



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N. Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**Wigginton #1-18**  
**18/9s/29w/SheridankS**  
Job Ticket: 43370 **DST#: 1**  
Test Start: 2011.07.22 @ 20:30:00

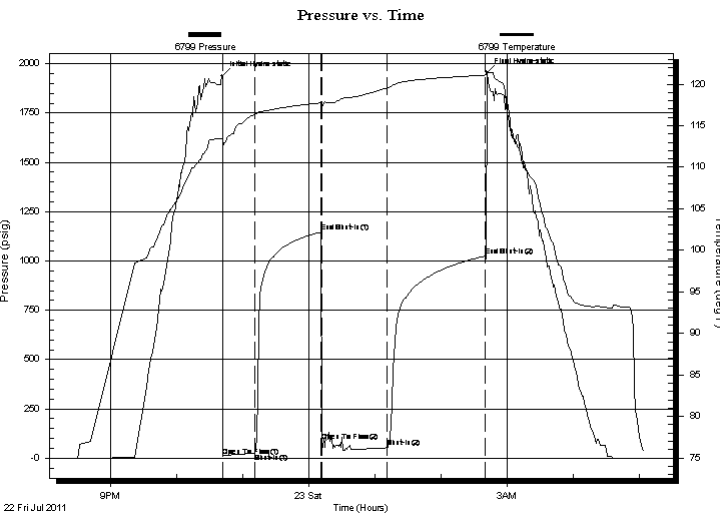
## GENERAL INFORMATION:

Formation: **LKC "C"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 22:41:45  
Time Test Ended: 05:05:15  
Interval: **3904.00 ft (KB) To 3930.00 ft (KB) (TVD)**  
Total Depth: 3930.00 ft (KB) (TVD)  
Hole Diameter: 7.78 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole  
Tester: Kevin Mack  
Unit No: 43  
Reference Elevations: 2810.00 ft (KB)  
2808.00 ft (CF)  
KB to GR/CF: 2.00 ft

## Serial #: 6799 Inside

Press @ Run Depth: 52.85 psig @ 3905.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2011.07.22 End Date: 2011.07.23 Last Calib.: 2011.07.23  
Start Time: 20:30:05 End Time: 05:05:15 Time On Btm: 2011.07.22 @ 22:41:30  
Time Off Btm: 2011.07.23 @ 02:41:45

TEST COMMENT: IF: Surface blow built to 1 3/4"  
IS: No Return  
FF: Surfa blow started at 18 min. Built to 1 1/4"  
FS: No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1938.85	113.50	Initial Hydro-static
1	10.50	112.28	Open To Flow (1)
30	25.31	116.40	Shut-In(1)
90	1145.53	117.76	End Shut-In(1)
91	85.24	117.40	Open To Flow (2)
150	52.85	119.55	Shut-In(2)
239	1024.57	121.10	End Shut-In(2)
241	1956.21	121.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 95M 5o	0.30
40.00	OCM 90M 10o	0.20

## Gas Rates

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



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**FLUID SUMMARY**

Murfin Drilling Co.

**Wigginton #1-18**

250 N. Water STE #300  
Wichita, KS 67202

**18/9s/29w/SheridankS**

Job Ticket: 43370

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2011.07.22 @ 20:30:00

## 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: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	OCM 95M 5o	0.295
40.00	OCM 90M 10o	0.197

Total Length: 100.00 ft      Total Volume: 0.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

