 30 (E) 22 P.S.I. to (F) 22 P.S.I.  
Final Closed In Period \_\_\_\_\_ Minutes 30 (G) 34 P.S.I.  
Final Hydrostatic Pressure \_\_\_\_\_ (H) 2208 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Casey Gall  
Signature of Customer or his authorized representative

Western Representative Kent Kopp  
Thank you 1135

FIELD INVOICE

Open Hole Test \$ 595.00  
Misrun \$ \_\_\_\_\_  
Straddle Test \$ \_\_\_\_\_  
Jars \$ \_\_\_\_\_  
Selective Zone \$ \_\_\_\_\_  
Safety Joint \$ \_\_\_\_\_  
Standby \$ \_\_\_\_\_  
Evaluation \$ \_\_\_\_\_  
Extra Packer \$ \_\_\_\_\_  
Circ. Sub. \$ \_\_\_\_\_  
Mileage \$ \_\_\_\_\_  
Fluid Sampler \$ \_\_\_\_\_  
Extra Charts \$ \_\_\_\_\_  
Insurance \$ \_\_\_\_\_  
Telecopier \$ \_\_\_\_\_  
TOTAL \$ 595.00

## WESTERN TESTING CO., INC.

## Pressure Data

Date 9-8-84Test Ticket No. 5382Recorder No. 6234 Capacity \_\_\_\_\_ Location \_\_\_\_\_

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_

| Point                          | Pressure           | Open Tool                  | Time Given      | Time Computed   |
|--------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2266</u> P.S.I. |                            |                 |                 |
| B First Initial Flow Pressure  | <u>25</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>25</u> P.S.I.   | Initial Closed-in Pressure | <u>30</u> Mins. | <u>27</u> Mins. |
| D Initial Closed-in Pressure   | <u>56</u> P.S.I.   | Second Flow Pressure       | <u>30</u> Mins. | <u>30</u> Mins. |
| E Second Initial Flow Pressure | <u>27</u> P.S.I.   | Final Closed-in Pressure   | <u>30</u> Mins. | <u>30</u> Mins. |
| F Second Final Flow Pressure   | <u>27</u> P.S.I.   |                            |                 |                 |
| G Final Closed-in Pressure     | <u>32</u> P.S.I.   |                            |                 |                 |
| H Final Hydrostatic Mud        | <u>2186</u> P.S.I. |                            |                 |                 |

## PRESSURE BREAKDOWN

First Flow Pressure  
Breakdown: 7 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 10 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 7 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

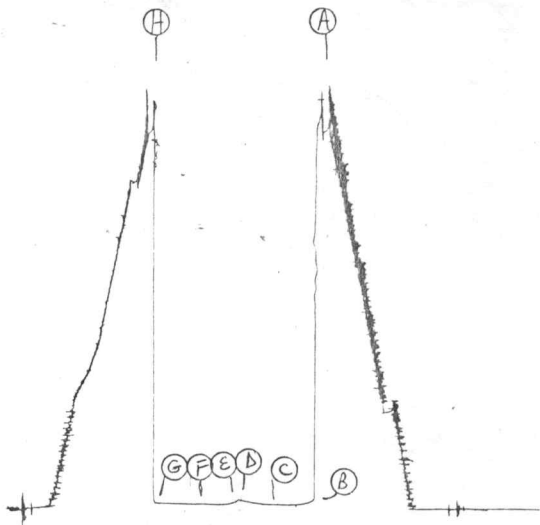
Final Shut-In  
Breakdown: 11 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

| Point<br>Mins. | Press.    | Point<br>Minutes | Press.    | Point<br>Minutes | Press.    | Point<br>Minutes | Press.    |
|----------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| P 1 0          | <u>25</u> | 0                | <u>25</u> | 0                | <u>27</u> | 0                | <u>27</u> |
| P 2 5          |           | 3                | <u>28</u> | 5                |           | 3                | <u>27</u> |
| P 3 10         |           | 6                | <u>31</u> | 10               |           | 6                | <u>28</u> |
| P 4 15         |           | 9                | <u>33</u> | 15               |           | 9                | <u>28</u> |
| P 5 20         |           | 12               | <u>36</u> | 20               |           | 12               | <u>29</u> |
| P 6 25         |           | 15               | <u>39</u> | 25               |           | 15               | <u>29</u> |
| P 7 30         | <u>25</u> | 18               | <u>42</u> | 30               | <u>27</u> | 18               | <u>30</u> |
| P 8 35         |           | 21               | <u>46</u> | 35               |           | 21               | <u>30</u> |
| P 9 40         |           | 24               | <u>51</u> | 40               |           | 24               | <u>31</u> |
| P 10 45        |           | 27               | <u>56</u> | 45               |           | 27               | <u>31</u> |
| P 11 50        |           | 30               |           | 50               |           | 30               | <u>32</u> |
| P 12 55        |           | 33               |           | 55               |           | 33               |           |
| P 13 60        |           | 36               |           | 60               |           | 36               |           |
| P 14           |           | 39               |           | 65               |           | 39               |           |
| P 15           |           | 42               |           | 70               |           | 42               |           |
| P 16           |           | 45               |           | 75               |           | 45               |           |
| P 17           |           | 48               |           | 80               |           | 48               |           |
| P 18           |           | 51               |           | 85               |           | 51               |           |
| P 19           |           | 54               |           | 90               |           | 54               |           |
| P 20           |           | 57               |           |                  |           | 57               |           |
|                |           | 60               |           |                  |           | 60               |           |

TKT # 5382

6254  
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TKT # 5382

1664  
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WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/8/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 6  
ELEVATION (KB): 2848 FORMATION:  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 4310 FT TO: 4344 FT TOTAL DEPTH: 4344 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4305 FT SIZE: 6 3/4 IN PACKER DEPTH: 4310 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG  
MUD TYPE: STARCH VISCOSITY: 43  
WEIGHT: 9.7 WATER LOSS (CC): 17.2  
CHLORIDES (P.P.M.): 6000

JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1081 FT I.D.: 3.2 IN  
DRILL PIPE LENGTH: 3209 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 IN  
ANCHOR LENGTH: 34 FT SIZE: 5 1/2 IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW.  
DIED IN 25 MINUTES.  
FINAL FLOW PERIOD NO BLOW.

RECOVERED: 10 FT OF: MUD WITH A FEW OIL SPOTS.  
RECOVERED: FT OF: CHLORIDES 5000 PPM.  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 1:00 AM  
WELL TEMPERATURE: 122 °F

TIME STARTED OFF BOTTOM: 3:00 AM

INITIAL HYDROSTATIC PRESSURE: (A) 2266 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 25 PSI TO (C) 25 PSI  
INITIAL CLOSED IN PERIOD MIN: 27 (D) 56 PSI  
FINAL FLOW PERIOD MIN: 30 (E) 27 PSI TO (F) 27 PSI  
FINAL CLOSED IN PERIOD MIN: 30 (G) 32 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2186 PSI





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5383

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2848 K.B. Formation \_\_\_\_\_ Eff. Pay \_\_\_\_\_ Ft. \_\_\_\_\_

District 14 Wakeeney Date 9-9-84 Customer Order No. \_\_\_\_\_

COMPANY NAME Gear Petroleum Co. INC.

ADDRESS 300 Sutton Place Wichita Ks. 67202

LEASE AND WELL NO. Duane 4-24 COUNTY Lane STATE Ks. Sec. 24 Twp. 16 Rge. 30W

Mail Invoice To Same #4-24 DUANE No. Copies Requested 5

Co. Name \_\_\_\_\_ Address \_\_\_\_\_

Mail Charts To Same No. Copies Requested 5

Address \_\_\_\_\_

Formation Test No. 7 Interval Tested From 4356 ft. to 4410 ft. Total Depth 4410 ft.

Packer Depth 4351 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Packer Depth 4356 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4366 ft. Recorder Number 6234 Cap. 4500

Bottom Recorder Depth (Outside) 4407 ft. Recorder Number 1564 Cap. 3150

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

Drilling Contractor Red Tiger #10 Drill Collar Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.

Mud Type starch Viscosity 45 Weight Pipe Length 1051 I. D. 3.2 in.

Weight 9.5 Water Loss 8.4 cc. Drill Pipe Length 3285 I. D. 3.6 in.

Chlorides 6,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make none Serial Number \_\_\_\_\_ Anchor Length 54 ft. Size 5 1/2 in.

Did Well Flow? no Reversed Out \_\_\_\_\_ Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 KH in.

Blow: I.F.P. Weak Building to Strong Bottom of Bucket IN 6.5 min

F.F.P. Weak Building to Strong Bottom of Bucket IN 16 min

Recovered 372 ft. of Clean gassy oil 15% gas 85% oil 33 Gravity

Recovered 248 ft. of gassy oil cut mud

Recovered \_\_\_\_\_ ft. of 20% gas 10% mud 70% oil

Recovered \_\_\_\_\_ ft. of 620 total

Recovered \_\_\_\_\_ ft. of 1700' gas IN Pipe

Chlorides \_\_\_\_\_ P.P.M. Sample Jars used 5 Remarks: \_\_\_\_\_

Time On Location 4:30 A.M. Time Pick Up Tool 5:15 A.M. Time Off Location 2:00 A.M.

Time Set Packer(s) 7:00 P.M. Time Started Off Bottom 10:45 A.M. Maximum Temperature 124°

Initial Hydrostatic Pressure \_\_\_\_\_ (A) 2242 P.S.I.

Initial Flow Period \_\_\_\_\_ Minutes 30 (B) 79 P.S.I. to (C) 136 P.S.I.

