



KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1055090

Form ACO-1

June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- ☐ New Well ☐ Re-Entry ☐ Workover
- ☐ Oil ☐ WSW ☐ SWD ☐ SIOW
- ☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
- ☐ OG ☐ GSW ☐ Temp. Abd.
- ☐ CM (Coal Bed Methane)
- ☐ Cathodic ☐ Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- ☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
- ☐ Conv. to GSW
- ☐ Plug Back: _____ Plug Back Total Depth _____
- ☐ Commingled Permit #: _____
- ☐ Dual Completion Permit #: _____
- ☐ SWD Permit #: _____
- ☐ ENHR Permit #: _____
- ☐ GSW Permit #: _____

Spud Date or
Recompletion Date

Date Reached TD

Completion Date or
Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West

_____ Feet from ☐ North / ☐ South Line of Section

_____ Feet from ☐ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☐ NW ☐ SE ☐ SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? ☐ Yes ☐ No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☐ Letter of Confidentiality Received

Date: _____

☐ Confidential Release Date: _____

☐ Wireline Log Received

☐ Geologist Report Received

☐ UIC Distribution

ALT ☐ I ☐ II ☐ III Approved by: _____ Date: _____



1055090

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

| | |
|--|--|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: | <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> Name Top Datum </div> |
|--|--|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
|--|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|---------------------------------------|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| ____ Perforate | | | | |
| ____ Protect Casing | | | | |
| ____ Plug Back TD | | | | |
| ____ Plug Off Zone | | | | |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | | | |
|---|-----------|---------|--|---------------|--|
| TUBING RECORD: | | Size: | Set At: | Packer At: | Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Date of First, Resumed Production, SWD or ENHR. | | | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ | | |
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |

| | | |
|--|--|---|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <i>(Submit ACO-5)</i> <input type="checkbox"/> Commingled <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL: _____ _____ |
|--|--|---|

| | |
|-----------|------------------------|
| Form | ACO1 - Well Completion |
| Operator | Hess Oil Company |
| Well Name | Angela 1 |
| Doc ID | 1055090 |

Tops

| Name | Top | Datum |
|------------------|------|-------|
| Anhydrite | 1578 | +842 |
| Base Anhydrite | 1603 | +817 |
| Heebner | 3954 | -1534 |
| Lansing | 4003 | -1583 |
| Stark Shale | 4306 | -1886 |
| Base Kansas City | 4418 | -1998 |
| Pawnee | 4468 | -2048 |
| Fort Scott | 4535 | -2115 |
| Cherokee Shale | 4566 | -2146 |
| Cherokee Sand | 4665 | -2245 |
| Mississippi | 4697 | -2277 |
| RTD | 4706 | -2286 |

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

| | |
|--|----------------------|
| COMPANY <u>HESS OIL COMPANY</u> | ELEVATIONS |
| LEASE <u>ANGELA #1</u> | KB <u>2420'</u> |
| FIELD <u>- WILDCAT -</u> | DF <u>2418'</u> |
| LOCATION <u>700' FNL, 2035' FEL</u> | GL <u>2415'</u> |
| SEC <u>25</u> TWSP <u>23 S</u> RGE <u>24 W</u> | Measurements Are All |
| COUNTY <u>HODGEMAN</u> STATE <u>KANSAS</u> | From <u>KB</u> |

| | |
|--|------------------------------|
| CONTRACTOR <u>MALLARD J.V.</u> | CASING |
| SPUD <u>3-31-11</u> COMP <u>4-8-11</u> | SURFACE <u>8-5/8 at 233'</u> |
| RTD <u>4706'</u> LTD <u>none</u> | PRODUCTION <u>none</u> |
| MUD UP <u>3750'</u> TYPE MUD <u>CHEMICAL</u> | ELECTRICAL SURVEYS |
| | <u>none</u> |

| | |
|--|--------------|
| SAMPLES SAVED FROM <u>4400'</u> | TO <u>TD</u> |
| DRILLING TIME KEPT FROM <u>3800'</u> | TO <u>TD</u> |
| SAMPLES EXAMINED FROM <u>4400'</u> | TO <u>TD</u> |
| GEOLOGICAL SUPERVISION FROM <u>3800'</u> | TO <u>TD</u> |
| GEOLOGIST ON WELL <u>JAMES C. HESS</u> | |

| FORMATION TOPS | LOG | SAMPLES | | | | |
|------------------|-----|--------------|------|--|--|--|
| ANHYDRITE | | 1578 (+842) | 24 W | | | |
| BASE ANHYDRITE | | 1603 (+817) | | | | |
| HEEBNER | | 3954 (-1534) | | | | |
| LANSING | | 4003 (-1583) | | | | |
| STARK SHALE | | 4306 (-1886) | 23 S | | | |
| BASE KANSAS CITY | | 4418 (-1998) | | | | |
| PAWNEE | | 4468 (-2048) | | | | |
| FORT SCOTT | | 4535 (-2115) | | | | |
| CHEROKEE SHALE | | 4566 (-2146) | | | | |
| MISSISSIPPI | | 4697 (-2277) | | | | |
| RTD | | 4706 (-2286) | | | | |

REMARKS Pipe strap 2⁰³ 1049 to board at 4669'

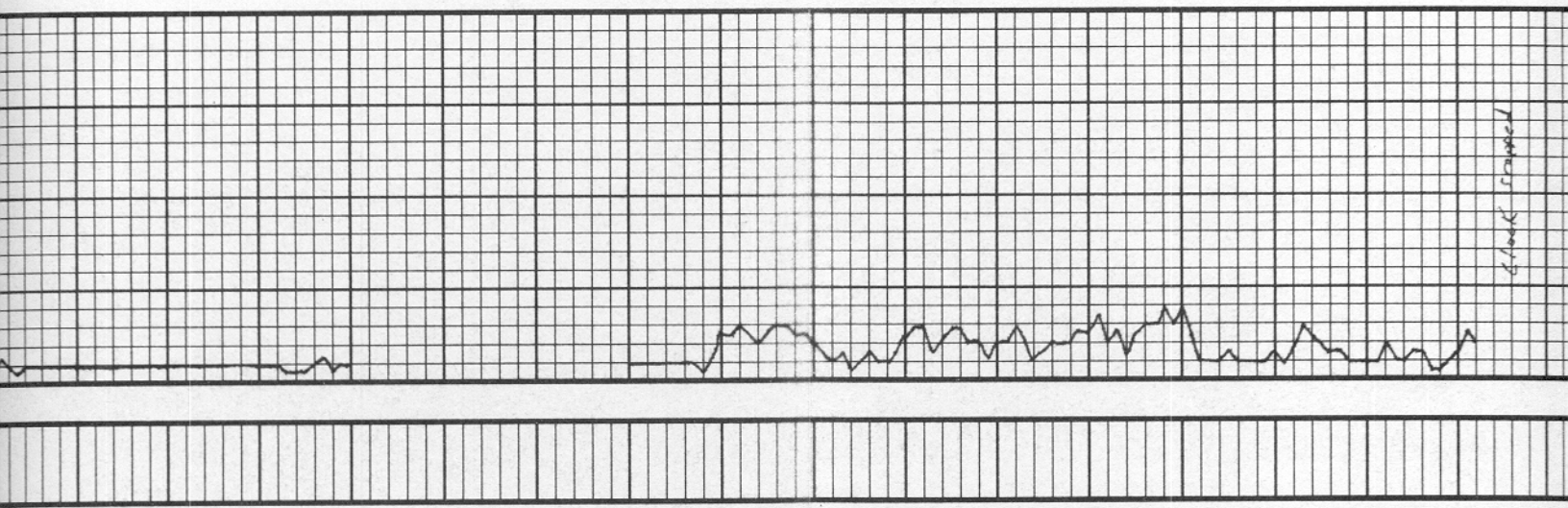
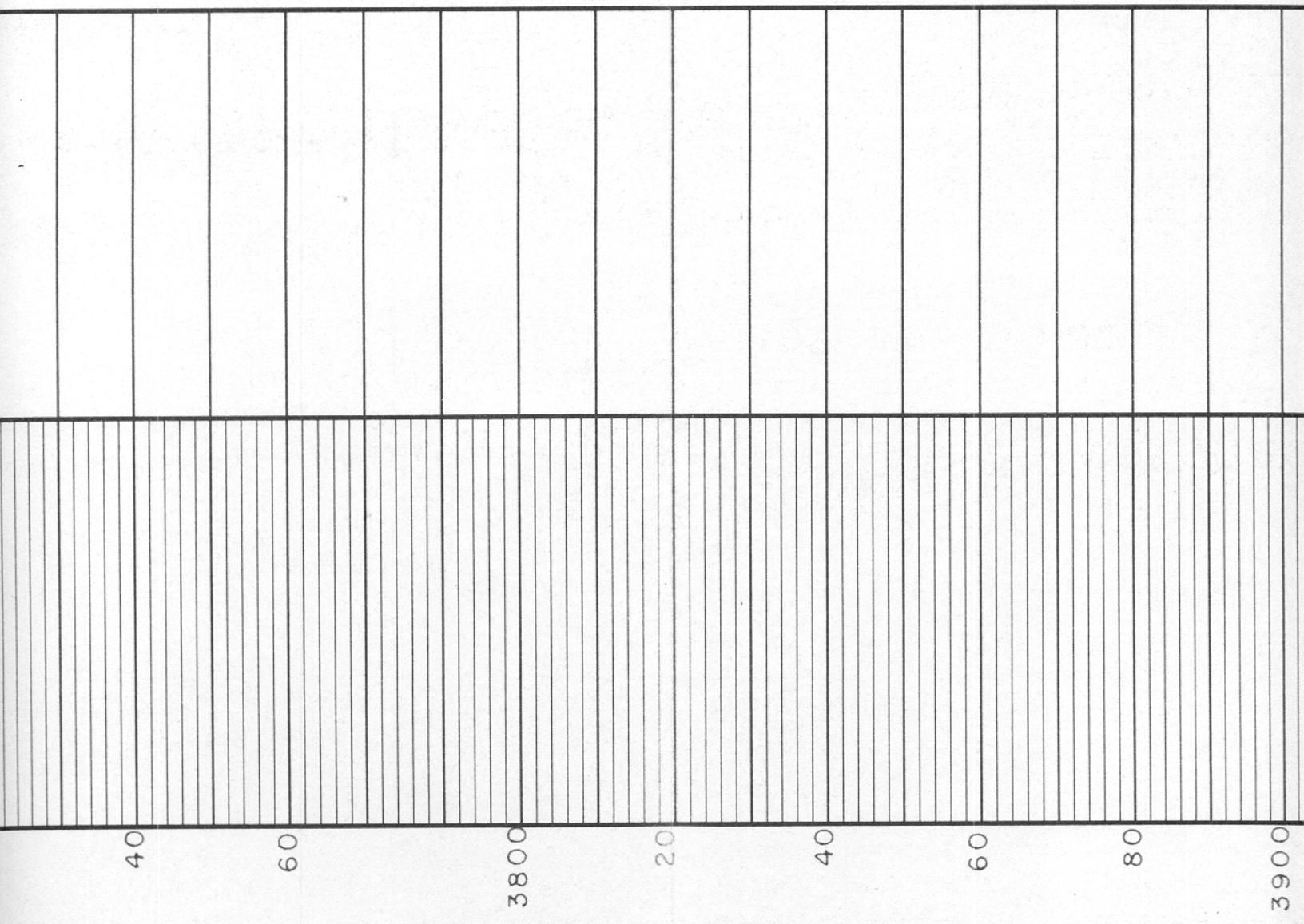
LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Ool. Lime
- Chert
- Dolomite

