



DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum**

525 S. Main St
Kingmon, KS 67068

ATTN: Jeff Burk

Karlie Trust #1

17-13S-18W Ellis,KS

Start Date: 2013.10.05 @ 00:22:43

End Date: 2013.10.05 @ 06:20:22

Job Ticket #: 54833 DST #: 1

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

Printed: 2013.10.10 @ 16:49:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis, KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54833

DST#: 1

ATTN: Jeff Burk

Test Start: 2013.10.05 @ 00:22:43

GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:26:03

Time Test Ended: 06:20:22

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang/ Tim Phill

Unit No: 49

Interval: 3400.00 ft (KB) To 3430.00 ft (KB) (TVD)

Reference Elevations: 2091.00 ft (KB)

Total Depth: 3430.00 ft (KB) (TVD)

2082.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8898 Outside

Press @ Run Depth: 18.74 psig @ 3402.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.05 End Date: 2013.10.05

Last Calib.: 2013.10.05

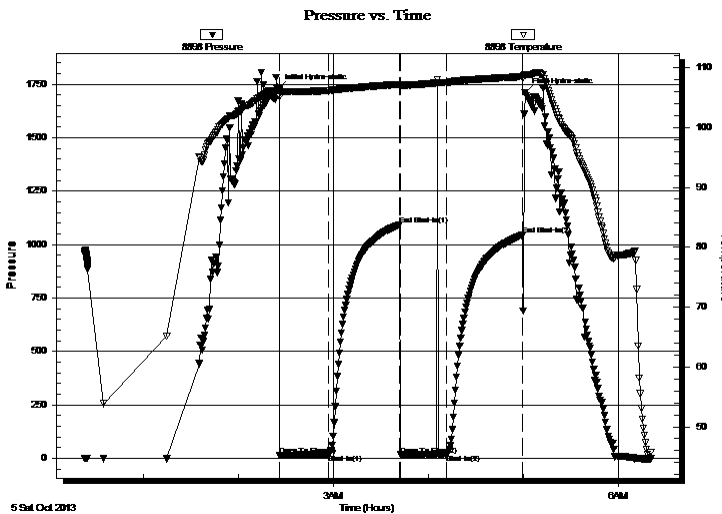
Start Time: 00:22:44 End Time: 06:20:23

Time On Btm: 2013.10.05 @ 02:25:03

Time Off Btm: 2013.10.05 @ 05:01:03

TEST COMMENT: IFP-weak surface blow built to 3/4 in.
ISI-No blow back
FF-Dead no blow flushed tool surged then died
FSI-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1731.39	106.22	Initial Hydro-static
1	13.48	105.18	Open To Flow (1)
32	17.20	106.18	Shut-In(1)
77	1091.32	107.21	End Shut-In(1)
78	16.74	106.71	Open To Flow (2)
107	18.74	107.55	Shut-In(2)
155	1043.97	108.50	End Shut-In(2)
156	1710.24	108.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%	0.14

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Messenger Petroleum
525 S. Main St
Kingmon, KS 67068
ATTN: Jeff Burk

17-13S-18W Ellis,KS

Karlie Trust #1

Job Ticket: 54833

DST#: 1

Test Start: 2013.10.05 @ 00:22:43

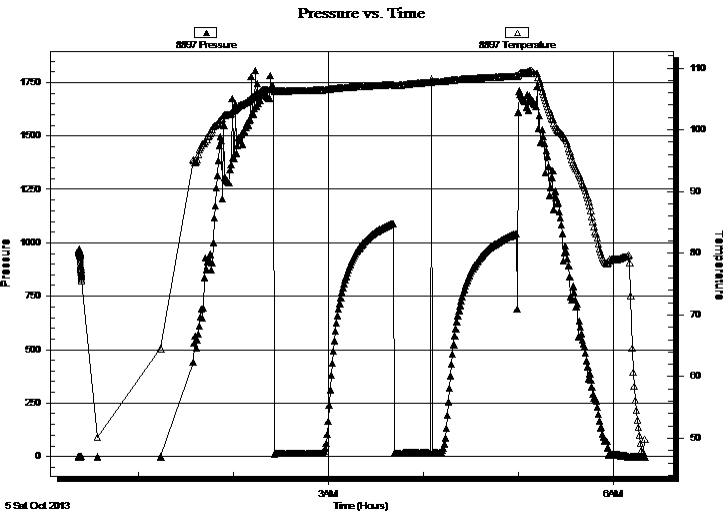
GENERAL INFORMATION:

Formation: **Lansing**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:26:03
 Time Test Ended: 06:20:22
 Interval: **3400.00 ft (KB) To 3430.00 ft (KB) (TVD)**
 Total Depth: 3430.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Tate Lang/ Tim Phill
 Unit No: 49
 Reference Elevations: 2091.00 ft (KB)
 2082.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8897 Inside

Press @ Run Depth: psig @ 3402.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.10.05 End Date: 2013.10.05 Last Calib.: 2013.10.05
 Start Time: 00:22:15 End Time: 06:19:54 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-weak surface blow built to 3/4 in.
 ISI-No blow back
 FF-Dead no blow flushed tool surged then died
 FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%	0.14

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54833

DST#: 1

ATTN: Jeff Burk

Test Start: 2013.10.05 @ 00:22:43

Tool Information

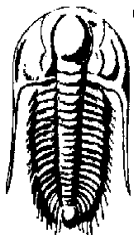
Drill Pipe:	Length: 3389.00 ft	Diameter: 3.80 inches	Volume: 47.54 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 47.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3400.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3380.00	
Hydraulic tool	5.00			3385.00	
Jars	5.00			3390.00	
Packer	5.00			3395.00	25.00 Bottom Of Top Packer
Packer	5.00			3400.00	
Stubb	1.00			3401.00	
Perforations	1.00			3402.00	
Recorder	0.00	8897	Inside	3402.00	
Recorder	0.00	8898	Outside	3402.00	
Perforations	25.00			3427.00	
Bullnose	3.00			3430.00	30.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54833

DST#: 1

ATTN: Jeff Burk

Test Start: 2013.10.05 @ 00:22:43

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100%	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

