



DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources**

410 17th St. Suite 900
Denver, CO 80202

ATTN: Jim Musgrove/Gary Do

22-20s-27w Lane,KS

Lottie Burnett #4-22-2027

Start Date: 2012.07.30 @ 19:16:00

End Date: 2012.07.31 @ 05:09:00

Job Ticket #: 48943 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.08.03 @ 10:41:58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources

410 17th St. Suite 900
Denver, CO 80202

ATTN: Jim Musgrove/Gary Do

Lottie Burnett #4-22-2027

22-20s-27w Lane, KS

Job Ticket: 48943

DST#: 1

Test Start: 2012.07.30 @ 19:16:00

GENERAL INFORMATION:

Formation: **Mississippian - Osag**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:20

Time Test Ended: 05:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Smith

Unit No: 62

Interval: 4465.00 ft (KB) To 4520.00 ft (KB) (TVD)

Reference Elevations: 2627.00 ft (KB)

Total Depth: 4520.00 ft (KB) (TVD)

2617.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8018

Inside

Press @ Run Depth: 220.29 psig @ 4468.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.30

End Date:

2012.07.31

Last Calib.: 2012.07.31

Start Time: 19:16:02

End Time:

05:09:00

Time On Btm: 2012.07.30 @ 22:14:40

Time Off Btm: 2012.07.31 @ 01:41:00

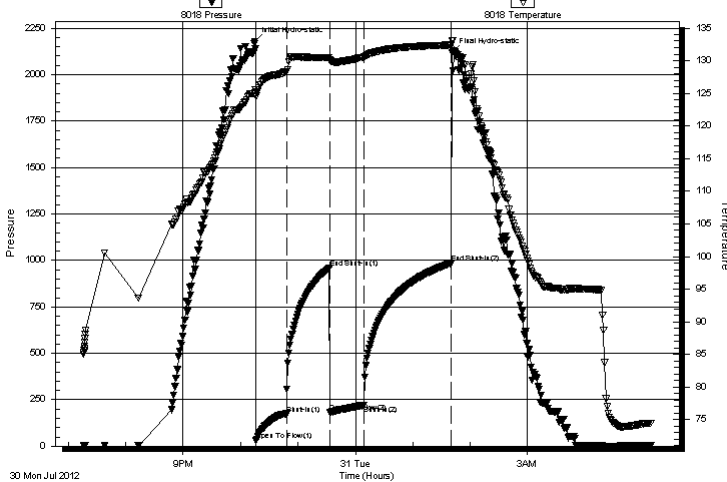
TEST COMMENT: B.O.B. @ 18 min.

No return.

No blow.

No return. Later found an obstruction in floor manifold.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2179.60	125.03	Initial Hydro-static
2	32.13	124.58	Open To Flow (1)
34	173.98	128.29	Shut-In(1)
79	959.50	130.44	End Shut-In(1)
79	183.41	130.10	Open To Flow (2)
115	220.29	130.57	Shut-In(2)
205	984.40	132.39	End Shut-In(2)
207	2118.58	133.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	GMCO 20g 35m 45o	0.89
273.00	GOCM 10g 40o 50m	2.12
60.00	GO 20g 80o	0.84
0.00	30' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources

Lottie Burnett #4-22-2027

410 17th St. Suite 900
Denver, CO 80202

22-20s-27w Lane, KS

Job Ticket: 48943

DST#: 1

ATTN: Jim Musgrove/Gary Do

Test Start: 2012.07.30 @ 19:16:00

Tool Information

Drill Pipe:	Length: 4082.00 ft	Diameter: 3.80 inches	Volume: 57.26 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 368.00 ft	Diameter: 2.25 inches	Volume: 1.81 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4465.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	75.00 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			4446.00	
Shut In Tool	5.00			4451.00	
Hydraulic tool	5.00			4456.00	
Packer	5.00			4461.00	20.00 Bottom Of Top Packer
Packer	4.00			4465.00	
Stubb	1.00			4466.00	
Perforations	2.00			4468.00	
Recorder	0.00	8018	Inside	4468.00	
Recorder	0.00	6751	Outside	4468.00	
Perforations	16.00			4484.00	
Change Over Sub	1.00			4485.00	
Drill Pipe	31.00			4516.00	
Change Over Sub	1.00			4517.00	
Bullnose	3.00			4520.00	55.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources

Lottie Burnett #4-22-2027

410 17th St. Suite 900
Denver, CO 80202

22-20s-27w Lane, KS

Job Ticket: 48943

DST#: 1

ATTN: Jim Musgrove/Gary Do

Test Start: 2012.07.30 @ 19:16:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	GMCO 20g 35m 45o	0.885
273.00	GOCM 10g 40o 50m	2.117
60.00	GO 20g 80o	0.842
0.00	30' GIP	0.000

Total Length: 513.00 ft Total Volume: 3.844 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

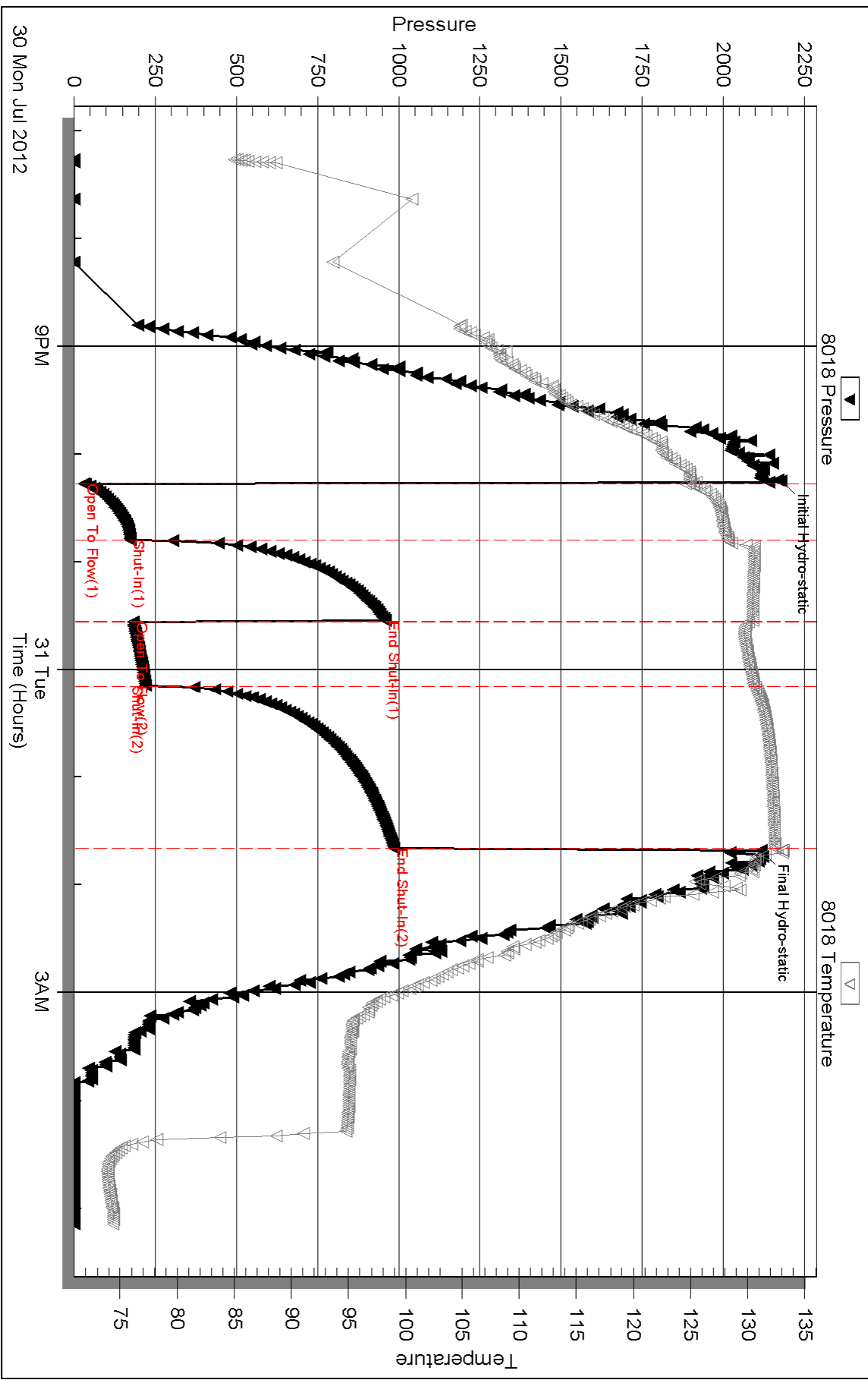
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 33 @ 80 Degrees F = 31