Initial Closed In Period \_\_\_\_\_ Minutes 60 (D) 806 P.S.I.

Final Flow Period \_\_\_\_\_ Minutes 45 (E) 192 P.S.I. to (F) 239 P.S.I.

Final Closed In Period \_\_\_\_\_ Minutes 90 (G) 716 P.S.I.

Final Hydrostatic Pressure \_\_\_\_\_ (H) 2208 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Casey Gally  
Signature of Customer or his authorized representative

Western Representative Kent Kalle

1135

FIELD INVOICE

Open Hole Test \$ 595.00  
Misrun \$ \_\_\_\_\_  
Straddle Test \$ \_\_\_\_\_  
Jars \$ \_\_\_\_\_  
Selective Zone \$ \_\_\_\_\_  
Safety Joint \$ \_\_\_\_\_  
Standby \$ \_\_\_\_\_  
Evaluation \$ \_\_\_\_\_  
Extra Packer \$ \_\_\_\_\_  
Circ. Sub. \$ \_\_\_\_\_  
Mileage \$ \_\_\_\_\_  
Fluid Sampler \$ \_\_\_\_\_  
Extra Charts \$ \_\_\_\_\_  
Insurance \$ \_\_\_\_\_  
Telecopier \$ \_\_\_\_\_  
TOTAL \$ 595.00

## WESTERN TESTING CO., INC.

## Pressure Data

Date 9-9Test Ticket No. 5383Recorder No. 6234

Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

| Point                          | Pressure           | Time Given      | Time Computed   |
|--------------------------------|--------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2242</u> P.S.I. |                 |                 |
| B First Initial Flow Pressure  | <u>83</u> P.S.I.   | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>143</u> P.S.I.  | <u>60</u> Mins. | <u>60</u> Mins. |
| D Initial Closed-in Pressure   | <u>804</u> P.S.I.  | <u>45</u> Mins. | <u>45</u> Mins. |
| E Second Initial Flow Pressure | <u>191</u> P.S.I.  | <u>90</u> Mins. | <u>90</u> Mins. |
| F Second Final Flow Pressure   | <u>243</u> P.S.I.  |                 |                 |
| G Final Closed-in Pressure     | <u>705</u> P.S.I.  |                 |                 |
| H Final Hydrostatic Mud        | <u>2130</u> P.S.I. |                 |                 |

## PRESSURE BREAKDOWN

| First Flow Pressure<br>Breakdown: <u>7</u> Inc.<br>of <u>5</u> mins. and a<br>final inc. of <u>0</u> Min. |            | Initial Shut-In<br>Breakdown: <u>21</u> Inc.<br>of <u>3</u> mins. and a<br>final inc. of <u>0</u> Min. |            | Second Flow Pressure<br>Breakdown: <u>10</u> Inc.<br>of <u>5</u> mins. and a<br>final inc. of <u>0</u> Min. |            | Final Shut-In<br>Breakdown: <u>31</u> Inc.<br>of <u>3</u> mins. and a<br>final inc. of <u>0</u> Min. |            |
|-----------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------|------------|
| Point<br>Mins.                                                                                            | Press.     | Point<br>Minutes                                                                                       | Press.     | Point<br>Minutes                                                                                            | Press.     | Point<br>Minutes                                                                                     | Press.     |
| P 1 0                                                                                                     | <u>83</u>  | 0                                                                                                      | <u>143</u> | 0                                                                                                           | <u>191</u> | 0                                                                                                    | <u>243</u> |
| P 2 5                                                                                                     | <u>91</u>  | 3                                                                                                      | <u>280</u> | 5                                                                                                           | <u>191</u> | 3                                                                                                    | <u>324</u> |
| P 3 10                                                                                                    | <u>100</u> | 6                                                                                                      | <u>386</u> | 10                                                                                                          | <u>195</u> | 6                                                                                                    | <u>383</u> |
| P 4 15                                                                                                    | <u>111</u> | 9                                                                                                      | <u>446</u> | 15                                                                                                          | <u>202</u> | 9                                                                                                    | <u>415</u> |
| P 5 20                                                                                                    | <u>123</u> | 12                                                                                                     | <u>495</u> | 20                                                                                                          | <u>209</u> | 12                                                                                                   | <u>438</u> |
| P 6 25                                                                                                    | <u>136</u> | 15                                                                                                     | <u>537</u> | 25                                                                                                          | <u>216</u> | 15                                                                                                   | <u>466</u> |
| P 7 30                                                                                                    | <u>143</u> | 18                                                                                                     | <u>569</u> | 30                                                                                                          | <u>221</u> | 18                                                                                                   | <u>490</u> |
| P 8 35                                                                                                    |            | 21                                                                                                     | <u>600</u> | 35                                                                                                          | <u>231</u> | 21                                                                                                   | <u>510</u> |
| P 9 40                                                                                                    |            | 24                                                                                                     | <u>627</u> | 40                                                                                                          | <u>237</u> | 24                                                                                                   | <u>530</u> |
| P10 45                                                                                                    |            | 27                                                                                                     | <u>649</u> | 45                                                                                                          | <u>243</u> | 27                                                                                                   | <u>544</u> |
| P11 50                                                                                                    |            | 30                                                                                                     | <u>671</u> | 50                                                                                                          |            | 30                                                                                                   | <u>558</u> |
| P12 55                                                                                                    |            | 33                                                                                                     | <u>693</u> | 55                                                                                                          |            | 33                                                                                                   | <u>572</u> |
| P13 60                                                                                                    |            | 36                                                                                                     | <u>709</u> | 60                                                                                                          |            | 36                                                                                                   | <u>586</u> |
| P14                                                                                                       |            | 39                                                                                                     | <u>725</u> | 65                                                                                                          |            | 39                                                                                                   | <u>596</u> |
| P15                                                                                                       |            | 42                                                                                                     | <u>741</u> | 70                                                                                                          |            | 42                                                                                                   | <u>606</u> |
| P16                                                                                                       |            | 45                                                                                                     | <u>754</u> | 75                                                                                                          |            | 45                                                                                                   | <u>616</u> |
| P17                                                                                                       |            | 48                                                                                                     | <u>766</u> | 80                                                                                                          |            | 48                                                                                                   | <u>625</u> |
| P18                                                                                                       |            | 51                                                                                                     | <u>776</u> | 85                                                                                                          |            | 51                                                                                                   | <u>633</u> |
| P19                                                                                                       |            | 54                                                                                                     | <u>786</u> | 90                                                                                                          |            | 54                                                                                                   | <u>641</u> |
| P20                                                                                                       |            | 57                                                                                                     | <u>795</u> |                                                                                                             |            | 57                                                                                                   | <u>648</u> |
|                                                                                                           |            | 60                                                                                                     | <u>804</u> |                                                                                                             |            | 60                                                                                                   | <u>654</u> |

cont.

# WESTERN TESTING CO., INC.

## Pressure Data

Date \_\_\_\_\_

Test Ticket No. 5383

Recorder No. \_\_\_\_\_ Capacity \_\_\_\_\_ Location \_\_\_\_\_

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °

| Point                                | Pressure |                                  | Time Given  | Time Computed |
|--------------------------------------|----------|----------------------------------|-------------|---------------|
| A Initial Hydrostatic Mud _____      | P.S.I.   | Open Tool _____                  | M _____     |               |
| B First Initial Flow Pressure _____  | P.S.I.   | First Flow Pressure _____        | Mins. _____ | Min. _____    |
| C First Final Flow Pressure _____    | P.S.I.   | Initial Closed-in Pressure _____ | Mins. _____ | Min. _____    |
| D Initial Closed-in Pressure _____   | P.S.I.   | Second Flow Pressure _____       | Mins. _____ | Min. _____    |
| E Second Initial Flow Pressure _____ | P.S.I.   | Final Closed-in Pressure _____   | Mins. _____ | Min. _____    |
| F Second Final Flow Pressure _____   | P.S.I.   |                                  |             |               |
| G Final Closed-in Pressure _____     | P.S.I.   |                                  |             |               |
| H Final Hydrostatic Mud _____        | P.S.I.   |                                  |             |               |

