



DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources LLC**

410 17th St Ste900
Denver, CO 80202-4420

ATTN: Gary Doke

Frank #1A

20-18s-31w Scott,KS

Start Date: 2011.12.02 @ 01:00:30

End Date: 2011.12.02 @ 09:35:15

Job Ticket #: 44928 DST #: 1

FIML Natural Resources LLC
20-18s-31w Scott,KS
Frank #1A
DST # 1
KC
2011.12.02

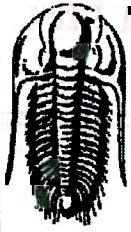
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

ORIGINAL

Printed: 2011.12.12 @ 12:44:41



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44928

DST#: 1

ATTN: Gary Doke

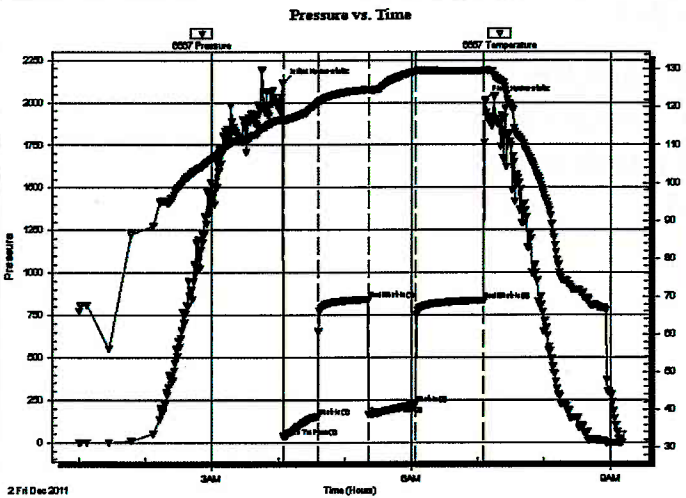
Test Start: 2011.12.02 @ 01:00:30

GENERAL INFORMATION:

Formation: **KC**
 Deviated: **No** Whipstock: **0.00 ft (KB)**
 Time Tool Opened: **04:04:30**
 Time Test Ended: **09:35:15**
 Test Type: **Conventional Bottom Hole (Initial)**
 Tester: **Shane McBride**
 Unit No: **55**
 Interval: **4144.00 ft (KB) To 4192.00 ft (KB) (TVD)**
 Reference Elevations: **2954.00 ft (KB)**
2944.00 ft (CF)
 Total Depth: **4192.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**
 KB to GR/CF: **10.00 ft**

Serial #: 6667 **Outside**
 Press@RunDepth: **226.07 psig @ 4145.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2011.12.02** End Date: **2011.12.02** Last Calib.: **2011.12.02**
 Start Time: **01:00:30** End Time: **09:10:15** Time On Btrmt: **2011.12.02 @ 04:04:15**
 Time Off Btrmt: **2011.12.02 @ 07:06:45**

TEST COMMENT: 6 1/4" blow
 No return
 5 3/4" blow
 No return



PRESSURE SUMMARY

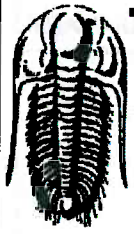
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2115.98 | 116.93 | Initial Hydro-static |
| 1 | 32.85 | 116.46 | Open To Flow (1) |
| 32 | 152.64 | 121.06 | Shut-In(1) |
| 77 | 842.62 | 124.71 | End Shut-In(1) |
| 78 | 163.83 | 124.42 | Open To Flow (2) |
| 120 | 226.07 | 129.40 | Shut-In(2) |
| 182 | 837.92 | 129.61 | End Shut-In(2) |
| 183 | 2016.56 | 129.88 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 270.00 | s m c w 5% m 95% w | 1.33 |
| 90.00 | m c w 20% m 80% w | 1.19 |
| 90.00 | w c m w / oil spots | 1.26 |
| 0.00 | 6" in free oil on top | 0.00 |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44928

DST#: 1

ATTN: Gary Duke

Test Start: 2011.12.02 @ 01:00:30

Tool Information

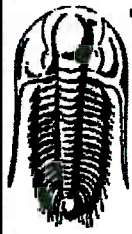
| | | | | |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe: | Length: 3872.00 ft | Diameter: 3.80 inches | Volume: 54.31 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 278.00 ft | Diameter: 2.25 inches | Volume: 1.37 bbl | Weight to Pull Loose: 80000.00 lb |
| | | Total Volume: | 55.68 bbl | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 26.00 ft | | | String Weight: Initial 61000.00 lb |
| Depth to Top Packer: | 4144.00 ft | | | Final 62000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 48.00 ft | | | |
| Tool Length: | 68.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4125.00 | |
| Shut In Tool | 5.00 | | | 4130.00 | |
| Hydraulic tool | 5.00 | | | 4135.00 | |
| Packer | 5.00 | | | 4140.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4144.00 | |
| Stubb | 1.00 | | | 4145.00 | |
| Recorder | 0.00 | 6771 | Inside | 4145.00 | |
| Recorder | 0.00 | 6667 | Outside | 4145.00 | |
| Perforations | 9.00 | | | 4154.00 | |
| Change Over Sub | 1.00 | | | 4155.00 | |
| Drill Pipe | 31.00 | | | 4186.00 | |
| Change Over Sub | 1.00 | | | 4187.00 | |
| Bullnose | 5.00 | | | 4192.00 | 48.00 Bottom Packers & Anchor |

Total Tool Length: 68.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44928

DST#: 1

ATTN: Gary Doke

Test Start: 2011.12.02 @ 01:00:30

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 47.00 sec/qt
Water Loss: 4.77 in³
Resistivity: 0.00 ohm.m
Salinity: 1500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 0 deg API
Water Salinity: 36500 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------------|---------------|
| 270.00 | s m c w 5% m 95% w | 1.328 |
| 90.00 | m c w 20% m 80% w | 1.190 |
| 90.00 | w c m w /oil spots | 1.262 |
| 0.00 | 6" in free oil on top | 0.000 |

Total Length: 450.00 ft Total Volume: 3.780 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

