



Home Office: Wichita, Kansas 67201  
P. O. Box 1599 (316) 838-0601

Company Graham-Michaelis Corporation Lease & Well No. Stecklein #1  
Elevation 2312 Kelly Bush. Formation Ft. Scott Effective Pay - Ft. Ticket No. 24895  
Date 9-30-77 Sec. 7 Twp. 20S Range 23W County Ness State Kansas  
Test Approved by Charley V. Shank Western Representative Bob McCoy  
Formation Test No. 1 O.K. ☒ Misrun ☐ Interval Tested From 4275' to 4321' Total Depth 4321'  
Size Main Hole 7 7/8 Rat Hole 12 1/4 Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No  
Top Packer Depth 4270 Ft. Size 6 3/4 Bottom Packer Depth 4275 Ft. Size 6 3/4  
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -  
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 46 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.  
RECORDERS Depth 4313 Ft. Clock No. 6774 Depth 4316 Ft. Clock No. 6806  
Top Make Kuster Cap. 4300 No. 1566 Inside Outside Bottom Make Kuster Cap. 4150 No. 2607 Inside Outside  
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside  
Time Set Packer 5:42P. M  
Tool Open I.F.P. From 5:45P M. to 6:15P M. - Hr. 30 Min. From (B) 110 P.S.I. To (C) 131 P.S.I.  
Tool Closed I.C.I.P. From 6:15P M. to 7:00P M. - Hr. 45 Min (D) 365 P.S.I.  
Tool Open F.F.P. From 7:00P M. to 8:00P M. - Hr. 60 Min. From (E) 186 P.S.I. To (F) 205 P.S.I.  
Tool Closed F.C.I.P. From 8:00P M. to 9:30P M. - Hr. 90 Min. (G) 415 P.S.I.  
Initial Hydrostatic Pressure (A) 2326 P.S.I. Final Hydrostatic Pressure (H) 2261 P.S.I. Maximum Temp. 123

#### INFORMATION

BLOW Strong blow throughout test.  
Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 1595' of gas, 275' of clean gassy oil (39°F. Gravity)  
180' of mud cut gassy oil.  
Reversed Out ☐ Yes ☒ No Mud Type Starch Viscosity 46 Weight 9.5 Water Loss 12.5 cc. Chlorides 52,000 PPM  
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -  
Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -  
DRILLING CONTRACTOR Red Tiger Drllg. Length Drill Pipe? 3060 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.  
Length Weight Pipe 1006 Ft. I.D. Weight Pipe 2.76 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars - Ft. I.D. Drill Collars - In.  
Tool Joint Size - In. Length D.S.T. Tool 66 Ft.

Remarks:



# WESTERN TESTING CO., INC.

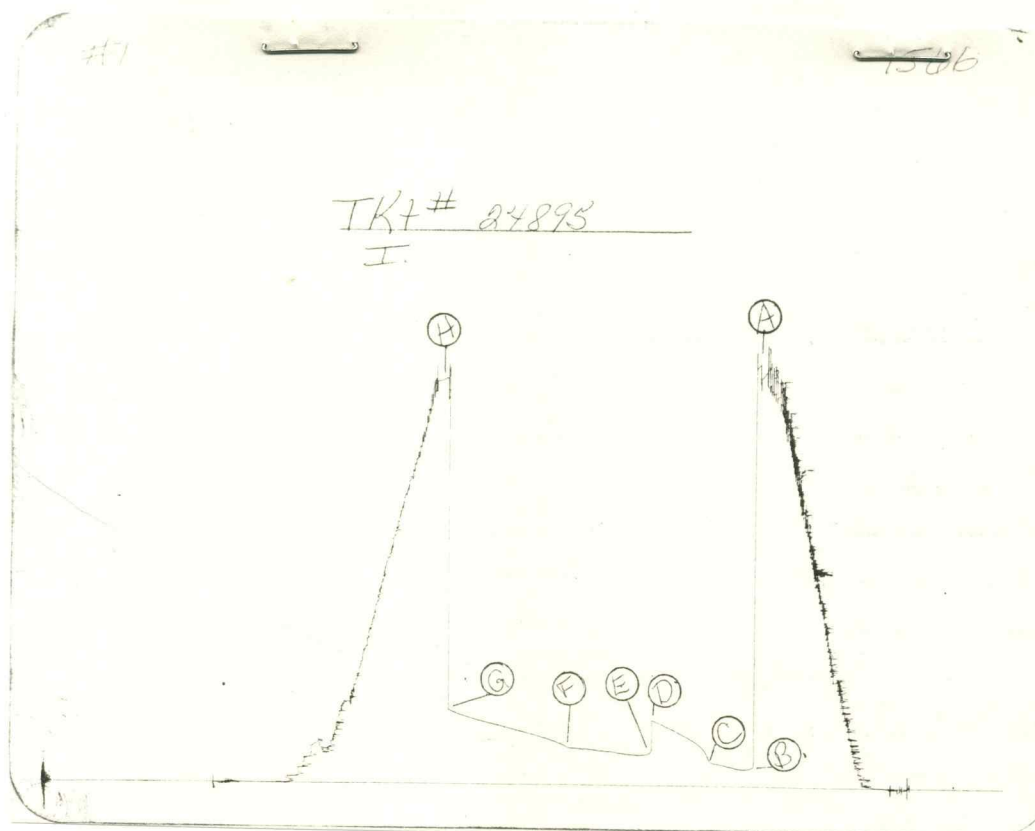
## Pressure Data

Date 9-30-77 Test Ticket No. 24895  
 Recorder No. 1566 Capacity 4300 Location 4313 Ft.  
 Clock No. 6774 Elevation 2312 Kelly Bushing Well Temperature 123 °F