Pressure vs. Time

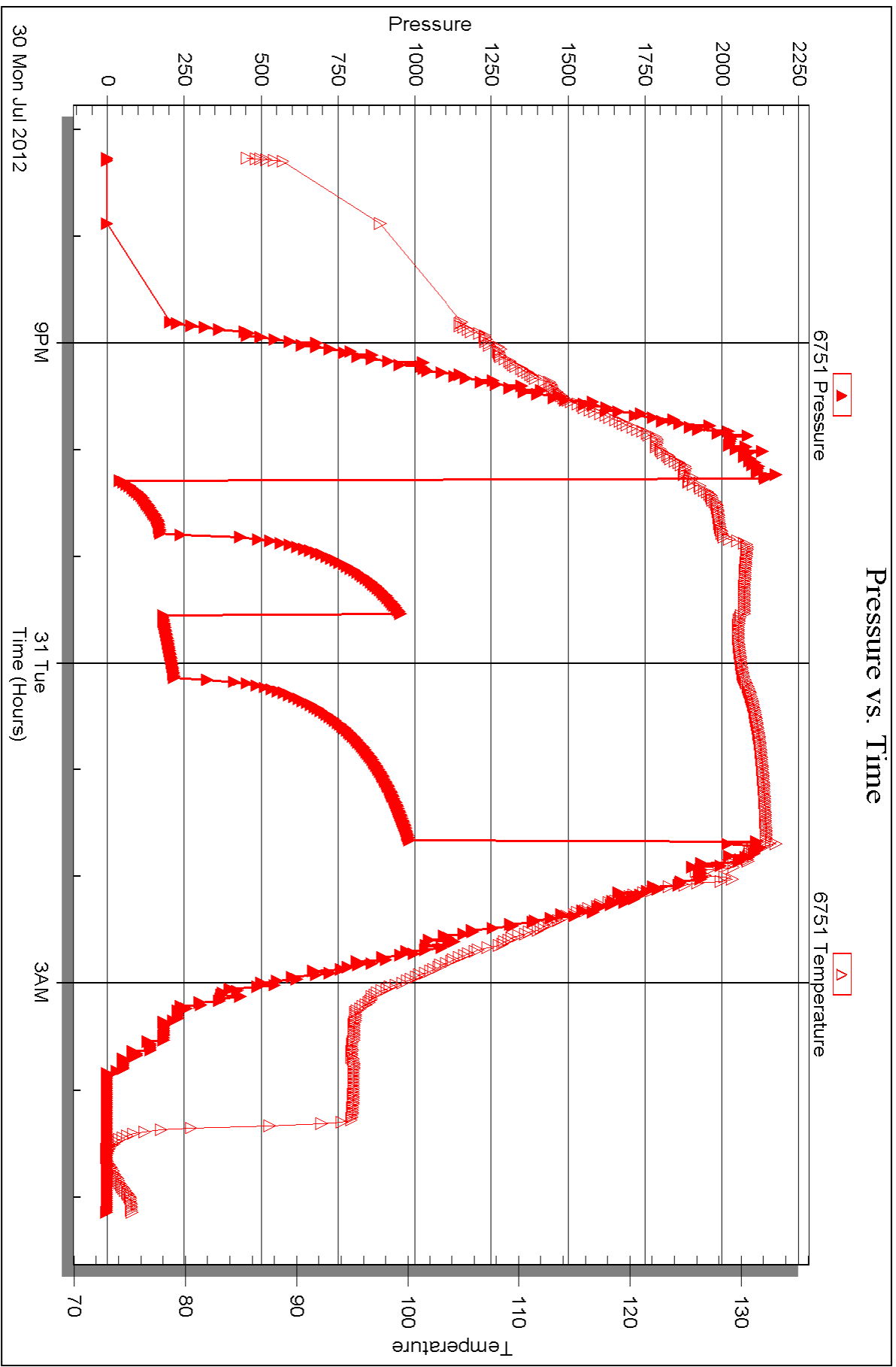


Serial #: 6751

Outside FIML Natural Resources

22-20s-27w Lane, KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources**

410 17th St. Suite 900
Denver, CO 80202

ATTN: Jim Musgrove/Gary Do

22-20s-27w Lane,KS

Lottie Burnett #4-22-2027

Start Date: 2012.07.31 @ 12:33:00

End Date: 2012.07.31 @ 22:06:49

Job Ticket #: 48944 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.03 @ 10:41:21