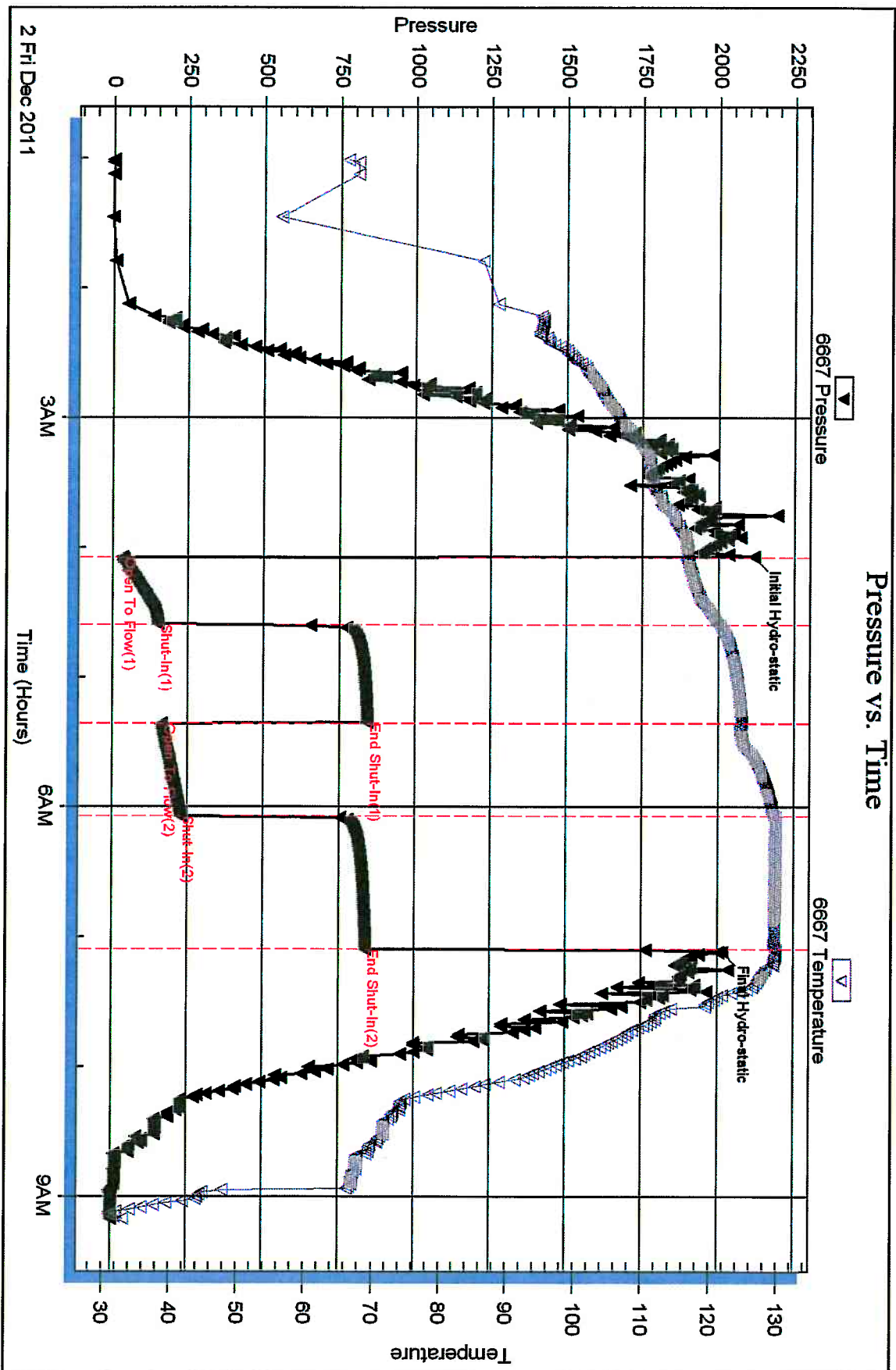
Recovery Comments: rw .258 @ 55°f =36,500 chlor

Serial #: 6667

Outside FIML Natural Resources LLC

Frank #1A

DST Test Number: 1



Trilockte Testing, Inc

Ref. No: 44928

Printed: 2011.12.12 @ 12:44:42



DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources LLC**

410 17th St Ste900
Denver, CO 80202-4420

ATTN: Gary Doke

Frank #1A

20-18s-31w Scott,KS

Start Date: 2011.12.02 @ 17:30:21

End Date: 2011.12.03 @ 01:00:51

Job Ticket #: 44929 DST #: 2

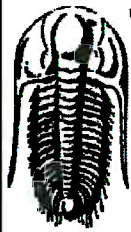
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.12.12 @ 12:44:56

FIML Natural Resources LLC 20-18s-31w Scott,KS Frank #1A DST # 2 KC 2011.12.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44929

DST#: 2

ATTN: Gary Doke

Test Start: 2011.12.02 @ 17:30:21

GENERAL INFORMATION:

Formation: **KC**

Deviated: **No** Whipstock: **0.00 ft (KB)**

Time Tool Opened: 19:41:21

Time Test Ended: 01:00:51

Test Type: **Conventional Bottom Hole (Reset)**

Tester: **Shane McBride**

Unit No: **55**

Interval: **4190.00 ft (KB) To 4221.00 ft (KB) (TVD)**

Total Depth: **4221.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2954.00 ft (KB)**

2944.00 ft (CF)

KB to GR/CF: **10.00 ft**

Serial #: 6667

Outside

Press@RunDepth: **690.12 psig @ 4191.00 ft (KB)**

Start Date: **2011.12.02**

End Date:

2011.12.03

Start Time: **17:30:21**

End Time:

