

## DRILL STEM TEST REPORT

Prepared For: **DK Operating, Inc**

24583 NW 208 Rd.  
Jetmore, KS 67854

ATTN: Jason Alm

### **Sharon #1-24**

#### **24-23s-23w Hodgeman,KS**

Start Date: 2012.07.20 @ 11:02:02

End Date: 2012.07.20 @ 18:28:02

Job Ticket #: 47423                      DST #: 1

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

Printed: 2012.07.26 @ 10:31:25

DK Operating, Inc  
24-23s-23w Hodgeman,KS  
Sharon #1-24  
DST # 1  
Miss  
2012.07.20



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

DK Operating, Inc  
 24583 NW 208 Rd.  
 Jetmore, KS 67854  
 ATTN: Jason Alm

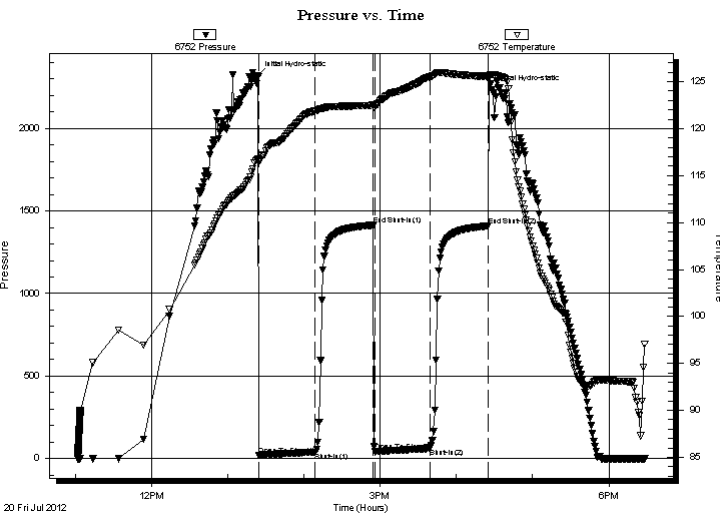
**24-23s-23w Hodgeman, KS**  
**Sharon #1-24**  
 Job Ticket: 47423      **DST#: 1**  
 Test Start: 2012.07.20 @ 11:02:02

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:24:32  
 Time Test Ended: 18:28:02  
 Interval: **4599.00 ft (KB) To 4608.00 ft (KB) (TVD)**  
 Total Depth: 4608.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brian Fairbank  
 Unit No: 41  
 Reference Elevations: 2376.00 ft (KB)  
 2368.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6752 Inside**  
 Press @ Run Depth: 60.91 psig @ 4600.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.07.20 End Date: 2012.07.20 Last Calib.: 2012.07.20  
 Start Time: 11:02:03 End Time: 18:28:02 Time On Btm: 2012.07.20 @ 13:23:32  
 Time Off Btm: 2012.07.20 @ 16:28:02

**TEST COMMENT:** IFP - weak to good blow sur - 7 1/2"  
 ISI - no blow back  
 FFP - weak to good blow sur - 7 1/2"  
 FSI - no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2322.09	116.73	Initial Hydro-static
1	17.96	116.48	Open To Flow (1)
46	39.13	121.88	Shut-In(1)
91	1414.01	122.49	End Shut-In(1)
93	45.04	122.40	Open To Flow (2)
136	60.91	125.52	Shut-In(2)
182	1408.66	125.56	End Shut-In(2)
185	2235.66	125.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 20%O, 80%M	0.07
105.00	FREE OIL 95%O, 5%M	1.32
0.00	150' GIP	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

DK Operating, Inc  
24583 NW 208 Rd.  
Jetmore, KS 67854  
ATTN: Jason Alm

**24-23s-23w Hodgeman, KS**  
**Sharon #1-24**  
Job Ticket: 47423      **DST#: 1**  
Test Start: 2012.07.20 @ 11:02:02

**Tool Information**

Drill Pipe:	Length: 4564.00 ft	Diameter: 3.80 inches	Volume: 64.02 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: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 64.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4599.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	36.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			4577.00	
Hydraulic tool	5.00			4582.00	
Jars	5.00			4587.00	
Safety Joint	2.00			4589.00	
Packer	5.00			4594.00	27.00      Bottom Of Top Packer
Packer	5.00			4599.00	
Stubb	1.00			4600.00	
Recorder	0.00	6752	Inside	4600.00	
Recorder	0.00	6741	Outside	4600.00	
Perforations	5.00			4605.00	
Bullnose	3.00			4608.00	9.00      Bottom Packers & Anchor