| Point                          | Pressure           |                            | Time Given      | Time Computed   |
|--------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2326</u> P.S.I. | Open Tool                  | <u>5:42P.</u> M |                 |
| B First Initial Flow Pressure  | <u>110</u> P.S.I.  | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>131</u> P.S.I.  | Initial Closed-in Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| D Initial Closed-in Pressure   | <u>365</u> P.S.I.  | Second Flow Pressure       | <u>60</u> Mins. | <u>60</u> Mins. |
| E Second Initial Flow Pressure | <u>186</u> P.S.I.  | Final Closed-in Pressure   | <u>90</u> Mins. | <u>90</u> Mins. |
| F Second Final Flow Pressure   | <u>205</u> P.S.I.  |                            |                 |                 |
| G Final Closed-in Pressure     | <u>415</u> P.S.I.  |                            |                 |                 |
| H Final Hydrostatic Mud        | <u>2261</u> P.S.I. |                            |                 |                 |

### PRESSURE BREAKDOWN

| First Flow Pressure         |        | Initial Shut-In             |        | Second Flow Pressure        |        | Final Shut-In               |        |
|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|
| Breakdown: <u>6</u> Inc.    |        | Breakdown: <u>15</u> Inc.   |        | Breakdown: <u>12</u> Inc.   |        | Breakdown: <u>30</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                         |        |                             |        |                             |        | 60                          | 345    |
| P 2                         |        |                             |        |                             |        | 63                          | 350    |
| P 3                         |        |                             |        |                             |        | 66                          | 357    |
| P 4                         |        |                             |        |                             |        | 69                          | 362    |
| P 5                         |        |                             |        |                             |        | 72                          | 369    |
| P 6                         |        |                             |        |                             |        | 75                          | 376    |
| P 7                         |        |                             |        |                             |        | 78                          | 383    |
| P 8                         |        |                             |        |                             |        | 81                          | 390    |
| P 9                         |        |                             |        |                             |        | 84                          | 400    |
| P10                         |        |                             |        |                             |        | 87                          | 410    |
| P11                         |        |                             |        |                             |        | 90                          | 415    |
| P12                         |        |                             |        |                             |        |                             |        |
| P13                         |        |                             |        |                             |        |                             |        |
| P14                         |        |                             |        |                             |        |                             |        |
| P15                         |        |                             |        |                             |        |                             |        |
| P16                         |        |                             |        |                             |        |                             |        |
| P17                         |        |                             |        |                             |        |                             |        |
| P18                         |        |                             |        |                             |        |                             |        |
| P19                         |        |                             |        |                             |        |                             |        |
| P20                         |        |                             |        |                             |        |                             |        |



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |
|----------------------------------------|---------------|----------------|
|                                        | Field Reading | Office Reading |
| (A) Initial Hydrostatic Mud .....      | 2341          | 2326           |
| (B) First Initial Flow Pressure .....  | 97            | 110            |
| (C) First Final Flow Pressure .....    | 130           | 131            |
| (D) Initial Closed-in Pressure .....   | 368           | 364            |
| (E) Second Initial Flow Pressure ..... | 281           | 186            |
| (F) Second Final Flow Pressure .....   | 205           | 205            |
| (G) Final Closed-in Pressure .....     | 422           | 415            |
| (H) Final Hydrostatic Mud .....        | 2319          | 2261           |



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Company Graham-Michaelis Corporation Lease & Well No. Stecklein #1  
Elevation 2312 Kelly Bushing Formation Conglomerate Effective Pay - Ft. Ticket No. 24896  
Date 10-1-77 Sec. 7 Twp. 20S Range 23W County Ness State Kansas  
Test Approved by Charley V. Shank Western Representative Bob McCoy  
Formation Test No. 2 O.K. X Misrun - Interval Tested From 4362' to 4387' Total Depth 4387'  
Size Main Hole 7 7/8 Rat Hole 1 1/4 Conv. - B.T. X Damaged - Yes X No Conv. X B.T. - Damaged - Yes X No  
Top Packer Depth 4357 Ft. Size 6 3/4 Bottom Packer Depth 4362 Ft. Size 6 3/4  
Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -  
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 25 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.  
RECORDERS Depth 4378 Ft. Clock No. 6774 Depth 4381 Ft. Clock No. 6806  
Top Make Kuster Cap. 4300 No. 1566 Inside Outside Bottom Make Kuster Cap. 4150 No. 2607 Inside Outside  
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside  
Time Set Packer 6:27P. M  
Tool Open I.F.P. From 6:30P M. to 7:00P M. - Hr. 30 Min. From (B) 61 P.S.I. To (C) 36 P.S.I.  
Tool Closed I.C.I.P. From 7:00P M. to 7:30P M. - Hr. 30 Min (D) 36 P.S.I.  
Tool Open F.F.P. From 7:30P M. to 8:00P M. - Hr. 30 Min. From (E) 36 P.S.I. To (F) 36 P.S.I.  
Tool Closed F.C.I.P. From 8:00P M. to 8:30P M. - Hr. 30 Min. (G) 36 P.S.I.  
Initial Hydrostatic Pressure (A) 2358 P.S.I. Final Hydrostatic Pressure (H) 2299 P.S.I. Maximum Temp. 123

#### INFORMATION

BLOW Weak blow, died in 9 minutes.

Did Well Flow - Yes X No Recovery Total Ft. 5' of mud.

