



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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

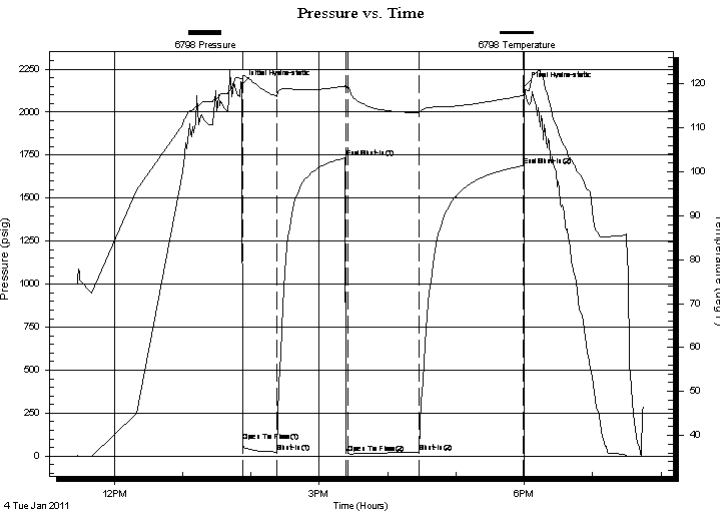
Koblitz # 2
31-33S-8W Harper
 Job Ticket: 039270 **DST#: 1**
 Test Start: 2011.01.04 @ 11:27:41

GENERAL INFORMATION:

Formation: **Ft Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:52:26
 Time Test Ended: 19:45:41
 Interval: **4372.00 ft (KB) To 4404.00 ft (KB) (TVD)**
 Total Depth: 4404.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Leal Cason
 Unit No: 45
 Reference Elevations: 1312.00 ft (KB)
 1301.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6798 Inside
 Press @ Run Depth: 22.00 psig @ 4373.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.01.04 End Date: 2011.01.04 Last Calib.: 2011.01.04
 Start Time: 11:27:42 End Time: 19:45:41 Time On Btm: 2011.01.04 @ 13:51:56
 Time Off Btm: 2011.01.04 @ 17:59:56

TEST COMMENT: IF: Strong Blow , BOB in 20 Seconds, GTS in 22 Minutes, Guaged Gas & Caught Sample
 IS: Bled Off, No Blow back
 FF: Strong Blow , BOB & GTS Immediate, Guaged Gas
 FS: Bled Off, Blow back Built to 2 inc



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.47	121.20	Initial Hydro-static
1	88.67	121.01	Open To Flow (1)
31	24.66	117.17	Shut-In(1)
91	1735.17	119.50	End Shut-In(1)
93	18.30	119.47	Open To Flow (2)
156	22.00	113.40	Shut-In(2)
247	1688.25	117.31	End Shut-In(2)
248	2150.24	118.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4354 GIP	0.00
20.00	GCM 2%G 98%M	0.28

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	7.00	8.05
Last Gas Rate	0.13	7.00	8.05
Max. Gas Rate	0.13	7.00	8.05



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

Koblitz # 2

125 N Market Ste 1000
Wichita KS 67202

31-33S-8W Harper

Job Ticket: 039270

DST#: 1

ATTN: Bill Klaver

Test Start: 2011.01.04 @ 11:27:41

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4354 GIP	0.000
20.00	GCM 2%G 98%M	0.281

Total Length: 20.00 ft

Total Volume: 0.281 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



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DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co

