

DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc**

6855 S Havana St Ste 250
Centennial CO 80112

ATTN: Per Burchardt

21 21 23 Hodgeman KS

Rudzik 1-21

Start Date: 2006.12.09 @ 08:21:00

End Date: 2006.12.09 @ 17:03:45

Job Ticket #: 25931 DST #: 1

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Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc
6855 S Havana St Ste 250
Centennial CO 80112
ATTN: Per Burchardt

Rudzlik 1-21
21 21 23 Hodgeman KS
Job Ticket: 25931 **DST#: 1**
Test Start: 2006.12.09 @ 08:21:00

GENERAL INFORMATION:

Formation: **Cherokee Sd**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 10:34:20
Time Test Ended: 17:03:45

Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 38

Interval: **4538.00 ft (KB) To 4603.00 ft (KB) (TVD)**
Total Depth: **4603.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2394.00 ft (KB)**
2386.00 ft (CF)
KB to GR/CF: **8.00 ft**

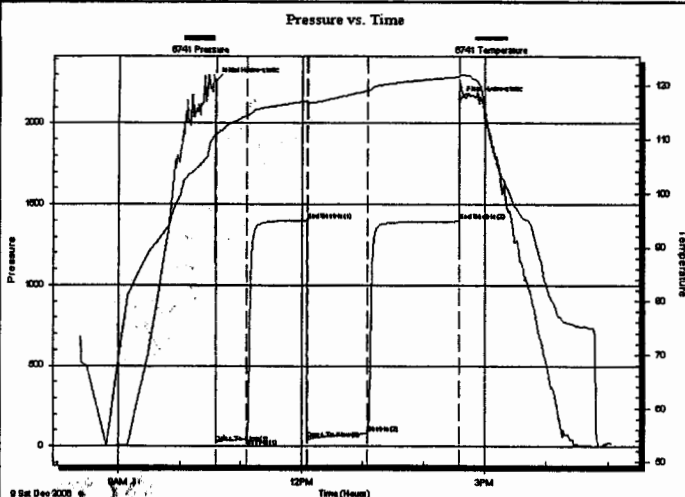
Serial #: 6741

Inside

Press@RunDepth: **79.62 psig @ 4541.00 ft (KB)**
Start Date: **2006.12.09** End Date: **2006.12.09**
Start Time: **08:21:02** End Time: **17:03:45**

Capacity: **7000.00 psig**
Last Calib.: **2006.12.09**
Time On Btm: **2006.12.09 @ 10:34:10**
Time Off Btm: **2006.12.09 @ 14:35:00**

TEST COMMENT: IF Weak building to 2 1/2 "
ISI Weak surface blow
FF Weak building to 4 1/2 "
FSI No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2260.05	110.99	Initial Hydro-static
1	18.40	110.19	Open To Flow (1)
32	48.37	114.39	Shut-In(1)
91	1401.33	117.13	End Shut-In(1)
92	45.82	116.79	Open To Flow (2)
151	79.62	119.02	Shut-In(2)
241	1396.41	121.65	End Shut-In(2)
241	2146.62	121.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
135.00	HOCM 40%O 60%M	1.62
20.00	CO	0.28
0.00	60' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc

Rudzik 1-21

6855 S Havana St Ste 250
Centennial CO 80112

21 21 23 Hodgeman KS

Job Ticket: 25931

DST#: 1

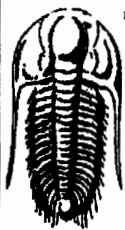
ATTN: Per Burchardt

Test Start: 2006.12.09 @ 08:21:00

Tool Information

Drill Pipe:	Length: 4509.00 ft	Diameter: 3.80 inches	Volume: 63.25 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 63.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	4538.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	65.00 ft				
Tool Length:	94.00 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			4510.00	
Shut In Tool	5.00			4515.00	
Hydraulic tool	5.00			4520.00	
Jars	5.00			4525.00	
Safety Joint	3.00			4528.00	
Packer	5.00			4533.00	29.00 Bottom Of Top Packer
Packer	5.00			4538.00	
Stubb	1.00			4539.00	
Perforations	1.00			4540.00	
Change Over Sub	1.00			4541.00	
Recorder	0.00	6741	Inside	4541.00	
Drill Pipe	31.00			4572.00	
Change Over Sub	1.00			4573.00	
Recorder	0.00	13254	Outside	4573.00	
Perforations	27.00			4600.00	
Bullnose	3.00			4603.00	65.00 Bottom Packers & Anchor
Total Tool Length:		94.00			