SCALE " = 100'

LOG 7703

| Lithology | Drilling time in minutes | DEPTH | Sample Description | Remarks, drill stem tests, etc. |
|-----------|--------------------------|-------|--------------------|---------------------------------|
| | 0 5 10 15 20 | 1560 | | |
| | | 80 | | ANHYDRITE 1578 (+842) |
| | | 1600 | | BASE ANHYDRITE 1603 (+817) |
| | | 20 | | |



3900

20

40

60

80

4000

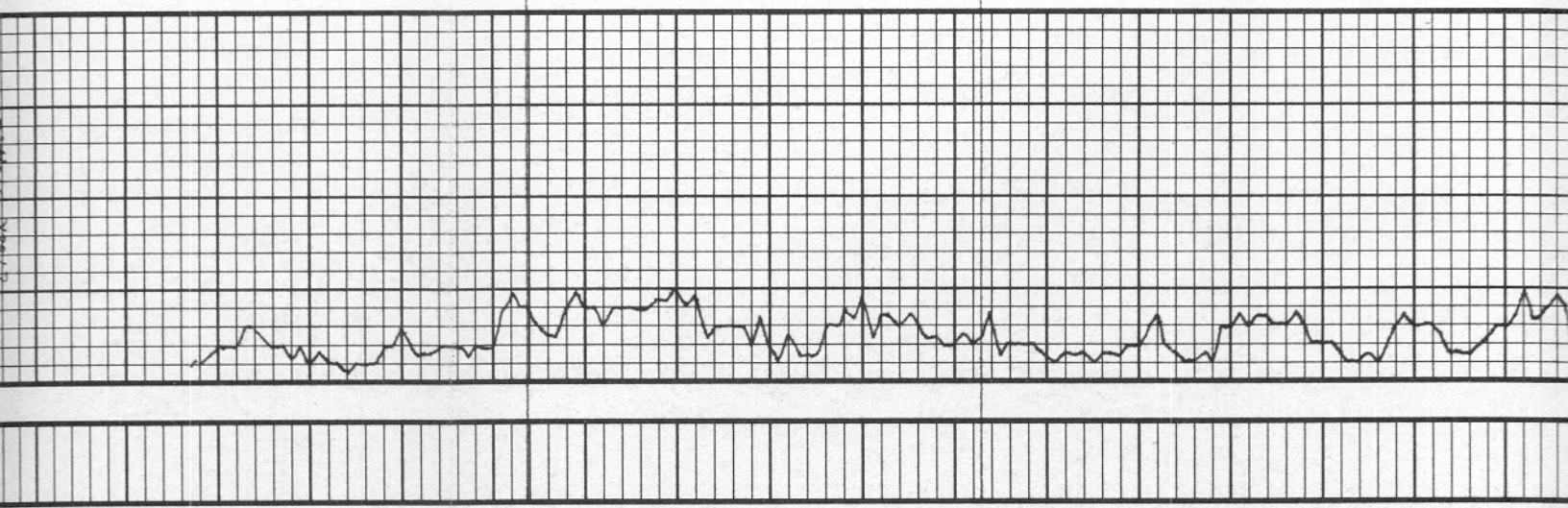
20

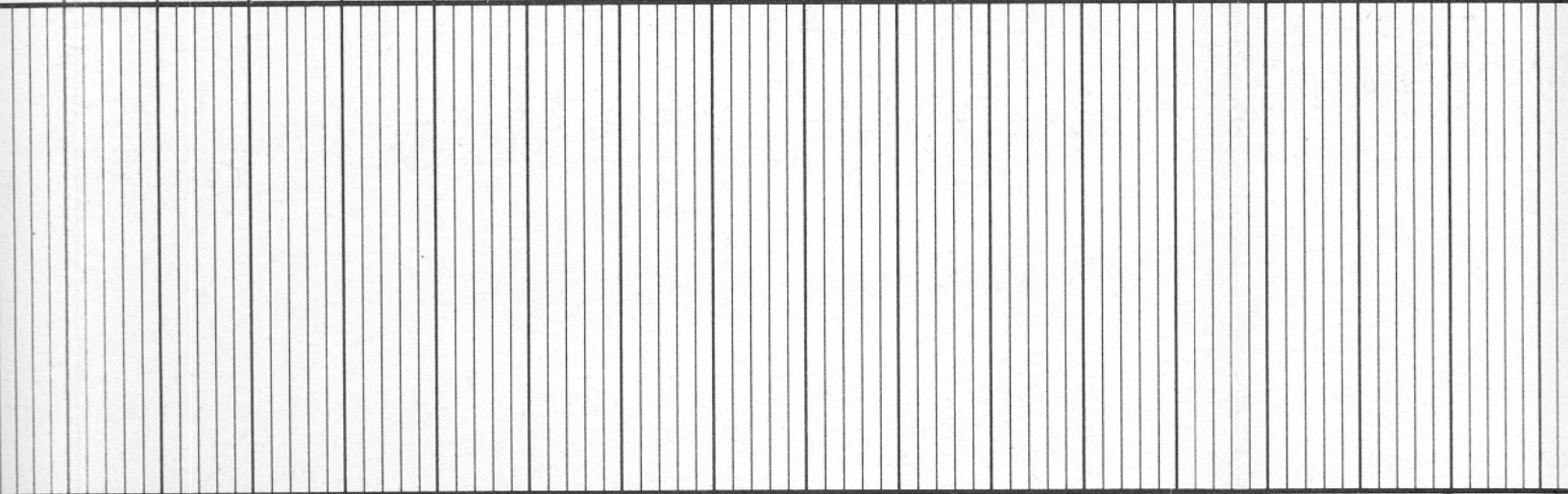
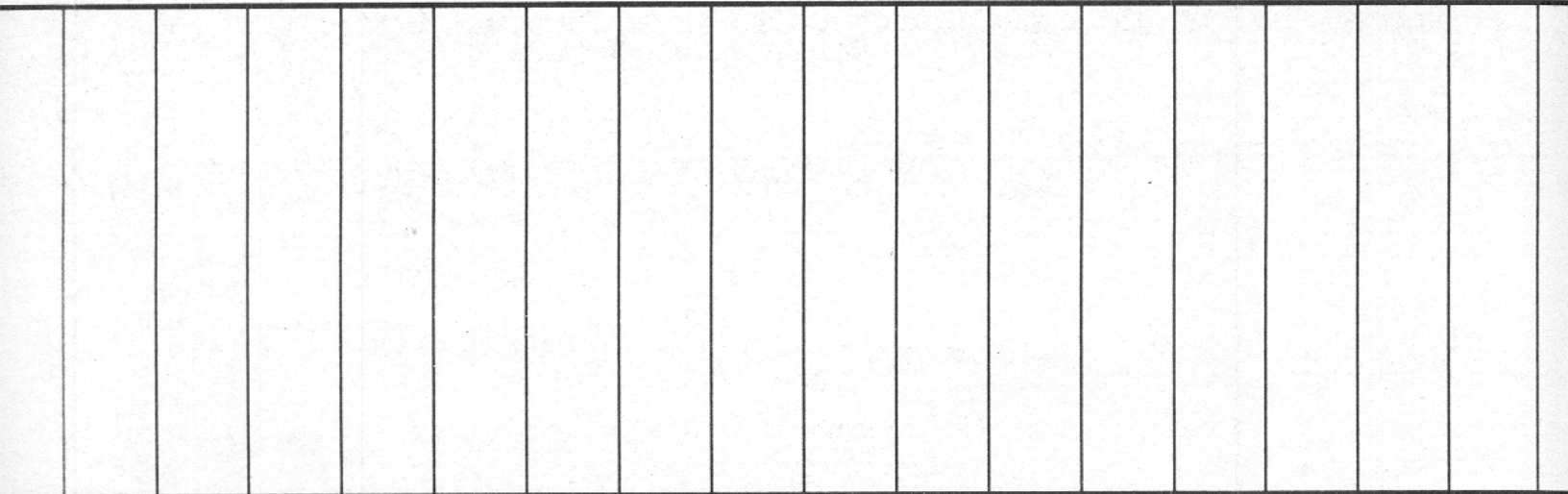
40

