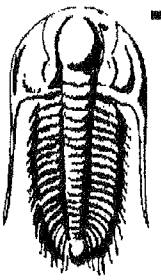
15-167-23536 31-13s-12w

IND



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell, Ks
67665

CONFIDENTIAL
JAN 05 2009
KCC

ATTN: Steve Murphy

31 13 12 Russell Ks

Small #1

Start Date: 2008.09.14 @ 05:52:38
End Date: 2008.09.14 @ 11:06:32
Job Ticket #: 32470 DST #: 1

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

John O Farmer
Small #1
31 13 12 Russell Ks
DST # 1
LKC "B"
2008.09.14

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 32470 **DST#: 1**

Test Start: 2008.09.14 @ 05:52:38

GENERAL INFORMATION:

Formation: **LKC "B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:51:03
Time Test Ended: 11:06:32

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

Interval: 3016.00 ft (KB) To 3040.00 ft (KB) (TVD)
Total Depth: 3040.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

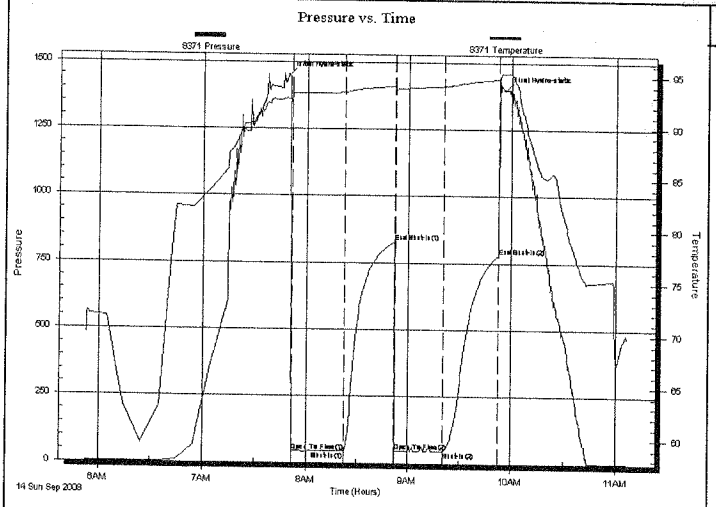
Reference Elevations: 1860.00 ft (KB)
1852.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8371 **Outside**

Press@RunDepth: 47.48 psig @ 3017.00 ft (KB)
Start Date: 2008.09.14 End Date: 2008.09.14
Start Time: 05:52:38 End Time: 11:06:32

Capacity: 7000.00 psig
Last Calib.: 2008.09.14
Time On Btm: 2008.09.14 @ 07:49:03
Time Off Btm: 2008.09.14 @ 09:56:33

TEST COMMENT: IFP - 1/2" blow - died 19 min.
ISI - no blow back
FFP - no blow
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1448.85	92.75	Initial Hydro-static
2	43.95	93.04	Open To Flow (1)
33	43.97	93.39	Shut-In(1)
63	826.47	93.98	End Shut-In(1)
63	47.08	93.63	Open To Flow (2)
92	47.48	94.08	Shut-In(2)
124	778.25	94.70	End Shut-In(2)
128	1396.67	95.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	mud 100%	0.63

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 32470 **DST#: 1**

Test Start: 2008.09.14 @ 05:52:38

Tool Information

Drill Pipe:	Length:	2974.00 ft	Diameter:	3.80 inches	Volume:	41.72 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	
					Total Volume:	41.87 bbl	

Drill Pipe Above KB:	9.00 ft
Depth to Top Packer:	3016.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	24.00 ft
Tool Length:	44.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:	2500.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	75000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	48000.00 lb
Final	49000.00 lb

Tool Comments:
Slid 10' to bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3001.00		
Hydraulic tool	5.00			3006.00		
Packer	5.00			3011.00	20.00	Bottom Of Top Packer
Packer	5.00			3016.00		
Stubb	1.00			3017.00		
Recorder	0.00	8018	Inside	3017.00		
Recorder	0.00	8371	Outside	3017.00		
Perforations	20.00			3037.00		
Bullnose	3.00			3040.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**44.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 32470 **DST#: 1**

Test Start: 2008.09.14 @ 05:52:38

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.54 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

