



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5976

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

Elevation 2818' KB Formation LANSING "H" Eff. Pay Ft.

District 14 WAKARUSA Date SEP 21 84 Customer Order No.

COMPANY NAME GEAR PETROLEUM Co. INC.

ADDRESS 300 SUTTON PLACE, WICHITA KANSAS 67202

LEASE AND WELL NO. BENTLEY #1-23 COUNTY LANE STATE Kans. Sec. 23 Twp. 16S Rge. 30W

Mail Invoice To #1-23 BENTLEY No. Copies Requested 5

Co. Name Address

Mail Charts To No. Copies Requested

Address

Formation Test No. 3 Interval Tested From 4078 ft. to 4142 ft. Total Depth 4142 ft.

Packer Depth 4073 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4078 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4136 ft. Recorder Number 13629 Cap. 4425

Bottom Recorder Depth (Outside) 4139 ft. Recorder Number 13630 Cap. 4625

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor RED TIGER DRUG CO. RIG #10 Drill Collar Length I. D. in.

Mud Type STARCH Viscosity 41 Weight Pipe Length 750 I. D. 2.7 in.

Weight 9.8 Water Loss 6.4 cc. Drill Pipe Length 3308 I. D. 3.6 in.

Chlorides 8000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make Serial Number Anchor Length 64 ft. Size 5 1/2 OD 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: 7F: WEAK 1/4" BLOW, DECREASING - DIED IN 30 MIN.  
FF: NO BLOW

Recovered 25 ft. of DRIG MUD W/SHOW OF OIL IN TO

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

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

Time On Location 9:45 A.M. Time Pick Up Tool 10:15 A.M. Time Off Location A.M. P.M.

Time Set Packer(s) 11:43 A.M. Time Started Off Bottom 1:43 A.M. P.M. Maximum Temperature BHT: 120°

Initial Hydrostatic Pressure (A) 2136 P.S.I.

Initial Flow Period Minutes 30 (B) 56 P.S.I. to (C) 56 P.S.I.

Initial Closed In Period Minutes 30 (D) 623 P.S.I.

Final Flow Period Minutes 30 (E) 68 P.S.I. to (F) 68 P.S.I.

Final Closed In Period Minutes 30 (G) 362 P.S.I.

Final Hydrostatic Pressure (H) 2136 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: RUSSELL A. HEARTING

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 \$  
Telcopier \$  
TOTAL \$ 595.00

# WESTERN TESTING CO., INC.

## Pressure Data

Date: 9/21/84 Test Ticket No. 5976  
 Recorder No. 13630 DUE DO Capacity \_\_\_\_\_ Location \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

| Point                          | Pressure           | Open Tool                  | Time Given  | Time Computed |
|--------------------------------|--------------------|----------------------------|-------------|---------------|
| A Initial Hydrostatic Mud      | <u>2103</u> P.S.I. |                            |             | M             |
| B First Initial Flow Pressure  | <u>59</u> P.S.I.   | First Flow Pressure        | _____ Mins. | _____ Mins.   |
| C First Final Flow Pressure    | <u>60</u> P.S.I.   | Initial Closed-in Pressure | _____ Mins. | _____ Mins.   |
| D Initial Closed-in Pressure   | <u>624</u> P.S.I.  | Second Flow Pressure       | _____ Mins. | _____ Mins.   |
| E Second Initial Flow Pressure | <u>68</u> P.S.I.   | Final Closed-in Pressure   | _____ Mins. | _____ Mins.   |
| F Second Final Flow Pressure   | <u>69</u> P.S.I.   |                            |             |               |
| G Final Closed-in Pressure     | <u>371</u> P.S.I.  |                            |             |               |
| H Final Hydrostatic Mud        | <u>2047</u> P.S.I. |                            |             |               |