Koblitz # 2

125 N Market Ste 1000
Wichita KS 67202

31-33S-8W Harper

Job Ticket: 039270

DST#: 1

ATTN: Bill Klaver

Test Start: 2011.01.04 @ 11:27:41

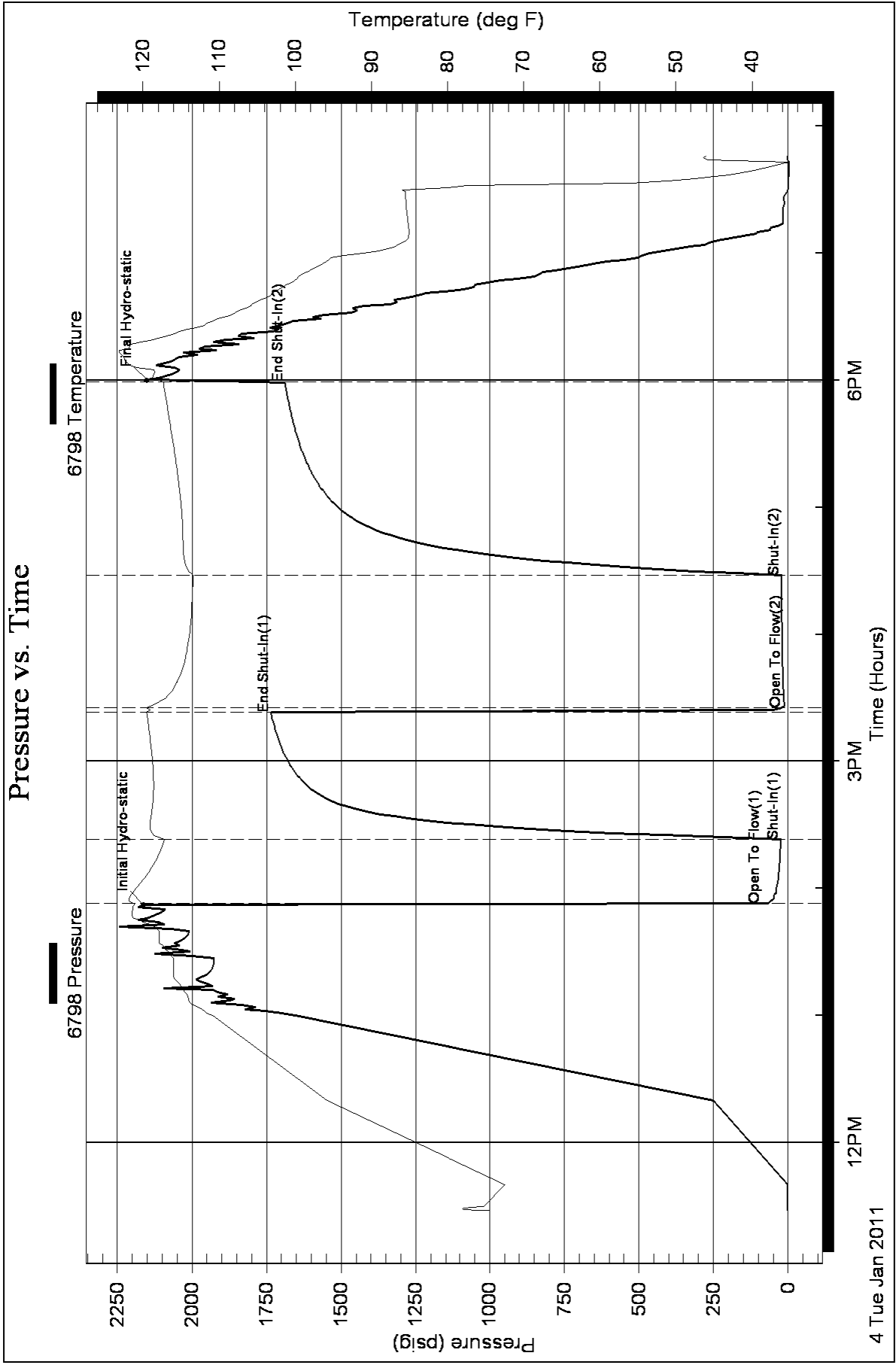
Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	25	0.13	7.00	8.05
1	30	0.13	7.00	8.05
2	10	0.13	4.00	6.92
2	20	0.13	5.00	7.30
2	30	0.13	6.00	7.67
2	40	0.13	6.00	7.67
2	50	0.13	6.50	7.86
2	60	0.13	7.00	8.05