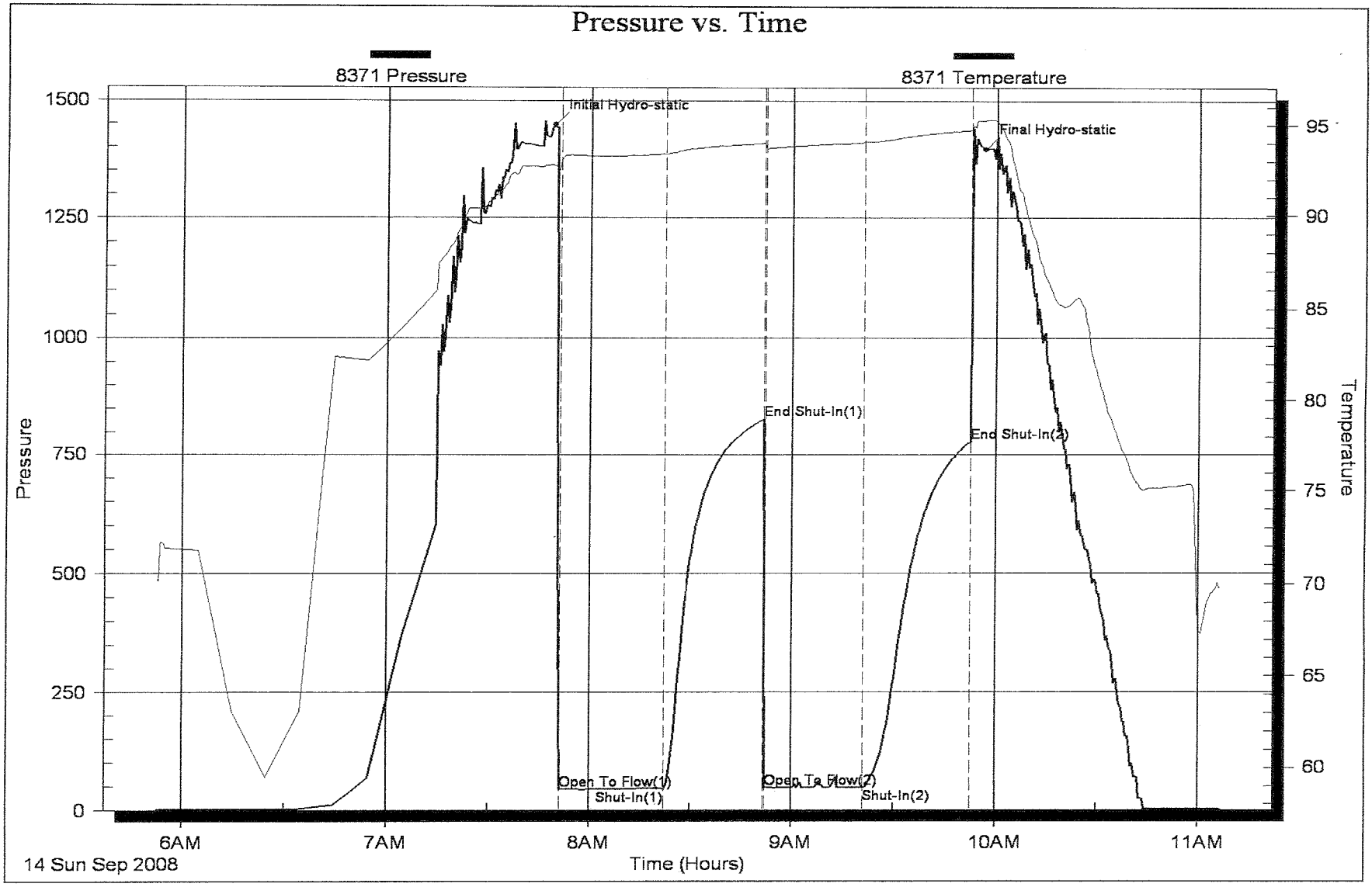
Length ft	Description	Volume bbl
65.00	mud 100%	0.629

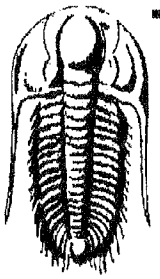
Total Length: 65.00 ft Total Volume: 0.629 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8371 Pressure
8371 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
95
90
85
80
75
70
65
60
6AM
7AM
8AM
9AM
10AM
11AM
14 Sun Sep 2008
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