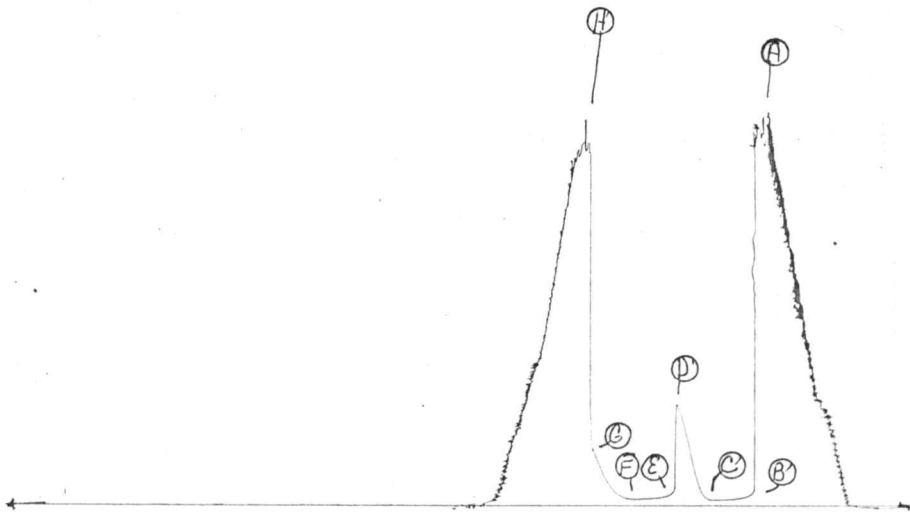
## PRESSURE BREAKDOWN

| First Flow Pressure         |            | Initial Shut-In             |            | Second Flow Pressure        |            | Final Shut-In               |            |
|-----------------------------|------------|-----------------------------|------------|-----------------------------|------------|-----------------------------|------------|
| Breakdown: <u>7</u> Inc.    |            | Breakdown: <u>13</u> Inc.   |            | Breakdown: <u>7</u> Inc.    |            | Breakdown: <u>14</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>59</u>  | 0                           | <u>600</u> | 0                           | <u>68</u>  | 0                           | <u>69</u>  |
| P 2 5                       | <u>59</u>  | 3                           | <u>61</u>  | 5                           | <u>1</u>   | 3                           | <u>69</u>  |
| P 3 10                      | <u>59</u>  | 6                           | <u>64</u>  | 10                          | <u>168</u> | 6                           | <u>72</u>  |
| P 4 15                      | <u>60</u>  | 9                           | <u>71</u>  | 15                          | <u>69</u>  | 9                           | <u>74</u>  |
| P 5 20                      | <u>60</u>  | 12                          | <u>93</u>  | 20                          | <u>69</u>  | 12                          | <u>80</u>  |
| P 6 25                      | <u>600</u> | 15                          | <u>127</u> | 25                          | <u>1</u>   | 15                          | <u>87</u>  |
| P 7 30                      | <u>60</u>  | 18                          | <u>204</u> | 30                          | <u>69</u>  | 18                          | <u>100</u> |
| P 8 35                      |            | 21                          | <u>287</u> | 35                          |            | 21                          | <u>114</u> |
| P 9 40                      |            | 24                          | <u>373</u> | 40                          |            | 24                          | <u>145</u> |
| P10 45                      |            | 27                          | <u>453</u> | 45                          |            | 27                          | <u>181</u> |
| P11 50                      |            | 30                          | <u>520</u> | 50                          |            | 30                          | <u>227</u> |
| P12 55                      |            | 33                          | <u>587</u> | 55                          |            | 33                          | <u>274</u> |
| P13 60                      |            | 36                          | <u>624</u> | 60                          |            | 36                          | <u>328</u> |
| P14                         |            | 39                          |            | 65                          |            | 39                          | <u>371</u> |
| P15                         |            | 42                          |            | 70                          |            | 42                          |            |
| P16                         |            | 45                          |            | 75                          |            | 45                          |            |
| P17                         |            | 48                          |            | 80                          |            | 48                          |            |
| P18                         |            | 51                          |            | 85                          |            | 51                          |            |
| P19                         |            | 54                          |            | 90                          |            | 54                          |            |
| P20                         |            | 57                          |            |                             |            | 57                          |            |
|                             |            | 60                          |            |                             |            | 60                          |            |

TKT #5976

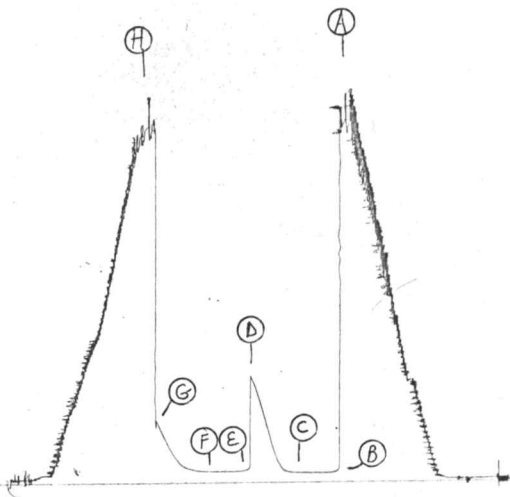
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TKT#5976

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WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/21/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 1-23 TEST: 3  
ELEVATION (KB): 2818 FORMATION: LANSING "H"  
SECTION: 23 TOWNSHIP: 16S  
RANGE: 30W COUNTY: LANE STATE: KANSAS  
GAUGE SN #13630 RANGE: 4625 CLOCK: 12

INTERVAL TEST FROM: 4078 FT TO: 4142 FT TOTAL DEPTH: 4142 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4073 FT SIZE: 6 3/4 IN PACKER DEPTH: 4078 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 41  
WEIGHT: 9.8 WATER LOSS (CC): 6.4  
CHLORIDES (P.P.M.): 8000  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 750 FT I.D.: 3.6 IN  
DRILL PIPE LENGTH: 3308 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
ANCHOR LENGTH: 64 FT SIZE: 5 1/2 OD 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 1/4 INCH BLOW DECREASING  
DIED IN 30 MINUTES. FINAL FLOW PERIOD; NO BLOW.

RECOVERED: 25 FT OF: DRILLING MUD; WITH SHOW OF OIL IN TOOL.  
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: READ OUTSIDE CHART.

TIME SET PACKER(S): 11:43 P.M. TIME STARTED OFF BOTTOM: 1:43 A.M.  
WELL TEMPERATURE: 120 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2103 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 59 PSI TO (C) 60 PSI  
INITIAL CLOSED IN PERIOD MIN: 36 (D) 624 PSI  
FINAL FLOW PERIOD MIN: 30 (E) 68 PSI TO (F) 69 PSI  
FINAL CLOSED IN PERIOD MIN: 39 (G) 371 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2067 PSI





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 5977

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

Elevation 2818' KB Formation LANISING "J" Eff. Pay Ft.

District Wakeeney Date SEPT 21 '84 Customer Order No.

COMPANY NAME GEAR PETROLEUM Co. INC.