00:48:51

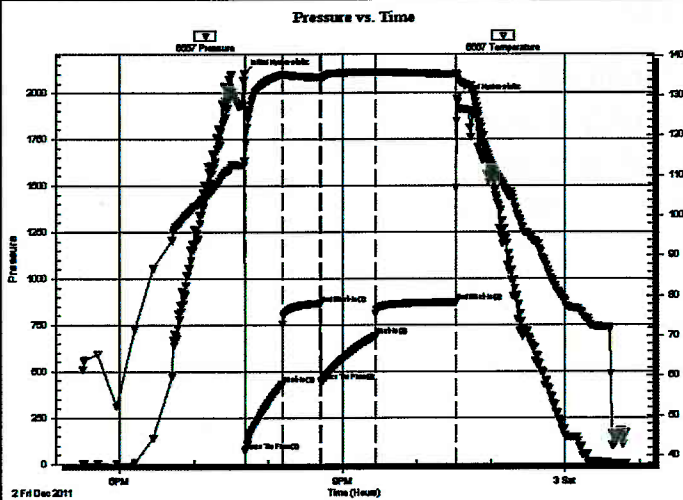
Capacity: **8000.00 psig**

Last Calib.: **2011.12.03**

Time On Btrm **2011.12.02 @ 19:40:36**

Time Off Btrm **2011.12.02 @ 22:32:36**

TEST COMMENT: B.O.B. in 4 min.
No return
B.O.B. in 8 min.
No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2106.20 | 113.69 | Initial Hydro-static |
| 1 | 71.43 | 113.81 | Open To Flow (1) |
| 31 | 431.66 | 135.18 | Shut-In(1) |
| 62 | 866.40 | 134.55 | End Shut-In(1) |
| 62 | 446.12 | 134.25 | Open To Flow (2) |
| 106 | 690.12 | 135.83 | Shut-In(2) |
| 171 | 873.07 | 135.33 | End Shut-In(2) |
| 172 | 1968.15 | 135.04 | Final Hydro-static |

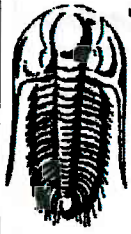
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------|--------------|
| 1170.00 | water 100%w | 13.88 |
| 180.00 | m c w 25%m 75%w | 2.52 |
| 100.00 | w c m 35%w 65%m | 1.40 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44929

DST#: 2

ATTN: Gary Duke

Test Start: 2011.12.02 @ 17:30:21

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe: | Length: 3898.00 ft | Diameter: 3.80 inches | Volume: 54.68 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 278.00 ft | Diameter: 2.25 inches | Volume: 1.37 bbl | Weight to Pull Loose: 80000.00 lb |
| | | <u>Total Volume:</u> | <u>56.05 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 6.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 4190.00 ft | | | Final 68000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 31.00 ft | | | |
| Tool Length: | 51.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4171.00 | |
| Shut In Tool | 5.00 | | | 4176.00 | |
| Hydraulic tool | 5.00 | | | 4181.00 | |
| Packer | 5.00 | | | 4186.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4190.00 | |
| Stubb | 1.00 | | | 4191.00 | |
| Recorder | 0.00 | 6771 | Inside | 4191.00 | |
| Recorder | 0.00 | 6667 | Outside | 4191.00 | |
| Perforations | 25.00 | | | 4216.00 | |
| Bullnose | 5.00 | | | 4221.00 | 31.00 Bottom Packers & Anchor |
| Total Tool Length: | 51.00 | | | | |



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44929

DST#: 2

ATTN: Gary Duke

Test Start: 2011.12.02 @ 17:30:21

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 57.00 sec/qt
Water Loss: 5.58 in³
Resistivity: 0.00 ohm.m
Salinity: 2200.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 0 deg API
Water Salinity: 27000 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------|---------------|
| 1170.00 | water 100%w | 13.880 |
| 180.00 | m c w 25% m 75% w | 2.525 |
| 100.00 | w c m 35% w 65% m | 1.403 |

Total Length: 1450.00 ft Total Volume: 17.808 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: .280 @ 66*f =27,000 chlor