60

HEEBNER 3954 (-1534)

LANSING 4003 (-1583)





80

4100

20

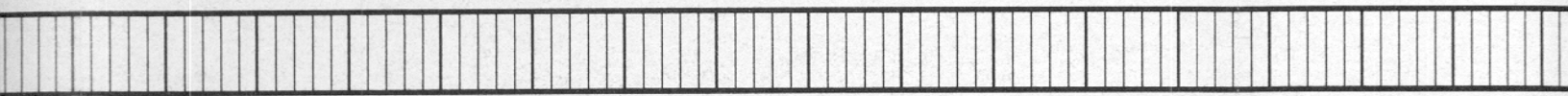
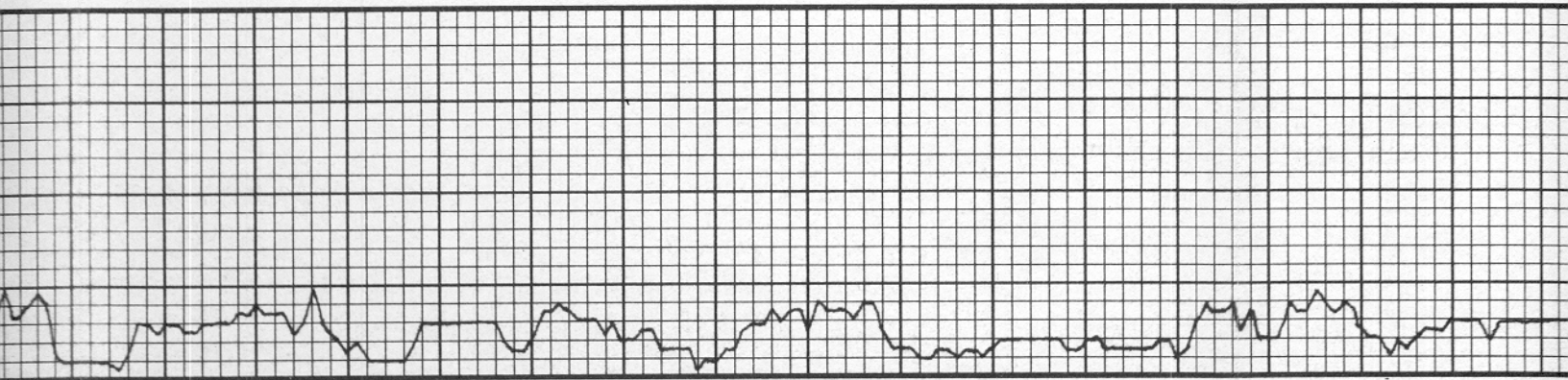
40

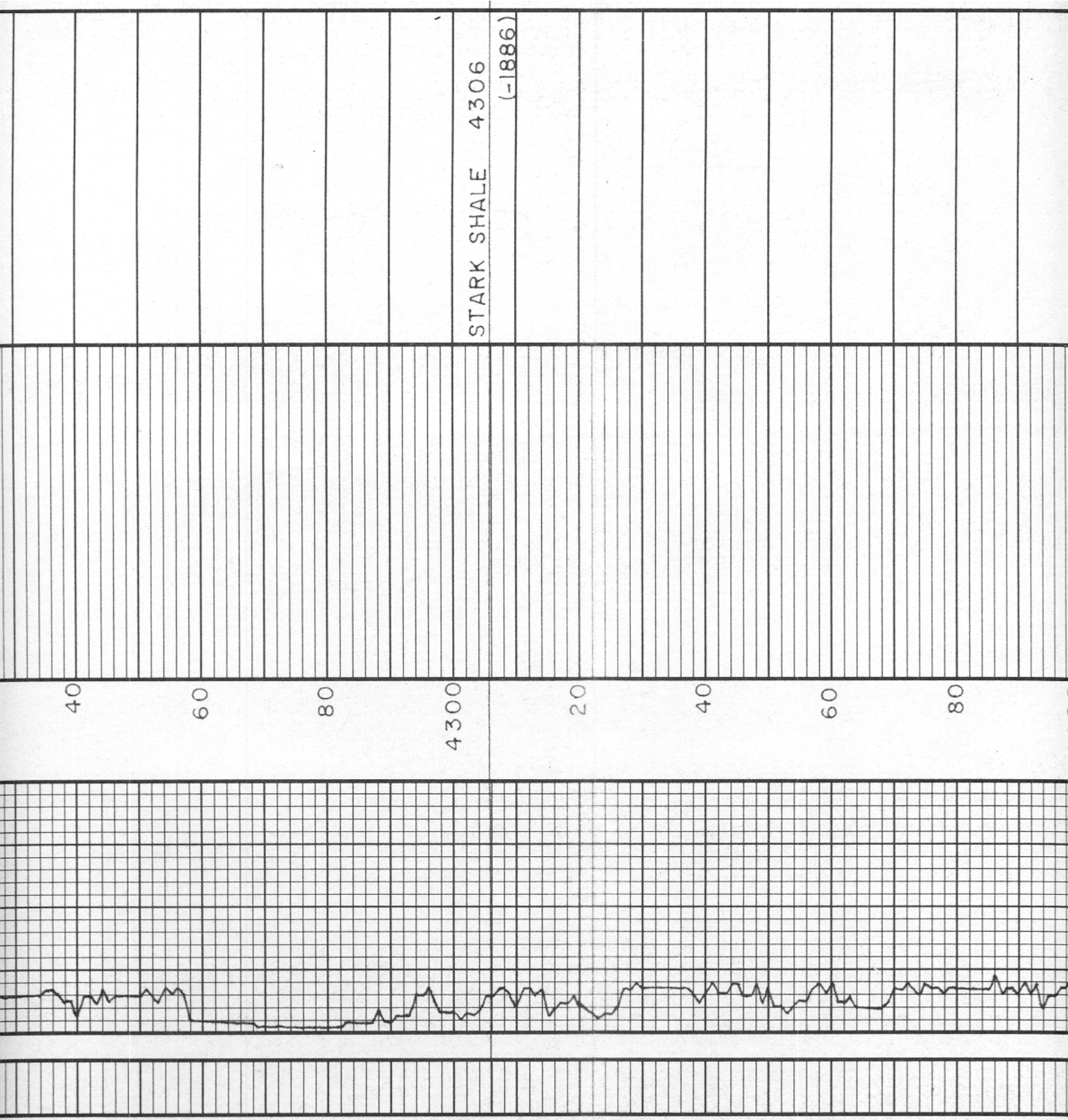
60

80

4200

20





STARK SHALE 4306

(-1886)

40

60

80

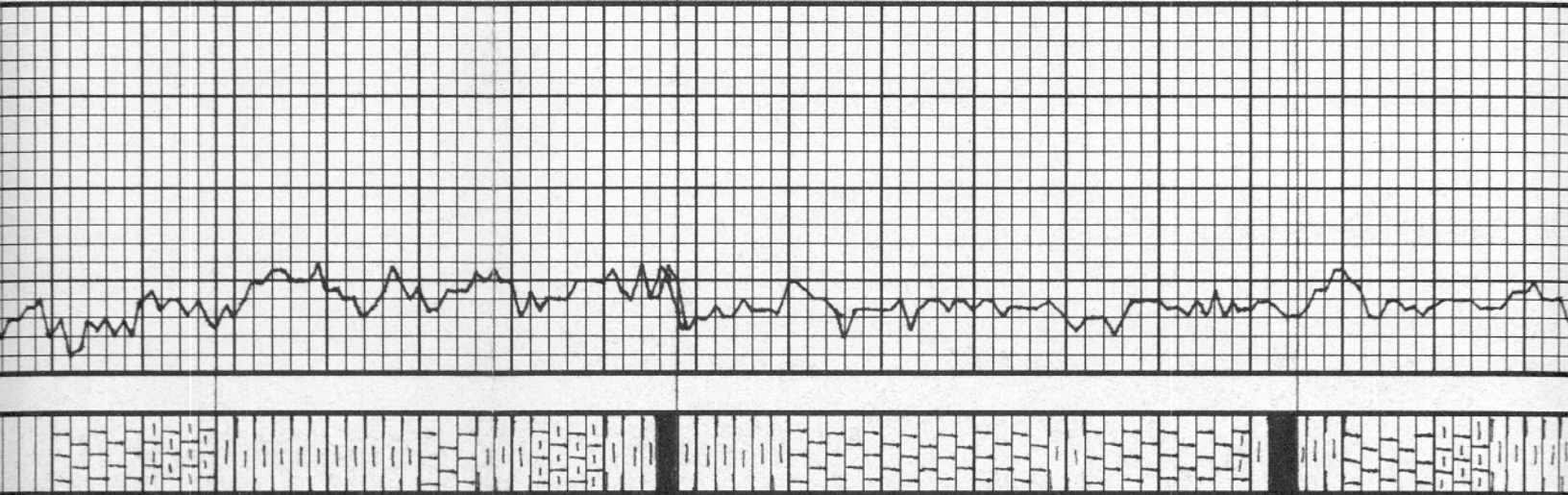
4300

20

40

60

80



BASE KANSAS CITY 4418

(-1998)