ADDRESS 300 SUTTON PLACE WICHITA Kans. 67202

LEASE AND WELL NO. BENTLEY #1-23 COUNTY LANE STATE Kans Sec. 23 Twp. 16S Rge. 30W

Mail Invoice To #1-23 BENTLEY Co. Name Address No. Copies Requested 5

Mail Charts To Address No. Copies Requested

Formation Test No. 4 Interval Tested From 4140 ft. to 4172 ft. Total Depth 4172 ft.  
Packer Depth 4135 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
Packer Depth 4140 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set  
Top Recorder Depth (Inside) 4165 ft. Recorder Number 13629 Cap. 4425  
Bottom Recorder Depth (Outside) 4168 ft. Recorder Number 13630 Cap. 4625  
Below Saddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor RED TIGER DRILG Co. RIG 10  
Mud Type STARCH Viscosity 43 Weight 9.7 Water Loss 9.6 cc. Chlorides 7,000 P.P.M.  
Jars: Make - Serial Number -  
Did Well Flow? - Reversed Out -  
Drill Collar Length - I. D. - in.  
Weight Pipe Length 780 I. D. 2.7 in.  
Drill Pipe Length 3870 3340 I. D. 3.6 in.  
Test Tool Length 20 ft. Tool Size 5 1/2 O.D. in.  
Anchor Length 32 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 x H. in.

Blow: IF! STEADY WEAK 1/4" BLOW  
FF: NO BLOW

Recovered 60 ft. of WATERY MUD w/SLIGHT AMOUNT OIL SPECKS.  
Recovered - ft. of 1% OIL, 35% WATER, 64% MUD  
Recovered - ft. of  
Recovered - ft. of  
Recovered - ft. of

Chlorides P.P.M. Sample Jars used 1 Remarks:

RECEIVED

Time On Location 10:05 A.M. Time Pick Up Tool 10:25 A.M. Time Off Location A.M.

Time Set Packer(s) 11:50 A.M. Time Started Off Bottom 1:50 A.M. Maximum Temperature BHT: 120 P.M.

Initial Hydrostatic Pressure (A) 2136 P.S.I.  
Initial Flow Period Minutes 30 (B) 45 P.S.I. to (C) 45 P.S.I.  
Initial Closed In Period Minutes 30 (D) 1046 P.S.I.  
Final Flow Period Minutes 30 (E) 56 P.S.I. to (F) 56 P.S.I.  
Final Closed In Period Minutes 30 (G) 1011 P.S.I.  
Final Hydrostatic Pressure (H) 2136 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. GEO. CASEY GALLOWAY

Test Approved By X Signature of Customer or his authorized representative

Western Representative RUSSELL A. HEARTING

FIELD INVOICE

Open Hole Test X \$ 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 9/21/84

Test Ticket No. 5977

Recorder No. 13630 Onehill Capacity \_\_\_\_\_ Location \_\_\_\_\_

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

| Point                          | Pressure           | Open Tool                  | Time Given  | Time Computed |
|--------------------------------|--------------------|----------------------------|-------------|---------------|
| A Initial Hydrostatic Mud      | <u>2131</u> P.S.I. |                            |             | M             |
| B First Initial Flow Pressure  | <u>47</u> P.S.I.   | First Flow Pressure        | _____ Mins. | _____ Mins.   |
| C First Final Flow Pressure    | <u>54</u> P.S.I.   | Initial Closed-in Pressure | _____ Mins. | _____ Mins.   |
| D Initial Closed-in Pressure   | <u>1035</u> P.S.I. | Second Flow Pressure       | _____ Mins. | _____ Mins.   |
| E Second Initial Flow Pressure | <u>64</u> P.S.I.   | Final Closed-in Pressure   | _____ Mins. | _____ Mins.   |
| F Second Final Flow Pressure   | <u>68</u> P.S.I.   |                            |             |               |
| G Final Closed-in Pressure     | <u>1009</u> P.S.I. |                            |             |               |
| H Final Hydrostatic Mud        | <u>2115</u> P.S.I. |                            |             |               |

