



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.16 @ 20:57:00

End Date: 2014.08.17 @ 02:39:00

Job Ticket #: 58372 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:40:41



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58372

DST#: 1

ATTN: Larry Nicholson

Test Start: 2014.08.16 @ 20:57:00

GENERAL INFORMATION:

Formation: **Howard - Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:46:30
 Time Test Ended: 02:39:00
 Interval: **3725.00 ft (KB) To 3766.00 ft (KB) (TVD)**
 Total Depth: 3766.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48
 Reference Elevations: 2996.00 ft (KB)
 2991.00 ft (CF)
 KB to GR/CF: 5.00 ft

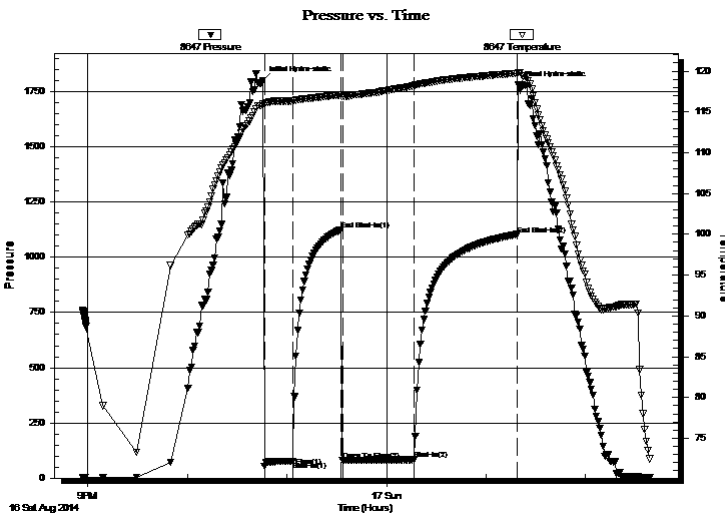
Serial #: 8647

Outside

Press@RunDepth: 83.63 psig @ 3726.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.16 End Date: 2014.08.17 Last Calib.: 2014.08.17
 Start Time: 20:57:01 End Time: 02:39:00 Time On Btm: 2014.08.16 @ 22:45:30
 Time Off Btm: 2014.08.17 @ 01:19:30

TEST COMMENT: 15 - IF - Opened w/ surface blow , built to 4 1/4"
 30 - ISI - No Return
 45 - FF - No Blow
 60 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1799.14	115.97	Initial Hydro-static
1	54.50	115.97	Open To Flow (1)
18	77.60	116.32	Shut-In(1)
47	1124.55	117.09	End Shut-In(1)
48	81.40	116.89	Open To Flow (2)
91	83.63	118.21	Shut-In(2)
153	1102.93	119.73	End Shut-In(2)
154	1779.15	119.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
132.00	100% mud w/ oil spot in tool	0.74

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58372

DST#: 1

ATTN: Larry Nicholson

Test Start: 2014.08.16 @ 20:57:00

Tool Information

Drill Pipe:	Length: 3582.00 ft	Diameter: 3.80 inches	Volume: 50.25 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 50.85 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	6.79 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3725.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	69.00 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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Change Over Sub	1.00			3698.00	
Shut In Tool	5.00			3703.00	
Hydraulic tool	5.00			3708.00	
Jars	5.00			3713.00	
Safety Joint	3.00			3716.00	
Packer	5.00			3721.00	28.00 Bottom Of Top Packer
Packer	4.00			3725.00	
Stubb	1.00			3726.00	
Recorder	0.00	8647	Outside	3726.00	
Recorder	0.00	8372	Outside	3726.00	
Perforations	37.00			3763.00	
Bullnose	3.00			3766.00	41.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58372

DST#: 1

ATTN: Larry Nicholson

Test Start: 2014.08.16 @ 20:57:00

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
132.00	100% mud w / oil spot in tool	0.742

Total Length: 132.00 ft Total Volume: 0.742 bbl

Num Fluid Samples: 0

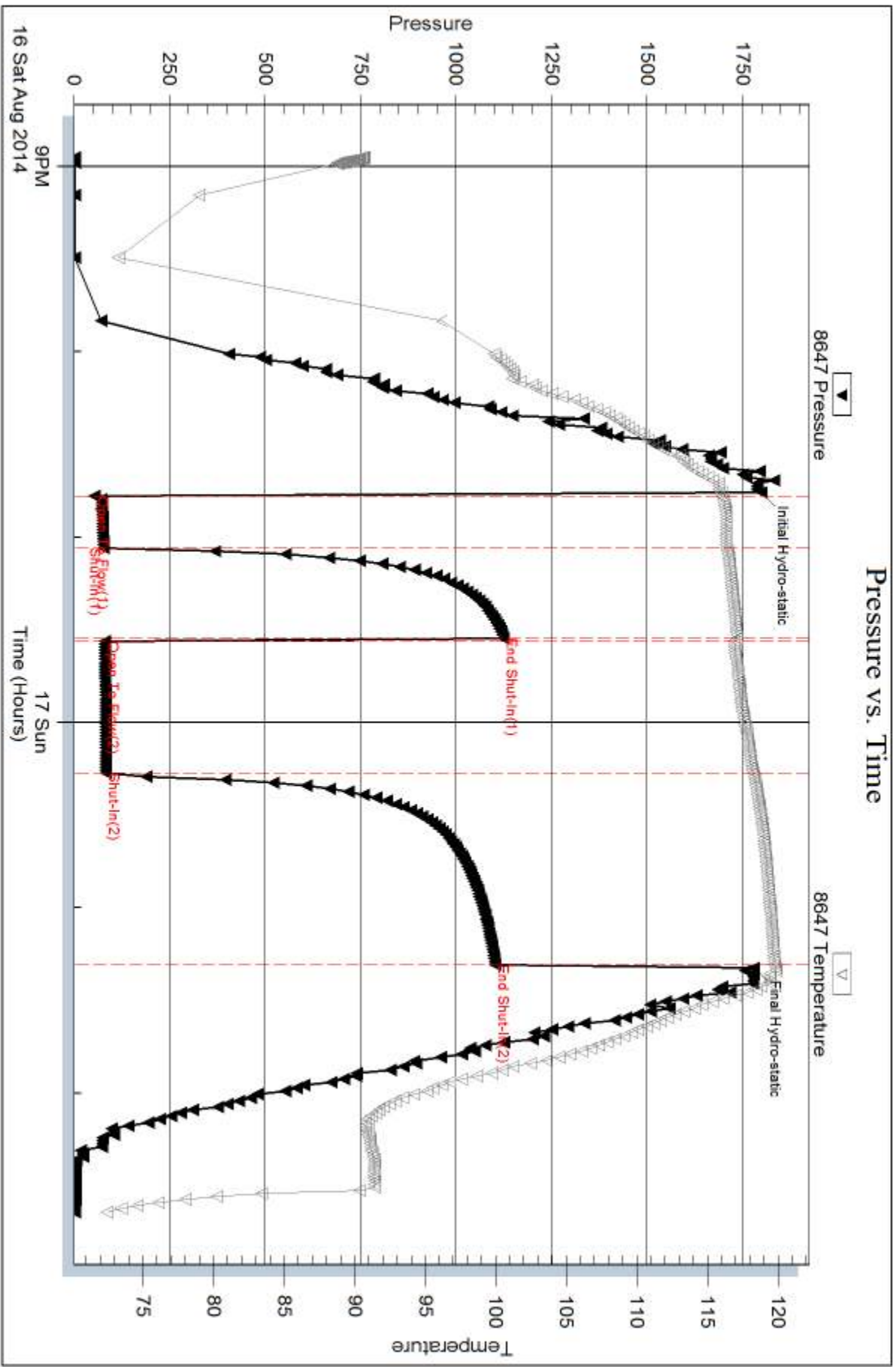
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

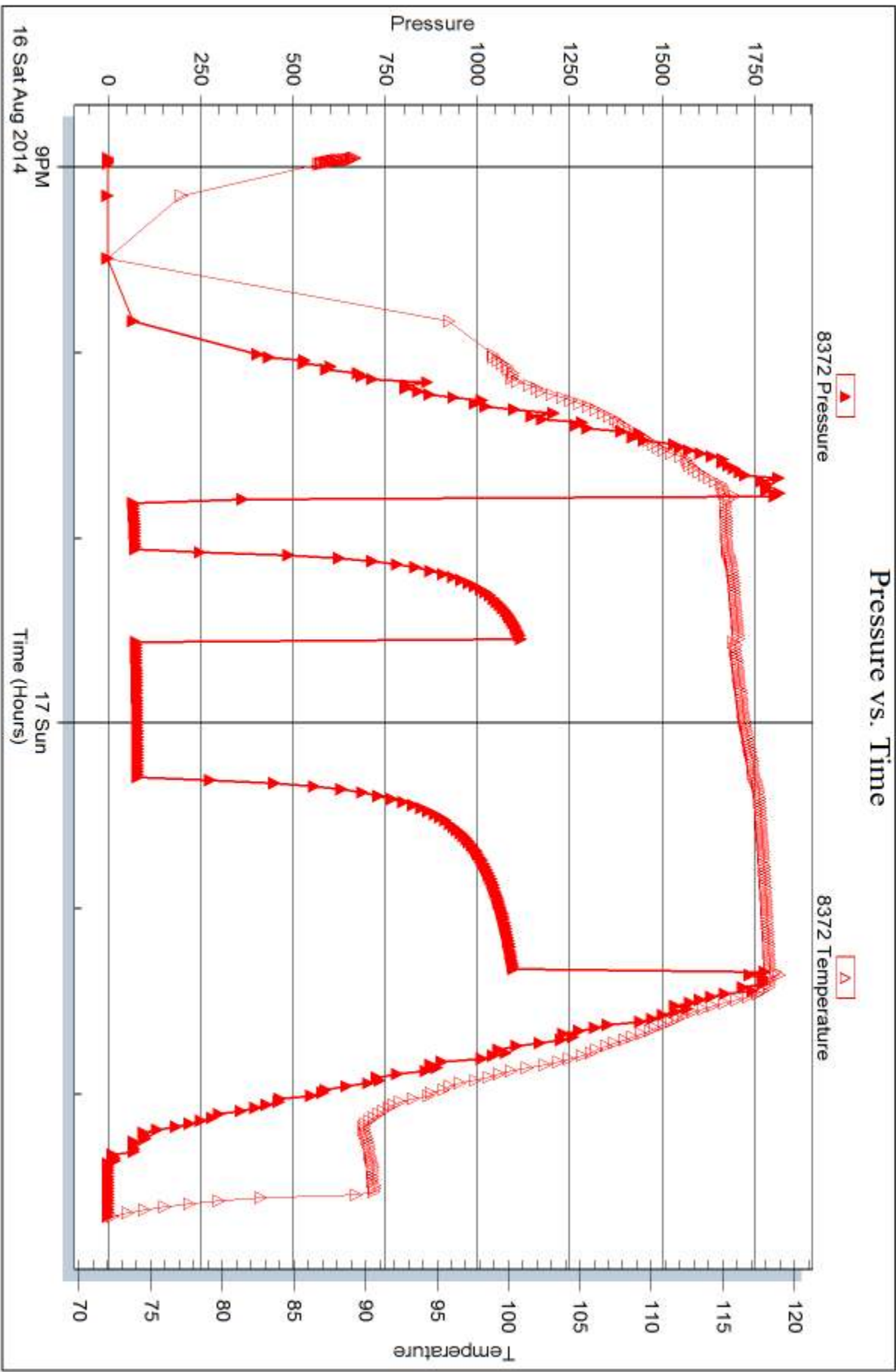


Serial #: 8372

Outside Carmen Schmitt, Inc.

