

4-33s-19w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **RJ Patrick Operating Inc.**

PO Box 1157
Liberal KS 67905

ATTN: Vern Schrag

4-33s-19w Comanche

Dewayne Herd #3-4

Start Date: 2005.12.23 @ 08:42:21

End Date: 2005.12.23 @ 16:08:06

Job Ticket #: 23446 DST #: 1

15-033-21441-00-00

425 FNL 2306 FEL

NW NW NE

**RECEIVED
JAN 25 2006**

KCC WICHITA

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

RJ Patrick Operating Inc.

Dewayne Herd #3-4

4-33s-19w Comanche

DST # 1

Ft. Scott

2005.12.23



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

RJ Patrick Operating Inc.

Dewayne Herd #3-4

PO Box 1157
Liberal KS 67905

4-33s-19w Comanche

ATTN: Vern Schrag

Job Ticket: 23446

DST#: 1

Test Start: 2005.12.23 @ 08:42:21

GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 10:50:01

Time Test Ended: 16:08:06

Test Type: **Conventional Bottom Hole**

Tester: **Gerald Adams**

Unit No: **19**

Interval: **5019.00 ft (KB) To 5040.00 ft (KB) (TVD)**

Reference Elevations: **1918.00 ft (KB)**

Total Depth: **5040.00 ft (KB) (TVD)**

1905.00 ft (CF)

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

KB to GR/CF: **13.00 ft**

Serial #: **6755**

Inside

Press@RunDepth: **42.64 psig @ 5020.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2005.12.23**

End Date:

2005.12.23

Last Calib.: **2005.12.23**

Start Time: **08:42:26**

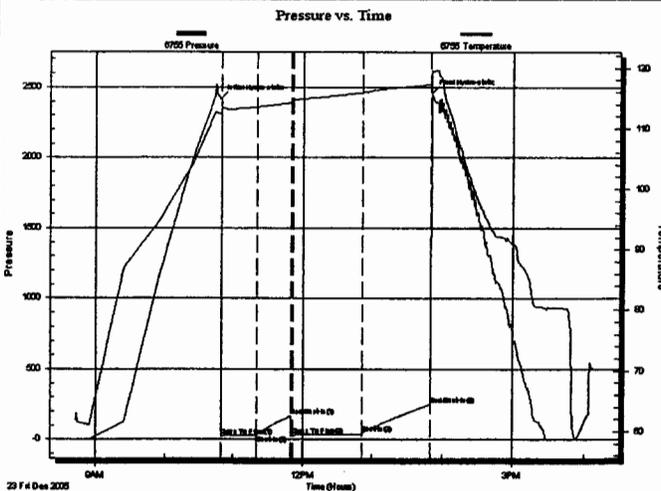
End Time:

16:08:05

Time On Btm: **2005.12.23 @ 10:49:01**

Time Off Btm: **2005.12.23 @ 13:50:51**

TEST COMMENT: **F: Fair to strong blow . B.O.B. in 26 mins.
IS: No blow .
FF: Fair to strong blow . B.O.B. in 59 mins.
FS: No blow .**



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2420.05	112.42	Initial Hydro-static
1	24.82	113.08	Open To Flow (1)
32	33.66	113.49	Shut-In(1)
61	169.25	114.21	End Shut-In(1)
63	31.81	114.56	Open To Flow (2)
122	42.64	115.90	Shut-In(2)
181	249.71	117.25	End Shut-In(2)
182	2461.00	119.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SGCM 2%g 98% m	0.10
0.00	222' GIP.	0.00
0.00		0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

RJ Patrick Operating Inc.

