



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company
250 N Waterfront
Ste. 300
Wichita Ks 67202
ATTN: Paul Gunzelman

Frahm A 1-18
18/10s/34w TregoKS
Job Ticket: 042166 **DST#: 1**
Test Start: 2011.03.30 @ 05:04:15

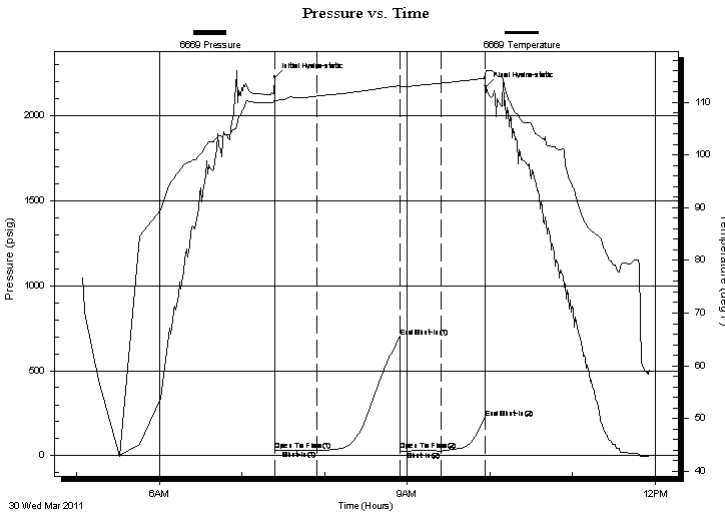
GENERAL INFORMATION:

Formation: **LKC "K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:24:00
Time Test Ended: 11:56:00
Interval: **4394.00 ft (KB) To 4424.00 ft (KB) (TVD)**
Total Depth: 4424.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48
Reference Elevations: 3248.00 ft (KB)
3243.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 Outside
Press @ Run Depth: 28.87 psig @ 4419.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.03.30 End Date: 2011.03.30 Last Calib.: 2011.03.30
Start Time: 05:04:15 End Time: 11:56:00 Time On Btm: 2011.03.30 @ 07:23:45
Time Off Btm: 2011.03.30 @ 09:57:15

TEST COMMENT: IF: Built to 1/8" blow
IS: No return blow
FF: No blow
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.20	110.64	Initial Hydro-static
1	30.95	110.37	Open To Flow (1)
31	30.64	111.18	Shut-In(1)
91	700.59	113.15	End Shut-In(1)
91	29.30	112.96	Open To Flow (2)
121	28.87	113.66	Shut-In(2)
153	223.51	114.60	End Shut-In(2)
154	2173.08	115.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100%	0.02

Gas Rates

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



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Job Ticket: 042166 **DST#: 1**
Test Start: 2011.03.30 @ 05:04:15

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

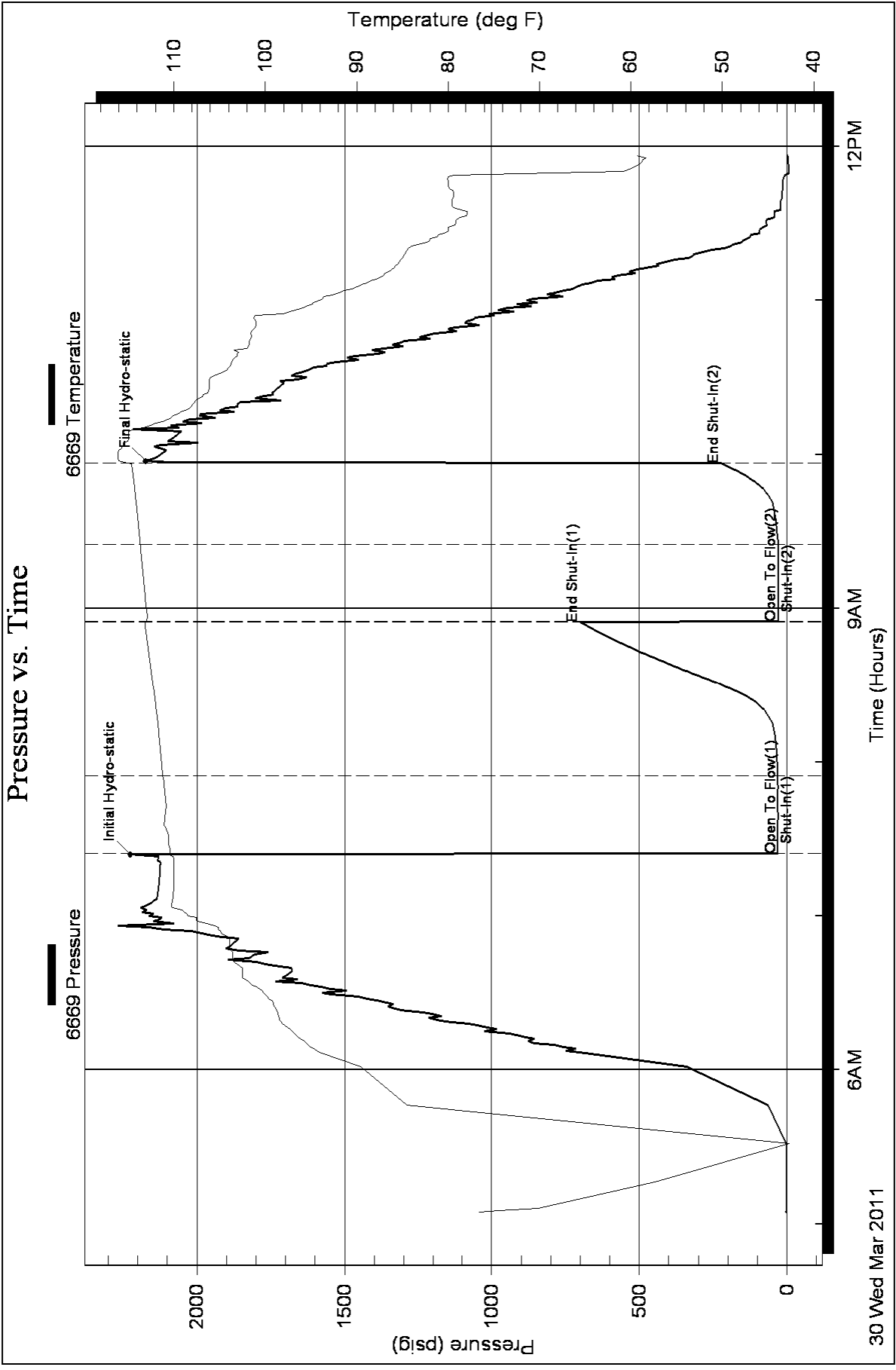
Length ft	Description	Volume bbl
5.00	m 100%	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:





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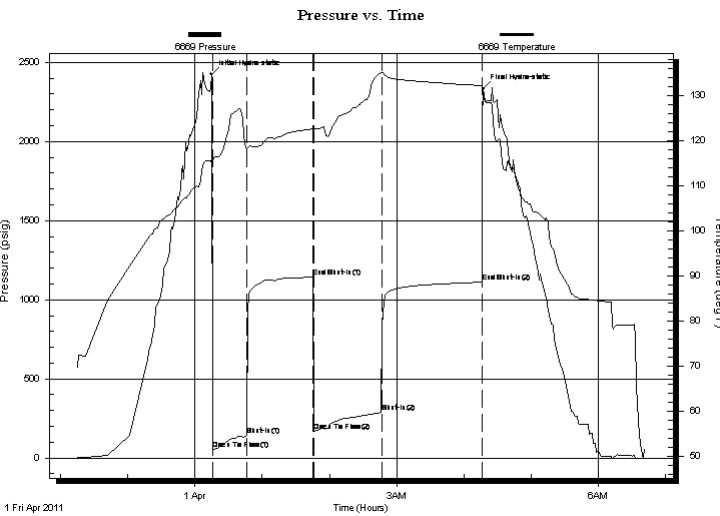
Frahm A 1-18
18/10s/34w TregoKS
Job Ticket: 042167 **DST#: 2**
Test Start: 2011.03.31 @ 22:15:15

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:16:15
Time Test Ended: 06:41:15
Interval: **4700.00 ft (KB) To 4762.00 ft (KB) (TVD)**
Total Depth: 4762.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48
Reference Elevations: 3248.00 ft (KB)
3243.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 Outside
Press @ Run Depth: 286.15 psig @ 4757.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.03.31 End Date: 2011.04.01 Last Calib.: 2011.04.01
Start Time: 22:15:15 End Time: 06:41:15 Time On Btm: 2011.04.01 @ 00:14:45
Time Off Btm: 2011.04.01 @ 04:17:30

TEST COMMENT: IF: Built to 8" blow
IS: No return blow
FF: Built to 8" blow
FS: No return blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2425.05	115.74	Initial Hydro-static
2	52.53	115.87	Open To Flow (1)
32	141.24	118.16	Shut-In(1)
91	1142.09	122.67	End Shut-In(1)
92	167.11	122.53	Open To Flow (2)
152	286.15	135.14	Shut-In(2)
242	1111.18	132.30	End Shut-In(2)
243	2332.44	129.67	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
477.00	mcw 10% m 90% w	2.35
124.00	m 100% m	1.74

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



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Test Start: 2011.03.31 @ 22:15:15

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 7500 ppm
Viscosity: 69.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.97 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 6000.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
477.00	mcw 10%m 90%w	2.346
124.00	m 100%m	1.739

Total Length: 601.00 ft Total Volume: 4.085 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW=.480@49.5*=7500 ppm

