



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co
 125 N Market Ste 1000
 Wichita, KS 67202
 ATTN: Scott Alberg

35-31S-12W Barber

Benefiel 3

Job Ticket: 50924

DST#: 1

Test Start: 2013.05.12 @ 22:12:36

GENERAL INFORMATION:

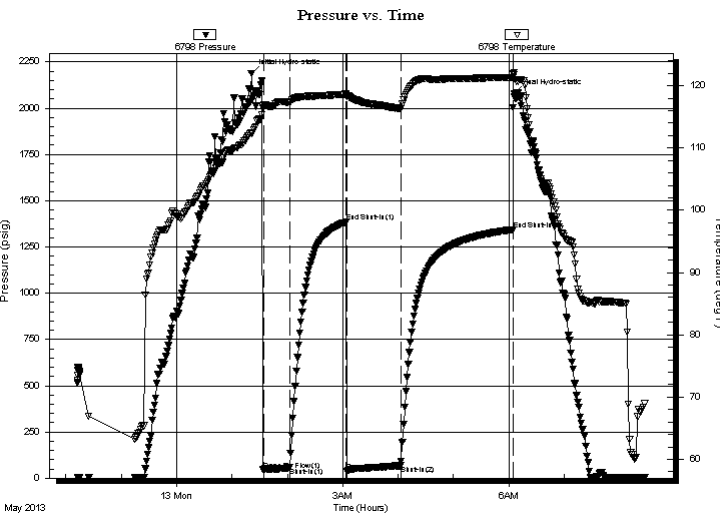
Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:33:51
 Time Test Ended: 08:27:36
 Interval: **4377.00 ft (KB) To 4405.00 ft (KB) (TVD)**
 Total Depth: 4405.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Leal Cason
 Unit No: 45
 Reference Elevations: 1631.00 ft (KB)
 1619.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 6798

Inside

Press @ Run Depth: 68.42 psig @ 4378.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.12 End Date: 2013.05.13 Last Calib.: 2013.05.13
 Start Time: 22:12:37 End Time: 08:27:36 Time On Btm: 2013.05.13 @ 01:20:51
 Time Off Btm: 2013.05.13 @ 06:05:36

TEST COMMENT: IF: Strong Blow , BOB in 45 seconds
 IS: No Blow Back
 FF: Strong Blow , BOB immediate, GTS in 4 minutes, Gauged Gas
 GS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2188.81	112.37	Initial Hydro-static
13	45.15	116.77	Open To Flow (1)
42	56.71	117.29	Shut-In(1)
103	1383.39	118.65	End Shut-In(1)
104	36.63	118.33	Open To Flow (2)
162	68.42	116.28	Shut-In(2)
284	1344.20	121.37	End Shut-In(2)
285	2080.82	122.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4158 GIP	0.00
63.00	GSY WOCM 18%G 20%W 30%O 32%M	0.31
140.00	GSY WOCM 30%G 15%W 30%O 25%M	1.15

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	7.00	33.95
Last Gas Rate	0.25	8.00	35.54
Max. Gas Rate	0.25	10.00	38.71



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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: 110000 ppm	
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 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	4158 GIP	0.000
63.00	GSY WOCM 18%G 20%W 30%O 32%M	0.310
140.00	GSY WOCM 30%G 15%W 30%O 25%M	1.153

Total Length: 203.00 ft Total Volume: 1.463 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW w as .075 @ 70 degrees



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GAS RATES

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35-31S-12W Barber

125 N Market Ste 1000
Wichita, KS 67202

Benefiel 3

Job Ticket: 50924

DST#: 1

ATTN: Scott Alberg

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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)
2	10	0.25	7.00	33.95
2	20	0.25	10.00	38.71
2	30	0.25	8.00	35.54
2	40	0.25	8.00	35.54
2	50	0.25	8.00	35.54
2	60	0.25	8.00	35.54

Pressure vs. Time