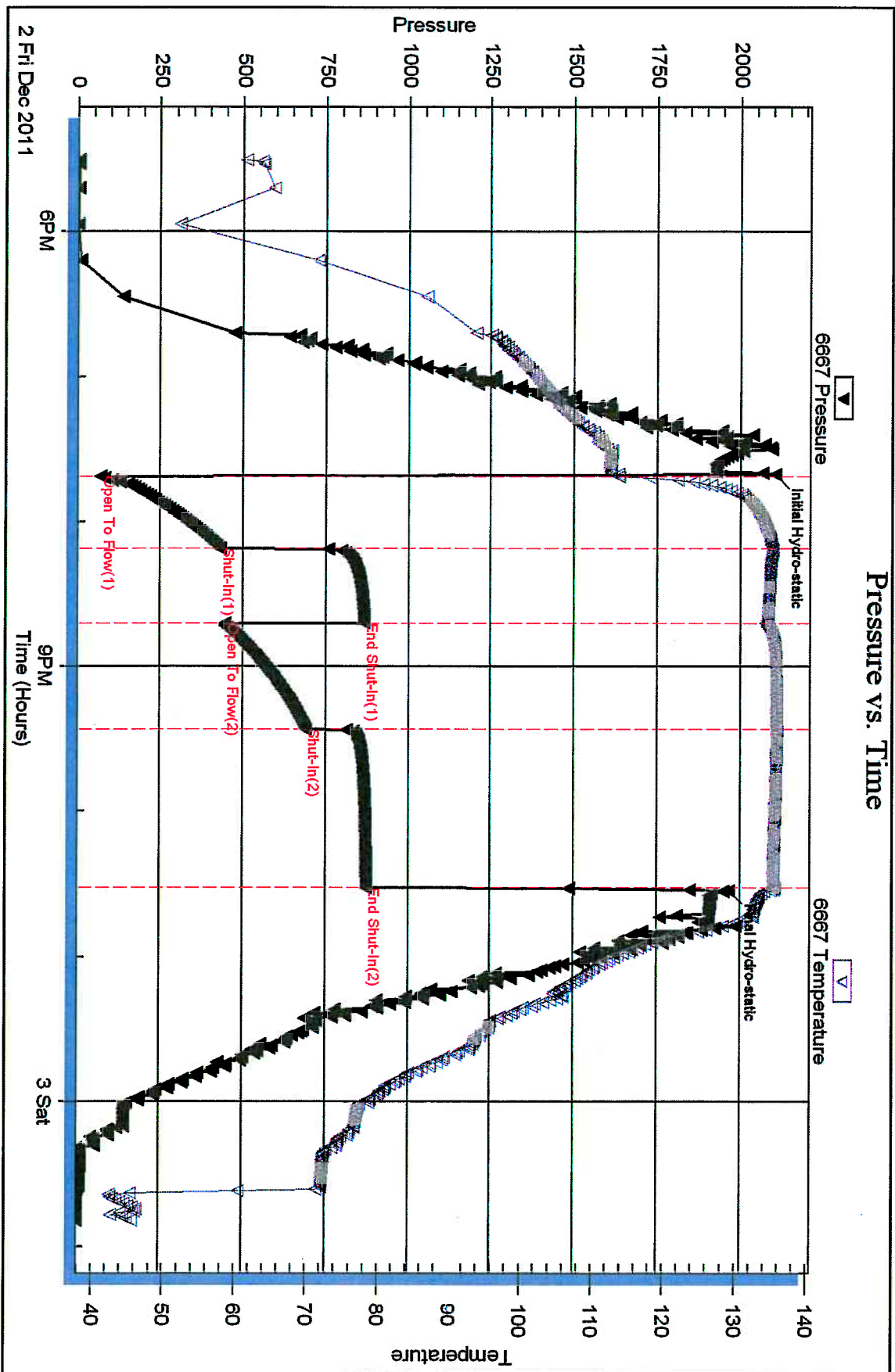
Serial #: 6667

Outside FML Natural Resources LLC

Frank #1A

DST Test Number: 2

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 44929

Printed: 2011.12.12 @ 12:44:58



DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources LLC**

410 17th St Ste900
Denver, CO 80202-4420

ATTN: Gary Doke

Frank #1A

20-18s-31w Scott,KS

Start Date: 2011.12.03 @ 13:30:32

End Date: 2011.12.03 @ 21:20:17

Job Ticket #: 44930 DST #: 3

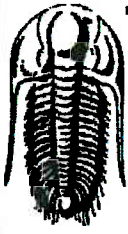
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.12.12 @ 12:45:11

FIML Natural Resources LLC 20-18s-31w Scott,KS Frank #1A DST # 3 K-L 2011.12.03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44930

DST#: 3

ATTN: Gary Doke

Test Start: 2011.12.03 @ 13:30:32

GENERAL INFORMATION:

Formation: **K-L**
 Deviated: **No** Whipstock: **0.00 ft (KB)**
 Time Tool Opened: 15:35:02
 Time Test Ended: 21:20:17

Test Type: **Conventional Bottom Hole (Reset)**
 Tester: **Shane McBride**
 Unit No: **55**

Interval: **4254.00 ft (KB) To 4300.00 ft (KB) (TVD)**
 Total Depth: **4300.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2954.00 ft (KB)**
2944.00 ft (CF)
 KB to GR/CF: **10.00 ft**

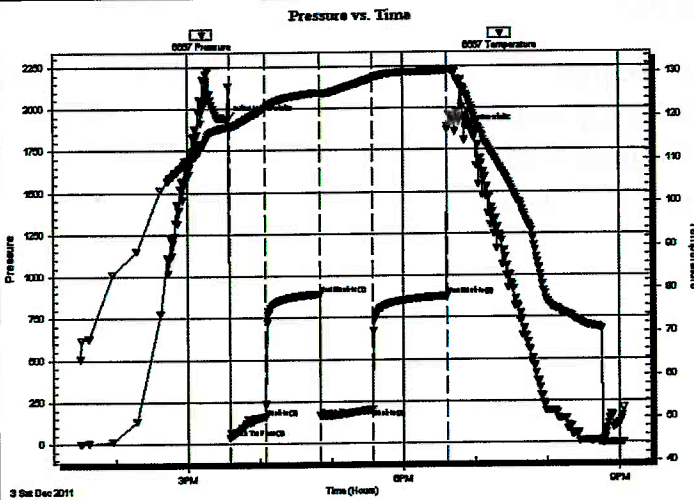
Serial #: 6667

Outside

Press@RunDepth: **202.88 psig @ 4255.00 ft (KB)**
 Start Date: **2011.12.03** End Date: **2011.12.03**
 Start Time: **13:30:32** End Time: **21:03:17**

Capacity: **8000.00 psig**
 Last Calib.: **2011.12.03**
 Time On Btm: **2011.12.03 @ 15:33:47**
 Time Off Btm: **2011.12.03 @ 18:36:47**

TEST COMMENT: 6 1/2" blow
 No return
 6 3/4" blow
 No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1939.53 | 117.55 | Initial Hydro-static |
| 2 | 36.01 | 117.26 | Open To Flow (1) |
| 31 | 159.55 | 121.91 | Shut-In(1) |
| 77 | 891.99 | 125.45 | End Shut-In(1) |
| 77 | 165.43 | 125.21 | Open To Flow (2) |
| 121 | 202.88 | 128.68 | Shut-In(2) |
| 183 | 877.56 | 130.32 | End Shut-In(2) |
| 183 | 1872.99 | 130.54 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 278.00 | mc w w/oil scum 15% m 85% w | 1.37 |
| 104.00 | s o c w m 3% o 40% w 57% m | 1.46 |
| 1.00 | free oil 100% o | 0.01 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44930

DST#: 3

ATTN: Gary Duke

Test Start: 2011.12.03 @ 13:30:32

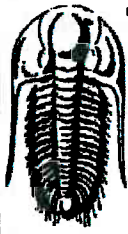
Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe: | Length: 3962.00 ft | Diameter: 3.80 inches | Volume: 55.58 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 278.00 ft | Diameter: 2.25 inches | Volume: 1.37 bbl | Weight to Pull Loose: 85000.00 lb |
| | | <u>Total Volume:</u> | <u>56.95 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 6.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 4254.00 ft | | | Final 65000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 46.00 ft | | | |
| Tool Length: | 66.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4235.00 | |
| Shut In Tool | 5.00 | | | 4240.00 | |
| Hydraulic tool | 5.00 | | | 4245.00 | |
| Packer | 5.00 | | | 4250.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4254.00 | |
| Stubb | 1.00 | | | 4255.00 | |
| Recorder | 0.00 | 6771 | Inside | 4255.00 | |
| Recorder | 0.00 | 6667 | Outside | 4255.00 | |
| Perforations | 7.00 | | | 4262.00 | |
| Change Over Sub | 1.00 | | | 4263.00 | |
| Drill Pipe | 31.00 | | | 4294.00 | |
| Change Over Sub | 1.00 | | | 4295.00 | |
| Bullnose | 5.00 | | | 4300.00 | 46.00 Bottom Packers & Anchor |

