

15-167-23237

4-12s-15w



DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

Start Date: 2003.11.12 @ 00:21:00

End Date: 2003.11.12 @ 06:37:36

Job Ticket #: 18478 DST #: 1

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18478

DST#: 1

Test Start: 2003.11.12 @ 00:21:00

GENERAL INFORMATION:

Formation: **Toronto**

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

Time Tool Opened: 02:06:06

Time Test Ended: 06:37:36

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: **2705.00 ft (KB) To 2766.00 ft (KB) (TVD)**

Total Depth: **2766.00 ft (KB) (TVD)**

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

Reference Elevations: **1687.00 ft (KB)**

1682.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: **6741** Inside

Press@RunDepth: **78.64 psig @ 2711.00 ft (KB)**

Start Date: **2003.11.12**

End Date:

2003.11.12

Start Time: **00:21:01**

End Time:

06:37:36

Capacity: **7000.00 psig**

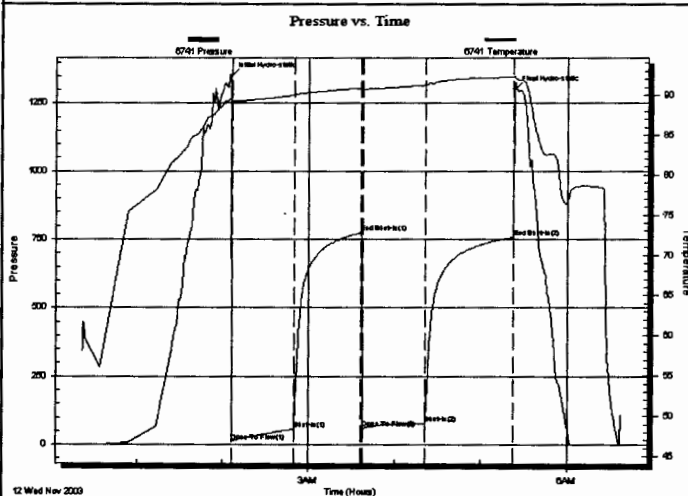
Last Calib.: **2003.11.12**

Time On Btm: **2003.11.12 @ 02:05:36**

Time Off Btm: **2003.11.12 @ 05:22:36**

TEST COMMENT: **F-Weak blow built to 4" in**
FF-WeakSurface blow

ISI-Dead
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1349.71	89.50	Initial Hydro-static
1	12.04	88.89	Open To Flow (1)
44	56.38	90.00	Shut-In (1)
91	773.91	90.89	End Shut-In (1)
92	60.06	90.76	Open To Flow (2)
135	78.64	91.26	Shut-In (2)
197	757.49	92.26	End Shut-In (2)
197	1300.70	92.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
140.00	Drilling mud w with few oil specks	0.83

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18478

DST#: 1

ATTN: Allen Bangert

Test Start: 2003.11.12 @ 00:21:00

Tool Information

Drill Pipe:	Length: 2575.00 ft	Diameter: 3.80 inches	Volume: 36.12 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	36.73 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	2705.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	61.00 ft				
Tool Length:	81.00 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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Change Over Sub	1.00			2686.00	
Shut In Tool	5.00			2691.00	
Hydraulic tool	5.00			2696.00	
Packer	4.00			2700.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	2705.00	
Stubb	1.00			2706.00	
Perforations	4.00			2710.00	
Change Over Sub	1.00			2711.00	
Recorder	0.00	6741	Inside	2711.00	
Blank Spacing	31.00			2742.00	
Change Over Sub	1.00			2743.00	
Recorder	0.00	11084	Outside	2743.00	
Perforations	20.00			2763.00	
Bullnose	3.00			2766.00	61.00 Bottom Packers & Anchor

Total Tool Length: 81.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18478

DST#: 1

ATTN: Allen Bangert

Test Start: 2003.11.12 @ 00:21:00

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:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	Drilling mud with few oil specks	0.825

Total Length: 140.00 ft

Total Volume: 0.825 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6741

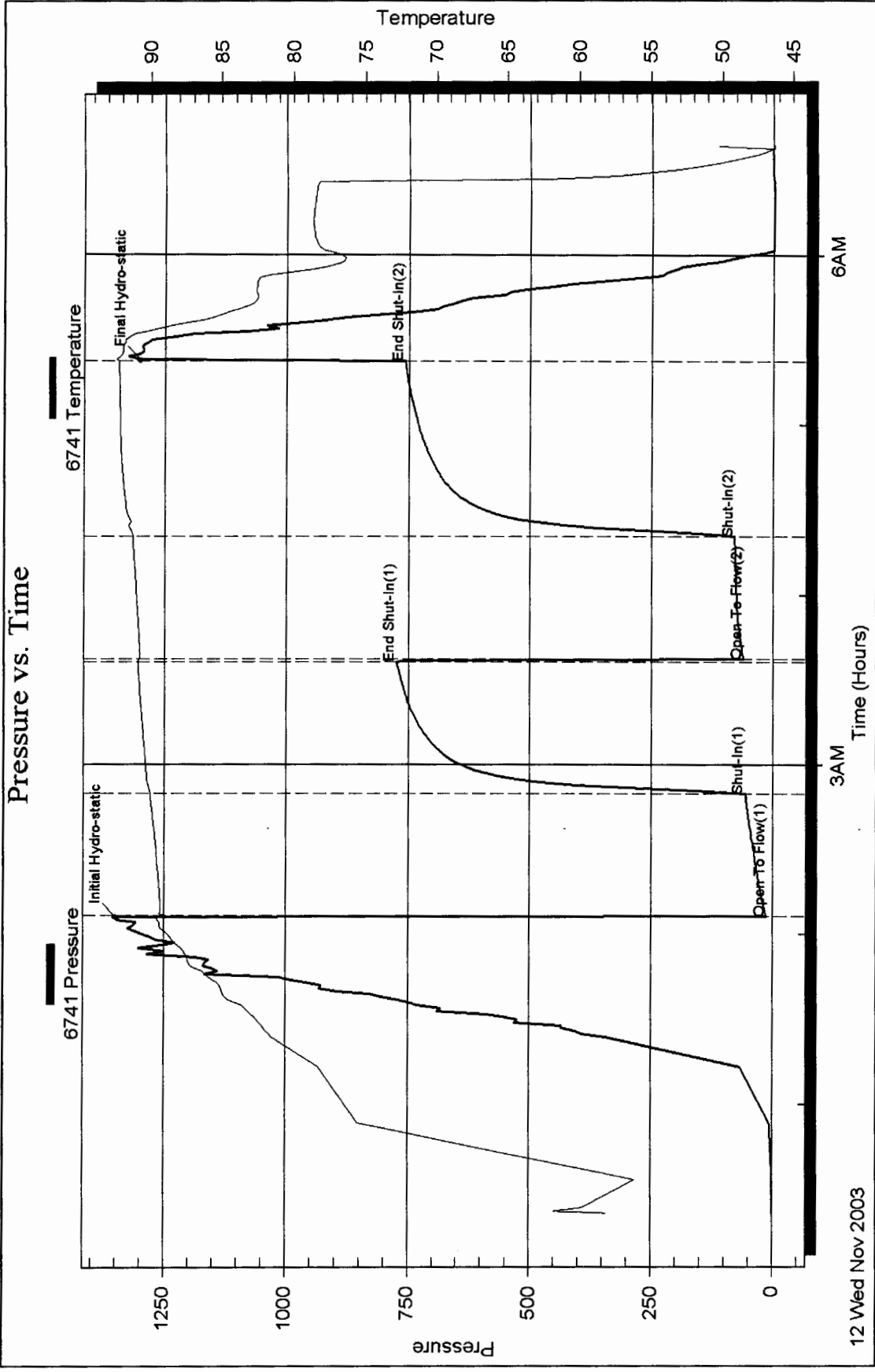
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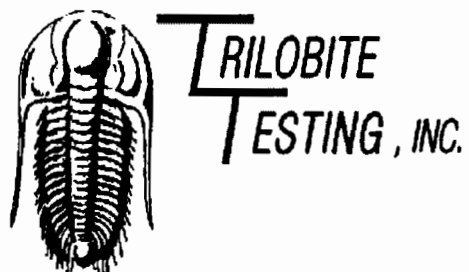
Mai Oil Operations Inc.

4-12s-15w

DST Test Number: 1

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

Start Date: 2003.11.12 @ 17:15:29

End Date: 2003.11.12 @ 23:40:34

Job Ticket #: 18479 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18479

DST#: 2

Test Start: 2003.11.12 @ 17:15:29

GENERAL INFORMATION:

Formation: L.Kc.-B

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:50:04

Time Test Ended: 23:40:34

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: 2843.00 ft (KB) To 2874.00 ft (KB) (TVD)

Total Depth: 2874.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1687.00 ft (KB)

1682.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 103.65 psig @ 2851.00 ft (KB)

Start Date: 2003.11.12

End Date:

2003.11.12

Start Time: 17:15:30

End Time:

23:40:34

Capacity: 7000.00 psig

Last Calib.: 2003.11.12

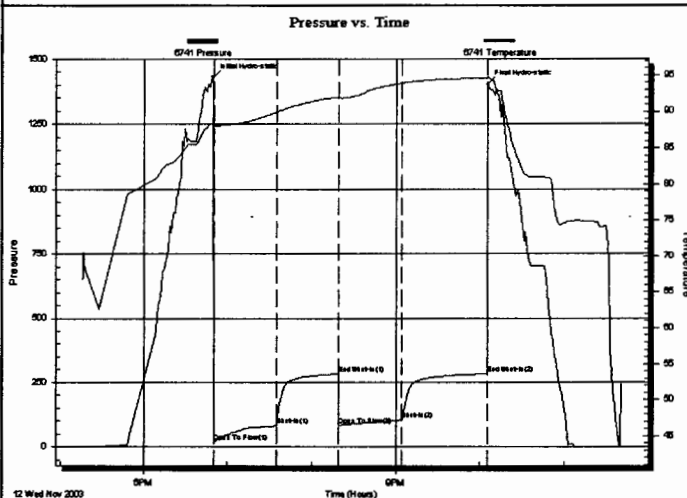
Time On Btm: 2003.11.12 @ 18:49:34

Time Off Btm: 2003.11.12 @ 22:05:34

TEST COMMENT: IF-Weak to Fair built 6" in.
FF-Weak built 3" in

ISI-Dead

FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1429.85	88.39	Initial Hydro-static
1	19.01	88.12	Open To Flow (1)
45	81.37	89.90	Shut-In (1)
89	282.61	92.00	End Shut-In (1)
90	83.40	91.94	Open To Flow (2)
135	103.65	93.95	Shut-In (2)
196	282.38	94.62	End Shut-In (2)
196	1402.26	94.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
192.00	Muddy Salt Water 25% M--75% S.W.	1.55

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18479

DST#: 2

Test Start: 2003.11.12 @ 17:15:29

Tool Information

Drill Pipe:	Length: 2727.00 ft	Diameter: 3.80 inches	Volume: 38.25 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	54000.00 lb
		Total Volume:	38.86 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	2843.00 ft			Final	47000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	31.00 ft				
Tool Length:	51.00 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			2824.00	
Shut In Tool	5.00			2829.00	
Hydraulic tool	5.00			2834.00	
Packer	4.00			2838.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	2843.00	
Stubb	1.00			2844.00	
Perforations	7.00			2851.00	
Recorder	0.00	6741	Inside	2851.00	
Perforations	20.00			2871.00	
Recorder	0.00	13308	Outside	2871.00	
Bullnose	3.00			2874.00	31.00 Bottom Packers & Anchor

Total Tool Length: 51.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18479

DST#: 2

ATTN: Allen Bangert

Test Start: 2003.11.12 @ 17:15:29

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:

100000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
192.00	Muddy Salt Water 25% M--75% S.W.	1.555