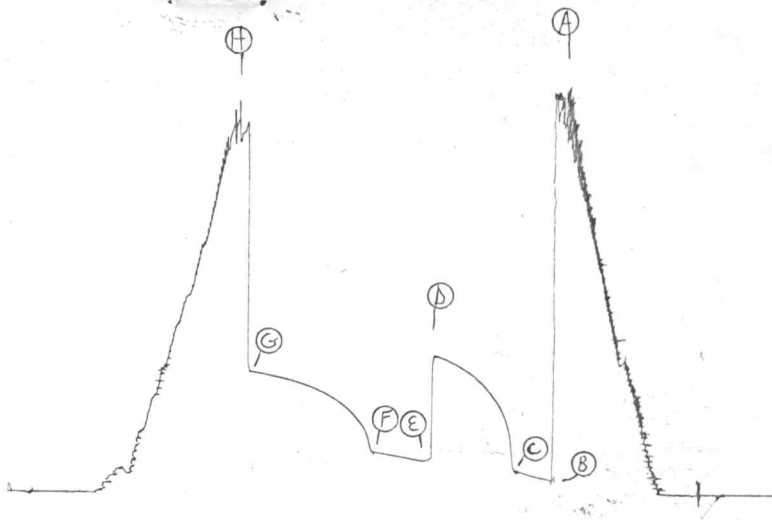
### PRESSURE BREAKDOWN

| First Flow Pressure         |        | Initial Shut-In             |        | Second Flow Pressure        |        | Final Shut-In               |            |
|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|------------|
| Breakdown: _____ Inc.       |        | Breakdown: _____ Inc.       |        | Breakdown: _____ Inc.       |        | Breakdown: _____ Inc.       |            |
| of <u>5</u> mins. and a     |        | of <u>3</u> mins. and a     |        | of <u>5</u> mins. and a     |        | of <u>3</u> mins. and a     |            |
| final inc. of <u>0</u> Min. |        | final inc. of <u>0</u> Min. |        | final inc. of <u>0</u> Min. |        | final inc. of <u>0</u> Min. |            |
| Point Mins.                 | Press. | Point Minutes               | Press. | Point Minutes               | Press. | Point Minutes               | Press.     |
| P 1 _____                   | _____  | 63 _____                    | _____  | _____                       | _____  | 63 _____                    | <u>660</u> |
| P 2 _____                   | _____  | 66 _____                    | _____  | _____                       | _____  | 66 _____                    | <u>666</u> |
| P 3 _____                   | _____  | 69 _____                    | _____  | _____                       | _____  | 69 _____                    | <u>672</u> |
| P 4 _____                   | _____  | 72 _____                    | _____  | _____                       | _____  | 72 _____                    | <u>677</u> |
| P 5 _____                   | _____  | 75 _____                    | _____  | _____                       | _____  | 75 _____                    | <u>682</u> |
| P 6 _____                   | _____  | 78 _____                    | _____  | _____                       | _____  | 78 _____                    | <u>687</u> |
| P 7 _____                   | _____  | 81 _____                    | _____  | _____                       | _____  | 81 _____                    | <u>692</u> |
| P 8 _____                   | _____  | 84 _____                    | _____  | _____                       | _____  | 84 _____                    | <u>697</u> |
| P 9 _____                   | _____  | 87 _____                    | _____  | _____                       | _____  | 87 _____                    | <u>701</u> |
| P10 _____                   | _____  | 90 _____                    | _____  | _____                       | _____  | 90 _____                    | <u>705</u> |
| P11 _____                   | _____  | 93 _____                    | _____  | _____                       | _____  | 93 _____                    | _____      |
| P12 _____                   | _____  | 96 _____                    | _____  | _____                       | _____  | 96 _____                    | _____      |
| P13 _____                   | _____  | 99 _____                    | _____  | _____                       | _____  | 99 _____                    | _____      |
| P14 _____                   | _____  | 102 _____                   | _____  | _____                       | _____  | 102 _____                   | _____      |
| P15 _____                   | _____  | 105 _____                   | _____  | _____                       | _____  | 105 _____                   | _____      |
| P16 _____                   | _____  | 108 _____                   | _____  | _____                       | _____  | 108 _____                   | _____      |
| P17 _____                   | _____  | 111 _____                   | _____  | _____                       | _____  | 111 _____                   | _____      |
| P18 _____                   | _____  | 114 _____                   | _____  | _____                       | _____  | 114 _____                   | _____      |
| P19 _____                   | _____  | 117 _____                   | _____  | _____                       | _____  | 117 _____                   | _____      |
| P20 _____                   | _____  | 120 _____                   | _____  | _____                       | _____  | 120 _____                   | _____      |

TKT # 5383

0234  
DST7

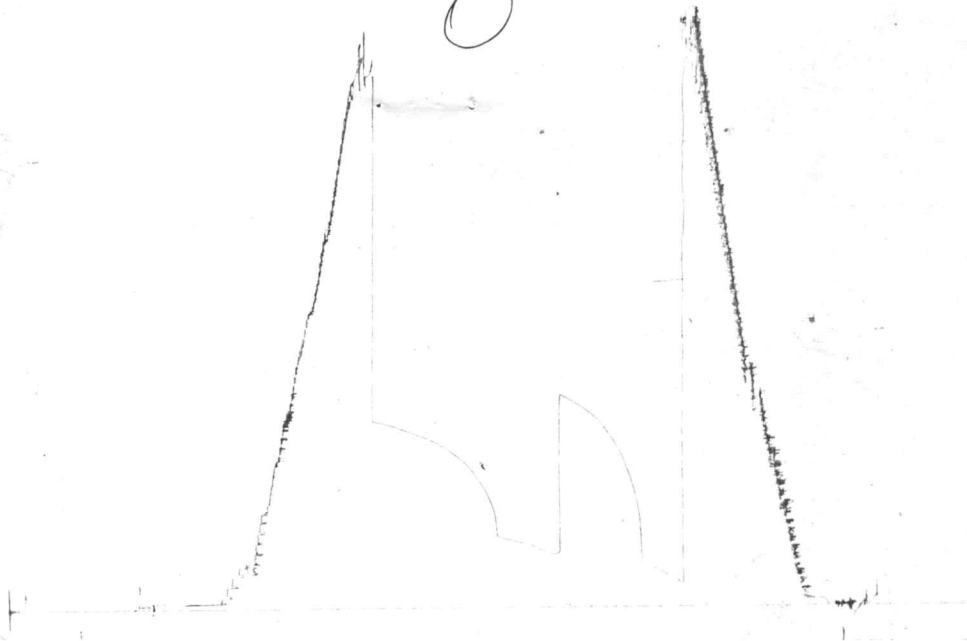
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TKT # 5383

1364  
DST 7

O



WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/9/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 7  
ELEVATION (KB): 2848  
SECTION: 24  
RANGE: 30W COUNTY: LANE  
GAUGE SN #6234 RANGE: 4500

TICKET #5383  
LEASE: DUANE  
GEOLOGIST: GALLOWAY  
FORMATION:  
TOWNSHIP: 16S  
STATE: KANSAS  
CLOCK: 12

INTERVAL TEST FROM: 4356 FT TO: 4410 FT TOTAL DEPTH: 4410 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4351 FT SIZE: 6 3/4 IN PACKER DEPTH: 4356 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG  
MUD TYPE: STARCH VISCOSITY: 45  
WEIGHT: 9.5 WATER LOSS (CC): 8.4  
CHLORIDES (P.P.M.): 6000  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1051 FT I.D.: 3.2 IN  
DRILL PIPE LENGTH: 3285 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 IN  
ANCHOR LENGTH: 54 FT SIZE: 5 1/2 IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A  
STRONG BLOW. BOTTOM OF BUCKET IN 5 MINUTES.  
FINAL FLOW PERIOD WEAK BLOW BUILDING TO A  
STRONG BLOW. BOTTOM OF BUCKET IN 16 MINUTES.

RECOVERED: 1700 FT OF: GAS ABOVE FLUID.  
RECOVERED: 372 FT OF: CLEAN GASSY OIL (15% GAS; 85% OIL) 33 GRAVITY.  
RECOVERED: 248 FT OF: GASSY OIL CUT MUD (20% GAS; 10% MUD; 70% OIL).  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 7:00 PM

TIME STARTED OFF BOTTOM: 10:45 PM

WELL TEMPERATURE: 124 °F

|                               |         |          |                |     |
|-------------------------------|---------|----------|----------------|-----|
| INITIAL HYDROSTATIC PRESSURE: |         | (A) 2242 | PSI            |     |
| INITIAL FLOW PERIOD           | MIN: 30 | (B) 83   | PSI TO (C) 143 | PSI |
| INITIAL CLOSED IN PERIOD      | MIN: 60 | (D) 804  | PSI            |     |
| FINAL FLOW PERIOD             | MIN: 45 | (E) 191  | PSI TO (F) 243 | PSI |
| FINAL CLOSED IN PERIOD        | MIN: 90 | (G) 705  | PSI            |     |
| FINAL HYDROSTATIC PRESSURE    |         | (H) 2130 | PSI            |     |

WESTERN TESTING CO. INC.  
PRESSURE DATA

DATE: 9/9/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 7  
ELEVATION (KB): 2848  
SECTION: 24  
RANGE: 30W COUNTY: LANE  
GAUGE SN #6234 RANGE: 4500

TICKET #5383  
LEASE: DUANE  
GEOLOGIST: GALLOWAY  
FORMATION:  
TOWNSHIP: 16S  
STATE: KANSAS  
CLOCK: 12

(A) INITIAL HYDROSTATIC PRESSURE: 2242 PSI  
(B) FIRST INITIAL FLOW PRESSURE: 83 PSI  
(C) FIRST FINAL FLOW PRESSURE: 143 PSI  
(D) INITIAL CLOSED-IN PRESSURE: 804 PSI  
(E) SECOND INITIAL FLOW PRESSURE: 191 PSI  
(F) SECOND FINAL FLOW PRESSURE: 243 PSI  
(G) FINAL CLOSED-IN PRESSURE: 705 PSI  
(H) FINAL HYDROSTATIC PRESSURE: 2130 PSI  
WELL TEMPERATURE: 124 °F  
OPEN TOOL: 7:00 PM

|                             | TIME - GIVEN | TIME - ACTUAL |
|-----------------------------|--------------|---------------|
| FIRST FLOW PRESSURE:        | 30 MIN       | 30 MIN        |
| INITIAL CLOSED-IN PRESSURE: | 60 MIN       | 60 MIN        |
| SECOND FLOW PRESSURE:       | 45 MIN       | 45 MIN        |
| FINAL CLOSED-IN PRESSURE:   | 90 MIN       | 90 MIN        |