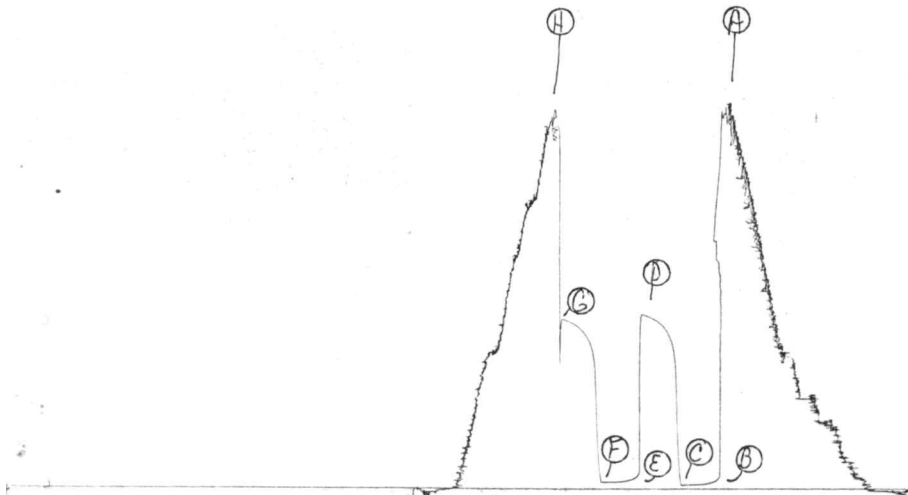
## PRESSURE BREAKDOWN

| First Flow Pressure         |           | Initial Shut-In             |             | Second Flow Pressure        |            | Final Shut-In               |             |
|-----------------------------|-----------|-----------------------------|-------------|-----------------------------|------------|-----------------------------|-------------|
| Breakdown: <u>4</u> Inc.    |           | Breakdown: <u>11</u> Inc.   |             | Breakdown: <u>8</u> Inc.    |            | Breakdown: <u>12</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>47</u> | <u>0</u>                    | <u>54</u>   | <u>0</u>                    | <u>64</u>  | <u>0</u>                    | <u>68</u>   |
| P 2 <u>5</u>                | <u>1</u>  | <u>3</u>                    | <u>790</u>  | <u>5</u>                    | <u>1</u>   | <u>3</u>                    | <u>737</u>  |
| P 3 <u>10</u>               | <u>47</u> | <u>6</u>                    | <u>887</u>  | <u>10</u>                   | <u>164</u> | <u>6</u>                    | <u>842</u>  |
| P 4 <u>15</u>               | <u>48</u> | <u>9</u>                    | <u>934</u>  | <u>15</u>                   | <u>64</u>  | <u>9</u>                    | <u>895</u>  |
| P 5 <u>20</u>               | <u>49</u> | <u>12</u>                   | <u>966</u>  | <u>20</u>                   | <u>65</u>  | <u>12</u>                   | <u>929</u>  |
| P 6 <u>25</u>               | <u>50</u> | <u>15</u>                   | <u>987</u>  | <u>25</u>                   | <u>66</u>  | <u>15</u>                   | <u>954</u>  |
| P 7 <u>30</u>               | <u>52</u> | <u>18</u>                   | <u>1005</u> | <u>30</u>                   | <u>67</u>  | <u>18</u>                   | <u>969</u>  |
| P 8 <u>35</u>               | <u>54</u> | <u>21</u>                   | <u>1014</u> | <u>35</u>                   | <u>68</u>  | <u>21</u>                   | <u>984</u>  |
| P 9 <u>40</u>               |           | <u>24</u>                   | <u>1023</u> | <u>40</u>                   |            | <u>24</u>                   | <u>992</u>  |
| P10 <u>45</u>               |           | <u>27</u>                   | <u>1029</u> | <u>45</u>                   |            | <u>27</u>                   | <u>1000</u> |
| P11 <u>50</u>               |           | <u>30</u>                   | <u>1035</u> | <u>50</u>                   |            | <u>30</u>                   | <u>1007</u> |
| P12 <u>55</u>               |           | <u>33</u>                   |             | <u>55</u>                   |            | <u>33</u>                   | <u>1009</u> |
| P13 <u>60</u>               |           | <u>36</u>                   |             | <u>60</u>                   |            | <u>36</u>                   |             |
| P14 _____                   |           | <u>39</u>                   |             | <u>65</u>                   |            | <u>39</u>                   |             |
| P15 _____                   |           | <u>42</u>                   |             | <u>70</u>                   |            | <u>42</u>                   |             |
| P16 _____                   |           | <u>45</u>                   |             | <u>75</u>                   |            | <u>45</u>                   |             |
| P17 _____                   |           | <u>48</u>                   |             | <u>80</u>                   |            | <u>48</u>                   |             |
| P18 _____                   |           | <u>51</u>                   |             | <u>85</u>                   |            | <u>51</u>                   |             |
| P19 _____                   |           | <u>54</u>                   |             | <u>90</u>                   |            | <u>54</u>                   |             |
| P20 _____                   |           | <u>57</u>                   |             |                             |            | <u>57</u>                   |             |
|                             |           | <u>60</u>                   |             |                             |            | <u>60</u>                   |             |

TKT #5977

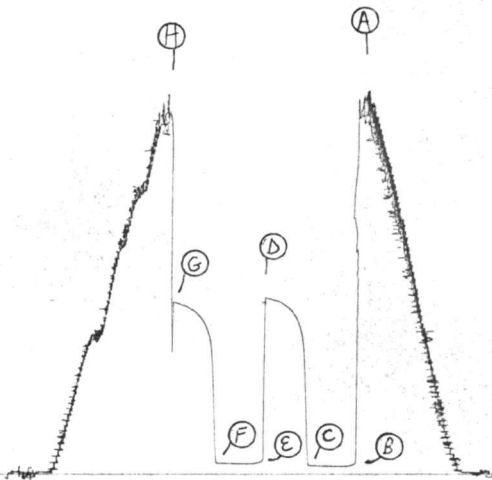
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TKT#5977

O



12/20 DKT#4

WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/21/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: 1-23  
ELEVATION (KB): 2818  
SECTION: 23  
RANGE: 30W  
GAUGE SN #13630  
TICKET #5977  
LEASE: BENTLEY  
GEOLOGIST: GALLOWAY  
FORMATION: LANSING "J"  
TOWNSHIP: 16S  
COUNTY: LANE  
STATE: KANSAS  
RANGE: 4625  
CLOCK: 12

INTERVAL TEST FROM: 4140 FT TO: 4172 FT TOTAL DEPTH: 4172 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4135 FT SIZE: 6 3/4 IN PACKER DEPTH: 4140 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH  
WEIGHT: 9.7  
CHLORIDES (P.P.M.): 7000  
JARS - MAKE:  
DID WELL FLOW?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 780 FT I.D.: 3.6 IN  
DRILL PIPE LENGTH: 3340 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN  
ANCHOR LENGTH: 32 FT SIZE: 5 1/2 OD 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 WEAK 1/4 INCH BLOW.  
FINAL FLOW PERIOD; NO BLOW.

RECOVERED: 60 FT OF: WATERY MUD; WITH SLIGHT AMOUNT OF OIL SPECKS.  
RECOVERED: FT OF: 1% OIL: 35% WATER: 64% MUD  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:  
RECOVERED: FT OF:

REMARKS: READ OUTSIDE CHART.