Pressure vs. Time





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Woolsey Operating Co
125 N Market Ste 1000
Wichita KS 67202
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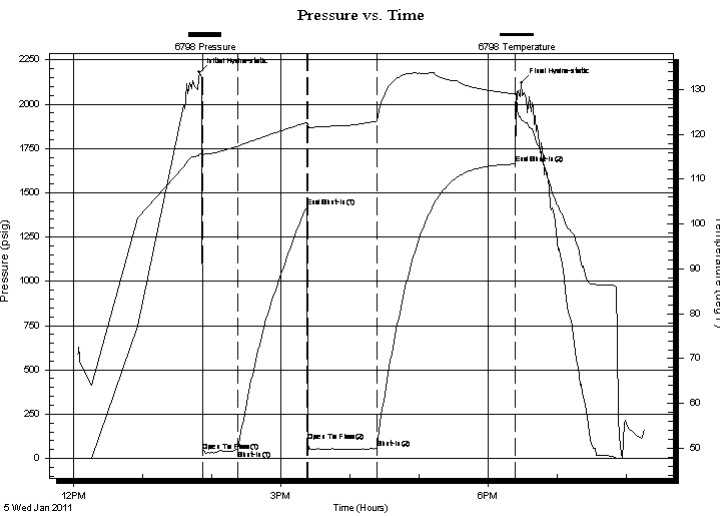
Koblitz # 2
31-33S-8W Harper
Job Ticket: 039271 **DST#: 2**
Test Start: 2011.01.05 @ 12:03:14

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:51:44
Time Test Ended: 20:16:29
Interval: **4387.00 ft (KB) To 4535.00 ft (KB) (TVD)**
Total Depth: 4535.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1312.00 ft (KB)
1301.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 Inside
Press @ Run Depth: 54.99 psig @ 4388.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.05 End Date: 2011.01.05 Last Calib.: 2011.01.05
Start Time: 12:03:15 End Time: 20:16:29 Time On Btm: 2011.01.05 @ 13:49:14
Time Off Btm: 2011.01.05 @ 18:29:14

TEST COMMENT: IF: Strong Blow , BOB in 3 minutes
IS: Bled Off , Blow back Built to BOB in 15 minutes
FF: Strong Blow , BOB Immediate, GTS in 5 minutes, Guaged Gas & Caught Sample
FS: Bled Off , Blow back Built to 2



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2179.51	115.62	Initial Hydro-static
3	38.25	115.19	Open To Flow (1)
33	45.72	117.33	Shut-In(1)
94	1418.94	122.60	End Shut-In(1)
94	95.86	122.24	Open To Flow (2)
154	54.99	122.96	Shut-In(2)
275	1662.32	128.97	End Shut-In(2)
280	2119.14	123.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4282 GIP	0.00
93.00	GCM 4%G 96%M	1.30

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	6.00	32.52
Last Gas Rate	0.25	6.00	32.52
Max. Gas Rate	0.25	6.00	32.52



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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

Koblitz # 2

125 N Market Ste 1000
Wichita KS 67202

31-33S-8W Harper

Job Ticket: 039271

DST#: 2

ATTN: Bill Klaver

Test Start: 2011.01.05 @ 12:03:14

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: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4282 GIP	0.000
93.00	GCM 4%G 96%M	1.305

Total Length: 93.00 ft

Total Volume: 1.305 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



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DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co