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44930

DST#: 3

ATTN: Gary Doke

Test Start: 2011.12.03 @ 13:30:32

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 57.00 sec/qt
Water Loss: 7.18 in³
Resistivity: 0.00 ohm.m
Salinity: 2400.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 0 deg API
Water Salinity: 29500 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------------|---------------|
| 278.00 | m c w w/oil scum 15% m 85% w | 1.367 |
| 104.00 | s o c w m 3% o 40% w 57% m | 1.459 |
| 1.00 | free oil 100% o | 0.014 |

Total Length: 383.00 ft Total Volume: 2.840 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

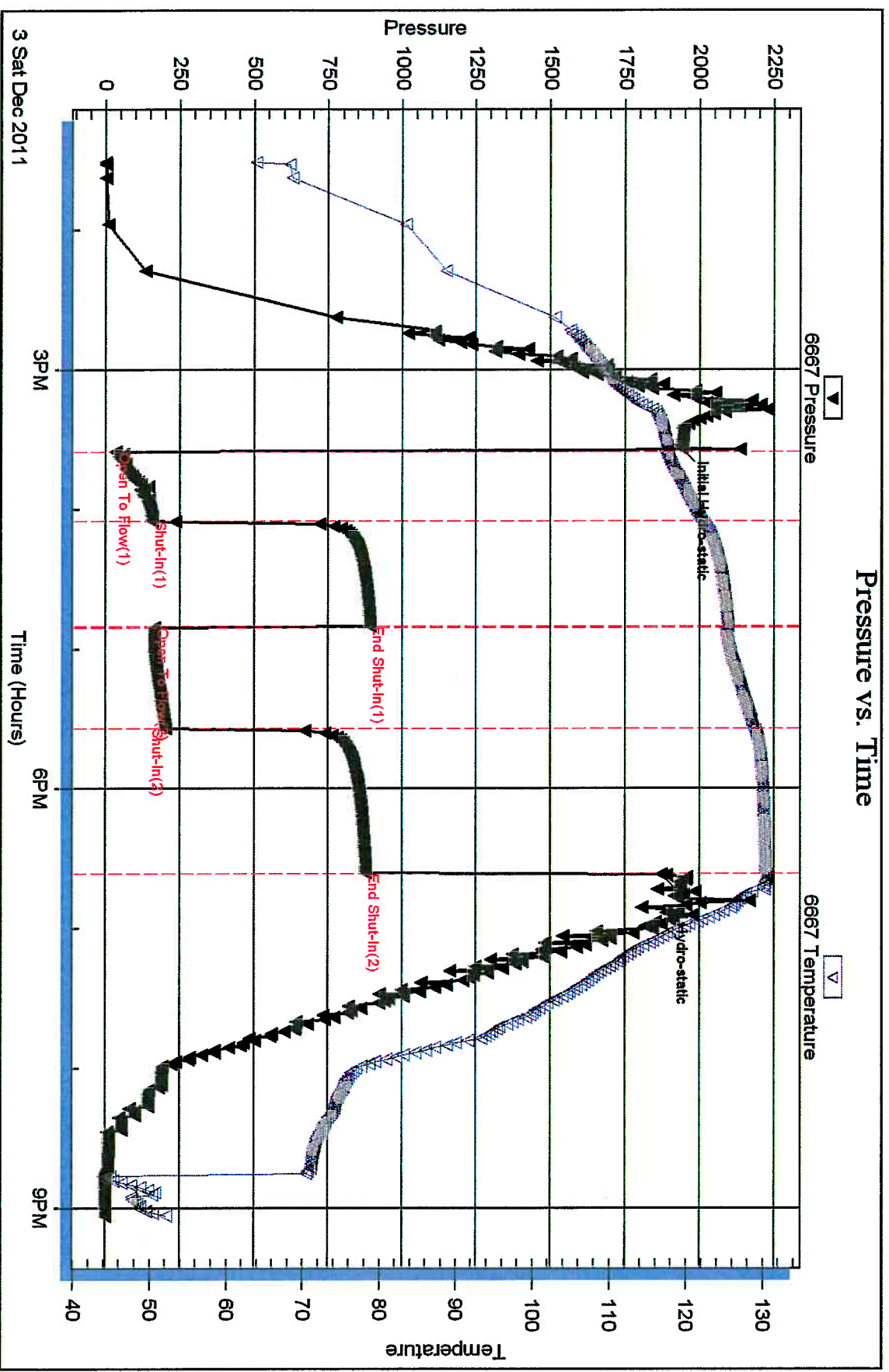
Recovery Comments: rw .322 @ 50*f = 29,500 chlor

Serial #: 6667

Outside FML Natural Resources LLC

Frank #1A

DST Test Number: 3

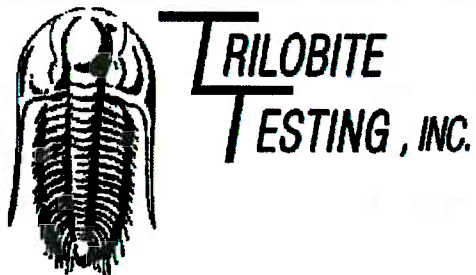


Triobite Testing, Inc

Ref. No: 44930

Printed: 2011.12.12 @ 12:45:13

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DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources LLC**

410 17th St Ste900
Denver, CO 80202-4420

ATTN: Gary Duke

Frank #1A

20-18s-31w Scott,KS

Start Date: 2011.12.04 @ 10:07:35

End Date: 2011.12.04 @ 19:15:20

Job Ticket #: 44931 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.12.12 @ 12:45:36

FIML Natural Resources LLC

20-18s-31w Scott,KS

Frank #1A

DST # 4

Pleasanton-Marmaton

2011.12.04



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44931

DST#: 4

ATTN: Gary Duke

Test Start: 2011.12.04 @ 10:07:35

GENERAL INFORMATION:

Formation: **Pleasanton-Marmaton**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 12:22:20
 Time Test Ended: 19:15:20

Test Type: Conventional Bottom Hole (Reset)
 Tester: Shane McBride
 Unit No: 55

Interval: **4293.00 ft (KB) To 4380.00 ft (KB) (TVD)**
 Total Depth: 4380.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2954.00 ft (KB)
 2944.00 ft (CF)
 KB to GR/CF: 10.00 ft