31 13 12 Russell Ks

Small #1

Start Date: 2008.09.14 @ 16:07:07
End Date: 2008.09.14 @ 21:47:01
Job Ticket #: 32471 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O Farmer

PO Box 352
Russell, Ks
67665
ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 32471 **DST#: 2**

Test Start: 2008.09.14 @ 16:07:07

GENERAL INFORMATION:

Formation: **LKC "C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:25:02
Time Test Ended: 21:47:01

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

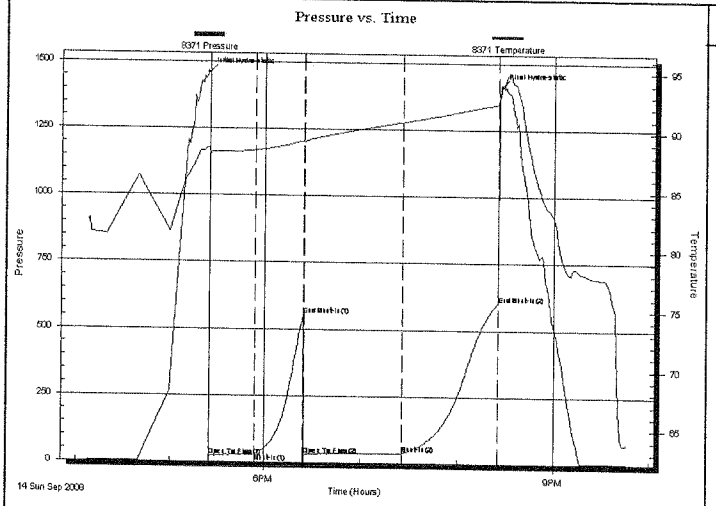
Interval: 3045.00 ft (KB) To 3055.00 ft (KB) (TVD)
Total Depth: 3055.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1860.00 ft (KB)
1852.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8371 **Outside**
Press@RunDepth: 36.23 psig @ 3047.00 ft (KB)
Start Date: 2008.09.14 End Date: 2008.09.14
Start Time: 16:07:07 End Time: 21:47:01

Capacity: 7000.00 psig
Last Calib.: 2008.09.14
Time On Btm: 2008.09.14 @ 17:24:02
Time Off Btm: 2008.09.14 @ 20:27:01

TEST COMMENT: IFP - weak blow throughout sur - 2"
ISI - no blow back
FFP - weak blow throughout sur - 1"
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1461.06	88.63	Initial Hydro-static
1	20.84	87.91	Open To Flow (1)
30	29.97	88.42	Shut-In(1)
61	554.18	89.24	End Shut-In(1)
61	26.97	89.11	Open To Flow (2)
122	36.23	90.84	Shut-In(2)
181	601.39	92.41	End Shut-In(2)
183	1412.26	93.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	VSOCMW 2%O, 10%W, 88%M	0.05
10.00	MCO 50%O, 50%M	0.05
15.00	FREE OIL 95%O, 5%M	0.11
0.00	60' GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 32471 **DST#: 2**

Test Start: 2008.09.14 @ 16:07:07

Tool Information

Drill Pipe:	Length:	3004.00 ft	Diameter:	3.80 inches	Volume:	42.14 bbl	Tool Weight:		2500.00 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:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		55000.00 lb
					Total Volume:	42.29 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		17.00 ft					String Weight:	Initial	45000.00 lb
Depth to Top Packer:		3045.00 ft						Final	46000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		10.00 ft							
Tool Length:		37.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3023.00		
Hydraulic tool	5.00			3028.00		
Jars	5.00			3033.00		
Safety Joint	2.00			3035.00		
Packer	5.00			3040.00	27.00	Bottom Of Top Packer
Packer	5.00			3045.00		
Stubb	1.00			3046.00		
Perforations	1.00			3047.00		
Recorder	0.00	8018	Inside	3047.00		
Recorder	0.00	8371	Outside	3047.00		
Perforations	5.00			3052.00		
Bullnose	3.00			3055.00	10.00	Bottom Packers & Anchor
Total Tool Length:	**37.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 32471 **DST#: 2**

Test Start: 2008.09.14 @ 16:07:07

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	39 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	85000 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

