



## DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration, LLC.**

204 W. Mill St.  
Plainville, KS 67663

ATTN: Chris Bean

### **Fanshier #15-1**

#### **15-22s-13w Stafford,KS**

Start Date: 2014.06.29 @ 06:18:31

End Date: 2014.06.29 @ 18:16:46

Job Ticket #: 54186                      DST #: 1

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

Printed: 2014.07.08 @ 09:30:56



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54186

**DST#: 1**

ATTN: Chris Bean

Test Start: 2014.06.29 @ 06:18:31

## GENERAL INFORMATION:

Formation: **LKC "A-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:18:31

Time Test Ended: 18:16:46

Test Type: Conventional Bottom Hole (Initial)

Tester: Matt Smith

Unit No: 53

**Interval: 3396.00 ft (KB) To 3474.00 ft (KB) (TVD)**

Reference Elevations: 1898.00 ft (KB)

Total Depth: 3474.00 ft (KB) (TVD)

1891.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6773 Outside**

Press@RunDepth: 129.82 psig @ 3397.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.29

End Date:

2014.06.29

Last Calib.:

2014.06.29

Start Time: 06:18:36

End Time:

18:16:46

Time On Btm:

2014.06.29 @ 11:15:31

Time Off Btm:

2014.06.29 @ 15:06:31

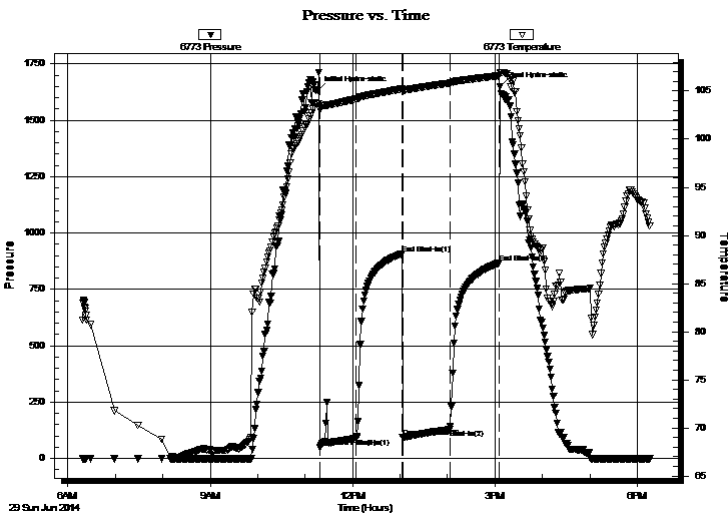
TEST COMMENT: IF: Strong blow . Surf., to 11 1/2".

IS: No blow .

FF: Strong blow . B.O.B. 41 mins.

FS: No blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1632.15	103.67	Initial Hydro-static
3	49.88	103.01	Open To Flow (1)
50	89.33	104.17	Shut-In(1)
107	907.82	105.22	End Shut-In(1)
108	92.98	105.08	Open To Flow (2)
168	129.82	105.82	Shut-In(2)
230	866.50	106.59	End Shut-In(2)
231	1649.21	106.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
31.00	GWCM 10%g 30%m 60%w W/trc oil	0.16
31.00	GWCM 10%g 30%m 60%w W/trc oil	0.43
93.00	GOWCM 5%o 10%g 35%w 50%m	1.30
31.00	GOWCM 1%g 17%w 37%m 45%o	0.43

## Gas Rates

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





**TRILOBITE  
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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54186

**DST#: 1**

ATTN: Chris Bean

Test Start: 2014.06.29 @ 06:18:31

## Tool Information

Drill Pipe:	Length: 3369.00 ft	Diameter: 3.80 inches	Volume: 47.26 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 21000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 47.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3396.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	106.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Shale packer is replacing the bottom packer in tool.

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3369.00	
Shut In Tool	5.00			3374.00	
Hydraulic tool	5.00			3379.00	
Jars	5.00			3384.00	
Safety Joint	3.00			3387.00	
Packer	4.00			3391.00	28.00 Bottom Of Top Packer
Packer	5.00			3396.00	
Stubb	1.00			3397.00	
Recorder	0.00	6719	Outside	3397.00	
Recorder	0.00	6773	Outside	3397.00	
Perforations	1.00			3398.00	
Change Over Sub	1.00			3399.00	
Blank Spacing	61.00			3460.00	
Change Over Sub	1.00			3461.00	
Perforations	10.00			3471.00	
Bullnose	3.00			3474.00	78.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>106.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54186

**DST#: 1**

ATTN: Chris Bean

Test Start: 2014.06.29 @ 06:18:31

## 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: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
31.00	GWCM 10%g 30%m 60%w W/trc oil	0.162
31.00	GWCM 10%g 30%m 60%w W/trc oil	0.435
93.00	GOWCM 5%o 10%g 35%w 50%m	1.305
31.00	GOWCM 1%g 17%w 37%m 45%o	0.435

Total Length: 186.00 ft      Total Volume: 2.337 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

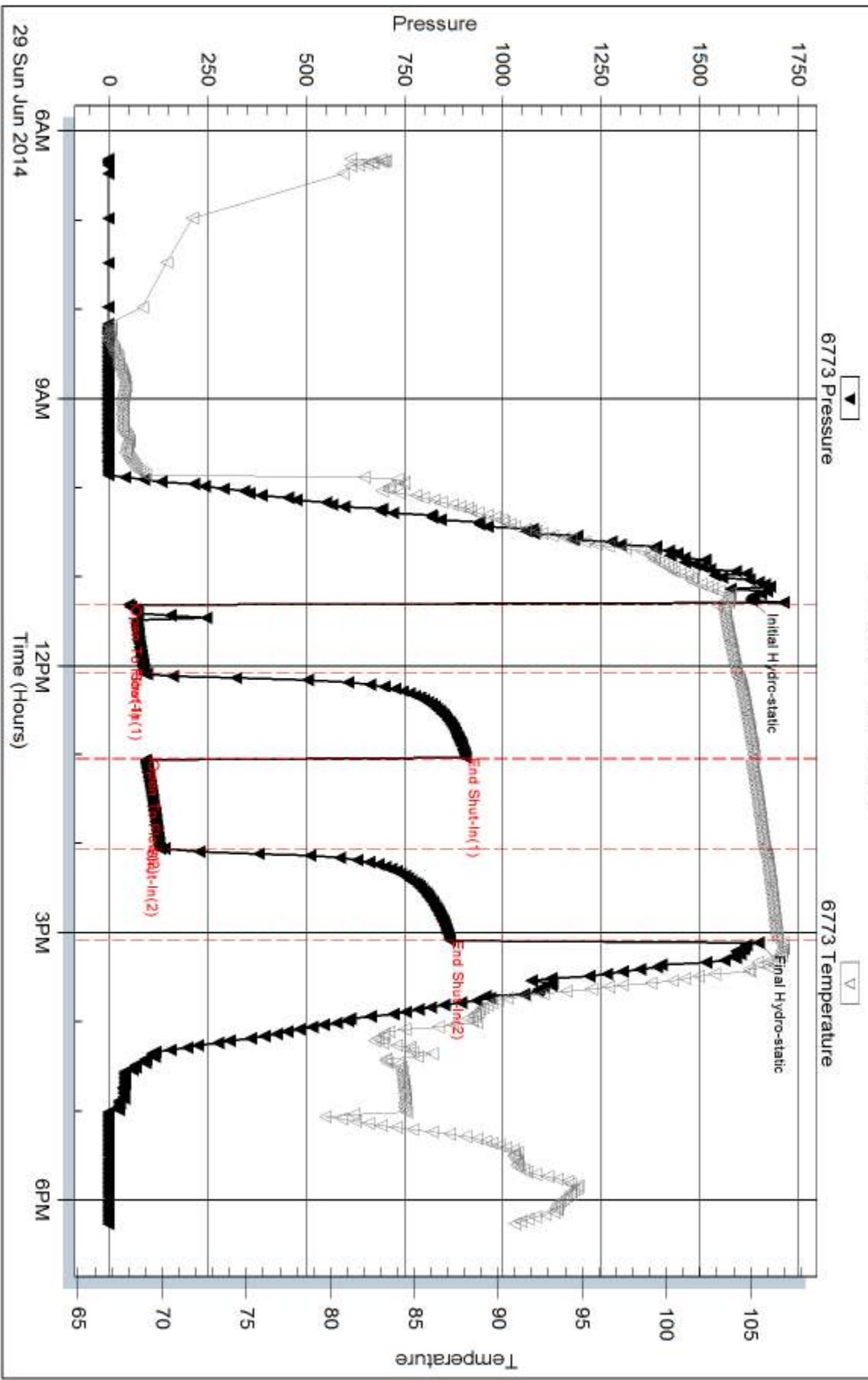
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .18 @ 92 degrees = 30,000