| PRESSURE BREAKDOWN |            |          |                 |          |             |          |               |          |
|--------------------|------------|----------|-----------------|----------|-------------|----------|---------------|----------|
| PT                 | FIRST FLOW |          | INITIAL SHUT-IN |          | SECOND FLOW |          | FINAL SHUT-IN |          |
|                    | MIN        | PRESSURE | MIN             | PRESSURE | MIN         | PRESSURE | MIN           | PRESSURE |
| 1                  | 0          | 83       | 0               | 143      | 0           | 191      | 0             | 243      |
| 2                  | 5          | 91       | 3               | 280      | 5           | 191      | 3             | 324      |
| 3                  | 10         | 100      | 6               | 386      | 10          | 195      | 6             | 383      |
| 4                  | 15         | 111      | 9               | 446      | 15          | 202      | 9             | 415      |
| 5                  | 20         | 123      | 12              | 495      | 20          | 209      | 12            | 438      |
| 6                  | 25         | 136      | 15              | 537      | 25          | 216      | 15            | 466      |
| 7                  | 30         | 143      | 18              | 569      | 30          | 221      | 18            | 490      |
| 8                  |            |          | 21              | 600      | 35          | 231      | 21            | 510      |
| 9                  |            |          | 24              | 627      | 40          | 237      | 24            | 530      |
| 10                 |            |          | 27              | 649      | 45          | 243      | 27            | 544      |
| 11                 |            |          | 30              | 671      |             |          | 30            | 558      |
| 12                 |            |          | 33              | 693      |             |          | 33            | 572      |
| 13                 |            |          | 36              | 709      |             |          | 36            | 586      |
| 14                 |            |          | 39              | 725      |             |          | 39            | 596      |
| 15                 |            |          | 42              | 741      |             |          | 42            | 606      |
| 16                 |            |          | 45              | 754      |             |          | 45            | 616      |
| 17                 |            |          | 48              | 766      |             |          | 48            | 625      |
| 18                 |            |          | 51              | 776      |             |          | 51            | 633      |
| 19                 |            |          | 54              | 786      |             |          | 54            | 641      |
| 20                 |            |          | 57              | 795      |             |          | 57            | 648      |
| 21                 |            |          | 60              | 804      |             |          | 60            | 654      |
| 22                 |            |          |                 |          |             |          | 63            | 660      |
| 23                 |            |          |                 |          |             |          | 66            | 666      |
| 24                 |            |          |                 |          |             |          | 69            | 672      |
| 25                 |            |          |                 |          |             |          | 72            | 677      |
| 26                 |            |          |                 |          |             |          | 75            | 682      |
| 27                 |            |          |                 |          |             |          | 78            | 687      |
| 28                 |            |          |                 |          |             |          | 81            | 692      |
| 29                 |            |          |                 |          |             |          | 84            | 697      |
| 30                 |            |          |                 |          |             |          | 87            | 701      |





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET

Nº **5384**

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation **2848 K.B.** Formation **Lower Pawnee** Eff. Pay \_\_\_\_\_ Ft.

District **Wakeeney** Date **9-10-84** Customer Order No. \_\_\_\_\_  
COMPANY NAME **Gear Petroleum Co. INC.**  
ADDRESS **300 Sutton Place Wichita Ks. 67202**  
LEASE AND WELL NO. **Duane 4-24** COUNTY **Lane** STATE **Ks** Sec **24** Twp **16** Rge **30W**  
Mail Invoice To **Same #4-24 DUANE** No. Copies Requested **5**  
Co. Name \_\_\_\_\_ Address \_\_\_\_\_  
Mail Charts To **Same** No. Copies Requested **5**  
Address \_\_\_\_\_

Formation Test No. **8** Interval Tested From **4408** ft. to **4438** ft. Total Depth **4438** ft.  
Packer Depth **4403** ft. Size **6 3/4** in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Packer Depth **4408** ft. Size **6 3/4** in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) **4419** ft. Recorder Number **6234** Cap. **4500**  
Bottom Recorder Depth (Outside) **4435** ft. Recorder Number **1564** Cap. **3150**  
Below Saddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

Drilling Contractor **Red Tiger #10** Drill Collar Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.  
Mud Type **Starch** Viscosity **5.8** Weight Pipe Length **1081** I. D. **3.2** in.  
Weight **9.6** Water Loss **5.8** cc. Drill Pipe Length **3307** I. D. **3.6** in.  
Chlorides **2500** P.P.M. Test Tool Length **20** ft. Tool Size **5 1/2** in.  
Jars: Make \_\_\_\_\_ Serial Number \_\_\_\_\_ Anchor Length **30** ft. Size **5 1/2** in.  
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ Surface Choke Size **3/4** in. Bottom Choke Size **3/4** in.  
Main Hole Size **7 7/8** in. Tool Joint Size **4 1/2 X 4** in.

Blow: **I.F.P. Strong Bottom of Bucket less than 1 min.**  
**F.I.P. Weak Building to Strong 10" IN Bucket**

Recovered **960** ft. of **Clean gassy oil**

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Chlorides \_\_\_\_\_ P.P.M. Sample Jars used \_\_\_\_\_ Remarks: **2826' Gas IN pipe**

| Time On Location                                                                           | Time Pick Up Tool                               | Time Off Location               |
|--------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------|
| <b>9:00</b> <b>A.M.</b>                                                                    | <b>9:45</b> <b>A.M.</b>                         | <b>5:00</b> <b>A.M.</b>         |
| Time Set Packer (S) <b>11:30</b> <b>A.M.</b>                                               | Time Started Off Bottom <b>2:15</b> <b>A.M.</b> | Maximum Temperature <b>121°</b> |
| Initial Hydrostatic Pressure _____ (A) <b>2986</b> P.S.I.                                  |                                                 |                                 |
| Initial Flow Period _____ Minutes <b>38</b> (B) <b>273</b> P.S.I. to (C) <b>342</b> P.S.I. |                                                 |                                 |
| Initial Closed In Period _____ Minutes <b>45</b> (D) <b>410</b> P.S.I.                     |                                                 |                                 |
| Final Flow Period _____ Minutes <b>30</b> (E) <b>376</b> P.S.I. to (F) <b>399</b> P.S.I.   |                                                 |                                 |
| Final Closed In Period _____ Minutes <b>60</b> (G) <b>410</b> P.S.I.                       |                                                 |                                 |
| Final Hydrostatic Pressure _____ (H) <b>2152</b> P.S.I.                                    |                                                 |                                 |

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By **Casey Gally**  
Signature of Customer or his authorized representative

Western Representative **Kent K. K. K.**  
**1135**

FIELD INVOICE

|                |                  |
|----------------|------------------|
| Open Hole Test | \$ <b>595.00</b> |
| Misrun         | \$ _____         |
| Straddle Test  | \$ _____         |
| Jars           | \$ _____         |
| Selective Zone | \$ _____         |
| Safety Joint   | \$ _____         |
| Standby        | \$ _____         |
| Evaluation     | \$ _____         |
| Extra Packer   | \$ <b>per BH</b> |
| Circ. Sub.     | \$ _____         |
| Mileage        | \$ _____         |
| Fluid Sampler  | \$ _____         |
| Extra Charts   | \$ _____         |
| Insurance      | \$ _____         |
| Telecopier     | \$ _____         |
| TOTAL          | \$ <b>595.00</b> |

# WESTERN TESTING CO., INC.

## Pressure Data

Date 9-10-84

Test Ticket No. 5384

Recorder No. 6234 Capacity \_\_\_\_\_ Location \_\_\_\_\_ F

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °

| Point                          | Pressure    |        | Time Given      | Time Computed  |
|--------------------------------|-------------|--------|-----------------|----------------|
| A Initial Hydrostatic Mud      | <u>2213</u> | P.S.I. |                 |                |
| B First Initial Flow Pressure  | <u>267</u>  | P.S.I. | <u>30</u> Mins. | <u>30</u> Min. |
| C First Final Flow Pressure    | <u>336</u>  | P.S.I. | <u>45</u> Mins. | <u>45</u> Min. |
| D Initial Closed-in Pressure   | <u>400</u>  | P.S.I. | <u>30</u> Mins. | <u>30</u> Min. |
| E Second Initial Flow Pressure | <u>374</u>  | P.S.I. | <u>60</u> Mins. | <u>60</u> Min. |
| F Second Final Flow Pressure   | <u>381</u>  | P.S.I. |                 |                |
| G Final Closed-in Pressure     | <u>414</u>  | P.S.I. |                 |                |
| H Final Hydrostatic Mud        | <u>2195</u> | P.S.I. |                 |                |