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FLUID SUMMARY

Norstar Petroleum Inc

Rudzik 1-21

6855 S Havana St Ste 250
Centennial CO 80112

21 21 23 Hodgeman KS

Job Ticket: 25931

DST#: 1

ATTN: Per Burchardt

Test Start: 2006.12.09 @ 08:21:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
135.00	HOCM 40%O 60%M	1.620
20.00	CO	0.281
0.00	60' GIP	0.000

Total Length: 155.00 ft

Total Volume: 1.901 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

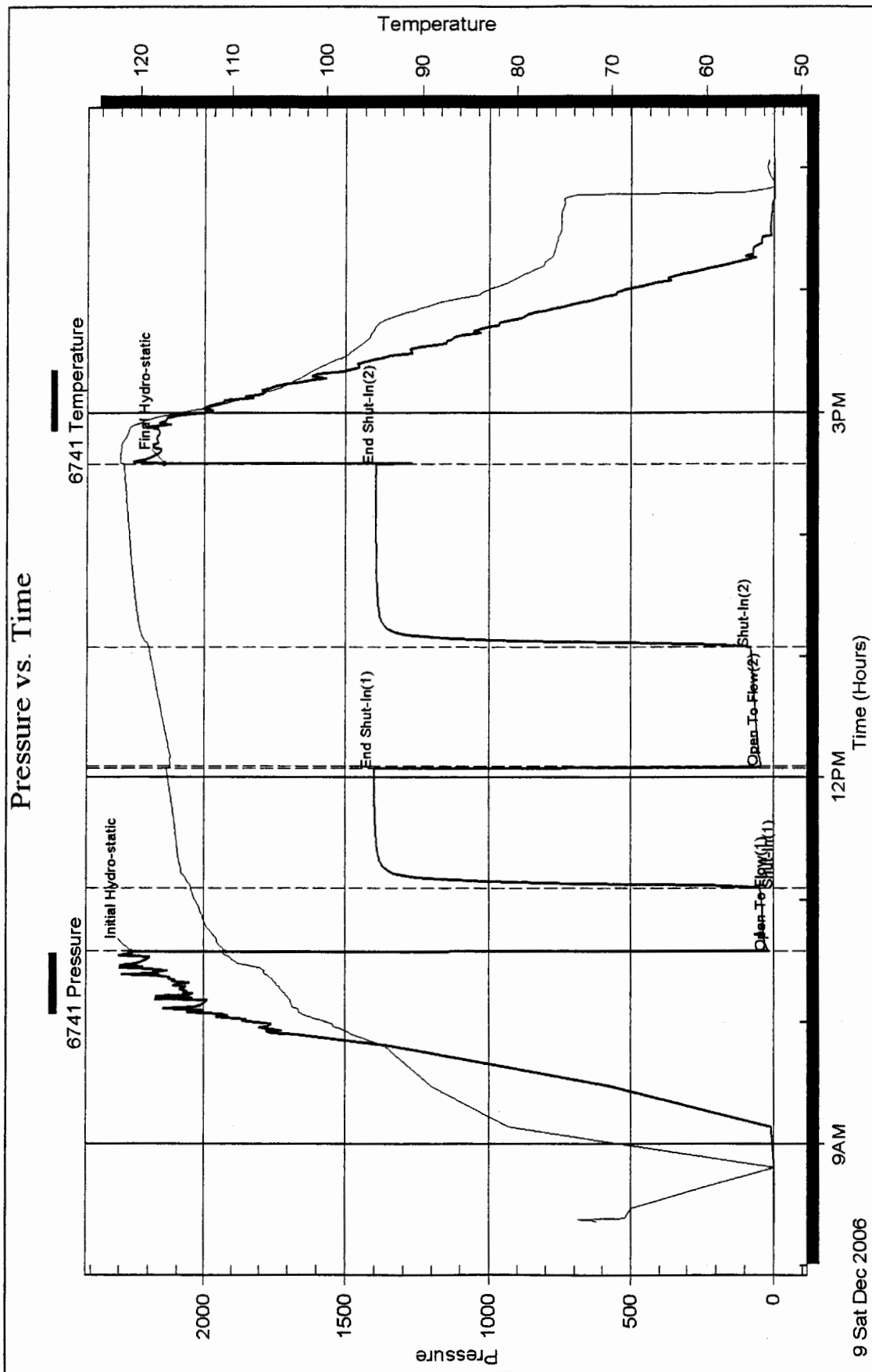
Serial #: 6741

Inside

Norstar Petroleum Inc

21 21 23 Hodgeman KS

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 25931

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**TRILOBITE
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DRILL STEM TEST REPORT

Norstar Petroleum Inc

6855 S Havana St Ste 250
Centennial CO 80112

ATTN: Per Burchardt

Rudzik 1-21

21 21 23 Hodgeman KS

Job Ticket: 25932

DST#: 2

Test Start: 2006.12.10 @ 01:33:34

GENERAL INFORMATION:

Formation: **Cherokee Sd**

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

Time Tool Opened: 03:38:14

Time Test Ended: 14:00:19

