

**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum Inc.**

525 S. Main  
Kingman, KS 67066

ATTN: Jon Messenger

**35-32s-6w**

*8 KGS DRL*

### **Calvert # C-1**

Start Date: 2006.03.13 @ 05:40:00

End Date: 2006.03.13 @ 13:43:00

Job Ticket #: 24382

DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Messenger Petroleum Inc.

Calvert # C-1

35-32s-6w

DST # 1

Miss.

2006.03.13



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum Inc.

525 S. Main  
Kingman, KS 67066

ATTN: Jon Messenger

**Calvert # C-1**

**35-32s-6w**

Job Ticket: 24382

**DST#: 1**

Test Start: 2006.03.13 @ 05:40:00

## GENERAL INFORMATION:

Formation: **Miss.**

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

Time Tool Opened: 08:11:15

Time Test Ended: 13:43:00

Test Type: **Conventional Bottom Hole**

Tester: **Davy Cline**

Unit No: **36**

Interval: **4460.00 ft (KB) To 4480.00 ft (KB) (TVD)**

Total Depth: **4480.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1388.00 ft (KB)**

**1379.00 ft (CF)**

KB to GR/CF: **9.00 ft**

**Serial #: 6799**

**Inside**

Press@RunDepth: **85.31 psig @ 4461.00 ft (KB)**

Start Date: **2006.03.13**

End Date:

**2006.03.13**

Start Time: **05:40:05**

End Time:

**13:42:59**

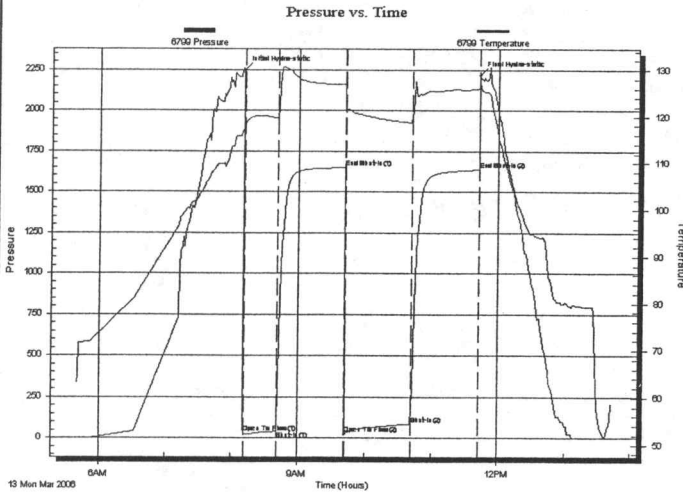
Capacity: **7000.00 psig**

Last Calib.: **2006.03.13**

Time On Btm: **2006.03.13 @ 08:10:45**

Time Off Btm: **2006.03.13 @ 11:43:00**

**TEST COMMENT:** IF: Strong blow. BOB 1 min. GTS 20 min. Gauged gas.  
IS: Bled off. No blow back.  
FF: Strong blow. BOB Immediately. Gauged gas.  
FS: Bled off. No blow back.



## PRESSURE SUMMARY

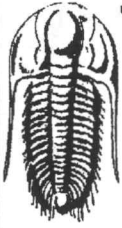
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2249.39	117.10	Initial Hydro-static
1	29.24	117.44	Open To Flow (1)
31	44.67	119.61	Shut-In(1)
91	1647.92	126.91	End Shut-In(1)
92	23.39	121.03	Open To Flow (2)
151	85.31	118.71	Shut-In(2)
212	1635.20	126.04	End Shut-In(2)
213	2218.55	127.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	G & WCM 8%g 38%w 54%m	0.32
0.00	Gas in all fluid free pipe.	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	2.50	26.81
Last Gas Rate	0.25	28.50	68.06
Max. Gas Rate	0.25	28.50	68.06



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Messenger Petroleum Inc.  
525 S. Main  
Kingman, KS 67066  
ATTN: Jon Messenger