## PRESSURE BREAKDOWN

| First Flow Pressure Breakdown: <u>7</u> Inc. |            | Initial Shut-In Breakdown: <u>16</u> Inc. |            | Second Flow Pressure Breakdown: <u>7</u> Inc. |            | Final Shut-In Breakdown: <u>21</u> Inc. |            |
|----------------------------------------------|------------|-------------------------------------------|------------|-----------------------------------------------|------------|-----------------------------------------|------------|
| of <u>5</u> mins. and a                      |            | of <u>3</u> mins. and a                   |            | of <u>5</u> mins. and a                       |            | of <u>3</u> mins. and a                 |            |
| final inc. of <u>0</u> Min.                  |            | final inc. of <u>0</u> Min.               |            | final inc. of <u>0</u> Min.                   |            | final inc. of <u>0</u> Min.             |            |
| Point Mins.                                  | Press.     | Point Minutes                             | Press.     | Point Minutes                                 | Press.     | Point Minutes                           | Press.     |
| P 1 <u>0</u>                                 | <u>267</u> | <u>0</u>                                  | <u>336</u> | <u>0</u>                                      | <u>374</u> | <u>0</u>                                | <u>381</u> |
| P 2 <u>5</u>                                 | <u>267</u> | <u>3</u>                                  | <u>346</u> | <u>5</u>                                      | <u>374</u> | <u>3</u>                                | <u>384</u> |
| P 3 <u>10</u>                                | <u>279</u> | <u>6</u>                                  | <u>356</u> | <u>10</u>                                     | <u>374</u> | <u>6</u>                                | <u>387</u> |
| P 4 <u>15</u>                                | <u>298</u> | <u>9</u>                                  | <u>363</u> | <u>15</u>                                     | <u>374</u> | <u>9</u>                                | <u>390</u> |
| P 5 <u>20</u>                                | <u>314</u> | <u>12</u>                                 | <u>370</u> | <u>20</u>                                     | <u>375</u> | <u>12</u>                               | <u>392</u> |
| P 6 <u>25</u>                                | <u>326</u> | <u>15</u>                                 | <u>374</u> | <u>25</u>                                     | <u>378</u> | <u>15</u>                               | <u>394</u> |
| P 7 <u>30</u>                                | <u>336</u> | <u>18</u>                                 | <u>377</u> | <u>30</u>                                     | <u>381</u> | <u>18</u>                               | <u>396</u> |
| P 8 <u>35</u>                                |            | <u>21</u>                                 | <u>380</u> | <u>35</u>                                     |            | <u>21</u>                               | <u>398</u> |
| P 9 <u>40</u>                                |            | <u>24</u>                                 | <u>383</u> | <u>40</u>                                     |            | <u>24</u>                               | <u>400</u> |
| P 10 <u>45</u>                               |            | <u>27</u>                                 | <u>386</u> | <u>45</u>                                     |            | <u>27</u>                               | <u>402</u> |
| P 11 <u>50</u>                               |            | <u>30</u>                                 | <u>389</u> | <u>50</u>                                     |            | <u>30</u>                               | <u>404</u> |
| P 12 <u>55</u>                               |            | <u>33</u>                                 | <u>392</u> | <u>55</u>                                     |            | <u>33</u>                               | <u>406</u> |
| P 13 <u>60</u>                               |            | <u>36</u>                                 | <u>394</u> | <u>60</u>                                     |            | <u>36</u>                               | <u>408</u> |
| P 14                                         |            | <u>39</u>                                 | <u>396</u> | <u>65</u>                                     |            | <u>39</u>                               | <u>410</u> |
| P 15                                         |            | <u>42</u>                                 | <u>398</u> | <u>70</u>                                     |            | <u>42</u>                               | <u>412</u> |
| P 16                                         |            | <u>45</u>                                 | <u>400</u> | <u>75</u>                                     |            | <u>45</u>                               | <u>413</u> |
| P 17                                         |            | <u>48</u>                                 |            | <u>80</u>                                     |            | <u>48</u>                               | <u>413</u> |
| P 18                                         |            | <u>51</u>                                 |            | <u>85</u>                                     |            | <u>51</u>                               | <u>413</u> |
| P 19                                         |            | <u>54</u>                                 |            | <u>90</u>                                     |            | <u>54</u>                               | <u>414</u> |
| P 20                                         |            | <u>57</u>                                 |            |                                               |            | <u>57</u>                               | <u>414</u> |
|                                              |            | <u>60</u>                                 |            |                                               |            | <u>60</u>                               | <u>414</u> |

TKT # 5384

6234  
DST8

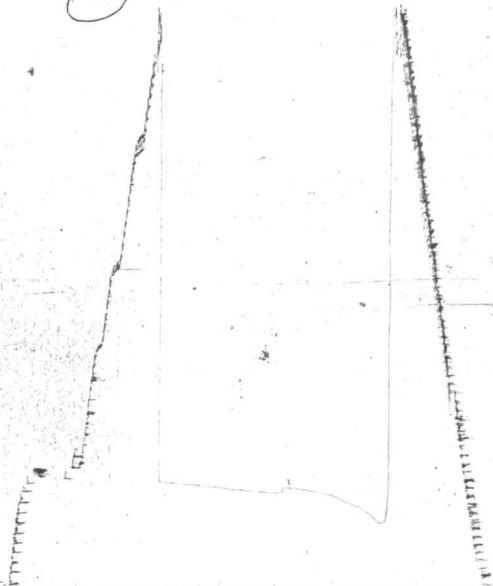
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TKT # 5384

1564  
DST 8

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WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/10/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 4-24 TEST: 8  
ELEVATION (KB): 2848 FORMATION: LOWER PAWNEE  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 4408 FT TO: 4438 FT TOTAL DEPTH: 4438 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4403 FT SIZE: 6 3/4 IN Packer DEPTH: 4408 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG  
MUD TYPE: STARCH VISCOSITY: 58  
WEIGHT: 9.6 WATER LOSS (CC): 5.8  
CHLORIDES (P.P.M.): 2500  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1081 FT I.D.: 3.2 IN  
DRILL PIPE LENGTH: 3307 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 IN  
ANCHOR LENGTH: 30 FT SIZE: 5 1/2 IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: INITIAL FLOW PERIOD STRONG BLOW. BOTTOM  
OF BUCKET IN LESS THAN 1 MINUTE.  
FINAL FLOW PERIOD WEAK BLOW BUILDING TO A  
STRONG BLOW. 10" IN BUCKET.

RECOVERED: 960 FT OF: CLEAN GASSY OIL.  
RECOVERED: 2826 FT OF: GAS ABOVE FLUID.  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 11:30 AM TIME STARTED OFF BOTTOM: 2:15 PM  
WELL TEMPERATURE: 121 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2213 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 267 PSI TO (C) 336 PSI  
INITIAL CLOSED IN PERIOD MIN: 45 (D) 400 PSI  
FINAL FLOW PERIOD MIN: 30 (E) 374 PSI TO (F) 381 PSI  
FINAL CLOSED IN PERIOD MIN: 60 (G) 414 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2195 PSI





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N° 5385

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 2848 K.B. Formation Eff. Pay Ft.

District 14 Wakeeney Date 9-11-84 Customer Order No.

COMPANY NAME Gear Petroleum Co. INC.

ADDRESS 300 Sutton Place Wichita Ks. 67202

LEASE AND WELL NO. Duane 4-24 COUNTY Lane STATE KS. Sec. 24 Twp. 16S Rge. 30W

Mail Invoice To #4-24 Duane same Co. Name Address No. Copies Requested 5

Mail Charts To same Address No. Copies Requested 5

Formation Test No. 9 Interval Tested From 4450 ft. to 4502 ft. Total Depth 4502 ft.

Packer Depth 4445 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4450 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4459 ft.

Recorder Number 6234 Cap. 4500

Bottom Recorder Depth (Outside) 4494 ft.

Recorder Number 1564 Cap. 3150

Below Saddle Recorder Depth ft.

Recorder Number Cap.

Drilling Contractor Red Tiger #10

Drill Collar Length I. D. in.

Mud Type starch Viscosity 46

Weight Pipe Length 1050 I. D. 3.2 in.

Weight 9.6 Water Loss 3.8 cc.

Drill Pipe Length 3380 I. D. 3.6 in.

Chlorides 6.000 P.P.M.

Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number

Anchor Length 52 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out

Surface Choke Size 3/4 in. Bottom Choke Size 1/2 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x 1 1/2 in.

Blow: I.F.P. Weak Building to 2" IN Bucket

F.F.P. Weak Building to 3" IN Bucket

Recovered 20 ft. of oil cut mud gassy 10% gas 40% oil 50% mud

Recovered ft. of

Recovered ft. of 60' of gas in pipe

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 5:00 A.M. Time Pick Up Tool 6:00 A.M. Time Off Location 1:00 A.M.

Time Set Packer(s) 8:00 A.M. Time Started Off Bottom 11:15 A.M. Maximum Temperature 1210

Initial Hydrostatic Pressure (A) 2320 P.S.I.

Initial Flow Period Minutes 30 (B) 22 P.S.I. to (C) 22 P.S.I.

Initial Closed In Period Minutes 60 (D) 205 P.S.I.

Final Flow Period Minutes 45 (E) 22 P.S.I. to (F) 22 P.S.I.

Final Closed In Period Minutes 60 (G) 194 P.S.I.

Final Hydrostatic Pressure (H) 2287 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Casey F. Galt Signature of Customer or his authorized representative

Western Representative. Rene Keyle 1135

FIELD INVOICE

Open Hole Test \$ 2595.00  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$ 595.00

# WESTERN TESTING CO., INC.

## Pressure Data

Date 9-11-84

Test Ticket No. 5385

Recorder No. 6234 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

| Point                          | Pressure           | Time Given      | Time Computed   |
|--------------------------------|--------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2302</u> P.S.I. |                 |                 |
| B First Initial Flow Pressure  | <u>11</u> P.S.I.   | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>11</u> P.S.I.   | <u>60</u> Mins. | <u>60</u> Mins. |
| D Initial Closed-in Pressure   | <u>191</u> P.S.I.  | <u>45</u> Mins. | <u>45</u> Mins. |
| E Second Initial Flow Pressure | <u>15</u> P.S.I.   | <u>60</u> Mins. | <u>60</u> Mins. |
| F Second Final Flow Pressure   | <u>15</u> P.S.I.   |                 |                 |
| G Final Closed-in Pressure     | <u>190</u> P.S.I.  |                 |                 |
| H Final Hydrostatic Mud        | <u>2257</u> P.S.I. |                 |                 |

