



DRILL STEM TEST REPORT

Prepared For: **Shelby Resources L.L.C**

445 Union Blvd Suite 208 Lakewood CO 80228

ATTN: Keith Reavis

Vaughan Trust #1-27

27-21s-17w Pawnee

Start Date: 2014.08.02 @ 19:40:00

End Date: 2014.08.03 @ 02:48:30

Job Ticket #: 60351 DST #: 1

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

Printed: 2014.08.03 @ 03:20:50



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shelby Resources L.L.C

27-21s-17w Pawnee

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Vaughan Trust #1-27

ATTN: Keith Reavis

Job Ticket: 60351

DST#: 1

Test Start: 2014.08.02 @ 19:40:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:52:00

Time Test Ended: 02:48:30

Interval: 3780.00 ft (KB) To 3890.00 ft (KB) (TVD)

Total Depth: 3890.00 ft (KB) (TVD)

Hole Diameter: 6.75 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3335-Great Bend - 60

Reference Elevations: 2055.00 ft (KB)

2046.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6551

Press@RunDepth: 1106.40 psig @ ft (KB)

Start Date: 2014.08.02

End Date: 2014.08.03

Start Time: 19:40:00

End Time: 02:48:30

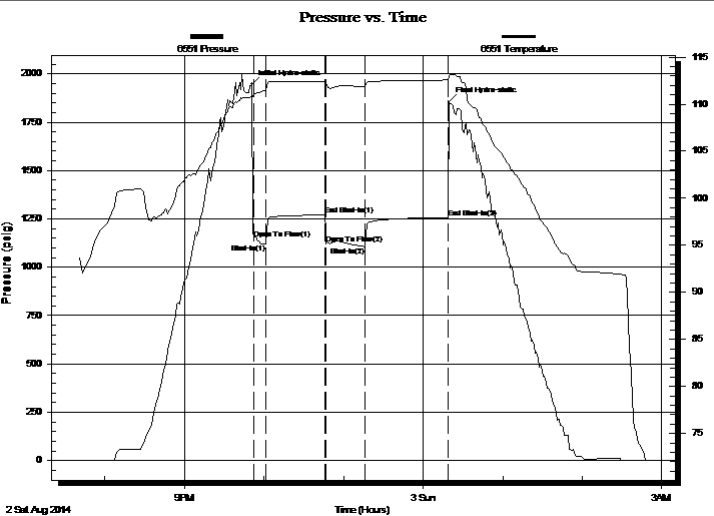
Capacity: 5000.00 psig

Last Calib.: 2014.08.03

Time On Btm: 2014.08.02 @ 21:51:00

Time Off Btm: 2014.08.03 @ 00:19:30

TEST COMMENT: 1st Opening 10 Minutes-Strong blow built bottom of bucket in 30 sec gas to surface 2 minutes see gas report
1st Shut-in 45 Minutes-Yes blow back
2nd Opening 30 Minutes-Strong blow built bottom of bucket in 30 sec gas sample was taken
2nd Shut-in 60 Minutes-Yes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1945.11	110.92	Initial Hydro-static
1	1144.35	111.14	Open To Flow (1)
11	1122.17	111.53	Shut-In(1)
55	1269.65	112.38	End Shut-In(1)
56	1121.93	112.22	Open To Flow (2)
86	1106.40	111.87	Shut-In(2)
148	1256.48	112.56	End Shut-In(2)
149	1854.85	112.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud 100%	0.59
0.00	3458 feet of gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	1.50	26.50	2500.56
Last Gas Rate	1.50	72.00	5282.36
Max. Gas Rate	1.50	72.00	5282.36



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Time Test Ended: 02:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3335-Great Bend - 60

Interval: 3780.00 ft (KB) To 3890.00 ft (KB) (TVD)

Reference Elevations: 2055.00 ft (KB)

Total Depth: 3890.00 ft (KB) (TVD)

2046.00 ft (CF)

Hole Diameter: 6.75 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8938

Press@RunDepth: 1256.62 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.08.02