Total Length: 192.00 ft

Total Volume: 1.555 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

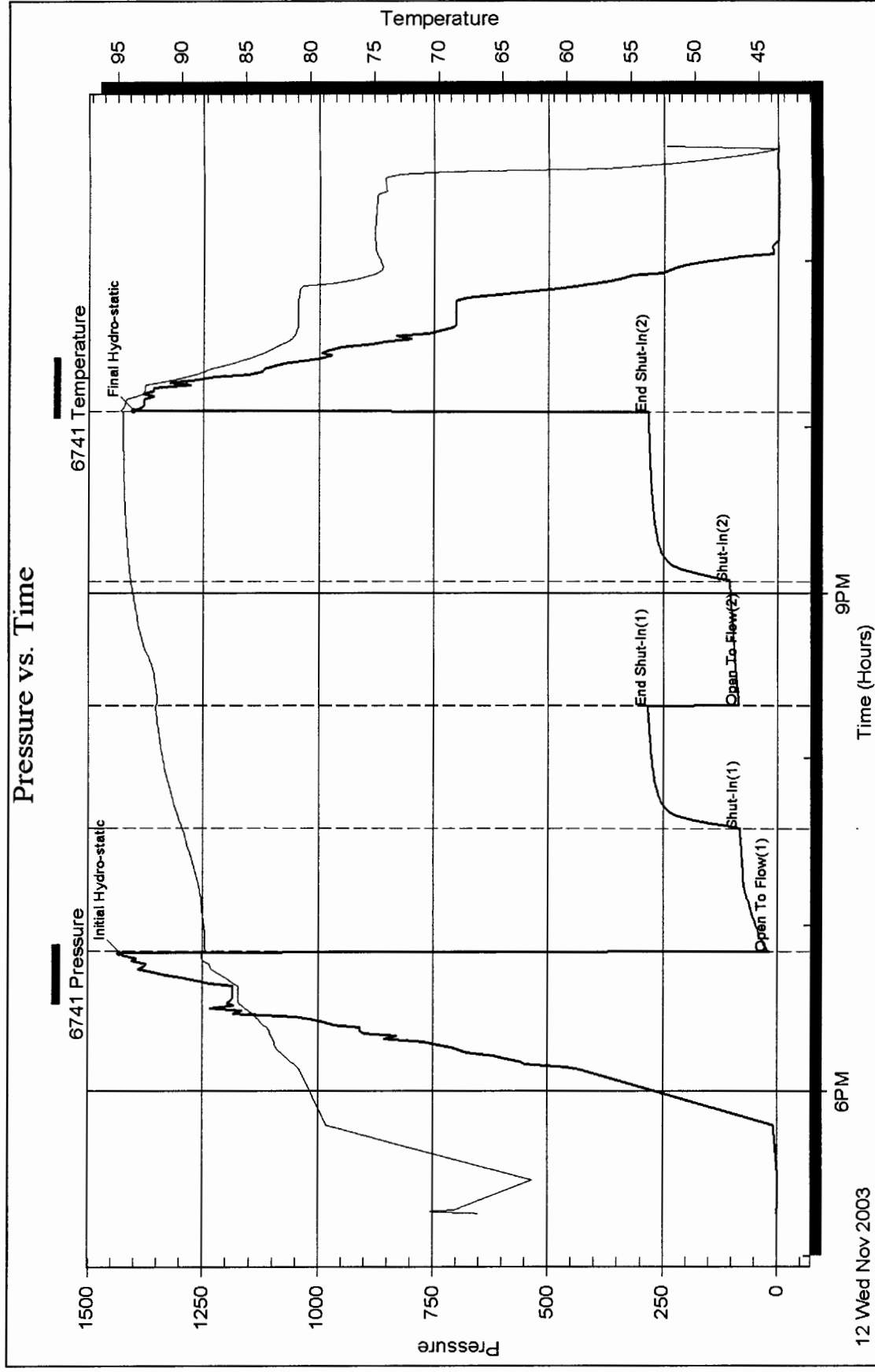
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Inside

Mai Oil Operations Inc.

4-12s-15w

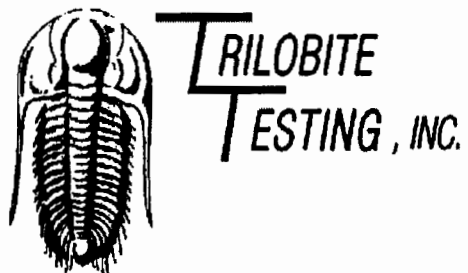
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 18479

Printed: 2003.11.18 @ 14:48:33 Page 5



DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

Start Date: 2003.11.13 @ 07:21:23

End Date: 2003.11.13 @ 11:43:59

Job Ticket #: 18480 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18480

DST#: 3

Test Start: 2003.11.13 @ 07:21:23

GENERAL INFORMATION:

Formation: **L.Kc.-D**

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

Time Tool Opened: 08:37:59

Time Test Ended: 11:43:59

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: **2877.00 ft (KB) To 2898.00 ft (KB) (TVD)**

Total Depth: **2898.00 ft (KB) (TVD)**

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

Reference Elevations: **1687.00 ft (KB)**

1682.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6741

Inside

Press@RunDepth: **21.74 psig @ 2880.00 ft (KB)**

Start Date: **2003.11.13**

End Date:

2003.11.13

Start Time: **07:21:24**

End Time:

11:43:59

Capacity: **7000.00 psig**

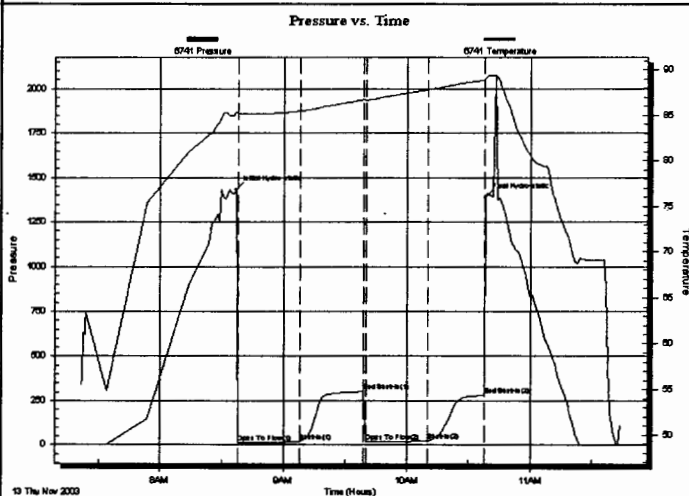
Last Calib.: **2003.11.13**

Time On Btm: **2003.11.13 @ 08:36:59**

Time Off Btm: **2003.11.13 @ 10:37:59**

TEST COMMENT: **IF-Weak surface blow**
FF-Dead

IS-Dead
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1431.18	85.37	Initial Hydro-static
1	10.71	85.21	Open To Flow (1)
31	17.39	85.49	Shut-In(1)
62	302.25	86.73	End Shut-In(1)
63	17.74	86.67	Open To Flow (2)
93	21.74	87.85	Shut-In(2)
121	282.10	88.91	End Shut-In(2)
121	1389.02	89.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	WCM	0.05

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18480

DST#: 3

Test Start: 2003.11.13 @ 07:21:23

Tool Information

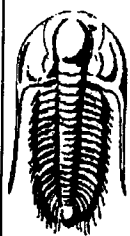
Drill Pipe:	Length: 2757.00 ft	Diameter: 3.80 inches	Volume: 38.67 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	55000.00 lb
		Total Volume:	39.28 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	2877.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	21.00 ft				
Tool Length:	41.00 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			2858.00	
Shut In Tool	5.00			2863.00	
Hydraulic tool	5.00			2868.00	
Packer	4.00			2872.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	2877.00	
Stubb	1.00			2878.00	
Perforations	2.00			2880.00	
Recorder	0.00	6741	Inside	2880.00	
Perforations	15.00			2895.00	
Recorder	0.00	13308	Outside	2895.00	
Bullnose	3.00			2898.00	21.00 Bottom Packers & Anchor

Total Tool Length: 41.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18480

DST#: 3

ATTN: Allen Bangert

Test Start: 2003.11.13 @ 07:21:23

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:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	WCM	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

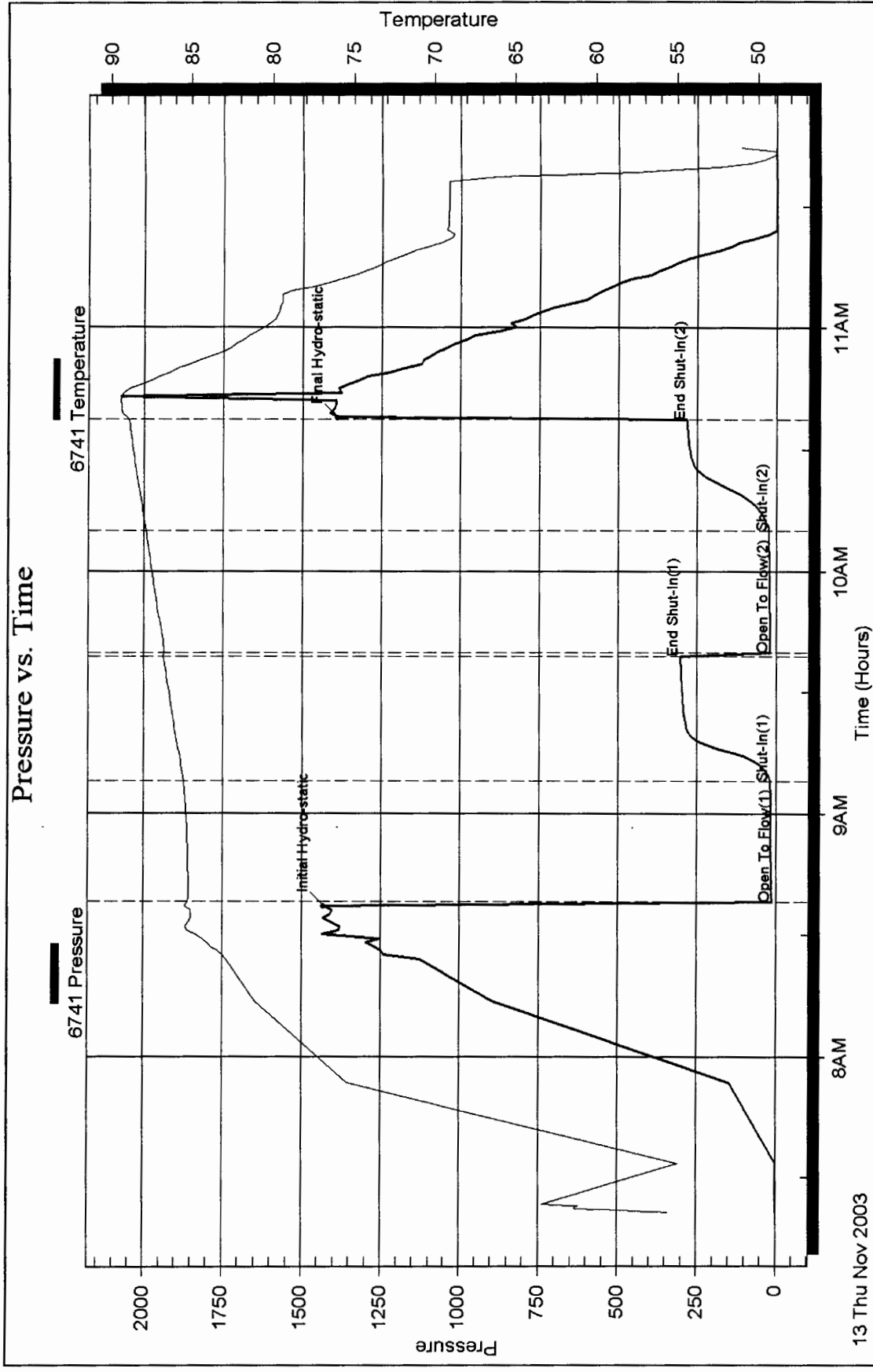
Serial #: 6741

Inside

Mai Oil Operations Inc.