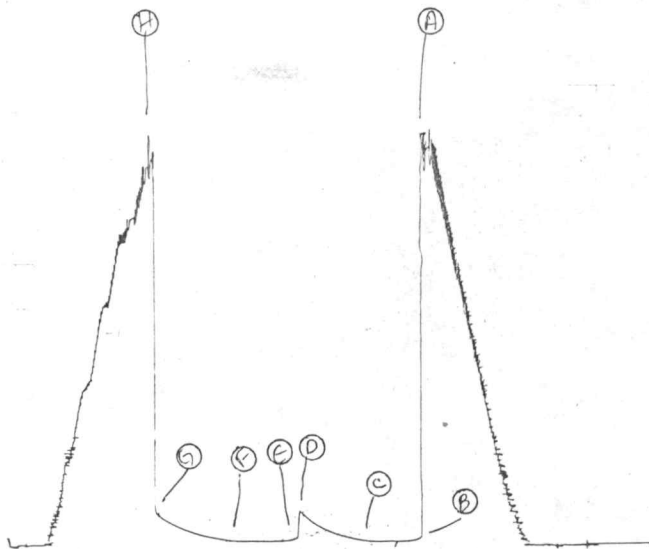
## PRESSURE BREAKDOWN

| First Flow Pressure         |           | Initial Shut-In             |            | Second Flow Pressure        |           | Final Shut-In               |            |
|-----------------------------|-----------|-----------------------------|------------|-----------------------------|-----------|-----------------------------|------------|
| Breakdown: <u>7</u> Inc.    |           | Breakdown: <u>21</u> Inc.   |            | Breakdown: <u>10</u> Inc.   |           | Breakdown: <u>21</u> Inc.   |            |
| of <u>5</u> mins. and a     |           | of <u>3</u> mins. and a     |            | of <u>5</u> mins. and a     |           | of <u>3</u> mins. and a     |            |
| final inc. of <u>0</u> Min. |           | final inc. of <u>0</u> Min. |            | final inc. of <u>0</u> Min. |           | final inc. of <u>0</u> Min. |            |
| Point<br>Mins.              | Press.    | Point<br>Minutes            | Press.     | Point<br>Minutes            | Press.    | Point<br>Minutes            | Press.     |
| P 1 0                       | <u>11</u> | 0                           | <u>11</u>  | 0                           | <u>15</u> | 0                           | <u>15</u>  |
| P 2 5                       |           | 3                           | <u>12</u>  | 5                           |           | 3                           | <u>16</u>  |
| P 3 10                      |           | 6                           | <u>14</u>  | 10                          |           | 6                           | <u>18</u>  |
| P 4 15                      |           | 9                           | <u>16</u>  | 15                          |           | 9                           | <u>22</u>  |
| P 5 20                      |           | 12                          | <u>19</u>  | 20                          |           | 12                          | <u>28</u>  |
| P 6 25                      |           | 15                          | <u>23</u>  | 25                          |           | 15                          | <u>33</u>  |
| P 7 30                      | <u>11</u> | 18                          | <u>28</u>  | 30                          |           | 18                          | <u>38</u>  |
| P 8 35                      |           | 21                          | <u>33</u>  | 35                          |           | 21                          | <u>43</u>  |
| P 9 40                      |           | 24                          | <u>39</u>  | 40                          |           | 24                          | <u>48</u>  |
| P 10 45                     |           | 27                          | <u>45</u>  | 45                          | <u>15</u> | 27                          | <u>54</u>  |
| P 11 50                     |           | 30                          | <u>52</u>  | 50                          |           | 30                          | <u>61</u>  |
| P 12 55                     |           | 33                          | <u>59</u>  | 55                          |           | 33                          | <u>69</u>  |
| P 13 60                     |           | 36                          | <u>67</u>  | 60                          |           | 36                          | <u>77</u>  |
| P 14                        |           | 39                          | <u>77</u>  | 65                          |           | 39                          | <u>85</u>  |
| P 15                        |           | 42                          | <u>88</u>  | 70                          |           | 42                          | <u>94</u>  |
| P 16                        |           | 45                          | <u>100</u> | 75                          |           | 45                          | <u>104</u> |
| P 17                        |           | 48                          | <u>116</u> | 80                          |           | 48                          | <u>116</u> |
| P 18                        |           | 51                          | <u>134</u> | 85                          |           | 51                          | <u>132</u> |
| P 19                        |           | 54                          | <u>155</u> | 90                          |           | 54                          | <u>151</u> |
| P 20                        |           | 57                          | <u>176</u> |                             |           | 57                          | <u>170</u> |
|                             |           | 60                          | <u>191</u> |                             |           | 60                          | <u>190</u> |

ICE# 5385

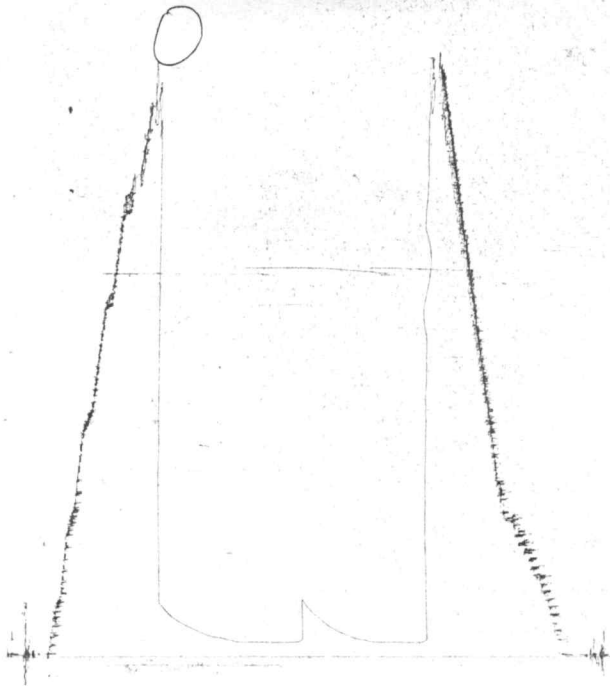
6234  
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100# 5385

1564  
05+9.



WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/11/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: #4-24 TEST: 9  
ELEVATION (KB): 2848 FORMATION:  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 4450 FT TO: 4502 FT TOTAL DEPTH: 4502 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4445 FT SIZE: 6 3/4 IN PACKER DEPTH: 4450 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 46  
WEIGHT: 9.6 WATER LOSS (CC): 3.8  
CHLORIDES (P.P.M.): 6000  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1050 FT I.D.: 3.2 IN  
DRILL PIPE LENGTH: 3380 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN  
ANCHOR LENGTH: 52 FT SIZE: 5 1/2 O.D. IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW BUILDING  
TO 2" IN BUCKET. FINAL FLOW PERIOD  
WEAK BLOW BUILDING TO 3" IN BUCKET.

RECOVERED: 20 FT OF: 01 CUT MUD GASSY.  
RECOVERED: FT OF: 10% GAS: 40% OIL: 50% MUD.  
RECOVERED: 60 FT OF: GAS ABOVE FLUID.  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 8:00 A.M. TIME STARTED OFF BOTTOM: 11:15 A.M.  
WELL TEMPERATURE: 121 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2302 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 11 PSI TO (C) 11 PSI  
INITIAL CLOSED IN PERIOD MIN: 60 (D) 191 PSI  
FINAL FLOW PERIOD MIN: 45 (E) 15 PSI TO (F) 15 PSI  
FINAL CLOSED IN PERIOD MIN: 60 (G) 190 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2257 PSI

WESTERN TESTING COMPANY INC.  
PRESSURE DATA

DATE: 9/11/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: #4-24 TEST: 9  
ELEVATION (KB): 2848 FORMATION:  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

(A) INITIAL HYDROSTATIC PRESSURE: 2302 PSI  
(B) FIRST INITIAL FLOW PRESSURE: 11 PSI  
(C) FIRST FINAL FLOW PRESSURE: 11 PSI  
(D) INITIAL CLOSED-IN PRESSURE: 191 PSI  
(E) SECOND INITIAL FLOW PRESSURE: 15 PSI  
(F) SECOND FINAL FLOW PRESSURE: 15 PSI  
(G) FINAL CLOSED-IN PRESSURE: 190 PSI  
(H) FINAL HYDROSTATIC PRESSURE: 2257 PSI  
WELL TEMPERATURE: 121 °F  
OPEN TOOL: 8:00 A.M.