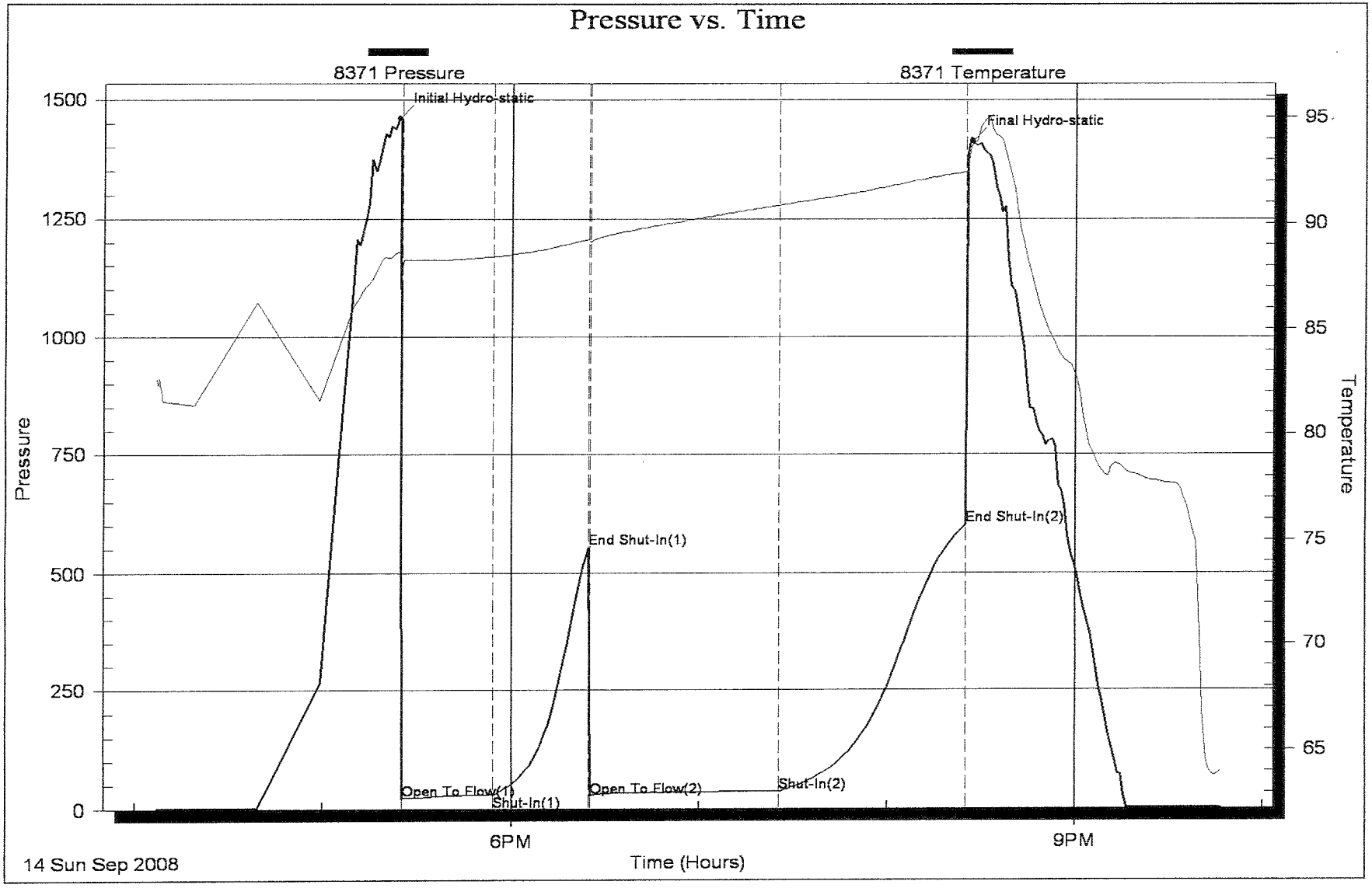
Length ft	Description	Volume bbl
10.00	VSOCMW 2%O, 10%W, 88%M	0.049
10.00	MCO 50%O, 50%M	0.049
15.00	FREE OIL 95%O, 5%M	0.110
0.00	60' GIP	0.000

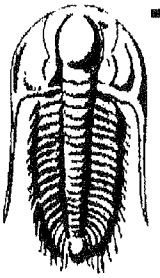
Total Length: 35.00 ft Total Volume: 0.208 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8371 Pressure
8371 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
1500
1250
1000
750
500
250
0
Pressure
95
90
85
80
75
70
65
Temperature
6PM
9PM
Time (Hours)
14 Sun Sep 2008