PAWNEE 4468 (-2048)

FORT SCOTT 4535 (-2115)

CHEROKEE SHALE 4566

4400

20

40

60

80

4500

20

40

60

Lim - Tan VF-Palm OS Lm
w/ PE's w/ chalky Lm
Some Red + Green sh's

AA w/ more sh's
No show

Mostly Green sh's
Some Lim-Grey VF-Palm Lm
w/ PE's w/ chalky Lm

AA w/ mostly green sh's
No show

Lim-Grey VF-Palm chalky Lm
w/ PE's w/ chalky Lm
Some Green sh's

AA w/ more chalky Lm
No show

BI Carb. sh's

Some Green sh's
Grey VF-Palm OS Lm
w/ PE's w/ chalky Lm

AA w/ less sh's
No show

Grey VF-Palm OS Lm
w/ PE's w/ chalky Lm

AA w/ less sh's
No show

Some BI Carb. sh's
Grey VF-Palm OS Lm
Some Green sh's

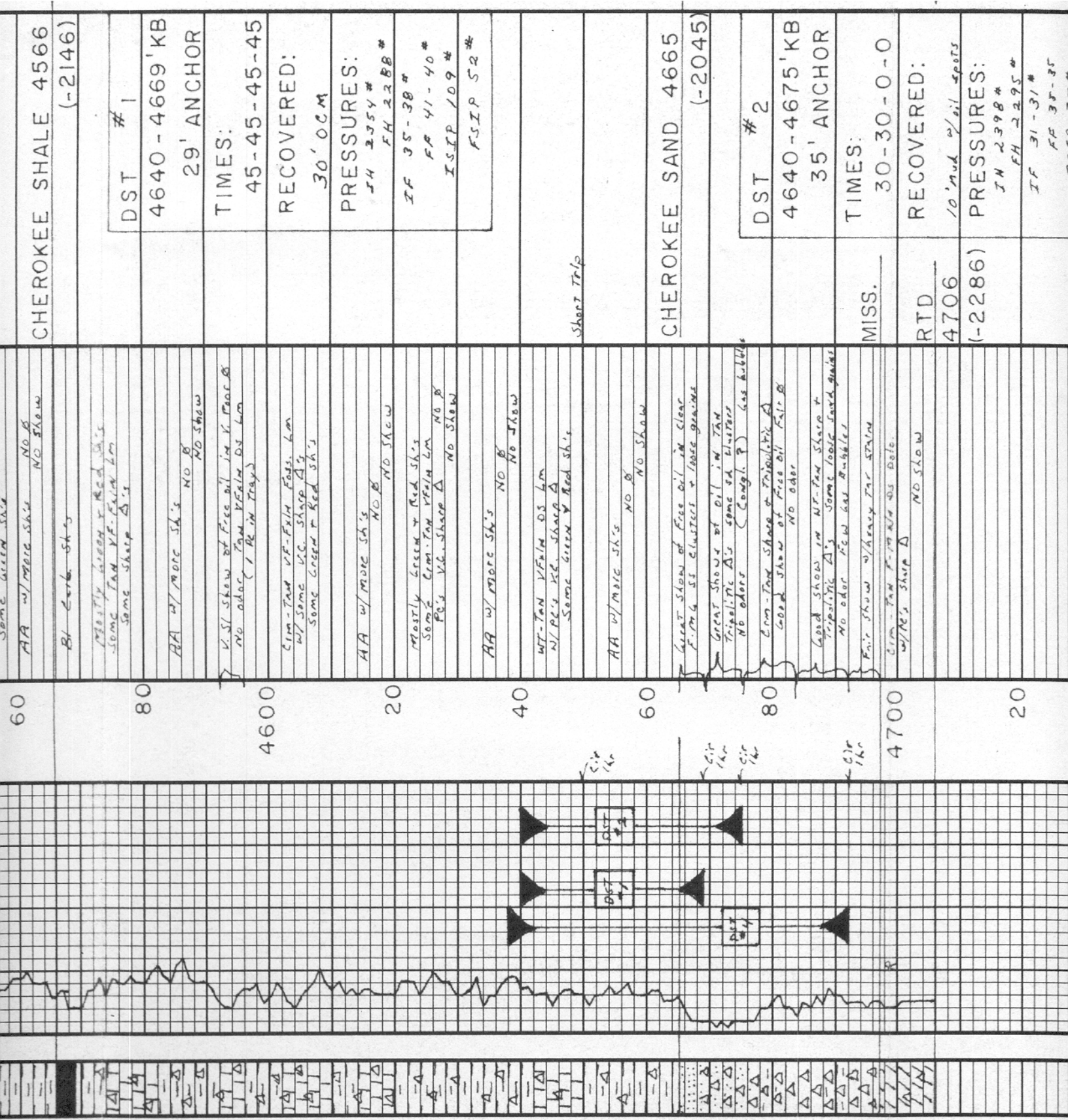
Lim-Grey VF-Palm sl chalky Lm
Some Tan-Grey chalky Lm
Some Green sh's

BI Carb. sh's

Lim-Tan VF-Palm sl Foss. Lm
w/ PE's w/ chalky Lm
Some Green sh's

Lim-BI Palm sl Foss. Lm
w/ PE's w/ chalky Lm
Some Green sh's

AA w/ more sh's
No show



CHEROKEE SHALE 4566
(-2146)

DST #1
4640-4669' KB
29' ANCHOR
TIMES:
45-45-45-45
RECOVERED:
30' 00 M
PRESSURES:
FH 2354 #
FH 2288 #
ZF 35-38 #
FR 41-40 #
ISIP 109 #
FSIP 52 #

Short Trip

CHEROKEE SAND 4665
(-2045)

DST #2
4640-4675' KB
35' ANCHOR
TIMES:
30-30-0-0
RECOVERED:
10' mud w/oil spots
PRESSURES:
IN 2398 #
FH 2295 #
IF 31-31 #
FR 38-35 #

MISS.
RTD
4706
(-2286)

IN 2398 #
FH 2295 #
IF 31-31 #
FF 38-35
ISIP 75 #
FSIP --

DST # 3
4660-4692' KB
32' ANCHOR
MISS RUN

DST # 4
4638-4692' KB
54' ANCHOR

TIMES:
45-45-45-45

RECOVERED:
20' Mud

PRESSURES:
IH 2501 #
FN 2383 #

IF 30-42 #
FF 36-56 #
ISIP 137 #

FSIP 92 #

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

GEOLOGICAL REPORT

ANGELA #1

700' FNL, 2035' FEL of

SECTION 25 - 23S - 24W

HODGEMAN COUNTY, KANSAS

Commenced: 3-31-11

Elevations: 2415' GR, 2420' KB

Completed: 4-8-11

Surface Pipe: 8-5/8" @ 233' KB

Contractor: Mallard J.V.

Production Pipe: none

One foot drilling time was kept from 1560 to 1660' KB and from 3800' to RTD. Ten foot drilling samples were kept (wet & dry) from 4400' to rotary total depth.

Following are sample tops, descriptions of zones of interest (including all shows of oil & gas), and the results of all drill stem tests.

ANHYDRITE

1578 (+842)

BASE ANHYDRITE

1603 (+817)

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

Angela #1

Page 2

| | | |
|-------------------------|-------------|----------------|
| <u>HEEBNER</u> | <u>3954</u> | <u>(-1534)</u> |
| <u>LANSING</u> | <u>4003</u> | <u>(-1583)</u> |
| <u>STARK SHALE</u> | <u>4306</u> | <u>(-1886)</u> |
| <u>BASE KANSAS CITY</u> | <u>4418</u> | <u>(-1998)</u> |
| <u>PAWNEE</u> | <u>4468</u> | <u>(-2048)</u> |
| <u>FORT SCOTT</u> | <u>4535</u> | <u>(-2115)</u> |
| <u>CHEROKEE SHALE</u> | <u>4566</u> | <u>(-2146)</u> |
| <u>CHEROKEE SAND</u> | <u>4665</u> | <u>(-2145)</u> |

4665-69' KB

Clear, fine to medium grained, fairly sorted, poorly rounded, sandstone clusters & loose grains. Great show of free oil in poor intergranular porosity, no odor, strong stain, and a very strong cut.