Reversed Out - Yes X No Mud Type Starch Viscosity 44 Weight 9.8 Water Loss 9.5 cc. Chlorides 49,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Red Tiger (#4) Length Drill Pipe? 3122 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe 1006 Ft. I.D. Weight Pipe 2.76 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 45 Ft.

Remarks:

# WESTERN TESTING CO., INC.

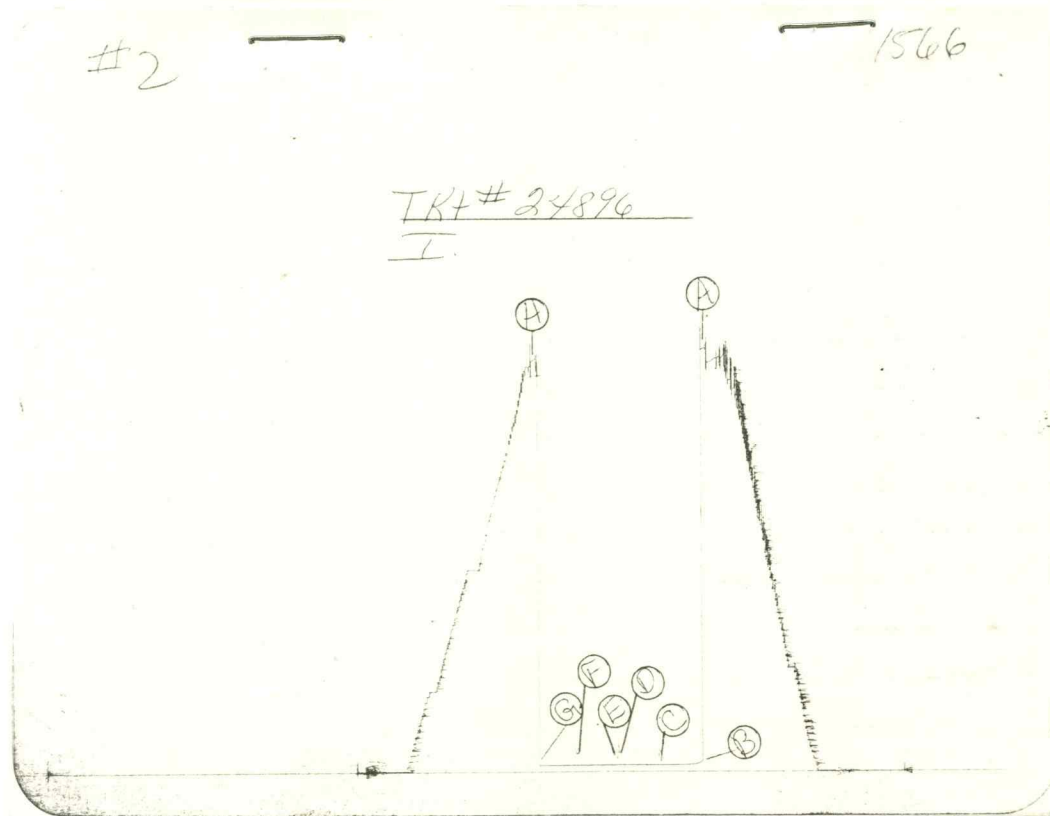
## Pressure Data

Date 10-1-77 Recorder No. 1566 Capacity 4300 Test Ticket No. 24896  
 Clock No. 6774 Elevation 2312 Kelly Bushing Location 4378 Ft.  
 Well Temperature 123 °F

| Point                          | Pressure |        | Time Given | Time Computed |
|--------------------------------|----------|--------|------------|---------------|
| A Initial Hydrostatic Mud      | 2358     | P.S.I. | 6:27P.     | M             |
| B First Initial Flow Pressure  | 61       | P.S.I. | 30         | Mins.         |
| C First Final Flow Pressure    | 36       | P.S.I. | 30         | Mins.         |
| D Initial Closed-in Pressure   | 36       | P.S.I. | 30         | Mins.         |
| E Second Initial Flow Pressure | 36       | P.S.I. | 30         | Mins.         |
| F Second Final Flow Pressure   | 36       | P.S.I. | 30         | Mins.         |
| G Final Closed-in Pressure     | 36       | P.S.I. |            |               |
| H Final Hydrostatic Mud        | 2299     | P.S.I. |            |               |

## PRESSURE BREAKDOWN

| First Flow Pressure         |           | Initial Shut-In             |           | Second Flow Pressure        |           | Final Shut-In               |           |
|-----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|
| Breakdown: <u>6</u> Inc.    |           | Breakdown: <u>10</u> Inc.   |           | Breakdown: <u>6</u> Inc.    |           | Breakdown: <u>10</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>61</u> | <u>0</u>                    | <u>36</u> | <u>0</u>                    | <u>36</u> | <u>0</u>                    | <u>36</u> |
| P 2 <u>5</u>                | <u>42</u> | <u>3</u>                    | <u>36</u> | <u>5</u>                    | <u>36</u> | <u>3</u>                    | <u>36</u> |
| P 3 <u>10</u>               | <u>38</u> | <u>6</u>                    | <u>36</u> | <u>10</u>                   | <u>36</u> | <u>6</u>                    | <u>36</u> |
| P 4 <u>15</u>               | <u>36</u> | <u>9</u>                    | <u>36</u> | <u>15</u>                   | <u>36</u> | <u>9</u>                    | <u>36</u> |
| P 5 <u>20</u>               | <u>36</u> | <u>12</u>                   | <u>36</u> | <u>20</u>                   | <u>36</u> | <u>12</u>                   | <u>36</u> |
| P 6 <u>25</u>               | <u>36</u> | <u>15</u>                   | <u>36</u> | <u>25</u>                   | <u>36</u> | <u>15</u>                   | <u>36</u> |
| P 7 <u>30</u>               | <u>36</u> | <u>18</u>                   | <u>36</u> | <u>30</u>                   | <u>36</u> | <u>18</u>                   | <u>36</u> |
| P 8                         |           | <u>21</u>                   | <u>36</u> |                             |           | <u>21</u>                   | <u>36</u> |
| P 9                         |           | <u>24</u>                   | <u>36</u> |                             |           | <u>24</u>                   | <u>36</u> |
| P10                         |           | <u>27</u>                   | <u>36</u> |                             |           | <u>27</u>                   | <u>36</u> |
| P11                         |           | <u>30</u>                   | <u>36</u> |                             |           | <u>30</u>                   | <u>36</u> |
| P12                         |           |                             |           |                             |           |                             |           |
| P13                         |           |                             |           |                             |           |                             |           |
| P14                         |           |                             |           |                             |           |                             |           |
| P15                         |           |                             |           |                             |           |                             |           |
| P16                         |           |                             |           |                             |           |                             |           |
| P17                         |           |                             |           |                             |           |                             |           |
| P18                         |           |                             |           |                             |           |                             |           |
| P19                         |           |                             |           |                             |           |                             |           |
| P20                         |           |                             |           |                             |           |                             |           |