**Calvert # C-1**  
**35-32s-6w**  
Job Ticket: 24382      **DST#: 1**  
Test Start: 2006.03.13 @ 05:40:00

**Tool Information**

Drill Pipe:	Length: 4217.00 ft	Diameter: 3.25 inches	Volume: 43.27 bbl	Tool Weight: 2400.00 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: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 44.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4460.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

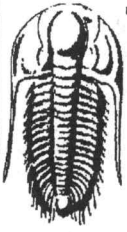
Tool Comments:

**Tool Description**

**Length (ft)    Serial No.    Position    Depth (ft)    Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4433.00	
Shut In Tool	5.00			4438.00	
Hydraulic tool	5.00			4443.00	
Jars	5.00			4448.00	
Safety Joint	2.00			4450.00	
Packer	5.00			4455.00	28.00      Bottom Of Top Packer
Packer	5.00			4460.00	
Stubb	1.00			4461.00	
Recorder	0.00	6799	Inside	4461.00	
Perforations	16.00			4477.00	
Recorder	0.00	13400	Outside	4477.00	
Bullnose	3.00			4480.00	20.00      Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petroleum Inc.

**Calvert # C-1**

525 S. Main  
Kingman, KS 67066

**35-32s-6w**

Job Ticket: 24382

**DST#: 1**

ATTN: Jon Messenger

Test Start: 2006.03.13 @ 05:40:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 10.38 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 8000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	G & WCM 8%g 38%w 54%m	0.320
0.00	Gas in all fluid free pipe.	0.000

Total Length: 65.00 ft

Total Volume: 0.320 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #: DC

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Messenger Petroleum Inc.

**Calvert # C-1**

525 S. Main  
Kingman, KS 67066

**35-32s-6w**

Job Ticket: 24382

**DST#: 1**

ATTN: Jon Messenger

Test Start: 2006.03.13 @ 05:40:00

### 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 <sup>3</sup> /d)
1	25	0.25	2.50	26.81
1	30	0.25	5.00	30.78
2	10	0.25	12.50	42.67
2	20	0.25	17.50	50.61
2	30	0.25	21.00	56.16
2	40	0.25	24.50	61.71
2	50	0.25	27.00	65.68
2	60	0.25	28.50	68.06