DRILL STEM TEST #1

4640 to 4669' KB

29' Anchor

Blow: Slow build to $1\frac{1}{4}$ " in 45 min.. 2nd -- no blow.

Times: Open 45, Closed 45, Open 45, Closed 45.

Recovered: 30' Oil Cut Mud (5% oil)

| | | | |
|------------|----------|-------------|-----------|
| Pressures: | IH 2354# | IF 35 - 38# | ISIP 109# |
| | FH 2288# | FF 41 - 40# | FSIP 52# |

4670-75' KB

Tan, tripolitic, chert. Few sands as above. Great show of free oil in fair "on edge" porosity. No odor, Good stain, strong cut, and a few gas bubbles!! (congl. ?)

DRILL STEM TEST #2

4640 to 4675' KB

35' Anchor

Blow: $\frac{1}{4}$ " -- died back to weak surface blow in 30min.
2nd -- no blow.

Times: Open 30, Closed 30, Open 5, Closed 0.

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

Angela #1

Page 3

DRILL STEM TEST #2 (cont.)

Recovered: 10' Mud w/oil spots

| | | | |
|------------|----------|-------------|----------|
| Pressures: | IH 2398# | IF 31 - 31# | ISIP 75# |
| | FH 2295# | FF 35 - 35# | FSIP --- |

4676-92' KB Cream to tan, tripolitic, cherts. (some sharp PCs)
Few sand grains. Good show of free oil in fair
"on edge" porosity, no odor, strong stain, and a
strong cut. (some gas bubbles)

DRILL STEM TEST #3 4660 to 4692' KB 32' Anchor

----- Miss Run, Packer Failed -----

DRILL STEM TEST #4 4638 to 4692' KB 54' Anchor

Blow: slow build to 1". 2nd -- no blow.

Times: Open 45, Closed 45, Open 45, Closed 45.

Recovered: 20' Mud

| | | | |
|------------|----------|-------------|-----------|
| Pressures: | IH 2501# | IF 30 - 42# | ISIP 137# |
| | FH 2383# | FF 36-56# | FSIP 92# |

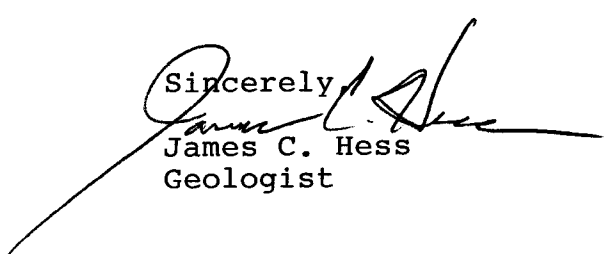
4693-97' KB White to tan sharp & tripolitic, cherts. Fair show
of free oil in fair "on edge" porosity, no odor,
fair stain, and a fair cut. Some heavy tar Stain !!

MISSISSIPPI 4697 (-2277)

ROTARY TOTAL DEPTH 4706 (-2286)

No logs were run as all shows were tested, except for 4693-97' KB (this showed heavy tar stain = water). It was decided to plug the Angela #1 on 4-8-11.

Sincerely,


James C. Hess
Geologist



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcperson, KS 67460
ATTN: Jamie Hess

Angela #1

25-23-24 Hodgeman, KS

Job Ticket: 042076

DST#: 1

Test Start: 2011.04.07 @ 02:46:53

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:46:48

Time Test Ended: 09:37:02

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: 4640.00 ft (KB) To 4669.00 ft (KB) (TVD)

Total Depth: 4669.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)

2413.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press @ Run Depth: 40.17 psig @ 4641.00 ft (KB)

Start Date: 2011.04.07

End Date:

2011.04.07

Start Time: 02:46:53

End Time:

09:37:02

Capacity: 8000.00 psig

Last Calib.: 2011.04.07

Time On Btm: 2011.04.07 @ 04:45:48

Time Off Btm: 2011.04.07 @ 07:48:17

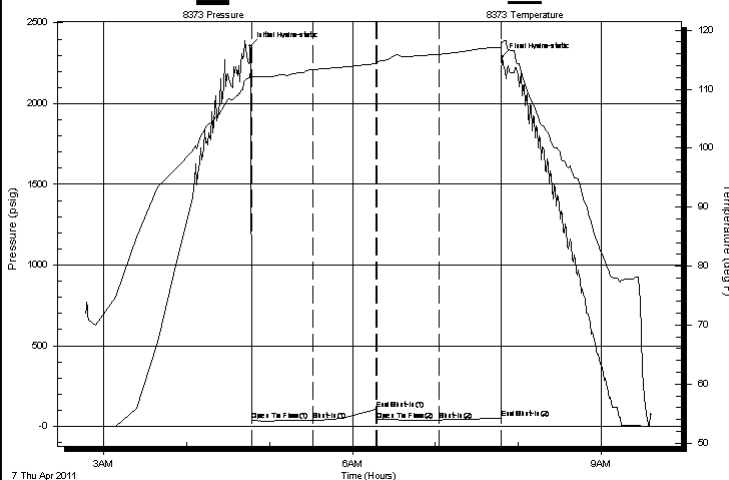
TEST COMMENT: IF: 1/4 blow built to 1 1/4 in 45 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2354.87 | 112.64 | Initial Hydro-static |
| 1 | 35.93 | 111.75 | Open To Flow (1) |
| 46 | 38.86 | 113.31 | Shut-In(1) |
| 92 | 109.54 | 114.35 | End Shut-In(1) |
| 92 | 41.01 | 114.40 | Open To Flow (2) |
| 137 | 40.17 | 115.92 | Shut-In(2) |
| 182 | 52.48 | 117.13 | End Shut-In(2) |
| 183 | 2288.07 | 117.86 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 30.00 | ocm 5% o 95% m | 0.15 |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|--|----------------|-----------------|------------------|



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcpherson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042076

DST#: 1

ATTN: Jamie Hess

Test Start: 2011.04.07 @ 02:46:53

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 14.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------|---------------|
| 30.00 | ocm 5%o 95%m | 0.148 |

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

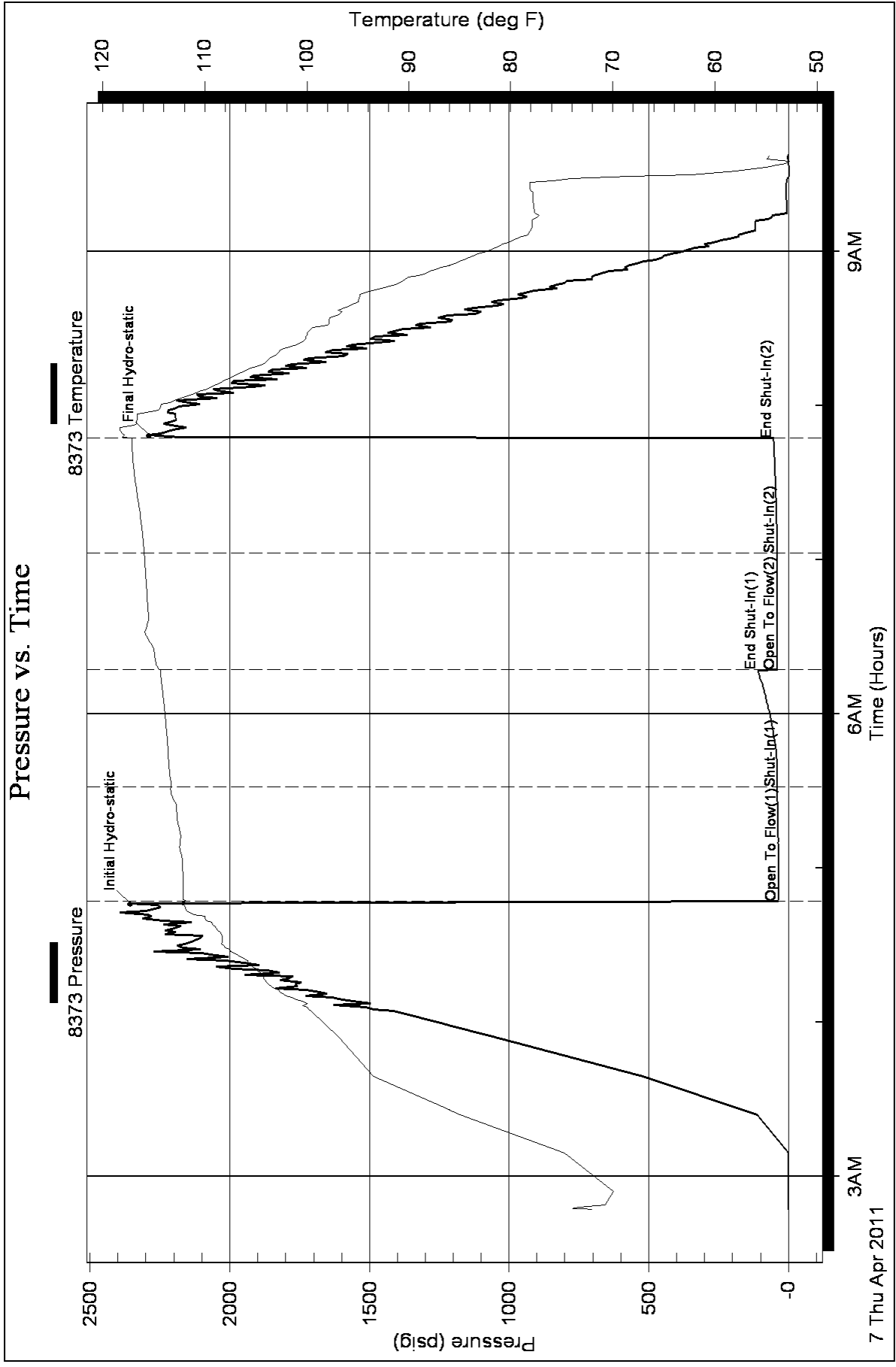
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1