Dewayne Herd #3-4

PO Box 1157
Liberal KS 67905

4-33s-19w Comanche

Job Ticket: 23446 **DST#: 1**

ATTN: Vern Schrag

Test Start: 2005.12.23 @ 08:42:21

Tool Information

Drill Pipe:	Length: 4776.00 ft	Diameter: 3.80 inches	Volume: 66.99 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 83000.00 lb
			<u>Total Volume: 68.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	5019.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4996.00	
Hydraulic tool	5.00			5001.00	
Jars	5.00			5006.00	
Safety Joint	3.00			5009.00	
Packer	5.00			5014.00	28.00 Bottom Of Top Packer
Packer	5.00			5019.00	
Stubb	1.00			5020.00	
Recorder	0.00	6755	Inside	5020.00	
Perforations	17.00			5037.00	
Recorder	0.00	11019	Outside	5037.00	
Bullnose	3.00			5040.00	21.00 Bottom Packers & Anchor

Total Tool Length: 49.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

RJ Patrick Operating Inc.

Dewayne Herd #3-4

PO Box 1157
Liberal KS 67905

4-33s-19w Comanche

Job Ticket: 23446

DST#: 1

ATTN: Vern Schrag

Test Start: 2005.12.23 @ 08:42:21

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:

5000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	SGCM 2%g 98%m	0.098
0.00	222' GIP.	0.000
0.00		0.000