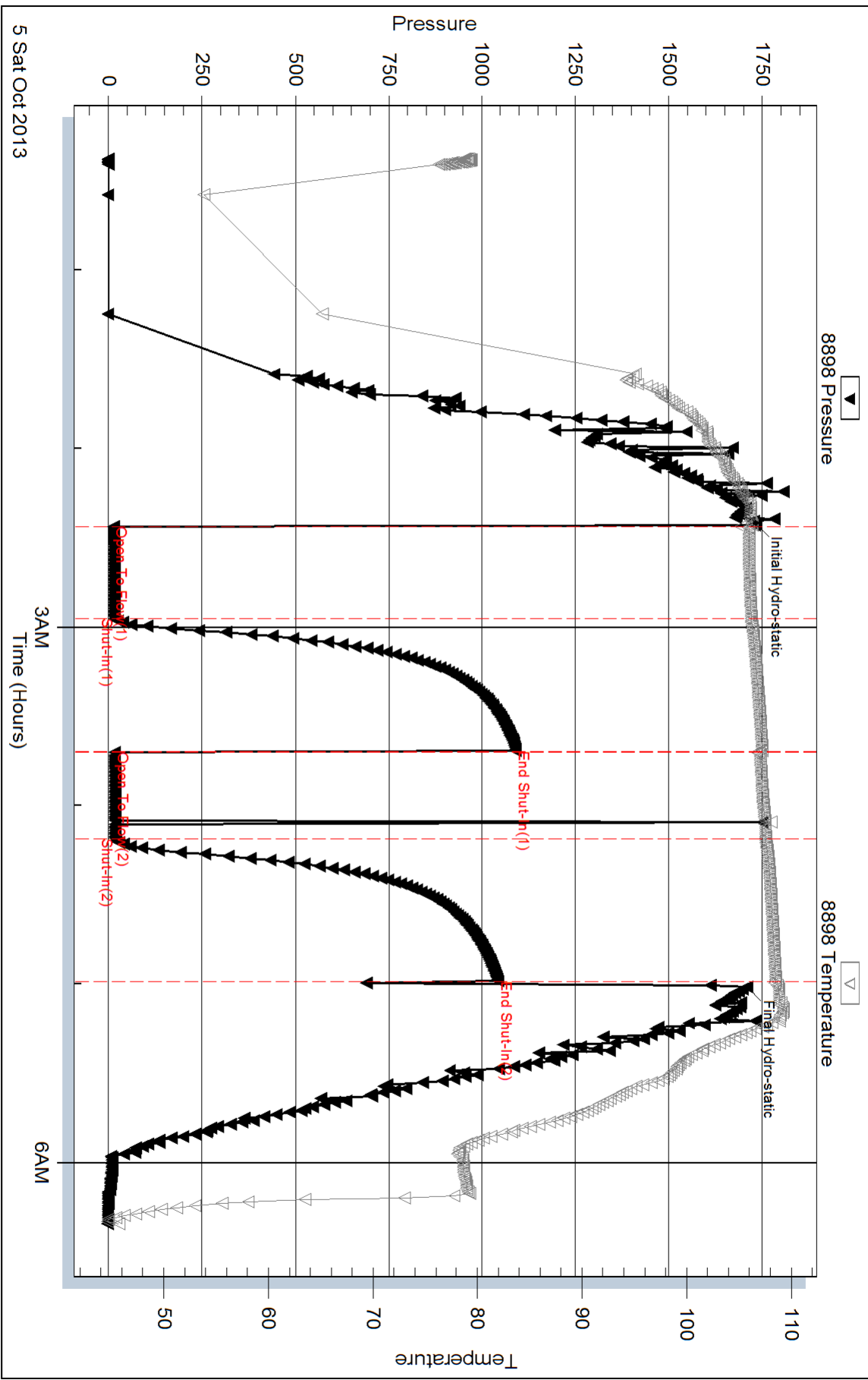
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



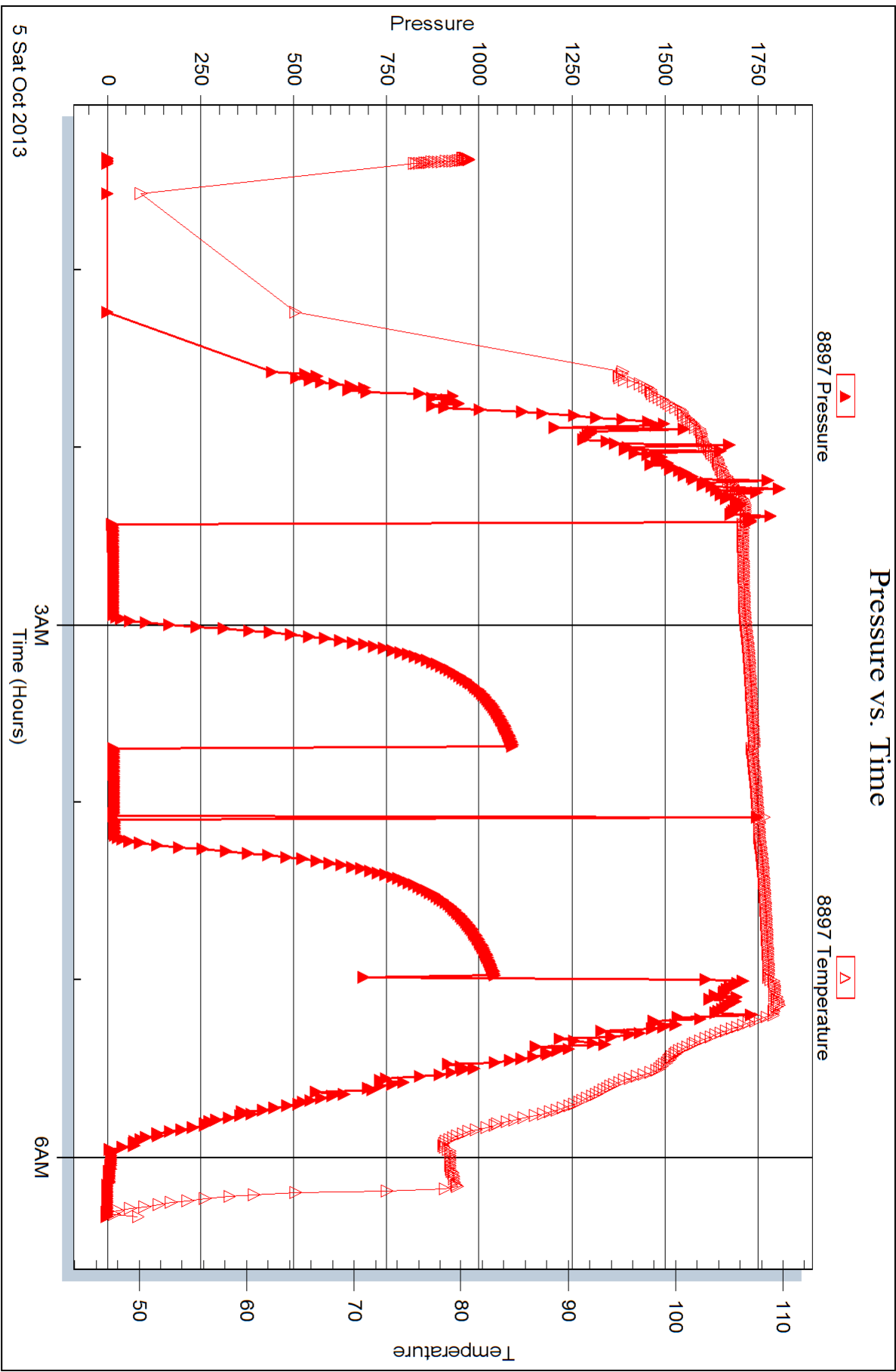
Serial #: 8897

Inside

Messenger Petroleum

Karlie Trust #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum**

525 S. Main St
Kingmon, KS 67068

ATTN: Jeff Burk

Karlie Trust #1

17-13S-18W Ellis,KS

Start Date: 2013.10.05 @ 12:50:37

End Date: 2013.10.05 @ 18:18:07

Job Ticket #: 54834 DST #: 2

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

Printed: 2013.10.10 @ 16:48:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54834

DST#: 2

ATTN: Jeff Burk

Test Start: 2013.10.05 @ 12:50:37

GENERAL INFORMATION:

Formation: **LKC O**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:52:47

Time Test Ended: 18:18:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang/ Tim Phill

Unit No: 49

Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)

Reference Elevations: 2091.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

2082.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8898 Outside

Press @ Run Depth: 14.19 psig @ 3439.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.05 End Date: 2013.10.05

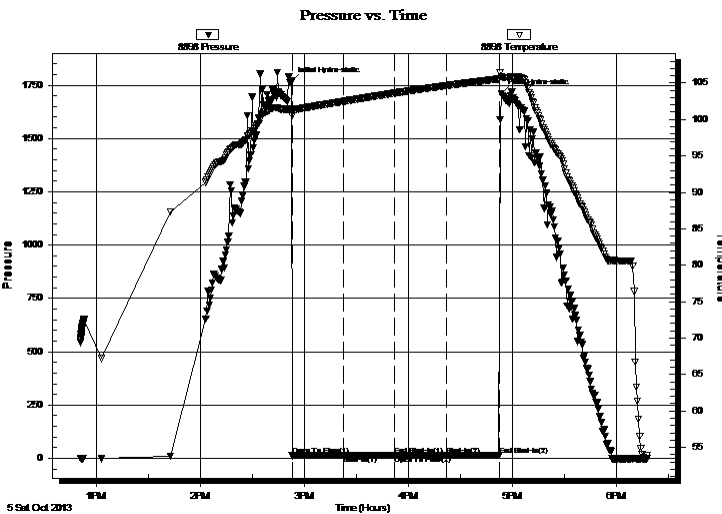
Last Calib.: 2013.10.05

Start Time: 12:50:38 End Time: 18:18:07

Time On Btm: 2013.10.05 @ 14:52:37

Time Off Btm: 2013.10.05 @ 16:53:37

TEST COMMENT: IFP-Very weak surface blow died in 13 min
ISP-No blow back
FF-Dead no blow
FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1768.29	101.47	Initial Hydro-static
1	12.55	100.55	Open To Flow (1)
30	13.81	102.47	Shut-In(1)
60	14.57	103.61	End Shut-In(1)
60	14.04	103.62	Open To Flow (2)
90	14.19	104.64	Shut-In(2)
120	14.46	105.56	End Shut-In(2)
121	1708.71	105.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	100% Mud	0.01