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **38**

Interval: **4603.00 ft (KB) To 4616.00 ft (KB) (TVD)**

Total Depth: **4616.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2394.00 ft (KB)**

2386.00 ft (CF)

KB to GR/CF: **8.00 ft**

Serial #: 6741

Inside

Press@RunDepth: **1247.18 psig @ 4604.00 ft (KB)**

Start Date: **2006.12.10**

End Date: **2006.12.10**

Start Time: **01:33:36**

End Time: **14:00:19**

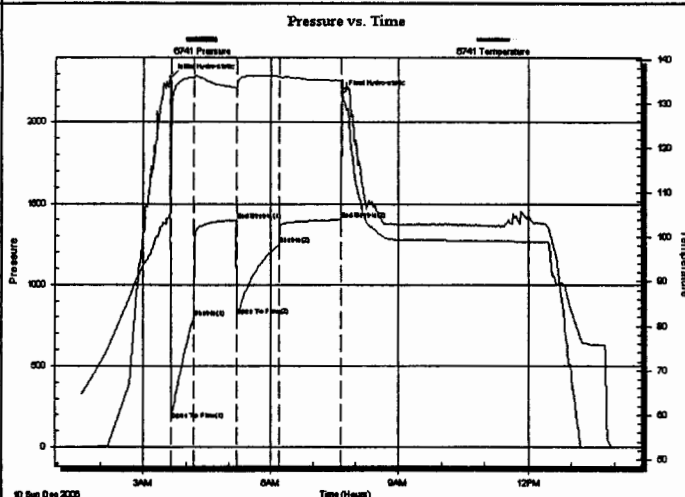
Capacity: **7000.00 psig**

Last Calib.: **2006.12.10**

Time On Btm: **2006.12.10 @ 03:37:24**

Time Off Btm: **2006.12.10 @ 07:40:34**

TEST COMMENT: IF Strong B-B in 1 min
ISI Weak building to 1/4 "
FF Strong B-B in 1 1/2 min



PRESSURE SUMMARY

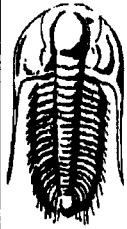
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2277.74	105.17	Initial Hydro-static
1	164.78	120.97	Open To Flow (1)
34	795.45	135.88	Shut-in(1)
93	1398.46	133.48	End Shut-in(1)
94	808.46	133.65	Open To Flow (2)
154	1247.18	136.10	Shut-in(2)
243	1401.29	135.21	End Shut-in(2)
244	2176.80	135.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Wtr	0.02
3320.00	OGsyO 25%G 75%O	46.34