Depe #1-12

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58372

Printed: 2014.08.22 @ 15:41:15



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.17 @ 15:56:00

End Date: 2014.08.17 @ 20:44:30

Job Ticket #: 58373 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:39:43



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58373

DST#: 2

ATTN: Larry Nicholson

Test Start: 2014.08.17 @ 15:56:00

GENERAL INFORMATION:

Formation: **No Specified Zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:28:30

Time Test Ended: 20:44:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 3792.00 ft (KB) To 3889.00 ft (KB) (TVD)

Reference Elevations: 2996.00 ft (KB)

Total Depth: 3889.00 ft (KB) (TVD)

2991.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 446.84 psig @ 3793.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.17

End Date:

2014.08.17

Last Calib.:

2014.08.17

Start Time:

15:56:01

End Time:

20:44:30

Time On Btm:

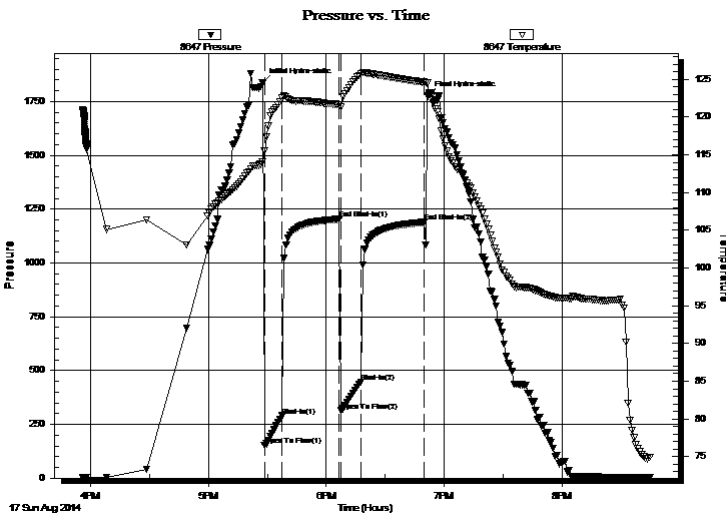
2014.08.17 @ 17:27:30

Time Off Btm:

2014.08.17 @ 18:51:30

TEST COMMENT: 10 - IF - Opened w/ surface blow , built to B.o.B in 2 min.
30 - ISI - No Return
10 - FF - Opened with surface blow , built to B.o.B in 2 min.
30 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1836.12	114.11	Initial Hydro-static
1	151.36	115.57	Open To Flow (1)
10	289.65	122.60	Shut-In(1)
39	1203.95	121.65	End Shut-In(1)
40	313.23	121.32	Open To Flow (2)
50	446.84	125.71	Shut-In(2)
82	1188.61	124.62	End Shut-In(2)
84	1775.20	124.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
439.00	MW w / oil spots 90%w , 10%m	5.05
189.00	WM w / oil spots 60%m, 40%w	2.65
315.00	100%m w / oil spots	4.42

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58373

DST#: 2

ATTN: Larry Nicholson

Test Start: 2014.08.17 @ 15:56:00

Tool Information

Drill Pipe:	Length: 3648.00 ft	Diameter: 3.80 inches	Volume: 51.17 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 51.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.79 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3792.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	125.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3765.00	
Shut In Tool	5.00			3770.00	
Hydraulic tool	5.00		Inside	3775.00	
Jars	5.00			3780.00	
Safety Joint	3.00			3783.00	
Packer	5.00			3788.00	28.00 Bottom Of Top Packer
Packer	4.00			3792.00	
Stubb	1.00			3793.00	
Recorder	0.00	8647	Inside	3793.00	
Recorder	0.00	8372	Outside	3793.00	
Perforations	27.00			3820.00	
Change Over Sub	1.00			3821.00	
Drill Pipe	64.00			3885.00	
Change Over Sub	1.00			3886.00	
Bullnose	3.00			3889.00	97.00 Bottom Packers & Anchor

Total Tool Length: 125.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58373

DST#: 2

ATTN: Larry Nicholson

Test Start: 2014.08.17 @ 15:56:00

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:

38000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
439.00	MW w / oil spots 90%w , 10%m	5.049
189.00	WM w / oil spots 60%m, 40%w	2.651
315.00	100%m w / oil spots	4.419

Total Length: 943.00 ft Total Volume: 12.119 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

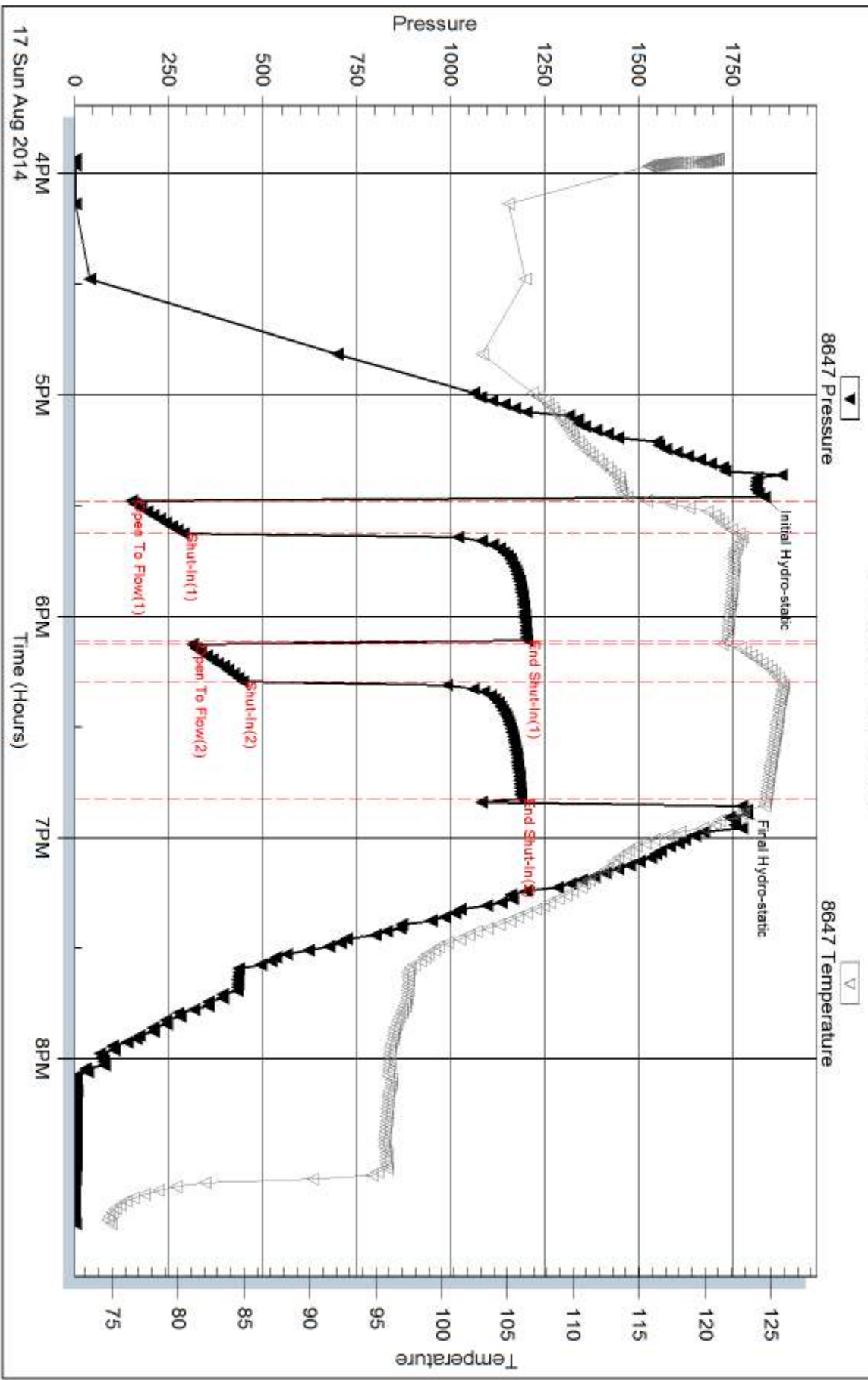
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Water Temp = 75.3 Water Resistance = .198

Pressure vs. Time

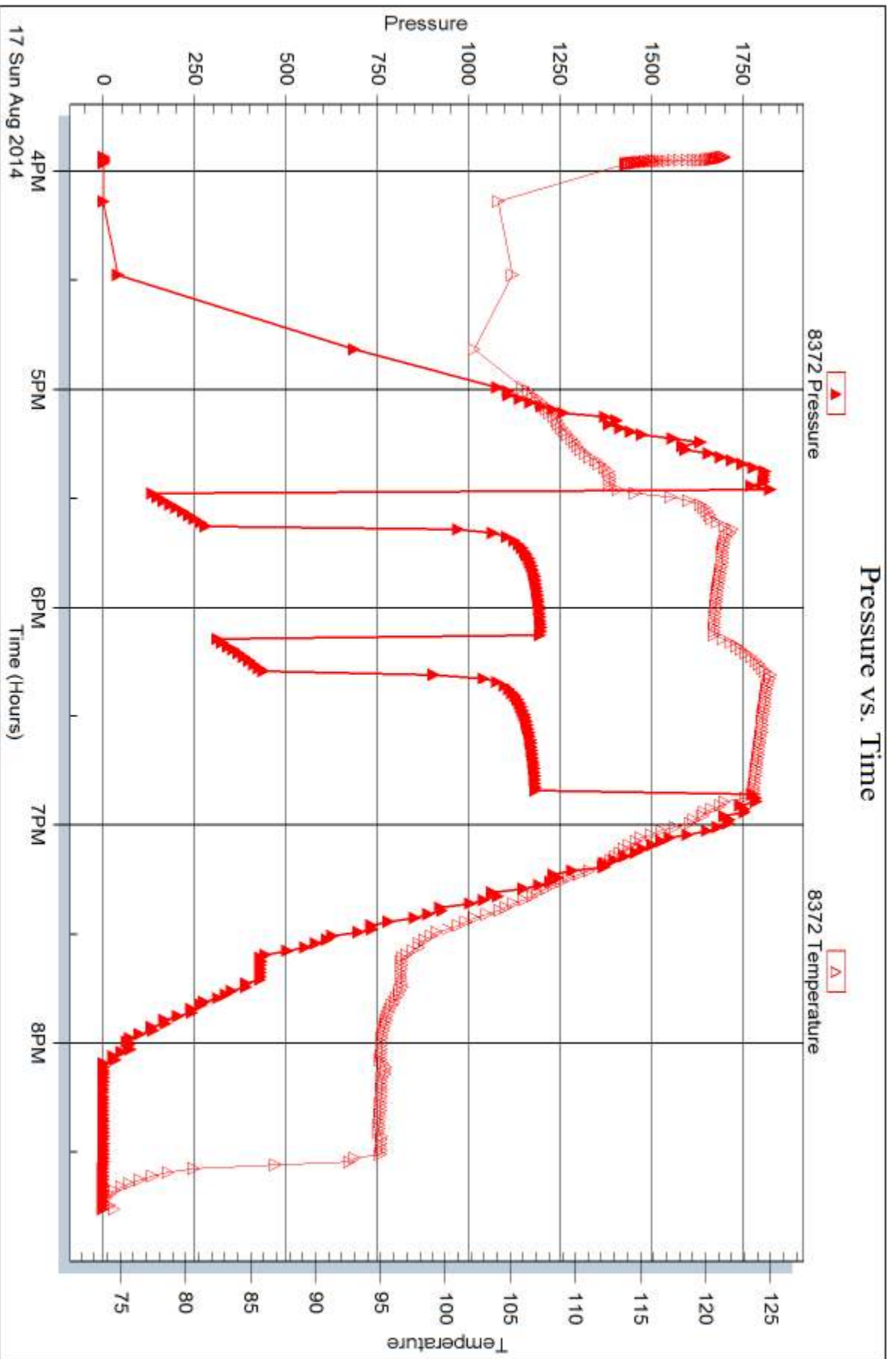


Serial #: 8372

Outside Carmen Schmitt, Inc.