### Pressure vs. Time

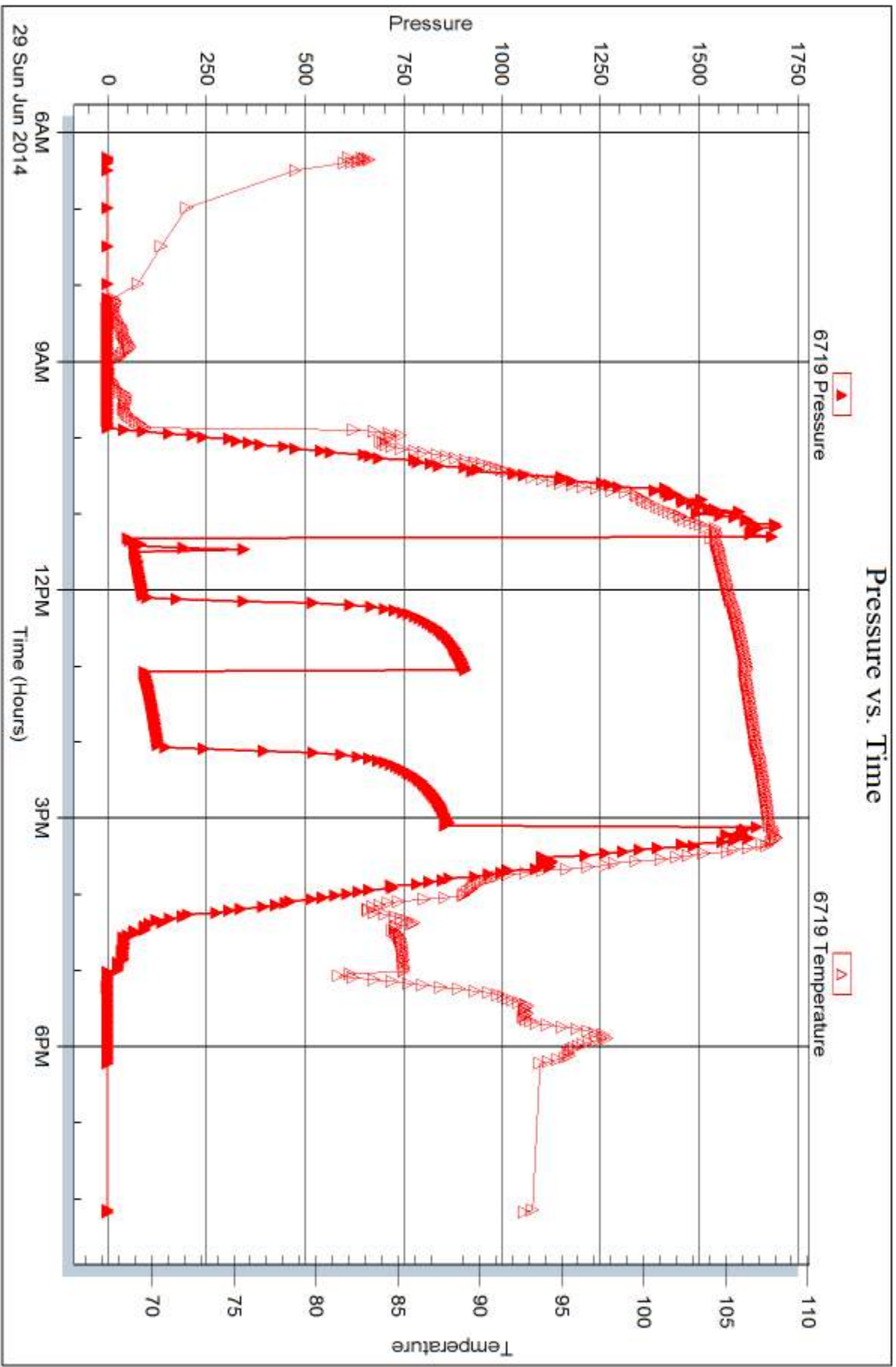


Serial #: 6719

Outside StrataKan Exploration, LLC.

Fanshier #15-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54186

Printed: 2014.07.08 @ 09:30:57



## DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration, LLC.**

204 W. Mill St.  
Plainville, KS 67663

ATTN: Chris Bean

### **Fanshier #15-1**

#### **15-22s-13w Stafford,KS**

Start Date: 2014.06.30 @ 02:37:02

End Date: 2014.06.30 @ 10:42:02

Job Ticket #: 54187                      DST #: 2

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

Printed: 2014.07.08 @ 09:30:32





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54187

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 02:37:02

## GENERAL INFORMATION:

Formation: **LKC "H"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:11:17  
 Time Test Ended: 10:42:02  
 Interval: **3522.00 ft (KB) To 3536.00 ft (KB) (TVD)**  
 Total Depth: 3536.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 53  
 Reference Elevations: 1898.00 ft (KB)  
 1891.00 ft (CF)  
 KB to GR/CF: 7.00 ft

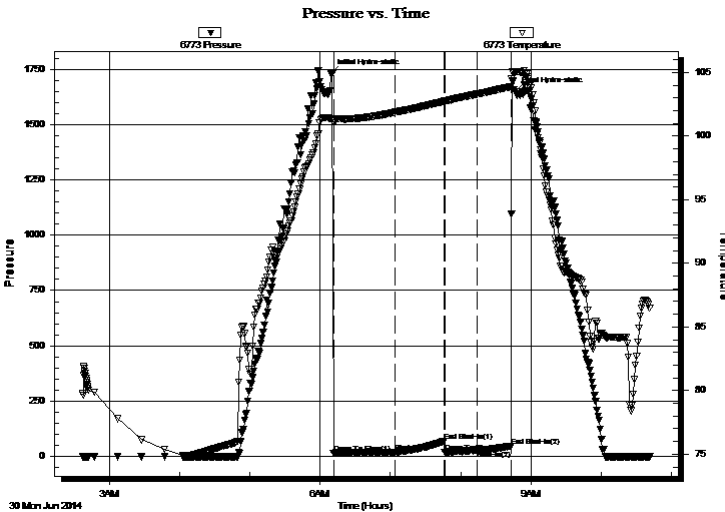
## Serial #: 6773

**Outside**

Press@RunDepth: 29.41 psig @ 3523.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.06.30 End Date: 2014.06.30 Last Calib.: 2014.06.30  
 Start Time: 02:37:07 End Time: 10:42:01 Time On Btm: 2014.06.30 @ 06:09:17  
 Time Off Btm: 2014.06.30 @ 08:46:17