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |     |
|----------------------------------------|---------------|----------------|-----|
|                                        | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2363          | 2358           | PSI |
| (B) First Initial Flow Pressure .....  | 43            | 61             | PSI |
| (C) First Final Flow Pressure .....    | 43            | 36             | PSI |
| (D) Initial Closed-in Pressure .....   | 43            | 36             | PSI |
| (E) Second Initial Flow Pressure ..... | 43            | 36             | PSI |
| (F) Second Final Flow Pressure .....   | 43            | 36             | PSI |
| (G) Final Closed-in Pressure .....     | 43            | 36             | PSI |
| (H) Final Hydrostatic Mud .....        | 2341          | 2299           | PSI |



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Company Graham-Michaelis Corporation Lease & Well No. Stecklein #1  
Elevation 2312 Kelly Bush Formation Mississippi Effective Pay - Ft. Ticket No. 24897  
Date 10-2-77 Sec. 7 Twp. 20S Range 23W County Ness State Kansas  
Test Approved by Charley V. Shank Western Representative Bob McCoy  
Formation Test No. 3 O.K. ☒ Misrun ☐ Interval Tested From 4404' to 4410' Total Depth 4410'  
Size Main Hole 7 7/8 Rat Hole 12 1/4 Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No  
Top Packer Depth 4399 Ft. Size 6 3/4 Bottom Packer Depth 4404 Ft. Size 6 3/4  
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐  
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 6 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.  
RECORDERS Depth 4396 Ft. Clock No. 6774 Depth 4407 Ft. Clock No. 6806  
Top Make Kuster Cap. 4300 No. 1566 Inside ☐ Outside ☒ Bottom Make Kuster Cap. 4150 No. 2607 Inside ☒ Outside ☐  
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐ Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐  
Time Set Packer 12:57P. M  
Tool Open I.F.P. From 1:00P M. to 1:30P M. - Hr. 30 Min. From (B) 69 P.S.I. To (C) 46 P.S.I.  
Tool Closed I.C.I.P. From 1:30P M. to 2:15P M. - Hr. 45 Min (D) 80 P.S.I.  
Tool Open F.F.P. From 2:15P M. to 3:15P M. - Hr. 60 Min. From (E) 69 P.S.I. To (F) 50 P.S.I.  
Tool Closed F.C.I.P. From 3:15P M. to 4:45P M. - Hr. 90 Min. (G) 110 P.S.I.  
Initial Hydrostatic Pressure (A) 2310 P.S.I. Final Hydrostatic Pressure (H) 2301 P.S.I. Maximum Temp. -

#### INFORMATION

BLOW Weak blow, died in 12 minutes.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 5' of very slightly oil cut mud.

Reversed Out ☐ Yes ☒ No Mud Type Starch Viscosity 44 Weight 9.8 Water Loss 9.5 cc. Chlorides 49,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Dual Packer ☐ Yes ☐ No Did Packers Hold? ☐ Yes ☐ No Did Tool Plug? ☐ No ☐ Yes Where? ☐

DRILLING CONTRACTOR Red Tiger (#4) Length Drill Pipe? 3154 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe 1006 Ft. I.D. Weight Pipe 2.76 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars ☐ Ft. I.D. Drill Collars ☐ In.

Tool Joint Size ☐ In. Length D.S.T. Tool 31 Ft.

Remarks:

# WESTERN TESTING CO., INC.

## Pressure Data

Date 10-2-77 Test Ticket No. 24897

Recorder No. 1566 Capacity 4300 Location 4396 Ft.