Depe #1-12

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 58373

Printed: 2014.08.22 @ 15:40:02



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.18 @ 09:45:00

End Date: 2014.08.18 @ 16:38:30

Job Ticket #: 58374 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:38:34



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58374

DST#: 3

ATTN: Larry Nicholson

Test Start: 2014.08.18 @ 09:45:00

GENERAL INFORMATION:

Formation: **Toronto & LKC 'A'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:11:30
 Time Test Ended: 16:38:30
 Interval: **3925.00 ft (KB) To 3986.00 ft (KB) (TVD)**
 Total Depth: 3986.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48
 Reference Elevations: 2996.00 ft (KB)
 2991.00 ft (CF)
 KB to GR/CF: 5.00 ft

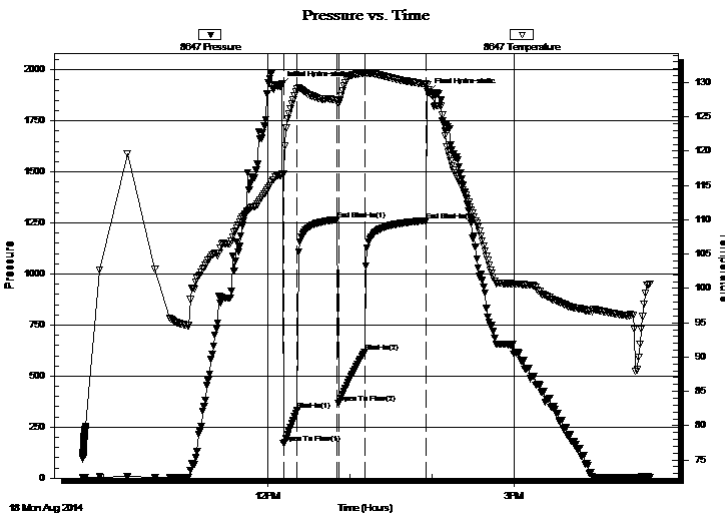
Serial #: 8647

Inside

Press@RunDepth: 618.78 psig @ 3926.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.18 End Date: 2014.08.18 Last Calib.: 2014.08.18
 Start Time: 09:45:01 End Time: 16:38:30 Time On Btm: 2014.08.18 @ 12:09:30
 Time Off Btm: 2014.08.18 @ 13:56:30

TEST COMMENT: 10 - IF- Opened w / surface blow , built to B.o.B in 2 min.
 30 - ISI - Return built to 1/2", died back to 1/4"
 20 - FF - Opened w / surface blow , built to B.o.B in 2 min.
 40 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1920.67	116.45	Initial Hydro-static
2	170.92	116.72	Open To Flow (1)
12	333.17	129.04	Shut-In(1)
41	1266.04	127.40	End Shut-In(1)
42	366.47	126.95	Open To Flow (2)
61	618.78	131.34	Shut-In(2)
106	1261.38	129.75	End Shut-In(2)
107	1890.49	129.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	OCM 80% m, 20% o	1.49
756.00	WOCM 57.5% w, 25% m, 17.5% o	10.60
189.00	WMCO 70% w, 20% o, 10% m	2.65
185.00	WMCO 70% o, 20% w, 10% m	2.60

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58374

DST#: 3

ATTN: Larry Nicholson

Test Start: 2014.08.18 @ 09:45:00

Tool Information

Drill Pipe:	Length: 3806.00 ft	Diameter: 3.80 inches	Volume: 53.39 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.79 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	3925.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	89.00 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			3898.00	
Shut In Tool	5.00			3903.00	
Hydraulic tool	5.00		Inside	3908.00	
Jars	5.00			3913.00	
Safety Joint	3.00			3916.00	
Packer	5.00			3921.00	28.00 Bottom Of Top Packer
Packer	4.00			3925.00	
Stubb	1.00			3926.00	
Recorder	0.00	8647	Inside	3926.00	
Recorder	0.00	8372	Outside	3926.00	
Perforations	23.00			3949.00	
Change Over Sub	1.00			3950.00	
Drill Pipe	32.00			3982.00	
Change Over Sub	1.00			3983.00	
Bullnose	3.00			3986.00	61.00 Bottom Packers & Anchor

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58374

DST#: 3

ATTN: Larry Nicholson

Test Start: 2014.08.18 @ 09:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

27 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	OCM 80%m, 20%o	1.486
756.00	WOCM 57.5%w, 25%m, 17.5%o	10.605
189.00	WMCO 70%w, 20%o, 10%m	2.651
185.00	WMCO 70%o, 20%w, 10%m	2.595

Total Length: 1315.00 ft Total Volume: 17.337 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

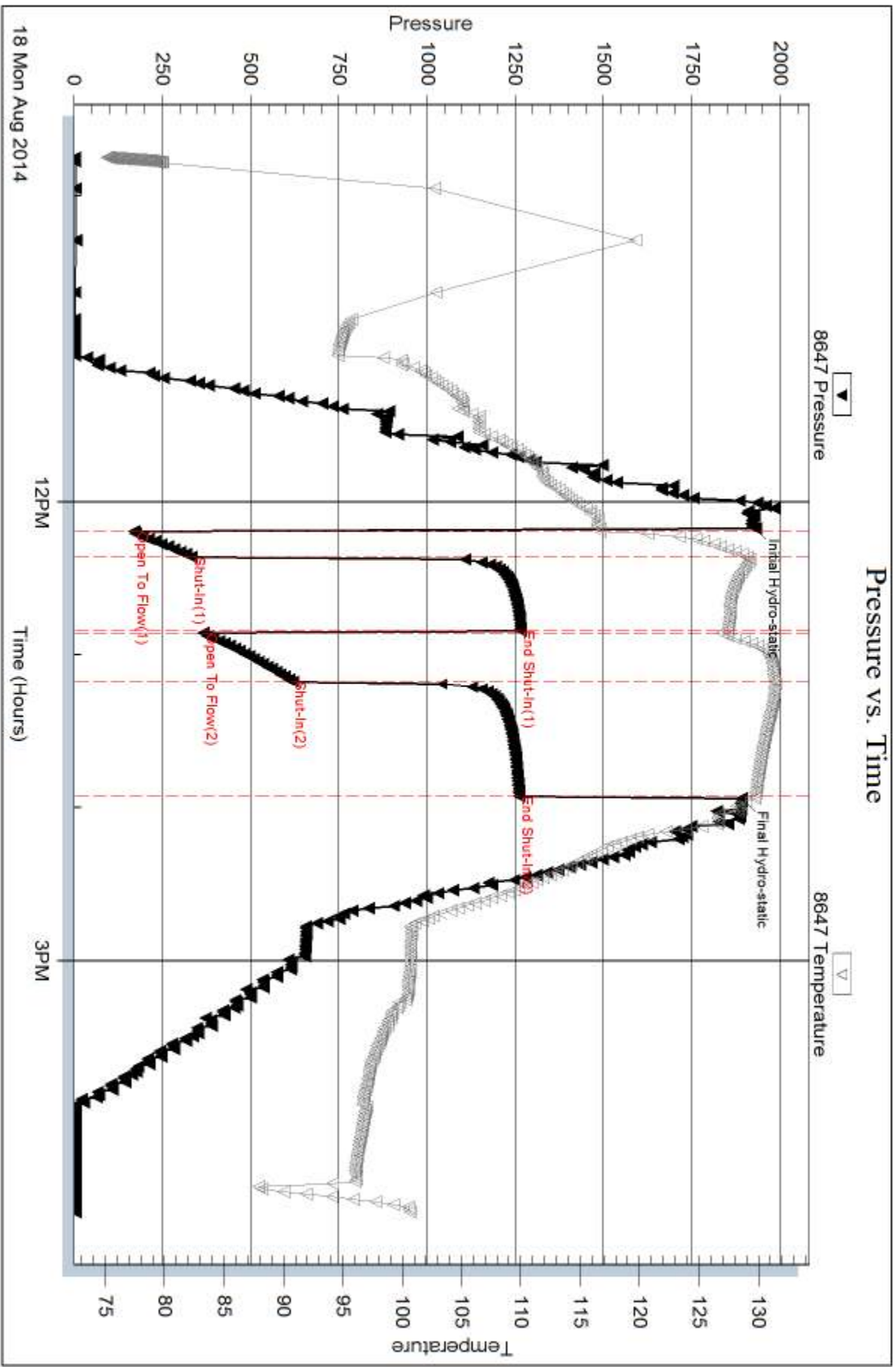
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .123 @99.6 Chlorides 48000ppm

Gravity 23 @ 98 corrected = 27



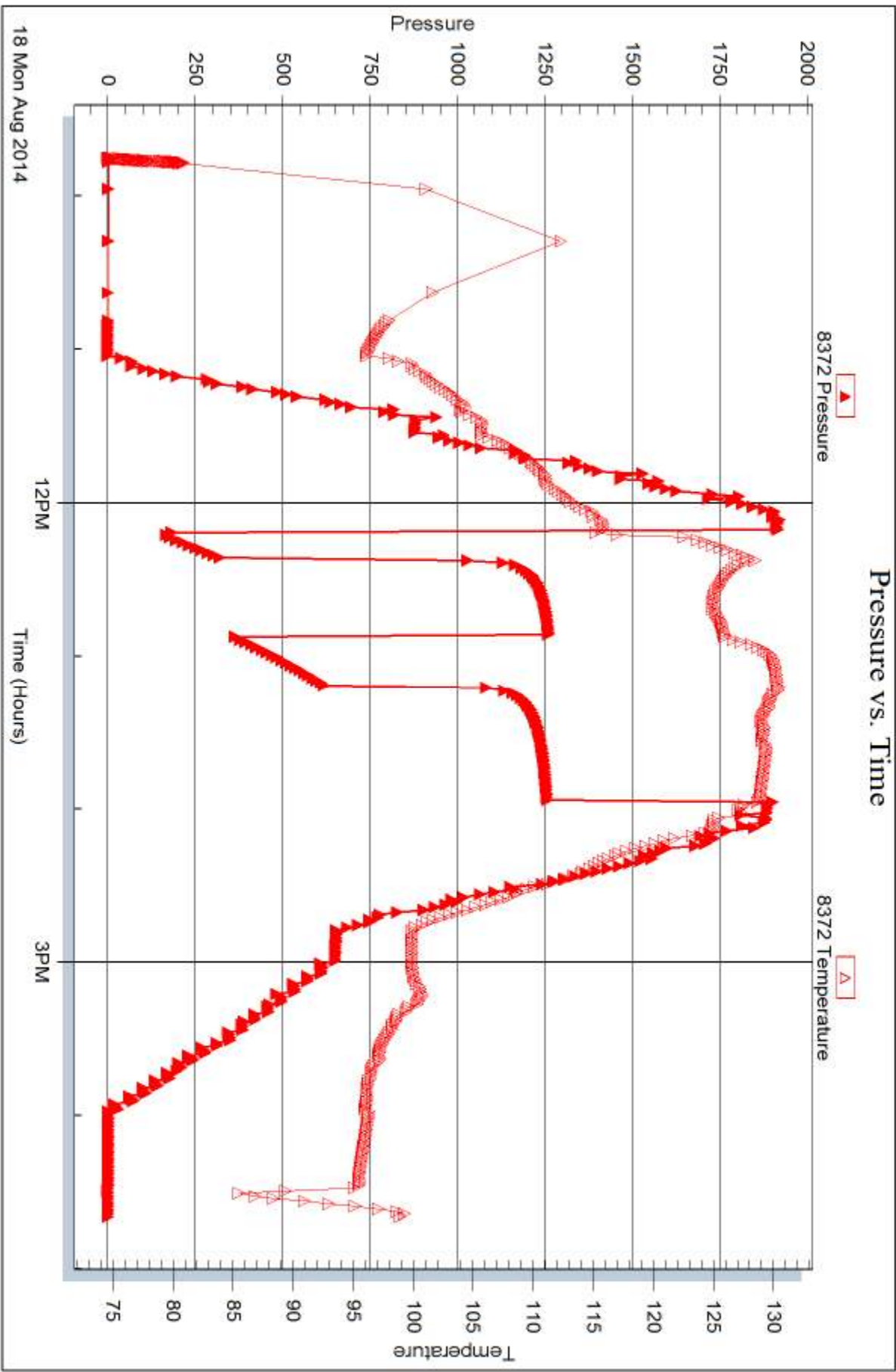
Serial #: 8372

Outside

Carmen Schmitt, Inc.