TIME SET PACKER(S): 11:50 A.M.  
WELL TEMPERATURE: 120 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2131 PSI  
INITIAL FLOW PERIOD MIN: 35 (B) 47 PSI TO (C) 54 PSI  
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1035 PSI  
FINAL FLOW PERIOD MIN: 35 (E) 64 PSI TO (F) 68 PSI  
FINAL CLOSED IN PERIOD MIN: 33 (G) 1009 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2115 PSI





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N° 5978

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

WICHITA, KANSAS 67201

Elevation 2818' KB Formation UPPER MARMATON Eff. Pay \_\_\_\_\_ Ft.

District 14 Wakeeney Date SEPT 22 '84 Customer Order No. \_\_\_\_\_

COMPANY NAME GEAR PETROLEUM CO. INC.

ADDRESS 300 SUTTON PLACE, WICHITA KS. 67202

LEASE AND WELL NO. BENTLEY #1-23 COUNTY LANE STATE KANS Sec. 23 Twp. 16 S Rge. 30 W

Mail Invoice To \_\_\_\_\_ No. Copies Requested 5

Co. Name #1-23 BENTLEY Address \_\_\_\_\_ No. Copies Requested \_\_\_\_\_

Mail Charts To \_\_\_\_\_ Address \_\_\_\_\_

Formation Test No. 5 Interval Tested From 4246 ft. to 4290 ft. Total Depth 4290 ft.

Packer Depth 4241 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Packer Depth 4246 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

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

Top Recorder Depth (Inside) 4250 ft. Recorder Number 13629 Cap. 4425

Bottom Recorder Depth (Outside) 4253 ft. Recorder Number 13630 Cap. 4625

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

Drilling Contractor RED TIGER DRIG CO. RIG #10 Drill Collar Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.

Mud Type STARCH Viscosity 40 Weight Pipe Length 750 I. D. 2.7 in.

Weight 9.7 Water Loss 8 cc. Drill Pipe Length 3508 3476 I. D. 3.8 in.

Chlorides 7,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 00 in.

Jars: Make \_\_\_\_\_ Serial Number \_\_\_\_\_ Anchor Length 44 ft. Size 5 1/2 00 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: IF: WEAK 1/4" BLOW BUILT TO 3/4"  
FF: NO BLOW

Recovered 70 ft. of WATERY MUD 10% MUD 90% WATER, NO SHOW

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

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

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

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

Chlorides 28,000 P.P.M. Sample Jars used 2 Remarks: RESI. 25 @ 80'

Time On Location 10:00 A.M. Time Pick Up Tool 10:30 A.M. Time Off Location \_\_\_\_\_ P.M.

Time Set Packer(s) 12:00 NOON A.M. Time Started Off Bottom 2:30 A.M. Maximum Temperature BHT: 121

Initial Hydrostatic Pressure 2280 P.S.I.

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

Initial Closed In Period 45 Minutes (D) 1080 P.S.I.

Final Flow Period 30 Minutes (E) 55 P.S.I. to (F) 55 P.S.I.

Final Closed In Period 45 Minutes (G) 1069 P.S.I.

Final Hydrostatic Pressure 2280 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 X Casey Galloway  
Signature of Customer or his authorized representative

Western Representative RUSSELL A. HEARTING. 0825

FIELD INVOICE

Open Hole Test X \$ 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 9/22/84 Test Ticket No. 5978  
 Recorder No. 13629 Capacity \_\_\_\_\_ Location \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_