**Total Tool Length: 36.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

DK Operating, Inc

**24-23s-23w Hodgeman, KS**

24583 NW 208 Rd.  
Jetmore, KS 67854

**Sharon #1-24**

Job Ticket: 47423

**DST#: 1**

ATTN: Jason Alm

Test Start: 2012.07.20 @ 11:02:02

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5600.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OCM 20%O, 80%M	0.074
105.00	FREE OIL 95%O, 5%M	1.318
0.00	150' GIP	0.000

Total Length: 120.00 ft

Total Volume: 1.392 bbl

Num Fluid Samples: 0

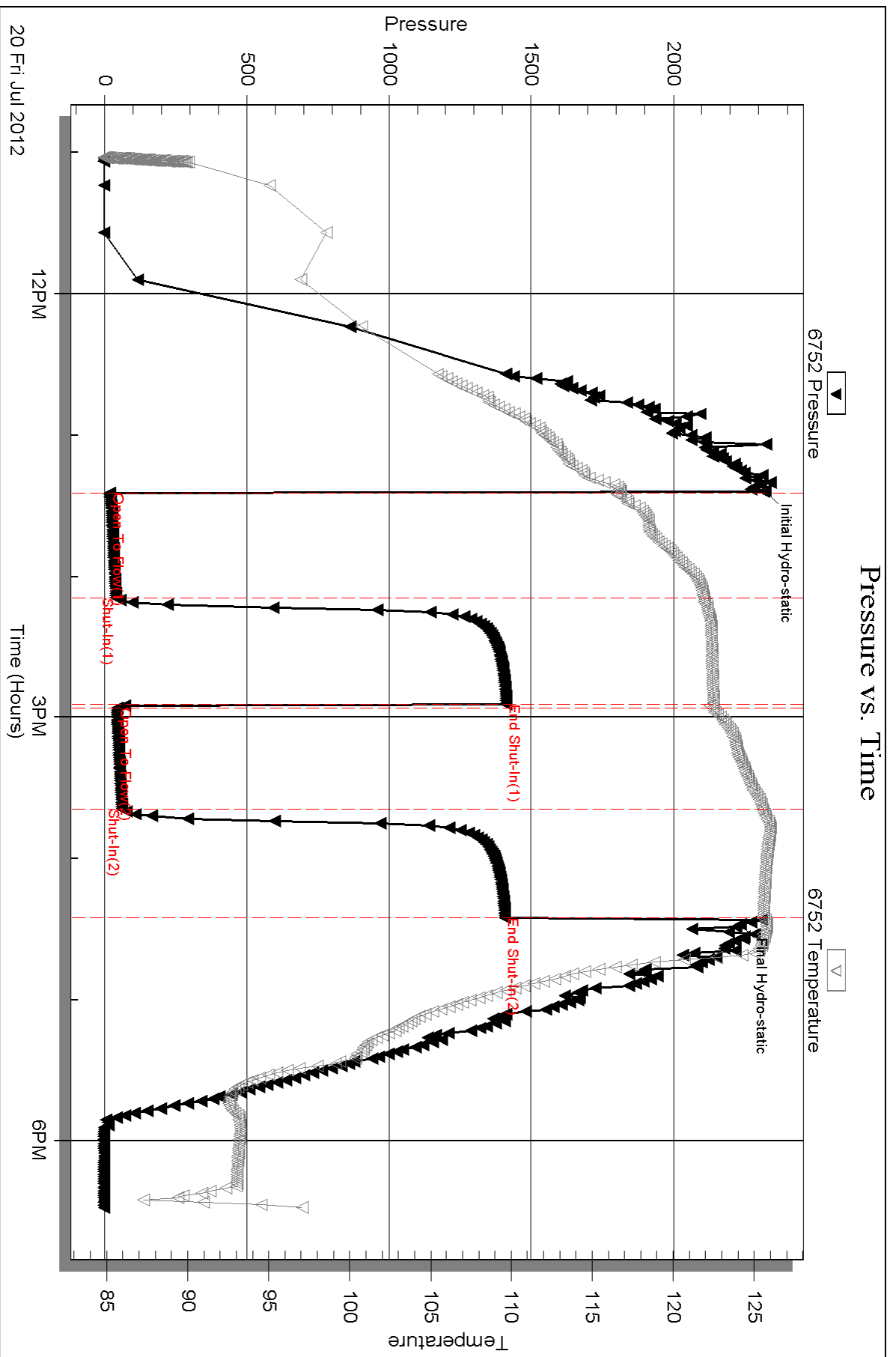
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