Koblitz # 2

125 N Market Ste 1000
Wichita KS 67202

31-33S-8W Harper

Job Ticket: 039271

DST#: 2

ATTN: Bill Klaver

Test Start: 2011.01.05 @ 12:03:14

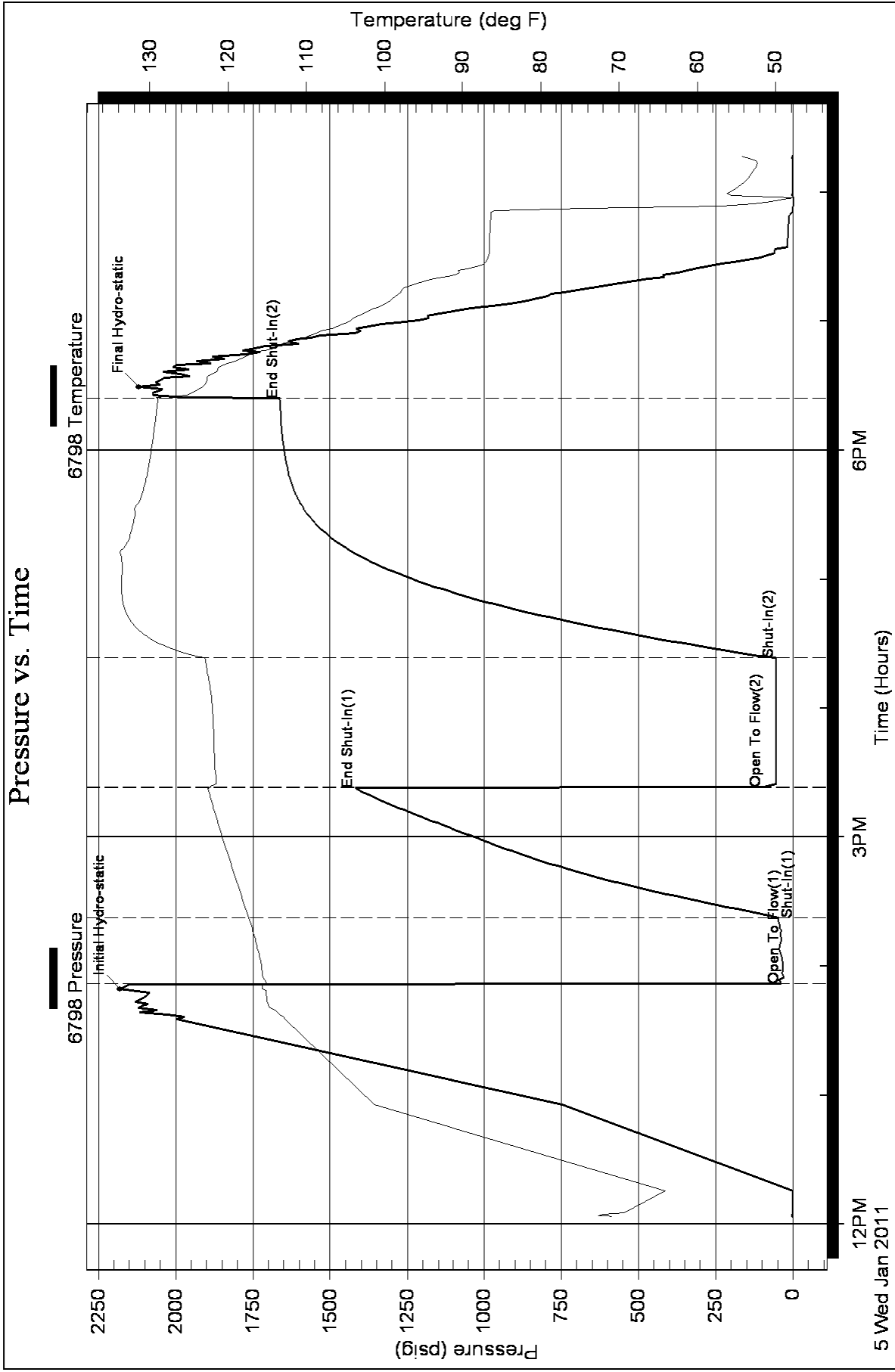
Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	10	0.25	6.00	32.52
2	20	0.25	5.50	31.73
2	30	0.25	5.00	30.94
2	40	0.25	5.00	30.94
2	50	0.25	5.50	31.73
2	60	0.25	6.00	32.52