4-12s-15w

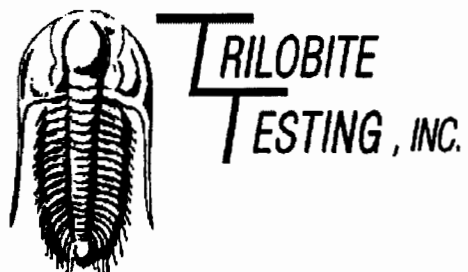
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 18480

Printed: 2003.11.18 @ 14:53:53 Page 5



DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

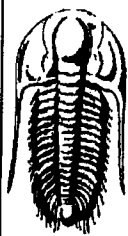
Start Date: 2003.11.13 @ 17:55:21

End Date: 2003.11.13 @ 23:57:26

Job Ticket #: 18481

DST #: 4

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18481

DST#: 4

Test Start: 2003.11.13 @ 17:55:21

GENERAL INFORMATION:

Formation: **L.Kc.-F&G**

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

Time Tool Opened: 19:17:26

Time Test Ended: 23:57:26

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: 2896.00 ft (KB) To 2940.00 ft (KB) (TVD)

Total Depth: **2940.00 ft (KB) (TVD)**

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

Reference Elevations: **1687.00 ft (KB)**

1682.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6741 **Inside**

Press@RunDepth: **118.32 psig @ 2900.00 ft (KB)**

Start Date: **2003.11.13**

End Date:

2003.11.13

Start Time: **17:55:22**

End Time:

23:57:26

Capacity: **7000.00 psig**

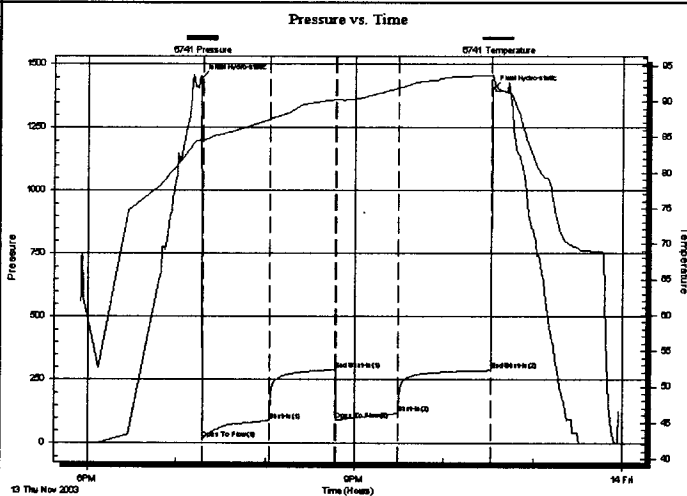
Last Calib.: **2003.11.14**

Time On Btm: **2003.11.13 @ 19:16:26**

Time Off Btm: **2003.11.13 @ 22:32:26**

TEST COMMENT: **F-Weak to Good 9" in**
FF-Weak built to 4" in

ISI-Dead
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1445.04	84.76	Initial Hydro-static
1	16.22	84.59	Open To Flow (1)
46	90.33	87.51	Shut-In (1)
91	289.09	90.25	End Shut-In (1)
92	91.57	90.29	Open To Flow (2)
133	118.32	91.88	Shut-In (2)
196	287.36	93.64	End Shut-In (2)
196	1403.89	93.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
224.00	Muddy salt water-20%M-80% W	2.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18481

DST#: 4

Test Start: 2003.11.13 @ 17:55:21

Tool Information

Drill Pipe:	Length: 2756.00 ft	Diameter: 3.80 inches	Volume: 38.66 bbl	Tool Weight:	2800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	55000.00 lb
			Total Volume: 39.27 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	2896.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	64.00 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			2877.00	
Shut In Tool	5.00			2882.00	
Hydraulic tool	5.00			2887.00	
Packer	4.00			2891.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	2896.00	
Stubb	1.00			2897.00	
Perforations	2.00			2899.00	
Change Over Sub	1.00			2900.00	
Recorder	0.00	6741	Inside	2900.00	
Blank Spacing	31.00			2931.00	
Change Over Sub	1.00			2932.00	
Recorder	0.00	11084	Outside	2932.00	
Perforations	5.00			2937.00	
Bullnose	3.00			2940.00	44.00 Bottom Packers & Anchor

Total Tool Length: 64.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18481

DST#: 4

ATTN: Allen Bangert

Test Start: 2003.11.13 @ 17:55:21

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:

50000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
224.00	Muddy salt water-20%M-80% W	2.003

Total Length: 224.00 ft

Total Volume: 2.003 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

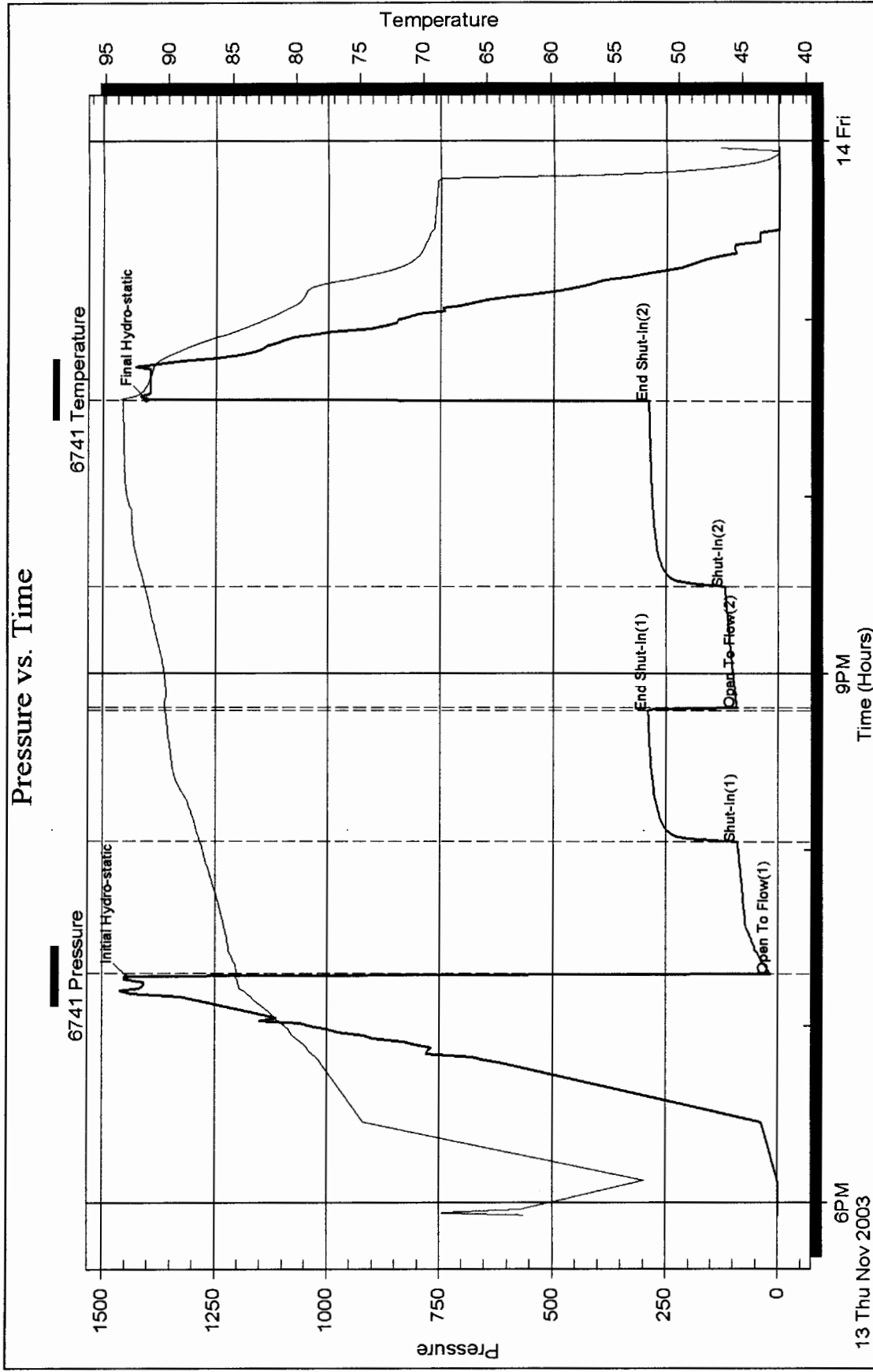
Serial #: 6741

Inside

Mai Oil Operations Inc.

4-12s-15w

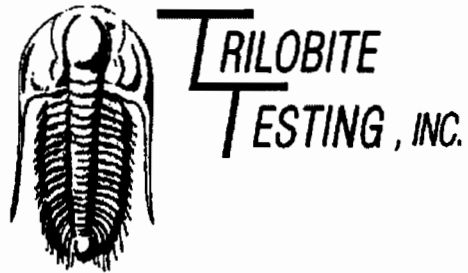
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 18481

Printed: 2003.11.18 @ 14:54:29 Page 5



DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

Start Date: 2003.11.14 @ 20:32:47

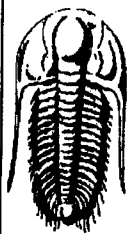
End Date: 2003.11.15 @ 01:28:22

Job Ticket #: 18482 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18482

DST#: 5

Test Start: 2003.11.14 @ 20:32:47

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:03:22

Time Test Ended: 01:28:22

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: **3109.00 ft (KB) To 3156.00 ft (KB) (TVD)**

Total Depth: 3156.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1687.00 ft (KB)

1682.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741 Inside

Press@RunDepth: 22.80 psig @ 3116.00 ft (KB)

Start Date: 2003.11.14

End Date:

2003.11.15

Start Time: 20:32:48

End Time:

01:28:22

Capacity: 7000.00 psig

Last Calib.: 2003.11.15

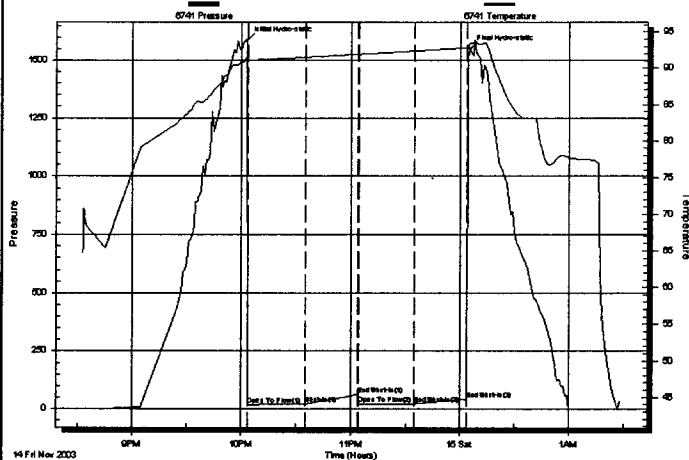
Time On Btm: 2003.11.14 @ 22:02:52

Time Off Btm: 2003.11.15 @ 00:04:52

TEST COMMENT: IF-Weak Dead in 20 min.
FF-Dead

ISI-Dead
FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1585.84	91.34	Initial Hydro-static
1	17.00	91.13	Open To Flow (1)
33	22.80	91.52	Shut-In (1)
61	63.62	91.94	End Shut-In (1)
61	21.55	91.93	Open To Flow (2)
92	22.81	92.39	End Shut-In (2)
121	43.69	92.83	End Shut-In (3)
122	1550.73	93.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drilling mud with oil spots	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18482

DST#: 5

ATTN: Allen Bangert

Test Start: 2003.11.14 @ 20:32:47

Tool Information

Drill Pipe:	Length: 2974.00 ft	Diameter: 3.80 inches	Volume: 41.72 bbl	Tool Weight: 2900.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 53000.00 lb
		Total Volume:	42.33 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3109.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	67.00 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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Change Over Sub	1.00			3090.00	
Shut In Tool	5.00			3095.00	
Hydraulic tool	5.00			3100.00	
Packer	4.00			3104.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	3109.00	
Stubb	1.00			3110.00	
Perforations	5.00			3115.00	
Change Over Sub	1.00			3116.00	
Recorder	0.00	6741	Inside	3116.00	
Blank Spacing	31.00			3147.00	
Change Over Sub	1.00			3148.00	
Perforations	5.00			3153.00	
Recorder	0.00	13308	Outside	3153.00	
Bullnose	3.00			3156.00	47.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18482

DST#: 5

ATTN: Allen Bangert

Test Start: 2003.11.14 @ 20:32:47

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:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Drilling mud w with oil spots	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 #: 6741