|                             | TIME - GIVEN | TIME - ACTUAL |
|-----------------------------|--------------|---------------|
| FIRST FLOW PRESSURE:        | 30 MIN       | 30 MIN        |
| INITIAL CLOSED-IN PRESSURE: | 60 MIN       | 60 MIN        |
| SECOND FLOW PRESSURE:       | 45 MIN       | 45 MIN        |
| FINAL CLOSED-IN PRESSURE:   | 60 MIN       | 60 MIN        |

| PRESSURE BREAKDOWN |            |          |                 |          |             |          |               |          |
|--------------------|------------|----------|-----------------|----------|-------------|----------|---------------|----------|
| PT                 | FIRST FLOW |          | INITIAL SHUT-IN |          | SECOND FLOW |          | FINAL SHUT-IN |          |
|                    | MIN        | PRESSURE | MIN             | PRESSURE | MIN         | PRESSURE | MIN           | PRESSURE |
| 1                  | 0          | 11       | 0               | 11       | 0           | 15       | 0             | 15       |
| 2                  | 5          | 11       | 3               | 12       | 5           | 15       | 3             | 16       |
| 3                  | 10         | 11       | 6               | 14       | 10          | 15       | 6             | 18       |
| 4                  | 15         | 11       | 9               | 16       | 15          | 15       | 9             | 23       |
| 5                  | 20         | 11       | 12              | 19       | 20          | 15       | 12            | 28       |
| 6                  | 25         | 11       | 15              | 23       | 25          | 15       | 15            | 33       |
| 7                  | 30         | 11       | 18              | 28       | 30          | 15       | 18            | 38       |
| 8                  |            |          | 21              | 33       | 35          | 15       | 21            | 43       |
| 9                  |            |          | 24              | 39       | 40          | 15       | 24            | 48       |
| 10                 |            |          | 27              | 45       | 45          | 15       | 27            | 54       |
| 11                 |            |          | 30              | 52       |             |          | 30            | 61       |
| 12                 |            |          | 33              | 59       |             |          | 33            | 69       |
| 13                 |            |          | 36              | 67       |             |          | 36            | 77       |
| 14                 |            |          | 39              | 77       |             |          | 39            | 85       |
| 15                 |            |          | 42              | 88       |             |          | 42            | 94       |
| 16                 |            |          | 45              | 100      |             |          | 45            | 104      |
| 17                 |            |          | 48              | 116      |             |          | 48            | 116      |
| 18                 |            |          | 51              | 134      |             |          | 51            | 132      |
| 19                 |            |          | 54              | 155      |             |          | 54            | 151      |
| 20                 |            |          | 57              | 176      |             |          | 57            | 170      |
| 21                 |            |          | 60              | 191      |             |          | 60            | 190      |
| 22                 |            |          |                 |          |             |          |               |          |
| 23                 |            |          |                 |          |             |          |               |          |
| 24                 |            |          |                 |          |             |          |               |          |
| 25                 |            |          |                 |          |             |          |               |          |
| 26                 |            |          |                 |          |             |          |               |          |
| 27                 |            |          |                 |          |             |          |               |          |
| 28                 |            |          |                 |          |             |          |               |          |
| 29                 |            |          |                 |          |             |          |               |          |
| 30                 |            |          |                 |          |             |          |               |          |



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5386

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2848 K.B. Formation Eff. Pay Ft.

District 14 Wakeeney Date 9-11-84 Customer Order No.

COMPANY NAME Gear Petroleum Co. INC.

ADDRESS 300 Sutton Place Wichita Ks. 67202

LEASE AND WELL NO. Duane 4-24 COUNTY Lane STATE Ks. Sec. 24 Twp. 16S Rge. 30W

Mail Invoice To #4-24 Duane same No. Copies Requested 5

Co. Name Address No. Copies Requested 5

Mail Charts To same Address No. Copies Requested 5

Formation Test No. 10 Interval Tested From 4490 ft. to 4530 ft. Total Depth 4530 ft.

Packer Depth 4495 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4490 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4512 ft. Recorder Number 6234 Cap. 4500

Bottom Recorder Depth (Outside) 4527 ft. Recorder Number 1564 Cap. 3150

Below Saddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Red Tiger #10 Drill Collar Length I. D. in.

Mud Type Starch Viscosity 46 Weight Pipe Length 1081 I. D. 3.2 in.

Weight 9.6 Water Loss 3.8 cc. Drill Pipe Length 3389 I. D. 3.6 in.

Chlorides 6,000 P.P.M. Test Tool Length 20 ft. Tool Size 53 in.

Jars: Make Serial Number Anchor Length 40 ft. Size 53 in.

Did Well Flow? Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: I.F.P. Weak Building to 4" IN Bucket

F.I.P. Weak Building to 4" IN Bucket

Recovered 65 ft. of gassy oil cut mud 10% gas 65% oil 25% mud

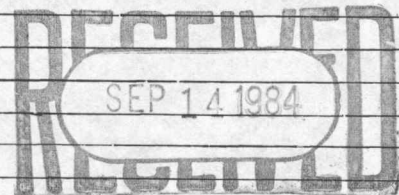
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 2 Remarks:



Time On Location 7:30 A.M. Time Pick Up Tool 8:15 A.M. Time Off Location 4:30 P.M.

Time Set Packer(s) 10:05 A.M. Time Started Off Bottom 1:50 P.M. Maximum Temperature 123°

Initial Hydrostatic Pressure (A) 2287 P.S.I.

Initial Flow Period Minutes 30 (B) 34 P.S.I. to (C) 34 P.S.I.

Initial Closed In Period Minutes 60 (D) 1031 P.S.I.

Final Flow Period Minutes 45 (E) 45 P.S.I. to (F) 45 P.S.I.

Final Closed In Period Minutes 90 (G) 1087 P.S.I.

Final Hydrostatic Pressure (H) 2253 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Casey Gally Signature of Customer or his authorized representative

Western Representative Kent Kagle 1135

Thank you

FIELD INVOICE

Open Hole Test \$ 595.00  
Mistrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$ 595.00

# WESTERN TESTING CO., INC.

## Pressure Data

Date 9-11-84 Recorder No. 6234 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Test Ticket No. 5386

| Point                          | Pressure           | Time Given      | Time Computed    |
|--------------------------------|--------------------|-----------------|------------------|
| A Initial Hydrostatic Mud      | <u>2299</u> P.S.I. |                 |                  |
| B First Initial Flow Pressure  | <u>24</u> P.S.I.   | <u>30</u> Mins. | <u>30</u> Mins.  |
| C First Final Flow Pressure    | <u>24</u> P.S.I.   | <u>60</u> Mins. | <u>60</u> Mins.  |
| D Initial Closed-in Pressure   | <u>1020</u> P.S.I. | <u>45</u> Mins. | <u>45</u> Mins.  |
| E Second Initial Flow Pressure | <u>33</u> P.S.I.   | <u>90</u> Mins. | <u>111</u> Mins. |
| F Second Final Flow Pressure   | <u>33</u> P.S.I.   |                 |                  |
| G Final Closed-in Pressure     | <u>1091</u> P.S.I. |                 |                  |
| H Final Hydrostatic Mud        | <u>2253</u> P.S.I. |                 |                  |

## PRESSURE BREAKDOWN

| First Flow Pressure         |           | Initial Shut-In             |             | Second Flow Pressure        |           | Final Shut-In               |             |
|-----------------------------|-----------|-----------------------------|-------------|-----------------------------|-----------|-----------------------------|-------------|
| Breakdown: <u>7</u> Inc.    |           | Breakdown: <u>21</u> Inc.   |             | Breakdown: <u>10</u> Inc.   |           | Breakdown: <u>38</u> Inc.   |             |
| of <u>5</u> mins. and a     |           | of <u>3</u> mins. and a     |             | of <u>5</u> mins. and a     |           | of <u>3</u> mins. and a     |             |
| final inc. of <u>0</u> Min. |           | final inc. of <u>0</u> Min. |             | final inc. of <u>0</u> Min. |           | final inc. of <u>0</u> Min. |             |
| Point Mins.                 | Press.    | Point Minutes               | Press.      | Point Minutes               | Press.    | Point Minutes               | Press.      |
| P 1 0                       | <u>24</u> | 0                           | <u>24</u>   | 0                           | <u>33</u> | 0                           | <u>33</u>   |
| P 2 5                       |           | 3                           | <u>24</u>   | 5                           |           | 3                           | <u>41</u>   |
| P 3 10                      |           | 6                           | <u>32</u>   | 10                          |           | 6                           | <u>52</u>   |
| P 4 15                      |           | 9                           | <u>45</u>   | 15                          |           | 9                           | <u>68</u>   |
| P 5 20                      |           | 12                          | <u>65</u>   | 20                          |           | 12                          | <u>90</u>   |
| P 6 25                      |           | 15                          | <u>88</u>   | 25                          |           | 15                          | <u>131</u>  |
| P 7 30                      | <u>24</u> | 18                          | <u>126</u>  | 30                          |           | 18                          | <u>200</u>  |
| P 8 35                      |           | 21                          | <u>193</u>  | 35                          |           | 21                          | <u>313</u>  |
| P 9 40                      |           | 24                          | <u>319</u>  | 40                          |           | 24                          | <u>509</u>  |
| P10 45                      |           | 27                          | <u>527</u>  | 45                          | <u>33</u> | 27                          | <u>702</u>  |
| P11 50                      |           | 30                          | <u>733</u>  | 50                          |           | 30                          | <u>840</u>  |
| P12 55                      |           | 33                          | <u>857</u>  | 55                          |           | 33                          | <u>920</u>  |
| P13 60                      |           | 36                          | <u>922</u>  | 60                          |           | 36                          | <u>993</u>  |
| P14                         |           | 39                          | <u>961</u>  | 65                          |           | 39                          | <u>1013</u> |
| P15                         |           | 42                          | <u>983</u>  | 70                          |           | 42                          | <u>1023</u> |
| P16                         |           | 45                          | <u>995</u>  | 75                          |           | 45                          | <u>1031</u> |
| P17                         |           | 48                          | <u>1006</u> | 80                          |           | 48                          | <u>1036</u> |
| P18                         |           | 51                          | <u>1014</u> | 85                          |           | 51                          | <u>1041</u> |
| P19                         |           | 54                          | <u>1017</u> | 90                          |           | 54                          | <u>1046</u> |
| P20                         |           | 57                          | <u>1019</u> |                             |           | 57                          | <u>1051</u> |
|                             |           | 60                          | <u>1020</u> |                             |           | 60                          | <u>1055</u> |