TEST COMMENT: IF: Weak blow . Surf., - 1/4".  
 IS: No blow .  
 FF: No blow .  
 FS: No blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.12	101.38	Initial Hydro-static
2	15.16	101.05	Open To Flow (1)
55	18.59	101.88	Shut-In(1)
97	69.54	102.74	End Shut-In(1)
97	19.64	102.77	Open To Flow (2)
125	29.41	103.31	Shut-In(2)
154	47.01	103.88	End Shut-In(2)
157	1648.55	105.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Drig. Mud 100%m	0.01

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54187

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 02:37:02

## Tool Information

Drill Pipe:	Length: 3493.00 ft	Diameter: 3.80 inches	Volume: 49.00 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	26000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 49.15 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	41000.00 lb
Depth to Top Packer:	3522.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	42.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: Shale Packer is in place of bottom packer in tool.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3495.00	
Shut In Tool	5.00			3500.00	
Hydraulic tool	5.00			3505.00	
Jars	5.00			3510.00	
Safety Joint	3.00			3513.00	
Packer	4.00			3517.00	28.00 Bottom Of Top Packer
Packer	5.00			3522.00	
Stubb	1.00			3523.00	
Recorder	0.00	6719	Outside	3523.00	
Recorder	0.00	6773	Outside	3523.00	
Perforations	10.00			3533.00	
Bullnose	3.00			3536.00	14.00 Bottom Packers & Anchor

**Total Tool Length: 42.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54187

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 02:37:02

## 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:

6000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Drig. Mud 100%m	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

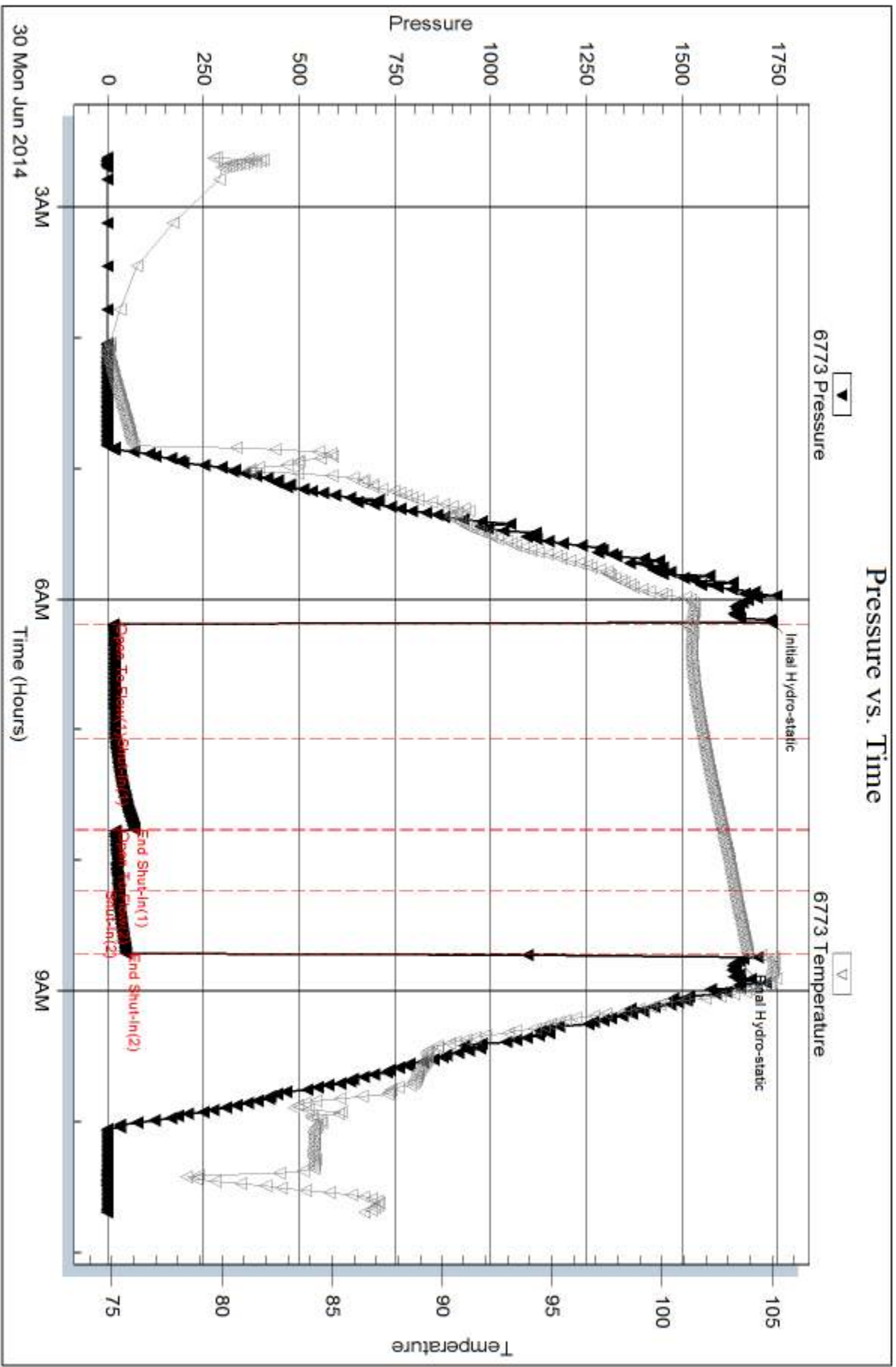
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