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TOOL DIAGRAM

Norstar Petroleum Inc

Rudzik 1-21

6855 S Havana St Ste 250
Centennial CO 80112

21 21 23 Hodgeman KS

Job Ticket: 25932

DST#: 2

ATTN: Per Burchardt

Test Start: 2006.12.10 @ 01:33:34

Tool Information

Drill Pipe:	Length: 4570.00 ft	Diameter: 3.80 inches	Volume: 64.11 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			Total Volume: 64.26 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4603.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	42.00 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			4575.00	
Shut In Tool	5.00			4580.00	
Hydraulic tool	5.00			4585.00	
Jars	5.00			4590.00	
Safety Joint	3.00			4593.00	
Packer	5.00			4598.00	29.00 Bottom Of Top Packer
Packer	5.00			4603.00	
Stubb	1.00			4604.00	
Recorder	0.00	6741	Inside	4604.00	
Perforations	9.00			4613.00	
Recorder	0.00	13254	Outside	4613.00	
Bullnose	3.00			4616.00	13.00 Bottom Packers & Anchor
Total Tool Length:		42.00			



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Job Ticket: 25932

DST#: 2

ATTN: Per Burchardt

Test Start: 2006.12.10 @ 01:33:34

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

40 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

40000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Wtr	0.025
3320.00	CGsyO 25%G 75%O	46.343

Total Length: 3325.00 ft Total Volume: 46.368 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .15 @ 80 = 40000ppm