Pressure vs. Time





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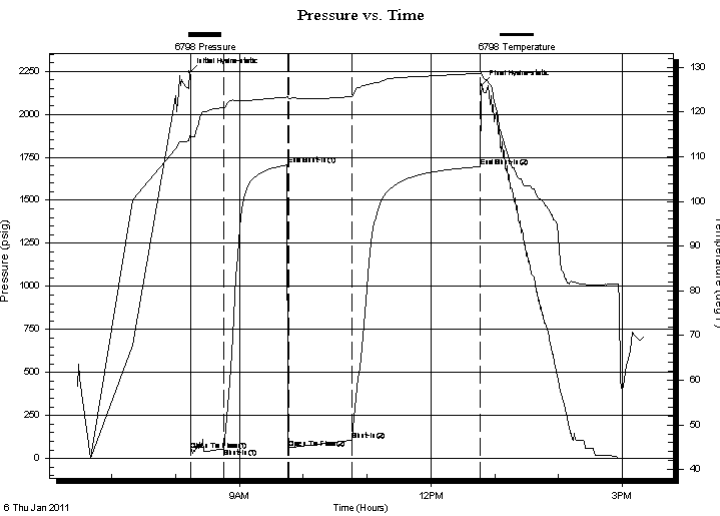
Koblitz # 2
31-33S-8W Harper
Job Ticket: 039272 **DST#: 3**
Test Start: 2011.01.06 @ 06:27:54

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:14:24
Time Test Ended: 15:21:24
Interval: 4536.00 ft (KB) To 4570.00 ft (KB) (TVD)
Total Depth: 4570.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1312.00 ft (KB)
1301.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 Inside
Press @ Run Depth: 106.14 psig @ 4537.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.06 End Date: 2011.01.06 Last Calib.: 2011.01.06
Start Time: 06:27:55 End Time: 15:21:24 Time On Btm: 2011.01.06 @ 08:12:54
Time Off Btm: 2011.01.06 @ 12:47:54

TEST COMMENT: IF: Strong Blow , BOB in 7 minutes
IS: Bled Off, 2 inch Blow back
FF: Strong Blow , BOB Immediate, GTS in 20 minutes, Guaged Gas & Caught Sample
FS: Bled Off, 1 inch Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2243.62	114.41	Initial Hydro-static
2	45.70	114.36	Open To Flow (1)
33	56.98	120.94	Shut-In(1)
93	1705.13	123.37	End Shut-In(1)
94	61.75	122.95	Open To Flow (2)
153	106.14	123.49	Shut-In(2)
274	1695.94	128.72	End Shut-In(2)
275	2170.30	128.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4294 GIP	0.00
93.00	GOWCM 40%G 10%O 12%W 38%M	1.30
93.00	OGCM 40%G 10%O 50%M	1.30
50.00	GOCM 10%G 30%O 60%M	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	4.00	29.35
Last Gas Rate	0.25	5.00	30.94
Max. Gas Rate	0.25	5.00	30.94



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Wichita KS 67202

31-33S-8W Harper

Job Ticket: 039272

DST#: 3

ATTN: Bill Klaver

Test Start: 2011.01.06 @ 06:27:54

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:

22000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	4294 GIP	0.000
93.00	GOWCM 40%G 10%O 12%W 38%M	1.305
93.00	OGCM 40%G 10%O 50%M	1.305
50.00	GOCM 10%G 30%O 60%M	0.701

Total Length: 236.00 ft

Total Volume: 3.311 bbl

Num Fluid Samples: 1

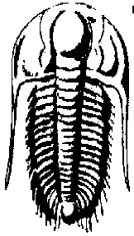
Num Gas Bombs: 0

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



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GAS RATES

Woolsey Operating Co

Koblitz # 2

125 N Market Ste 1000
Wichita KS 67202

31-33S-8W Harper

Job Ticket: 039272

DST#: 3

ATTN: Bill Klaver

Test Start: 2011.01.06 @ 06:27:54

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	30	0.25	4.00	29.35
2	40	0.25	4.00	29.35
2	50	0.25	5.00	30.94
2	60	0.25	5.00	30.94

Pressure vs. Time