End Date: 2014.08.03

Last Calib.: 2014.08.03

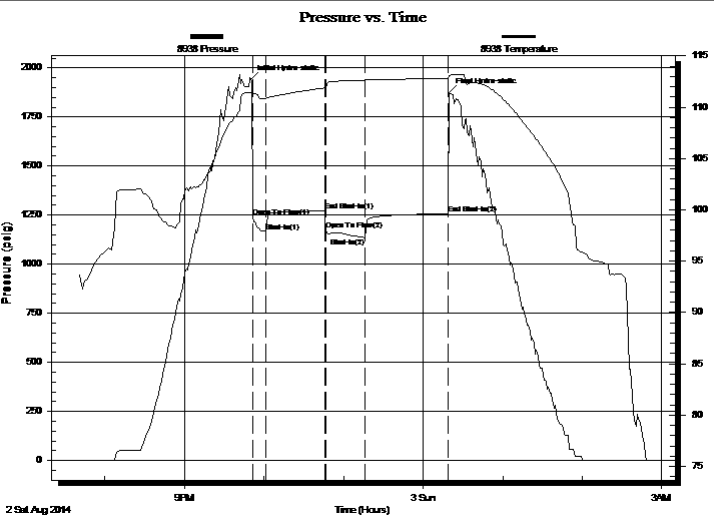
Start Time: 19:40:00

End Time: 02:49:00

Time On Btm: 2014.08.02 @ 21:50:00

Time Off Btm: 2014.08.03 @ 00:19:30

TEST COMMENT: 1st Opening 10 Minutes-Strong blow built bottom of bucket in 30 sec gas to surface 2 minutes see gas report
 1st Shut-in 45 Minutes-Yes blow back
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 30 sec gas sample was taken
 2nd Shut-in 60 Minutes-Yes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1941.22	111.44	Initial Hydro-static
2	1240.60	111.30	Open To Flow (1)
12	1163.82	110.87	Shut-In(1)
56	1269.94	111.86	End Shut-In(1)
57	1174.77	111.91	Open To Flow (2)
87	1135.07	112.60	Shut-In(2)
149	1256.62	112.82	End Shut-In(2)
150	1873.25	113.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud 100%	0.59
0.00	3458 feet of gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	1.50	26.50	2500.56
Last Gas Rate	1.50	72.00	5282.36
Max. Gas Rate	1.50	72.00	5282.36



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TOOL DIAGRAM

Shelby Resources L.L.C

27-21s-17w Pawnee

445 Union Blvd Suite 208 Lakewood CO 80228

Vaughan Trust #1-27

ATTN: Keith Reavis

Job Ticket: 60351

DST#: 1

Test Start: 2014.08.02 @ 19:40:00

Tool Information

Drill Pipe:	Length: 3573.00 ft	Diameter: 3.80 inches	Volume: 50.12 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 51.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 81000.00 lb
Depth to Top Packer:	3780.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	110.00 ft			
Tool Length:	138.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Gas to surface see gas report /Gas sample was taken /H2S was present/

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3757.00	
Hydraulic tool	5.00			3762.00	
Jars	6.00			3768.00	
Safety Joint	2.00			3770.00	
Packer	5.00			3775.00	28.00 Bottom Of Top Packer
Packer	5.00			3780.00	
Anchor	3.00			3783.00	
Change Over Sub	0.75			3783.75	
Drill Pipe	63.50			3847.25	
Change Over Sub	0.75			3848.00	
Anchor	37.00			3885.00	
Recorder	1.00			3886.00	
Recorder	1.00			3887.00	
Bullnose	3.00			3890.00	110.00 Bottom Packers & Anchor

Total Tool Length: 138.00



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FLUID SUMMARY

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Vaughan Trust #1-27

Job Ticket: 60351

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.08.02 @ 19:40:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Mud 100%	0.590
0.00	3458 feet of gas in pipe	0.000

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

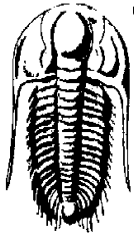
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gas to surface see gas report /Gas sample was taken/H2S gas was present/