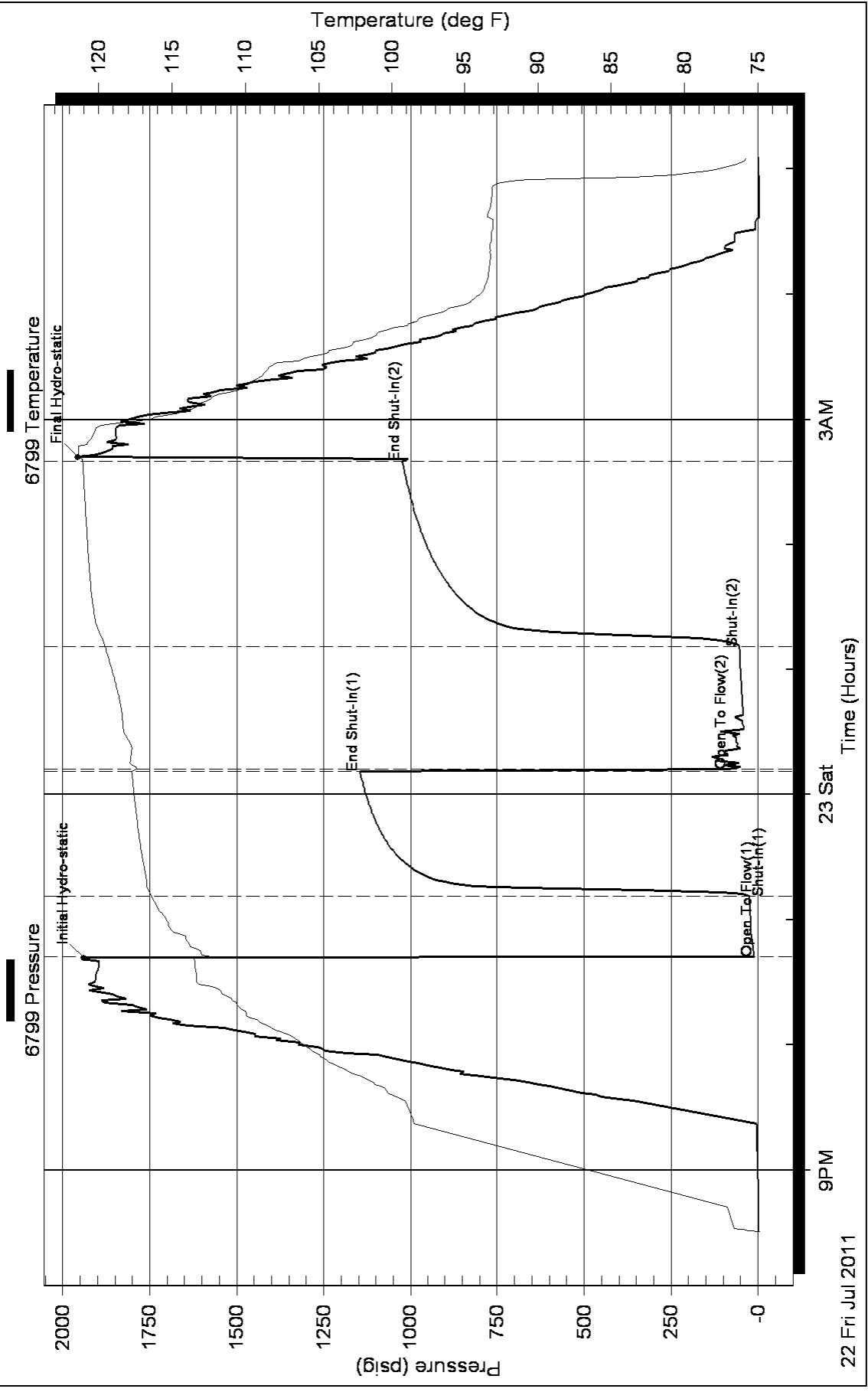
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





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ATTN: Jeff Christian

**Wigginton #1-18**  
**18/9s/29w/SheridankS**  
Job Ticket: 43371 **DST#: 2**  
Test Start: 2011.07.23 @ 15:42:00

## GENERAL INFORMATION:

Formation: **LKC "D,E,F"**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole  
 Time Tool Opened: 17:33:45 Tester: Kevin Mack  
 Time Test Ended: 22:23:15 Unit No: 43  
**Interval: 3927.00 ft (KB) To 3977.00 ft (KB) (TVD)** Reference Elevations: 2810.00 ft (KB)  
 Total Depth: 3977.00 ft (KB) (TVD) 2808.00 ft (CF)  
 Hole Diameter: 7.78 inches Hole Condition: Good KB to GR/CF: 2.00 ft