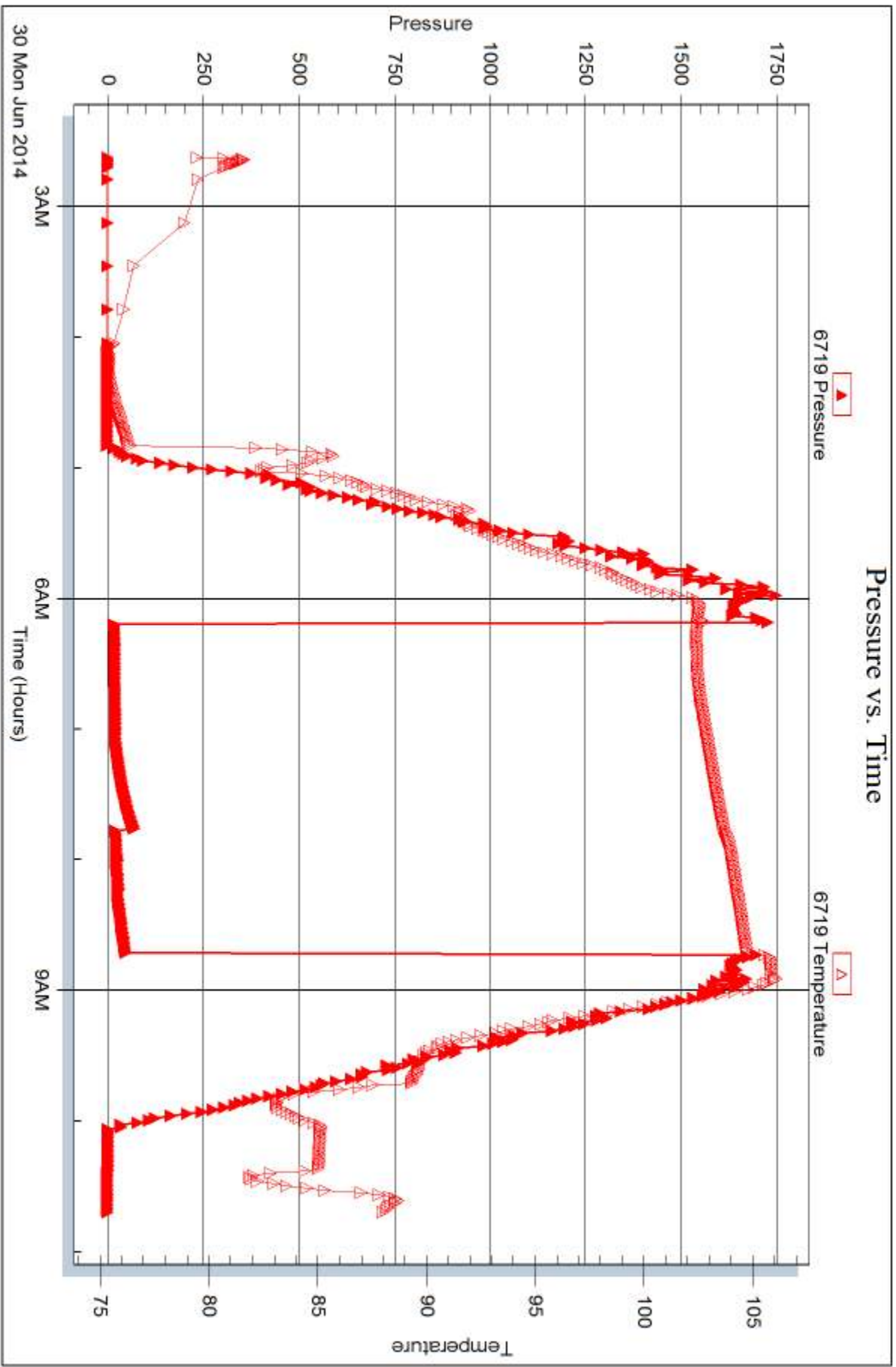


Serial #: 6719

Outside StrataKan Exploration, LLC.

Fanshier #15-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54187

Printed: 2014.07.08 @ 09:30:33



## DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration, LLC.**

204 W. Mill St.  
Plainville, KS 67663

ATTN: Chris Bean

### **Fanshier #15-1**

#### **15-22s-13w Stafford,KS**

Start Date: 2014.06.30 @ 20:18:46

End Date: 2014.07.01 @ 07:07:46

Job Ticket #: 54189                      DST #: 3

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

Printed: 2014.07.08 @ 09:27:43



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54189

**DST#: 3**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 20:18:46

## GENERAL INFORMATION:

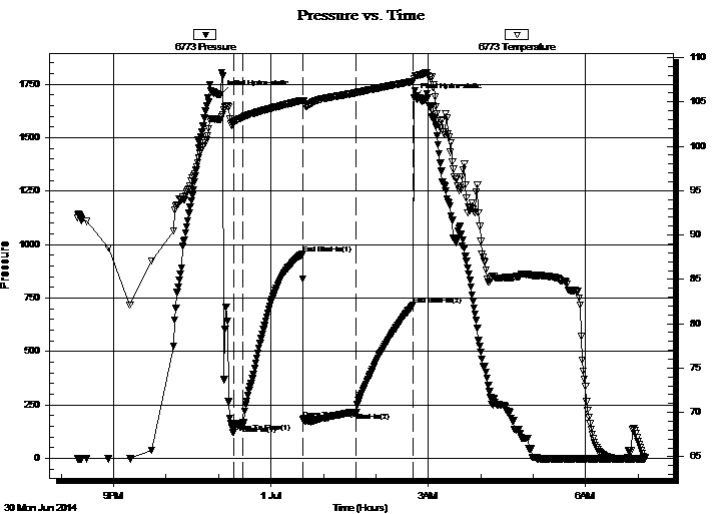
Formation: **LKC "I - K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:17:01  
 Time Test Ended: 07:07:46  
 Interval: **3535.00 ft (KB) To 3615.00 ft (KB) (TVD)**  
 Total Depth: 3474.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 53  
 Reference Elevations: 1898.00 ft (KB)  
 1891.00 ft (CF)  
 KB to GR/CF: 7.00 ft

## Serial #: 6773

Inside

Press@RunDepth: 216.85 psig @ 3536.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.06.30 End Date: 2014.07.01 Last Calib.: 2014.07.01  
 Start Time: 20:18:51 End Time: 07:07:46 Time On Btm: 2014.06.30 @ 23:02:31  
 Time Off Btm: 2014.07.01 @ 02:43:46

TEST COMMENT: IF: Strong blow . B.O.B. in 13 mins.  
 IS: No check hose nipple on floor manifold broke working on it.  
 FF: Strong blow . B.O.B. in 30 secs. G.T.S. in 1 min. Gauged gas see report.  
 FS: Weak blow . Surf., - 1 1/2".



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.26	103.02	Initial Hydro-static
15	122.20	102.57	Open To Flow (1)
25	153.49	103.26	Shut-In(1)
94	955.68	105.19	End Shut-In(1)
95	181.83	105.04	Open To Flow (2)
155	216.85	106.04	Shut-In(2)
221	719.64	107.31	End Shut-In(2)
222	1688.29	107.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	GOWCM 4% m 6% w 35% g 55% o	0.15
31.00	GOWCM 4% m 6% w 35% g 55% o	0.43
61.00	GOWCM 4% m 8% w 38% g 50% o	0.86
183.00	GOWCM 2% m 8% w 45% g 45% o	2.57
61.00	GOWCM 10% m 10% w 15% g 65% o	0.86
122.00	GOWCM 5% m 10% w 41% o 44% g	1.71

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	5.00	7.26
Last Gas Rate	0.13	7.00	8.01
Max. Gas Rate	0.13	7.00	8.01







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54189

**DST#: 3**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 20:18:46

## Tool Information

Drill Pipe:	Length: 3496.00 ft	Diameter: 3.80 inches	Volume: 49.04 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 49.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3535.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Shale packer in place of bottom packer.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3508.00	
Shut In Tool	5.00			3513.00	
Hydraulic tool	5.00			3518.00	
Jars	5.00			3523.00	
Safety Joint	3.00			3526.00	
Packer	4.00			3530.00	28.00 Bottom Of Top Packer
Packer	5.00			3535.00	
Stubb	1.00			3536.00	
Recorder	0.00	6719	Outside	3536.00	
Recorder	0.00	6773	Inside	3536.00	
Perforations	1.00			3537.00	
Change Over Sub	1.00			3538.00	
Blank Spacing	61.00			3599.00	
Change Over Sub	1.00			3600.00	
Perforations	12.00			3612.00	
Bullnose	3.00			3615.00	80.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>108.00</b>				



**TRILOBITE  
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# DRILL STEM TEST REPORT

## FLUID SUMMARY

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54189

**DST#: 3**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 20:18:46

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 45.00 sec/qt  
Water Loss: 10.38 in<sup>3</sup>  
Resistivity: 0.00 ohm.m  
Salinity: 5000.00 ppm  
Filter Cake: 0.20 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: 5000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GOWCM 4%m 6%w 35%g 55%o	0.148
31.00	GOWCM 4%m 6%w 35%g 55%o	0.435
61.00	GOWCM 4%m 8%w 38%g 50%o	0.856
183.00	GOWCM 2%m 8%w 45%g 45%o	2.567
61.00	GOWCM 10%m 10%w 15%g 65%o	0.856
122.00	GOWCM 5%m 10%w 41%o 44%g	1.711
61.00	GOM 10%g 35%o 55%m	0.856

Total Length: 549.00 ft      Total Volume: 7.429 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: MattSmith

Laboratory Name:

Laboratory Location:

Recovery Comments: Gauge gas but gas did not carry required 15 psi.



