



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Operating Co
125 N Market Ste 1000
Wichita, KS 67202
ATTN: Bill Klaver

19-32S-12W Barber
Warren Fee 12
Job Ticket: 51808 **DST#: 1**
Test Start: 2014.07.12 @ 21:58:55

GENERAL INFORMATION:

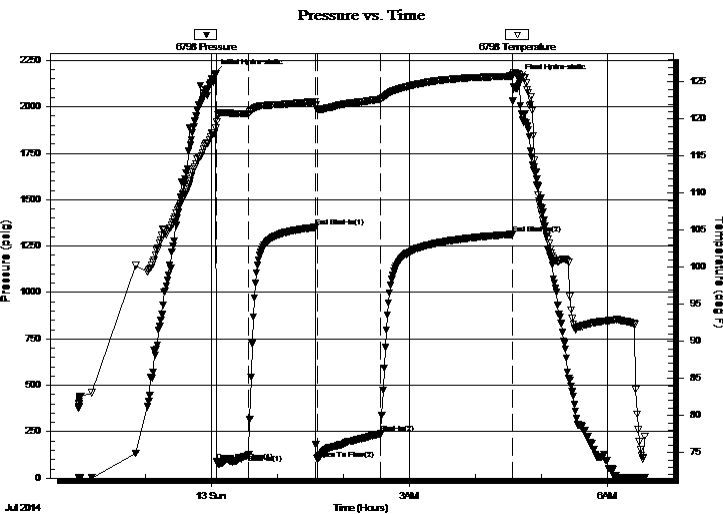
Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:04:40
Time Test Ended: 06:33:40
Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74
Interval: **4448.00 ft (KB) To 4496.00 ft (KB) (TVD)**
Reference Elevations: 1658.00 ft (KB)
Total Depth: 4496.00 ft (KB) (TVD) 1646.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 12.00 ft

Serial #: 6798

Inside

Press@RunDepth: 239.71 psig @ 4449.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.07.12 End Date: 2014.07.13 Last Calib.: 2014.07.13
Start Time: 21:58:56 End Time: 06:33:40 Time On Btm: 2014.07.13 @ 00:02:40
Time Off Btm: 2014.07.13 @ 04:38:55

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, GTS in 22 minutes, Gauged & Caught Sample
IS: Weak Surface Blow Back
FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
FS: Weak Surface Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2180.54	118.11	Initial Hydro-static
2	91.67	119.67	Open To Flow (1)
31	127.29	120.77	Shut-In(1)
92	1351.11	122.36	End Shut-In(1)
94	101.39	121.38	Open To Flow (2)
151	239.71	122.69	Shut-In(2)
271	1313.85	125.79	End Shut-In(2)
277	2153.07	126.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	3875 GIP	0.00
120.00	GOCM 10%G 20%O 70%M	0.59
376.00	GOCM 10%G 40%O 50%M	4.11
62.00	GCM 30%G 70%M	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	22.00	57.74
Last Gas Rate	0.25	34.00	76.78
Max. Gas Rate	0.25	34.00	76.78



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FLUID SUMMARY

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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: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 0.02 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	3875 GIP	0.000
120.00	GOCM 10%G 20%O 70%M	0.590
376.00	GOCM 10%G 40%O 50%M	4.108
62.00	GCM 30%G 70%M	0.870

Total Length: 558.00 ft Total Volume: 5.568 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:



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GAS RATES

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Job Ticket: 51808

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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	30	0.25	22.00	57.74
2	10	0.25	15.00	46.64
2	20	0.25	20.00	54.57
2	30	0.25	26.00	64.09
2	40	0.25	30.00	70.44
2	50	0.25	32.00	73.61
2	60	0.25	34.00	76.78