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis, KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54834

DST#: 2

ATTN: Jeff Burk

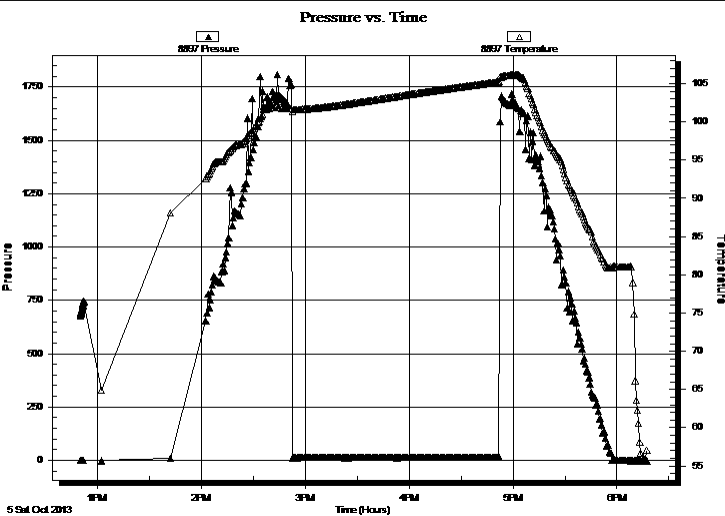
Test Start: 2013.10.05 @ 12:50:37

GENERAL INFORMATION:

Formation: LKC O	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: Tate Lang/ Tim Phill
Time Tool Opened: 14:52:47	Unit No: 49
Time Test Ended: 18:18:07	Reference Elevations: 2091.00 ft (KB) 2082.00 ft (CF)
Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)	KB to GR/CF: 9.00 ft
Total Depth: 3450.00 ft (KB) (TVD)	
Hole Diameter: 7.88 inches Hole Condition: Good	

Serial #: 8897	Inside				
Press @ RunDepth: psig @ 3439.00 ft (KB)	Capacity: 8000.00 psig				
Start Date: 2013.10.05 End Date: 2013.10.05	Last Calib.: 2013.10.05				
Start Time: 12:50:10 End Time: 18:17:39	Time On Btm:				
	Time Off Btm:				

TEST COMMENT: IFP-Very weak surface blow died in 13 min
ISP-No blow back
FF-Dead no blow
FSI-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
1.00	100% Mud	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Messenger Petroleum

17-13S-18W Ellis, KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54834

DST#: 2

ATTN: Jeff Burk

Test Start: 2013.10.05 @ 12:50:37

Tool Information

Drill Pipe:	Length: 3420.00 ft	Diameter: 3.80 inches	Volume: 47.97 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 47.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3438.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	37.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3418.00	
Hydraulic tool	5.00			3423.00	
Jars	5.00			3428.00	
Packer	5.00			3433.00	25.00 Bottom Of Top Packer
Packer	5.00			3438.00	
Stubb	1.00			3439.00	
Recorder	0.00	8897	Inside	3439.00	
Recorder	0.00	8898	Outside	3439.00	
Perforations	8.00			3447.00	
Bullnose	3.00			3450.00	12.00 Bottom Packers & Anchor
Total Tool Length:	37.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54834

DST#: 2

ATTN: Jeff Burk

Test Start: 2013.10.05 @ 12:50:37

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	100% Mud	0.014

Total Length: 1.00 ft Total Volume: 0.014 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

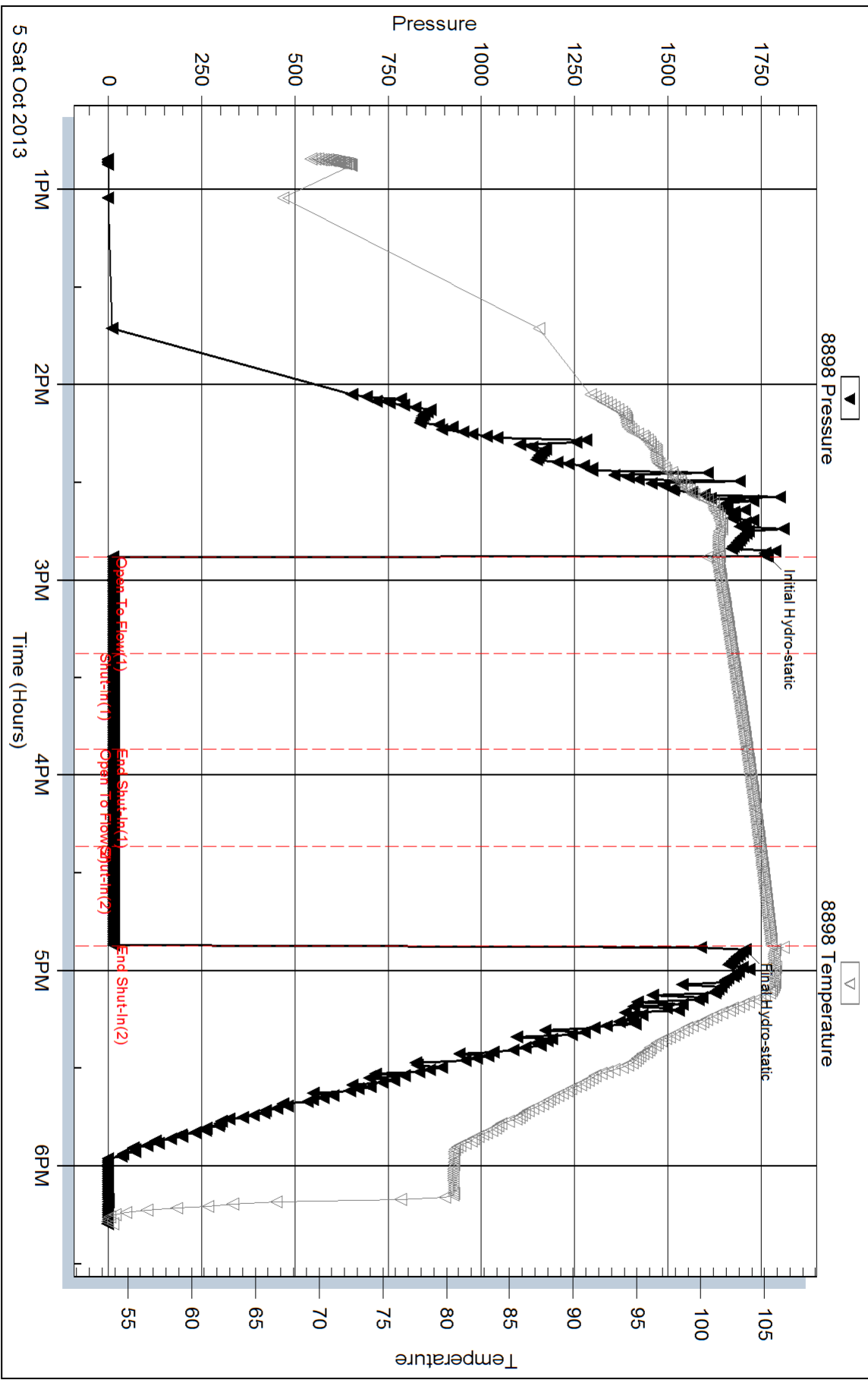
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