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

31 13 12 Russell Ks

Small #1

Start Date: 2008.09.15 @ 06:27:49
End Date: 2008.09.15 @ 12:23:49
Job Ticket #: 33685 DST #: 3

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 33685 **DST#: 3**

Test Start: 2008.09.15 @ 06:27:49

GENERAL INFORMATION:

Formation: **LKC "F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:52:19
Time Test Ended: 12:23:49

Test Type: Conventional Bottom Hole
Tester: Brett Dickinson
Unit No: 42

Interval: 3096.00 ft (KB) To 3120.00 ft (KB) (TVD)
Total Depth: 3120.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

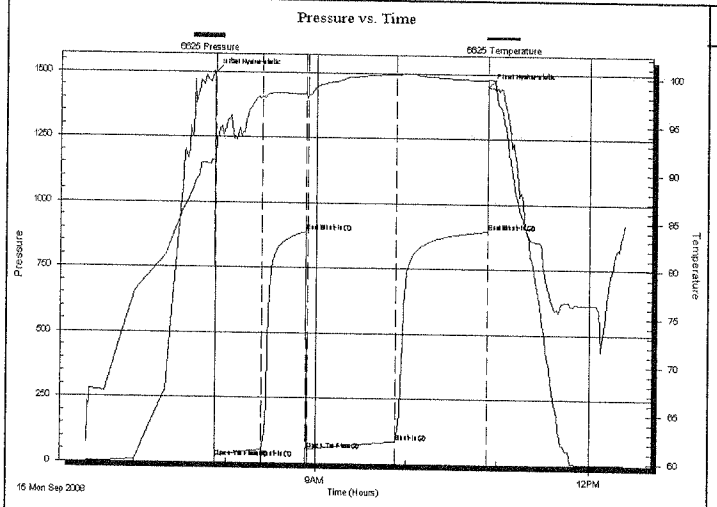
Reference Elevations: 1860.00 ft (KB)
1852.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6625 **Inside**

Press@RunDepth: 85.98 psig @ 3097.00 ft (KB)
Start Date: 2008.09.15 End Date: 2008.09.15
Start Time: 06:27:54 End Time: 12:23:48

Capacity: 7000.00 psig
Last Calib.: 2008.09.15
Time On Btm: 2008.09.15 @ 07:51:49
Time Off Btm: 2008.09.15 @ 10:54:18

TEST COMMENT: IF 7.5in blow
ISI surface blow died in 17min
FF BOB in 49min
FSI No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1497.16	91.33	Initial Hydro-static
1	19.29	91.13	Open To Flow (1)
32	50.92	97.92	Shut-In(1)
61	888.44	98.17	End Shut-In(1)
63	52.27	97.98	Open To Flow (2)
121	85.98	100.31	Shut-In(2)
182	895.52	99.77	End Shut-In(2)
183	1452.90	99.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%	0.05
120.00	WCM 75%W 25%M	1.49
10.00	Oil 90%O 10%G	0.14
0.00	100' GIP	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 33685 **DST#: 3**

Test Start: 2008.09.15 @ 06:27:49

Tool Information

Drill Pipe:	Length:	3069.00 ft	Diameter:	3.80 inches	Volume:	43.05 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	
					Total Volume:	43.20 bbl	

Drill Pipe Above KB:	32.00 ft
Depth to Top Packer:	3096.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	24.00 ft
Tool Length:	52.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		49000.00 lb
Tool Chased		ft
String Weight:	Initial	49000.00 lb
	Final	49000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3073.00		
Hydraulic tool	5.00			3078.00		
Jars	5.00			3083.00		
Safety Joint	3.00			3086.00		
Packer	5.00			3091.00	28.00	Bottom Of Top Packer
Packer	5.00			3096.00		
Stubb	1.00			3097.00		
Recorder	0.00	6625	Inside	3097.00		
Recorder	0.00	8365	Outside	3097.00		
Perforations	20.00			3117.00		
Bullnose	3.00			3120.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**52.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer

PO Box 352
Russell, Ks
67665

ATTN: Steve Murphy

Small #1

31 13 12 Russell Ks

Job Ticket: 33685 **DST#: 3**

Test Start: 2008.09.15 @ 06:27:49

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	31000 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4800.00 ppm				
Filter Cake:	inches				