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

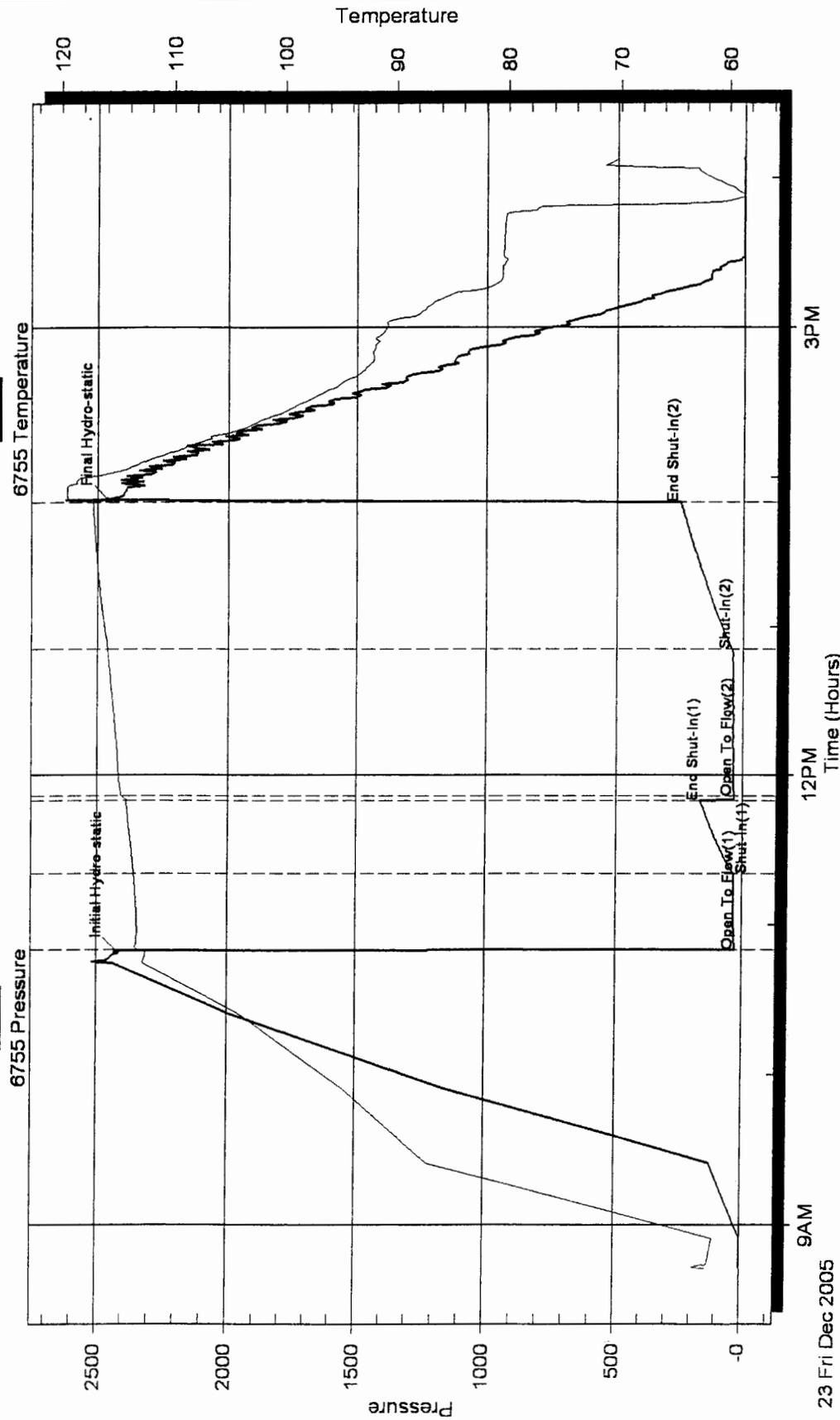
Serial #: none

Laboratory Name:

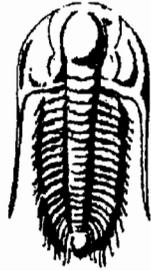
Laboratory Location:

Recovery Comments:

Pressure vs. Time



23 Fri Dec 2005



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **RJ Patrick Operating Inc.**

PO Box 1157
Liberal KS 67905

ATTN: Vern Schrag

4-33s-19w Comanche

Dewayne Herd #3-4

Start Date: 2005.12.28 @ 07:58:16

End Date: 2005.12.28 @ 17:18:46

Job Ticket #: 23447 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

RJ Patrick Operating Inc.

Dewayne Herd #3-4

4-33s-19w Comanche

DST # 2

Mississippi

2005.12.28



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DRILL STEM TEST REPORT

RJ Patrick Operating Inc.
PO Box 1157
Liberal KS 67905
ATTN: Vern Schrag

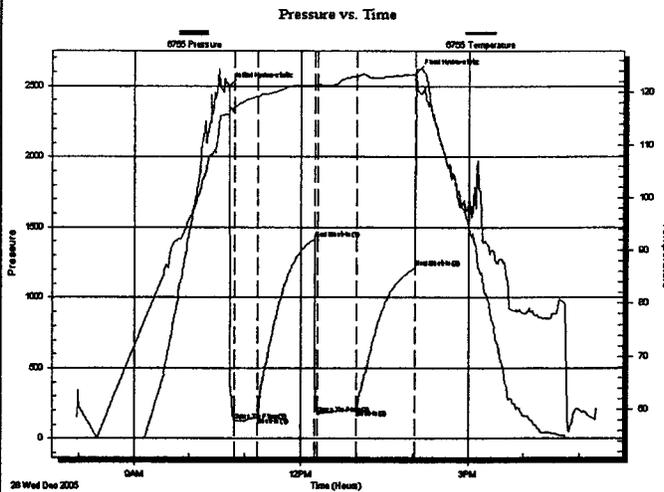
Dewayne Herd #3-4
4-33s-19w Comanche
Job Ticket: 23447 DST#: 2
Test Start: 2005.12.28 @ 07:58:16

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 10:49:46
Time Test Ended: 17:18:46
Interval: **5146.00 ft (KB) To 5242.00 ft (KB) (TVD)**
Total Depth: **5242.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Poor**
Test Type: **Conventional Bottom Hole**
Tester: **Gerald Adams**
Unit No: **19**
Reference Elevations: **1918.00 ft (KB)**
1905.00 ft (CF)
KB to GR/CF: **13.00 ft**

Serial #: 6755 **Inside**
Press@RunDepth: **210.25 psig @ 5214.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.12.28** End Date: **2005.12.28** Last Calib.: **2005.12.28**
Start Time: **07:58:21** End Time: **17:18:46** Time On Btmr: **2005.12.28 @ 10:43:16**
Time Off Btmr: **2005.12.28 @ 14:03:46**