Depe #1-12

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58374

Printed: 2014.08.22 @ 15:39:11



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.19 @ 12:56:00

End Date: 2014.08.19 @ 20:23:00

Job Ticket #: 58375 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:37:34



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58375

DST#: 4

ATTN: Larry Nicholson

Test Start: 2014.08.19 @ 12:56:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:52:30

Time Test Ended: 20:23:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 4077.00 ft (KB) To 4164.00 ft (KB) (TVD)

Reference Elevations: 2996.00 ft (KB)

Total Depth: 4164.00 ft (KB) (TVD)

2991.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 776.90 psig @ 4078.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.19

End Date:

2014.08.19

Last Calib.:

2014.08.19

Start Time: 12:56:01

End Time:

20:23:00

Time On Btm:

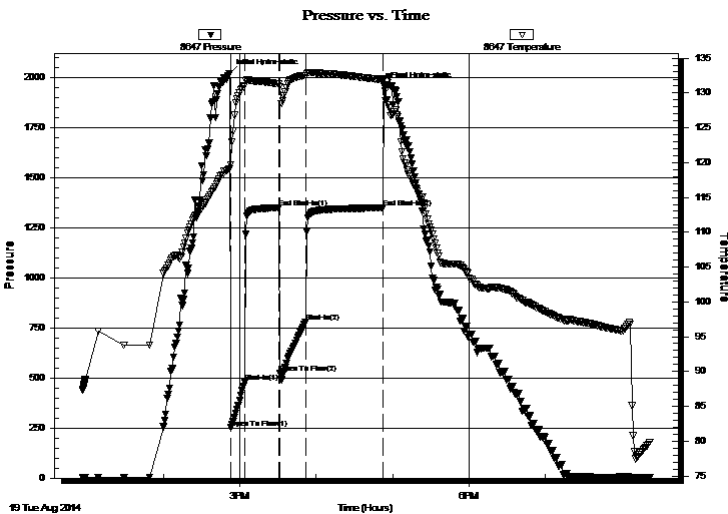
2014.08.19 @ 14:51:30

Time Off Btm:

2014.08.19 @ 16:53:30

TEST COMMENT: 10 - IF - B.o.B in 1 min. & a half
30 - ISI - REturn built to 7 in. over the 30 min.
20 - FF - B.o.B in 1 min. & a half
60 - FSI - B.o.B in 6 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2019.03	119.14	Initial Hydro-static
1	250.94	119.66	Open To Flow (1)
12	476.65	131.01	Shut-In(1)
39	1348.97	131.27	End Shut-In(1)
40	523.50	130.87	Open To Flow (2)
60	776.90	132.49	Shut-In(2)
121	1348.07	131.90	End Shut-In(2)
122	1955.00	132.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	GWO 60%g, 30%o, 10%w	1.49
1134.00	GWMCO 41%o, 37%g, 12%m, 10%w	15.91
189.00	GOCM 60%m, 20%o, 20%g	2.65
174.00	GO 90%o, 10%g	2.44
0.00	693' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58375

DST#: 4

ATTN: Larry Nicholson

Test Start: 2014.08.19 @ 12:56:00

Tool Information

Drill Pipe:	Length: 3935.00 ft	Diameter: 3.80 inches	Volume: 55.20 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 55.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.79 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	4077.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.00 ft			
Tool Length:	115.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4050.00	
Shut In Tool	5.00			4055.00	
Hydraulic tool	5.00		Inside	4060.00	
Jars	5.00			4065.00	
Safety Joint	3.00			4068.00	
Packer	5.00			4073.00	28.00 Bottom Of Top Packer
Packer	4.00			4077.00	
Stubb	1.00			4078.00	
Recorder	0.00	8647	Inside	4078.00	
Recorder	0.00	8372	Outside	4078.00	
Perforations	17.00			4095.00	
Change Over Sub	1.00			4096.00	
Drill Pipe	64.00			4160.00	
Change Over Sub	1.00			4161.00	
Bullnose	3.00			4164.00	87.00 Bottom Packers & Anchor

Total Tool Length: 115.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 58375

DST#: 4

ATTN: Larry Nicholson

Test Start: 2014.08.19 @ 12:56:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

46 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	GWO 60%g, 30%o, 10%w	1.486
1134.00	GWMCO 41%o, 37%g, 12%m, 10%w	15.907
189.00	GOCM 60%m, 20%o, 20%g	2.651
174.00	GO 90%o, 10%g	2.441
0.00	693' GIP	0.000

Total Length: 1682.00 ft Total Volume: 22.485 bbl

Num Fluid Samples: 0

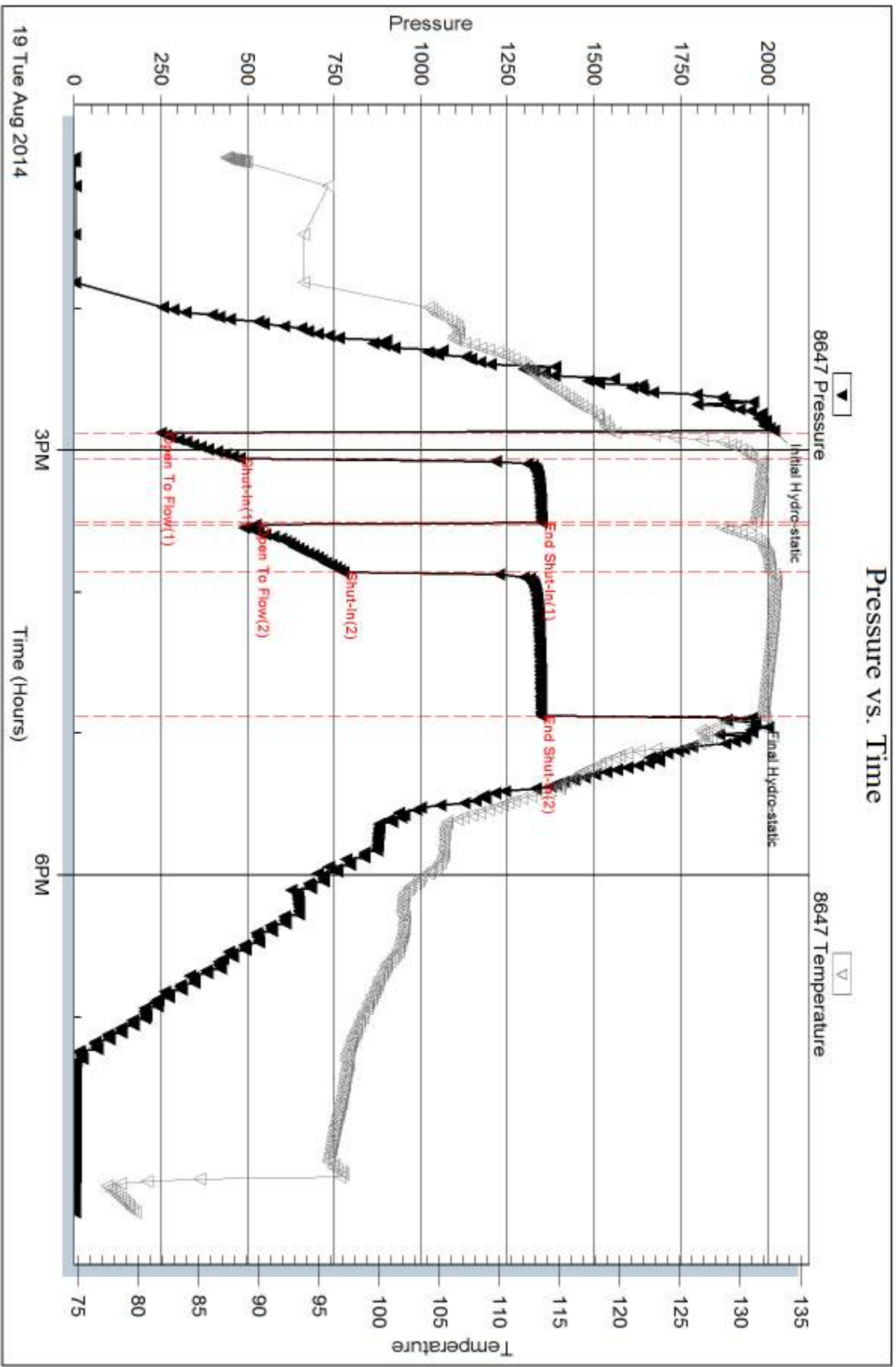
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 43 @ 95 corrected 46

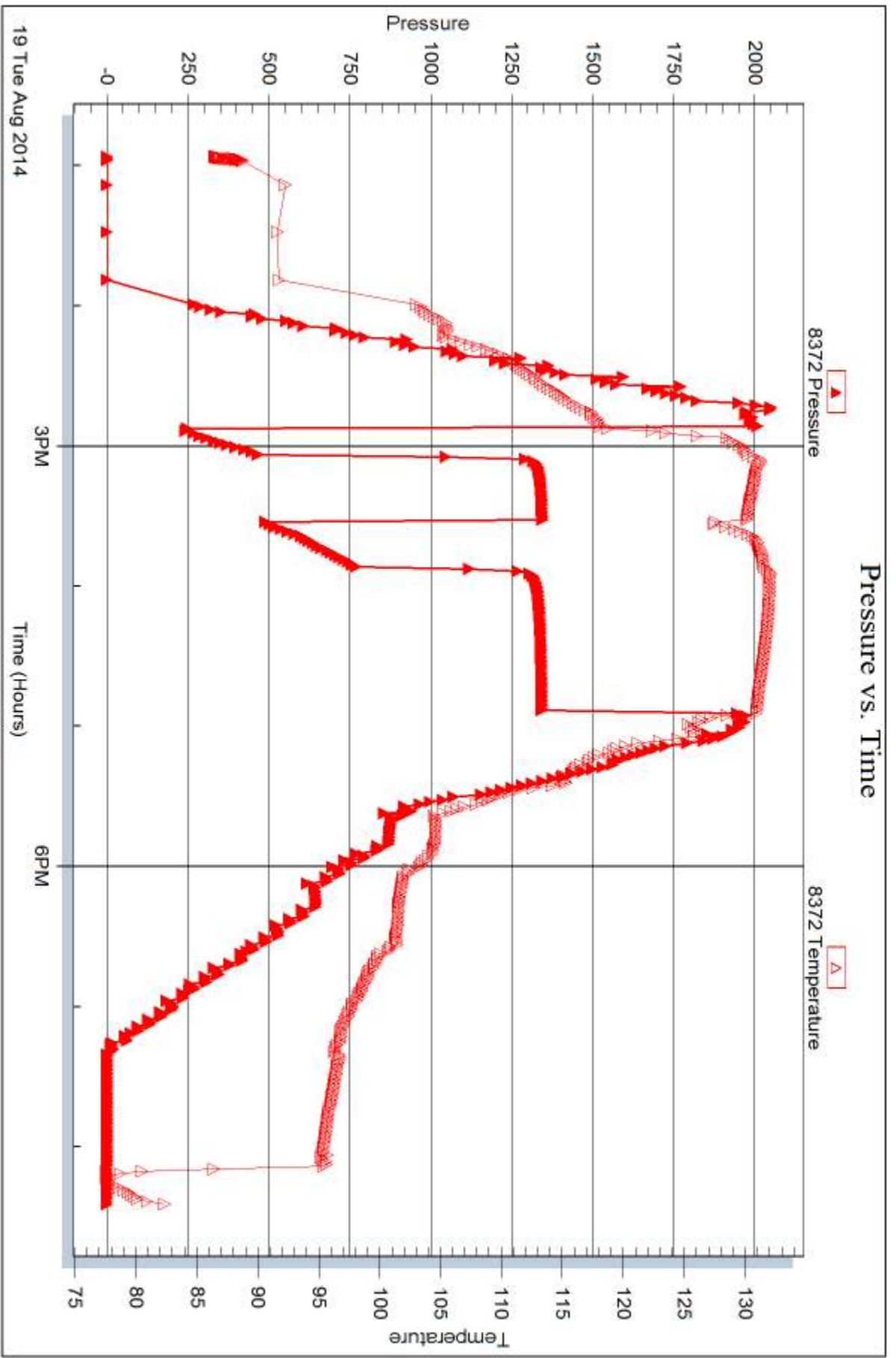


Serial #: 8372

Outside Carmen Schmitt, Inc.