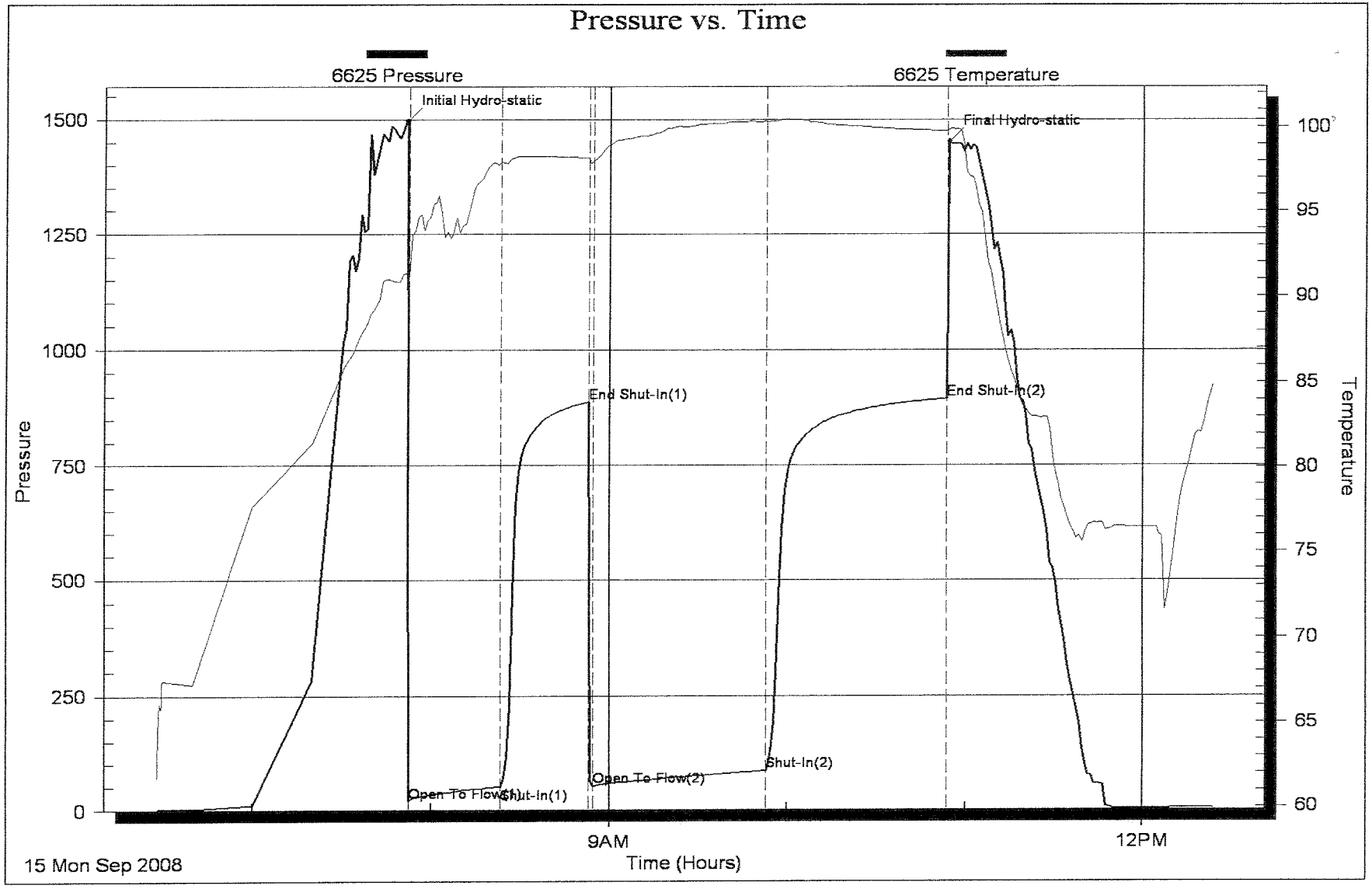
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100%	0.049
120.00	WCM 75%W 25%M	1.492
10.00	Oil 90%O 10%G	0.140
0.00	100' GIP	0.000

Total Length: 140.00 ft Total Volume: 1.681 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6625 Pressure
6625 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
100
95
90
85
80
75
70
65
60
9AM
12PM
15 Mon Sep 2008
Time (Hours)