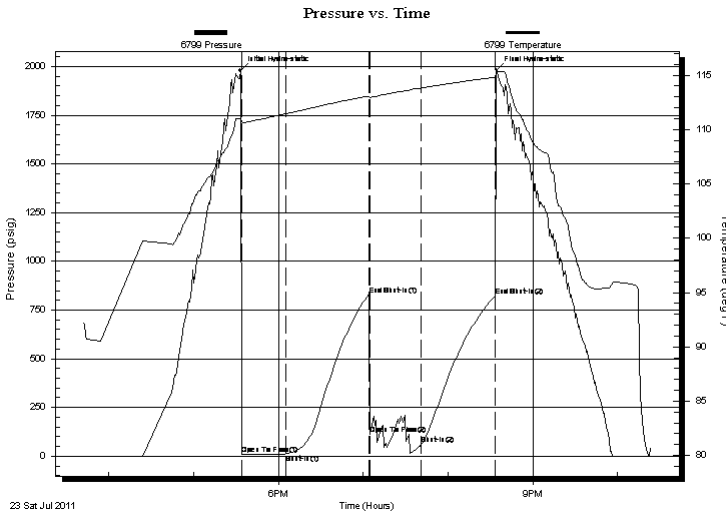
## Serial #: 6799

Inside

Press @ Run Depth: 58.54 psig @ 3928.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.07.23 End Date: 2011.07.23 Last Calib.: 2011.07.23  
 Start Time: 15:42:05 End Time: 22:23:14 Time On Btm: 2011.07.23 @ 17:33:00  
 Time Off Btm: 2011.07.23 @ 20:34:15

**TEST COMMENT:** IF: Surface blow built to 1/4" then died back to 1/8"  
 IS: No Return  
 FF: No Blow  
 FS: No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1979.38	111.01	Initial Hydro-static
1	9.35	110.69	Open To Flow (1)
32	11.67	111.45	Shut-In(1)
91	830.04	113.06	End Shut-In(1)
92	114.09	112.92	Open To Flow (2)
128	58.54	113.82	Shut-In(2)
180	821.07	114.80	End Shut-In(2)
182	1980.40	115.44	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
5.00	OSM 100M (oil spots)	0.02

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



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**FLUID SUMMARY**

Murfin Drilling Co.

**Wigginton #1-18**

250 N. Water STE #300  
Wichita, KS 67202

**18/9s/29w/SheridankS**

Job Ticket: 43371

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2011.07.23 @ 15:42:00

## 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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100M (oil spots)	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

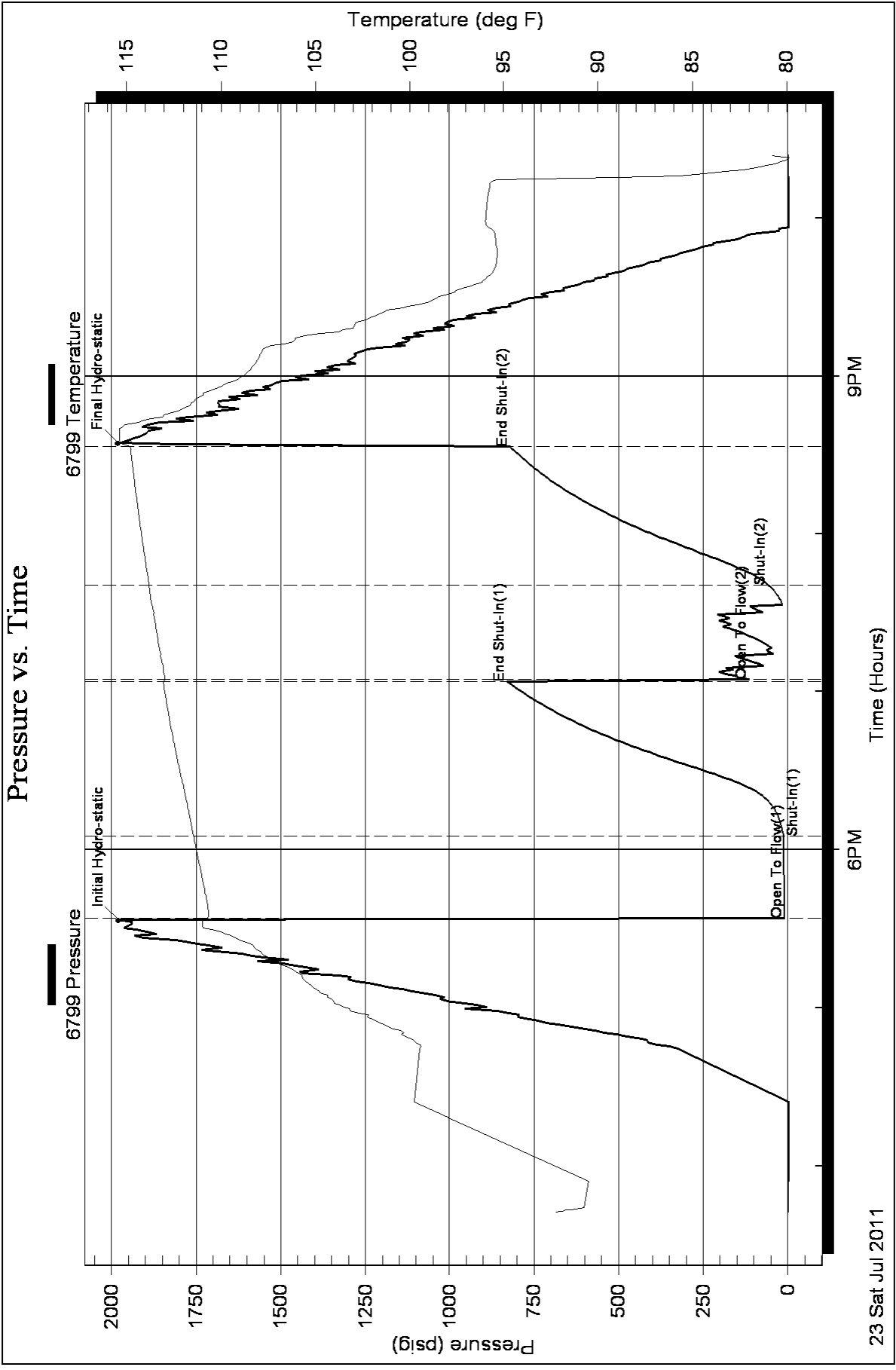
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