Depe #1-12

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 58375

Printed: 2014.08.22 @ 15:37:59



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.20 @ 18:07:00

End Date: 2014.08.20 @ 23:22:00

Job Ticket #: 60751 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:36:44



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60751

DST#: 5

ATTN: Larry Nicholson

Test Start: 2014.08.20 @ 18:07:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:02:30

Time Test Ended: 23:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 4257.00 ft (KB) To 4354.00 ft (KB) (TVD)

Reference Elevations: 2996.00 ft (KB)

Total Depth: 4354.00 ft (KB) (TVD)

2991.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 29.36 psig @ 4258.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.20

End Date:

2014.08.20

Last Calib.:

2014.08.20

Start Time: 18:07:01

End Time:

23:22:00

Time On Btm:

2014.08.20 @ 20:01:30

Time Off Btm:

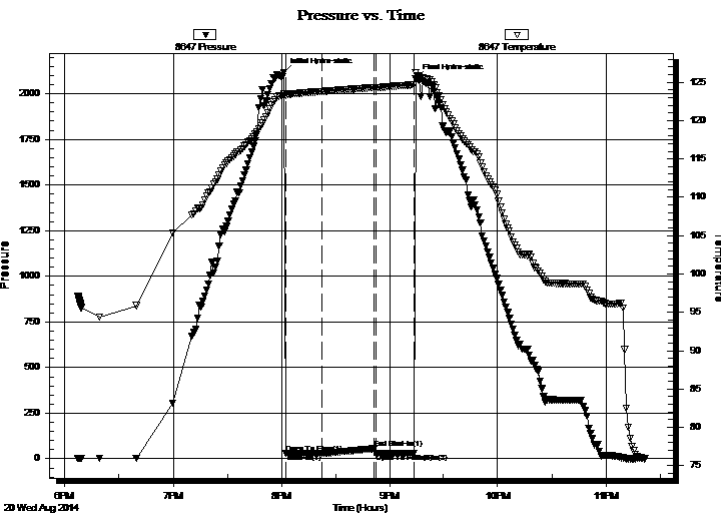
2014.08.20 @ 21:14:30

TEST COMMENT: 20 - IF - Opened w/ surface blow , built to 1/4"

30 - ISI - No Return

20- FF- No Blow

--



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2116.98	123.45	Initial Hydro-static
1	30.69	123.21	Open To Flow (1)
21	29.36	123.79	Shut-In(1)
50	55.47	124.32	End Shut-In(1)
51	31.56	124.31	Open To Flow (2)
72	31.50	124.67	Shut-In(2)
73	2080.86	126.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% m w / oil spots in tool	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60751

DST#: 5

ATTN: Larry Nicholson

Test Start: 2014.08.20 @ 18:07:00

Tool Information

Drill Pipe:	Length: 4124.00 ft	Diameter: 3.80 inches	Volume: 57.85 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.79 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4257.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	125.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4230.00	
Shut In Tool	5.00			4235.00	
Hydraulic tool	5.00		Inside	4240.00	
Jars	5.00			4245.00	
Safety Joint	3.00			4248.00	
Packer	5.00			4253.00	28.00 Bottom Of Top Packer
Packer	4.00			4257.00	
Stubb	1.00			4258.00	
Recorder	0.00	8647	Inside	4258.00	
Recorder	0.00	8372	Outside	4258.00	
Perforations	27.00			4285.00	
Change Over Sub	1.00			4286.00	
Drill Pipe	64.00			4350.00	
Change Over Sub	1.00			4351.00	
Bullnose	3.00			4354.00	97.00 Bottom Packers & Anchor

Total Tool Length: 125.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60751

DST#: 5

ATTN: Larry Nicholson

Test Start: 2014.08.20 @ 18:07:00

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:

bbf

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	100% m w / oil spots in tool	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

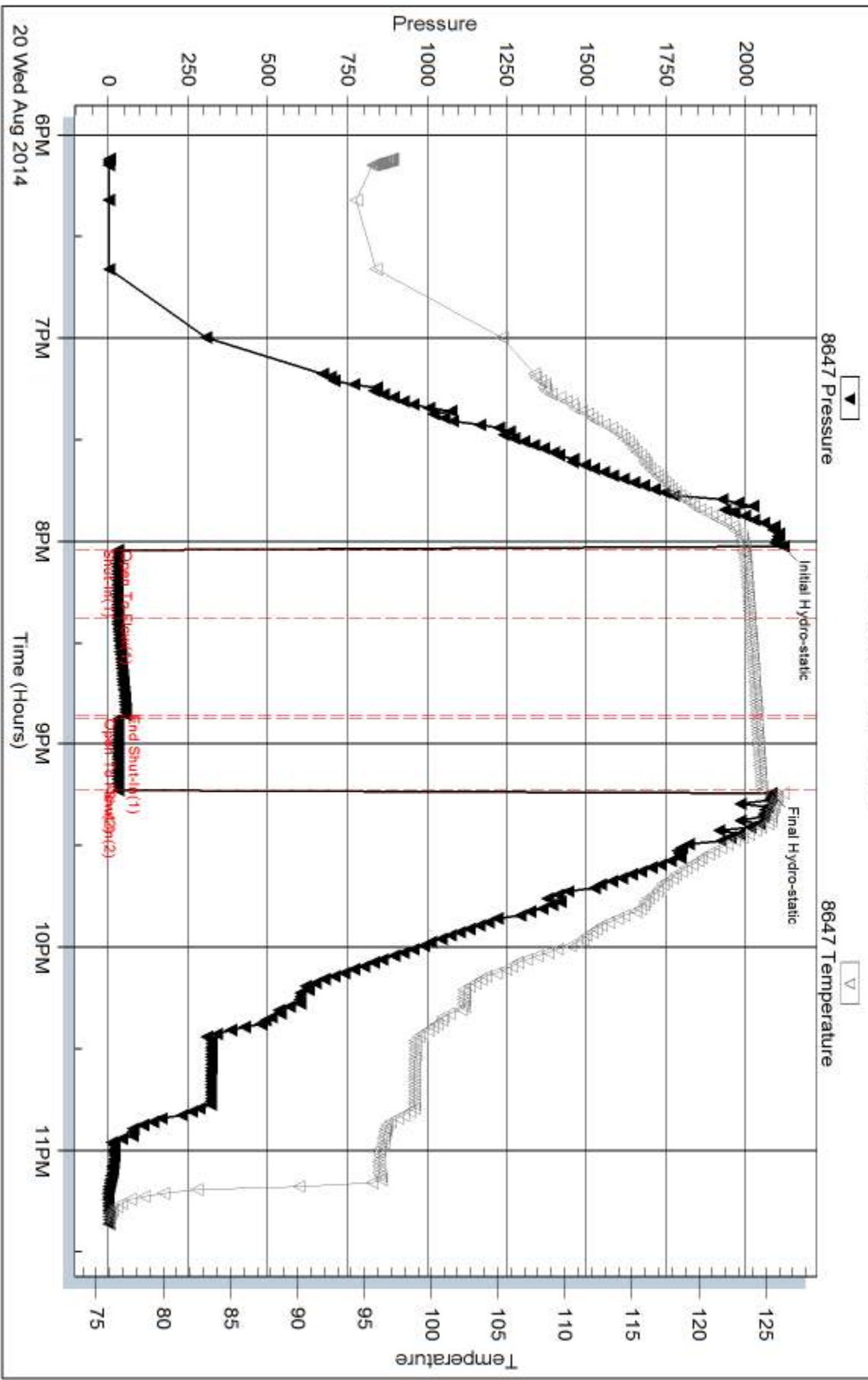
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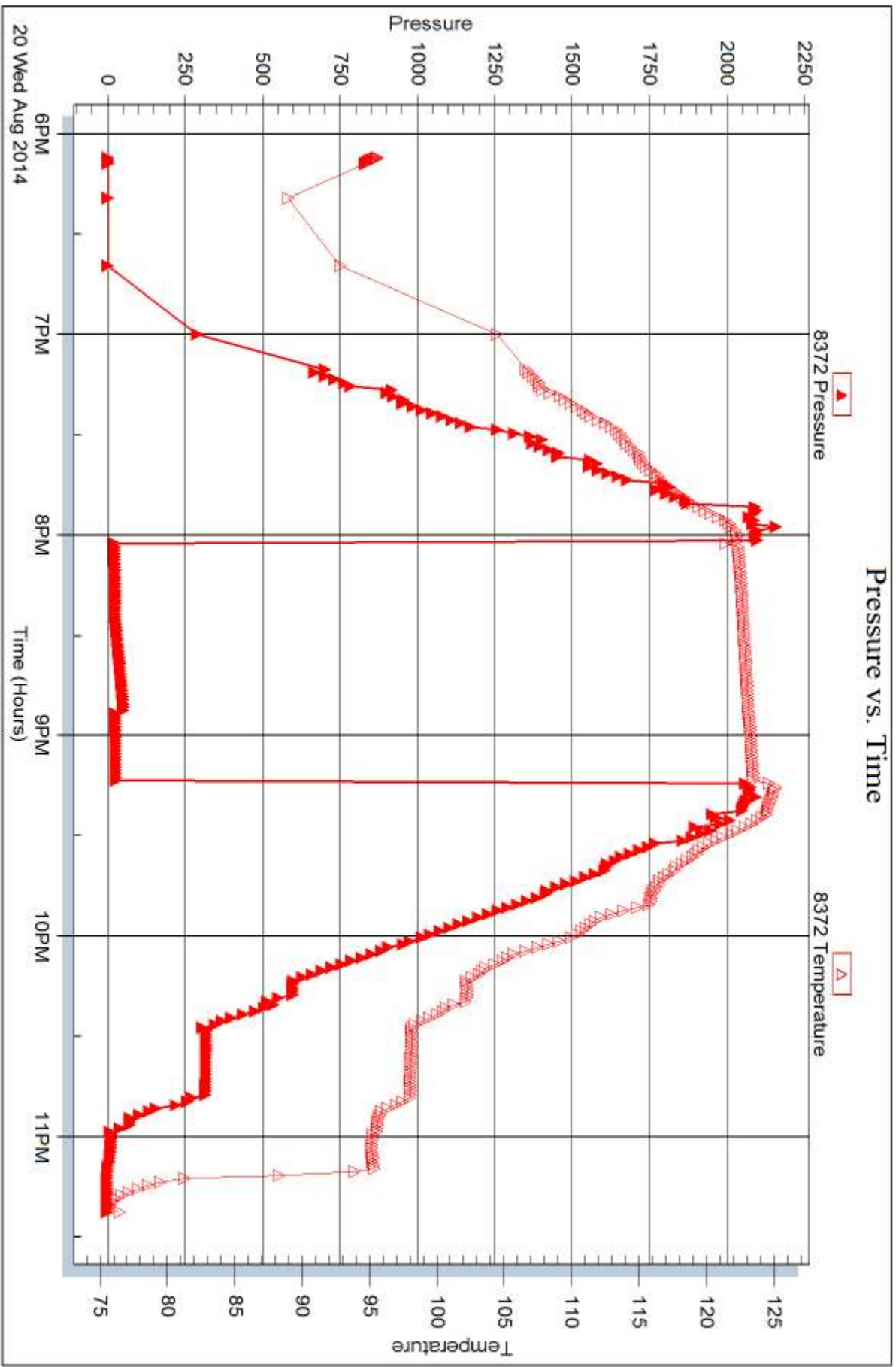
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.21 @ 09:45:00

End Date: 2014.08.21 @ 16:21:30

Job Ticket #: 60752 DST #: 6

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:35:43



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60752

DST#: 6

ATTN: Larry Nicholson

Test Start: 2014.08.21 @ 09:45:00

GENERAL INFORMATION:

Formation: **Ft Scott & Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:41:30

Time Test Ended: 16:21:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: **4356.00 ft (KB) To 4431.00 ft (KB) (TVD)**

Reference Elevations: 2996.00 ft (KB)

Total Depth: 4431.00 ft (KB) (TVD)

2991.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 161.57 psig @ 4357.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.21