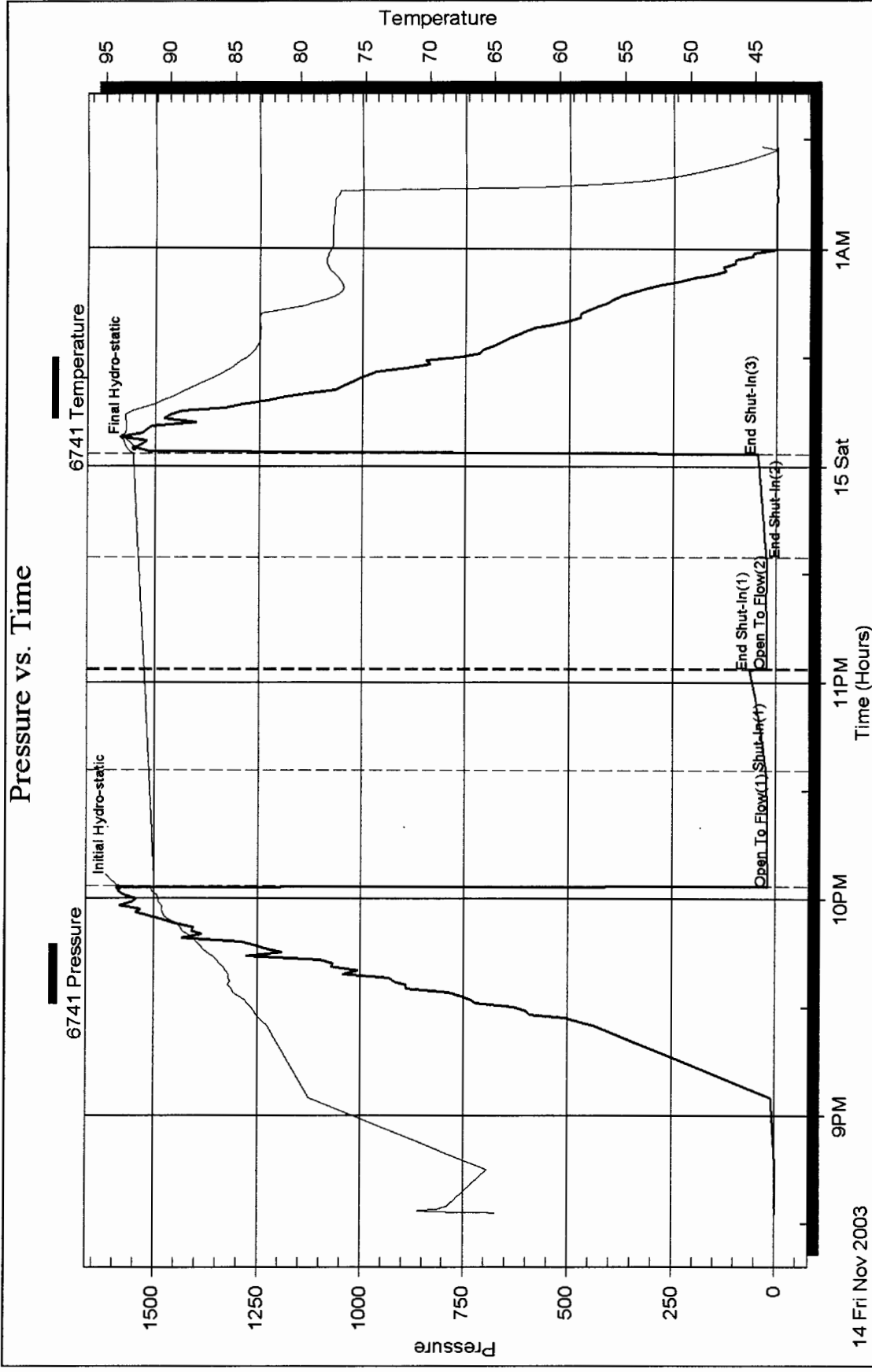
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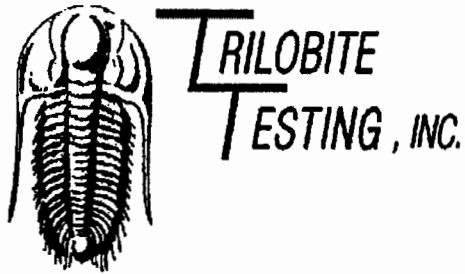
Mai Oil Operations Inc.

4-12s-15w

DST Test Number: 5

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

Start Date: 2003.11.15 @ 08:01:25

End Date: 2003.11.15 @ 13:24:00

Job Ticket #: 18483 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Mai Oil Operations Inc.

Eulert Unit # 1

4-12s-15w

DST # 6

Arbuckle

2003.11.15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18483

DST#: 6

Test Start: 2003.11.15 @ 08:01:25

GENERAL INFORMATION:

Formation: **Arbuckle**

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

Time Tool Opened: 09:39:00

Time Test Ended: 13:24:00

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: **3152.00 ft (KB) To 3165.00 ft (KB) (TVD)**

Total Depth: **3165.00 ft (KB) (TVD)**

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

Reference Elevations: **1687.00 ft (KB)**

1682.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6741

Inside

Press@RunDepth: **84.42 psig @ 3153.00 ft (KB)**

Start Date: **2003.11.15**

End Date:

2003.11.15

Capacity: **7000.00 psig**

Last Calib.: **2003.11.15**

Start Time: **08:01:26**

End Time:

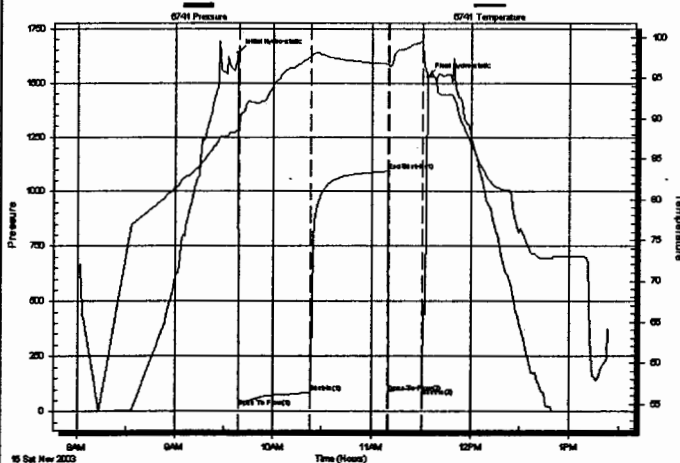
13:24:00

Time On Btm: **2003.11.15 @ 09:38:30**

Time Off Btm: **2003.11.15 @ 11:33:30**

TEST COMMENT: **F-Weak to Good 8" in ISI-Dead**
FF-Weak built to 4" Lost Packer seat.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1638.59	88.35	Initial Hydro-static
1	19.47	89.22	Open To Flow (1)
45	84.42	97.53	Shut-In (1)
91	1092.79	96.71	End Shut-In (1)
92	84.53	96.53	Open To Flow (2)
112	107.01	99.51	Shut-In (2)
115	1529.19	95.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
410.00	W-C-M-w with oilspots	4.61

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18483

DST#: 6

ATTN: Allen Bangert

Test Start: 2003.11.15 @ 08:01:25

Tool Information

Drill Pipe:	Length: 3039.00 ft	Diameter: 3.80 inches	Volume: 42.63 bbl	Tool Weight:	2000.00 lb		
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb		
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	55000.00 lb		
			Total Volume:	43.24 bbl	Tool Chased	0.00 ft	
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	50000.00 lb	Final	51000.00 lb
Depth to Top Packer:	3152.00 ft						
Depth to Bottom Packer:	ft						
Interval between Packers:	13.00 ft						
Tool Length:	33.00 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			3133.00	
Shut In Tool	5.00			3138.00	
Hydraulic tool	5.00			3143.00	
Packer	4.00			3147.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	3152.00	
Stubb	1.00			3153.00	
Recorder	0.00	6741	Inside	3153.00	
Perforations	9.00			3162.00	
Recorder	0.00	13308	Outside	3162.00	
Bullnose	3.00			3165.00	13.00 Bottom Packers & Anchor
Total Tool Length:	33.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18483

DST#: 6

ATTN: Allen Bangert

Test Start: 2003.11.15 @ 08:01:25

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: 25000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
410.00	W-C-M-with oilspots	4.613

Total Length: 410.00 ft Total Volume: 4.613 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6741

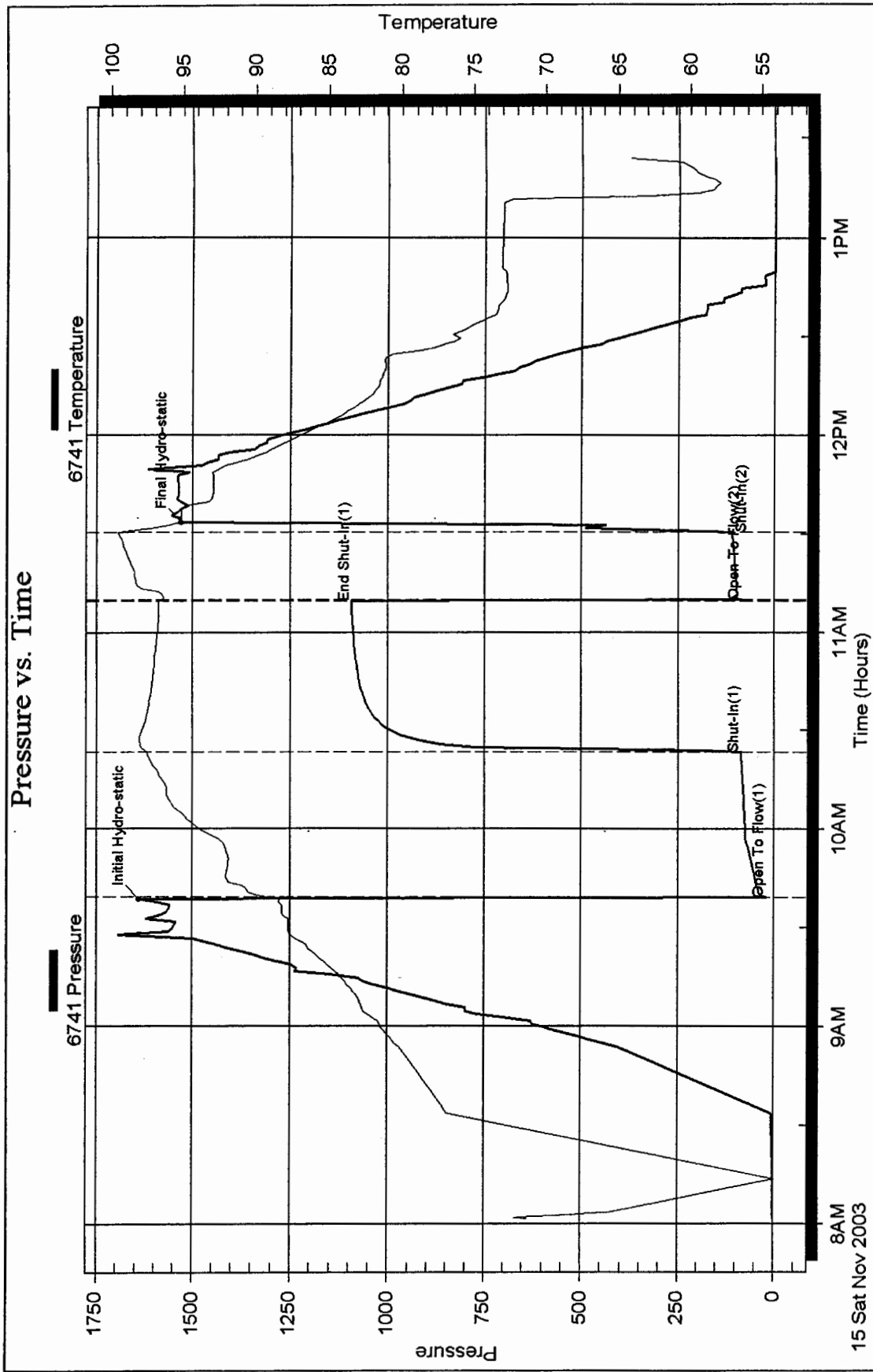
Inside

Mai Oil Operations Inc.