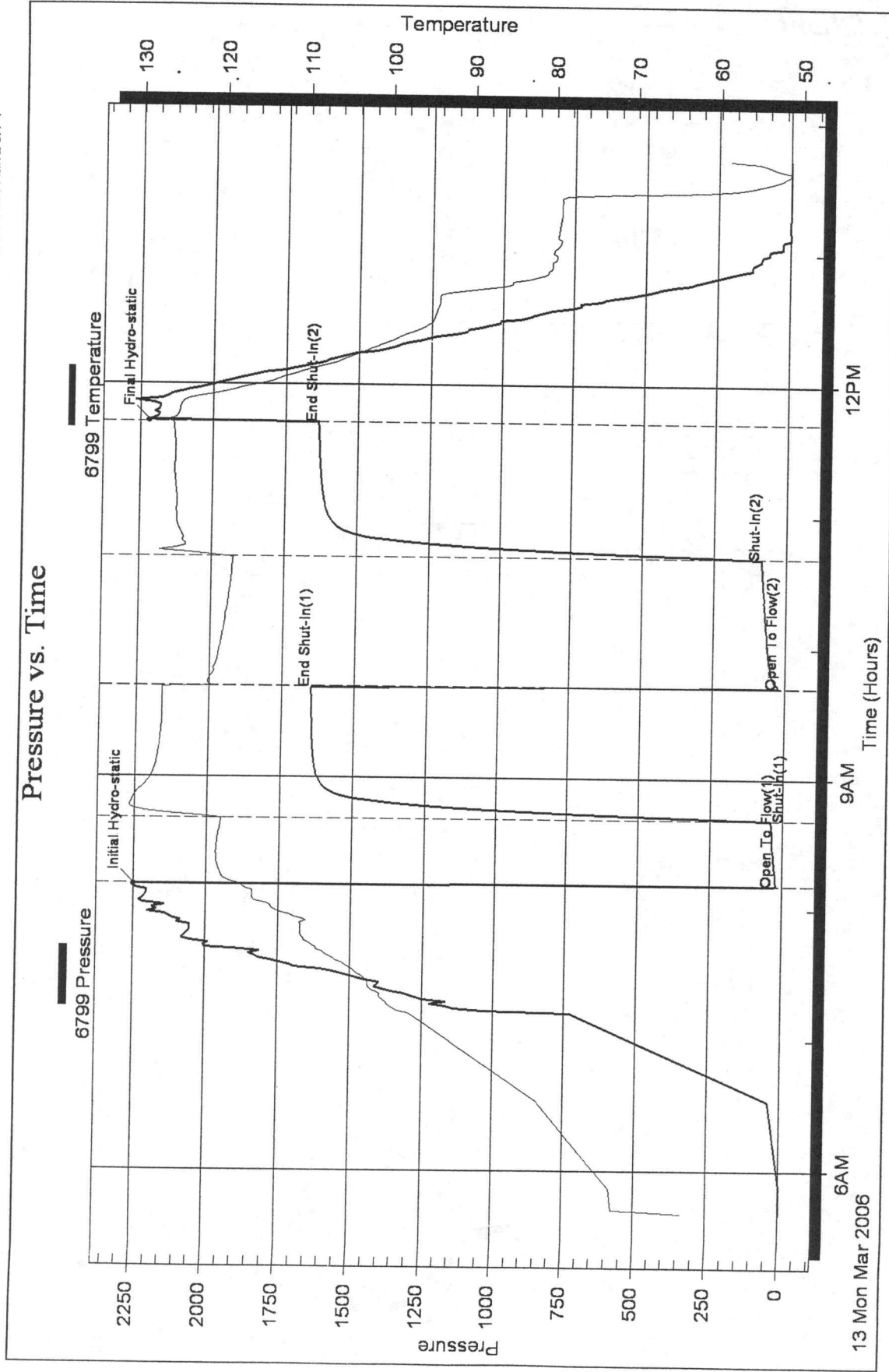
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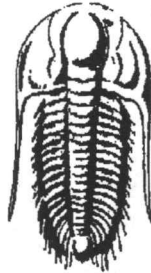
Inside

Messenger Petroleum Inc.

35-32s-6w

DST Test Number: 1





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum Inc.**

525 S. Main  
Kingman, KS 67066

ATTN: Jon Messenger

<sup>8</sup>  
**35-32s-6w**

*KGS DRL*

### Calvert # C-1

Start Date: 2006.03.13 @ 20:40:47

End Date: 2006.03.14 @ 03:25:47

Job Ticket #: 24382                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Messenger Petroleum Inc.

Calvert # C-1

35-32s-6w

DST # 2

Miss.

2006.03.13



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum Inc.

525 S. Main  
Kingman, KS 67066

ATTN: Jon Messenger

**Calvert # C-1**

**35-32s-6w**

Job Ticket: 24382

**DST#: 2**

Test Start: 2006.03.13 @ 20:40:47

## GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:26:32

Time Test Ended: 03:25:47

Test Type: Conventional Bottom Hole

Tester: Davy Cline

Unit No: 36

Interval: **4480.00 ft (KB) To 4500.00 ft (KB) (TVD)**

Total Depth: 4480.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1388.00 ft (KB)

1379.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 6799**

Inside

Press@RunDepth: 720.54 psig @ 4481.00 ft (KB)

Start Date: 2006.03.13

End Date:

2006.03.14

Capacity: 7000.00 psig

Last Calib.: 2006.03.14

Start Time: 20:40:52

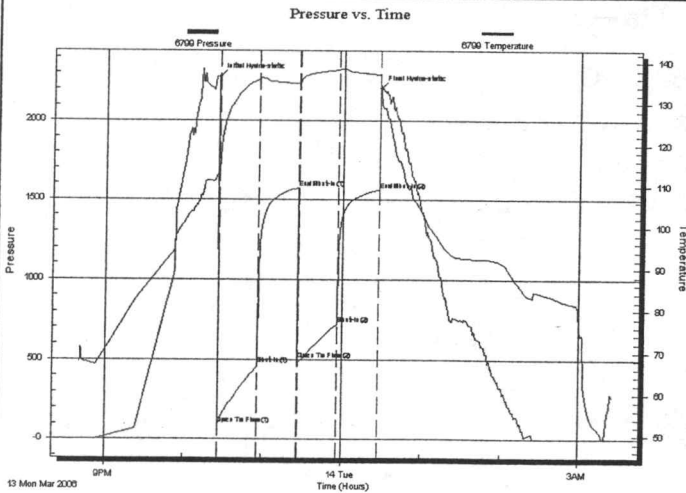
End Time:

03:25:46

Time On Btm: 2006.03.13 @ 22:26:02

Time Off Btm: 2006.03.14 @ 00:27:47

**TEST COMMENT:** IF: Strong blow . BOB 2 min 45 sec.  
IS: Bled off. Had blow back that slowly built back to BOB.  
FF: Strong blow . BOB 3 min.  
FS: Bled off. Had blow back that slowly built back to BOB.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2275.11	112.76	Initial Hydro-static
1	94.48	113.23	Open To Flow (1)
31	466.56	135.99	Shut-In(1)
61	1574.75	134.93	End Shut-In(1)
61	495.23	134.36	Open To Flow (2)
91	720.54	138.17	Shut-In(2)
122	1561.68	137.00	End Shut-In(2)
122	2202.58	136.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
270.00	G & MCW w/oil specs 10%g 46%w 44%	1.49
1114.00	Salt Water 100%w	11.43
0.00	Gas in all fluid free pipe.	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petroleum Inc.

**Calvert # C-1**

525 S. Main  
Kingman, KS 67066

**35-32s-6w**

Job Ticket: 24382

**DST#: 2**

ATTN: Jon Messenger

Test Start: 2006.03.13 @ 20:40:47

### Tool Information

Drill Pipe:	Length: 4216.00 ft	Diameter: 3.25 inches	Volume: 43.26 bbl	Tool Weight: 2400.00 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: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 73000.00 lb
			<u>Total Volume: 44.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4480.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 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			4453.00	
Shut In Tool	5.00			4458.00	
Hydraulic tool	5.00			4463.00	
Jars	5.00			4468.00	
Safety Joint	2.00			4470.00	
Packer	5.00			4475.00	28.00 Bottom Of Top Packer
Packer	5.00			4480.00	
Stubb	1.00			4481.00	
Recorder	0.00	6799	Inside	4481.00	
Perforations	16.00			4497.00	
Recorder	0.00	13400	Outside	4497.00	
Bullnose	3.00			4500.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Messenger Petroleum Inc.

**Calvert # C-1**

525 S. Main  
Kingman, KS 67066

**35-32s-6w**

Job Ticket: 24382

**DST#: 2**

ATTN: Jon Messenger

Test Start: 2006.03.13 @ 20:40:47

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

64350 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
270.00	G & MCW/w/oil specs 10%g 46%w 44%m	1.488
1114.00	Salt Water 100%w	11.430
0.00	Gas in all fluid free pipe.	0.000

Total Length: 1384.00 ft      Total Volume: 12.918 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: w ater Recovery- .20 ohms @ 60 deg.