End Date: 2014.08.21

Last Calib.: 2014.08.21

Start Time: 09:45:01

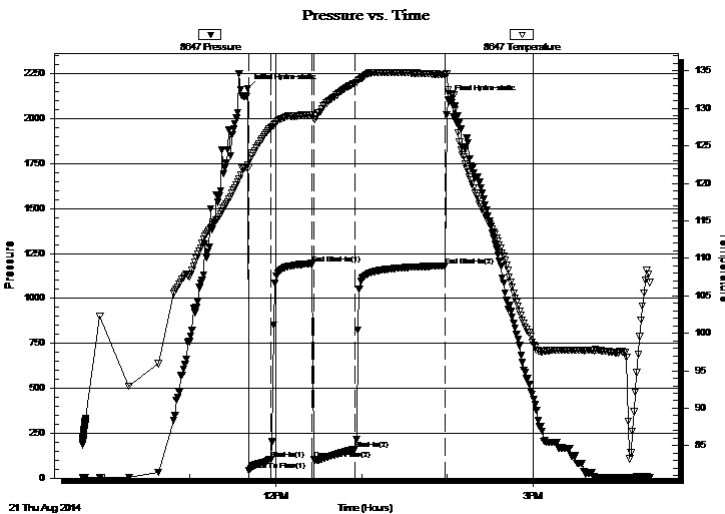
End Time: 16:21:30

Time On Btm: 2014.08.21 @ 11:40:30

Time Off Btm: 2014.08.21 @ 14:00:30

TEST COMMENT: 15 - IF - Opened w/ surface blow , built to B.o.B in 7 min.
30 - ISI - Return built to 3" in 30 min.
30 - FF - Opened w/ surface blow , built to B.o.B in 7 min.
60 - FSI - Return built to B.o.B in the 60 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2165.67	122.47	Initial Hydro-static
1	43.75	122.24	Open To Flow (1)
16	102.66	127.45	Shut-In(1)
45	1194.19	129.20	End Shut-In(1)
46	105.90	128.63	Open To Flow (2)
75	161.57	133.36	Shut-In(2)
138	1181.33	134.51	End Shut-In(2)
140	2104.17	132.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
173.00	GMCO 47%o, 27%g, 26%m	1.32
148.00	100%CO	2.08
0.00	630' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60752

DST#: 6

ATTN: Larry Nicholson

Test Start: 2014.08.21 @ 09:45:00

Tool Information

Drill Pipe:	Length: 4220.00 ft	Diameter: 3.80 inches	Volume: 59.20 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 59.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.79 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4356.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4329.00	
Shut In Tool	5.00			4334.00	
Hydraulic tool	5.00		Inside	4339.00	
Jars	5.00			4344.00	
Safety Joint	3.00			4347.00	
Packer	5.00			4352.00	28.00 Bottom Of Top Packer
Packer	4.00			4356.00	
Stubb	1.00			4357.00	
Recorder	0.00	8647	Inside	4357.00	
Recorder	0.00	8372	Outside	4357.00	
Perforations	37.00			4394.00	
Change Over Sub	1.00			4395.00	
Drill Pipe	32.00			4427.00	
Change Over Sub	1.00			4428.00	
Bullnose	3.00			4431.00	75.00 Bottom Packers & Anchor

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60752

DST#: 6

ATTN: Larry Nicholson

Test Start: 2014.08.21 @ 09:45:00

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:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
173.00	GMCO 47%o, 27%g, 26%m	1.317
148.00	100%CO	2.076
0.00	630' GIP	0.000

Total Length: 321.00 ft Total Volume: 3.393 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

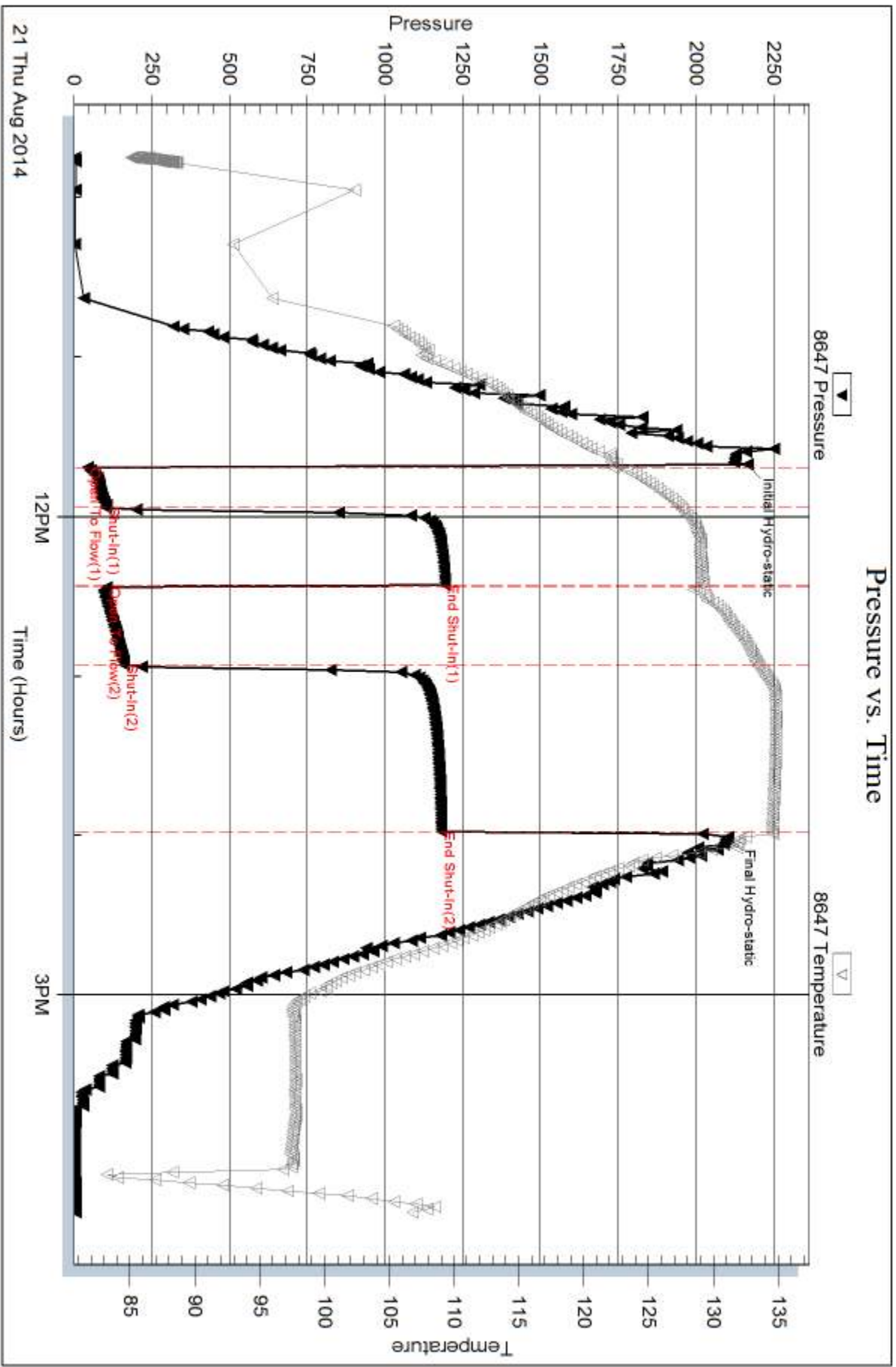
Serial #:

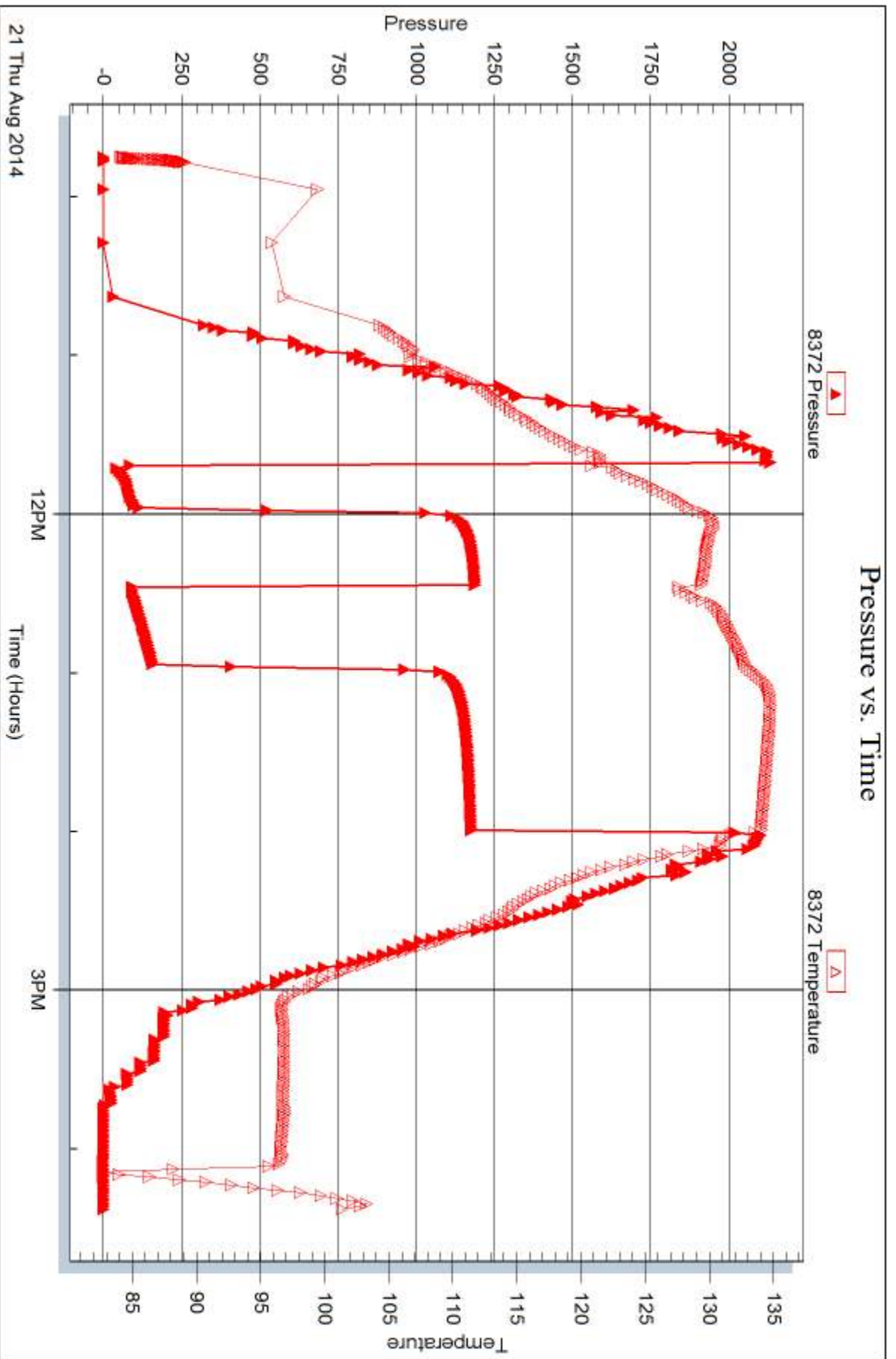
Laboratory Name:

Laboratory Location:

Recovery Comments: **Gravity 35 @ 100 Corrected = 39

**GIP = 630







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

PO Box 47
Great Bend, KS 67530

ATTN: Larry Nicholson

Depe #1-12

12-7s-32w Thomas,KS

Start Date: 2014.08.22 @ 01:21:00

End Date: 2014.08.22 @ 07:39:30

Job Ticket #: 60753 DST #: 7

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.22 @ 15:34:37

Carmen Schmitt, Inc.
12-7s-32w Thomas,KS
Depe #1-12
DST # 7
Lower Cherokee
2014.08.22



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60753

DST#: 7

ATTN: Larry Nicholson

Test Start: 2014.08.22 @ 01:21:00

GENERAL INFORMATION:

Formation: **Lower Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:39:30
 Time Test Ended: 07:39:30
 Interval: **4434.00 ft (KB) To 4489.00 ft (KB) (TVD)**
 Total Depth: 4489.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48
 Reference Elevations: 2996.00 ft (KB)
 2991.00 ft (CF)
 KB to GR/CF: 5.00 ft