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54189

**DST#: 3**

ATTN: Chris Bean

Test Start: 2014.06.30 @ 20:18:46

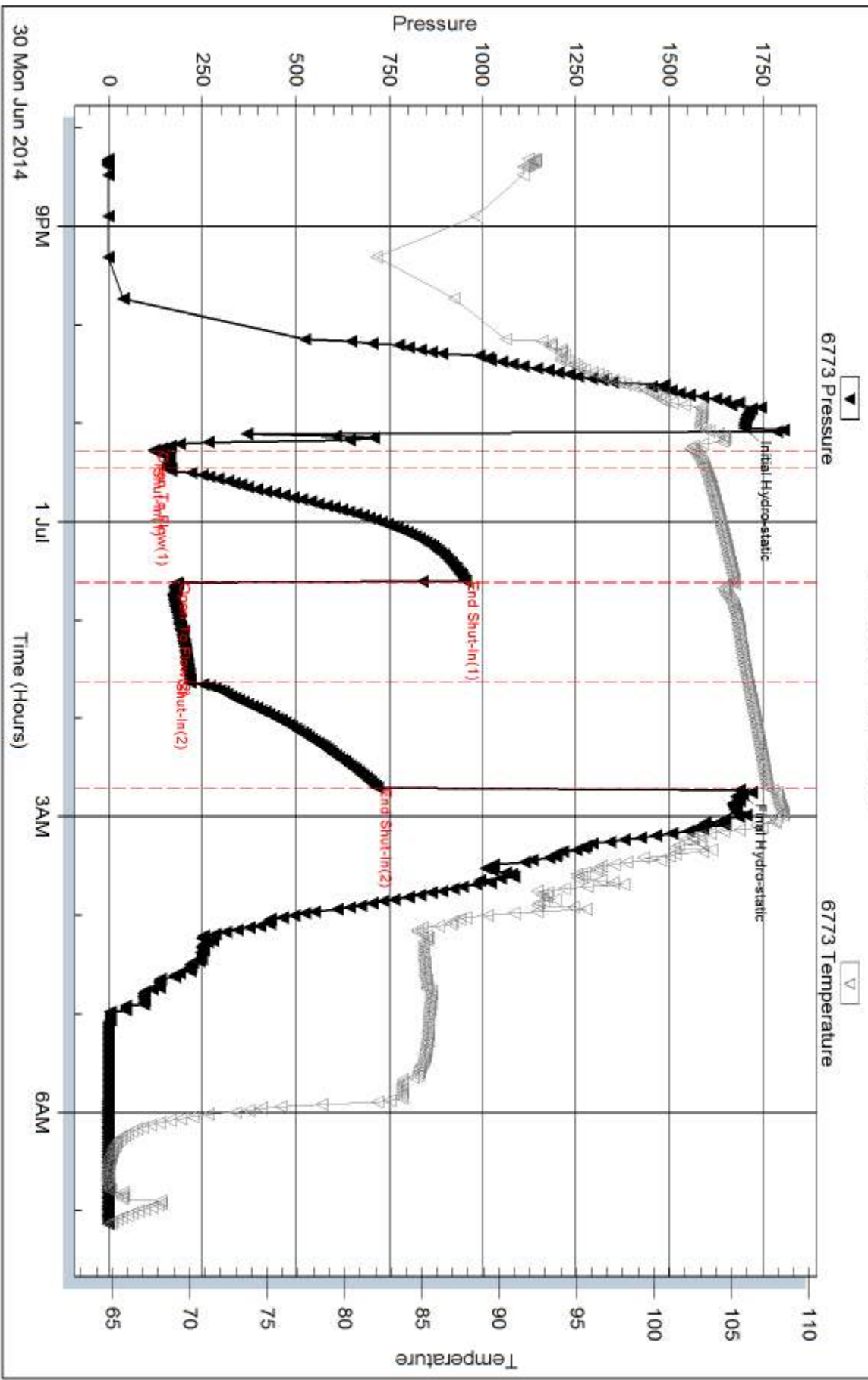
### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	30	0.13	5.00	7.26
2	40	0.13	5.50	7.45
2	50	0.13	6.00	7.63
2	70	0.13	7.00	8.01

### Pressure vs. Time

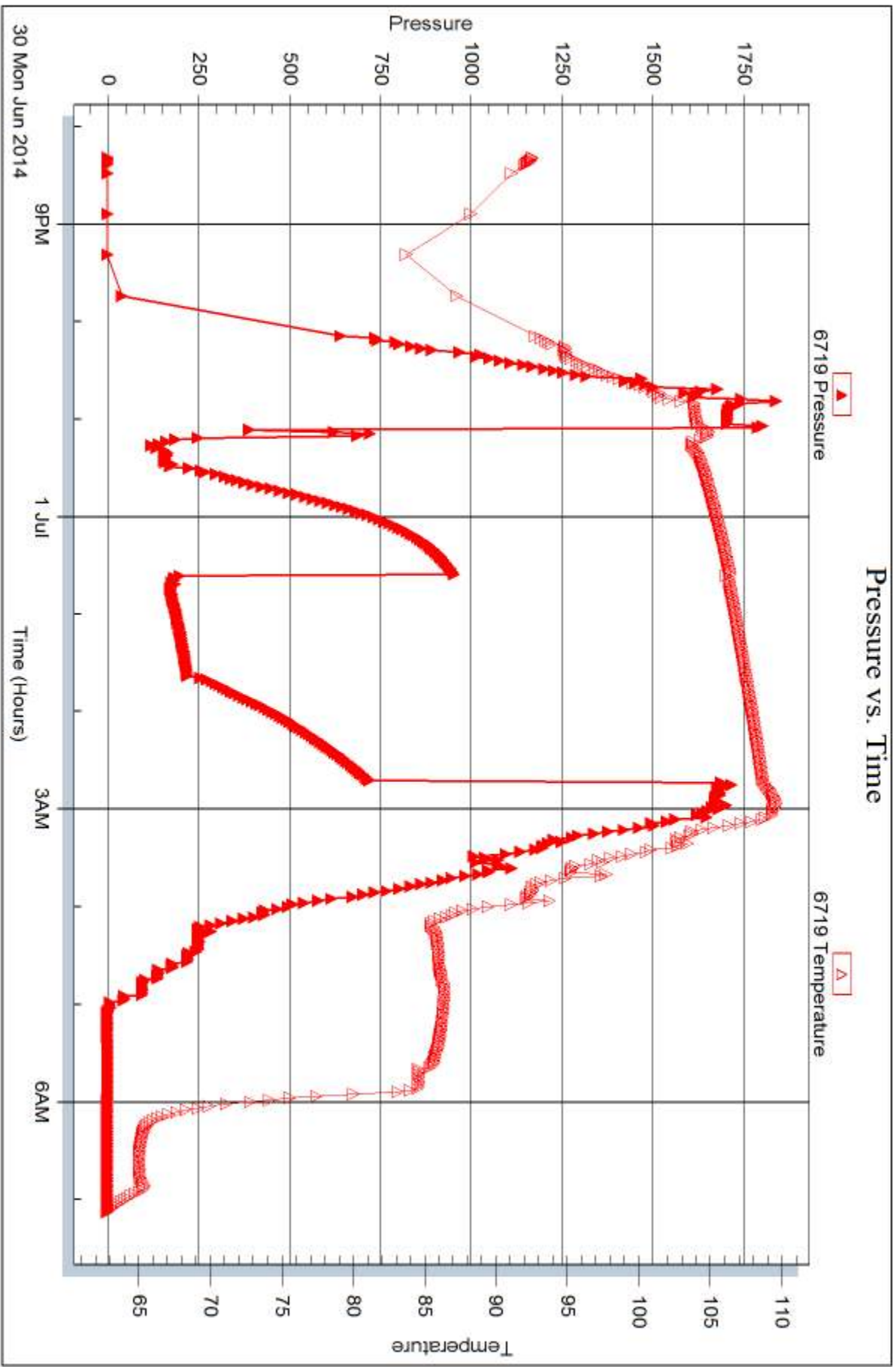


Serial #: 6719

Outside StrataKan Exploration, LLC.