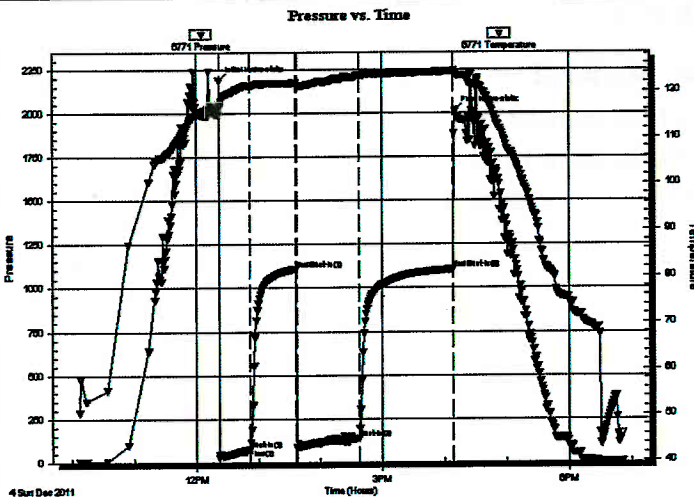
Serial #: 6771

Inside

Press@RunDepth: 137.26 psig @ 4294.00 ft (KB)
 Start Date: 2011.12.04 End Date: 2011.12.04
 Start Time: 10:07:35 End Time: 18:51:20

Capacity: 8000.00 psig
 Last Calib.: 2011.12.04
 Time On Btm: 2011.12.04 @ 12:22:05
 Time Off Btm: 2011.12.04 @ 16:10:05

TEST COMMENT: B.O.B. in 17 min.
 1/4" return blow, died in 30 min.
 B.O.B. in 20 min.
 3/4" return, died in 40 min.



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2190.87 | 117.06 | Initial Hydro-static |
| 1 | 26.20 | 116.48 | Open To Flow (1) |
| 30 | 75.82 | 121.01 | Shut-In(1) |
| 75 | 1109.33 | 121.72 | End Shut-In(1) |
| 75 | 85.60 | 121.21 | Open To Flow (2) |
| 135 | 137.26 | 123.29 | Shut-In(2) |
| 227 | 1106.17 | 124.14 | End Shut-In(2) |
| 228 | 2013.24 | 123.79 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------------|--------------|
| 90.00 | o c g m 20%o 20%g 60%m | 0.44 |
| 45.00 | h o c g m 15%g 35%o 50%m | 0.22 |
| 165.00 | c g o 10%g 90%o | 1.01 |
| 0.00 | 600' gas in pipe | 0.00 |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44931

DST#: 4

ATTN: Gary Duke

Test Start: 2011.12.04 @ 10:07:35

Tool Information

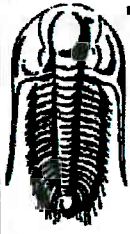
| | | | | |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe: | Length: 4027.00 ft | Diameter: 3.80 inches | Volume: 56.49 bbl | Tool Weight: 1500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 278.00 ft | Diameter: 2.25 inches | Volume: 1.37 bbl | Weight to Full Loose: 85000.00 lb |
| | | <u>Total Volume:</u> | <u>57.86 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 32.00 ft | | | String Weight: Initial 63000.00 lb |
| Depth to Top Packer: | 4293.00 ft | | | Final 66000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 87.00 ft | | | |
| Tool Length: | 107.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4274.00 | |
| Shut In Tool | 5.00 | | | 4279.00 | |
| Hydraulic tool | 5.00 | | | 4284.00 | |
| Packer | 5.00 | | | 4289.00 | 20.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4293.00 | |
| Stubb | 1.00 | | | 4294.00 | |
| Recorder | 0.00 | 6771 | Inside | 4294.00 | |
| Recorder | 0.00 | 6667 | Outside | 4294.00 | |
| Perforations | 16.00 | | | 4310.00 | |
| Change Over Sub | 1.00 | | | 4311.00 | |
| Drill Pipe | 63.00 | | | 4374.00 | |
| Change Over Sub | 1.00 | | | 4375.00 | |
| Bullnose | 5.00 | | | 4380.00 | 87.00 Bottom Packers & Anchor |

Total Tool Length: 107.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources LLC

20-18s-31w Scott,KS

410 17th St Ste900
Denver, CO 80202-4420

Frank #1A

Job Ticket: 44931

DST#: 4

ATTN: Gary Doke

Test Start: 2011.12.04 @ 10:07:35

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 9.57 in³
Resistivity: 0.00 ohm.m
Salinity: 3000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 30 deg API
Water Salinity: 0 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------------------|---------------|
| 90.00 | o c g m 20%o 20%g 60%m | 0.443 |
| 45.00 | h o c g m 15%g 35%o 50%m | 0.221 |
| 165.00 | c g o 10%g 90%o | 1.012 |
| 0.00 | 600' gas in pipe | 0.000 |

Total Length: 300.00 ft Total Volume: 1.676 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6771