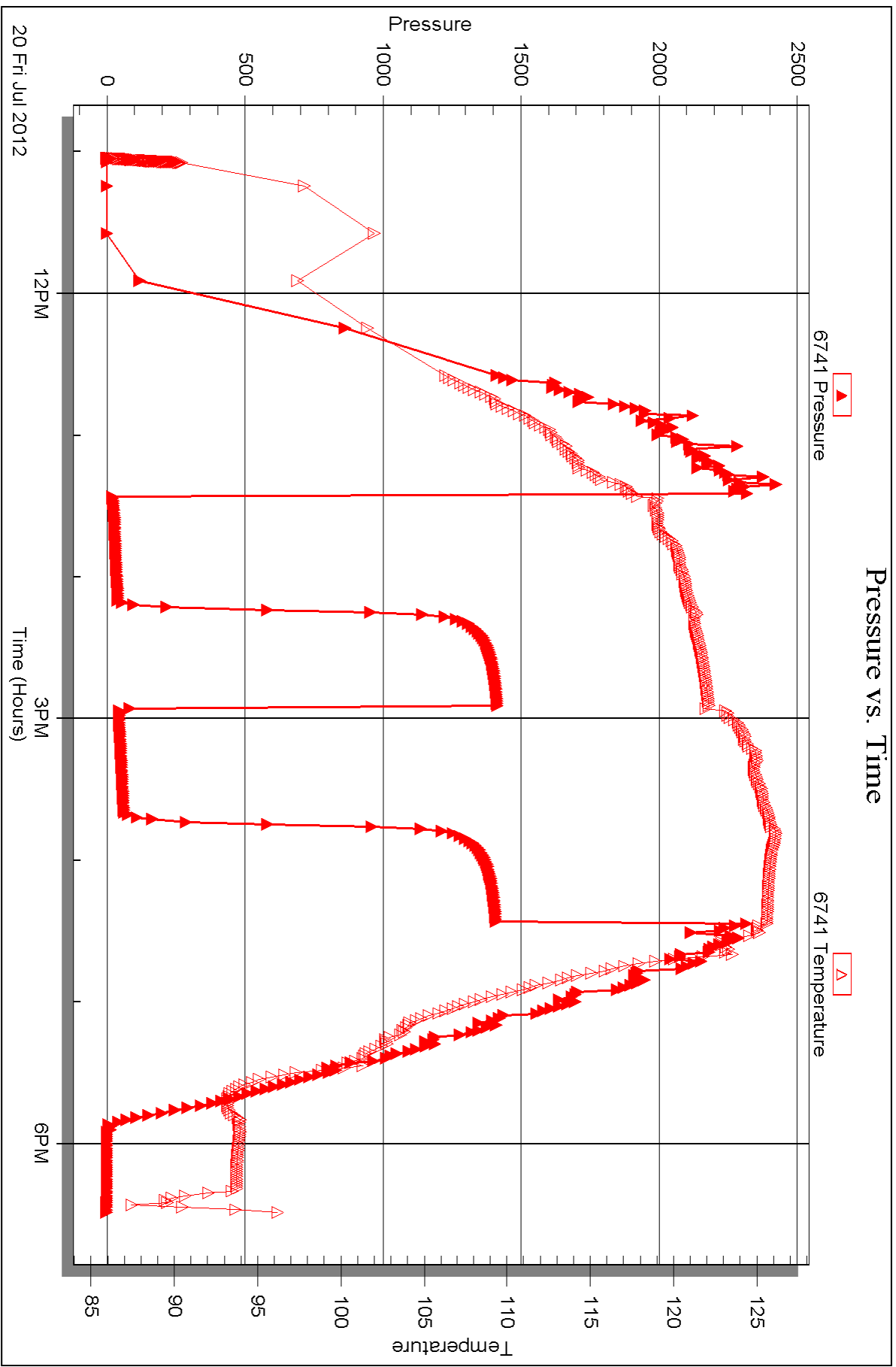


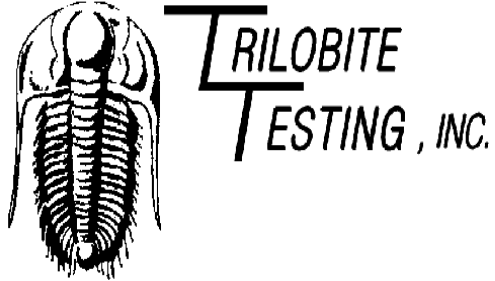
Serial #: 6741

Outside DK Operating, Inc

Sharon #1-24

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **DK Operating, Inc**

24583 NW 208 Rd.  
Jetmore, KS 67854

ATTN: Jason Alm

### **Sharon #1-24**

#### **24-23s-23w Hodgeman,KS**

Start Date: 2012.07.21 @ 00:51:40

End Date: 2012.07.21 @ 07:08:10

Job Ticket #: 47424                      DST #: 2

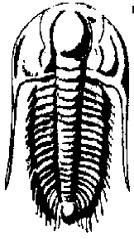
Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.07.26 @ 10:30:39

DK Operating, Inc  
24-23s-23w Hodgeman,KS  
Sharon #1-24  
DST # 2  
Miss  
2012.07.21







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

DK Operating, Inc  
24583 NW 208 Rd.  
Jetmore, KS 67854  
ATTN: Jason Alm

**24-23s-23w Hodgeman, KS**  
**Sharon #1-24**  
Job Ticket: 47424      **DST#: 2**  
Test Start: 2012.07.21 @ 00:51:40

**Tool Information**

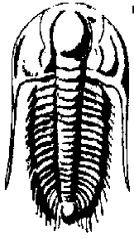
Drill Pipe:	Length: 4565.00 ft	Diameter: 3.80 inches	Volume: 64.03 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 64.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4608.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	35.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			4586.00	
Hydraulic tool	5.00			4591.00	
Jars	5.00			4596.00	
Safety Joint	2.00			4598.00	
Packer	5.00			4603.00	27.00      Bottom Of Top Packer
Packer	5.00			4608.00	
Stubb	1.00			4609.00	
Recorder	0.00	6752	Inside	4609.00	
Recorder	0.00	6741	Outside	4609.00	
Perforations	4.00			4613.00	
Bullnose	3.00			4616.00	8.00      Bottom Packers & Anchor

**Total Tool Length: 35.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

DK Operating, Inc

**24-23s-23w Hodgeman, KS**

24583 NW 208 Rd.  
Jetmore, KS 67854

**Sharon #1-24**

Job Ticket: 47424

**DST#: 2**

ATTN: Jason Alm

Test Start: 2012.07.21 @ 00:51:40

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

9500 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	WHOCM 25%O, 5%W, 70%M	0.098
40.00	WMO 87%O, 3%W, 10%M	0.452
200.00	FREE OIL 95%O, 5%M	2.805
0.00	270' GIP	0.000