Fanshier #15-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 54189

Printed: 2014.07.08 @ 09:27:44



## DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration, LLC.**

204 W. Mill St.  
Plainville, KS 67663

ATTN: Chris Bean

### **Fanshier #15-1**

#### **15-22s-13w Stafford,KS**

Start Date: 2014.07.01 @ 18:45:12

End Date: 2014.07.01 @ 23:54:12

Job Ticket #: 54190                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.07.08 @ 09:30:07



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54190

**DST#: 4**

ATTN: Chris Bean

Test Start: 2014.07.01 @ 18:45:12

## GENERAL INFORMATION:

Formation: **Conglomerate - Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:08:42

Time Test Ended: 23:54:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 53

**Interval: 3670.00 ft (KB) To 3745.00 ft (KB) (TVD)**

Reference Elevations: 1898.00 ft (KB)

Total Depth: 3745.00 ft (KB) (TVD)

1891.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6773 Outside**

Press@RunDepth: psig @ 3671.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.01 End Date: 2014.07.01

Last Calib.: 2014.07.02

Start Time: 18:45:17 End Time: 23:54:11

Time On Btm: 2014.07.01 @ 21:02:42

Time Off Btm: 2014.07.01 @ 21:41:42

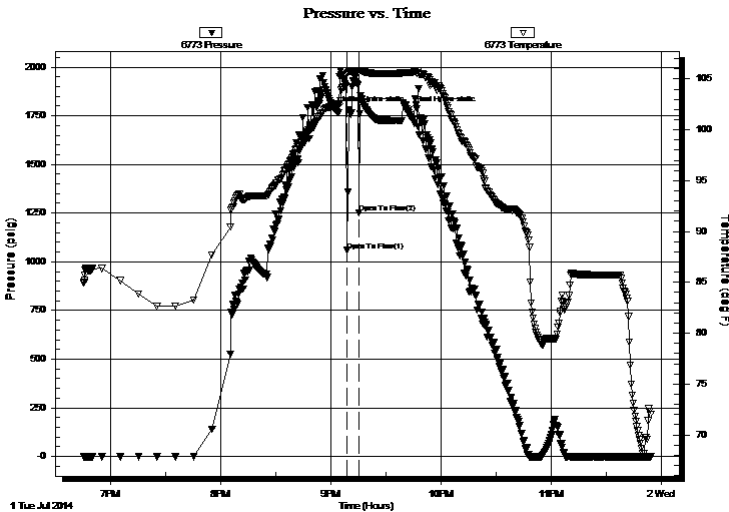
TEST COMMENT: IF: Packer failure. Pulled test.

IS:

FF:

FS:

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1774.79	102.41	Initial Hydro-static
6	1057.76	105.55	Open To Flow (1)
13	1249.79	105.65	Open To Flow (2)
39	1774.37	105.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Drig mud 100%m	0.15
183.00	Drig mud 100%m	2.57

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54190

**DST#: 4**

ATTN: Chris Bean

Test Start: 2014.07.01 @ 18:45:12

## Tool Information

Drill Pipe:	Length: 3622.00 ft	Diameter: 3.80 inches	Volume: 50.81 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 50.96 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3670.00 ft			Final 42000.00 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: Packer failure. Pulled test did not re-test geo choice.

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3643.00	
Shut In Tool	5.00			3648.00	
Hydraulic tool	5.00			3653.00	
Jars	5.00			3658.00	
Safety Joint	3.00			3661.00	
Packer	4.00			3665.00	28.00 Bottom Of Top Packer
Packer	5.00			3670.00	
Stubb	1.00			3671.00	
Recorder	0.00	6719	Inside	3671.00	
Recorder	0.00	6773	Outside	3671.00	
Perforations	1.00			3672.00	
Change Over Sub	1.00			3673.00	
Blank Spacing	61.00			3734.00	
Change Over Sub	1.00			3735.00	
Perforations	7.00			3742.00	
Bullnose	3.00			3745.00	75.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>103.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

StrataKan Exploration, LLC.

**15-22s-13w Stafford,KS**

204 W. Mill St.  
Plainville, KS 67663

**Fanshier #15-1**

Job Ticket: 54190

**DST#: 4**

ATTN: Chris Bean

Test Start: 2014.07.01 @ 18:45:12

## 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:

6000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	Drig mud 100%m	0.148
183.00	Drig mud 100%m	2.567

Total Length: 213.00 ft      Total Volume: 2.715 bbl

Num Fluid Samples: 0

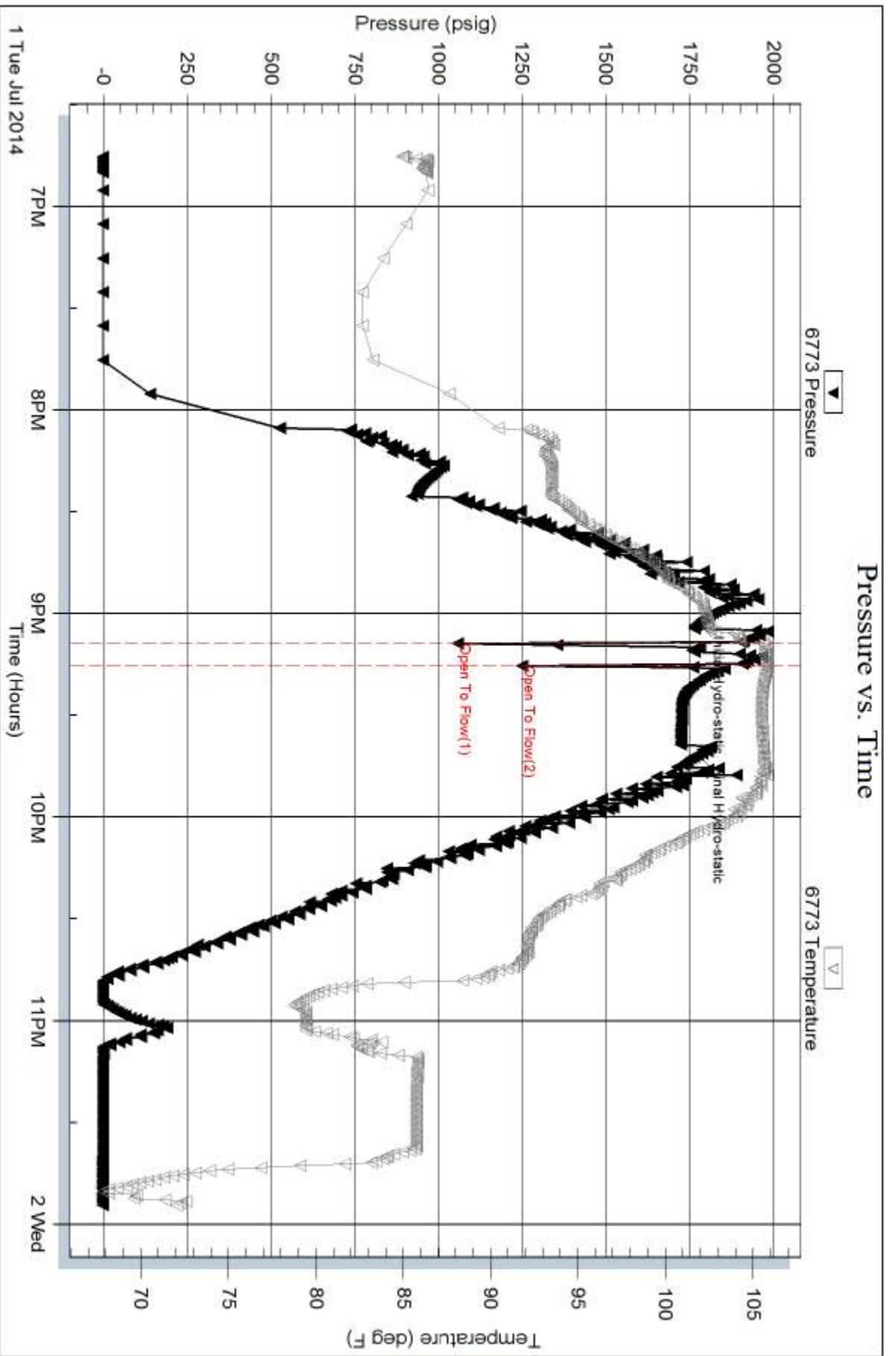
Num Gas Bombs: 0

Serial #: NONE

Laboratory Name:

Laboratory Location:

Recovery Comments: Packer failure.Pulled test.