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources

410 17th St. Suite 900
Denver, CO 80202

ATTN: Jim Musgrove/Gary Do

Lottie Burnett #4-22-2027

22-20s-27w Lane, KS

Job Ticket: 48944

DST#: 2

Test Start: 2012.07.31 @ 12:33:00

GENERAL INFORMATION:

Formation: **Mississippian - Osag**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:26:40

Time Test Ended: 22:06:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4521.00 ft (KB) To 4532.00 ft (KB) (TVD)

Reference Elevations: 2627.00 ft (KB)

Total Depth: 4532.00 ft (KB) (TVD)

2617.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8018

Inside

Press @ RunDepth: 252.58 psig @ 4524.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.31

End Date:

2012.07.31

Last Calib.: 2012.07.31

Start Time: 12:33:02

End Time:

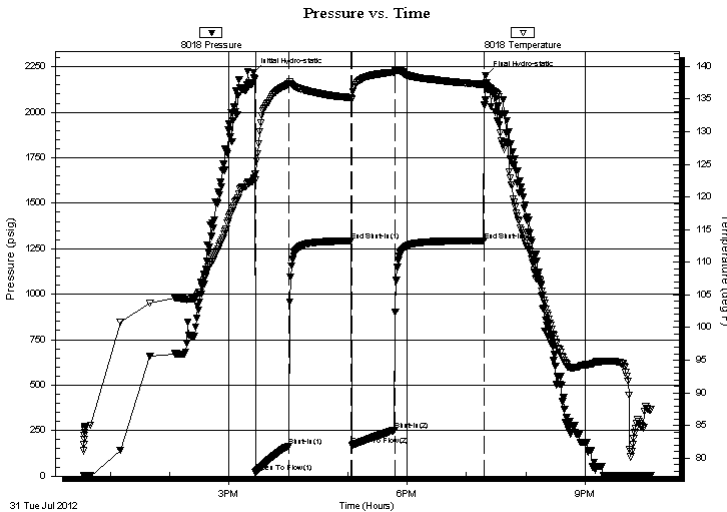
22:06:49

Time On Btm: 2012.07.31 @ 15:25:00

Time Off Btm: 2012.07.31 @ 19:19:30

TEST COMMENT: B.O.B. @ 27 min.
3/4" Return died @ 13 min.
B.O.B. @ 27 min.
Weak return died @ 10 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2219.65	122.81	Initial Hydro-static
2	18.76	122.67	Open To Flow (1)
36	164.66	137.31	Shut-In(1)
99	1293.13	135.19	End Shut-In(1)
99	170.47	134.86	Open To Flow (2)
143	252.58	139.09	Shut-In(2)
233	1293.90	137.24	End Shut-In(2)
235	2201.50	136.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
276.00	MW 5m 95w	1.36
92.00	OCMW 20o 5m 75w	0.45
217.00	GO 15g 85o	3.04
0.00	60' GIP	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

Lottie Burnett #4-22-2027

410 17th St. Suite 900
Denver, CO 80202

22-20s-27w Lane, KS

Job Ticket: 48944

DST#: 2

ATTN: Jim Musgrove/Gary Do

Test Start: 2012.07.31 @ 12:33:00

Tool Information

Drill Pipe:	Length: 4145.00 ft	Diameter: 3.80 inches	Volume: 58.14 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 368.00 ft	Diameter: 2.25 inches	Volume: 1.81 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 59.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4521.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	31.00 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			4502.00	
Shut In Tool	5.00			4507.00	
Hydraulic tool	5.00			4512.00	
Packer	5.00			4517.00	20.00 Bottom Of Top Packer
Packer	4.00			4521.00	
Stubb	1.00			4522.00	
Perforations	2.00			4524.00	
Recorder	0.00	8018	Inside	4524.00	
Recorder	0.00	6751	Outside	4524.00	
Perforations	5.00			4529.00	
Bullnose	3.00			4532.00	11.00 Bottom Packers & Anchor

Total Tool Length: 31.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources

Lottie Burnett #4-22-2027

410 17th St. Suite 900
Denver, CO 80202

22-20s-27w Lane, KS

Job Ticket: 48944

DST#: 2

ATTN: Jim Musgrove/Gary Do

Test Start: 2012.07.31 @ 12:33:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

28000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
276.00	MW 5m 95w	1.357
92.00	OCMW 20o 5m 75w	0.452
217.00	GO 15g 85o	3.044
0.00	60' GIP	0.000

Total Length: 585.00 ft

Total Volume: 4.853 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

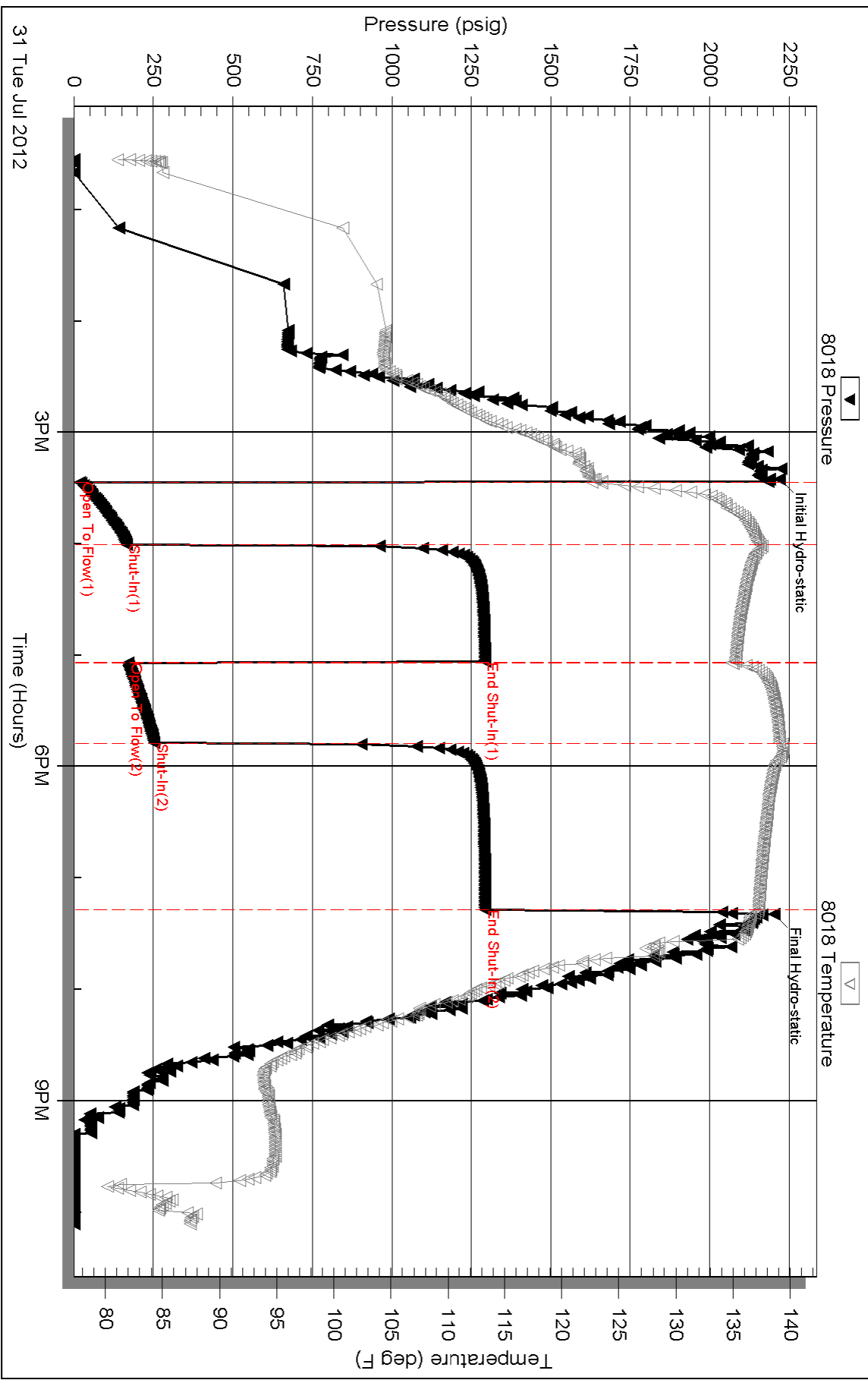
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API:35 @ 90 Degrees F = 32. RW:.200 @88 Degres F = 28000 PPM