Clock No. 6774 Elevation 2312 Kelly Bushing Well Temperature - °F

| Point                                           | Pressure | Time Given  | Time Computed |
|-------------------------------------------------|----------|-------------|---------------|
| A Initial Hydrostatic Mud <u>2310</u> P.S.I.    |          | 12:57 P. M. |               |
| B First Initial Flow Pressure <u>69</u> P.S.I.  |          | 30 Mins.    | 30 Mins.      |
| C First Final Flow Pressure <u>46</u> P.S.I.    |          | 45 Mins.    | 42 Mins.      |
| D Initial Closed-in Pressure <u>80</u> P.S.I.   |          | 60 Mins.    | 60 Mins.      |
| E Second Initial Flow Pressure <u>69</u> P.S.I. |          | 90 Mins.    | 87 Mins.      |
| F Second Final Flow Pressure <u>50</u> P.S.I.   |          |             |               |
| G Final Closed-in Pressure <u>110</u> P.S.I.    |          |             |               |
| H Final Hydrostatic Mud <u>2301</u> P.S.I.      |          |             |               |

### PRESSURE BREAKDOWN

**First Flow Pressure**  
Breakdown: 6 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Initial Shut-In**  
Breakdown: 14 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

**Second Flow Pressure**  
Breakdown: 12 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Final Shut-In**  
Breakdown: 29 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

| Point Mins. | Press. | Point Minutes | Press. | Point Minutes | Press. | Point Minutes | Press. |
|-------------|--------|---------------|--------|---------------|--------|---------------|--------|
| P 1 0       | 69     | 0             | 46     | 0             | 69     | 0             | 50     |
| P 2 5       | 52     | 3             | 46     | 5             | 55     | 3             | 50     |
| P 3 10      | 49     | 6             | 47     | 10            | 50     | 6             | 50     |
| P 4 15      | 48     | 9             | 47     | 15            | 50     | 9             | 50     |
| P 5 20      | 46     | 12            | 47     | 20            | 50     | 12            | 50     |
| P 6 25      | 46     | 15            | 47     | 25            | 50     | 15            | 50     |
| P 7 30      | 46     | 18            | 48     | 30            | 50     | 18            | 50     |
| P 8         |        | 21            | 51     | 35            | 50     | 21            | 50     |
| P 9         |        | 24            | 54     | 40            | 50     | 24            | 52     |
| P 10        |        | 27            | 57     | 45            | 50     | 27            | 52     |
| P 11        |        | 30            | 60     | 50            | 50     | 30            | 53     |
| P 12        |        | 33            | 65     | 55            | 50     | 33            | 53     |
| P 13        |        | 36            | 69     | 60            | 50     | 36            | 56     |
| P 14        |        | 39            | 76     |               |        | 39            | 57     |
| P 15        |        | 42            | 80     |               |        | 42            | 59     |
| P 16        |        |               |        |               |        | 45            | 60     |
| P 17        |        |               |        |               |        | 48            | 63     |
| P 18        |        |               |        |               |        | 51            | 65     |
| P 19        |        |               |        |               |        | 54            | 67     |
| P 20        |        |               |        |               |        | 57            | 68     |
|             |        |               |        |               |        | 60            | 70     |

# WESTERN TESTING CO., INC.

## Pressure Data

Date 10-2-77

Test Ticket No. 24897

Recorder No. 1566

Capacity 4300

Location 4396 Ft.

Clock No. 6774

Elevation 2312 Kelly Bushing

Well Temperature - °F

### Point

### Pressure

### Time Given

### Time Computed

A Initial Hydrostatic Mud 2310 P.S.I.  
 B First Initial Flow Pressure 69 P.S.I.  
 C First Final Flow Pressure 46 P.S.I.  
 D Initial Closed-in Pressure 80 P.S.I.  
 E Second Initial Flow Pressure 69 P.S.I.  
 F Second Final Flow Pressure 50 P.S.I.  
 G Final Closed-in Pressure 110 P.S.I.  
 H Final Hydrostatic Mud 2301 P.S.I.