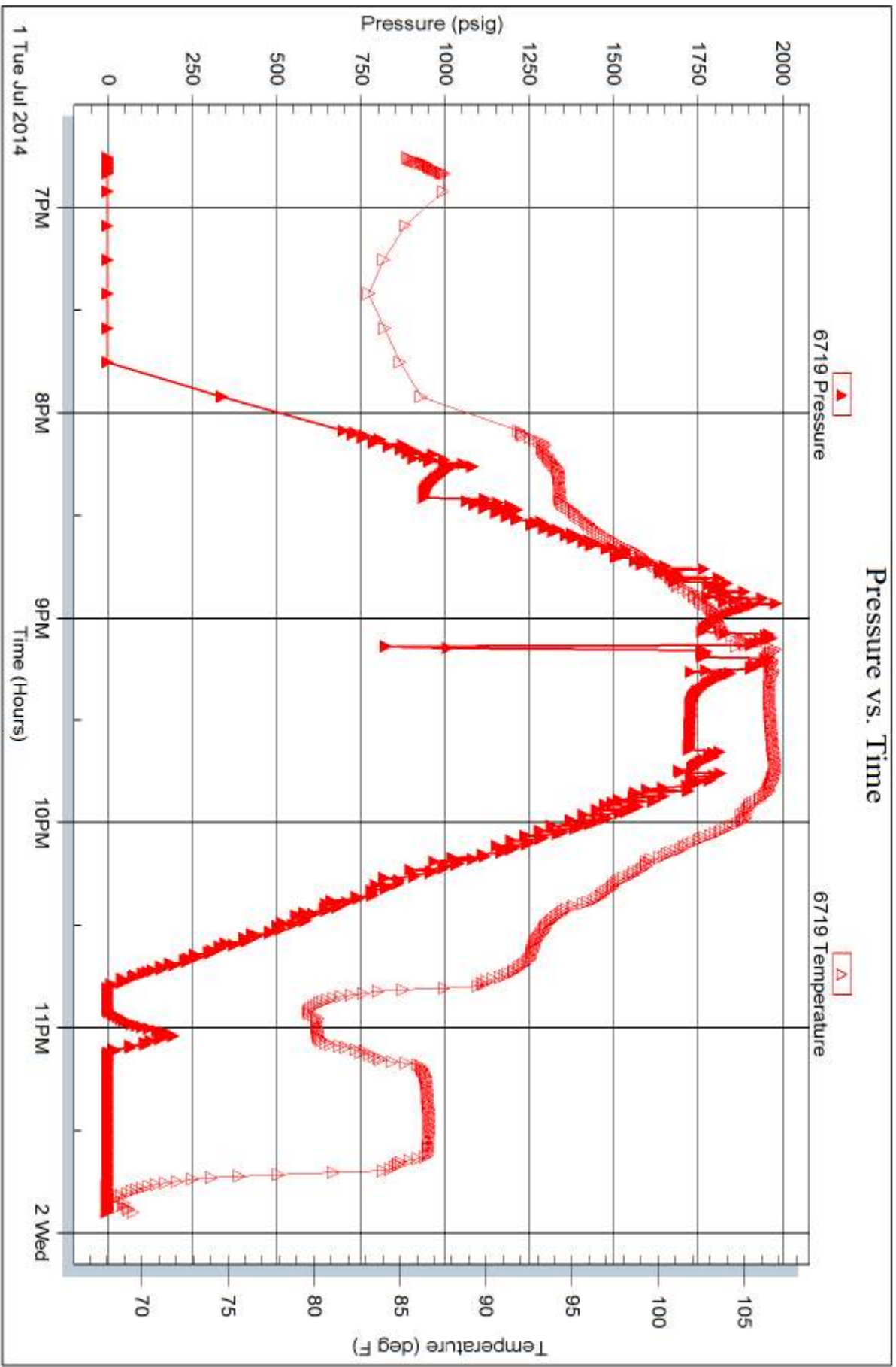
Serial #: 6719

Inside

StrataKan Exploration, LLC.

Fanshier #15-1

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 54190

Printed: 2014.07.08 @ 09:30:08



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54186

Well Name & No. Fanshler #15-1 Test No. 1 Date 6/29/14  
 Company StrataKan Exploration, LLC. (stratakam) Elevation 1898 KB 1891 GL  
 Address 204 W. Mill St. Plainville, KS. 67663  
 Co. Rep / Geo. Chris Bean Rig MAVERICK Rig # 102  
 Location: Sec. 15 Twp. 22s Rge. 13w Co. STAFFORD State KS.

Interval Tested 3396 - 3474 Zone Tested Lansing KC "A-F"  
 Anchor Length 78' Drill Pipe Run 3369 Mud Wt. 8.9  
 Top Packer Depth 3391 Drill Collars Run 30' Vis 50  
 Bottom Packer Depth 3396 Wt. Pipe Run 2 WL 8  
 Total Depth 3474 Chlorides 5,000 ppm System LCM 1 1/2\*\*

Blow Description IF: Strong blow. Surf. - 1 1/2".  
ISI: No blow.  
FF: Strong blow. B.O.B in 41 mins.  
FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>372</u>	<u>G.I.P.</u>	<u>100</u>			
<u>31</u>	<u>GOWCM</u>	<u>4</u>	<u>45</u>	<u>17</u>	<u>37</u>
<u>93</u>	<u>GOWCM</u>	<u>10</u>	<u>5</u>	<u>35</u>	<u>50</u>
<u>31</u>	<u>GWCM TRC OIL</u>	<u>10</u>		<u>60</u>	<u>30</u>
<u>31</u>	<u>GWCM TRC OIL</u>	<u>10</u>		<u>60</u>	<u>30</u>

Rec Total 186' BHT 107° Gravity N.A. API RW .18 @ 92 °F Chlorides 30,000 ppm

(A) Initial Hydrostatic 1632  Test 1150 T-On Location 0430  
 (B) First Initial Flow 50  Jars 250 T-Started 0618  
 (C) First Final Flow 89  Safety Joint 75 T-Open 1118  
 (D) Initial Shut-In 908  Circ Sub \_\_\_\_\_ T-Pulled 1506  
 (E) Second Initial Flow 93  Hourly Standby 300 T-Out 1816  
 (F) Second Final Flow 130  Mileage 58 89.90 \* Comments on bank @ 5:00 a.m.,  
 (G) Final Shut-In 867  Sampler \_\_\_\_\_ suppose to be. Check test  
 (H) Final Hydrostatic 1649  Straddle \_\_\_\_\_ Times - for average

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 2114.90

Initial Open 45  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 60

Sub Total 2114.90

Approved By \_\_\_\_\_ Our Representative Matthew A. Smith

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54187

Well Name & No. Fanshier # 15-1 Test No. 2 Date 6/30/14  
 Company STRATAKAN Exploration, LLC. Elevation 1898 KB 1891 GL  
 Address 204 W. Mill St. Plainville, Ks. 67663  
 Co. Rep / Geo. Chris Bean Rig Maverick Rig # 102  
 Location: Sec. 15 Twp. 22s Rge. 13w Co. STAFFORD State Ks.

