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1-31s-8w  
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**TRILOBITE**  
**TESTING, INC.**

Release  
AUG 11 2004  
From  
Confidential

## DRILL STEM TEST REPORT

Prepared For: **MTM Petl.Inc.**

P.O.Box 82  
Spivey Ks. 67142

ATTN: Jerry A.Smith

**1-31s-8w Harper Ks.**

**Maloney #1**

Start Date: 2003.03.17 @ 18:51:27

End Date: 2003.03.18 @ 02:19:27

Job Ticket #: 16860      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

MTM Petl.Inc.

Maloney #1

1-31s-8w Harper Ks.

DST # 1

Miss.

2003.03.17



TRILOBITE  
TESTING, INC.

## DRILL STEM TEST REPORT

MTM Petl. Inc.

P.O.Box 82  
Spivey Ks. 67142

ATTN: Jerry A. Smith

Maloney #1

1-31s-8w Harper Ks.

Job Ticket: 16860

DST#: 1

Test Start: 2003.03.17 @ 18:51:27

### GENERAL INFORMATION:

Formation: Miss.

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:07:12

Time Test Ended: 02:19:27

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: 4402.00 ft (KB) To 4417.00 ft (KB) (TVD)

Total Depth: 4417.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1656.00 ft (KB)

1648.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 2342

Inside

Press@RunDepth: 41.50 psig @ 4403.00 ft (KB)

Start Date: 2003.03.17

End Date:

2003.03.18

Start Time: 18:51:28

End Time:

02:19:27

Capacity: 7000.00 psig

Last Calib.: 2003.03.18

Time On Btm: 2003.03.17 @ 21:02:42

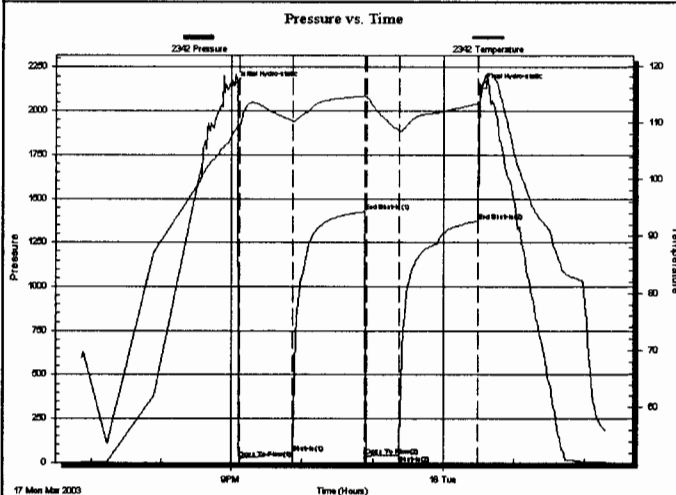
Time Off Btm: 2003.03.18 @ 00:31:12

TEST COMMENT: IF: Strong blow . B.O.B. in 20 secs. GTS in 11 mins. (see gas volume report)

IS: No blow .

FF: Strong blow . (see gas volume report)

FS: Strong blow . B.O.B.



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2145.65         | 108.47       | Initial Hydro-static |
| 5           | 21.61           | 109.55       | Open To Flow (1)     |
| 50          | 52.86           | 110.22       | Shut-In (1)          |
| 111         | 1425.72         | 114.61       | End Shut-In (1)      |
| 113         | 39.82           | 114.44       | Open To Flow (2)     |
| 140         | 41.50           | 108.53       | Shut-In (2)          |
| 207         | 1373.77         | 113.38       | End Shut-In (2)      |
| 209         | 2138.18         | 114.03       | Final Hydro-static   |

### Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 58.00       | SGCM 4%g 96%m | 0.81         |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |

### Gas Rates

|                | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.25           | 5.00            | 30.78            |
| Last Gas Rate  | 0.50           | 3.00            | 117.38           |
| Max. Gas Rate  | 0.25           | 8.00            | 35.54            |



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

## DRILL STEM TEST REPORT

### TOOL DIAGRAM

MTM Petl.Inc.