Open Tool

12:57P. M

First Flow Pressure

30 Mins. 30 Mins.

Initial Closed-in Pressure

45 Mins. 42 Mins.

Second Flow Pressure

60 Mins. 60 Mins.

Final Closed-in Pressure

90 Mins. 87 Mins.

## PRESSURE BREAKDOWN

### First Flow Pressure

Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

### Initial Shut-In

Breakdown: 14 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

### Second Flow Pressure

Breakdown: 12 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

### Final Shut-In

Breakdown: 29 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

### Point Mins.

### Press.

### Point Minutes

### Press.

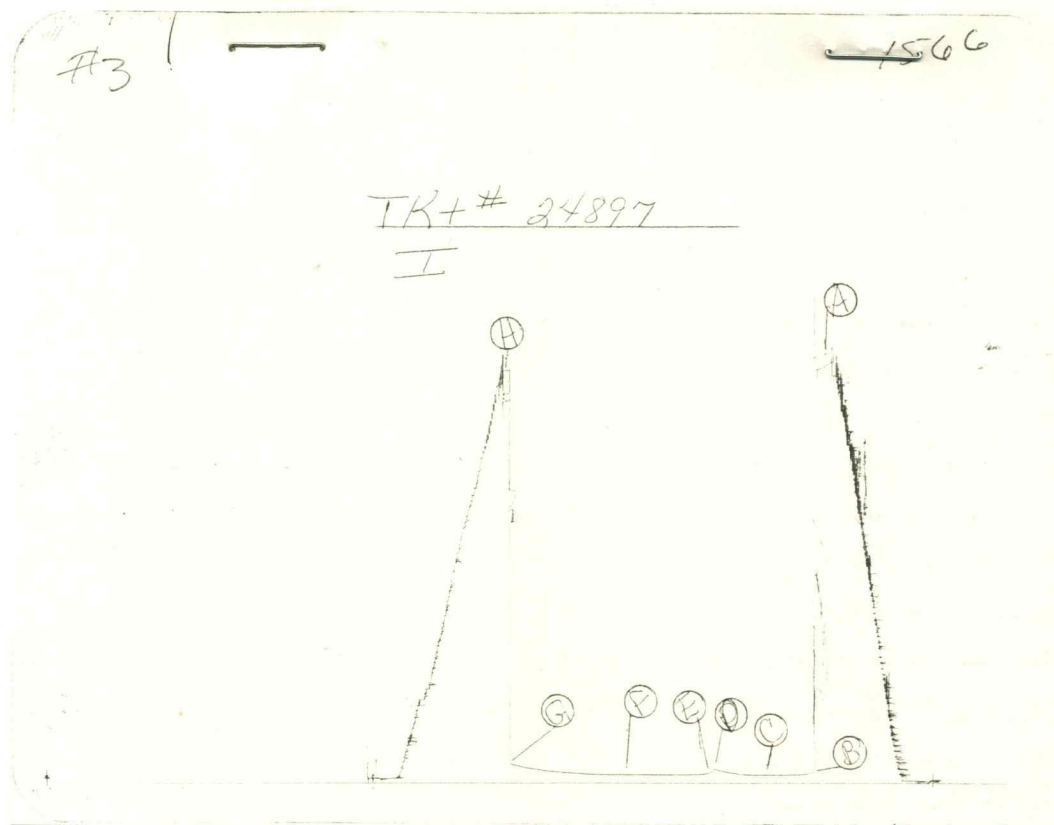
### Point Minutes

### Press.

### Point Minutes

### Press.

|     |  |  |  |  |  |    |     |
|-----|--|--|--|--|--|----|-----|
| P 1 |  |  |  |  |  | 63 | 74  |
| P 2 |  |  |  |  |  | 66 | 77  |
| P 3 |  |  |  |  |  | 69 | 81  |
| P 4 |  |  |  |  |  | 72 | 84  |
| P 5 |  |  |  |  |  | 75 | 87  |
| P 6 |  |  |  |  |  | 78 | 93  |
| P 7 |  |  |  |  |  | 81 | 98  |
| P 8 |  |  |  |  |  | 84 | 104 |
| P 9 |  |  |  |  |  | 87 | 110 |
| P10 |  |  |  |  |  |    |     |
| P11 |  |  |  |  |  |    |     |
| P12 |  |  |  |  |  |    |     |
| P13 |  |  |  |  |  |    |     |
| P14 |  |  |  |  |  |    |     |
| P15 |  |  |  |  |  |    |     |
| P16 |  |  |  |  |  |    |     |
| P17 |  |  |  |  |  |    |     |
| P18 |  |  |  |  |  |    |     |
| P19 |  |  |  |  |  |    |     |
| P20 |  |  |  |  |  |    |     |



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |     |
|----------------------------------------|---------------|----------------|-----|
|                                        | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2374          | 2310           | PSI |
| (B) First Initial Flow Pressure .....  | 42            | 69             | PSI |
| (C) First Final Flow Pressure .....    | 54            | 46             | PSI |
| (D) Initial Closed-in Pressure .....   | 86            | 80             | PSI |
| (E) Second Initial Flow Pressure ..... | 54            | 69             | PSI |
| (F) Second Final Flow Pressure .....   | 76            | 50             | PSI |
| (G) Final Closed-in Pressure .....     | 108           | 110            | PSI |
| (H) Final Hydrostatic Mud .....        | 2352          | 2301           | PSI |



Home Office: Wichita, Kansas 67201  
P. O. Box 1599 (316) 838-0601

Company Graham-Michaelis Corporation Lease & Well No. Stecklein #1  
Elevation 2312 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticker No. 24898  
Date 10-3-77 Sec. 7 Twp. 20S Range 23W County Ness State Kansas  
Test Approved by Charley V. Shank Western Representative Bob McCoy  
Formation Test No. 4 O.K. ☒ Misrun ☐ Interval Tested From 4405' to 4414' Total Depth 4414'  
Size Main Hole 7 7/8 Rat Hole 12 1/4 Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No  
Top Packer Depth 4400 Ft. Size 6 3/4 Bottom Packer Depth 4405 Ft. Size 6 3/4  
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -  
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 9 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.  
RECORDERS Depth 4390 Ft. Clock No. 6774 Depth 4408 Ft. Clock No. 6806  
Top Make Kuster Cap. 4300 No. 1566 ~~Inside~~ Outside Bottom Make Kuster Cap. 4150 No. 2607 ~~Inside~~ Outside  
Below Straddle: Depth - Rec. No. - Clock No. - ~~Inside~~ Outside Depth - Ft. Rec. No. - Clock No. - ~~Inside~~ Outside  
Time Set Packer 2:42A M  
Tool Open I.F.P. From 2:45 M. to 3:15 M. - Hr. 30 Min. From (B) 48 P.S.I. To (C) 40 P.S.I.  
Tool Closed I.C.I.P. From 3:15 M. to 4:00 M. - Hr. 45 Min (D) 728 P.S.I.  
Tool Open F.F.P. From 4:00 M. to 5:00 M. - Hr. 60 Min. From (E) 63 P.S.I. To (F) 44 P.S.I.  
Tool Closed F.C.I.P. From 5:00 M. to 6:30 M. - Hr. 90 Min. (G) 889 P.S.I.  
Initial Hydrostatic Pressure (A) 2330 P.S.I. Final Hydrostatic Pressure (H) 2293 P.S.I. Maximum Temp. 125

#### INFORMATION

BLOW Weak blow throughout initial flow period. Dead after final flow period.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 20' mud, 2' oil.

Reversed Out. ☐ Yes ☒ No Mud Type Starch Viscosity 42 Weight 9.7 Water Loss 14.5 cc. Chlorides 51,000 p.p.m.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? YES Did Tool Plug? No Where? -

DRILLING CONTRACTOR Red Tiger #4 Length Drill Pipe? 3154 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe 1006 Ft. I.D. Weight Pipe 2.76 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 34 Ft.