Total Length: 260.00 ft

Total Volume: 3.355 bbl

Num Fluid Samples: 0

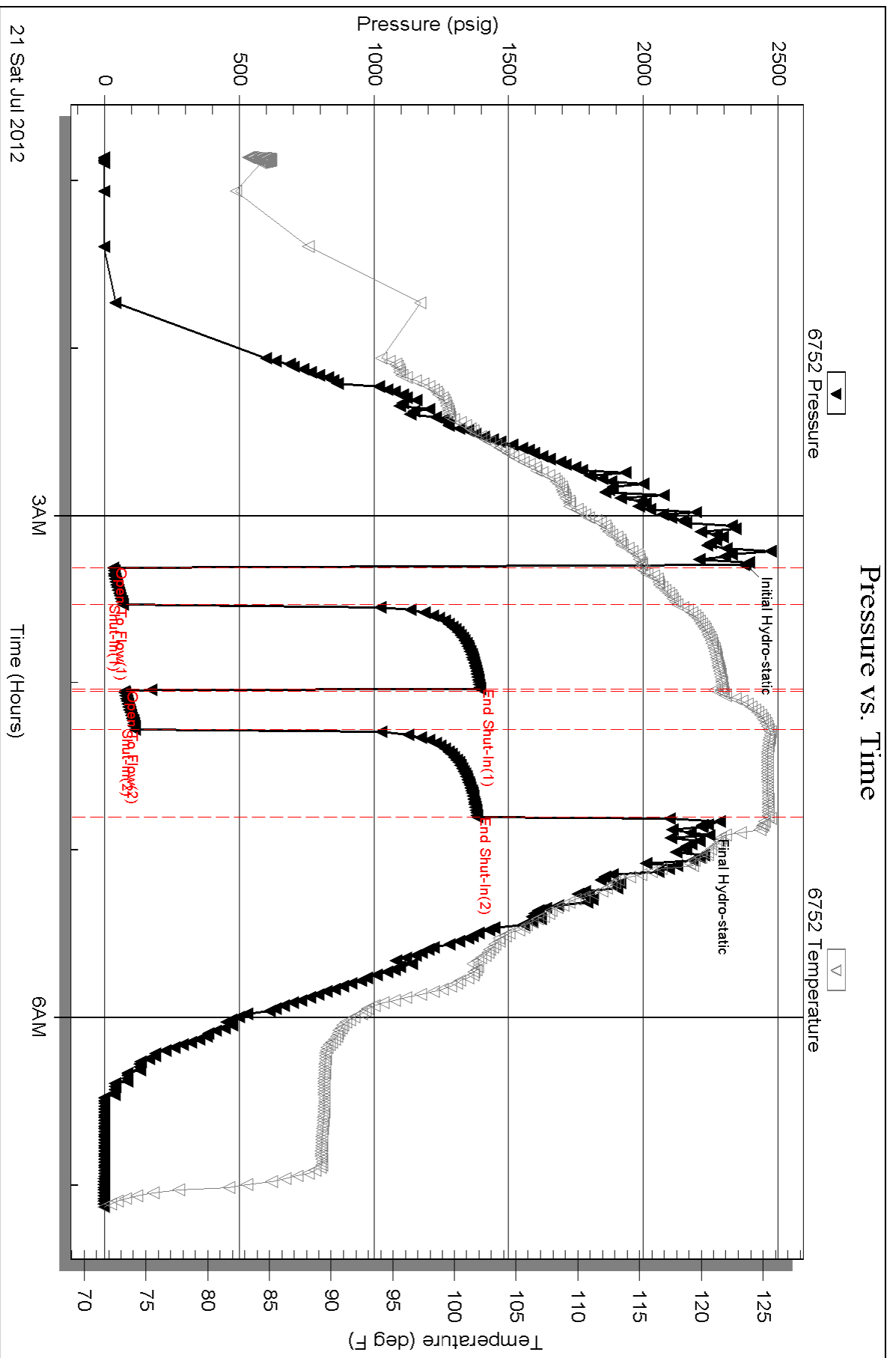
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