4-12s-15w

DST Test Number: 6

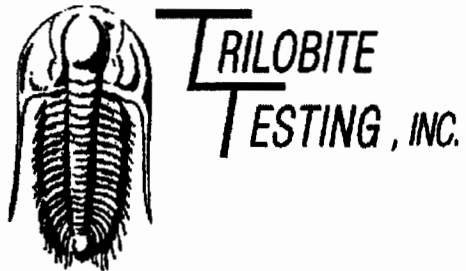
Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 18483

Printed: 2003.11.19 @ 14:52:06 Page 5



DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc.**

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

4-12s-15w

Eulert Unit # 1

Start Date: 2003.11.15 @ 13:42:04

End Date: 2003.11.15 @ 20:08:39

Job Ticket #: 18484

DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18484

DST#: 7

Test Start: 2003.11.15 @ 13:42:04

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:13:39

Time Test Ended: 20:08:39

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: **3158.00 ft (KB) To 3165.00 ft (KB) (TVD)**

Total Depth: 3165.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1687.00 ft (KB)

1682.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 107.99 psig @ 3159.00 ft (KB)

Start Date: 2003.11.15

End Date:

2003.11.15

Start Time: 13:42:05

End Time:

20:08:39

Capacity: 7000.00 psig

Last Calib.: 2003.11.15

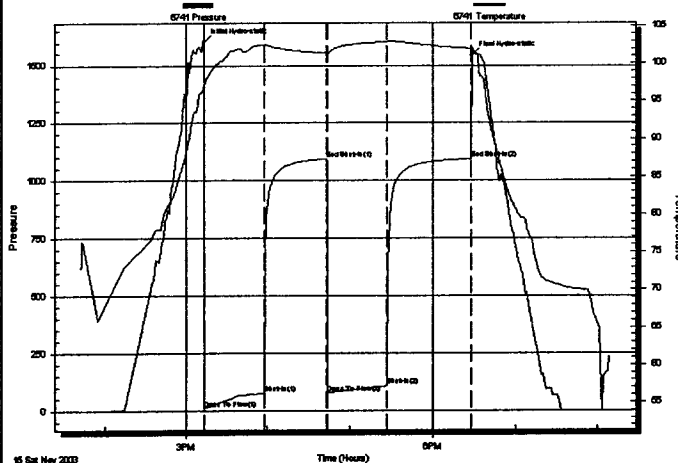
Time On Btm: 2003.11.15 @ 15:13:09

Time Off Btm: 2003.11.15 @ 18:28:09

TEST COMMENT: F-Weak to fair 5" in
FF-Weak to fair 5" in

ISI-Dead
FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

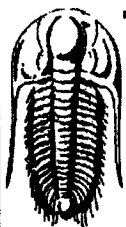
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1603.76	97.14	Initial Hydro-static
1	10.59	97.07	Open To Flow (1)
45	76.72	102.43	Shut-In (1)
90	1093.88	101.41	End Shut-In (1)
91	78.29	101.25	Open To Flow (2)
134	107.99	102.85	Shut-In (2)
195	1094.16	102.00	End Shut-In (2)
195	1542.47	102.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
195.00	Muddy Salt Water W-oil spots	1.60

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc.

P.O.Box 33
Russell, Ks. 67665

ATTN: Allen Bangert

Eulert Unit # 1

4-12s-15w

Job Ticket: 18484

DST#: 7

Test Start: 2003.11.15 @ 13:42:04

Tool Information

Drill Pipe:	Length: 3039.00 ft	Diameter: 3.80 inches	Volume: 42.63 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 43.24 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3158.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	7.00 ft			
Tool Length:	27.00 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			3139.00	
Shut In Tool	5.00			3144.00	
Hydraulic tool	5.00			3149.00	
Packer	4.00			3153.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	3158.00	
Stubb	1.00			3159.00	
Recorder	0.00	6741	Inside	3159.00	
Perforations	3.00			3162.00	
Recorder	0.00	13308	Outside	3162.00	
Bullnose	3.00			3165.00	7.00 Bottom Packers & Anchor
Total Tool Length:	27.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc.

Eulert Unit # 1

P.O.Box 33
Russell, Ks. 67665

4-12s-15w

Job Ticket: 18484

DST#: 7

ATTN: Allen Bangert

Test Start: 2003.11.15 @ 13:42:04

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: 25000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
195.00	Muddy Salt Water W-oil spots	1.597

Total Length: 195.00 ft Total Volume: 1.597 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

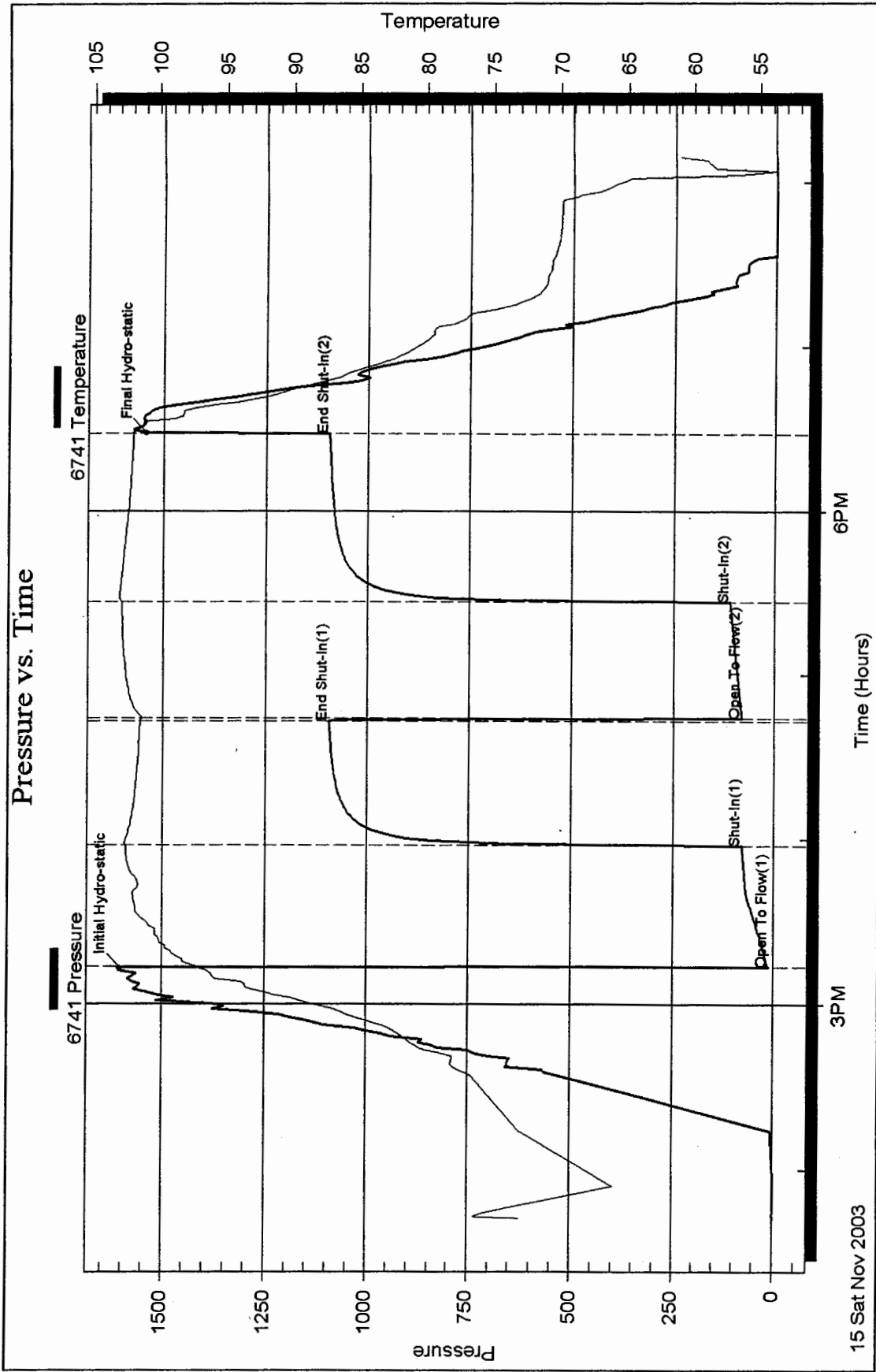
Serial #: 6741

Inside

Mai Oil Operations Inc.

4-12s-15w

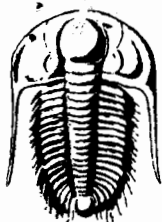
DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 18484

Printed: 2003.11.19 @ 14:52:23 Page 5



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18478

05/03

Test Ticket

Well Name & No. EULERT UNIT #1 Test No. #1 Date 11-12-03
Company MAI OIL OPERATIONS, INC. Zone Tested TOPEKA
Address P.O. BOX 33 RUSSELL, KS. 67665 Elevation 1687 KB 1682 GL
Co. Rep / Geo. TODD MORGENSTERN Cont. MURFIN #16 Est. Ft. of Pay _____ Por. _____ %
Location: Sec. 4 Twp. 12 S Rge. 15 W Co. RUSSELL State KS
No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 2705 To 2766 Initial Str Wt./Lbs. 48,000 Unseated Str Wt./Lbs. 48,000
Anchor Length 61' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 50,000
Top Packer Depth 2700 Tool Weight 3,000
Bottom Packer Depth 2705 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
Total Depth 2766 Wt. Pipe Run 0 Drill Collar Run 124
Mud Wt. 9.0 LCM TR Vis. 45 WL 7.2 Drill Pipe Size 4 1/2 XH Ft. Run 2569
Blow Description IF - WEAK BLOW BUILT TO 4" IN FSI - DEAD
FF - WEAK SURFACE BLOW FSI - DEAD

Recovery - Total Feet 140' GIP - Ft. in DC 124 Ft. in DP 16'
Rec. 140 Feet of DRILLING MUD (N) %gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet of FEW OIL SPECKS %gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
BHT 92 °F Gravity - °API D @ - °F Corrected Gravity - °API _____
RW - @ - °F Chlorides - ppm Recovery - Chlorides 5,000 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>1349</u> PSI		<u>6741</u>	<u>B. HOLE</u> <u>700</u>
(B) First Initial Flow Pressure	<u>12</u> PSI		<u>2711</u>	Elec. Rec. <u>150</u>
(C) First Final Flow Pressure	<u>56</u> PSI		<u>11084</u>	Jars _____
(D) Initial Shut-In Pressure	<u>773</u> PSI		<u>2743</u>	Safety Jt. _____
(E) Second Initial Flow Pressure	<u>60</u> PSI			Circ Sub _____
(F) Second Final Flow Pressure	<u>78</u> PSI			Sampler _____
(G) Final Shut-In Pressure	<u>757</u> PSI	Initial Opening <u>45</u>		Straddle _____
(Q) Final Hydrostatic Mud	<u>1300</u> PSI	Initial Shut-In <u>45</u>		Ext. Packer _____
		Final Flow <u>45</u>		Shale Packer _____
		Final Shut-In <u>60</u>		Mileage <u>25</u> <u>25</u>
		T-On Location <u>22:30</u>		Sub Total: <u>875</u>
		T-Started <u>00:21</u>		Std. By _____
		T-Open <u>02:06</u>		Other _____
		T-Pulled <u>05:22</u>		Total: _____
		T-Out <u>06:37</u>		