**Maloney #1**

P.O.Box 82  
Spivey Ks. 67142

**1-31s-8w Harper Ks.**

Job Ticket: 16860

**DST#: 1**

ATTN: Jerry A.Smith

Test Start: 2003.03.17 @ 18:51:27

### Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 4402.00 ft | Diameter: 3.80 inches | Volume: 61.75 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:  | 20000.00 lb |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight to Pull Loose:  | 51000.00 lb |
|                           |                    |                       | <b>Total Volume: 61.75 bbl</b> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 27.00 ft           |                       |                                | String Weight: Initial | 42000.00 lb |
| Depth to Top Packer:      | 4402.00 ft         |                       |                                | Final                  | 42000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 15.00 ft           |                       |                                |                        |             |
| Tool Length:              | 42.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                        |             |

Tool Comments:

### Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| C.O. Sub         | 1.00        |            |          | 4376.00    |                               |
| S.I. Tool        | 5.00        |            |          | 4381.00    |                               |
| HMV              | 5.00        |            |          | 4386.00    |                               |
| Jars             | 5.00        |            |          | 4391.00    |                               |
| Safety Joint     | 2.00        |            |          | 4393.00    |                               |
| Packer           | 4.00        |            |          | 4397.00    | 27.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 4402.00    |                               |
| Stubb            | 1.00        |            |          | 4403.00    |                               |
| Recorder         | 0.00        | 2342       | Inside   | 4403.00    |                               |
| Perforations     | 9.00        |            |          | 4412.00    |                               |
| Recorder         | 0.00        | 13222      | Outside  | 4412.00    |                               |
| Bullnose         | 5.00        |            |          | 4417.00    | 15.00 Bottom Packers & Anchor |

**Total Tool Length: 42.00**

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**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

MTM Petl. Inc.

**Maloney #1**

P.O.Box 82  
Spivey Ks. 67142

**1-31s-8w Harper Ks.**

Job Ticket: 16860

**DST#: 1**

ATTN: Jerry A. Smith

Test Start: 2003.03.17 @ 18:51:27

### 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:

4000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 58.00        | SGCM 4%g 96%m | 0.814         |

Total Length: 58.00 ft

Total Volume: 0.814 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-1

Laboratory Name: Caraway

Laboratory Location: Liberal KS

Recovery Comments:

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DST Test Number: 1

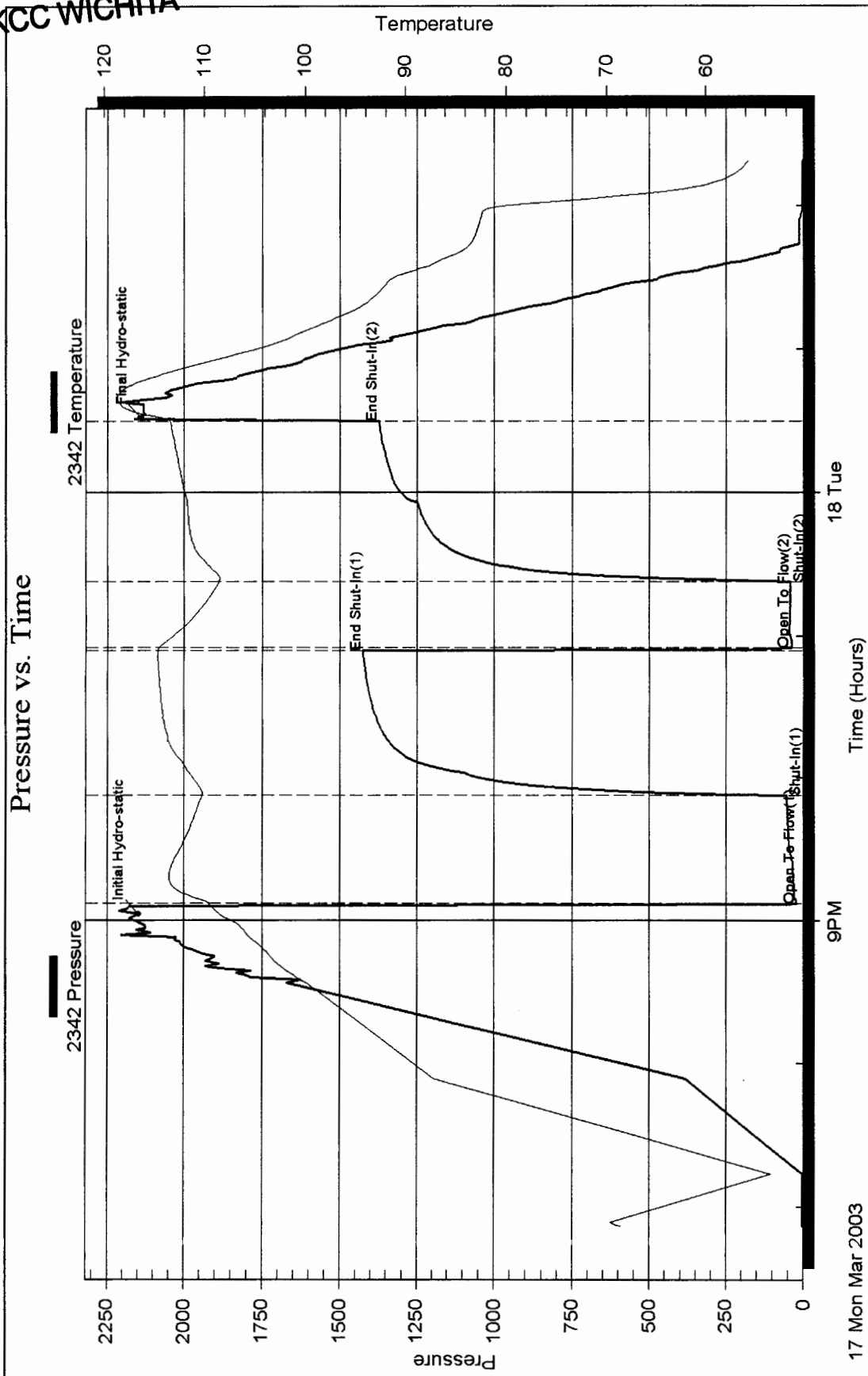
1-31s-8w Harper Ks.

MTM Petl Inc.

Inside

Serial #: 2342

# Pressure vs. Time



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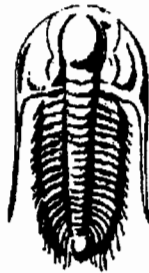
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**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **MTM Petl.Inc.**

P.O.Box 82  
Spivey Ks. 67142

ATTN: Jerry A. Smith

**1-31s-8w Harper Ks.**

**Maloney #1**

Start Date: 2003.03.19 @ 07:27:18

End Date: 2003.03.19 @ 11:50:18

Job Ticket #: 16861      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

MTM Petl.Inc.

Maloney #1

1-31s-8w Harper Ks.

DST # 2

Viola/Simpson

2003.03.19



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

MTM Petll, Inc.

P.O.Box 82  
Spivey Ks. 67142

ATTN: Jerry A. Smith

**Maloney #1**

**1-31s-8w Harper Ks.**

Job Ticket: 16861

**DST#: 2**

Test Start: 2003.03.19 @ 07:27:18

### GENERAL INFORMATION:

Formation: **Viola/Simpson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:29:33

Time Test Ended: 11:50:18

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: **4776.00 ft (KB) To 4786.00 ft (KB) (TVD)**

Total Depth: 4786.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1656.00 ft (KB)

1648.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 2342**

**Inside**

Press@RunDepth: 18.29 psig @ 4777.00 ft (KB)

Start Date: 2003.03.19

End Date:

2003.03.19

Start Time: 07:27:19

End Time:

11:50:18

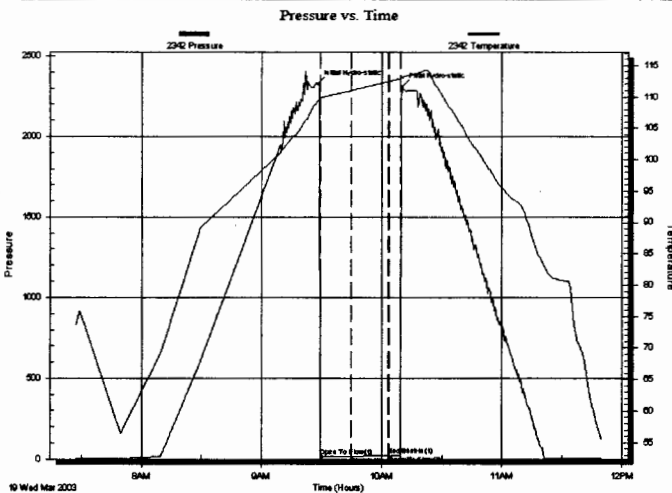
Capacity: 7000.00 psig

Last Calib.: 2003.03.19

Time On Btmr: 2003.03.19 @ 09:28:03

Time Off Btmr: 2003.03.19 @ 10:10:18

**TEST COMMENT:** IF: Weak surface blow.  
IS: No blow.  
FF: No blow.  
Pulled tool.



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2325.26         | 109.36       | Initial Hydro-static |
| 2           | 18.08           | 109.76       | Open To Flow (1)     |
| 17          | 18.29           | 111.02       | Shut-In(1)           |
| 36          | 22.11           | 112.46       | End Shut-In(1)       |
| 36          | 19.55           | 112.48       | Open To Flow (2)     |
| 42          | 18.33           | 112.90       | Shut-In(2)           |
| 43          | 2307.38         | 113.12       | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 1.00        | Drig.mud    | 0.01         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



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## DRILL STEM TEST REPORT

TOOL DIAGRAM

MTM Petl.Inc.

**Maloney #1**

P.O.Box 82  
Spivey Ks. 67142

**1-31s-8w Harper Ks.**

Job Ticket: 16861

**DST#: 2**

ATTN: Jerry A.Smith

Test Start: 2003.03.19 @ 07:27:18

### Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 4766.00 ft | Diameter: 3.80 inches | Volume: 66.85 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:  | 20000.00 lb |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight to Pull Loose:  | 48000.00 lb |
|                           |                    |                       | <b>Total Volume: 66.85 bbl</b> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 17.00 ft           |                       |                                | String Weight: Initial | 44000.00 lb |
| Depth to Top Packer:      | 4776.00 ft         |                       |                                | Final                  | 44000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 10.00 ft           |                       |                                |                        |             |
| Tool Length:              | 37.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                        |             |

Tool Comments:

### Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| C.O. Sub         | 1.00        |            |          | 4750.00    |                               |
| S.I. Tool        | 5.00        |            |          | 4755.00    |                               |
| HMV              | 5.00        |            |          | 4760.00    |                               |
| Jars             | 5.00        |            |          | 4765.00    |                               |
| Safety Joint     | 2.00        |            |          | 4767.00    |                               |
| Packer           | 4.00        |            |          | 4771.00    | 27.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 4776.00    |                               |
| Stubb            | 1.00        |            |          | 4777.00    |                               |
| Recorder         | 0.00        | 2342       | Inside   | 4777.00    |                               |
| Perforations     | 4.00        |            |          | 4781.00    |                               |
| Recorder         | 0.00        | 13222      | Outside  | 4781.00    |                               |
| Bullnose         | 5.00        |            |          | 4786.00    | 10.00 Bottom Packers & Anchor |

**Total Tool Length: 37.00**

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## DRILL STEM TEST REPORT

### FLUID SUMMARY

MTM Petl. Inc.

**Maloney #1**

P.O.Box 82  
Spivey Ks. 67142

**1-31s-8w Harper Ks.**

Job Ticket: 16861

**DST#: 2**

ATTN: Jerry A. Smith

Test Start: 2003.03.19 @ 07:27:18

### 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:

4000 ppm

Viscosity: 40.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 1.00         | Drig.mud    | 0.014         |

Total Length: 1.00 ft      Total Volume: 0.014 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

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DST Test Number: 2

1-31s-8w Harper Ks.

MTM Pet. Inc.

Inside

Serial #: 2342

# Pressure vs. Time