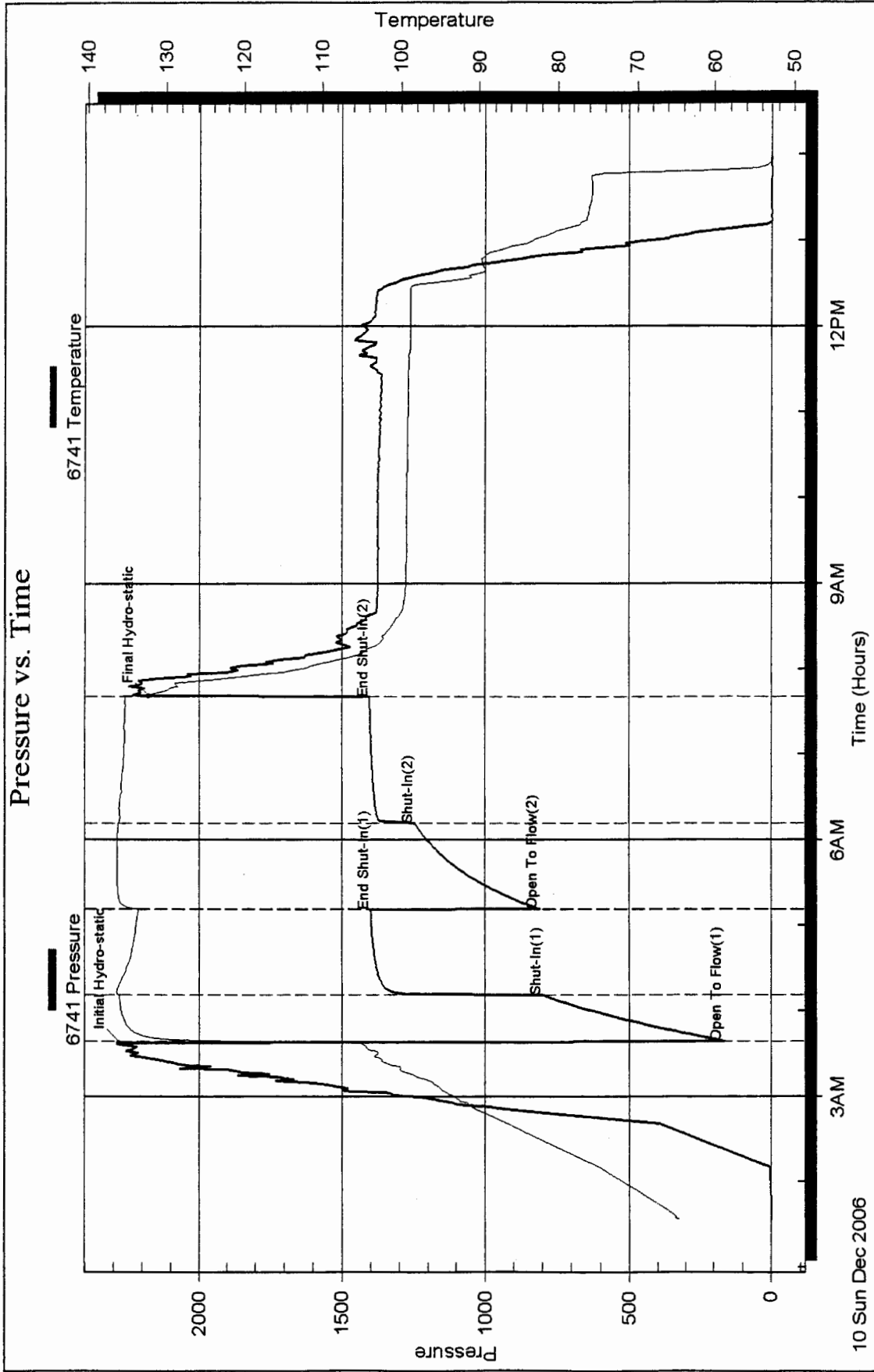
Serial #: 6741

Inside

Norstar Petroleum Inc

21 21 23 Hodgeman KS

DST Test Number: 2



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CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.

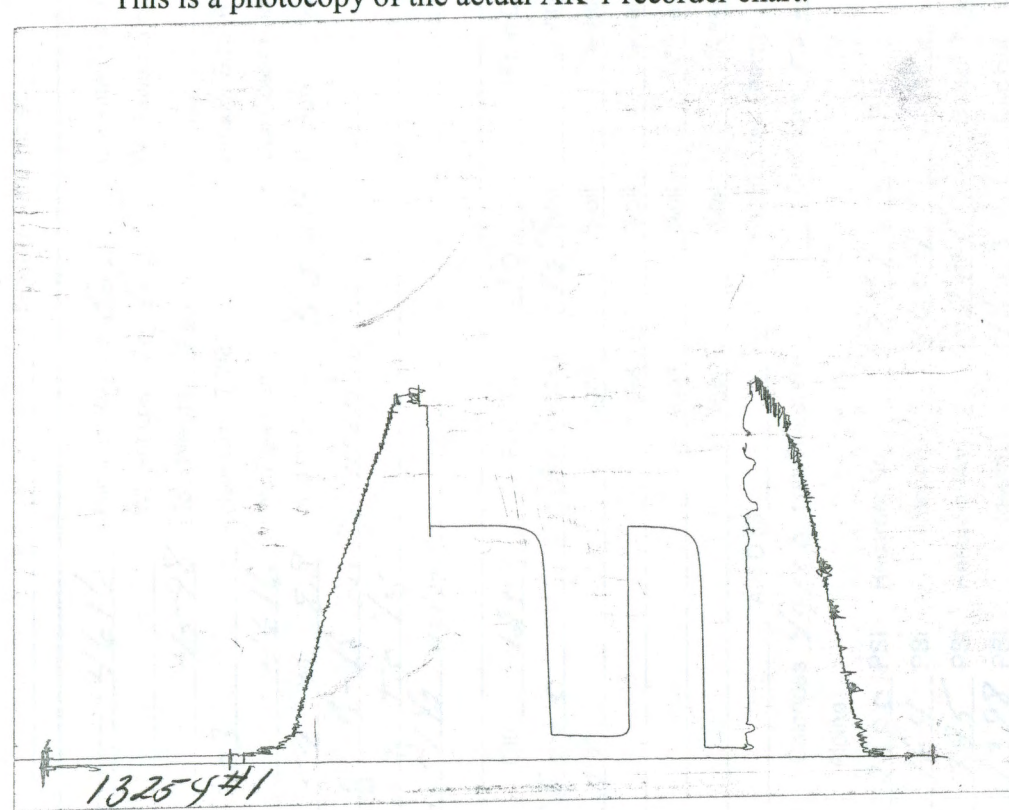


CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.