Serial #: 6799

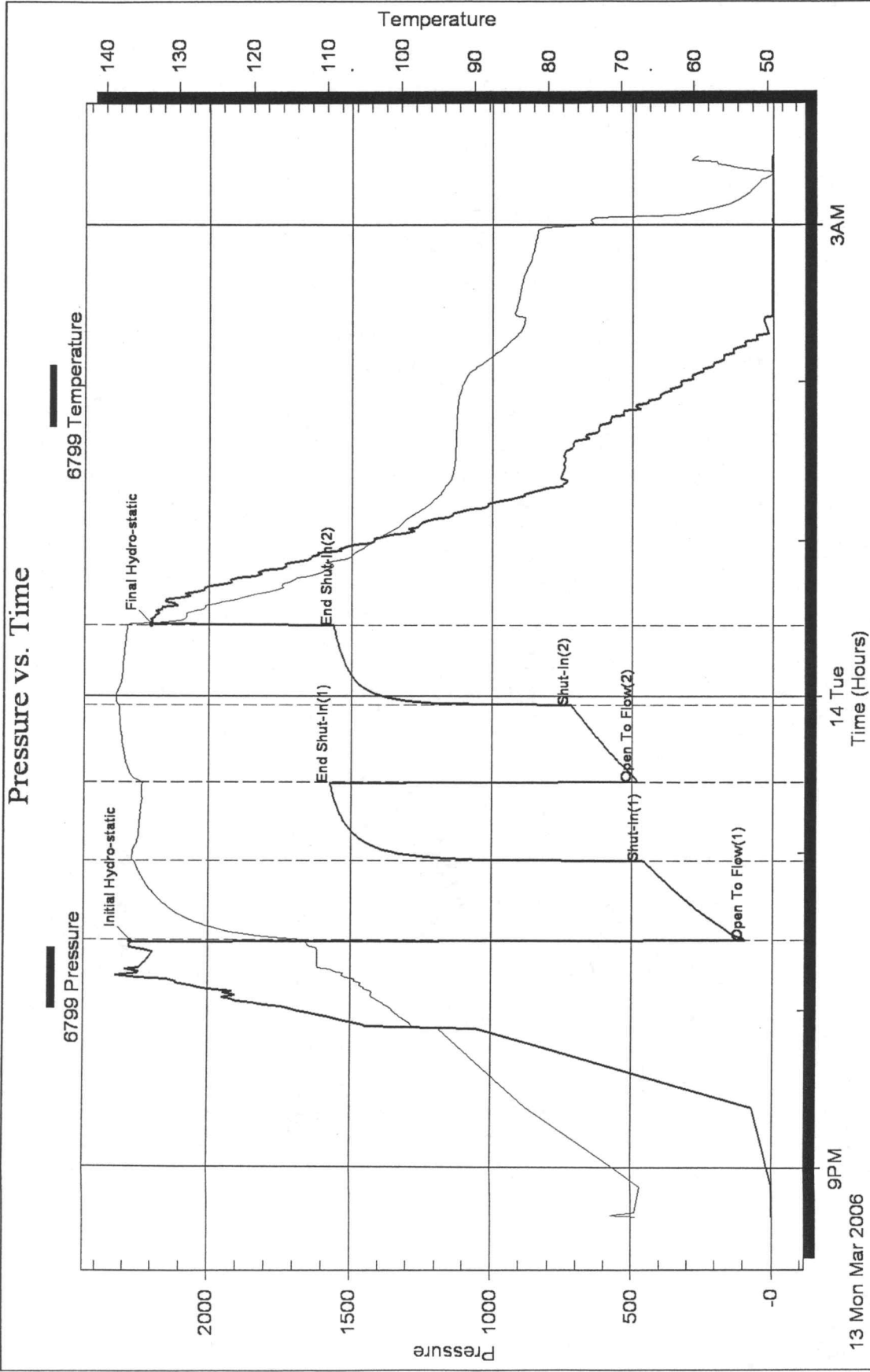
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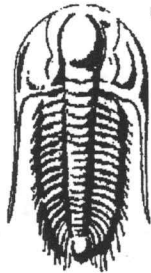
Messenger Petroleum Inc.