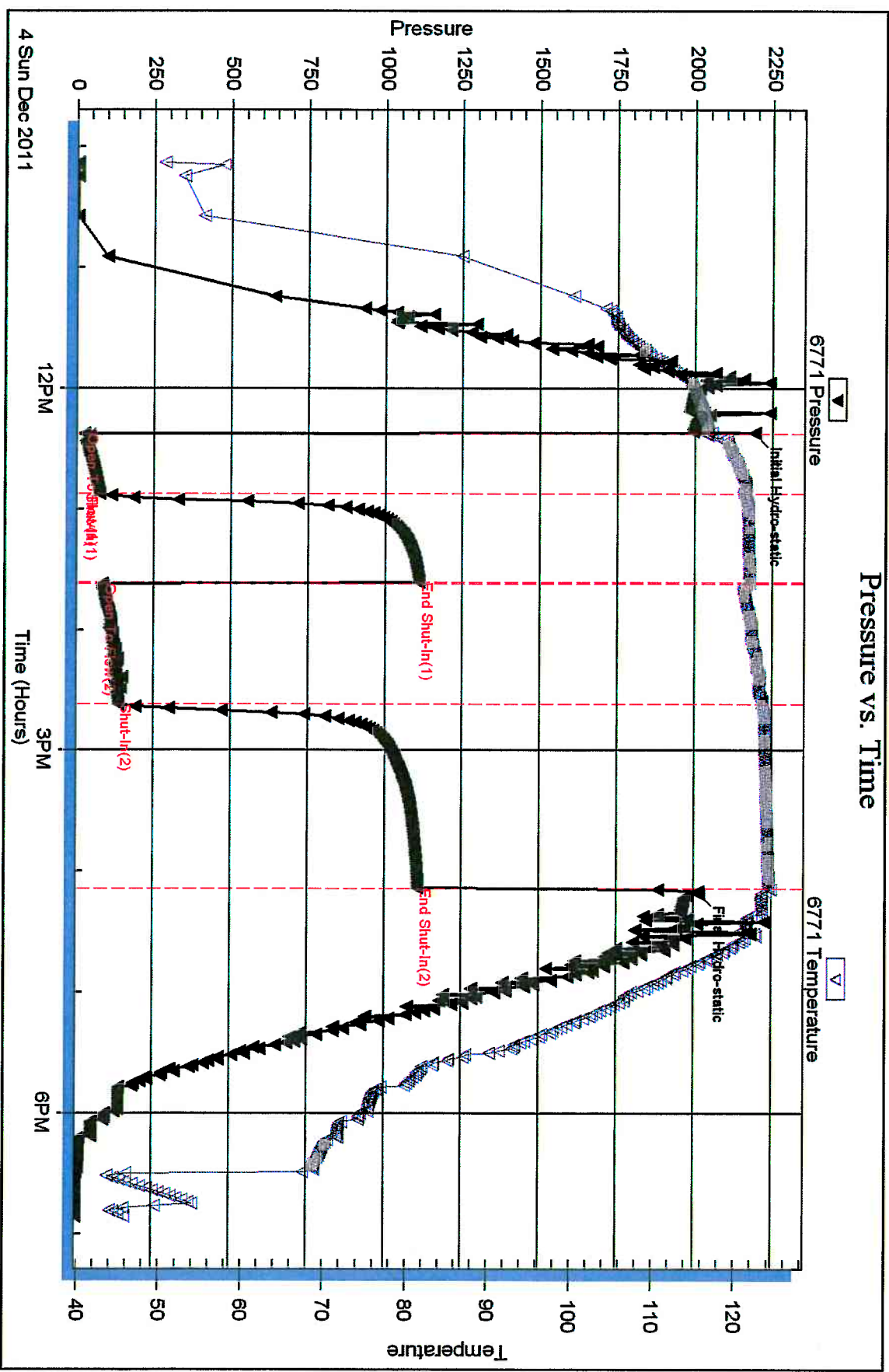
Inside

FIML Natural Resources LLC

Frank #1A

DST Test Number: 4

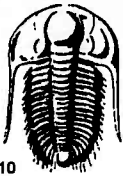
Pressure vs. Time



Tribble Testing, Inc

Ref. No: 44931

Printed: 2011.12.12 @ 12:45:38



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

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DEC 07 2011

Test Ticket

NO. 44928

4/10

BY: _____

Well Name & No. Frank #1 A Test No. #1 Date 12/2/11
 Company FIMB Natural Resources LLC Elevation _____ KB _____ GL _____
 Address 410 17th St Denver Colo 80202-4420
 Co. Rep / Geo Greg Dale Rig H2#1
 Location: Sec. 20 Twp. 185 Rge. 3W Co. Scott State Ks

Interval Tested 4144 4192 Zone Tested KC
 Anchor Length _____ Drill Pipe Run 3872' Mud Wt. 8.4
 Top Packer Depth 4139 Drill Collars Run 278' XA Vis 47
 Bottom Packer Depth 4144 Wt. Pipe Run _____ WL 4.8
 Total Depth 4192 Chlorides 1500 ppm System LCM #12

Blow Description 6 1/4" in blow
No return
5 3/4" in blow
No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----|-------------------|------|------|--------|------|
| 90 | 6" in hole on top | | | | |
| 90 | WCM w/ oil spots | 5% | 4% | 60% | 60% |
| 90 | MCM | | 80% | 20% | 20% |
| 270 | SMCM | | 95% | 5% | 5% |

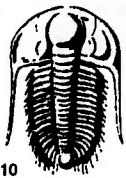
Rec Total 450' BHT 130° Gravity _____ API RW 130 @ 55 ° F Chlorides 36,500 ppm

(A) Initial Hydrostatic 2115 Test 1225' T-On Location 23:35
 (B) First Initial Flow 32 Jars _____ T-Started 01:00
 (C) First Final Flow 132 Safety Joint _____ T-Open 04:05
 (D) Initial Shut-In 842 Circ Sub n/c T-Pulled 07:05
 (E) Second Initial Flow 163 Hourly Standby _____ T-Out 09:35
 (F) Second Final Flow 226 Mileage 16.4 22.40 Comments _____
 (G) Final Shut-In 837 Sampler _____
 (H) Final Hydrostatic 2016 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____

Initial Open 30 Sub Total 150
 Initial Shut-In 45 Total 1397.40
 Final Flow 45 Day Standby _____
 Final Shut-In 600 Accessibility 150 MP/DST Disc't _____
 Sub Total 1247.40

Approved By [Signature] Our Representative [Signature]

TriLOBite Testing Inc. shall not be liable for damaged of any kind of 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, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
DEC 07 2011
BY: _____

Test Ticket

NO. 44929

Well Name & No. Frank #1 AP Test No. #2 Date 12/2/11
 Company ETM Natural Resources LLC Elevation _____ KB _____ GL _____
 Address 410 17th St SE, 900 Denver, Colo 80202-4120
 Co. Rep / Geo. Gary Lake Rig Frank #1
 Location: Sec. 20 Twp. 18 Rge. 31 Co. Scott State KS

Interval Tested 4190 4221 Zone Tested RC
 Anchor Length _____ Drill Pipe Run 3898 Mud Wt. 9.1
 Top Packer Depth 4185 Drill Collars Run 278' XH Vis 57
 Bottom Packer Depth 4190 Wt. Pipe Run _____ WL 5.6
 Total Depth 4221 Chlorides 2200 ppm System LCM #12
 Blow Description B.O.B. in 4' mud
No return
B.O.B. in 8' mud
No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------|------|------------|-----------|------|
| <u>100</u> | <u>WCM</u> | | <u>35</u> | <u>65</u> | |
| <u>180</u> | <u>MW</u> | | <u>75</u> | <u>25</u> | |
| <u>1170</u> | <u>Water</u> | | <u>100</u> | | |
| ____ | ____ | | | | |
| ____ | ____ | | | | |