TEST COMMENT: IF: Strong blow . B.O.B. in 15 secs. GTS in 6 mins. (see gas flow report.)
IS: Weak blow . 3" to 3 1/2".
FF: Strong blow . B.O.B. in 10 secs.
FS: Strong blow . B.O.B. in 10 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2500.59	115.84	Initial Hydro-static
7	128.16	117.17	Open To Flow (1)
31	151.43	119.21	Shut-in(1)
92	1416.90	121.28	End Shut-in(1)
94	176.44	121.47	Open To Flow (2)
136	210.25	123.04	Shut-in(2)
200	1211.48	123.40	End Shut-in(2)
201	2591.36	124.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	HO&GCM 20%g 40%o 40%m	0.89
0.00	62' GIP	0.00
124.00	SG&OCM 5%g 5%o 90%M	1.17
94.00	SGCM 10%g 90%m	1.32
0.00	4441' GIP	0.00
0.00		0.00

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	5.50	134.24
Last Gas Rate			
Max. Gas Rate	0.25	9.50	37.91



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TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

RJ Patrick Operating Inc.

Dewayne Herd #3-4

PO Box 1157
Liberal KS 67905

4-33s-19w Comanche

Job Ticket: 23447 **DST#: 2**

ATTN: Vern Schrag

Test Start: 2005.12.28 @ 07:58:16

Tool Information

Drill Pipe:	Length: 4901.00 ft	Diameter: 3.80 inches	Volume: 68.75 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 69.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	5146.00 ft			Final 83000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	96.00 ft			
Tool Length:	124.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			5123.00	
Hydraulic tool	5.00			5128.00	
Jars	5.00			5133.00	
Safety Joint	3.00			5136.00	
Packer	5.00			5141.00	28.00 Bottom Of Top Packer
Packer	5.00			5146.00	
Stubb	1.00			5147.00	
Perforations	3.00			5150.00	
Change Over Sub	1.00			5151.00	
Blank Spacing	62.00			5213.00	
Change Over Sub	1.00			5214.00	
Recorder	0.00	6755	Inside	5214.00	
Perforations	25.00			5239.00	
Recorder	0.00	11019	Outside	5239.00	
Bullnose	3.00			5242.00	96.00 Bottom Packers & Anchor

Total Tool Length: 124.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

RJ Patrick Operating Inc.

Dewayne Herd #3-4

PO Box 1157
Liberal KS 67905

4-33s-19w Comanche

Job Ticket: 23447

DST#: 2

ATTN: Vern Schrag

Test Start: 2005.12.28 @ 07:58:16

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:

6500 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	HO&GCM 20%g 40%o 40%m	0.885
0.00	62' GIP	0.000
124.00	SG&OCM 5%g 5%o 90%M	1.175
94.00	SGCM 10%g 90%m	1.319
0.00	4441' GIP	0.000
0.00		0.000

Total Length: 398.00 ft

Total Volume: 3.379 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: ga-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



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DRILL STEM TEST REPORT

GAS RATES

RJ Patrick Operating Inc.