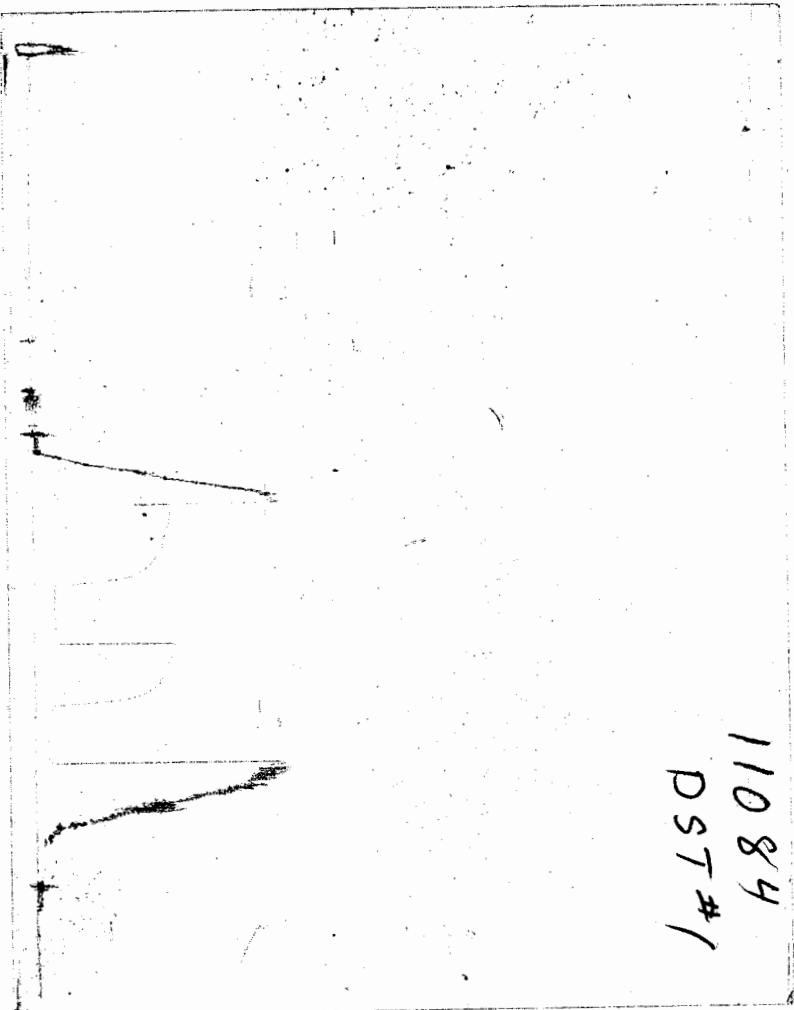
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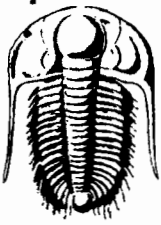
Approved By _____

Our Representative John F. Schmidt

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18479

05/03

Test Ticket

Well Name & No. <u>EULERT UNIT #1</u>	Test No. <u>#2</u>	Date <u>11-12-03</u>
Company <u>MAI OIL OPERATIONS INC.</u>	Zone Tested <u>L. KC. - B</u>	
Address _____	Elevation <u>1687</u> KB <u>1682</u> GL	
Co. Rep / Geo. <u>TODD MORGENSTERN</u> Cont. <u>MURFIN #16</u>	Est. Ft. of Pay _____	Por. _____ %
Location: Sec. <u>4</u> Twp. <u>12S</u> Rge. <u>15W</u> Co. <u>RUSSELL</u> State <u>KS</u>		
No. of Copies _____	Disbtribution Sheet (Y, N) _____	Turnkey (Y, N) _____
	Evaluation (Y, N) _____	

Interval Tested <u>2843 To 2874</u>	Initial Str Wt./Lbs. <u>46,000</u>	Unseated Str Wt./Lbs. <u>47,000</u>
Anchor Length <u>31'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>54,000</u>
Top Packer Depth <u>2838</u>	Tool Weight <u>2,400</u>	
Bottom Packer Depth <u>2843</u>	Hole Size <u>7 7/8"</u> ✓	Rubber Size <u>6 3/4"</u> ✓
Total Depth <u>2874</u>	Wt. Pipe Run <u>0</u>	Drill Collar Run <u>124'</u>
Mud Wt. <u>9.2</u> LCM <u>TR.</u> Vis. <u>47</u> WL <u>8.0</u>	Drill Pipe Size <u>4 1/2 XH.</u>	Ft. Run <u>2727</u>
Blow Description <u>FF - WEAK TO FAIR BUILT 6" IN</u>	<u>FSI - DEAD</u>	
<u>FF - WEAK BUILT TO 3"</u>		

Recovery - Total Feet <u>192'</u>	GIP <u>-</u>	Ft. in DC <u>124</u>	Ft. in DP <u>68</u>
Rec. <u>192'</u>	Feet of <u>MUDDY SALT W.</u>	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
BHT <u>94</u>	°F Gravity <u>-</u>	°API D @ <u>-</u>	°F Corrected Gravity <u>-</u>
RW <u>.13</u>	@ <u>43</u> °F	Chlorides <u>100,000</u> ppm	Recovery <u>-</u>
		Chlorides <u>5,000</u> ppm	System

(A) Initial Hydrostatic Mud	AK-1 <u>1429</u> PSI	Alpine	Recorder No. <u>6741</u>	Test <u>B. HOLE</u> <u>700</u>
(B) First Initial Flow Pressure	<u>19</u> PSI		(depth) <u>2850</u>	Elec. Rec. <u>✓</u> <u>150</u>
(C) First Final Flow Pressure	<u>81</u> PSI		Recorder No. <u>13308</u>	Jars _____
(D) Initial Shut-In Pressure	<u>282</u> PSI		(depth) <u>2871</u>	Safety Jt. _____
(E) Second Initial Flow Pressure	<u>83</u> PSI		Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>103</u> PSI		(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>282</u> PSI	Initial Opening <u>45</u>		Straddle _____
(Q) Final Hydrostatic Mud	<u>1402</u> PSI	Initial Shut-In <u>45</u>		Ext. Packer _____
		Final Flow <u>45</u>		Shale Packer _____
		Final Shut-In <u>60</u>		Mileage <u>25</u> <u>25</u>
		T-On Location <u>17:00</u>		Sub Total: <u>875</u>
		T-Started <u>17:15</u>		Std. By _____
		T-Open <u>18:50</u>		Other _____
		T-Pulled <u>22:05</u>		Total: _____
		T-Out <u>23:40</u>		

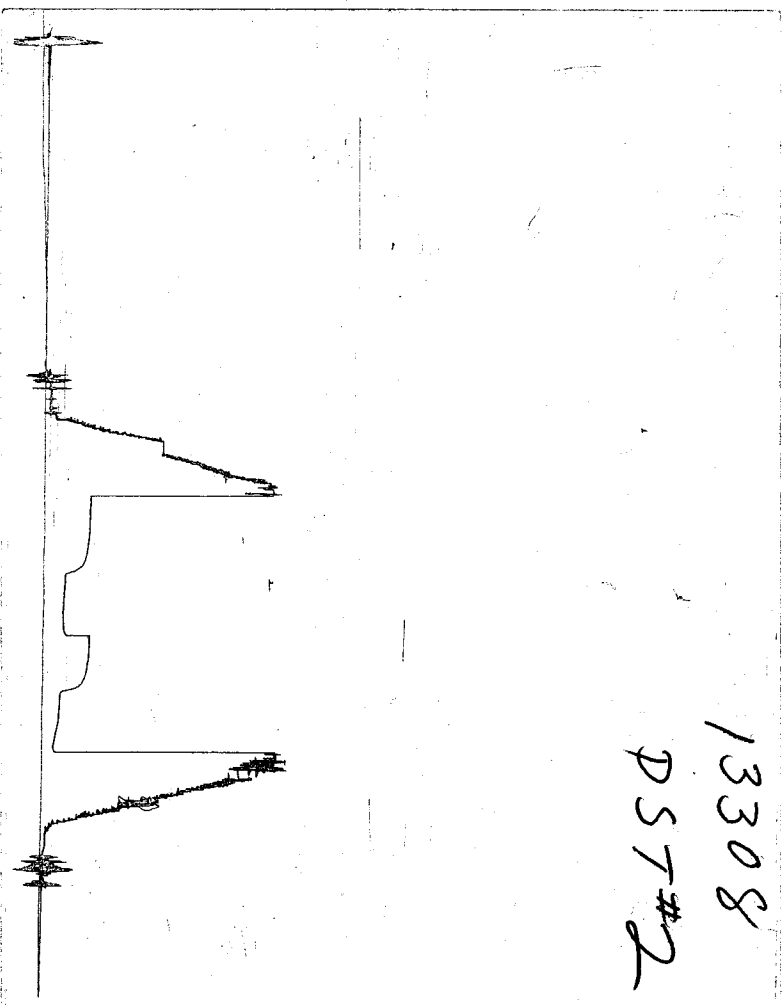
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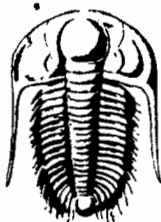
Approved By _____

Our Representative John J. Schmidt

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18480

05/03

Test Ticket

Well Name & No. <u>EULERT UNIT #1</u>	Test No. <u>#3</u>	Date <u>11-13-03</u>
Company <u>MAI OIL OPERATIONS, INC.</u>	Zone Tested <u>L. Kc. - D</u>	
Address _____	Elevation <u>1687</u> KB <u>1682</u> GL	
Co. Rep / Geo. <u>TODD MORGENSTERN</u>	Cont. <u>MURFIN #16</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>4</u> Twp. <u>12S</u> Rge. <u>15W</u> Co. <u>RUSSELL</u> State <u>KS</u>		
No. of Copies _____	Disbtribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested <u>2877 TO 2898</u>	Initial Str Wt./Lbs. <u>48,000</u>	Unseated Str Wt/Lbs. <u>48,000</u>
Anchor Length <u>21'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>55,000</u>
Top Packer Depth <u>2872</u>	Tool Weight <u>2,000</u>	
Bottom Packer Depth <u>2877</u>	Hole Size <u>7 7/8"</u>	Rubber Size <u>6 3/4"</u>
Total Depth <u>2898</u>	Wt. Pipe Run <u>0</u>	Drill Collar Run <u>124'</u>
Mud Wt. <u>9.2</u> LCM <u>TR</u> Vis. <u>47</u> WL <u>8.0</u>	Drill Pipe Size <u>4 1/2 XH</u>	Ft. Run <u>2757</u>
Blow Description <u>IF. WEAK SURFACE BLOW</u>	<u>ISI - DEAD</u>	
<u>FF. DEAD</u>	<u>FSI - DEAD</u>	

Recovery - Total Feet <u>10'</u>	GIP <u>-</u>	Ft. in DC <u>10</u>	Ft. in DP <u>0</u>
Rec. <u>10'</u>	Feet of <u>WATERY CUT MUD</u>	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
BHT <u>88</u>	°F Gravity _____	°API D @ _____	°F Corrected Gravity _____
RW <u>-</u>	@ <u>-</u>	°F	Chlorides <u>6,000</u> ppm System

(A) Initial Hydrostatic Mud	Alpine <u>1431</u> PSI	Recorder No. <u>6741</u>	Test <u>B. HOLE 700</u>
(B) First Initial Flow Pressure	<u>10</u> PSI	(depth) <u>2880</u>	Elec. Rec. <u>✓ 150</u>
(C) First Final Flow Pressure	<u>17</u> PSI	Recorder No. <u>13308</u>	Jars _____
(D) Initial Shut-In Pressure	<u>302</u> PSI	(depth) <u>2895</u>	Safety Jt. _____
(E) Second Initial Flow Pressure	<u>17</u> PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>21</u> PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>282</u> PSI	Initial Opening <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>1389</u> PSI	Initial Shut-In <u>30</u>	Ext. Packer _____
		Final Flow <u>30</u>	Shale Packer _____
		Final Shut-In <u>30</u>	Mileage <u>25</u> <u>25</u>
		T-On Location <u>07:00</u>	Sub Total: <u>875</u>
		T-Started <u>07:21</u>	Std. By _____
		T-Open <u>08:38</u>	Other _____
		T-Pulled <u>10:38</u>	Total: _____
		T-Out <u>11:43</u>	