Rec Total 1450' BHT 136° Gravity _____ API RW .280 @ 66° F Chlorides 27000 ppm
 (A) Initial Hydrostatic 2106 Test 1225' T-On Location 17:00
 (B) First Initial Flow 71 Jars _____ T-Started 17:30
 (C) First Final Flow 431 Safety Joint _____ T-Open 19:37
 (D) Initial Shut-In 866 Circ Sub N/C T-Pulled 22:22
 (E) Second Initial Flow 446 Hourly Standby _____ T-Out 01:00
 (F) Second Final Flow 690 Mileage 16 @ 22.40 Comments _____
 (G) Final Shut-In 873 Sampler _____
 (H) Final Hydrostatic 1968 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 150
 Day Standby _____ Total 1397.40
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1247.40

Approved By [Signature] Our Representative [Signature]

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100

RECEIVED

TESTING

RECEIVED

Test Ticket

100

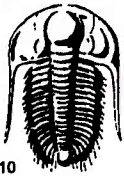
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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
DEC 07 2011
BY: _____

Test Ticket

NO. 44930

Well Name & No. Frank #1 A Test No. #3 Date 12/3/11
 Company EMR Natural Resources LLC Elevation _____ KB _____ GL _____
 Address 410 17th St Ste. 900 Denver Colo 80202-4420
 Co. Rep / Geo Gary Duke Rig H2 #1
 Location: Sec. 20 Twp. 18s Rge. 31w Co. Scott State KS

Interval Tested 4254 4300 Zone Tested K-L
 Anchor Length _____ 46 Drill Pipe Run 3962 Mud Wt. 9.2
 Top Packer Depth _____ 4249 Drill Collars Run 278' XH Vis 57
 Bottom Packer Depth _____ 4254 Wt. Pipe Run _____ WL 7.2
 Total Depth _____ 4300 Chlorides 2400 ppm System LCM #8
 Blow Description 6 1/2" in blow
No return
6 3/4" in blow
No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|-----------------------|-------------|-----------|-----------|------|
| <u>1'</u> | <u>Free oil</u> | <u>100</u> | | | |
| <u>104'</u> | <u>SOC WM</u> | <u>3</u> | <u>40</u> | <u>57</u> | |
| <u>278</u> | <u>mcw w/oil scum</u> | <u>SCUM</u> | <u>85</u> | <u>15</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 383' BHT 131° Gravity _____ API RW .322 @ 50° F Chlorides 29500 ppm
 (A) Initial Hydrostatic 1939 Test 1225' T-On Location 12:15
 (B) First Initial Flow 36 Jars _____ T-Started 13:30
 (C) First Final Flow 159 Safety Joint _____ T-Open 15:30
 (D) Initial Shut-In 891 Circ Sub NK T-Pulled 18:30
 (E) Second Initial Flow 165 Hourly Standby _____ T-Out 21:20
 (F) Second Final Flow 202 Mileage 16.5 22.40 Comments _____
 (G) Final Shut-In 877 Sampler _____
 (H) Final Hydrostatic 1872 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 150
 Day Standby _____ Total 1397.40
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1247.40

Approved By [Signature] Operator Representative [Signature]

TriLOBite Testing Inc. shall not be liable for damaged of any kind of 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, or its statements of opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

Test Ticket

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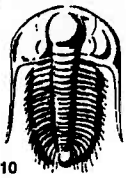
TRILORITE



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Handwritten notes in the middle section, including some numerical values and possibly a list of items.

Handwritten notes at the bottom of the page, including a large signature or stamp on the left and a circled 'A' in the center.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
DEC 07 2011
BY: _____

Test Ticket

NO. 44931

Well Name & No. Frank #1 A Test No. #4 Date 12/4/11
 Company FIML Natural Resources LLC Elevation _____ KB _____ GL _____
 Address 410 17th St Ste 900 Denver, Colo, 80202
 Co. Rep / Geo. Gary Duke Rig H2 #1
 Location: Sec. 20 Twp. 18 Rge. 31 Co. Scott State Ks

Interval Tested 4293 4380 Zone Tested Pleasanton - GMaraton
 Anchor Length _____ 87 Drill Pipe Run 4027' Mud Wt. 9.3
 Top Packer Depth _____ 4288 Drill Collars Run 278' x H Vis 54
 Bottom Packer Depth _____ 4293 Wt. Pipe Run _____ WL 9.4
 Total Depth _____ 4380 Chlorides 3000 ppm System LCM #8

Blow Description B.O.B. in 17 min
1/4" in Return, died in 30 min
B.O.B. in 28 min
3/4" in Return, died in 40 min

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------------|-----------|-----------|-----------|------|
| <u>165'</u> | <u>C90</u> | <u>10</u> | <u>90</u> | | |
| <u>45'</u> | <u>HOcg m</u> | <u>15</u> | <u>35</u> | <u>50</u> | |
| <u>90</u> | <u>OCg m</u> | <u>20</u> | <u>20</u> | <u>60</u> | |
| <u>600'</u> | <u>Gas in Pipe</u> | | | | |

Rec Total 300' BHT 124° Gravity 30 API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2190 Test 1225' T-On Location 09:45
 (B) First Initial Flow 26 Jars _____ T-Started 10:07
 (C) First Final Flow 75 Safety Joint _____ T-Open 12:22
 (D) Initial Shut-In 1109 Circ Sub N/C T-Pulled 16:07
 (E) Second Initial Flow 85 Hourly Standby _____ T-Out 19:15
 (F) Second Final Flow 137 Mileage 16.15 22.40 Comments _____
 (G) Final Shut-In 1106 Sampler _____
 (H) Final Hydrostatic 2013 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 90
 Sub Total 150'
 Total 1397.40
 Accessibility 150
 Sub Total 1247.40
 MP/DST Disc't _____

Approved By [Signature] OR Representative [Signature]

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