35-32s-6w

D&T Test Number: 2

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Messenger Petroleum Inc.**

525 S. Main  
Kingman, KS 67066

ATTN: Jon Messenger

<sup>8</sup>  
**35-32s-~~6w~~**

*KGS DRL*

**Calvert # C-1**

Start Date: 2006.03.15 @ 07:19:02

End Date: 2006.03.15 @ 13:44:47

Job Ticket #: 24383                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Messenger Petroleum Inc.

Calvert # C-1

35-32s-6w

DST # 3

Simpson

2006.03.15



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum Inc.

525 S. Main  
Kingman, KS 67066

ATTN: Jon Messenger

**Calvert # C-1**

**35-32s-6w**

Job Ticket: 24383

DST#: 3

Test Start: 2006.03.15 @ 07:19:02

## GENERAL INFORMATION:

Formation: **Simpson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:29:02

Time Test Ended: 13:44:47

Test Type: Conventional Bottom Hole

Tester: Davy Cline

Unit No: 36

Interval: **4866.00 ft (KB) To 4882.00 ft (KB) (TVD)**

Total Depth: 4882.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1388.00 ft (KB)

1379.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 6799**

Inside

Press@RunDepth: 22.46 psig @ 4867.00 ft (KB)

Start Date: 2006.03.15

End Date:

2006.03.15

Capacity: 7000.00 psig

Last Calib.: 2006.03.15

Start Time: 07:19:07

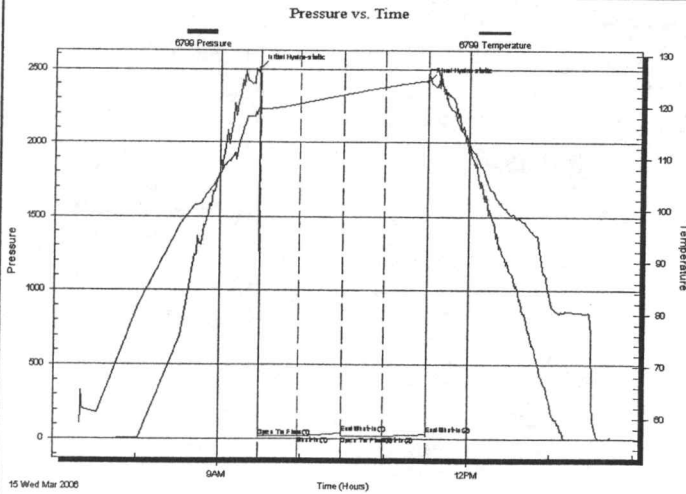
End Time:

13:44:46

Time On Btm: 2006.03.15 @ 09:28:32

Time Off Btm: 2006.03.15 @ 11:30:17

**TEST COMMENT:** IF: Weak blow. Had a weak 1/4 inch blow throughout flow.  
IS: No blow back.  
FF: No blow.  
FS: No blow.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2504.75	120.10	Initial Hydro-static
1	18.97	119.67	Open To Flow (1)
30	20.89	120.70	Shut-In(1)
61	42.78	122.37	End Shut-In(1)
61	21.22	122.39	Open To Flow (2)
91	22.46	123.87	Shut-In(2)
122	33.41	125.17	End Shut-In(2)
122	2418.92	126.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drig. Mud 100% m	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petroleum Inc.