Dewayne Herd #3-4

PO Box 1157
Liberal KS 67905

4-33s-19w Comanche

Job Ticket: 23447 **DST#: 2**

ATTN: Vern Schrag

Test Start: 2005.12.28 @ 07:58:16

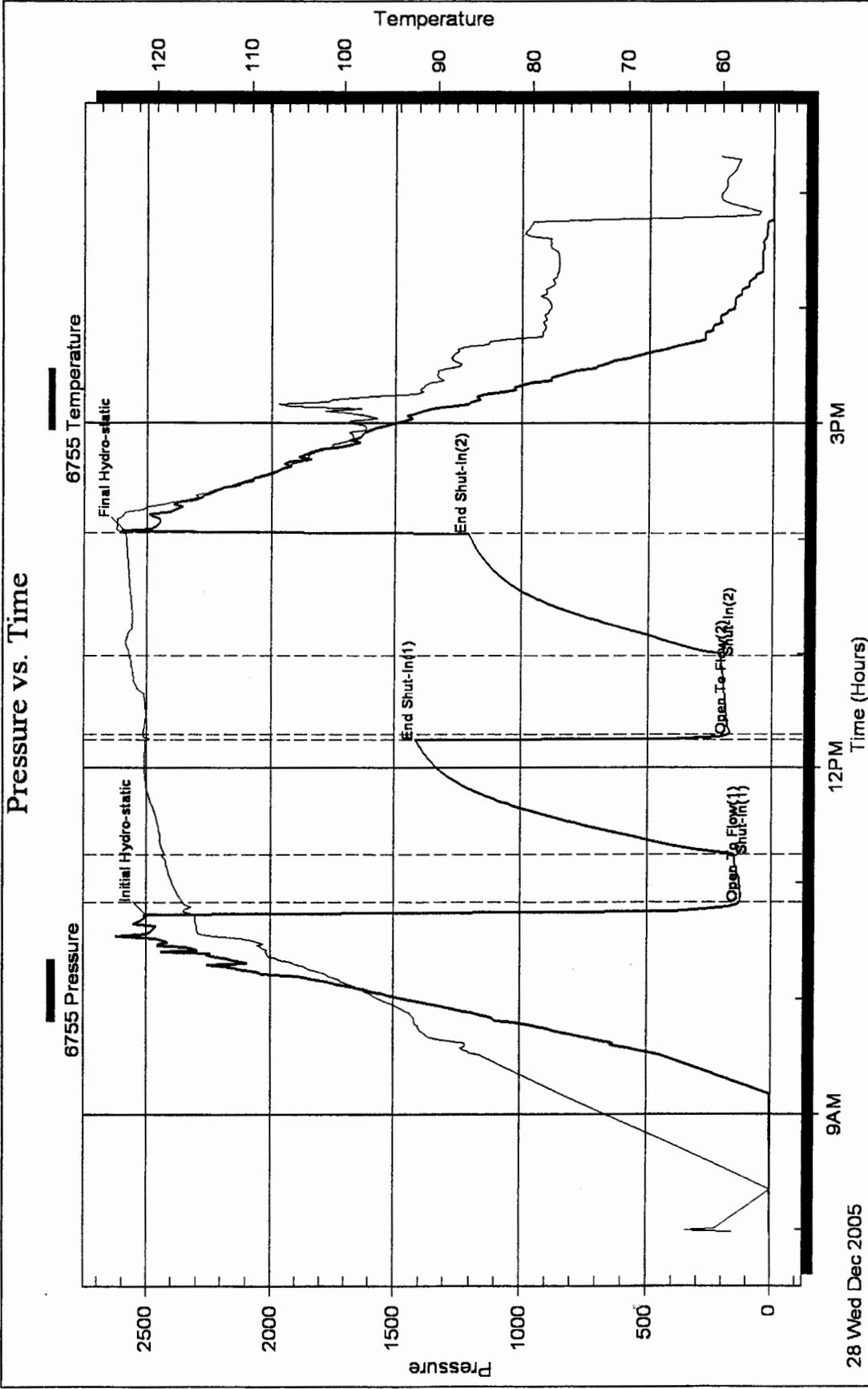
Gas Rates Information

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	10	0.50	5.50	134.24
1	10	0.50	5.50	134.24
1	20	0.50	2.50	114.00
1	30	0.50	0.25	98.82
2	10	0.25	9.50	37.91
2	20	0.25	9.50	37.91
2	30	0.25	8.75	36.73
2	40	0.25	7.75	35.14
2	45	0.25	7.25	34.35
0	-	-999999.00	-999999.00	-999999.00

Pressure vs. Time



28 Wed Dec 2005