Pressure vs. Time

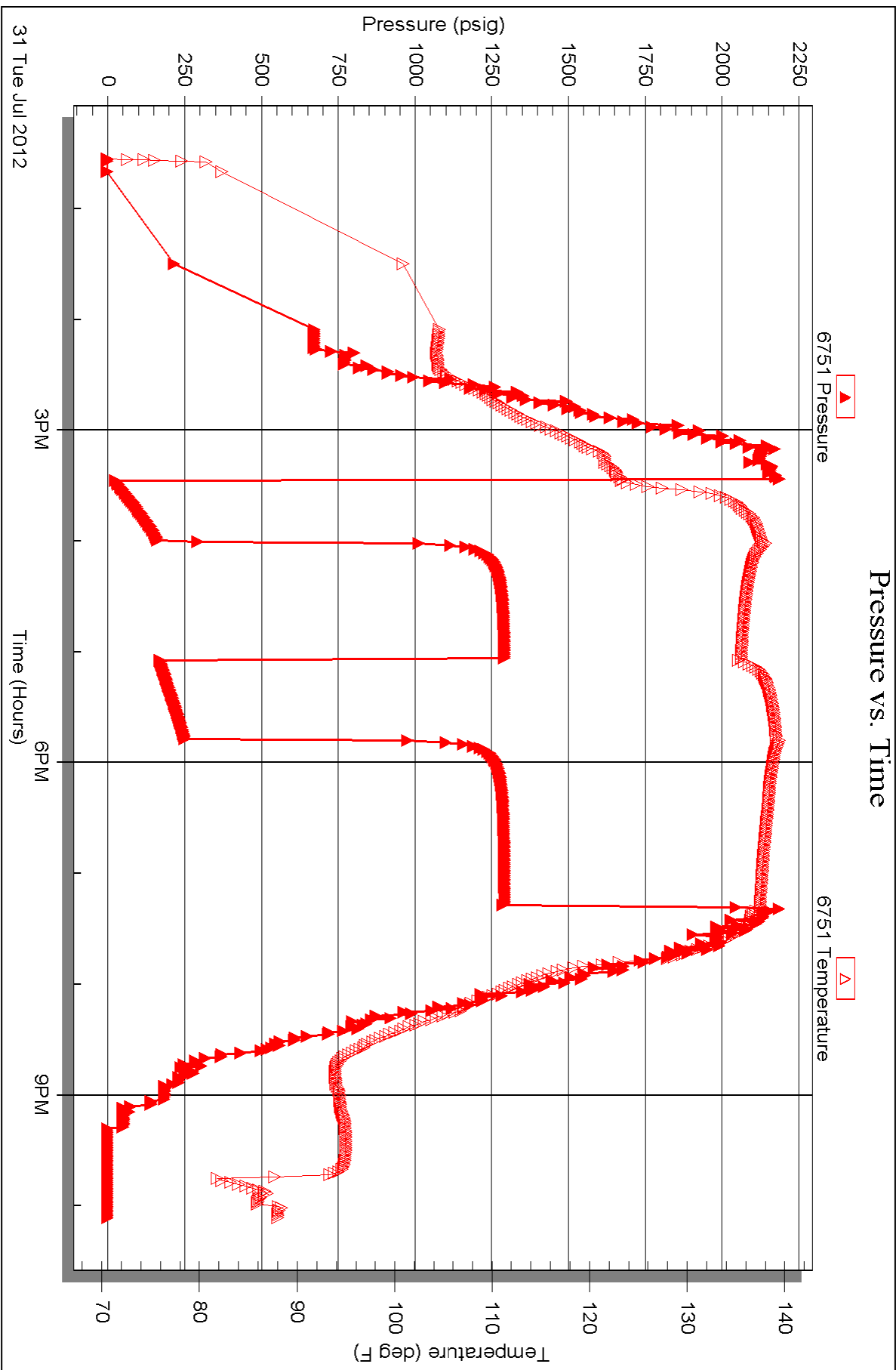


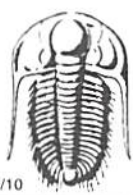
Serial #: 6751

Outside FIML Natural Resources

22-20s-27w Lane, KS

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48943

Well Name & No. Lottie Burnett 4-22-2027 Test No. 1 Date 7-30-12
 Company FIML Natural Resources Elevation 2627 KB 2617 GL
 Address 410 17th St. Ste. 900 Denver, CO 80202
 Co. Rep / Geo. Gary Duke Rig H2nd 2
 Location: Sec. 22 Twp. 20s Rge. 27w Co. Lane State KS