# WESTERN TESTING CO., INC.

## Pressure Data

Date \_\_\_\_\_

Test Ticket No. \_\_\_\_\_

Recorder No. \_\_\_\_\_ Capacity \_\_\_\_\_ Location \_\_\_\_\_ F

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °

| Point                                | Pressure |                            | Time Given | Time Computed |
|--------------------------------------|----------|----------------------------|------------|---------------|
| A Initial Hydrostatic Mud _____      | P.S.I.   | Open Tool                  | M          |               |
| B First Initial Flow Pressure _____  | P.S.I.   | First Flow Pressure        | Mins.      | Min.          |
| C First Final Flow Pressure _____    | P.S.I.   | Initial Closed-in Pressure | Mins.      | Min.          |
| D Initial Closed-in Pressure _____   | P.S.I.   | Second Flow Pressure       | Mins.      | Min.          |
| E Second Initial Flow Pressure _____ | P.S.I.   | Final Closed-in Pressure   | Mins.      | Min.          |
| F Second Final Flow Pressure _____   | P.S.I.   |                            |            |               |
| G Final Closed-in Pressure _____     | P.S.I.   |                            |            |               |
| H Final Hydrostatic Mud _____        | P.S.I.   |                            |            |               |

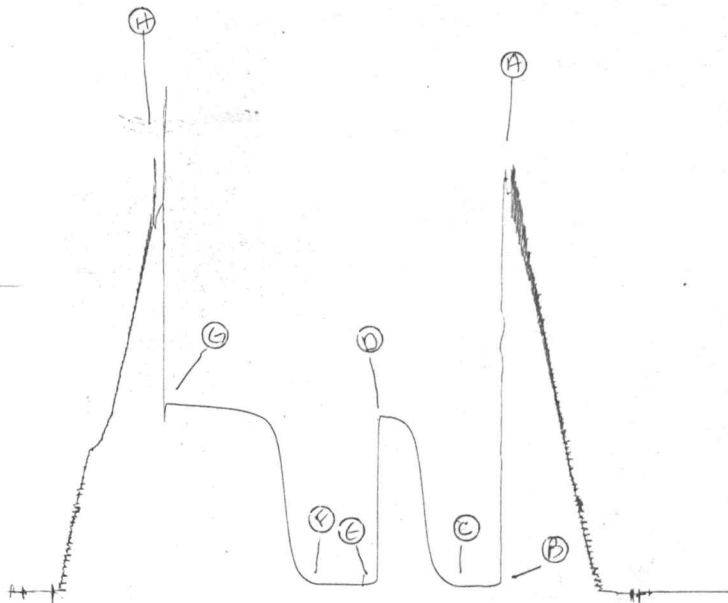
## PRESSURE BREAKDOWN

| First Flow Pressure   |        | Initial Shut-In       |        | Second Flow Pressure  |        | Final Shut-In         |        |
|-----------------------|--------|-----------------------|--------|-----------------------|--------|-----------------------|--------|
| Breakdown: _____ Inc. |        | Breakdown: _____ Inc. |        | Breakdown: _____ Inc. |        | Breakdown: _____ Inc. |        |
| of 5 mins. and a      |        | of 3 mins. and a      |        | of 5 mins. and a      |        | of 3 mins. and a      |        |
| final inc. of 0 Min.  |        | final inc. of 0 Min.  |        | final inc. of 0 Min.  |        | final inc. of 0 Min.  |        |
| Point Mins.           | Press. | Point Minutes         | Press. | Point Minutes         | Press. | Point Minutes         | Press. |
| P 1 _____             | _____  | 63 _____              | _____  | _____                 | _____  | 63 _____              | 1059   |
| P 2 _____             | _____  | 66 _____              | _____  | _____                 | _____  | 66 _____              | 1063   |
| P 3 _____             | _____  | 69 _____              | _____  | _____                 | _____  | 69 _____              | 1065   |
| P 4 _____             | _____  | 72 _____              | _____  | _____                 | _____  | 72 _____              | 1067   |
| P 5 _____             | _____  | 75 _____              | _____  | _____                 | _____  | 75 _____              | 1069   |
| P 6 _____             | _____  | 78 _____              | _____  | _____                 | _____  | 78 _____              | 1071   |
| P 7 _____             | _____  | 81 _____              | _____  | _____                 | _____  | 81 _____              | 1073   |
| P 8 _____             | _____  | 84 _____              | _____  | _____                 | _____  | 84 _____              | 1075   |
| P 9 _____             | _____  | 87 _____              | _____  | _____                 | _____  | 87 _____              | 1077   |
| P10 _____             | _____  | 90 _____              | _____  | _____                 | _____  | 90 _____              | 1079   |
| P11 _____             | _____  | 93 _____              | _____  | _____                 | _____  | 93 _____              | 1081   |
| P12 _____             | _____  | 96 _____              | _____  | _____                 | _____  | 96 _____              | 1083   |
| P13 _____             | _____  | 99 _____              | _____  | _____                 | _____  | 99 _____              | 1085   |
| P14 _____             | _____  | 102 _____             | _____  | _____                 | _____  | 102 _____             | 1087   |
| P15 _____             | _____  | 105 _____             | _____  | _____                 | _____  | 105 _____             | 1089   |
| P16 _____             | _____  | 108 _____             | _____  | _____                 | _____  | 108 _____             | 1090   |
| P17 _____             | _____  | 111 _____             | _____  | _____                 | _____  | 111 _____             | 1091   |
| P18 _____             | _____  | 114 _____             | _____  | _____                 | _____  | 114 _____             | _____  |
| P19 _____             | _____  | 117 _____             | _____  | _____                 | _____  | 117 _____             | _____  |
| P20 _____             | _____  | 120 _____             | _____  | _____                 | _____  | 120 _____             | _____  |

HC# 5386

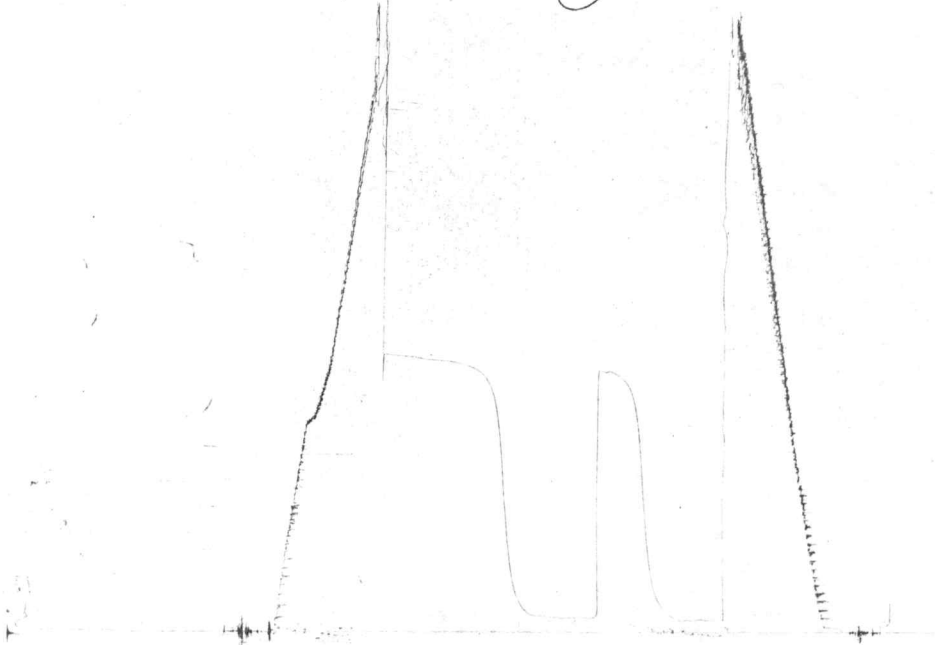
4057  
D5+10

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400<sup>th</sup> 5384

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WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/11/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: #4-24 TEST: 10  
ELEVATION (KB): 2848 FORMATION:  
SECTION: 24 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #6234 RANGE: 4500 CLOCK: 12

INTERVAL TEST FROM: 4490 FT TO: 4530 FT TOTAL DEPTH: 4530 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4485 FT SIZE: 6 3/4 IN PACKER DEPTH: 4490 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 46  
WEIGHT: 9.6 WATER LOSS (CC): 3.8  
CHLORIDES (P.P.M.): 6000  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 1081 FT I.D.: 3.2 IN  
DRILL PIPE LENGTH: 3389 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN  
ANCHOR LENGTH: 40 FT SIZE: 5 1/2 O.D. IN  
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN  
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 XH IN

BLOW: BOTH INITIAL & FINAL FLOW PERIODS  
HAD WEAK BLOWS INCREASING TO 4" IN BUCKET.

RECOVERED: 65 FT OF: GASSY OIL CUT MUD.  
RECOVERED: FT OF: 10% GAS; 65% OIL; 25% MUD.  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 10:05 P.M. TIME STARTED OFF BOTTOM: 1:50 A.M.  
WELL TEMPERATURE: 123 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2299 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 24 PSI TO (C) 24 PSI  
INITIAL CLOSED IN PERIOD MIN: 60 (D) 1020 PSI  
FINAL FLOW PERIOD MIN: 45 (E) 33 PSI TO (F) 33 PSI  
FINAL CLOSED IN PERIOD MIN: 111 (G) 1091 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2253 PSI

WESTERN TESTING COMPANY INC.  
PRESSURE DATA

TICKET #5386

LEASE: DUANE

TEST: 10

GEOLOGIST: GALLOWAY

FORMATION:

TOWNSHIP: 16S

COUNTY: LANE

STATE: KANSAS

RANGE: 4500

CLOCK: 12

PSI

PSI

PSI

PSI

PSI

PSI

PSI

PSI

4.

TIME - GIVEN    TIME - ACTUAL

30 MIN 30 MIN

60 MIN 60 MIN

45 MIN 45 MIN

90 MIN 111 MIN

## PRESSURE BREAKDOWN

[illegible]

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