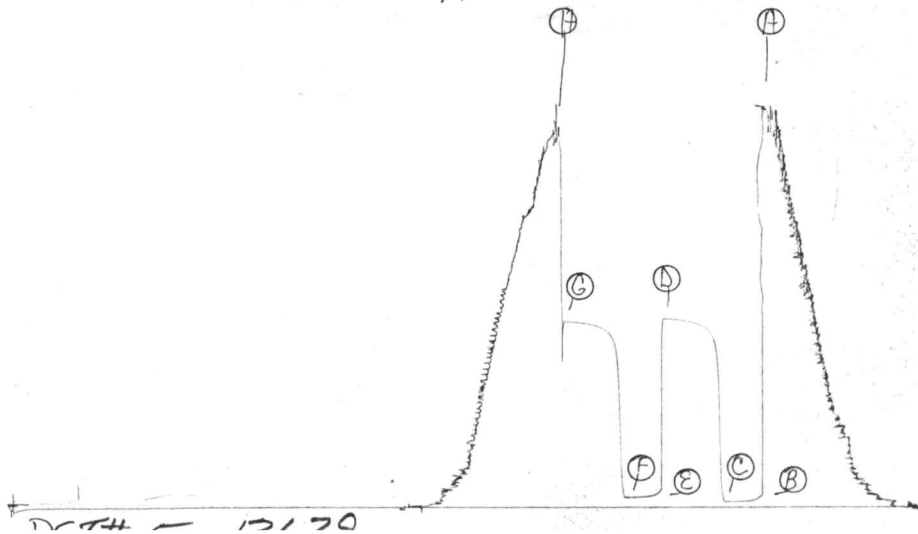
| Point                          | Pressure           |                            | Time Given      | Time Computed |
|--------------------------------|--------------------|----------------------------|-----------------|---------------|
| A Initial Hydrostatic Mud      | <u>2247</u> P.S.I. | Open Tool                  | M               |               |
| B First Initial Flow Pressure  | <u>32</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. |               |
| C First Final Flow Pressure    | <u>32</u> P.S.I.   | Initial Closed-in Pressure | <u>45</u> Mins. |               |
| D Initial Closed-in Pressure   | <u>1082</u> P.S.I. | Second Flow Pressure       | <u>30</u> Mins. |               |
| E Second Initial Flow Pressure | <u>55</u> P.S.I.   | Final Closed-in Pressure   | <u>45</u> Mins. |               |
| F Second Final Flow Pressure   | <u>55</u> P.S.I.   |                            |                 |               |
| G Final Closed-in Pressure     | <u>1069</u> P.S.I. |                            |                 |               |
| H Final Hydrostatic Mud        | <u>2178</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>16</u> Inc.<br>of <u>3</u> mins. and a<br>final inc. of <u>0</u> Min. |             | Second Flow Pressure<br>Breakdown: <u>7</u> Inc.<br>of <u>5</u> mins. and a<br>final inc. of <u>0</u> Min. |           | Final Shut-In<br>Breakdown: <u>16</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 <u>0</u>                                                                                              | <u>32</u> | <u>0</u>                                                                                               | <u>32</u>   | <u>0</u>                                                                                                   | <u>55</u> | <u>0</u>                                                                                             | <u>55</u>   |
| P 2 <u>5</u>                                                                                              |           | <u>3</u>                                                                                               | <u>420</u>  | <u>5</u>                                                                                                   |           | <u>3</u>                                                                                             | <u>371</u>  |
| P 3 <u>10</u>                                                                                             |           | <u>6</u>                                                                                               | <u>863</u>  | <u>10</u>                                                                                                  |           | <u>6</u>                                                                                             | <u>881</u>  |
| P 4 <u>15</u>                                                                                             |           | <u>9</u>                                                                                               | <u>974</u>  | <u>15</u>                                                                                                  |           | <u>9</u>                                                                                             | <u>974</u>  |
| P 5 <u>20</u>                                                                                             |           | <u>12</u>                                                                                              | <u>1012</u> | <u>20</u>                                                                                                  |           | <u>12</u>                                                                                            | <u>1002</u> |
| P 6 <u>25</u>                                                                                             |           | <u>15</u>                                                                                              | <u>1033</u> | <u>25</u>                                                                                                  |           | <u>15</u>                                                                                            | <u>1022</u> |
| P 7 <u>30</u>                                                                                             | <u>32</u> | <u>18</u>                                                                                              | <u>1045</u> | <u>30</u>                                                                                                  | <u>55</u> | <u>18</u>                                                                                            | <u>1034</u> |
| P 8 <u>35</u>                                                                                             |           | <u>21</u>                                                                                              | <u>1056</u> | <u>35</u>                                                                                                  |           | <u>21</u>                                                                                            | <u>1043</u> |
| P 9 <u>40</u>                                                                                             |           | <u>24</u>                                                                                              | <u>1061</u> | <u>40</u>                                                                                                  |           | <u>24</u>                                                                                            | <u>1050</u> |
| P10 <u>45</u>                                                                                             |           | <u>27</u>                                                                                              | <u>1066</u> | <u>45</u>                                                                                                  |           | <u>27</u>                                                                                            | <u>1053</u> |
| P11 <u>50</u>                                                                                             |           | <u>30</u>                                                                                              | <u>1071</u> | <u>50</u>                                                                                                  |           | <u>30</u>                                                                                            | <u>1056</u> |
| P12 <u>55</u>                                                                                             |           | <u>33</u>                                                                                              | <u>1074</u> | <u>55</u>                                                                                                  |           | <u>33</u>                                                                                            | <u>1059</u> |
| P13 <u>60</u>                                                                                             |           | <u>36</u>                                                                                              | <u>1076</u> | <u>60</u>                                                                                                  |           | <u>36</u>                                                                                            | <u>1062</u> |
| P14                                                                                                       |           | <u>39</u>                                                                                              | <u>1078</u> | <u>65</u>                                                                                                  |           | <u>39</u>                                                                                            | <u>1065</u> |
| P15                                                                                                       |           | <u>42</u>                                                                                              | <u>1080</u> | <u>70</u>                                                                                                  |           | <u>42</u>                                                                                            | <u>1067</u> |
| P16                                                                                                       |           | <u>45</u>                                                                                              | <u>1082</u> | <u>75</u>                                                                                                  |           | <u>45</u>                                                                                            | <u>1069</u> |
| P17                                                                                                       |           | <u>48</u>                                                                                              |             | <u>80</u>                                                                                                  |           | <u>48</u>                                                                                            |             |
| P18                                                                                                       |           | <u>51</u>                                                                                              |             | <u>85</u>                                                                                                  |           | <u>51</u>                                                                                            |             |
| P19                                                                                                       |           | <u>54</u>                                                                                              |             | <u>90</u>                                                                                                  |           | <u>54</u>                                                                                            |             |
| P20                                                                                                       |           | <u>57</u>                                                                                              |             |                                                                                                            |           | <u>57</u>                                                                                            |             |
|                                                                                                           |           | <u>60</u>                                                                                              |             |                                                                                                            |           | <u>60</u>                                                                                            |             |