25-23-24 Hodgeman, KS

Job Ticket: 042077

DST#: 2

Test Start: 2011.04.07 @ 14:52:34

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:44

Time Test Ended: 19:37:13

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: 4640.00 ft (KB) To 4675.00 ft (KB) (TVD)

Total Depth: 4675.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)

2413.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press @ Run Depth: 31.67 psig @ 4641.00 ft (KB)

Start Date: 2011.04.07

End Date:

2011.04.07

Start Time: 14:52:34

End Time:

19:37:13

Capacity: 8000.00 psig

Last Calib.: 2011.04.07

Time On Btm: 2011.04.07 @ 16:36:14

Time Off Btm: 2011.04.07 @ 17:43:44

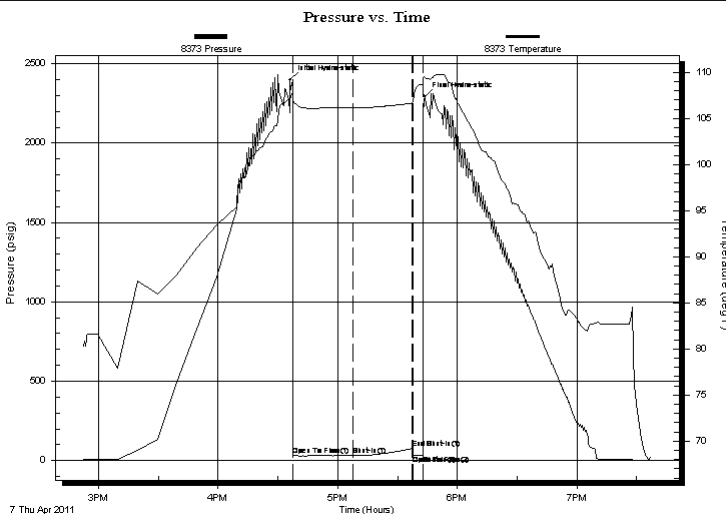
TEST COMMENT: IF: 1/4 blow died back to a surface blow in 30 min.

IS: No reutrn.

FF: No blow. Pulled the tool.

PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2398.64 | 107.07 | Initial Hydro-static |
| 2 | 31.19 | 107.01 | Open To Flow (1) |
| 32 | 31.67 | 106.14 | Shut-In(1) |
| 62 | 75.07 | 106.65 | End Shut-In(1) |
| 62 | 35.76 | 106.82 | Open To Flow (2) |
| 67 | 35.14 | 108.72 | Shut-In(2) |
| 68 | 2295.52 | 109.44 | Final Hydro-static |



Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 10.00 | mud oil spots 100%m | 0.05 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|--|----------------|-----------------|------------------|



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcperson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042077

DST#: 2

ATTN: Jamie Hess

Test Start: 2011.04.07 @ 14:52:34

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 14.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------|---------------|
| 10.00 | mud oil spots 100%m | 0.049 |

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

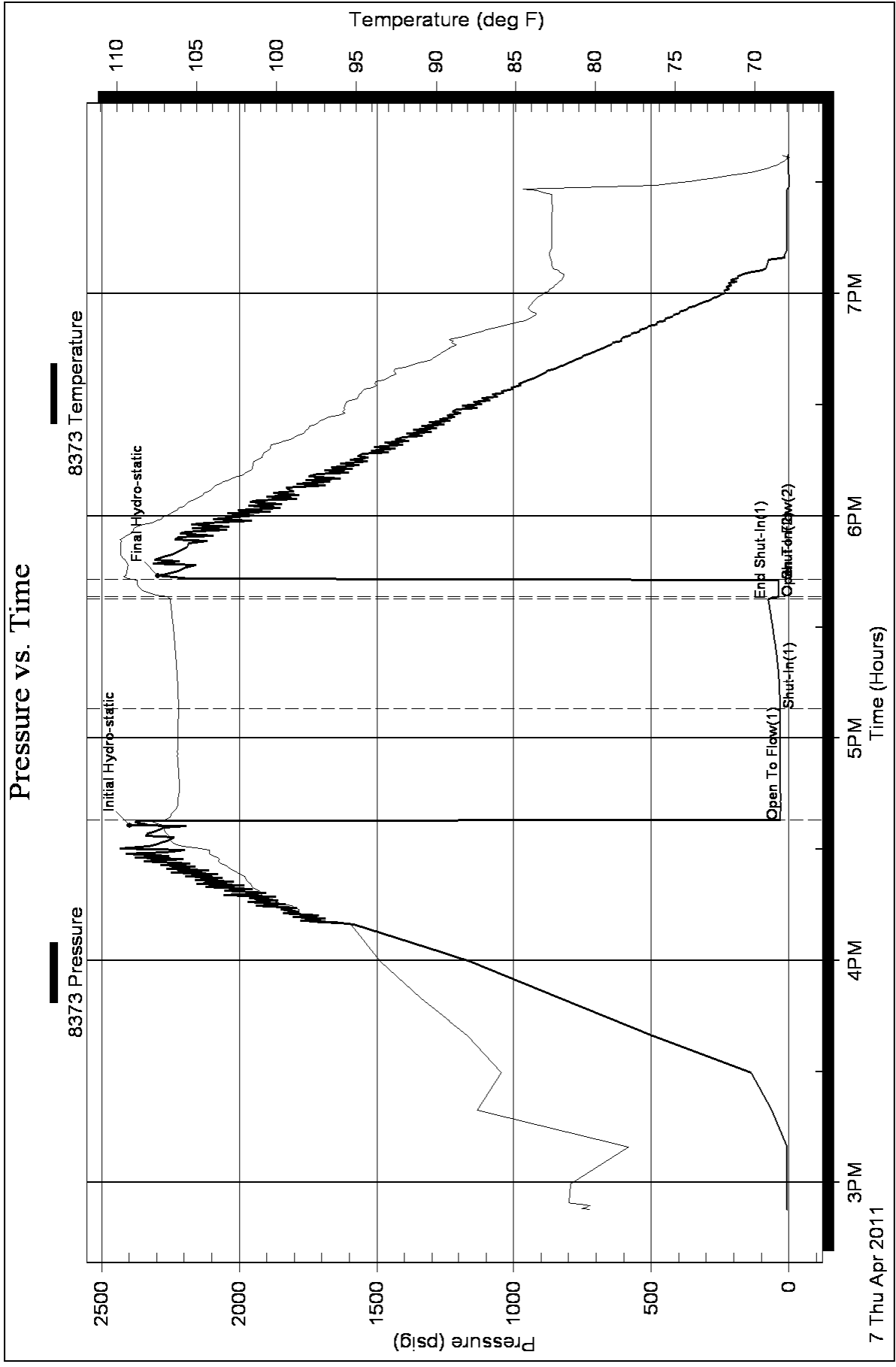
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1

25-23-24 Hodgeman, KS

Job Ticket: 042078

DST#: 3

Test Start: 2011.04.08 @ 01:50:30

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:56:25

Time Test Ended: 06:51:54

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: 4660.00 ft (KB) To 4692.00 ft (KB) (TVD)

Total Depth: 4692.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)

2413.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press @ Run Depth: psig @ 4661.00 ft (KB)

Start Date: 2011.04.08

End Date:

2011.04.08

Start Time: 01:50:30

End Time:

06:51:54

Capacity: 8000.00 psig

Last Calib.: 2011.04.08

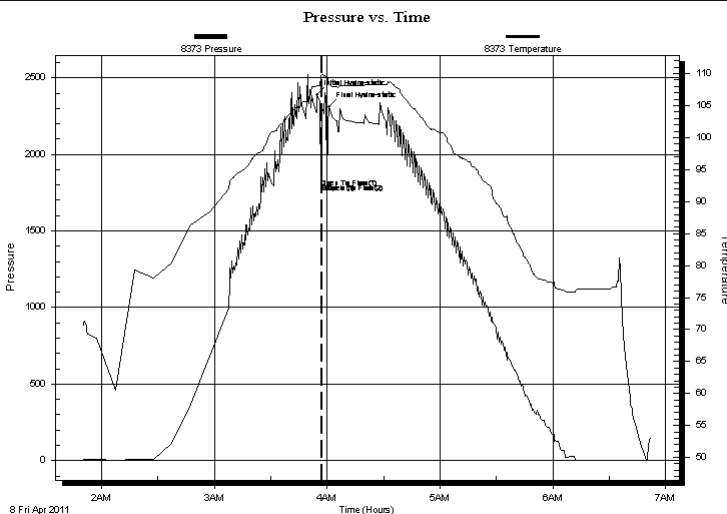
Time On Btm: 2011.04.08 @ 03:54:40

Time Off Btm: 2011.04.08 @ 04:00:55

TEST COMMENT: Packer failed at open.

PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2388.10 | 108.13 | Initial Hydro-static |
| 2 | 1779.58 | 109.51 | Open To Flow (1) |
| 3 | 1809.86 | 109.80 | Shut-In(1) |
| 6 | 1810.15 | 109.27 | Open To Flow (2) |
| 7 | 2309.26 | 108.48 | Final Hydro-static |



Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 620.00 | mud 100% m | 6.49 |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|--|----------------|-----------------|------------------|



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcpherson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042078

DST#: 3

ATTN: Jamie Hess

Test Start: 2011.04.08 @ 01:50:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 14.92 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 620.00 | mud 100%m | 6.492 |

Total Length: 620.00 ft

Total Volume: 6.492 bbl

Num Fluid Samples: 0

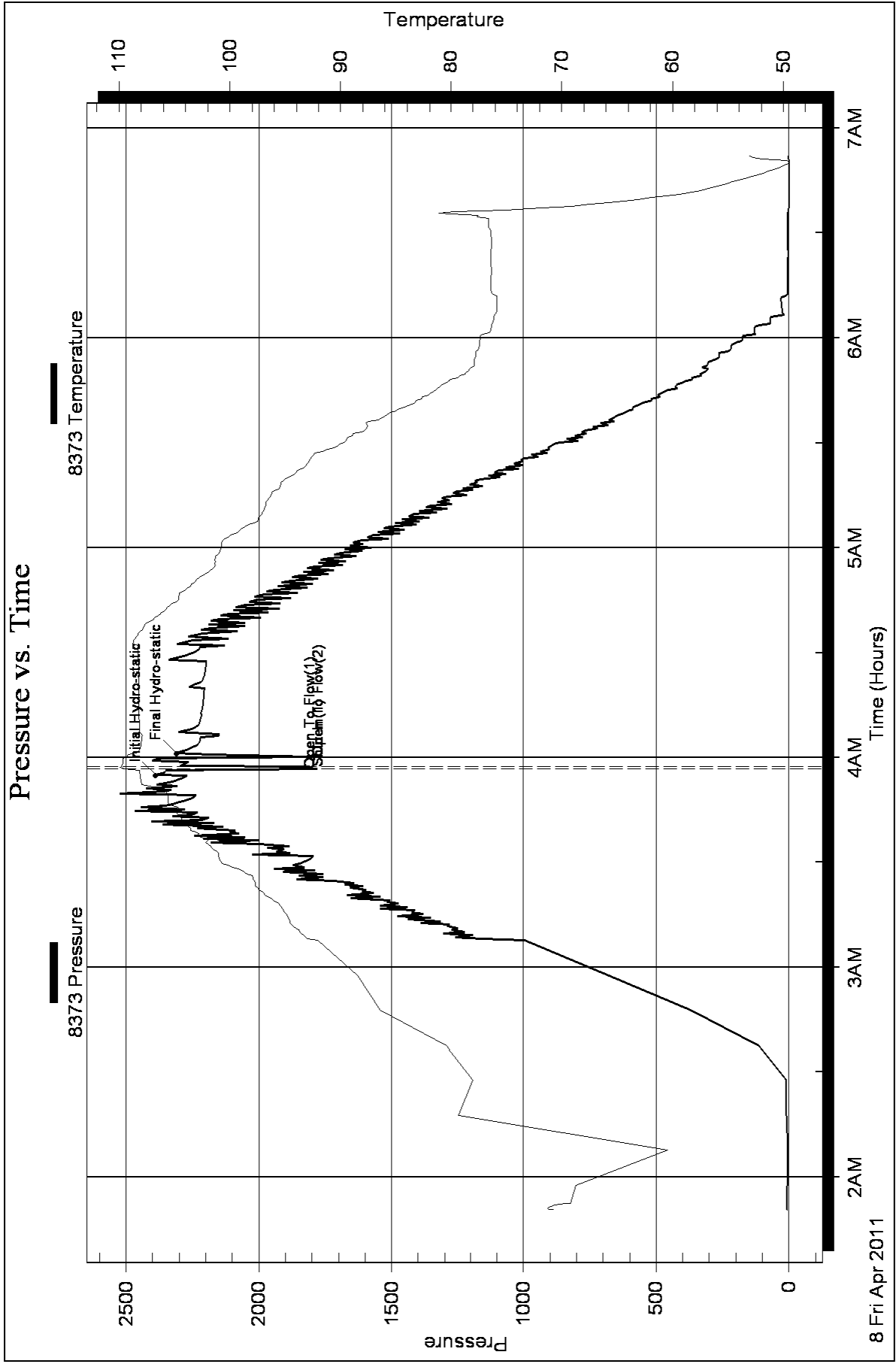
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Company
P.O. Box 1009
Mcpherson, KS 67460
ATTN: Jamie Hess

Angela #1

25-23-24 Hodgeman, KS

Job Ticket: 042079

DST#: 4

Test Start: 2011.04.08 @ 07:18:30

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:03:10

Time Test Ended: 13:57:39

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: 4638.00 ft (KB) To 4692.00 ft (KB) (TVD)

Total Depth: 4692.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2418.00 ft (KB)

2413.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press @ Run Depth: 56.07 psig @ 4639.00 ft (KB)

Start Date: 2011.04.08

End Date:

2011.04.08

Start Time: 07:18:30

End Time:

13:57:39

Capacity: 8000.00 psig

Last Calib.: 2011.04.08

Time On Btm: 2011.04.08 @ 09:02:10

Time Off Btm: 2011.04.08 @ 12:04:54

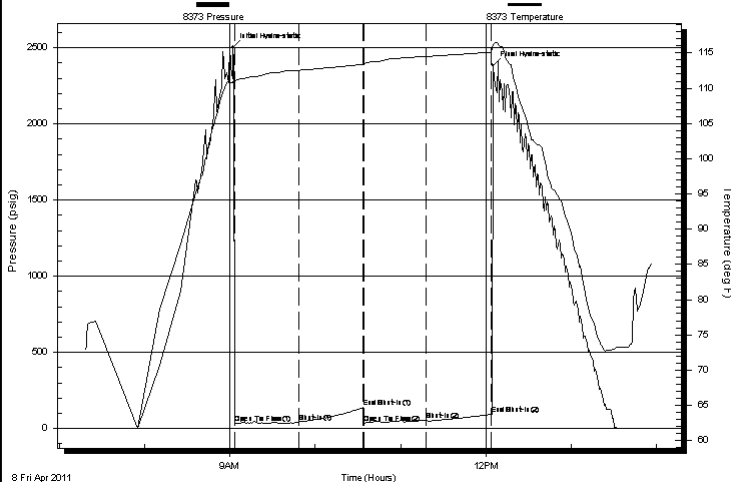
TEST COMMENT: IF: 1/4 blow built to 1 in 45 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2501.60 | 110.82 | Initial Hydro-static |
| 1 | 30.66 | 110.30 | Open To Flow (1) |
| 46 | 42.00 | 112.56 | Shut-In(1) |
| 92 | 137.49 | 113.40 | End Shut-In(1) |
| 93 | 36.26 | 113.45 | Open To Flow (2) |
| 136 | 56.07 | 114.51 | Shut-In(2) |
| 182 | 92.63 | 115.11 | End Shut-In(2) |
| 183 | 2383.07 | 116.24 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 20.00 | mud 100% m | 0.10 |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|--|----------------|-----------------|------------------|



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

Angela #1

P.O. Box 1009
Mcperson, KS 67460

25-23-24 Hodgeman, KS

Job Ticket: 042079

DST#: 4

ATTN: Jamie Hess

Test Start: 2011.04.08 @ 07:18:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 14.92 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 20.00 | mud 100%m | 0.098 |