**Calvert # C-1**

525 S. Main  
Kingman, KS 67066

**35-32s-6w**

Job Ticket: 24383

**DST#: 3**

ATTN: Jon Messenger

Test Start: 2006.03.15 @ 07:19:02

### Tool Information

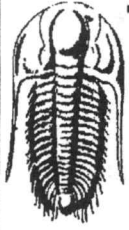
Drill Pipe:	Length: 4620.00 ft	Diameter: 3.25 inches	Volume: 47.40 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 48.58 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4866.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	44.00 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			4839.00	
Shut In Tool	5.00			4844.00	
Hydraulic tool	5.00			4849.00	
Jars	5.00			4854.00	
Safety Joint	2.00			4856.00	
Packer	5.00			4861.00	28.00 Bottom Of Top Packer
Packer	5.00			4866.00	
Stubb	1.00			4867.00	
Recorder	0.00	6799	Inside	4867.00	
Perforations	12.00			4879.00	
Recorder	0.00	13400	Outside	4879.00	
Bullnose	3.00			4882.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 44.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petroleum Inc.

**Calvert # C-1**

.525 S. Main  
Kingman, KS 67066

**35-32s-6w**

Job Ticket: 24383

**DST#: 3**

ATTN: Jon Messenger

Test Start: 2006.03.15 @ 07:19:02

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

### Recovery Information

#### Recovery Table

Length ft	Description	Volume bbl
5.00	Drig. Mud 100%m	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:

Serial #: 6799

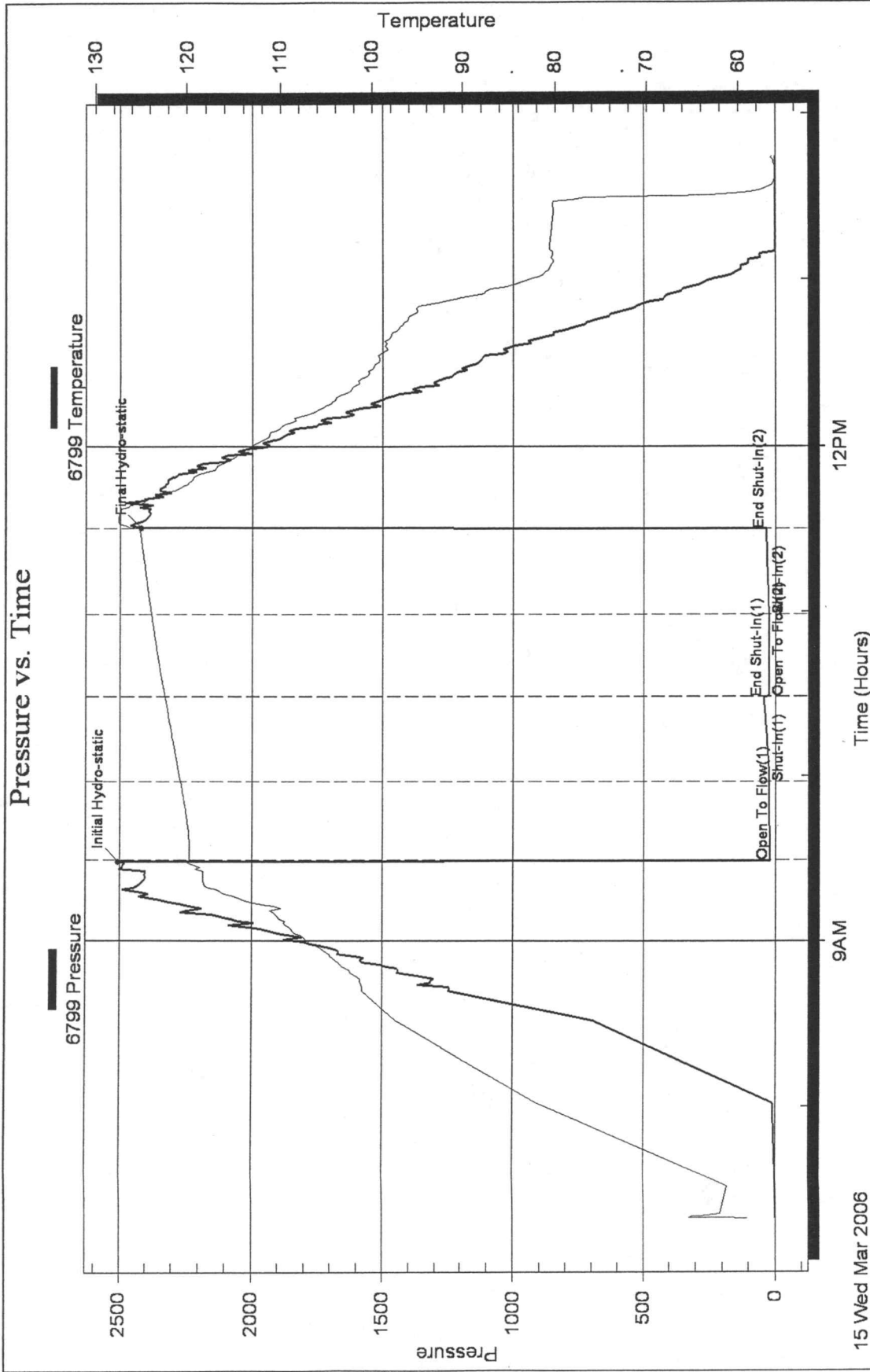
Inside

Messenger Petroleum Inc.

35-32s-6w

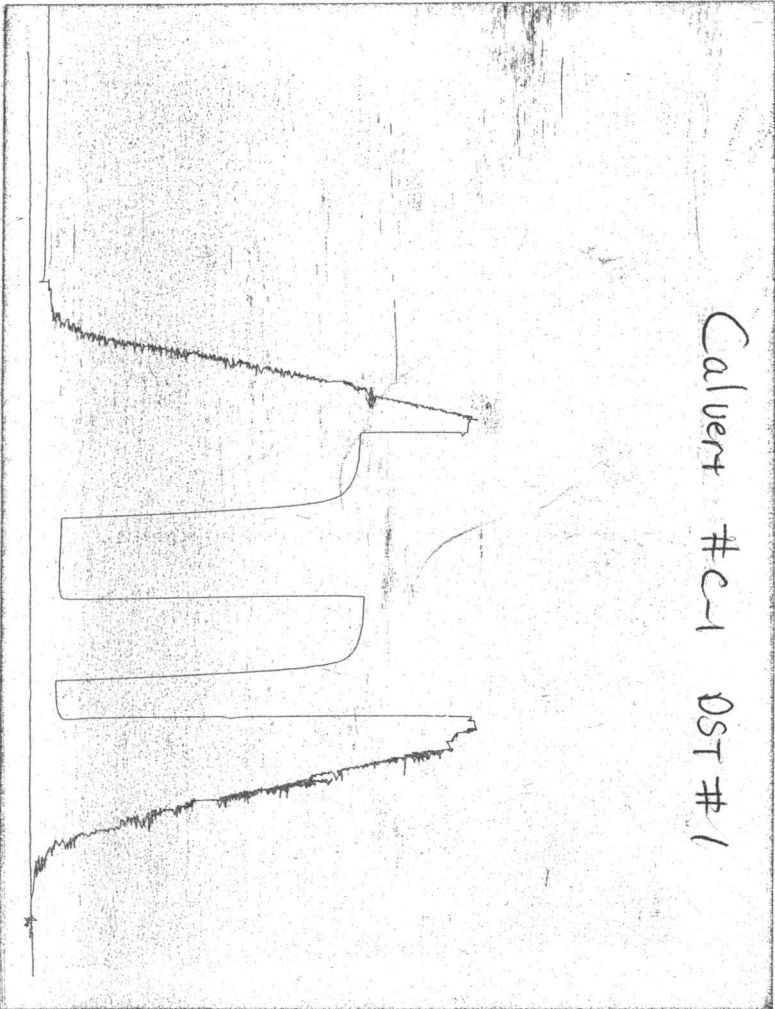
DST Test Number: 3

### Pressure vs. Time



**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.