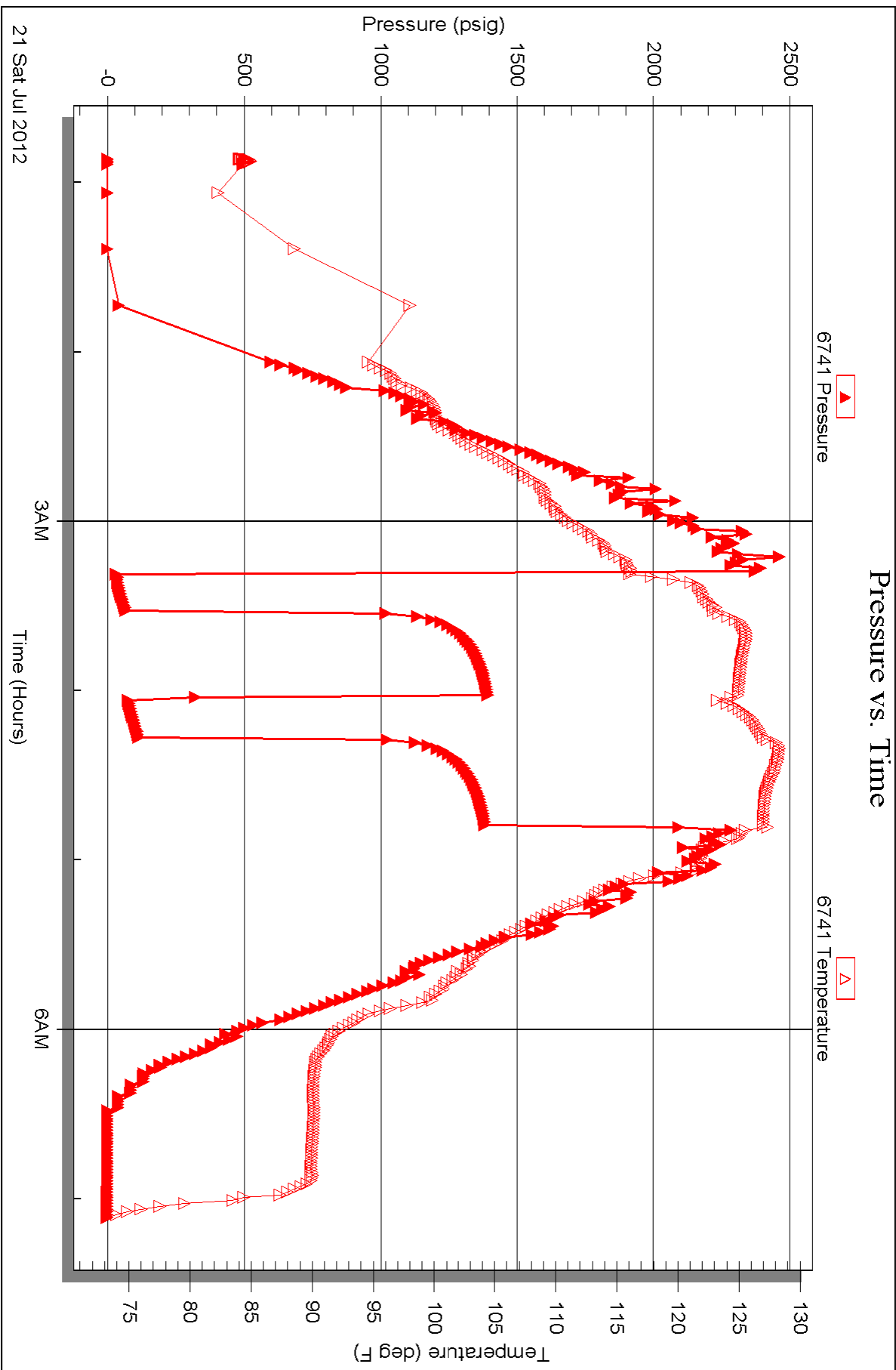


Serial #: 6741

Outside DK Operating, Inc

Sharon #1-24

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47423

Well Name & No. Sharon 1-24 Test No. 1 Date 7-20-12  
 Company OK Operating, Inc Elevation 2376 KB 2368 GL  
 Address 24583 NW 208 Rd Jetmore, KS 67854  
 Co. Rep / Geo. Jason Alm Rig Discovery 3  
 Location: Sec. 24 Twp. 23 Rge. 23 Co. Hodgeman State K

Interval Tested 4599-4608 Zone Tested Miss  
 Anchor Length 9 Drill Pipe Run 4564 Mud Wt. 9.3  
 Top Packer Depth 4594 Drill Collars Run 32 Vis 52  
 Bottom Packer Depth 4599 Wt. Pipe Run --- WL 9.2  
 Total Depth 4608 Chlorides 5600 ppm System LCM  
 Blow Description IFP- weak to Good flow sur - 7 1/2"  
ISI- no blow back  
FFP- weak to Good flow sur - 7 1/2"  
FSI- no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>GAIP</u>				
<u>105</u>	<u>Free Oil</u>		<u>95%</u>		<u>5%</u>
<u>15</u>	<u>OCM</u>		<u>20%</u>		<u>80%</u>