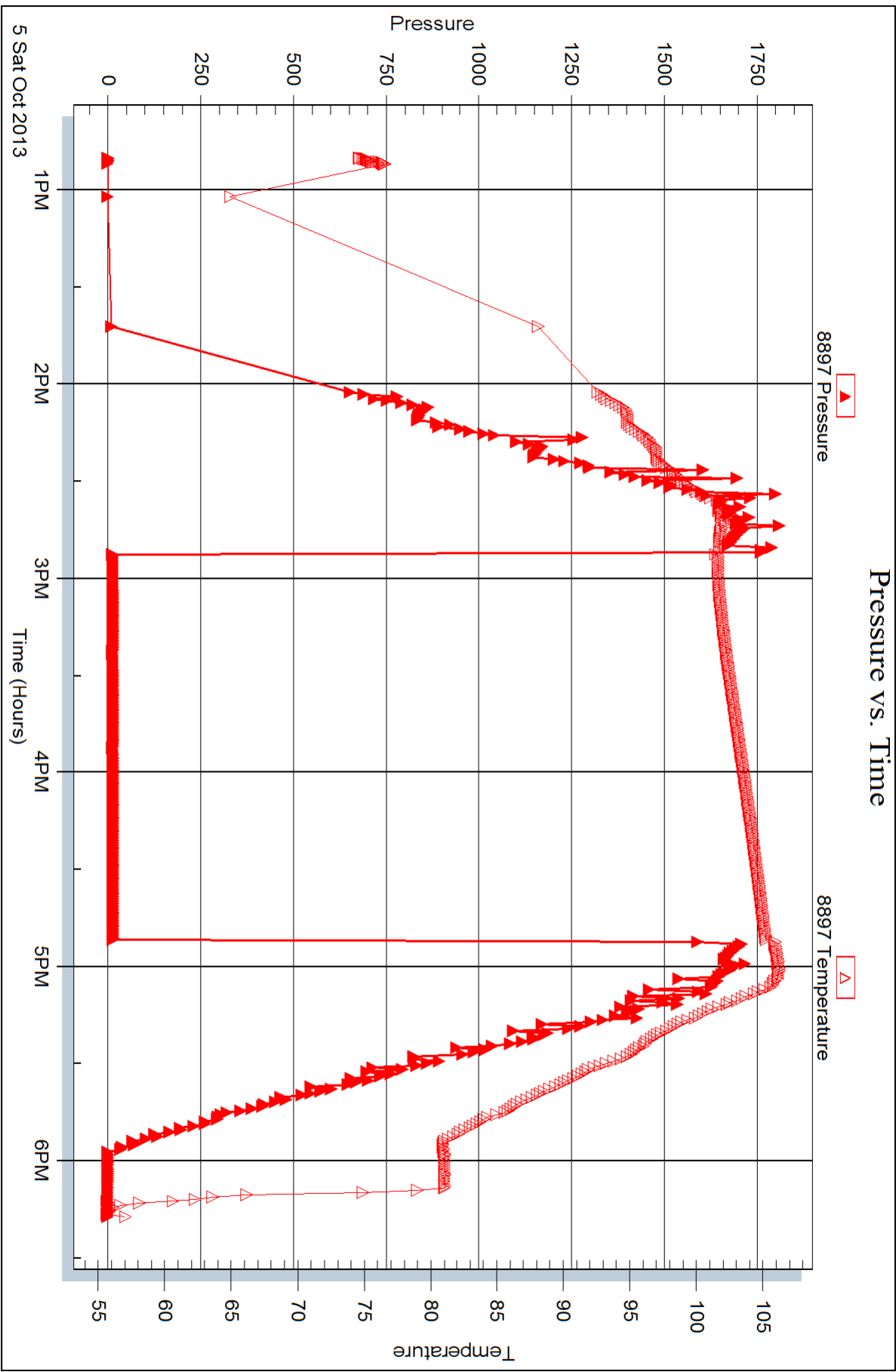
Serial #: 8897

Inside

Messenger Petroleum

Karlie Trust #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum**

525 S. Main St
Kingmon, KS 67068

ATTN: Jeff Burk

Karlie Trust #1

17-13S-18W Ellis,KS

Start Date: 2013.10.06 @ 07:45:41

End Date: 2013.10.06 @ 13:19:20

Job Ticket #: 54835 DST #: 3

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

Printed: 2013.10.10 @ 16:47:23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54835

DST#: 3

ATTN: Jeff Burk

Test Start: 2013.10.06 @ 07:45:41

GENERAL INFORMATION:

Formation: **LKC G,H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:38:41

Time Test Ended: 13:19:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang/ Tim Phill

Unit No: 49

Interval: 3463.00 ft (KB) To 3540.00 ft (KB) (TVD)

Reference Elevations: 2091.00 ft (KB)

Total Depth: 3430.00 ft (KB) (TVD)

2082.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8898 Outside

Press @ RunDepth: 21.04 psig @ 3464.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.06

End Date:

2013.10.06

Last Calib.:

2013.10.06

Start Time:

07:45:42

End Time:

13:19:21

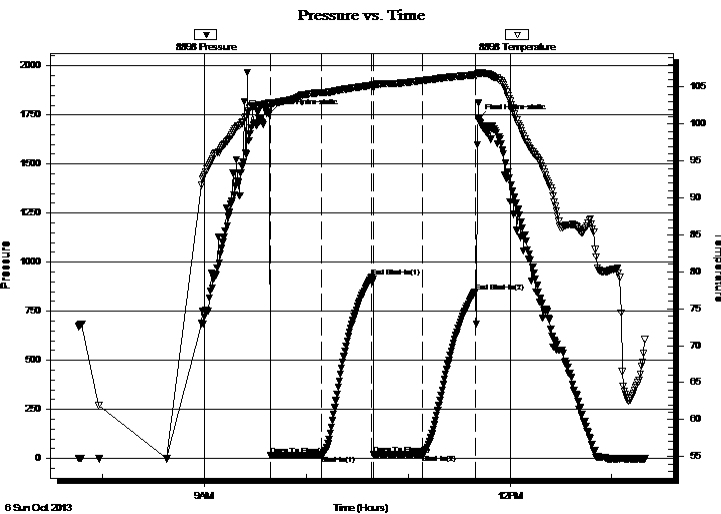
Time On Btm:

2013.10.06 @ 09:38:11

Time Off Btm:

2013.10.06 @ 11:41:31

TEST COMMENT: IFP-Weak surface blow built to 1/2 in.
ISI-Dead no blow back
FF-Dead no blow
FSI-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1755.96	102.83	Initial Hydro-static
1	15.39	102.20	Open To Flow (1)
31	17.80	104.23	Shut-In(1)
61	922.50	105.24	End Shut-In(1)
62	19.47	104.93	Open To Flow (2)
90	21.04	105.88	Shut-In(2)
122	848.34	106.65	End Shut-In(2)
124	1730.66	106.91	Final Hydro-static

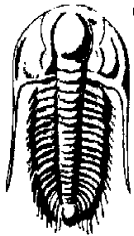
Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%M	0.14

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis, KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54835

DST#: 3

ATTN: Jeff Burk

Test Start: 2013.10.06 @ 07:45:41

GENERAL INFORMATION:

Formation: **LKC G,H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:38:41

Time Test Ended: 13:19:20

Interval: **3463.00 ft (KB) To 3540.00 ft (KB) (TVD)**

Total Depth: 3430.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang/ Tim Phill

Unit No: 49

Reference Elevations: 2091.00 ft (KB)

2082.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: **8897** Inside

Press @ Run Depth: psig @ 3464.00 ft (KB)