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

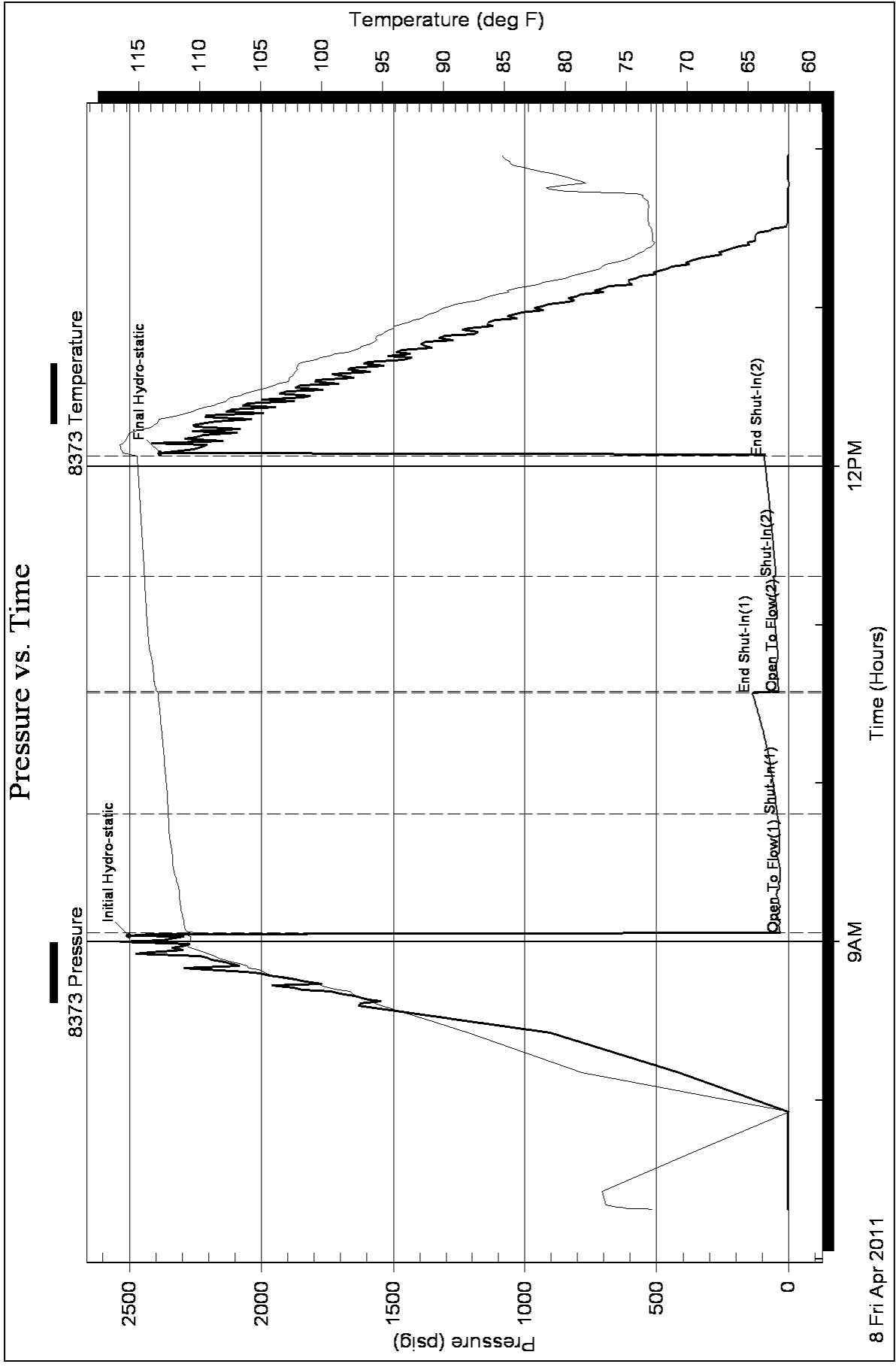
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



ALLIED CEMENTING CO., LLC. 037176

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

Great Bend KS

| | | | | | | | |
|------------------------------------|------------------|-----------------------------|------------------|--------------------------|----------------------------|-------------------------|---------------------------|
| DATE <u>3-31-2011</u> | SEC. <u>25</u> | TWP. <u>23S</u> | RANGE <u>24W</u> | CALLED OUT <u>6:00PM</u> | ON LOCATION <u>8:00PM</u> | JOB START <u>9:30PM</u> | JOB FINISH <u>10:00PM</u> |
| LEASE <u>Angela</u> | WELL # <u>#1</u> | LOCATION <u>Jetmore KS,</u> | | | COUNTY <u>Hodgeman KS,</u> | STATE | |
| OLD OR NEW (Circle one) <u>NEW</u> | | <u>3.5, 1/4 W 3/4 INTO</u> | | | | | |

CONTRACTOR Mallard

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 233

CASING SIZE 8 5/8 DEPTH 233

TUBING SIZE DEPTH

DRILL PIPE 11 1/2 DEPTH 233

TOOL DEPTH

PRES. MAX 250 PSI MINIMUM -

MEAS. LINE SHOE JOINT 15 FT

CEMENT LEFT IN CSG. 15 FT

PERFS.

DISPLACEMENT Fresh Water

OWNER Hess Oil Co.

CEMENT
AMOUNT ORDERED 160 SX Class A + 3% CC + 2% GC

| | | | | |
|----------|-----------------------|---|--------------|-----------------|
| COMMON | <u>160</u> | @ | <u>16.25</u> | <u>2,600.00</u> |
| POZMIX | | @ | | |
| GEL | <u>3</u> | @ | <u>21.25</u> | <u>63.75</u> |
| CHLORIDE | <u>6</u> | @ | <u>58.20</u> | <u>349.20</u> |
| ASC | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| HANDLING | <u>169</u> | @ | <u>2.25</u> | <u>380.25</u> |
| MILEAGE | <u>169 x 31 x .11</u> | | | <u>576.29</u> |
| TOTAL | | | | <u>3,969.49</u> |

REMARKS:

Pipe on bottom break C/M
Mix 160 SX A + 3% CC + 2% GC
Displace with 14 BBLs, Fresh
Water shut in
Cement did C/M

SERVICE

| | | | | |
|-------------------------|------------|---|----------------|---------------|
| DEPTH OF JOB | <u>233</u> | | | |
| PUMP TRUCK CHARGE | | | <u>1125.00</u> | |
| EXTRA FOOTAGE | | @ | | |
| MILEAGE | <u>62</u> | @ | <u>7.00</u> | <u>434.00</u> |
| MANIFOLD | | @ | | |
| <u>high water truck</u> | <u>62</u> | @ | <u>4.00</u> | <u>248.00</u> |
| | | @ | | |

CHARGE TO: Hess Oil Co.

STREET

CITY STATE ZIP

TOTAL 1,807.00

PLUG & FLOAT EQUIPMENT

| | | | | |
|--|---|--|--|--|
| | @ | | | |
| | @ | | | |

ALLIED CEMENTING CO., LLC. 037180

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Great Bend KS,

| | | | | | | | |
|--------------------------------|-----------------|--------------------------------------|------------------|------------|------------------------|--------------------------|---------------------------|
| DATE <u>4-8-2011</u> | SEC. <u>25</u> | TWP. <u>23S</u> | RANGE <u>24W</u> | CALLED OUT | ON LOCATION | JOB START <u>11:00AM</u> | JOB FINISH <u>11:30AM</u> |
| LEASE <u>Angela</u> | WELL # <u>1</u> | LOCATION <u>Jetmore KS, 3S, 1/4W</u> | | | COUNTY <u>Hodgeman</u> | STATE <u>KS,</u> | |
| OLD OR <u>NEW</u> (Circle one) | | | <u>Sinto</u> | | | | |

CONTRACTOR Mallard
TYPE OF JOB Plug Job
HOLE SIZE 77/8 T.D. 1640 FT
CASING SIZE _____ DEPTH _____
TUBING SIZE _____ DEPTH _____
DRILL PIPE 4 1/2 DEPTH 1640 FT
TOOL _____ DEPTH _____
PRES. MAX 200 PSI MINIMUM _____
MEAS. LINE _____ SHOE JOINT _____
CEMENT LEFT IN CSG. _____
PERFS. _____
DISPLACEMENT Freshwater & Mud
EQUIPMENT

PUMP TRUCK CEMENTER David W.
366 HELPER Bob R.
BULK TRUCK
344/170 DRIVER Kevin W
BULK TRUCK
_____ DRIVER _____

REMARKS:

1-Plug at 1640 FT 50SX
2-Plug at 750 FT 80SX
3-Plug at 270 FT 50SX
4-Plug at 100 FT 20SX
20 in Mouse 30 in Rat

CHARGE TO: Hess Oil
STREET _____
CITY _____ STATE _____ ZIP _____

OWNER Hess Oil
CEMENT
AMOUNT ORDERED 230SX 60:40:4%
Gel + 1/4 # Flo-seal

| | | | | |
|-----------------|-----------------------|---|--------------|-----------------|
| COMMON | <u>138</u> | @ | <u>16.25</u> | <u>2,242.50</u> |
| POZMIX | <u>92</u> | @ | <u>8.50</u> | <u>782.00</u> |
| GEL | <u>8</u> | @ | <u>21.25</u> | <u>170.00</u> |
| CHLORIDE | | @ | | |
| ASC | | @ | | |
| <u>Flo seal</u> | <u>57</u> | @ | <u>2.70</u> | <u>153.90</u> |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| HANDLING | <u>240</u> | @ | <u>2.25</u> | <u>540.00</u> |
| MILEAGE | <u>240 x 31 x .11</u> | | | <u>818.40</u> |
| TOTAL | | | | <u>4,706.80</u> |

SERVICE

| | | | |
|--------------------|----------------|---|---------------------------|
| DEPTH OF JOB | <u>1640 FT</u> | | |
| PUMP TRUCK CHARGE | | | <u>1250.00</u> |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | <u>62</u> | @ | <u>7.00</u> <u>434.00</u> |
| MANIFOLD | | @ | |
| <u>Light Truck</u> | <u>62#</u> | @ | <u>4.00</u> <u>248.00</u> |
| | | @ | |

TOTAL 1932.00

PLUG & FLOAT EQUIPMENT

| | | |
|--|---|--|
| | @ | |
| | @ | |