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GAS RATES

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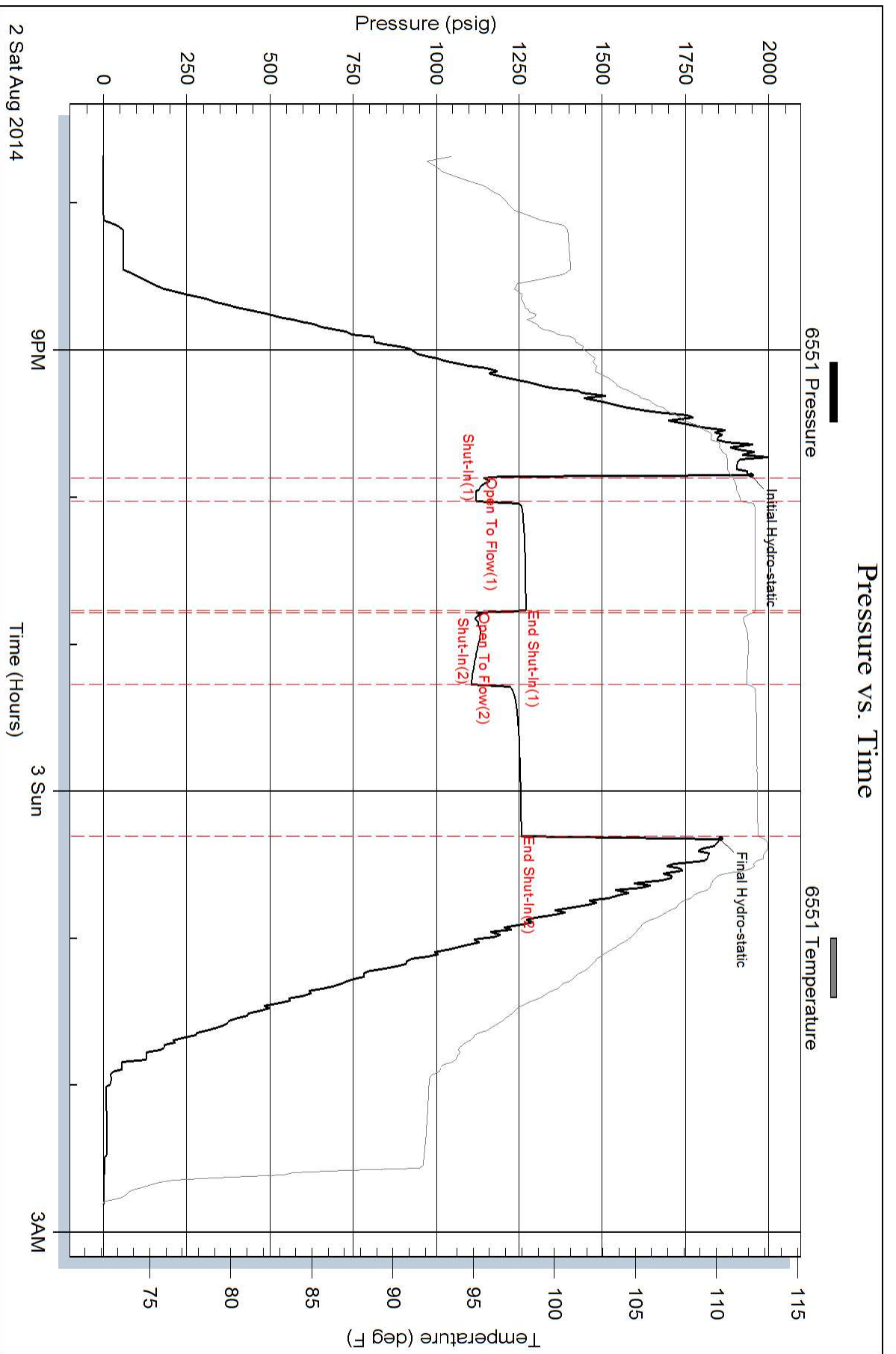
Test Start: 2014.08.02 @ 19:40:00

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)
1	10	1.50	26.50	2500.56
2	10	1.50	35.00	3020.24
2	20	1.50	72.00	5282.36
2	30	1.50	72.00	5282.36



Pressure vs. Time