Start Date: 2013.10.06 End Date: 2013.10.06

Start Time: 07:45:43 End Time: 13:19:22

Capacity: 8000.00 psig

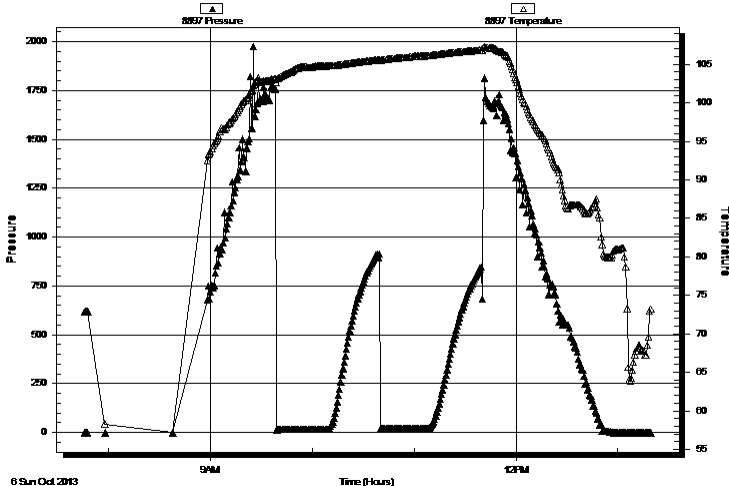
Last Calib.: 2013.10.06

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Weak surface blow built to 1/2 in.
ISI-Dead no blow back
FF-Dead no blow
FSI-Dead no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%M	0.14

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54835

DST#: 3

ATTN: Jeff Burk

Test Start: 2013.10.06 @ 07:45:41

Tool Information

Drill Pipe:	Length: 3452.00 ft	Diameter: 3.80 inches	Volume: 48.42 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3463.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	77.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3443.00	
Hydraulic tool	5.00			3448.00	
Jars	5.00			3453.00	
Packer	5.00			3458.00	25.00 Bottom Of Top Packer
Packer	5.00			3463.00	
Stubb	1.00			3464.00	
Recorder	0.00	8897	Inside	3464.00	
Recorder	0.00	8898	Outside	3464.00	
Perforations	8.00			3472.00	
Change Over Sub	1.00			3473.00	
Drill Pipe	63.00			3536.00	
Change Over Sub	1.00			3537.00	
Bullnose	3.00			3540.00	77.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54835

DST#: 3

ATTN: Jeff Burk

Test Start: 2013.10.06 @ 07:45:41

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: 63.00 sec/qt

Cushion Volume: bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100%M	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

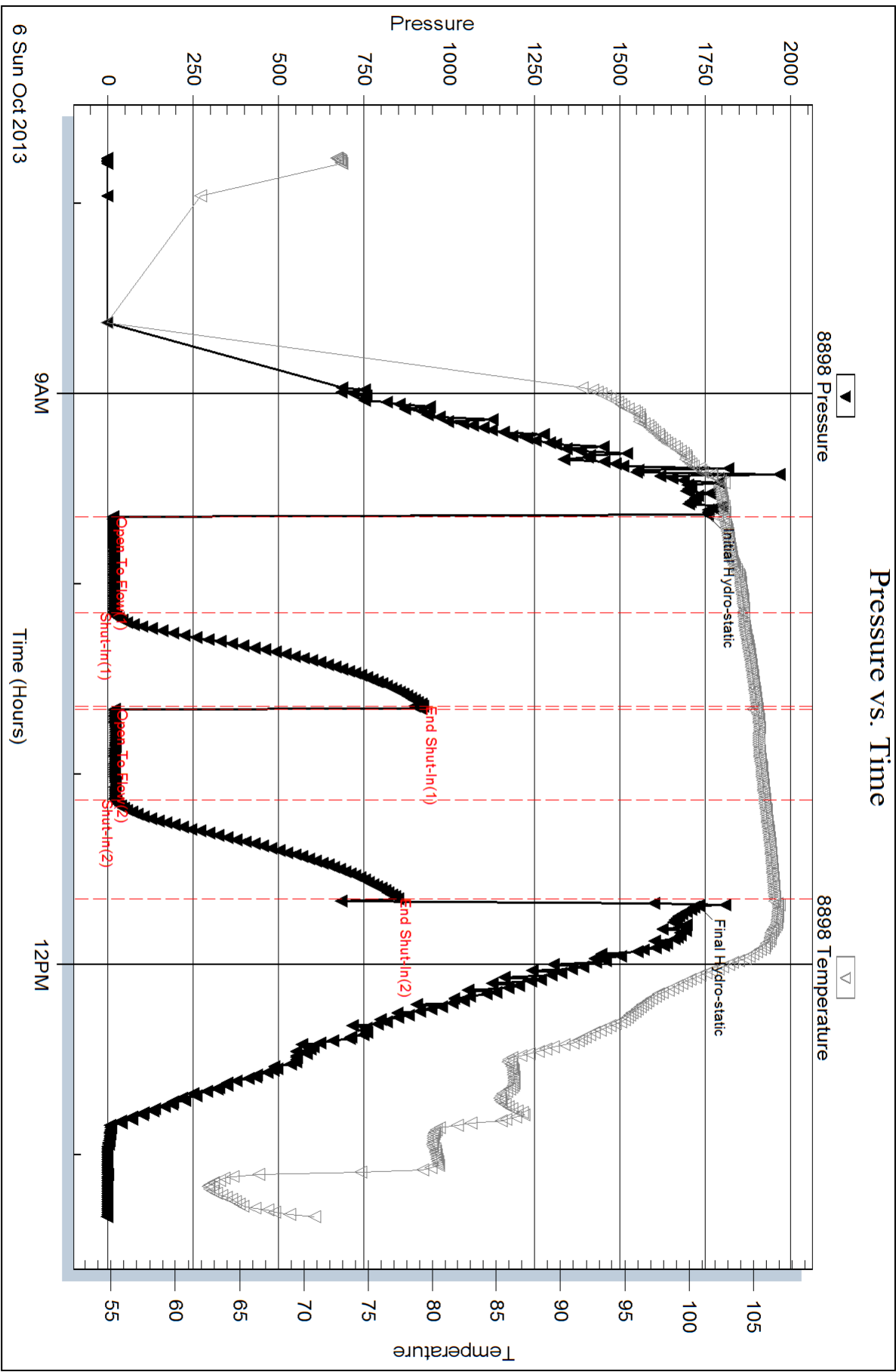
Recovery Comments:

Serial #: 8898

Outside Messenger Petroleum

Karlie Trust #1

DST Test Number: 3



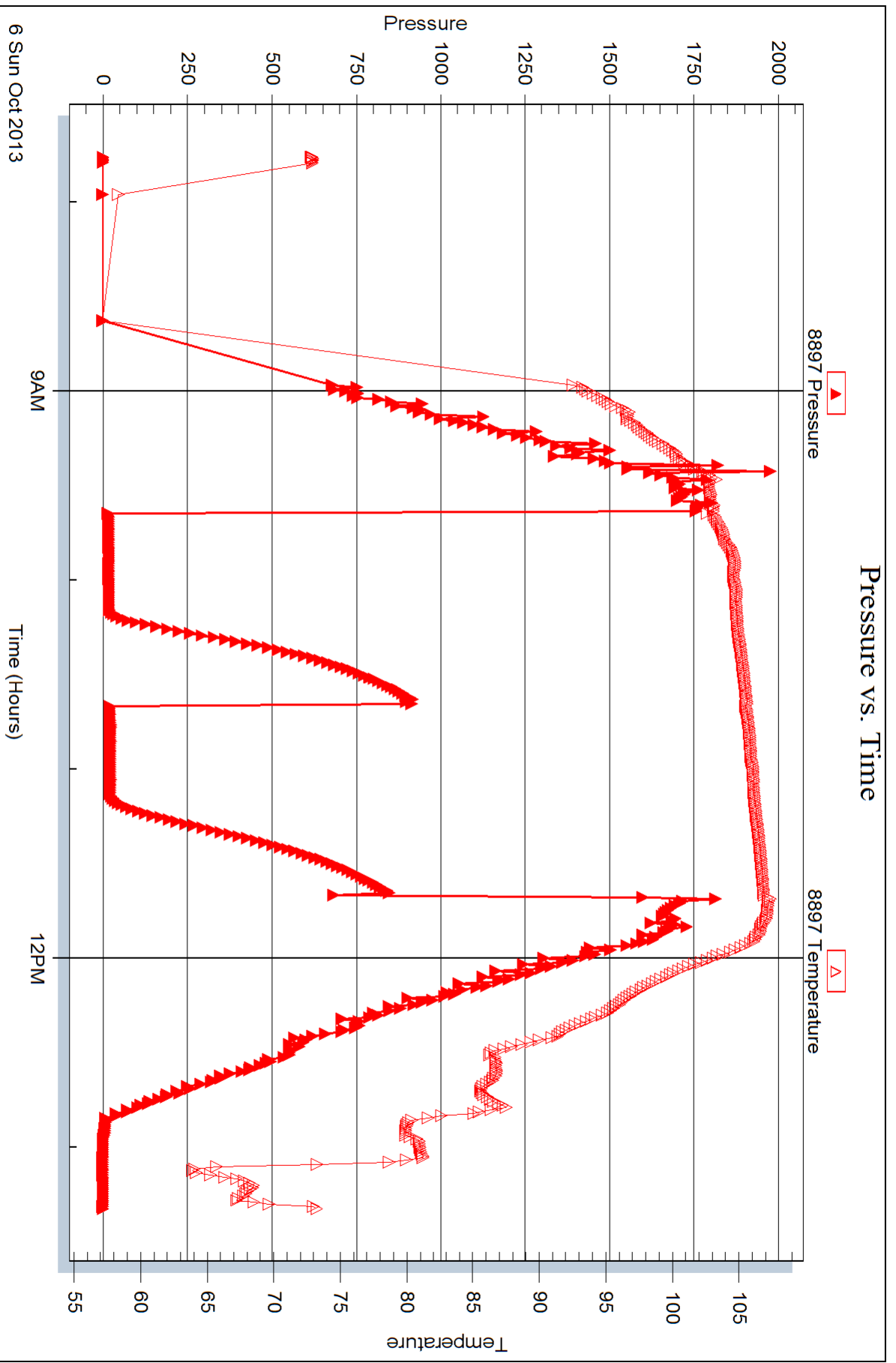
Serial #: 8897

Inside

Messenger Petroleum

Karlie Trust #1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum**

525 S. Main St
Kingmon, KS 67068

ATTN: Jeff Burk

Karlie Trust #1

17-13S-18W Ellis,KS

Start Date: 2013.10.07 @ 00:28:28

End Date: 2013.10.07 @ 05:18:28

Job Ticket #: 54836 DST #: 4

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

Printed: 2013.10.10 @ 16:46:49



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis, KS

525 S. Main St
Kingman, KS 67068

Karlie Trust #1

Job Ticket: 54836

DST#: 4

ATTN: Jeff Burk

Test Start: 2013.10.07 @ 00:28:28

GENERAL INFORMATION:

Formation: **LKC I,J,K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:00:18

Time Test Ended: 05:18:28

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3550.00 ft (KB) To 3603.00 ft (KB) (TVD)

Reference Elevations: 2091.00 ft (KB)

Total Depth: 3603.00 ft (KB) (TVD)

2082.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8898 Outside

Press @ Run Depth: 37.32 psig @ 3552.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.07

End Date:

2013.10.07

Last Calib.:

2013.10.07

Start Time: 00:28:29

End Time:

05:18:28

Time On Btm:

2013.10.07 @ 02:00:08

Time Off Btm:

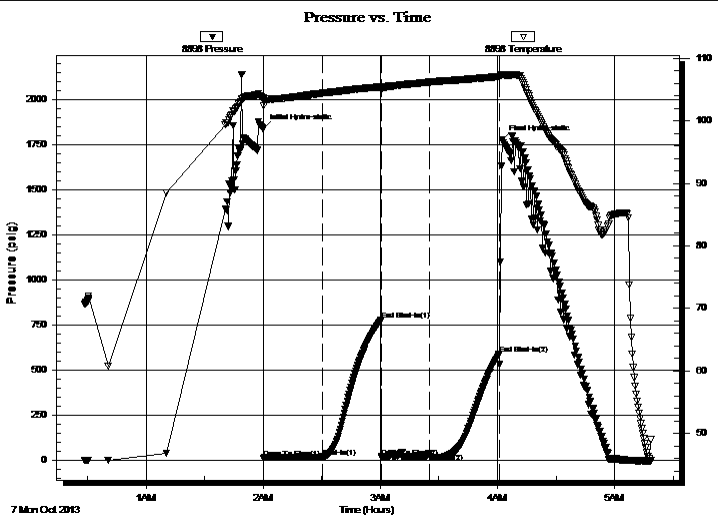
2013.10.07 @ 04:02:28

TEST COMMENT: Weak surface blow built to 1/4 in.

Dead no blow back

Dead no blow

Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1837.86	103.70	Initial Hydro-static
1	13.52	102.41	Open To Flow (1)
30	17.02	104.37	Shut-In(1)
61	778.84	105.39	End Shut-In(1)
61	17.88	105.12	Open To Flow (2)
85	37.32	106.16	Shut-In(2)
121	588.14	107.04	End Shut-In(2)
123	1777.51	107.32	Final Hydro-static

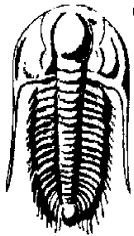
Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%M	0.07

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54836

DST#: 4

ATTN: Jeff Burk

Test Start: 2013.10.07 @ 00:28:28

GENERAL INFORMATION:

Formation: **LKC I,J,K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:00:18

Time Test Ended: 05:18:28

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3550.00 ft (KB) To 3603.00 ft (KB) (TVD)

Reference Elevations: 2091.00 ft (KB)

Total Depth: 3603.00 ft (KB) (TVD)

2082.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8897

Inside

Press @ Run Depth: psig @ 3552.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.07 End Date: 2013.10.07

Last Calib.: 2013.10.07

Start Time: 00:28:40 End Time: 05:18:39

Time On Btm:

Time Off Btm:

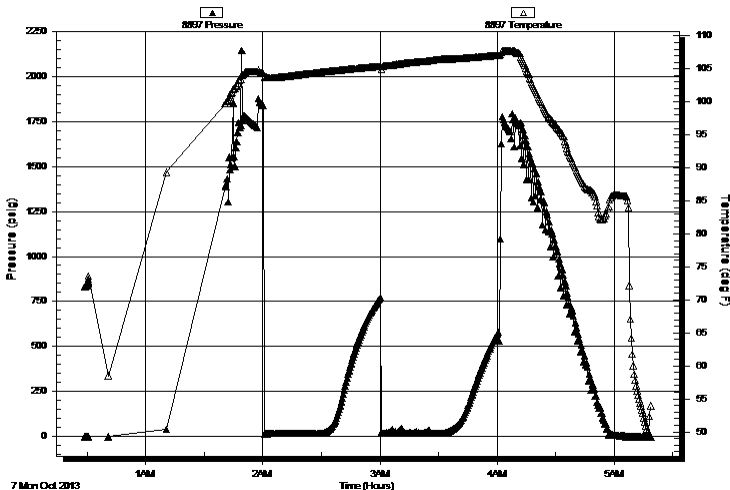
TEST COMMENT: Weak surface blow built to 1/4 in.

