

DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc**

6855 S Havana St Ste 250
Centennial CO 80112

ATTN: Bob Elder

16 21 23 Hodgeman KS

Malcolm #2-16

Start Date: 2008.06.06 @ 22:16:01

End Date: 2008.06.07 @ 06:09:40

Job Ticket #: 31304 DST #: 1

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

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OCT 27 2008

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Norstar Petroleum Inc

Malcolm #2-16

16 21 23 Hodgeman KS

DST # 1

Cherokee

2008.06.06



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Norstar Petroleum Inc
 6855 S Havana St Ste 250
 Centennial CO 80112
 ATTN: Bob Elder

Malcolm #2-16
16 21 23 Hodgeman KS
 Job Ticket: 31304 **DST#: 1**
 Test Start: 2008.06.06 @ 22:16:01

GENERAL INFORMATION:

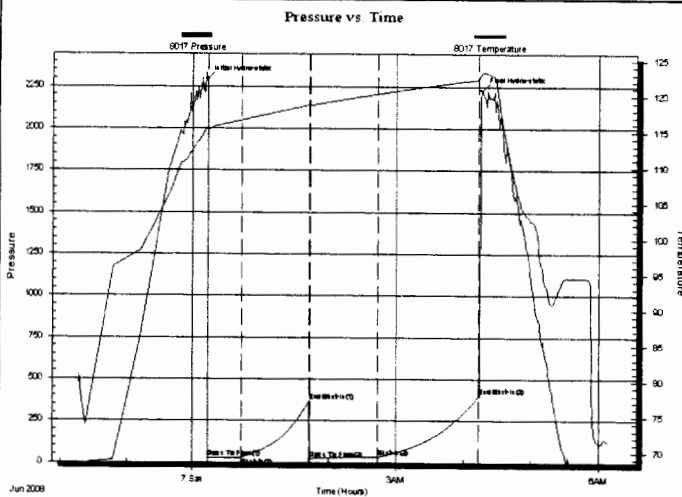
Formation: **Cherokee**
 Deviated: **No** Whipstock: **ft (KB)**
 Time Tool Opened: 00:13:01
 Time Test Ended: 06:09:40
 Interval: **4516.00 ft (KB) To 4590.00 ft (KB) (TVD)**
 Total Depth: **4591.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good**
 Test Type: **Conventional Bottom Hole**
 Tester: **Chuck Smith**
 Unit No: **37**
 Reference Elevations: **2379.00 ft (KB)**
2371.00 ft (CF)
 KB to GR/CF: **8.00 ft**

Serial #: 8017

Inside

Press@RunDepth: **32.35 psig @ 4518.00 ft (KB)**
 Start Date: **2008.06.06** End Date: **2008.06.07** Capacity: **7000.00 psig**
 Start Time: **22:16:02** End Time: **06:09:41** Last Calib.: **2008.06.07**
 Time On Btm: **2008.06.07 @ 00:11:51**
 Time Off Btm: **2008.06.07 @ 04:16:01**

TEST COMMENT: IF 2 1/2 " blow
 ISI No return
 FF 3 1/2 " blow
 FSI No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2289.95	115.58	Initial Hydro-static
2	25.33	115.13	Open To Flow (1)
32	29.99	116.66	Shut-In(1)
91	366.15	118.77	End Shut-In(1)
92	20.52	118.70	Open To Flow (2)
152	32.35	120.31	Shut-In(2)
243	400.65	122.39	End Shut-In(2)
245	2227.37	123.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	GOCM 10%G 10%O 80%M	0.22
0.00	90' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc
6855 S Havana St Ste 250
Centennial CO 80112

Malcolm #2-16
16 21 23 Hodgeman KS
Job Ticket: 31304 **DST#: 1**
Test Start: 2008.06.06 @ 22:16:01

ATTN: Bob Elder

Tool Information

Drill Pipe:	Length: 4472.00 ft	Diameter: 3.80 inches	Volume: 62.73 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 62.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4516.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4489.00	
Shut In Tool	5.00			4494.00	
Hydraulic tool	5.00			4499.00	
Jars	5.00			4504.00	
Safety Joint	3.00			4507.00	
Packer	5.00			4512.00	28.00 Bottom Of Top Packer
Packer	4.00			4516.00	
Stubb	1.00			4517.00	
Perforations	1.00			4518.00	
Recorder	0.00	8017	Inside	4518.00	
Recorder	0.00	8351	Inside	4518.00	
Perforations	5.00			4523.00	
Change Over Sub	1.00			4524.00	
Drill Pipe	61.00			4585.00	
Change Over Sub	1.00			4586.00	
Bullnose	5.00			4591.00	75.00 Bottom Packers & Anchor
Total Tool Length:	103.00				