TKI #5918

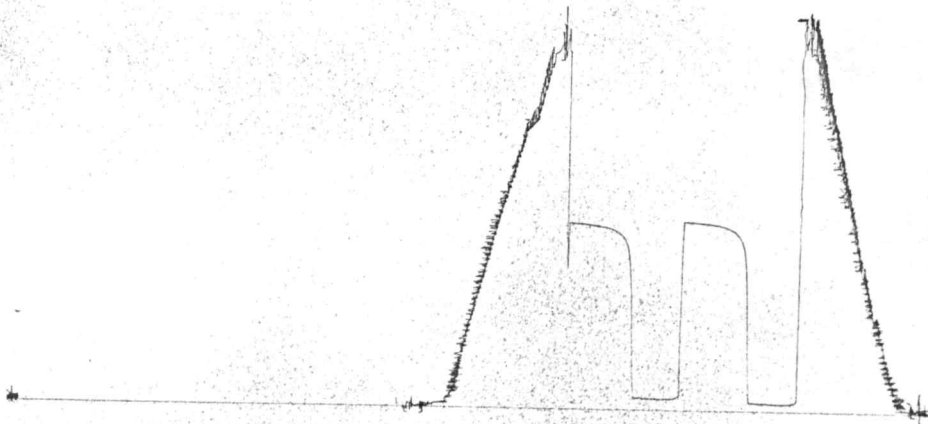
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TKT #5978

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12/25



WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/22/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: #1-23  
ELEVATION (KB): 2818  
SECTION: 23  
RANGE: 30W  
GAUGE SN #13629

TEST: 5  
FORMATION: UPPER MARMATON  
TOWNSHIP: 16S  
COUNTY: LANE  
RANGE: 4425

TICKET #5978  
LEASE: BENTLEY  
GEOLOGIST: GALLOWAY  
STATE: KS  
CLOCK: 12

INTERVAL TEST FROM: 4246 FT TO: 4290 FT TOTAL DEPTH: 4290 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4241 FT SIZE: 6 3/4 IN PACKER DEPTH: 4246 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH  
WEIGHT: 9.7  
CHLORIDES (P.P.M.): 7000  
JARS - MAKE:  
DID WELL FLOW?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 750 FT I.D.: 2.7 IN  
DRILL PIPE LENGTH: 3476 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN  
ANCHOR LENGTH: 44 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

VISCOSITY: 40  
WATER LOSS (CC): 8  
SERIAL NUMBER:  
REVERSED OUT?

BLOW: INITIAL FLOW PERIOD WEAK 1/4" BLOW  
BUILDING TO 3/4" BLOW. FINAL FLOW  
PERIOD NO BLOW.

|               |    |                                            |
|---------------|----|--------------------------------------------|
| RECOVERED: 70 | FT | OF: WATERY MUD; 10% MUD; 90% WATER NO SHOW |
| RECOVERED:    | FT | OF: CHLORIDES 28000 P.P.M.                 |
| RECOVERED:    | FT | OF: RESISTIVITY .25 @ 80 DEGREES.          |
| RECOVERED:    | FT | OF:                                        |
| RECOVERED:    | FT | OF:                                        |
| RECOVERED:    | FT | OF:                                        |
| RECOVERED:    | FT | OF:                                        |
| RECOVERED:    | FT | OF:                                        |
| RECOVERED:    | FT | OF:                                        |

REMARKS:

TIME SET PACKER(S): 12:00 P.M. TIME STARTED OFF BOTTOM: 2:30 P.M.  
WELL TEMPERATURE: 121 °F  
INITIAL HYDROSTATIC PRESSURE: (A) 2267 PSI  
INITIAL FLOW PERIOD MIN: 30 (B) 32 PSI TO (C) 32 PSI  
INITIAL CLOSED IN PERIOD MIN: 45 (D) 1082 PSI  
FINAL FLOW PERIOD MIN: 30 (E) 55 PSI TO (F) 55 PSI  
FINAL CLOSED IN PERIOD MIN: 45 (G) 1069 PSI  
FINAL HYDROSTATIC PRESSURE (H) 2178 PSI





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

WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No. 5979

Elevation 2818' KB Formation LOWER MARSHALL & PAWNEE  
SUN. Eff. Pay Ft.  
District Wakeeney Date SEPT 23 '84 Customer Order No.

GO20 COMPANY NAME GEAR PETROLEUM CO. INC.  
ADDRESS 300 SUTTON PLACE WICHITA KANS. 67202  
LEASE AND WELL NO. BENTLEY #1-23 COUNTY LANE STATE Kans Sec. 23 Twp. 16S Rge. 30W

Mail Invoice To Co. Name #1-23 BENTLEY Address No. Copies Requested 5  
Mail Charts To Address No. Copies Requested

Formation Test No. 6 Interval Tested From 4314 ft. to 4392 ft. Total Depth 4392 ft.  
Packer Depth 4309 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.  
Packer Depth 4314 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.  
Depth of Selective Zone Set

Top Recorder Depth (Inside) 4317 ft. Recorder Number 13629 Cap. 4425  
Bottom Recorder Depth (Outside) 4320 ft. Recorder Number 13630 Cap. 4625  
Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor RED TIGER DRUG CO. RIG #10 Drill Collar Length — I. D. — in.  
Mud Type STARCH Viscosity 44 Weight Pipe Length 720 I. D. 2.7 in.  
Weight 9.7 Water Loss 8.8 cc. Drill Pipe Length 3574 I. D. 3.6 in.  
Chlorides 7500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.  
Jars: Make — Serial Number — Anchor Length 78 ft. Size 5 1/2 OD 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 H. in.