Dead no blow back

Dead no blow

Dead no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%M	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54836

DST#: 4

ATTN: Jeff Burk

Test Start: 2013.10.07 @ 00:28:28

Tool Information

Drill Pipe:	Length: 3545.00 ft	Diameter: 3.80 inches	Volume: 49.73 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 49.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3550.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3530.00	
Hydraulic tool	5.00			3535.00	
Jars	5.00			3540.00	
Packer	5.00			3545.00	25.00 Bottom Of Top Packer
Packer	5.00			3550.00	
Stubb	1.00			3551.00	
Perforations	1.00			3552.00	
Recorder	0.00	8897	Inside	3552.00	
Recorder	0.00	8898	Outside	3552.00	
Perforations	15.00			3567.00	
Change Over Sub	1.00			3568.00	
Drill Pipe	31.00			3599.00	
Change Over Sub	1.00			3600.00	
Bullnose	3.00			3603.00	53.00 Bottom Packers & Anchor

Total Tool Length: 78.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Messenger Petroleum

17-13S-18W Ellis,KS

525 S. Main St
Kingmon, KS 67068

Karlie Trust #1

Job Ticket: 54836

DST#: 4

ATTN: Jeff Burk

Test Start: 2013.10.07 @ 00:28:28

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%M	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

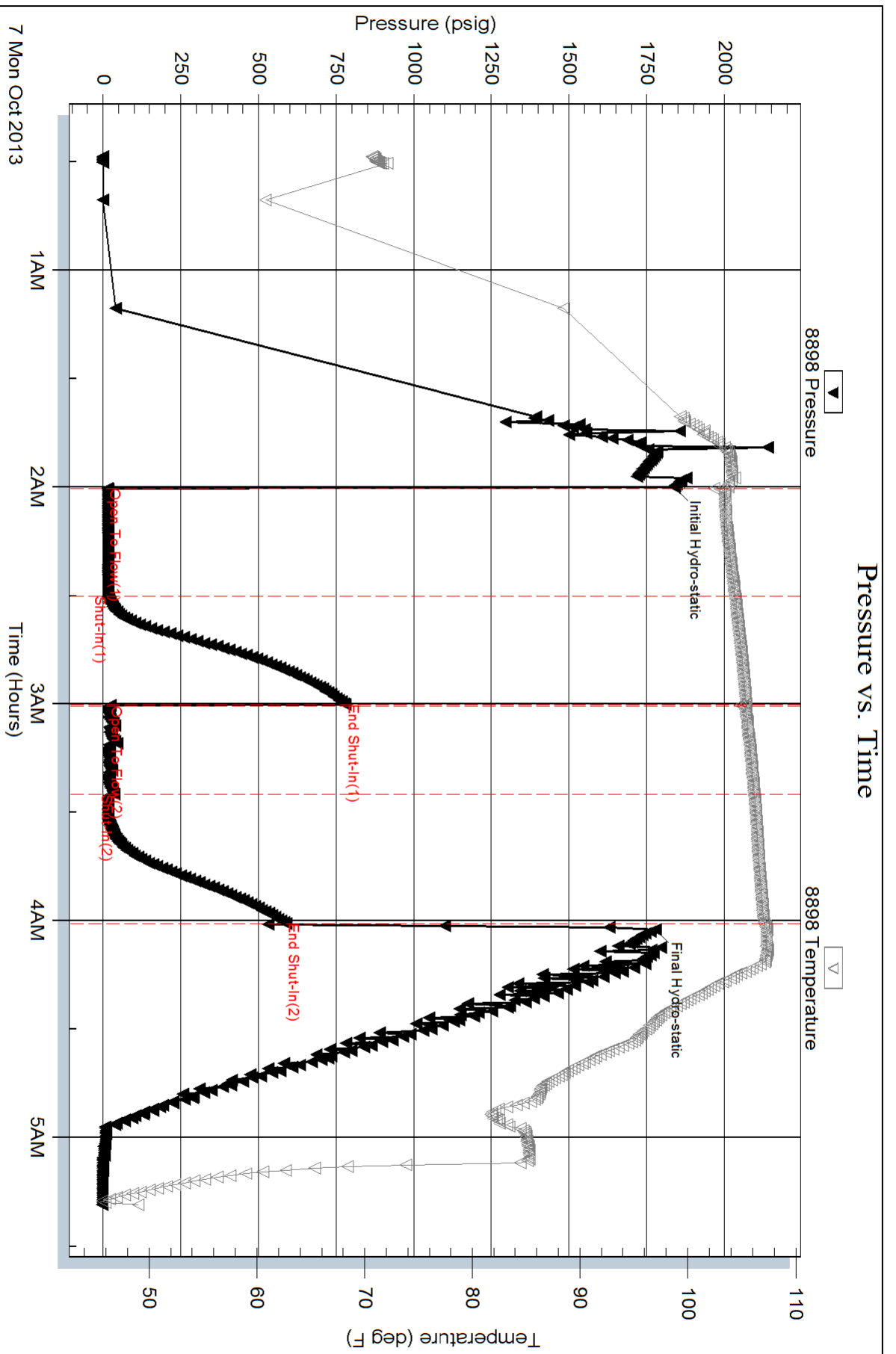
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



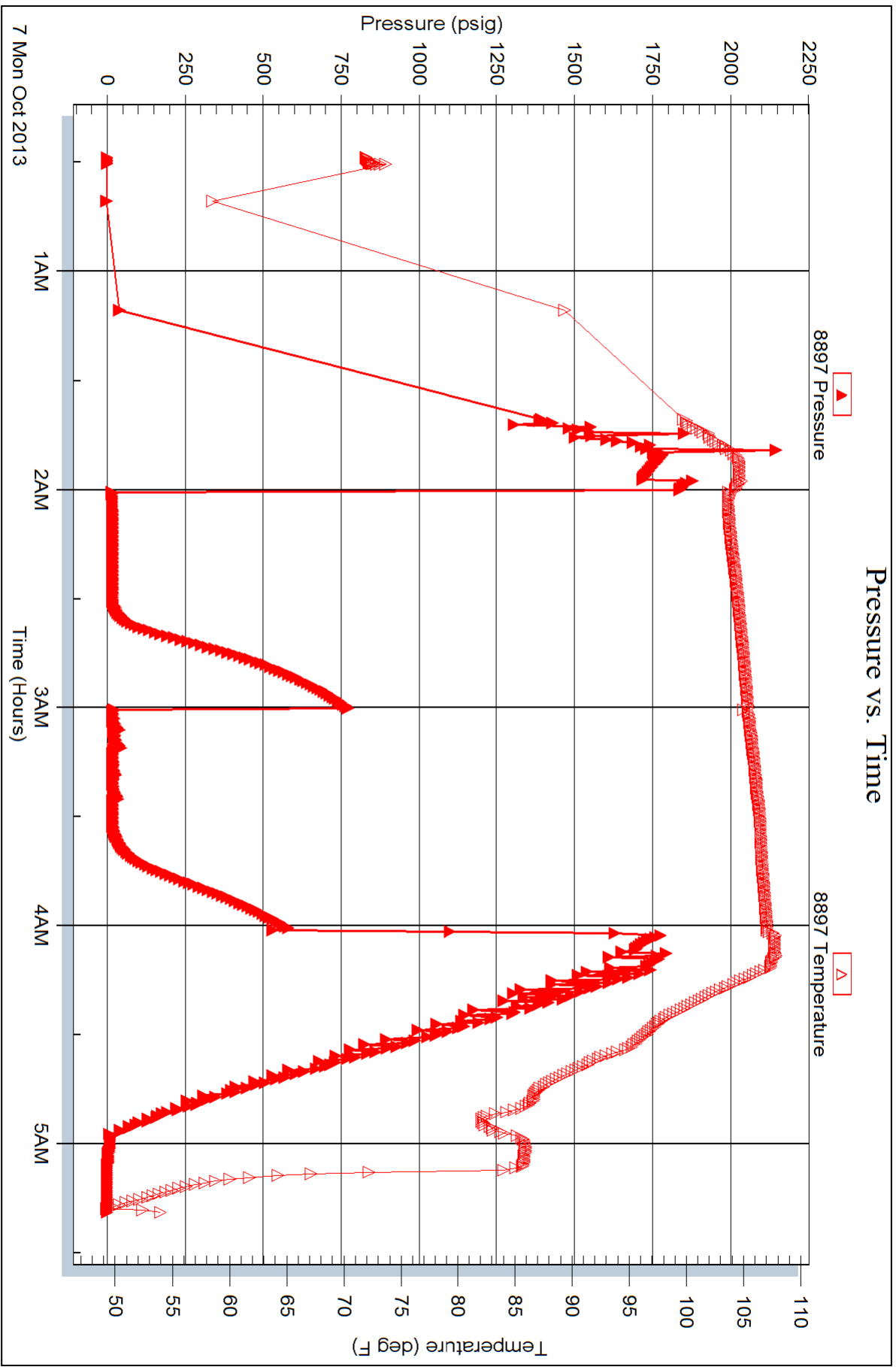
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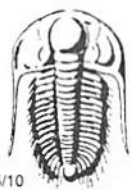
Inside