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FLUID SUMMARY

Norstar Petroleum Inc

Malcolm #2-16

6855 S Havana St Ste 250
Centennial CO 80112

16 21 23 Hodgeman KS

Job Ticket: 31304

DST#: 1

ATTN: Bob Elder

Test Start: 2008.06.06 @ 22:16:01

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: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	GOCM 10%G 10%O 80%M	0.218
0.00	90' GIP	0.000

Total Length: 35.00 ft Total Volume: 0.218 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

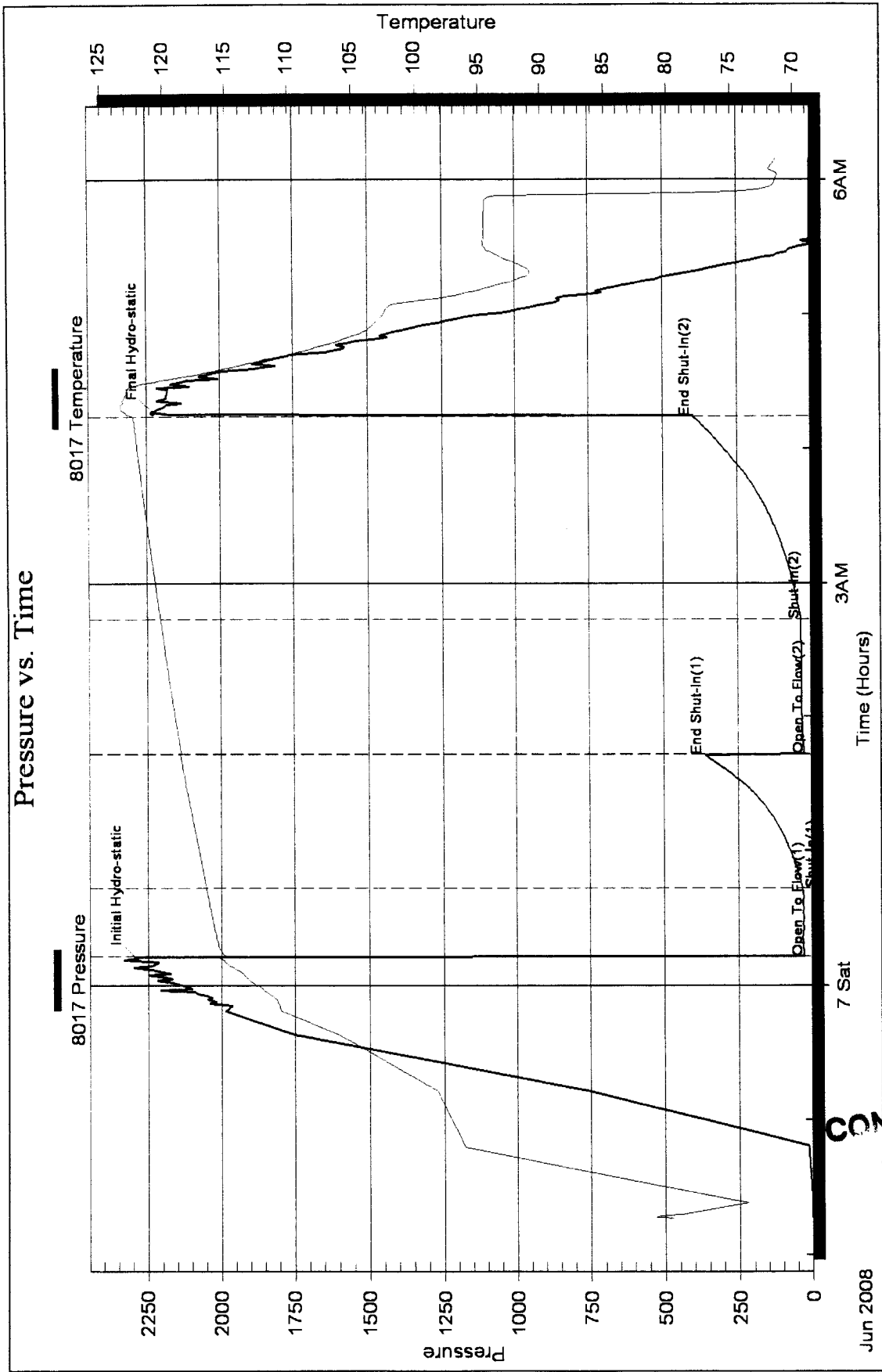
Serial #:

Laboratory Name:

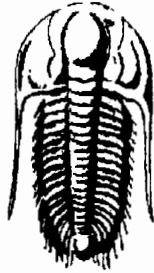
Laboratory Location:

Recovery Comments:

Pressure vs. Time



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DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc**

6855 S Havana Street Ste 250
Centennial CO 80112

ATTN: Bob Elder

16 21 23 Hodgeman KS

Malcolm #2-16

Start Date: 2008.06.07 @ 13:43:00

End Date: 2008.06.07 @ 23:25:30

Job Ticket #: 31305 DST #: 2

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OCT 27 2008

CONSERVATION DIVISION
WICHITA, KS

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



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DRILL STEM TEST REPORT

Norstar Petroleum Inc
6855 S Havana Street Ste 250
Centennial CO 80112

Malcolm #2-16

16 21 23 Hodgeman KS

Job Ticket: 31305

DST#: 2

ATTN: Bob Elder

Test Start: 2008.06.07 @ 13:43:00

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 15:42:40
Time Test Ended: 23:25:30

Test Type: Conventional Bottom Hole
Tester: Chuck Smith
Unit No: 37

Interval: **4514.00 ft (KB) To 4599.00 ft (KB) (TVD)**
Total Depth: 4599.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2379.00 ft (KB)
2371.00 ft (CF)
KB to GRVCF: 8.00 ft

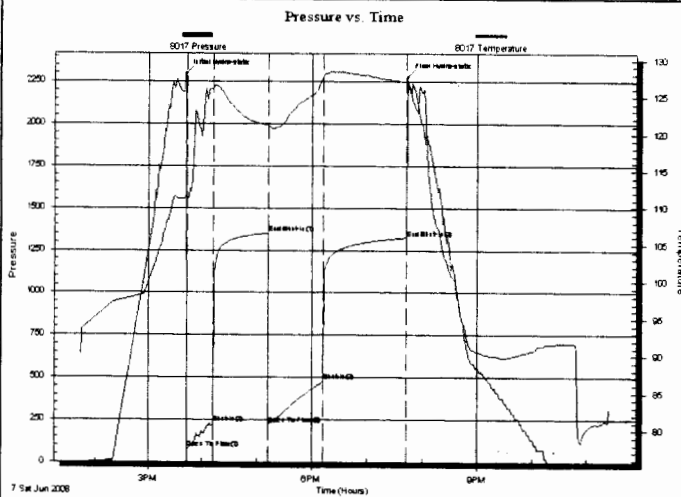
Serial #: 8017

Inside

Press@RunDepth: 476.16 psig @ 4516.00 ft (KB)
Start Date: 2008.06.07 End Date: 2008.06.07
Start Time: 13:43:01 End Time: 23:25:30

Capacity: 7000.00 psig
Last Calib.: 2008.06.07
Time On Btm: 2008.06.07 @ 15:42:20
Time Off Btm: 2008.06.07 @ 19:44:09

TEST COMMENT: IF B.O.B. @ 9 min.
ISI 1/2 " return died @ 22 min.
FF BOB @ 8 1/2 min.
FSI 1 1/2 " return died @ 40 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.34	111.69	Initial Hydro-static
1	78.47	111.16	Open To Flow (1)
30	226.50	126.04	Shut-In(1)
91	1350.56	121.18	End Shut-In(1)
91	219.38	120.90	Open To Flow (2)
151	476.16	127.57	Shut-In(2)
240	1324.44	127.03	End Shut-In(2)
242	2277.98	126.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	GO 15%G 85%O	0.78
310.00	GOCM 5%G 35%O 60%M	4.35
558.00	GO 30%G 70%O	7.83
247.00	GMCO 20%G 20%M 40%O	3.46
0.00	250' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

Norstar Petroleum Inc
6855 S Havana Street Ste 250
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Malcolm #2-16
16 21 23 Hodgeman KS
Job Ticket: 31305 **DST#: 2**
Test Start: 2008.06.07 @ 13:43:00

ATTN: Bob Elder

Tool Information

Drill Pipe:	Length: 4472.00 ft	Diameter: 3.80 inches	Volume: 62.73 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			Total Volume: 62.88 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4514.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4487.00	
Shut In Tool	5.00			4492.00	
Hydraulic tool	5.00			4497.00	
Jars	5.00			4502.00	
Safety Joint	3.00			4505.00	
Packer	5.00			4510.00	28.00 Bottom Of Top Packer
Packer	4.00			4514.00	
Stubb	1.00			4515.00	
Perforations	1.00			4516.00	
Recorder	0.00	8017	inside	4516.00	
Recorder	0.00	8351	inside	4516.00	
Perforations	15.00			4531.00	
Change Over Sub	1.00			4532.00	
Drill Pipe	61.00			4593.00	
Change Over Sub	1.00			4594.00	
Bullnose	5.00			4599.00	85.00 Bottom Packers & Anchor
Total Tool Length:	113.00				