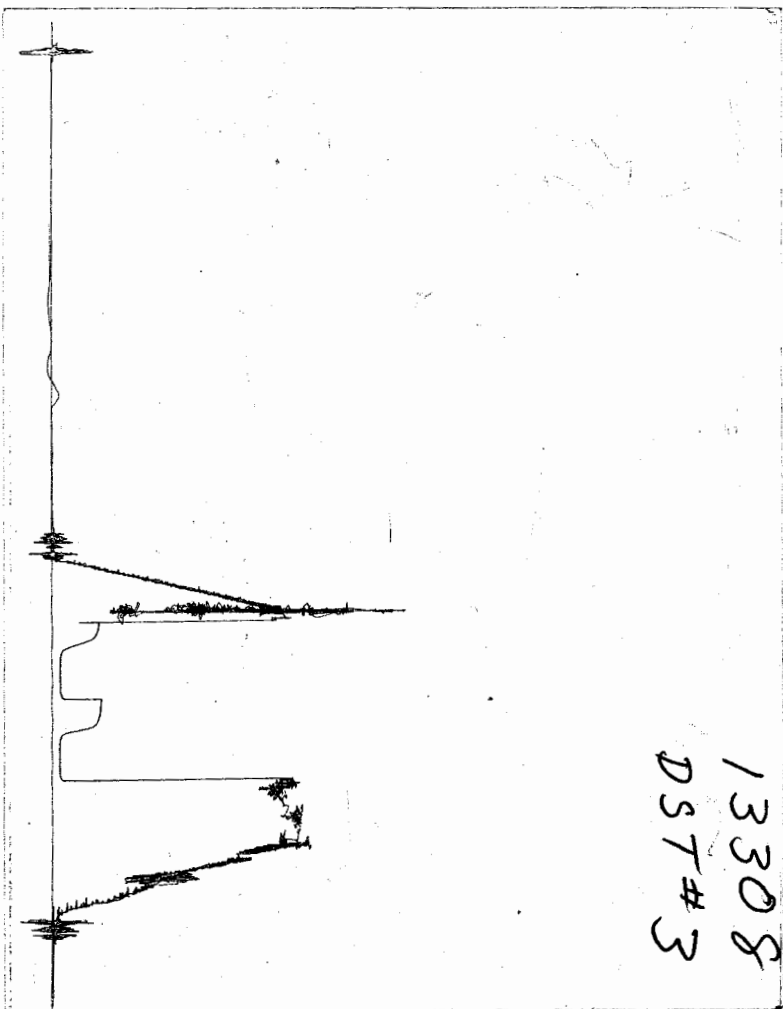
Approved By _____

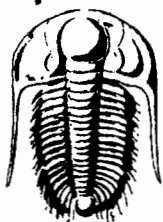
Our Representative Phil Schmidt

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CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18481

05/03

Test Ticket

Well Name & No.	<u>EULERT UNIT #1</u>	Test No.	<u>#4</u>	Date	<u>11-13-03</u>
Company	<u>MAI OIL OPERATIONS, INC.</u>	Zone Tested	<u>L. KC. - F4G</u>		
Address		Elevation	<u>1687</u>	KB	<u>1682</u> GL
Co. Rep / Geo.	<u>TODD MORGENSTERN</u>	Cont.	<u>MURFIN #16</u>	Est. Ft. of Pay	Por. %
Location: Sec.	<u>4</u>	Twp.	<u>12S</u>	Rge.	<u>15W</u> Co. <u>RUSSELL</u> State <u>KS</u>
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested	<u>2896 To 2940</u>	Initial Str Wt./Lbs.	<u>48,000</u>	Unseated Str Wt./Lbs.	<u>59,000</u>
Anchor Length	<u>44'</u>	Wt. Set Lbs.	<u>25,000</u>	Wt. Pulled Loose/Lbs.	<u>55,000</u>
Top Packer Depth	<u>2891</u>	Tool Weight	<u>2800</u>		
Bottom Packer Depth	<u>2896</u>	Hole Size 7 7/8"	<u>✓</u>	Rubber Size 6 3/4"	<u>✓</u>
Total Depth	<u>2940</u>	Wt. Pipe Run	<u>0</u>	Drill Collar Run	<u>124'</u>
Mud Wt.	<u>9.2</u> LCM <u>TR.</u> Vis. <u>46</u> WL <u>8.0</u>	Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	<u>2756</u>
Blow Description	<u>IF - WEAK To GOOD 9" IN</u>		<u>ISI - DEAD</u>		
	<u>FF - WEAK BUILT 4" IN</u>		<u>FSI - DEAD</u>		

Recovery - Total Feet	<u>224'</u>	GIP	<u>0</u>	Ft. in DC	<u>124</u>	Ft. in DP	<u>100'</u>
Rec.	<u>224</u>	Feet of	<u>MUDDY SALT WATER</u>	%gas		%oil	<u>80</u> %water <u>20</u> %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
BHT	<u>93</u>	°F Gravity	<u>—</u>	°API D @	<u>—</u>	°F Corrected Gravity	<u>—</u> °API
RW	<u>22</u>	@	<u>49</u> °F	Chlorides	<u>50,000</u> ppm Recovery	Chlorides	<u>6,000</u> ppm System

(A) Initial Hydrostatic Mud	<u>1445</u> PSI	Recorder No.	<u>6741</u>	Test	<u>B. HOLE</u> <u>700</u>
(B) First Initial Flow Pressure	<u>16</u> PSI	(depth)	<u>2900</u>	Elec. Rec.	<u>✓</u> <u>150</u>
(C) First Final Flow Pressure	<u>90</u> PSI	Recorder No.	<u>22 13308</u>	Jars	
(D) Initial Shut-In Pressure	<u>289</u> PSI	(depth)	<u>29037</u>	Safety Jt.	
(E) Second Initial Flow Pressure	<u>91</u> PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure	<u>118</u> PSI	(depth)		Sampler	
(G) Final Shut-In Pressure	<u>287</u> PSI	Initial Opening	<u>45</u>	Straddle	
(Q) Final Hydrostatic Mud	<u>1403</u> PSI	Initial Shut-In	<u>45</u>	Ext. Packer	

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Approved By _____

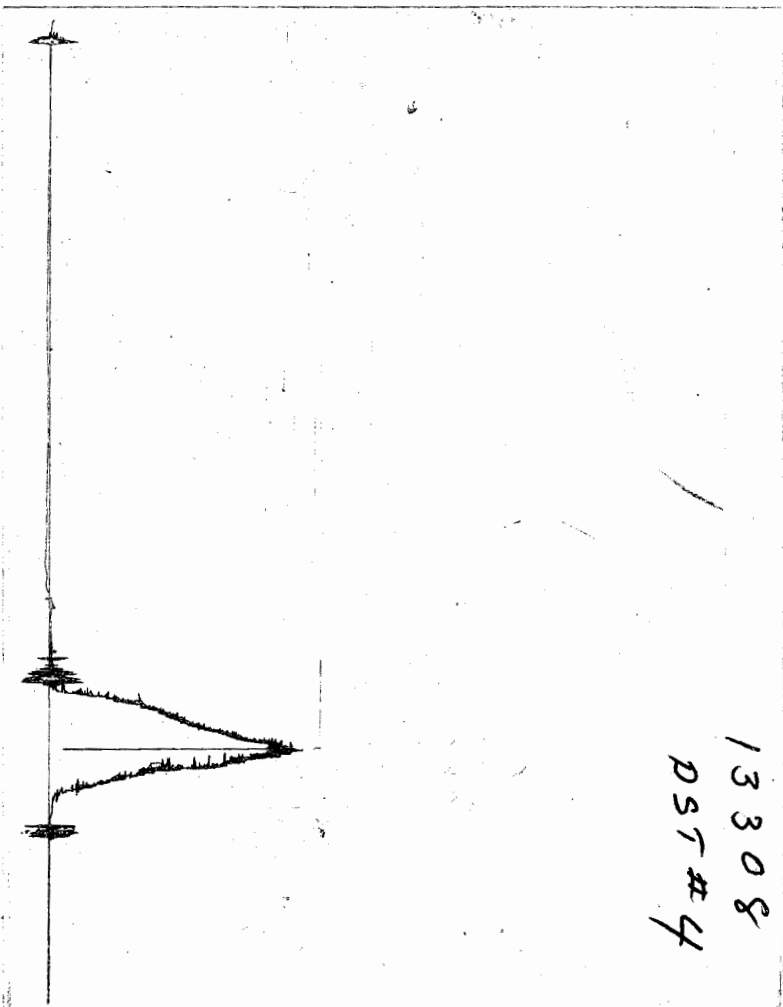
Our Representative John J. Schmidt

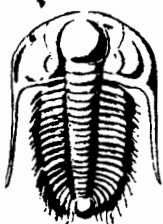
Final Flow	<u>45</u>
Final Shut-In	<u>60</u>
T-On Location	<u>17:30</u>
T-Started	<u>17:55</u>
T-Open	<u>19:17</u>
T-Pulled	<u>22:32</u>
T-Out	<u>23:57</u>

Shale Packer	
Mileage	<u>25</u> <u>25</u>
Sub Total:	<u>875</u>
Std. By	
Other	
Total:	

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18482

05/03

Test Ticket

Well Name & No.	<u>EULERT UNIT #1</u>	Test No.	<u>*5</u>	Date	<u>11-14-03</u>
Company	<u>MAI OIL OPERATIONS, INC.</u>	Zone Tested	<u>ARBUCKLE</u>		
Address		Elevation	<u>1687</u>	KB	<u>1682</u> GL
Co. Rep / Geo.	<u>TODD MORGENSTERN</u>	Cont.	<u>MUAFIN #16</u>	Est. Ft. of Pay	Por. %
Location: Sec.	<u>4</u>	Twp.	<u>12S</u>	Rge.	<u>15W</u> Co. <u>RUSSELL</u> State <u>KS</u>
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested	<u>3109 To 3156</u>	Initial Str Wt./Lbs.	<u>59,000</u>	Unseated Str Wt/Lbs.	<u>59,000</u>
Anchor Length	<u>47'</u>	Wt. Set Lbs.	<u>25,000</u>	Wt. Pulled Loose/Lbs.	<u>53,000</u>
Top Packer Depth	<u>3104</u>	Tool Weight	<u>2900</u>		
Bottom Packer Depth	<u>3109</u>	Hole Size 7 7/8"	<u>✓</u>	Rubber Size 6 3/4"	<u>✓</u>
Total Depth	<u>3156</u>	Wt. Pipe Run	<u>0</u>	Drill Collar Run	<u>124'</u>
Mud Wt.	<u>9.3</u> LCM <u>TR</u> Vis. <u>48</u> WL <u>8.8</u>	Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	
Blow Description	<u>IF-WEAK DEAD IN 20 MIN ISI-DEAD</u> <u>FF-DEAD FSI-DEAD</u>				

Recovery - Total Feet	<u>5'</u>	GIP	<u>—</u>	Ft. in DC	<u>5'</u>	Ft. in DP	<u>0</u>
Rec.	<u>5</u>	Feet of	<u>DRILLING MUD (W)</u>	%gas	%oil	%water	%mud
Rec.		Feet of	<u>OIL SPOTS</u>	%gas	%oil	%water	%mud
Rec.		Feet of		%gas	%oil	%water	%mud
Rec.		Feet of		%gas	%oil	%water	%mud
Rec.		Feet of		%gas	%oil	%water	%mud
BHT	<u>92</u>	°F Gravity	<u>—</u>	API D @	<u>—</u>	°F Corrected Gravity	<u>—</u> °API
RW	<u>—</u>	@	<u>—</u> °F	Chlorides	<u>—</u> ppm Recovery	Chlorides	<u>—</u> ppm System

(A) Initial Hydrostatic Mud	<u>AK-1</u>	Alpine	<u>1585</u> PSI	Recorder No.	<u>6741</u>	Test	<u>B, HOLE</u>
(B) First Initial Flow Pressure			<u>17</u> PSI	(depth)	<u>3116</u>	Elec. Rec.	<u>✓</u>
(C) First Final Flow Pressure			<u>22</u> PSI	Recorder No.	<u>13308</u>	Jars	
(D) Initial Shut-In Pressure			<u>63</u> PSI	(depth)	<u>3153</u>	Safety Jt.	
(E) Second Initial Flow Pressure			<u>21</u> PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure			<u>22</u> PSI	(depth)		Sampler	
(G) Final Shut-In Pressure			<u>43</u> PSI	Initial Opening	<u>30</u>	Straddle	
(Q) Final Hydrostatic Mud			<u>1550</u> PSI	Initial Shut-In	<u>30</u>	Ext. Packer	
				Final Flow	<u>30</u>	Shale Packer	
				Final Shut-In	<u>30</u>	Mileage	<u>25</u>
				T-On Location	<u>20:00</u>	Sub Total:	
				T-Started	<u>20:32</u>	Std. By	
				T-Open	<u>22:03</u>	Other	
				T-Pulled	<u>00:04</u>	Total:	
				T-Out	<u>01:28</u>		