Messenger Petroleum

Karlie Trust #1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54833

Well Name & No. Kaelie Teust #1 Test No. 1 Date 10/04/2013
 Company Messenger Petroleum Elevation 2091 KB 2082 GL
 Address 525 S. Main St Kingman, KS 67608
 Co. Rep / Geo. Jeff Buale / Eli Felts Rig Southwind #8
 Location: Sec. 17 Twp. 13S Rge. 16W Co. ELLIS State KS

Interval Tested 3400 - 3430 Zone Tested LANSING
 Anchor Length ~~3450~~ 30' Drill Pipe Run 3389 Mud Wt. 9.0
 Top Packer Depth 3396 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 3400 Wt. Pipe Run 0 WL 6.0
 Total Depth 3430 Chlorides 800 ppm System LCM 2#

Blow Description Weak surface blow built to 1/2 in
Dead no blow back
Dead no blow Flushed tool surged then died
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

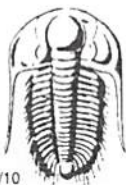
Rec Total 10 BHT 108 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1731 Test 1150 T-On Location 9110 2140
 (B) First Initial Flow 13 Jars 250 T-Started 122 0022
 (C) First Final Flow 17 Safety Joint T-Open 0224
 (D) Initial Shut-In 1091 Circ Sub T-Pulled 0456
 (E) Second Initial Flow 17 Hourly Standby T-Out 620
 (F) Second Final Flow 19 Mileage 10 miles R/T 15.50 Comments _____
 (G) Final Shut-In 1044 Sampler _____
 (H) Final Hydrostatic 1710 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 36 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1415.50
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 Sub Total 1415.50

Approved By _____

Our Representative John Phillips

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54834

Well Name & No. Karlie Trust #1 Test No. 2 Date 10/05/2013
 Company Messenger Petroleum Elevation 2091 KB ~~280~~ 2082 GL
 Address 525 S. Main St. Kingman, KS 67608
 Co. Rep / Geo. Jeff Burk Rig Southwinds Rig #8
 Location: Sec. 17 Twp. 13S Rge. 18W Co. Ellis State KS

Interval Tested 3438-3450 Zone Tested LANSING 0
 Anchor Length 12 Drill Pipe Run 3420 Mud Wt. 9.1
 Top Packer Depth 3434 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3438 Wt. Pipe Run 0 WL 6.0
 Total Depth 3450 Chlorides 900 ppm System LCM 2th

Blow Description IFP - very weak surface blow died in 13 min
ISP - No blow back
FF - DEAD NO blow
FSI - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud</u>			<u>100</u>	

Rec Total 1 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

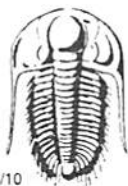
(A) Initial Hydrostatic 1768 Test 1150 T-On Location 12:15
 (B) First Initial Flow 12 Jars _____ T-Started 12:50
 (C) First Final Flow 13 Safety Joint _____ T-Open 1452
 (D) Initial Shut-In 15 Circ Sub _____ T-Pulled 1652
 (E) Second Initial Flow 14 Hourly Standby _____ T-Out 1817
 (F) Second Final Flow 14 Mileage 10 R/T 15.50 Comments _____
 (G) Final Shut-In 14 Sampler _____
 (H) Final Hydrostatic 1708 Straddle _____
 Shale Packer _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Sub Total 0
 Total 1165.50
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **54835**

Well Name & No. KARLIE Trust #1 Test No. 3 Date 10/06/2013
 Company Messenger Petroleum Elevation 2091 KB 2082 GL
 Address 525 S. MAIN ST KINGMAN, KS 67608
 Co. Rep / Geo. Jeff Burk Rig Southwind #8
 Location: Sec. 17 Twp. 13 S Rge. 18 W Co. Ellis State KS

Interval Tested 3463 - 3540 Zone Tested LANSING G, H
 Anchor Length 77 Drill Pipe Run 3452 Mud Wt. 9.2
 Top Packer Depth 3459 Drill Collars Run 0 Vis 63
 Bottom Packer Depth 3463 Wt. Pipe Run 0 WL 6.0
 Total Depth 3540 Chlorides 900 ppm System LCM 2#

Blow Description Weak surface blow built to 1/2 in
Dead no blow back
Dead no blow
Dead no blow back

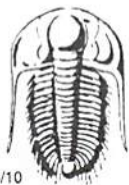
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>10</u>	Feet of <u>Mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 107 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic 1756 Test 1150 T-On Location 0647
 (B) First Initial Flow 15 Jars — T-Started 0745
 (C) First Final Flow 18 Safety Joint — T-Open 0938
 (D) Initial Shut-In 923 Circ Sub — T-Pulled 1138
 (E) Second Initial Flow 19 Hourly Standby — T-Out 1318
 (F) Second Final Flow 21 Mileage 10 R/T 15.50 Comments —
 (G) Final Shut-In 848 Sampler —
 (H) Final Hydrostatic 1730 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —

Initial Open 30 Extra Packer — Extra Copies —
 Initial Shut-In 30 Extra Recorder — Sub Total 0
 Final Flow 30 Day Standby — Total 1165.50
 Final Shut-In 30 Accessibility — MP/DST Disc't —
 Sub Total 1165.50

Approved By _____ Our Representative Jim Phillips
 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54836

Well Name & No. Marlie Trust #1 Test No. 4 Date 10-7-13
 Company Messenger Petroleum Elevation 2091 KB 2082 GL
 Address 525 S. Main St Kingman, KS 67608
 Co. Rep / Geo. Jeff Burk Rig Southwind #8
 Location: Sec. 17 Twp. 13 S Rge. 18W Co. Ellis State KS

Interval Tested 3550 3603 Zone Tested LML I, J, K
 Anchor Length 53 Drill Pipe Run 3545 Mud Wt. 9.2
 Top Packer Depth 3546 Drill Collars Run 0 Vis 6.3
 Bottom Packer Depth 3550 Wt. Pipe Run 0 WL 6.0
 Total Depth 3603 Chlorides 900 ppm System LCM 2#

Blow Description Weak surface blow built to 1/4 in
Dead no blow back
Dead no blow
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>5</u>	Feet of <u>mud</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 107 Gravity ✓ API RW ✓ @ ✓ ° F Chlorides ✓ ppm
 (A) Initial Hydrostatic 1838 Test 1150 T-On Location 23:45 (10-4)
 (B) First Initial Flow 14 Jars T-Started 00:28
 (C) First Final Flow 17 Safety Joint T-Open 02:00
 (D) Initial Shut-In 779 Circ Sub T-Pulled 04:00
 (E) Second Initial Flow 18 Hourly Standby T-Out 05:18
 (F) Second Final Flow 37 Mileage 10 RH 31 Comments loaded tools 10/8 2:25
 (G) Final Shut-In 588 Sampler Ruined Shale Packer
 (H) Final Hydrostatic 1778 Shale Packer Ruined Packer

Initial Open 30 Extra Packer Extra Copies
 Initial Shut-In 30 Extra Recorder Sub Total 0
 Final Flow 30 Day Standby Total 1181
 Final Shut-In 30 Accessibility MP/DST Disc't
 Sub Total 1181

Approved By _____ Our Representative [Signature]

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