Remarks:

# WESTERN TESTING CO., INC.

## Pressure Data

Date 10-3-77 Test Ticket No. 24898  
 Recorder No. 1566 Capacity 4300 Location 4390  
 Clock No. 6774 Elevation 2312 Kelly Bushing Well Temperature 125

| Point                          | Pressure           |                            | Time Given      | Time Computed |
|--------------------------------|--------------------|----------------------------|-----------------|---------------|
| A Initial Hydrostatic Mud      | <u>2330</u> P.S.I. | Open Tool                  | <u>2:42A</u> M  |               |
| B First Initial Flow Pressure  | <u>48</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>40</u> Min |
| C First Final Flow Pressure    | <u>40</u> P.S.I.   | Initial Closed-in Pressure | <u>45</u> Mins. | <u>33</u> Min |
| D Initial Closed-in Pressure   | <u>728</u> P.S.I.  | Second Flow Pressure       | <u>60</u> Mins. | <u>75</u> Min |
| E Second Initial Flow Pressure | <u>44</u> P.S.I.   | Final Closed-in Pressure   | <u>90</u> Mins. | <u>72</u> Min |
| F Second Final Flow Pressure   | <u>44</u> P.S.I.   |                            |                 |               |
| G Final Closed-in Pressure     | <u>889</u> P.S.I.  |                            |                 |               |
| H Final Hydrostatic Mud        | <u>2293</u> P.S.I. |                            |                 |               |

## PRESSURE BREAKDOWN

| First Flow Pressure         |           | Initial Shut-In             |            | Second Flow Pressure        |           | Final Shut-In               |            |
|-----------------------------|-----------|-----------------------------|------------|-----------------------------|-----------|-----------------------------|------------|
| Breakdown: <u>8</u> Inc.    |           | Breakdown: <u>11</u> Inc.   |            | Breakdown: <u>15</u> Inc.   |           | Breakdown: <u>25</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>48</u> | <u>0</u>                    | <u>40</u>  | <u>0</u>                    | <u>63</u> | <u>0</u>                    | <u>44</u>  |
| P 2 <u>5</u>                | <u>40</u> | <u>3</u>                    | <u>48</u>  | <u>5</u>                    | <u>49</u> | <u>3</u>                    | <u>51</u>  |
| P 3 <u>10</u>               | <u>40</u> | <u>6</u>                    | <u>60</u>  | <u>10</u>                   | <u>45</u> | <u>6</u>                    | <u>55</u>  |
| P 4 <u>15</u>               | <u>40</u> | <u>9</u>                    | <u>81</u>  | <u>15</u>                   | <u>45</u> | <u>9</u>                    | <u>60</u>  |
| P 5 <u>20</u>               | <u>40</u> | <u>12</u>                   | <u>121</u> | <u>20</u>                   | <u>45</u> | <u>12</u>                   | <u>66</u>  |
| P 6 <u>25</u>               | <u>40</u> | <u>15</u>                   | <u>195</u> | <u>25</u>                   | <u>45</u> | <u>15</u>                   | <u>71</u>  |
| P 7 <u>30</u>               | <u>40</u> | <u>18</u>                   | <u>298</u> | <u>30</u>                   | <u>45</u> | <u>18</u>                   | <u>78</u>  |
| P 8 <u>35</u>               | <u>40</u> | <u>21</u>                   | <u>397</u> | <u>35</u>                   | <u>45</u> | <u>21</u>                   | <u>89</u>  |
| P 9 <u>40</u>               | <u>40</u> | <u>24</u>                   | <u>491</u> | <u>40</u>                   | <u>44</u> | <u>24</u>                   | <u>102</u> |
| P10                         |           | <u>27</u>                   | <u>582</u> | <u>45</u>                   | <u>44</u> | <u>27</u>                   | <u>117</u> |
| P11                         |           | <u>30</u>                   | <u>655</u> | <u>50</u>                   | <u>44</u> | <u>30</u>                   | <u>137</u> |
| P12                         |           | <u>33</u>                   | <u>728</u> | <u>55</u>                   | <u>44</u> | <u>33</u>                   | <u>167</u> |
| P13                         |           |                             |            | <u>60</u>                   | <u>44</u> | <u>36</u>                   | <u>205</u> |
| P14                         |           |                             |            | <u>65</u>                   | <u>44</u> | <u>39</u>                   | <u>253</u> |
| P15                         |           |                             |            | <u>70</u>                   | <u>44</u> | <u>42</u>                   | <u>316</u> |
| P16                         |           |                             |            | <u>75</u>                   | <u>44</u> | <u>45</u>                   | <u>389</u> |
| P17                         |           |                             |            |                             |           | <u>48</u>                   | <u>459</u> |
| P18                         |           |                             |            |                             |           | <u>51</u>                   | <u>534</u> |
| P19                         |           |                             |            |                             |           | <u>54</u>                   | <u>603</u> |
| P20                         |           |                             |            |                             |           | <u>57</u>                   | <u>662</u> |

