



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Herman L Loeb
PO Box 838
Lawrenceville, IL 62439
ATTN: Jon Christensen

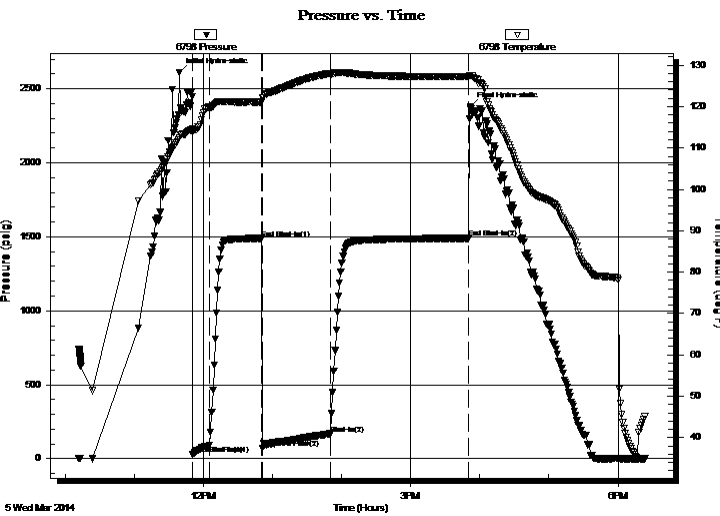
19-27S-18W Kiowa
Randel 1-19
Job Ticket: 51962 **DST#: 1**
Test Start: 2014.03.05 @ 10:11:26

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:50:41
Time Test Ended: 18:23:11
Interval: **4736.00 ft (KB) To 4793.00 ft (KB) (TVD)**
Total Depth: 4793.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74
Reference Elevations: 2206.00 ft (KB)
2193.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 6798 Inside
Press @ Run Depth: 166.65 psig @ 4737.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.03.05 End Date: 2014.03.05 Last Calib.: 2014.03.05
Start Time: 10:11:27 End Time: 18:23:11 Time On Btm: 2014.03.05 @ 11:39:11
Time Off Btm: 2014.03.05 @ 15:51:56

TEST COMMENT: IF: Strong Blow , BOB in 6 minutes
IS: Weak Surface Blow Back
FF: Strong Blow , BOB in 10 seconds, GTS in 41 minutes, Gauged & Caught Sample
FSI: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2610.21	112.54	Initial Hydro-static
12	32.61	114.09	Open To Flow (1)
26	90.00	119.68	Shut-In(1)
71	1488.74	121.09	End Shut-In(1)
72	69.20	122.17	Open To Flow (2)
131	166.65	127.98	Shut-In(2)
251	1489.71	127.19	End Shut-In(2)
253	2375.75	127.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4366 GIP	0.00
174.00	Water	0.86
62.00	GMCW 10%G 30%M 60%W	0.30
124.00	GCM 15%G 85%M	1.17

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	13.00	100.37
Last Gas Rate	0.38	17.00	115.03
Max. Gas Rate	0.38	17.00	115.03



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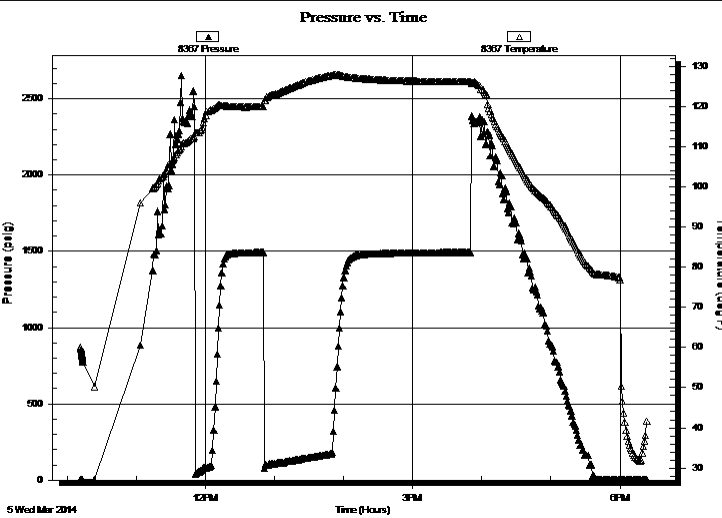
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Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74
Reference Elevations: 2206.00 ft (KB)
2193.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8367 **Outside**
Press @ Run Depth: psig @ 4737.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.03.05 End Date: 2014.03.05 Last Calib.: 2014.03.05
Start Time: 10:11:27 End Time: 18:23:11 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 6 minutes
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FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4366 GIP	0.00
174.00	Water	0.86
62.00	GMCW 10%G 30%M 60%W	0.30
124.00	GCM 15%G 85%M	1.17

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	13.00	100.37
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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: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	85000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 0.02 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4366 GIP	0.000
174.00	Water	0.856
62.00	GMCW 10%G 30%M 60%W	0.305
124.00	GCM 15%G 85%M	1.175

Total Length: 360.00 ft Total Volume: 2.336 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW was .15 @ 43 degrees