Interval Tested 4465-4520 Zone Tested Mississippian Osage
 Anchor Length 55 Drill Pipe Run 4082 Mud Wt. 9.1
 Top Packer Depth 4461 Drill Collars Run 368 Vis 56
 Bottom Packer Depth 4465 Wt. Pipe Run 0 WL 8.0
 Total Depth 4520 Chlorides 2400 ppm System LCM 2nd
 Blow Description B.O.B. @ 18 min
No return
No blows
No return Later found an obstruction

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>30' GIP</u>				
<u>60</u>	<u>60</u>	<u>20</u>	<u>80</u>		
<u>273</u>	<u>60CM</u>	<u>10</u>	<u>40</u>		<u>50</u>
<u>180</u>	<u>6mco</u>	<u>20</u>	<u>45</u>		<u>35</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 513 BHT 132 Gravity 31 API RW @ °F Chlorides - ppm
 (A) Initial Hydrostatic 2180 Test 1250 1275 T-On Location 19:00
 (B) First Initial Flow 32 Jars T-Started 19:16
 (C) First Final Flow 174 Safety Joint T-Open 22:16
 (D) Initial Shut-In 960 Circ Sub T-Pulled 01:40
 (E) Second Initial Flow 183 Hourly Standby T-Out 5:09
 (F) Second Final Flow 220 Mileage 92 RT 142⁶⁰ Comments _____
 (G) Final Shut-In 984 Sampler _____
 (H) Final Hydrostatic 2119 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 31 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1542.60
 Final Flow 35 Accessibility 150 MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1542.60

Approved By [Signature] Our Representative Chuck Smith

TriLOBITE TESTING Inc. shall not be liable for damaged or 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

Test Ticket

NO. 48944

Well Name & No. Lottie Burnett 4-22-2027 Test No. 2 Date 7-31-12
 Company FIML Natural Resources Elevation 2627 KB 2617 GL
 Address 410 17th St. Ste. 900 Denver, CO 80202
 Co. Rep / Geo. Gary Duke Rig H2#1
 Location: Sec. 22 Twp. 20s Rge. 27w Co. Lane State Ks

Interval Tested 4521 - 4532 Zone Tested _____
 Anchor Length 11 Drill Pipe Run 4145 Mud Wt. 9.05
 Top Packer Depth 4517 Drill Collars Run 368 Vis 46
 Bottom Packer Depth 4521 Wt. Pipe Run 0 WL 7.6
 Total Depth 4532 Chlorides 2400 ppm System LCM 2nd
 Blow Description B.O.B. @ 27 min
3/4" Return died @ 13 min
B.O.B. @ 27 min
Weak return died @ 10 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>60' GIP</u>				
<u>217</u>	<u>60</u>	<u>15</u>	<u>85</u>		
<u>92</u>	<u>OCUM</u>		<u>20</u>	<u>75</u>	<u>5</u>
<u>276</u>	<u>MW</u>			<u>95</u>	<u>5</u>
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 585 BHT 137 Gravity 32 API RW .200 @ 88 °F Chlorides 28,000 ppm

(A) Initial Hydrostatic 2220 Test 1250 T-On Location 12:00
 (B) First Initial Flow 19 Jars T-Started 12:33
 (C) First Final Flow 165 Safety Joint T-Open 15:27
 (D) Initial Shut-In 1293 Circ Sub NIC T-Pulled 18:17
 (E) Second Initial Flow 170 Hourly Standby T-Out 22:07
 (F) Second Final Flow 253 Mileage 92 RT 142.60 Comments _____
 (G) Final Shut-In 1294 Sampler _____
 (H) Final Hydrostatic 2202 Straddle _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies _____

Initial Open 30 Extra Packer _____
 Initial Shut-In 60 Extra Recorder _____
 Final Flow 45 Day Standby _____
 Final Shut-In 901 Accessibility 150 MP/DST Disc't _____
 Sub Total 1542.60

Approved By [Signature] Our Representative Chuck Smith

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.