# WESTERN TESTING CO., INC.

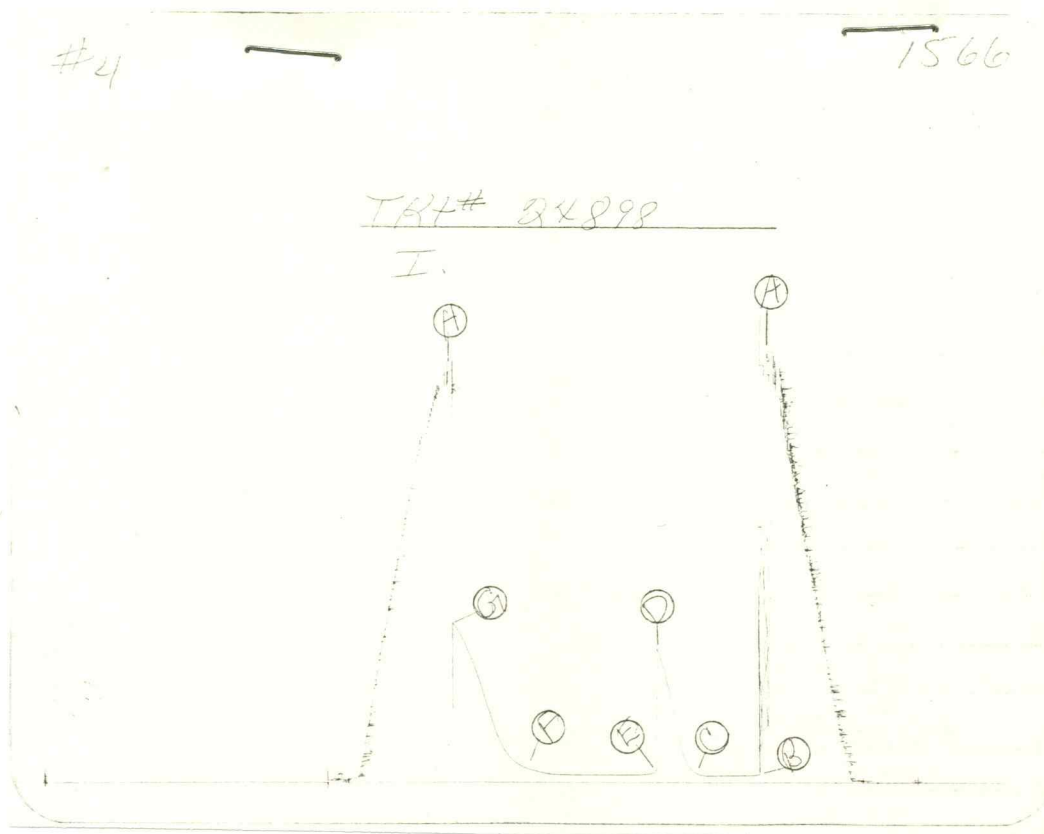
## Pressure Data

Date 10-3-77 Test Ticket No. 24898  
 Recorder No. 1566 Capacity 4300 Location 4390 F  
 Clock No. 6774 Elevation 2312 Kelly Bushing Well Temperature 125 °

| Point                          | Pressure |        | Time Given | Time Computed |
|--------------------------------|----------|--------|------------|---------------|
| A Initial Hydrostatic Mud      | 2330     | P.S.I. | 2:42A      | M             |
| B First Initial Flow Pressure  | 48       | P.S.I. | 30         | Mins. 40 Min  |
| C First Final Flow Pressure    | 40       | P.S.I. | 45         | Mins. 33 Min  |
| D Initial Closed-in Pressure   | 728      | P.S.I. | 60         | Mins. 75 Min  |
| E Second Initial Flow Pressure | 44       | P.S.I. | 90         | Mins. 72 Min  |
| F Second Final Flow Pressure   | 44       | P.S.I. |            |               |
| G Final Closed-in Pressure     | 889      | P.S.I. |            |               |
| H Final Hydrostatic Mud        | 2293     | P.S.I. |            |               |

### PRESSURE BREAKDOWN

| First Flow Pressure         |        | Initial Shut-In             |        | Second Flow Pressure        |        | Final Shut-In               |        |
|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|
| Breakdown: <u>8</u> Inc.    |        | Breakdown: <u>11</u> Inc.   |        | Breakdown: <u>15</u> Inc.   |        | Breakdown: <u>25</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                         |        |                             |        |                             |        | 60                          | 719    |
| P 2                         |        |                             |        |                             |        | 63                          | 723    |
| P 3                         |        |                             |        |                             |        | 66                          | 819    |
| P 4                         |        |                             |        |                             |        | 69                          | 859    |
| P 5                         |        |                             |        |                             |        | 72                          | 889    |
| P 6                         |        |                             |        |                             |        |                             |        |
| P 7                         |        |                             |        |                             |        |                             |        |
| P 8                         |        |                             |        |                             |        |                             |        |
| P 9                         |        |                             |        |                             |        |                             |        |
| P10                         |        |                             |        |                             |        |                             |        |
| P11                         |        |                             |        |                             |        |                             |        |
| P12                         |        |                             |        |                             |        |                             |        |
| P13                         |        |                             |        |                             |        |                             |        |
| P14                         |        |                             |        |                             |        |                             |        |
| P15                         |        |                             |        |                             |        |                             |        |
| P16                         |        |                             |        |                             |        |                             |        |
| P17                         |        |                             |        |                             |        |                             |        |
| P18                         |        |                             |        |                             |        |                             |        |
| P19                         |        |                             |        |                             |        |                             |        |
| P20                         |        |                             |        |                             |        |                             |        |



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |     |
|----------------------------------------|---------------|----------------|-----|
|                                        | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2221          | 2330           | PSI |
| (B) First Initial Flow Pressure .....  | 43            | 48             | PSI |
| (C) First Final Flow Pressure .....    | 43            | 40             | PSI |
| (D) Initial Closed-in Pressure .....   | 755           | 728            | PSI |
| (E) Second Initial Flow Pressure ..... | 43            | 63             | PSI |
| (F) Second Final Flow Pressure .....   | 54            | 44             | PSI |
| (G) Final Closed-in Pressure .....     | 895           | 889            | PSI |
| (H) Final Hydrostatic Mud .....        | 2200          | 2293           | PSI |