Interval Tested 3522 - 3536 Zone Tested Lansing KC "H"  
 Anchor Length 14' Drill Pipe Run 3493 Mud Wt. 9.2  
 Top Packer Depth 3517 Drill Collars Run 30' Vis 52  
 Bottom Packer Depth 3522 Wt. Pipe Run Q WL 10.8  
 Total Depth 3536 Chlorides 6,000 ppm System LCM 1#

Blow Description IF: Weak blow. Surf. - 1/4"  
ISI: No blow.  
FF: No blow.  
FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2'</u>	<u>DRIG 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 2' BHT 104° Gravity N.A. API RW N.C. @ — ° F Chlorides 6,000 ppm

(A) Initial Hydrostatic 1729  Test 1150 T-On Location 0220  
 (B) First Initial Flow 15  Jars 250 T-Started 0237  
 (C) First Final Flow 19  Safety Joint 75 T-Open 0611  
 (D) Initial Shut-In 70  Circ Sub \_\_\_\_\_ T-Pulled 0842  
 (E) Second Initial Flow 20  Hourly Standby \_\_\_\_\_ T-Out 1042  
 (F) Second Final Flow 29  Mileage 58 89.90 Comments \_\_\_\_\_  
 (G) Final Shut-In 47  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1649  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 45  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Extra Recorder \_\_\_\_\_ Total 1814.90  
 Day Standby \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1814.90

Approved By \_\_\_\_\_ Our Representative Matthew A. Smith

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# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54189

Well Name & No. Fanshires # 15-1 Test No. 3 Date 6/30/14  
 Company STRATAKAN Exploration, LLC. Elevation 1898 KB 1891 GL  
 Address 204 W. Mill St. Plamville, KS. 67663  
 Co. Rep / Geo. Chris Bean Rig Maverick Rig # 102  
 Location: Sec. 15 Twp. 22s Rge. 13w Co. STAFFORD State Ks.

Interval Tested 3535 - 3615 Zone Tested Lansing KC "I, S, K"  
 Anchor Length 80' Drill Pipe Run 3496 Mud Wt. 9.3  
 Top Packer Depth 3530 Drill Collars Run 30' Vis 45  
 Bottom Packer Depth 3535 Wt. Pipe Run Q WL 10.4  
 Total Depth 3615 Chlorides 5,000 ppm System LCM 1#

Blow Description IF: Strong blow. B.O.B in 13 mins.  
ISI: No check hose nipple broken on flow manifold worked to fix.  
FF: Strong blow. B.O.B in 30 secs., G.T.S. in 1 min. Gauged gas see Report.  
FST: Weak blow. Surf. - 1/2".

Rec	Feet of	%gas	%oil	%water	%mud
<u>2947</u>	<u>G.I.P.</u>	<u>100</u>			
<u>61</u>	<u>60cm</u>	<u>10</u>	<u>35</u>		<u>55</u>
<u>122</u>	<u>60wcm</u>	<u>44</u>	<u>41</u>	<u>10</u>	<u>5</u>
<u>336</u>	<u>60wcm</u>	<u>45</u>	<u>45</u>	<u>8</u>	<u>2</u>
<u>30</u>	<u>60wcm</u>	<u>35</u>	<u>55</u>	<u>6</u>	<u>4</u>

Rec Total 549' BHT 107° Gravity N.A. API RW N.C @ — °F Chlorides 5,000 ppm

(A) Initial Hydrostatic 1702  Test 1150 T-On Location 1820 (6:20 pm)  
 (B) First Initial Flow 122  Jars 250 T-Started 2018  
 (C) First Final Flow 153  Safety Joint 75 T-Open 2317  
 (D) Initial Shut-In 956  Circ Sub \_\_\_\_\_ T-Pulled 0243  
 (E) Second Initial Flow 182  Hourly Standby ?? 3.25h 325 \* T-Out 0707  
 (F) Second Final Flow 217  Mileage 58.9 89.90 \* Comments suppose to be on  
 (G) Final Shut-In 720  Sampler \_\_\_\_\_ Bank @ 6:45 pm. Check  
 (H) Final Hydrostatic 1688  Straddle \_\_\_\_\_ test time for overage

Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 2139.90  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

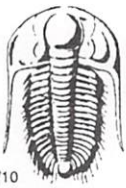
Sub Total 2139.90

Approved By \_\_\_\_\_ Our Representative Matthew A. Smith

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54190

Well Name & No. Fanshler # 15-1 Test No. 4 Date 7/1/14  
 Company STRATAKAN Exploration, LLC. Elevation 1898 KB 1891 GL  
 Address 204 W. Mill St. Plainville, KS. 67663  
 Co. Rep / Geo. CHRIS BEAN Rig Maverick Rig # 102  
 Location: Sec. 15 Twp. 22s Rge. 13w Co. STAFFORD State KS.

Interval Tested 3670 - 3745 Zone Tested Congo + Urola  
 Anchor Length 75' Drill Pipe Run 3622 Mud Wt. 8.6  
 Top Packer Depth 3665 Drill Collars Run 30 Vis 54  
 Bottom Packer Depth 3670 Wt. Pipe Run Q WL 10.8  
 Total Depth 3745 Chlorides 6,000 ppm System LCM 1#

Blow Description IF: Packer Failure. Pulled test.  
 ISI: pulled  
 FF: pulled  
 FSI: pulled

Rec	Feet of	%gas	%oil	%water	%mud
<u>183</u>	<u>Drig mud</u>			<u>100</u>	
<u>30</u>	<u>DRIG mud</u>			<u>100</u>	

Rec Total 213' BHT 105' Gravity N.A. API RW N.C @ — °F Chlorides 6,000 ppm

(A) Initial Hydrostatic <u>1775</u>	<input checked="" type="checkbox"/> Test <u>950</u>	T-On Location <u>1820</u>
(B) First Initial Flow <u>—</u> <u>Pack Failure</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1845</u>
(C) First Final Flow <u>—</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2108</u>
(D) Initial Shut-In <u>—</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2141</u>
(E) Second Initial Flow <u>—</u> <u>Pack Failure</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2354</u>
(F) Second Final Flow <u>—</u>	<input checked="" type="checkbox"/> Mileage <u>58.9</u> <u>89.90</u>	Comments <u>Packer Failure.</u>
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1774</u>	<input type="checkbox"/> Straddle	

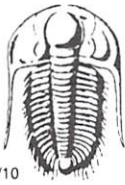
Initial Open Pulled  
 Initial Shut-In \_\_\_\_\_  
 Final Flow \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1614.90  
 MP/DST Disc't \_\_\_\_\_

Sub Total 1614.90

Approved By \_\_\_\_\_ Our Representative Matthew A. Smith

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54191

Well Name & No. Fanshier #15-1 Test No. — Date 7/2/14  
 Company Stratakan Exploration, LLC Elevation 1898 KB 1891 GL  
 Address 204 W. Mill St. Plainville, KS. 67663  
 Co. Rep / Geo. Chris Bean Rig Maverick Rig # 102  
 Location: Sec. 15 Twp. 22s Rge. 13w Co. Stafford State KS.

Interval Tested \_\_\_\_\_ Zone Tested \_\_\_\_\_  
 Anchor Length \_\_\_\_\_ Drill Pipe Run \_\_\_\_\_ Mud Wt. \_\_\_\_\_  
 Top Packer Depth \_\_\_\_\_ Drill Collars Run \_\_\_\_\_ Vis \_\_\_\_\_  
 Bottom Packer Depth \_\_\_\_\_ Wt. Pipe Run \_\_\_\_\_ WL \_\_\_\_\_  
 Total Depth \_\_\_\_\_ Chlorides \_\_\_\_\_ ppm System LCM \_\_\_\_\_  
 Blow Description \_\_\_\_\_

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	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test \_\_\_\_\_ T-On Location 10:00 pm  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started \_\_\_\_\_  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow \_\_\_\_\_  Mileage 89.90 (58) pick up tool \* Comments Pick up tool.  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 89.90  
 Final Flow \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_ Sub Total 89.90

Approved By \_\_\_\_\_ Our Representative [Signature]  
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