Rec Total 120 BHT 106 Gravity 32 API RW @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 2322  Test 1250 T-On Location 012  
 (B) First Initial Flow 18  Jars 250 T-Started 1102  
 (C) First Final Flow 39  Safety Joint 75 T-Open 1324  
 (D) Initial Shut-In 1414  Circ Sub T-Pulled 1624  
 (E) Second Initial Flow 45  Hourly Standby T-Out 1828  
 (F) Second Final Flow 61  Mileage 168 RT 260.40 Comments  
 (G) Final Shut-In 1409  Sampler  
 (H) Final Hydrostatic 2236  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder Sub Total 0  
 Day Standby Total 1835.40  
 Accessibility MP/DST Disc't

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45

Sub Total 1835.40

Approved By \_\_\_\_\_ Our Representative Brian Fairbank

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47424

Well Name & No. Sharon 1-24 Test No. 2 Date 7-20-12  
 Company OK Elevation 2376 KB 2368 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Jason Alm Rig Discovery 3  
 Location: Sec. 24 Twp. 23 Rge. 23 Co. Hodgeman State ks

Interval Tested 4608-4616 Zone Tested Miss  
 Anchor Length 4603 Drill Pipe Run 4565 Mud Wt. 9.4  
 Top Packer Depth 4608 Drill Collars Run 32 Vis SS  
 Bottom Packer Depth 4616 Wt. Pipe Run \_\_\_\_\_ WL 10.0  
 Total Depth 8 Chlorides 6300 ppm System LCM \_\_\_\_\_

Blow Description IFP- BOB 7 min  
ISI- 2 1/4" blow back  
FFP- BOB 9 min  
FST- 2 1/2" blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>270</u>	<u>GIP</u>				
<u>200</u>	<u>Free Oil</u>		<u>95</u>		<u>5</u>
<u>40</u>	<u>WMO</u>	<u>87</u>	<u>3</u>	<u>10</u>	<u>10</u>
<u>20</u>	<u>WHDCM</u>	<u>25</u>	<u>5</u>	<u>70</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 260 BHT 125 Gravity 33 API RW .604 @ 74 °F Chlorides 9500 ppm

(A) Initial Hydrostatic 2379  Test 1250 T-On Location 2349  
 (B) First Initial Flow 32  Jars 250 T-Started 0051  
 (C) First Final Flow 66  Safety Joint 75 T-Open 0318  
 (D) Initial Shut-In 1394  Circ Sub T-Pulled 0448  
 (E) Second Initial Flow 74  Hourly Standby T-Out 0708  
 (F) Second Final Flow 113  Mileage 260.40  
 (G) Final Shut-In 1384  Sampler  
 (H) Final Hydrostatic 2219  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 15  
 Final Shut-In 30  
 Sub Total 1835.40  
 Total 1835.40  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_

Our Representative Brian Fairbairn

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.

JOB LOG

SWIFT Services, Inc.

DATE 27 Jul 12 PAGE NO. 1

CUSTOMER DK Operating WELL NO. 1-24 LEASE Sharon JOB TYPE cement port collar TICKET NO. 22788

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								175 sk SMD w/ 1/4 floater 2 3/8" x 5 1/2" port collar - 1455'
	1330							on loc TRK 114
	1435					1000	1000	test to 1000 psi - hold open port collar
	1442	3 1/2	2			450		inj rate 3 1/2 bpm @ 450 psi
	1446	3				400		mix SMD cement @ 11.2 ppg fluid to surface - cement to surface -
		3	6			400		
		3	57			500		
		3	8			550		displace w/ H <sub>2</sub> O close port collar
	1507					1000	1000	test to 1000 psi - hold
	1518							Reverse, hole clean - 2 cement plugs - wash truck Rack up job complete Thanks Blaine Dave & Jeremy

110 sks mixed  
15 to pit