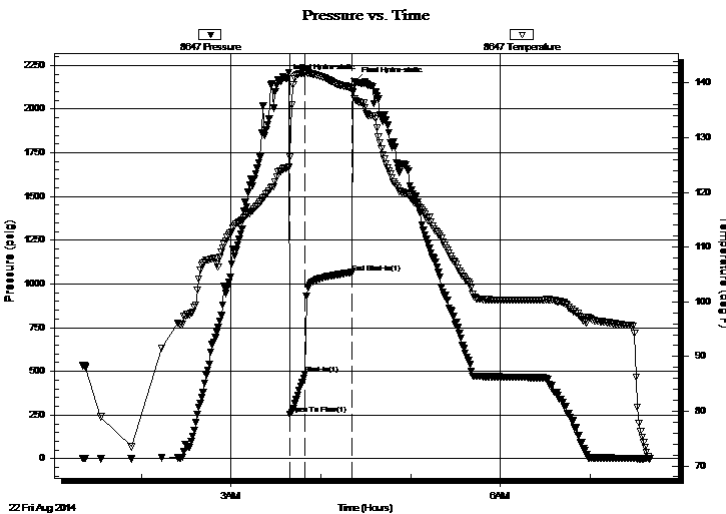
Serial #: 8647

Inside

Press@RunDepth: 484.30 psig @ 4435.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.22 End Date: 2014.08.22 Last Calib.: 2014.08.22
 Start Time: 01:21:01 End Time: 07:39:30 Time On Btm: 2014.08.22 @ 03:37:30
 Time Off Btm: 2014.08.22 @ 04:22:30

TEST COMMENT: 10 - IF - Opened w/ surface blow , built to B.o.B in 1 min.
 30 - ISI - Return built to 1 1/2" in 15 min.
 Not Ran - FF
 Not Ran - FSI

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2173.79	124.46	Initial Hydro-static
2	253.82	126.44	Open To Flow (1)
12	484.30	141.80	Shut-In(1)
43	1065.37	139.13	End Shut-In(1)
45	2155.79	137.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
689.00	MW 90%w , 10%m w / oil spots in tool	8.56
262.00	WM 72%m, 28%w w / oil spots	3.68

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60753

DST#: 7

ATTN: Larry Nicholson

Test Start: 2014.08.22 @ 01:21:00

Tool Information

Drill Pipe:	Length: 4316.00 ft	Diameter: 3.80 inches	Volume: 60.54 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.79 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.14 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.79 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4434.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4407.00	
Shut In Tool	5.00			4412.00	
Hydraulic tool	5.00		Inside	4417.00	
Jars	5.00			4422.00	
Safety Joint	3.00			4425.00	
Packer	5.00			4430.00	28.00 Bottom Of Top Packer
Packer	4.00			4434.00	
Stubb	1.00			4435.00	
Recorder	0.00	8647	Inside	4435.00	
Recorder	0.00	8372	Outside	4435.00	
Perforations	17.00			4452.00	
Change Over Sub	1.00			4453.00	
Drill Pipe	32.00			4485.00	
Change Over Sub	1.00			4486.00	
Bullnose	3.00			4489.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

12-7s-32w Thomas,KS

PO Box 47
Great Bend, KS 67530

Depe #1-12

Job Ticket: 60753

DST#: 7

ATTN: Larry Nicholson

Test Start: 2014.08.22 @ 01:21:00

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:

52000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
689.00	MW 90%w , 10%m w / oil spots in tool	8.555
262.00	WM 72%m, 28%w w / oil spots	3.675

Total Length: 951.00 ft Total Volume: 12.230 bbl

Num Fluid Samples: 0

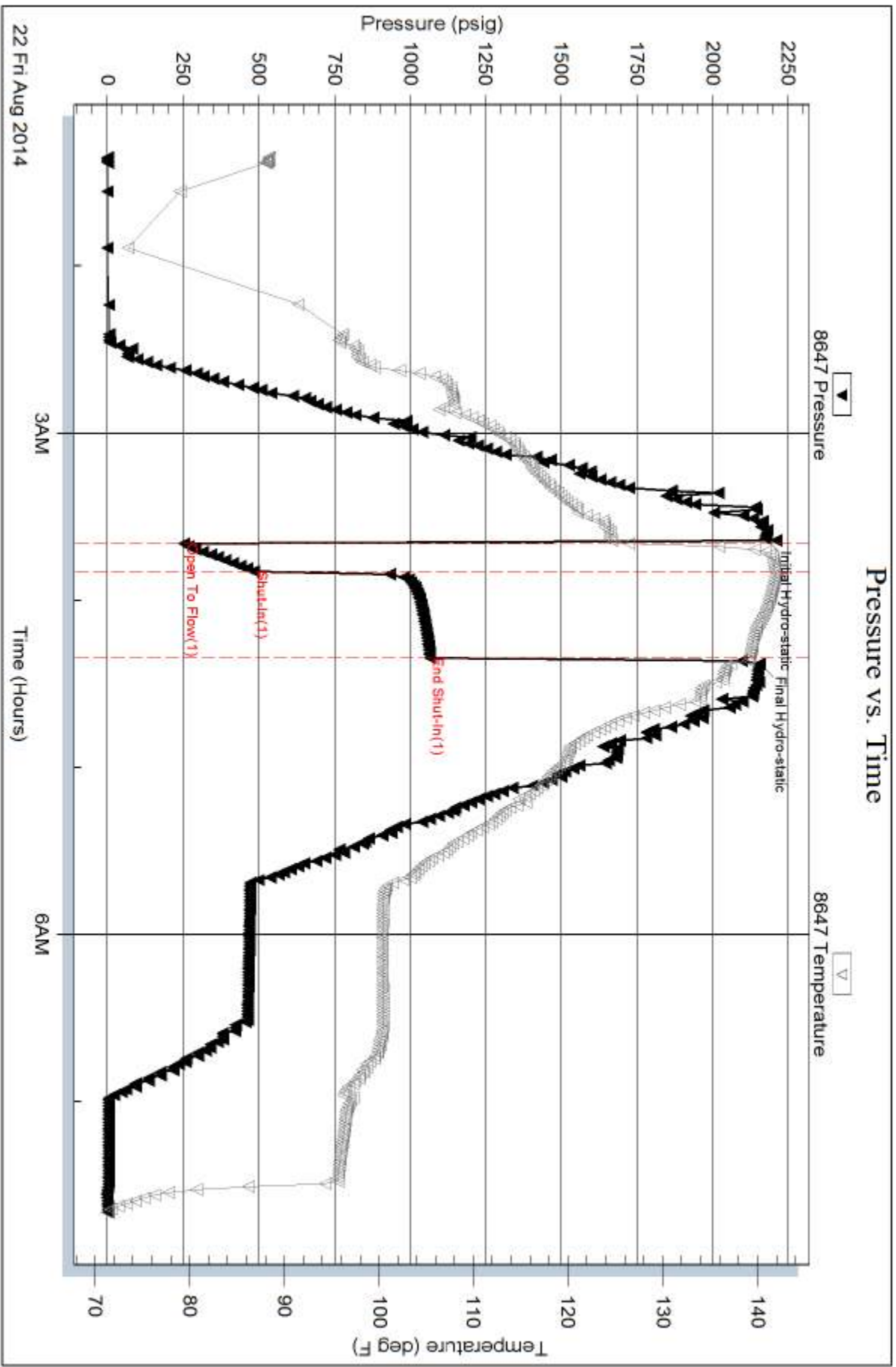
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .186 @ 64.3F chlorides 52000ppm

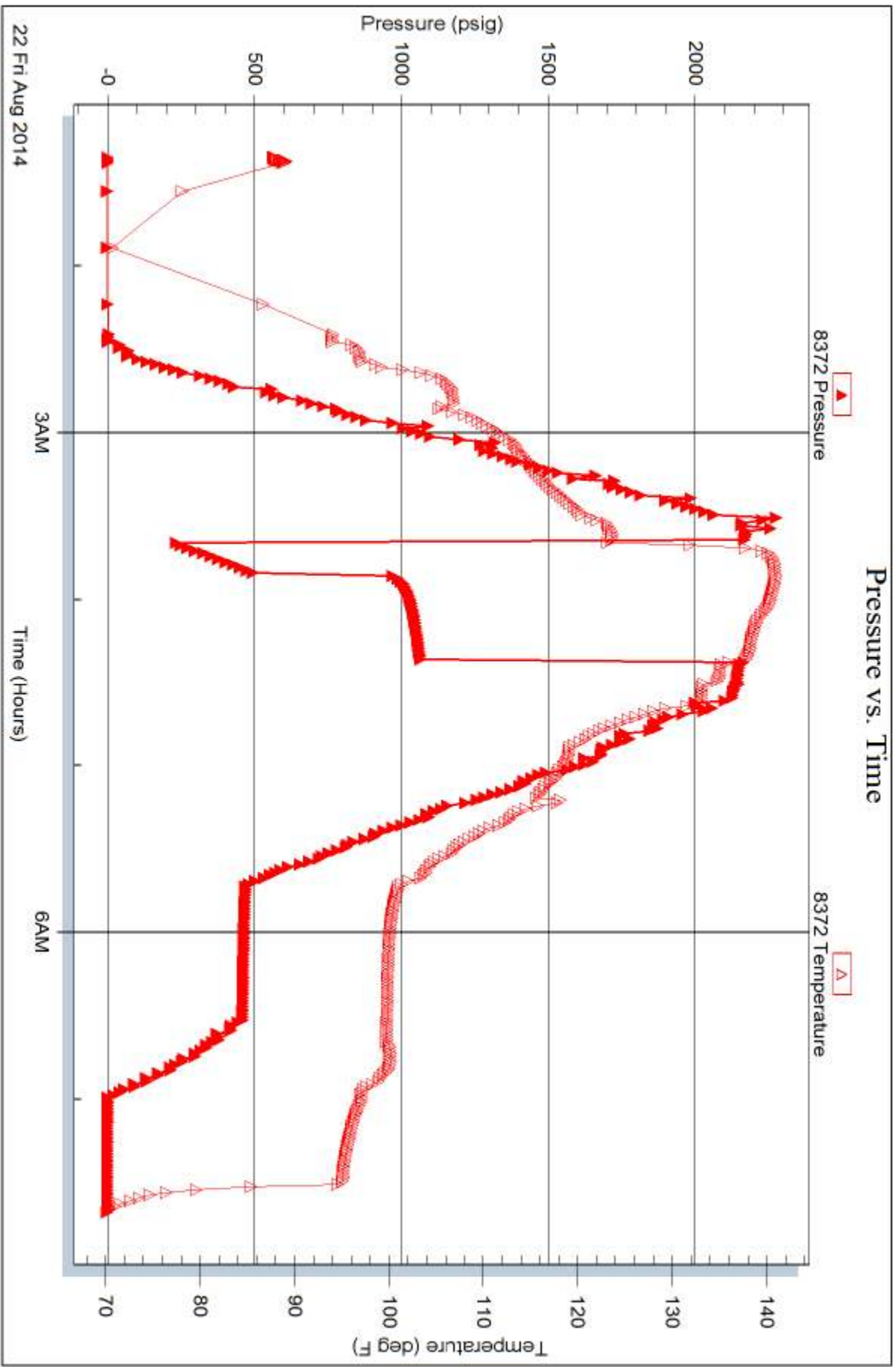


Serial #: 8372

Outside Carmen Schnitt, Inc.