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Job Ticket: 31305

DST#: 2

ATTN: Bob Elder

Test Start: 2008.06.07 @ 13:43:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
75.00	GO 15%G 85%O	0.779
310.00	GOCM 5%G 35%O 60%M	4.348
558.00	GO 30%G 70%O	7.827
247.00	GMO 20%G 20%M 40%O	3.465
0.00	250' GIP	0.000

Total Length: 1190.00 ft Total Volume: 16.419 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

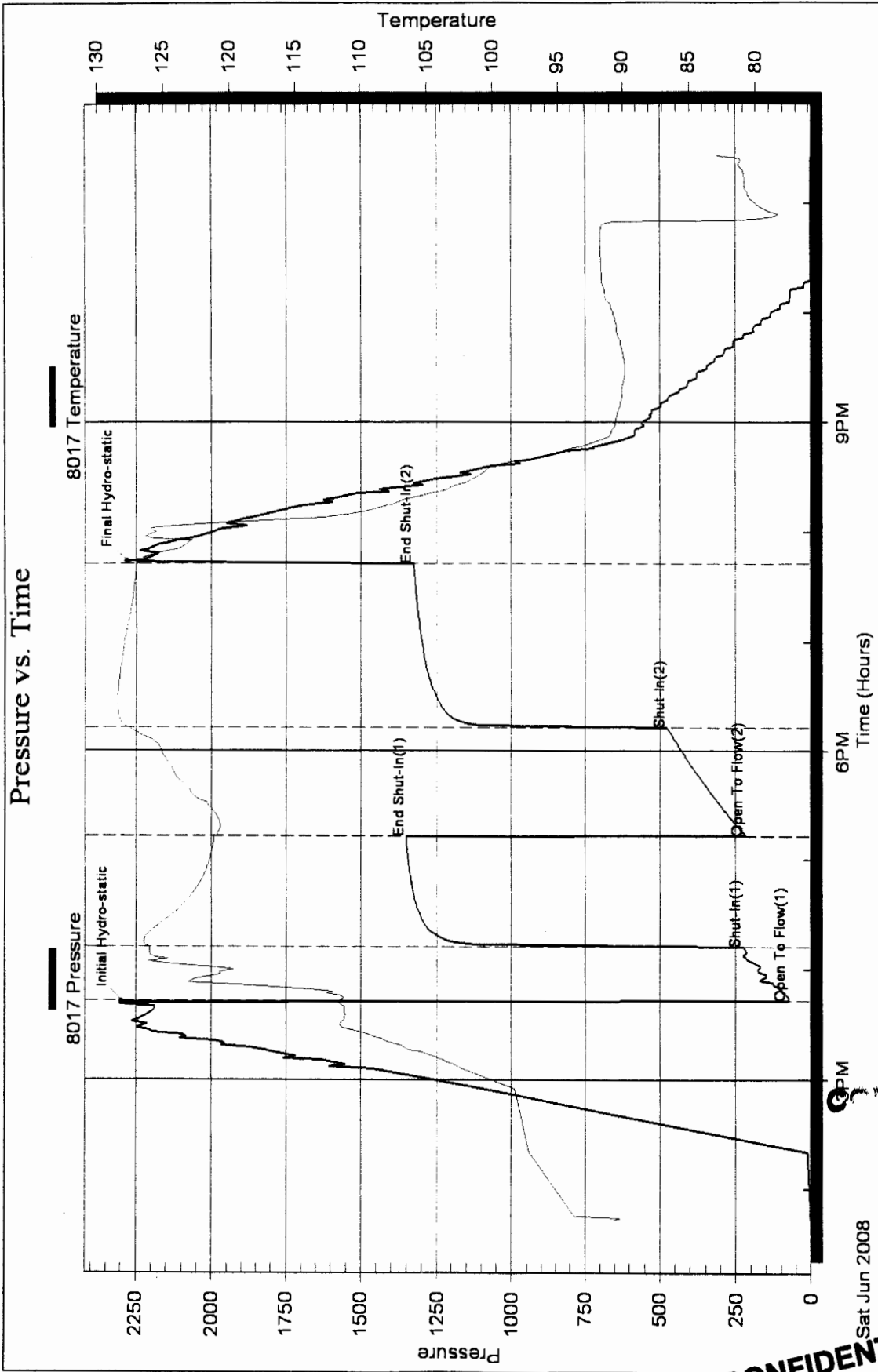
Laboratory Name:

Laboratory Location:

Recovery Comments: API 34 @ 80 Degrees F = 32

RW Not enough W in the 60' sample to make a calculation.

Pressure vs. Time



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