23 Sat Jul 2011

6PM

9PM

Time (Hours)



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**Wigginton #1-18**  
**18/9s/29w/SheridankS**  
 Job Ticket: 43372 **DST#: 3**  
 Test Start: 2011.07.24 @ 14:08:00

## GENERAL INFORMATION:

Formation: **LKC "H,I,J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:08:45  
 Time Test Ended: 22:11:00  
 Interval: **4004.00 ft (KB) To 4090.00 ft (KB) (TVD)**  
 Total Depth: 4090.00 ft (KB) (TVD)  
 Hole Diameter: 7.78 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole  
 Tester: Kevin Mack  
 Unit No: 43  
 Reference Elevations: 2810.00 ft (KB)  
 2808.00 ft (CF)  
 KB to GR/CF: 2.00 ft

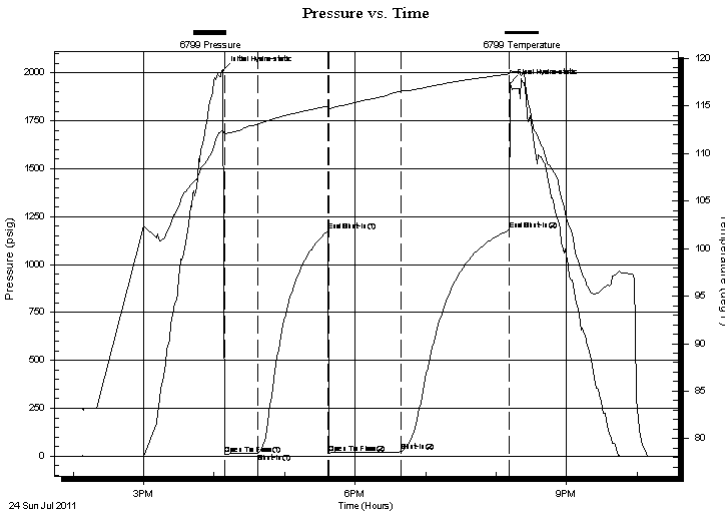
## Serial #: 6799

Inside

Press @ Run Depth: 22.75 psig @ 4005.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.07.24 End Date: 2011.07.24 Last Calib.: 2011.07.24  
 Start Time: 14:08:05 End Time: 22:10:59 Time On Btm: 2011.07.24 @ 16:07:45  
 Time Off Btm: 2011.07.24 @ 20:12:00

TEST COMMENT: IF: Blow built to 1 1/8"  
 IS: No Return  
 FF: Surface blow did not build or die  
 FS: No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.44	112.51	Initial Hydro-static
1	10.32	112.11	Open To Flow (1)
30	15.18	113.11	Shut-In(1)
89	1173.96	114.98	End Shut-In(1)
90	16.70	114.66	Open To Flow (2)
151	22.75	116.54	Shut-In(2)
243	1178.97	118.41	End Shut-In(2)
245	1947.19	118.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100M (oil spots)	0.02
0.00	50' GIP	0.00

## Gas Rates

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



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**18/9s/29w/SheridankS**

Job Ticket: 43372

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2011.07.24 @ 14:08:00

## 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: 99.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	OSM 100M (oil spots)	0.025
0.00	50' GIP	0.000

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:



### Pressure vs. Time