Blow: IF: VERY WEAK 1/8" BLOW, DIED IN 8 MIN.  
FF: NO BLOW

Recovered 5 ft. of WATERY DRUG MUD  
Recovered — ft. of 35% WATER, 65% MUD NO SHOW OF OIL  
Recovered — ft. of  
Recovered — ft. of

Recovered — ft. of WE HAD A PLUGGED ANCHOR THOUGH  
Chlorides 8,000 P.P.M. Sample Jars used 1 Remarks: THE TOOL WAS NOT PLUGGED WE  
RES: .25 @ 80° DIDN'T GET ANY PRESSURES AT ALL

Time On Location 9:12 A.M. Time Pick Up Tool 9:25 A.M. Time Off Location — A.M.  
Time Set Packer(s) 10:53 A.M. Time Started Off Bottom 12:53 A.M. Maximum Temperature BHT: 122  
P.M.

Initial Hydrostatic Pressure (A) — P.S.I.  
Initial Flow Period (B) — Minutes 30 P.S.I. to (C) — P.S.I.  
Initial Closed In Period (D) — Minutes 30 P.S.I. to (E) — P.S.I.  
Final Flow Period (E) — Minutes 30 P.S.I. to (F) — P.S.I.  
Final Closed In Period (G) — Minutes 30 P.S.I.  
Final Hydrostatic Pressure (H) — 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. GEO: CASEY GALLOWAY

Test Approved By X  
Signature of Customer or his authorized representative

Western Representative RUSSELL A. HEARTING 0825

FIELD INVOICE

Open Hole Test \$  
Misrun X NC \$400.00  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL NC \$400.00

TKT#5914  
I

DST#6 13629 (MISS-RUN)

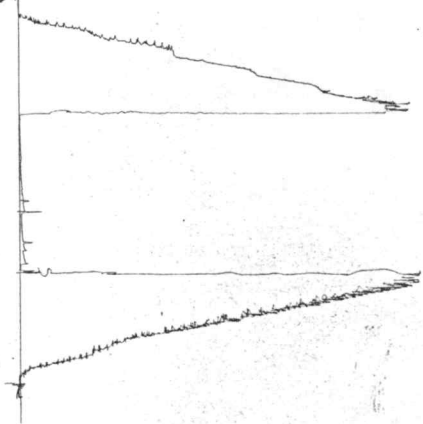
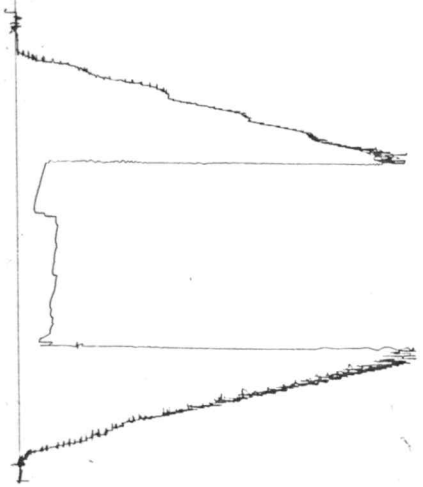
TKT#5979

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13630

(Bottom  
OUTSIDE)

MISSISSAUGA



WESTERN TESTING COMPANY INC.  
SUBSURFACE PRESSURE SURVEY

DATE: 9/23/84  
CUSTOMER: GEAR PETROLEUM COMPANY INC.  
WELL: #1-23  
ELEVATION (KB): 2818  
SECTION: 23  
RANGE: 30W  
GAUGE SN #13629

TEST: 6  
FORMATION: L MARMATON PAWNEE  
TOWNSHIP: 16S  
COUNTY: LANE  
RANGE: 4425

TICKET #5979  
LEASE: BENTLEY  
GEOLOGIST: GALLOWAY  
STATE: KANSAS  
CLOCK: 12

INTERVAL TEST FROM: 4314 FT TO: 4392 FT TOTAL DEPTH: 4392 FT  
DEPTH OF SELECTIVE ZONE: FT  
PACKER DEPTH: 4309 FT SIZE: 6 3/4 IN Packer DEPTH: 4314 FT SIZE: 6 3/4 IN  
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER  
MUD TYPE: STARCH VISCOSITY: 44  
WEIGHT: 9.7 WATER LOSS (CC): 8.8  
CHLORIDES (P.P.M.): 7500  
JARS - MAKE: SERIAL NUMBER:  
DID WELL FLOW? REVERSED OUT?  
DRILL COLLAR LENGTH: FT I.D.: IN  
WEIGHT PIPE LENGTH: 720 FT I.D.: 2.7 IN  
DRILL PIPE LENGTH: 3574 FT I.D.: 3.8 IN  
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN  
ANCHOR LENGTH: 78 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 VERY WEAK 1/8"  
BLOW DEAD IN 8 MINUTES. FINAL FLOW  
PERIOD NO BLOW.

RECOVERED: 5 FT OF: WATERY DRLG MUD. 35% WTR; 65% MUD. NO SHOW  
RECOVERED: FT OF: CHLORIDES 8000 P.P.M.  
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: RESISTIVITY .25 @ 80 DEGREES.  
HAD A PLUGGED ANCHOR THOUGH THE TOOL  
WAS NOT PLUGGED. NO PRESSURES.

TIME SET PACKER(S): 10:53 A.M. TIME STARTED OFF BOTTOM: 12:53 P.M.  
WELL TEMPERATURE: 122 °F  
INITIAL HYDROSTATIC PRESSURE: (A) PSI  
INITIAL FLOW PERIOD MIN: 0 (B) 0 PSI TO (C) 0 PSI  
INITIAL CLOSED IN PERIOD MIN: 0 (D) 0 PSI  
FINAL FLOW PERIOD MIN: 0 (E) 0 PSI TO (F) 0 PSI  
FINAL CLOSED IN PERIOD MIN: 0 (G) 0 PSI  
FINAL HYDROSTATIC PRESSURE (H) PSI