Depe #1-12

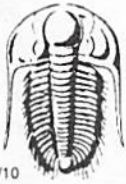
DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 60753

Printed: 2014.08.22 @ 15:34:42



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58372

Well Name & No. Depe #1-12 Test No. 1 Date 8-16-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7S Rge. 32W Co. Thomas State KS

Interval Tested 3725 - 3766 Zone Tested Howard/Topeka
 Anchor Length 41' Drill Pipe Run 3582 Mud Wt. 8.8
 Top Packer Depth 3720 Drill Collars Run 121.79 Vis 48
 Bottom Packer Depth 3725 Wt. Pipe Run - WL 6.4
 Total Depth 3766 Chlorides 1000 ppm System LCM 1

Blow Description IF-Opened w/ surface blow, built to 4 1/4"
ISI- No Return
FF- No Blow
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>132</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 Total 132 BHT 119 Gravity API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 1799 Test 1150 T-On Location 7:55 PM
 (B) First Initial Flow 54 Jars 250 T-Started 8:57 PM
 (C) First Final Flow 77 Safety Joint 75 T-Open 10:48 PM
 (D) Initial Shut-In 1124 Circ Sub _____ T-Pulled 1:18 AM
 (E) Second Initial Flow 81 Hourly Standby _____ T-Out 2:45 AM
 (F) Second Final Flow 83 Mileage 80 R.T. 124 Comments _____
 (G) Final Shut-In 1102 Sampler _____
 (H) Final Hydrostatic 1779 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Initial Open 15 Day Standby _____ Sub Total 0
 Initial Shut-In 30 Accessibility _____ Total 1849.00
 Final Flow 45 Sub Total 1849.00 MP/DST Disc't _____
 Final Shut-In 60

Approved By L. Nichol Our Representative Bud Oit

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. **58373**

Well Name & No. Depe #1-12 Test No. 2 Date 8-17-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7S Rge. 32W Co. Thomas State KS

Interval Tested 3784-3881 (3792-3887) Zone Tested DST #2 - No Specified Zone
 Anchor Length 3785 97' 3882 ⇒ 7' down Drill Pipe Run 3640 Mud Wt. 9.1
 Top Packer Depth 3779 Drill Collars Run 121.79 Vis 49
 Bottom Packer Depth 3784 Wt. Pipe Run — WL 7.2
 Total Depth 3881 Chlorides 1500 ppm System LCM 1
 Blow Description IF- Opened w/ surface blow, built to B.O.B in 2 min
ISI- No Return
FF- Opened w/ surface blow, built to B.O.B in 2 min.
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
26 315	Mud w/ oil spots			100	
189	WM w/ oil spots			40	60
439	MW w/ oil spots			90	10

Rec Total 943 BHT 124 Gravity _____ API RW .198 @ 75.3 °F Chlorides 38,000 ppm
 (A) Initial Hydrostatic 1836 Test 1150 T-On Location 3:07 PM
 (B) First Initial Flow 151 Jars 250 T-Started 3:56 PM
 (C) First Final Flow 289 Safety Joint 75 T-Open 5:28 PM
 (D) Initial Shut-In 1203 Circ Sub _____ T-Pulled 6:48 PM
 (E) Second Initial Flow 313 Hourly Standby _____ T-Out 8:46 PM
 (F) Second Final Flow 446 Mileage 80 R.T. 124 Comments _____
 (G) Final Shut-In 1188 Sampler _____
 (H) Final Hydrostatic 1775 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Initial Open 10 Day Standby _____ Sub Total 0
 Initial Shut-In 30 Accessibility _____ Total 1849.00
 Final Flow 10 Sub Total 1849 MP/DST Disc't _____
 Final Shut-In 30

Approved By _____ Our Representative Bud O't

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58374

Well Name & No. Depe #1-12 Test No. 3 Date 8-18-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7S Rge. 32W Co. Thomas State KS

Interval Tested 3925 - 3986 Zone Tested Toronto + LCC 'A'
 Anchor Length 61' Drill Pipe Run 3806 Mud Wt. 9.1
 Top Packer Depth 3920 Drill Collars Run 121.79 Vis 55
 Bottom Packer Depth 3925 Wt. Pipe Run — WL 6.4
 Total Depth 3986 Chlorides 2400 ppm System LCM 1
 Blow Description DF - Opened w/ surface blow, built to B.O.B in 2min.
ISI - Return built to '1/2", died back to '14"
FF - Opened w/ surface blow, built to B.O.B in 2min.
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
189	OCM		20		80
756	WOCM		17.5	57.5	25
189	WMCO		20	70	10
185	WMCO		70	20	10

Rec Total 1319 BHT 129 Gravity 27 API RW .123 @ 99.6 °F Chlorides 48,000 ppm
 Test 1150 T-On Location 8:35 AM
 Jars 250 T-Started ~~12:24 PM~~ 9:45 AM
 Safety Joint 75 T-Open 12:24 PM
 Circ Sub _____ T-Pulled 2:04 PM
 Hourly Standby _____ T-Out 4:53 PM
 Mileage 80 R.T 124 Comments _____
 Sampler _____
 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1849.00
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1849

Approved By [Signature]

Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58375

Well Name & No. Depe #1-12 Test No. 4 Date 8-19-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7S Rge. 32W Co. Thomas State KS

Interval Tested 4077-4164 Zone Tested LKC "H-J"
 Anchor Length 87' Drill Pipe Run 3935 Mud Wt. 9.1
 Top Packer Depth 4072 Drill Collars Run 121.79 Vis SS
 Bottom Packer Depth 4077 Wt. Pipe Run — WL 6.4
 Total Depth 4164 Chlorides 2400 ppm System LCM 1

Blow Description IF- B.o.B in 1min. + a half
ISI- Return built to Tin. over the 30 min.
FF- B.o.B in 1min. + a half
FSI- B.o.B in 6 min.

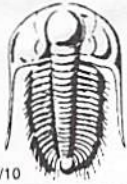
Rec	Feet of	%gas	%oil	%water	%mud
<u>174</u>	<u>GO</u>	<u>10</u>	<u>90</u>		
<u>189</u>	<u>GOCM</u>	<u>20</u>	<u>20</u>		<u>60</u>
<u>1134</u>	<u>GWDM GWMCO</u>	<u>37</u>	<u>41</u>	<u>16</u>	<u>12</u>
<u>185</u>	<u>GWO</u>	<u>60</u>	<u>30</u>	<u>10</u>	
<u>-693</u>	<u>GIP</u>	<u>100</u>			

Rec Total 1682 BHT 131 Gravity 46 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2019 Test 1250 T-On Location 12:05 PM
 (B) First Initial Flow 250 Jars 250 T-Started 12:56 PM
 (C) First Final Flow 476 Safety Joint 75 T-Open 2:52 PM
 (D) Initial Shut-In 1348 Circ Sub — T-Pulled 4:52 PM
 (E) Second Initial Flow 523 Hourly Standby — T-Out 8:25 PM
 (F) Second Final Flow 776 Mileage 80 R.T. 124 Comments —
 (G) Final Shut-In 1348 Sampler —
 (H) Final Hydrostatic 1955 Straddle — Ruined Shale Packer —
 Shale Packer 250 Ruined Packer —
 Extra Packer — Extra Copies —
 Initial Open 10 Extra Recorder — Sub Total 0
 Initial Shut-In 30 Day Standby — Total 1949.00
 Final Flow 20 Accessibility — MP/DST Disc't —
 Final Shut-In 60 Sub Total 1949

Approved By [Signature] Our Representative Bud Ot

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **60751**

Well Name & No. Depe #1-12 Test No. 5 Date 8-20-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7S Rge. 32W Co. Thomas State KS

Interval Tested 4257 - 4354 Zone Tested Pawnee
 Anchor Length 97' Drill Pipe Run 4124 Mud Wt. 9.2
 Top Packer Depth 4252 Drill Collars Run 121.79 Vis 56
 Bottom Packer Depth 4257 Wt. Pipe Run — WL 6.4
 Total Depth 4354 Chlorides 2200 ppm System LCM 1
 Blow Description IF- Opened w/ surface blow, built to 1/4"
ISI- No Return

FF- No Blow
FSI- Not Ran

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud w/ oil spots in tool</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 5 BHT 124 Gravity 1250 API RW — @ — °F Chlorides — ppm
 (A) Initial Hydrostatic 2116 Test 1250 T-On Location 5:00 PM
 (B) First Initial Flow 30 Jars 250 T-Started 6:07 PM
 (C) First Final Flow 29 Safety Joint 75 T-Open 8:02 PM
 (D) Initial Shut-In 55 Circ Sub — T-Pulled 9:12 PM
 (E) Second Initial Flow 31 Hourly Standby — T-Out 11:23 PM
 (F) Second Final Flow — Mileage 80 R.T. 124 Comments —
 (G) Final Shut-In — Sampler —
 (H) Final Hydrostatic 2080 Straddle —
 Shale Packer 250 Ruined Shale Packer —
 Extra Packer — Ruined Packer —
 Extra Recorder — Extra Copies —
 Day Standby — Sub Total 0
 Accessibility — Total 1949.00
 Sub Total 1949.00 MP/DST Disc't —

Initial Open 20
 Initial Shut-In 30
 Final Flow 20
 Final Shut-In —

Approved [Signature] Our Representative Bud Oitz

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4431
 4356
 4431 75



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60752

Well Name & No. Depe #1-12 Test No. 6 Date 8-21-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7s Rge. 32W Co. Thomas State KS

Interval Tested 4356-4431 Zone Tested DST #6 ~~No Specified Zone Ft Scott + Cherokee~~
 Anchor Length 75' Drill Pipe Run 4220 Mud Wt. 9.2
 Top Packer Depth 4351 Drill Collars Run 121.79 Vis 56
 Bottom Packer Depth 4356 Wt. Pipe Run — WL 6.4
 Total Depth 4431 Chlorides 2200 ppm System LCM 1

Blow Description IF - Opened w/ surface blow, built to B.o.B in 7 min.
ISI - Return built to 3" over 30 min.
FF - Opened w/ surface blow, built to B.o.B in 7 min.
FSI - Return built to B.o.B over the 60 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>148</u>	<u>CO</u>		<u>100%</u>		
<u>173</u>	<u>GMCO</u>	<u>27%</u>	<u>47%</u>		<u>26%</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>630</u>	<u>GIP</u>	<u>100%</u>			
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 321 BHT 134 Gravity 39 API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 2165 Test 1250 T-On Location 9:20 AM
 (B) First Initial Flow 43 Jars 250 T-Started 9:45 AM
 (C) First Final Flow 102 Safety Joint 75 T-Open 11:42 AM
 (D) Initial Shut-In 1194 Circ Sub T-Pulled 1:57 PM
 (E) Second Initial Flow 105 Hourly Standby T-Out 4:23 PM
 (F) Second Final Flow 161 Mileage 80 R.T. 124 Comments
 (G) Final Shut-In 1181 Sampler
 (H) Final Hydrostatic 2104 Straddle
 Ruined Shale Packer
 Ruined Packer

Initial Open 15 Extra Packer Extra Copies
 Initial Shut-In 30 Extra Recorder Sub Total 0
 Final Flow 30 Day Standby Total 1949.00
 Final Shut-In 100 Accessibility MP/DST Disc't
 Sub Total 1949

Approved By Our Representative Burd Pitt



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60753

Well Name & No. Depe # 1-12 Test No. 7 Date 8-22-14
 Company Carmen Schmitt, Inc. Elevation 2996 KB 2991 GL
 Address P.O. Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Larry Nicholson Rig WW #8
 Location: Sec. 12 Twp. 7S Rge. 32W Co. Thomas State KS

Interval Tested 4434-4489 Zone Tested Lower Cherokee
 Anchor Length 55 Drill Pipe Run 4316 Mud Wt. 9.2
 Top Packer Depth 4429 Drill Collars Run 121.79 Vis 54
 Bottom Packer Depth 4434 Wt. Pipe Run — WL 6.4
 Total Depth 4489 Chlorides 2000 ppm System LCM 1
 Blow Description IF- Opened w/ surface blow, built to B.o.B in 1 min
ISI- Return built to 1 1/2" in 15 min.

Rec	Feet of	w/	%gas	%oil	%water	%mud
<u>262</u>	<u>WM</u>	<u>w/ oil spots</u>		<u>28</u>	<u>72</u>	
<u>689</u>	<u>MW</u>	<u>w/ oil spots in tool</u>		<u>90</u>	<u>10</u>	

Rec Total 951 BHT 139 Gravity — API RW .186 @ 64.3 °F Chlorides 52,000 ppm

(A) Initial Hydrostatic 2173 Test 1250 T-On Location 12:45 AM
 (B) First Initial Flow 253 Jars 250 T-Started 1:21 AM
 (C) First Final Flow 484 Safety Joint 75 T-Open 3:39 AM
 (D) Initial Shut-In 1065 Circ Sub — T-Pulled 4:19 AM
 (E) Second Initial Flow — Hourly Standby — T-Out 7:41 AM
 (F) Second Final Flow — Mileage 80 R.T. 124 Comments —
 (G) Final Shut-In — Sampler —
 (H) Final Hydrostatic 2155 Straddle —
 Shale Packer 250 Ruined Shale Packer —
 Extra Packer — Ruined Packer —
 Extra Recorder — Extra Copies —
 Day Standby — Sub Total 0
 Accessibility — Total 1949.00
 Sub Total 1949 MP/DST Disc't —

Initial Open 10
 Initial Shut-In 30
 Final Flow —
 Final Shut-In —

Approved By [Signature]

Our Representative [Signature]