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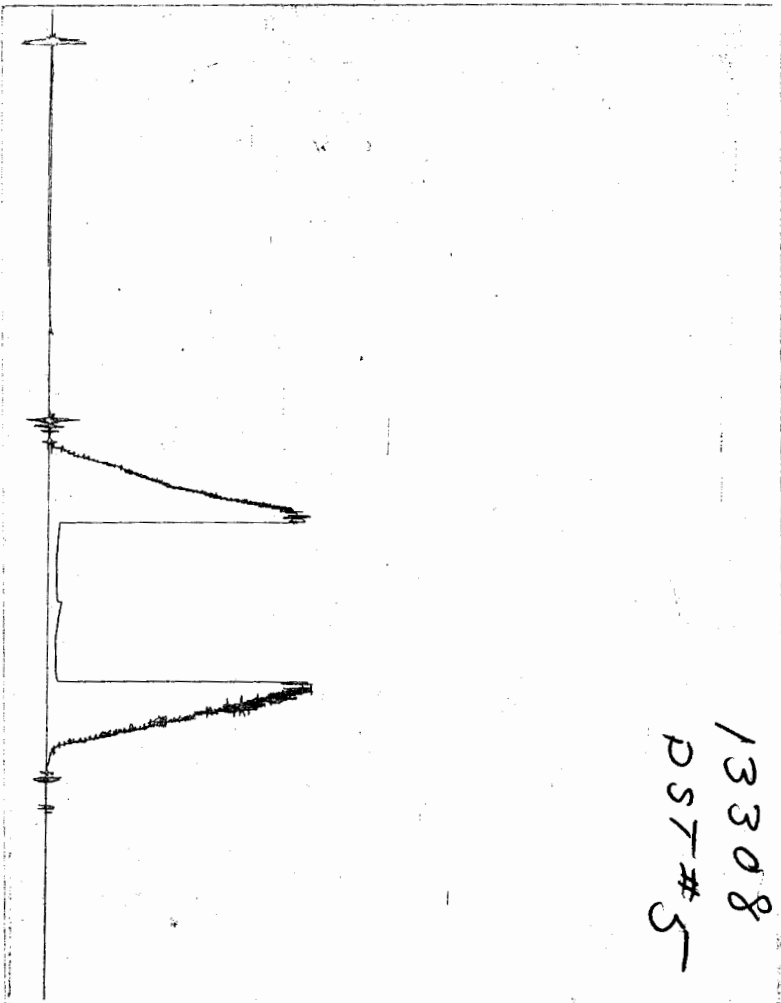
Approved By _____

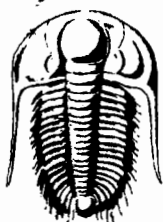
Our Representative John J. Schmidt

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13308
PST#5





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18483

05/03

Test Ticket

Well Name & No.	<u>EDLERT UNIT #1</u>	Test No.	<u>#6</u>	Date	<u>11-15-03</u>
Company	<u>MAI OIL OPERATIONS, INC.</u>	Zone Tested	<u>ARBUCKLE</u>		
Address			Elevation	<u>1687</u>	KB <u>1682</u> GL
Co. Rep / Geo.	<u>TODD MORGENSTERN</u>	Cont.	<u>MURFIN #16</u>	Est. Ft. of Pay	Por. %
Location: Sec.	<u>4</u>	Twp.	<u>12S</u>	Rge.	<u>15W</u> Co. <u>RUSSELL</u> State <u>KS</u>
No. of Copies	Disbtribution Sheet (Y, N)		Turnkey (Y, N)		Evaluation (Y, N)

Interval Tested	<u>3152 TO 3165</u>	Initial Str Wt./Lbs.	<u>50,000</u>	Unseated Str Wt./Lbs.	<u>51,000</u>
Anchor Length	<u>13'</u>	Wt. Set Lbs.	<u>25,000</u>	Wt. Pulled Loose/Lbs.	<u>55,010</u>
Top Packer Depth	<u>3147</u>	Tool Weight	<u>2,000</u>		
Bottom Packer Depth	<u>3152</u>	Hole Size 7 7/8"	<u>✓</u>	Rubber Size 6 3/4"	<u>✓</u>
Total Depth	<u>3165</u>	Wt. Pipe Run	<u>0</u>	Drill Collar Run	<u>124'</u>
Mud Wt.	<u>9.4</u> LCM <u>TR</u> Vis. <u>48</u> WL <u>8.8</u>	Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	<u>3039'</u>
Blow Description	<u>IF - WEAK TO GOOD 8" IN ISI - DEAD</u> <u>FF - WEAK BUILT TO 4" IN LOST PACKER SEAT</u>				

Recovery - Total Feet	<u>410</u>	GIP		Ft. in DC		Ft. in DP	
Rec.	<u>410</u>	Feet of	<u>WATERY CUT MUD</u>	%gas		%oil	<u>30</u> %water <u>70</u> %mud
Rec.		Feet of	<u>FEW OIL SPOTS</u>	%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
BHT	<u>96</u>	°F Gravity		*API D @		*F Corrected Gravity	*API
RW	<u>.30</u>	@	<u>65</u> °F	Chlorides	<u>25,000</u> ppm Recovery	Chlorides	ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	1638 PSI	Recorder No.	<u>6741</u>	Test	<u>B, HOLE</u>
(B) First Initial Flow Pressure			19 PSI	(depth)	<u>3153</u>	Elec. Rec.	<u>✓</u>
(C) First Final Flow Pressure			84 PSI	Recorder No.	<u>13308</u>	Jars	
(D) Initial Shut-In Pressure			1092 PSI	(depth)	<u>3162</u>	Safety Jt.	
(E) Second Initial Flow Pressure			84 PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure			107 PSI	(depth)		Sampler	
(G) Final Shut-In Pressure			— PSI	Initial Opening	<u>45</u>	Straddle	
(Q) Final Hydrostatic Mud			1529 PSI	Initial Shut-In	<u>45</u>	Ext. Packer	

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Approved By _____

Our Representative

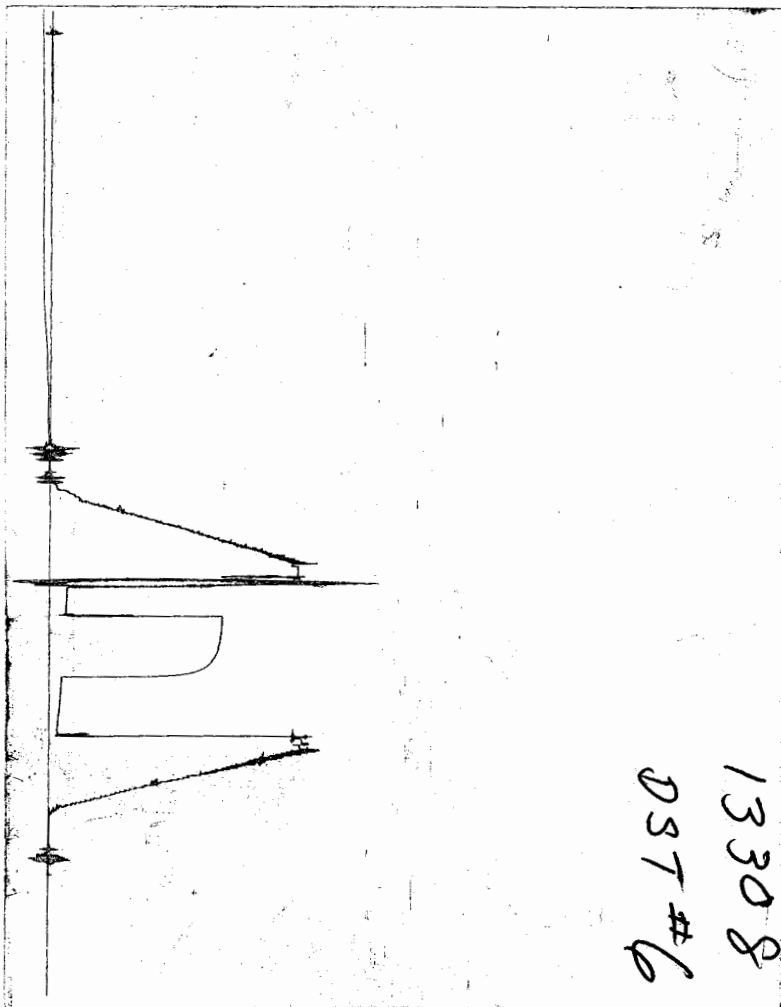
John J. Schmidt

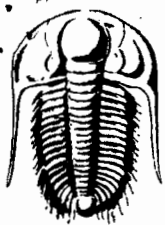
Final Flow	<u>20</u>
Final Shut-In	<u>—</u>
T-On Location	<u>07:30</u>
T-Started	<u>08:25</u>
T-Open	<u>09:39</u>
T-Pulled	<u>11:33</u>
T-Out	<u>013:24</u>

Shale Packer	
Mileage	<u>25</u>
Sub Total:	
Std. By	
Other	
Total:	

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18484

05/03

Test Ticket

Well Name & No.	<u>EVLERT UNIT #1</u>	Test No.	<u>#7</u>	Date	<u>11-15-03</u>
Company	<u>MAI OIL OPERATIONS, INC.</u>	Zone Tested	<u>ARBUCKLE</u>		
Address		Elevation	<u>1687</u> KB <u>1682</u> GL		
Co. Rep / Geo.	<u>TODD MORGENSTERN</u>	Cont.	<u>MURFIN #16</u>	Est. Ft. of Pay	Por. %
Location: Sec.	<u>4</u>	Twp.	<u>12S</u>	Rge.	<u>15W</u> Co. <u>RUSSELL</u> State <u>KS</u>
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested	<u>3158 TO 3165</u>	Initial Str Wt./Lbs.	<u>59000</u>	Unseated Str Wt./Lbs.	<u>59000</u>
Anchor Length	<u>7'</u>	Wt. Set Lbs.	<u>25000</u>	Wt. Pulled Loose/Lbs.	
Top Packer Depth	<u>3153</u>	Tool Weight	<u>2000</u>		
Bottom Packer Depth	<u>3158</u>	Hole Size 7 7/8"	<u>✓</u>	Rubber Size 6 3/4"	<u>✓</u>
Total Depth	<u>3165</u>	Wt. Pipe Run	<u>0</u>	Drill Collar Run	<u>124</u>
Mud Wt.	<u>9.3</u> LCM <u>TR</u> Vis. <u>48</u> WL <u>8.8</u>	Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	<u>3039</u>
Blow Description	<u>IF - WEAK TO FAIR 5" IN</u>		<u>FSI - DEAD</u>		
	<u>FF - WEAK 5" IN</u>		<u>FSI - DEAD</u>		

Recovery - Total Feet	<u>195</u>	GIP	<u>—</u>	Ft. in DC	<u>124</u>	Ft. in DP	<u>71</u>
Rec.	<u>195</u>	Feet of	<u>MUDDY SALT WATER</u>	%gas		%oil	<u>80</u> %water <u>20</u> %mud
Rec.		Feet of	<u>FEW OIL SPOTS</u>	%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
BHT	<u>102</u>	°F Gravity	<u>—</u>	°API D @	<u>—</u>	°F Corrected Gravity	<u>—</u> °API
RW	<u>.30</u>	@	<u>65</u> °F	Chlorides	<u>25,000</u> ppm Recovery	<u>—</u>	Chlorides <u>7,000</u> ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud		<u>1603</u> PSI	Recorder No.	<u>6741</u>	Test	<u>B, HOLE</u>
(B) First Initial Flow Pressure		<u>10</u> PSI	(depth)	<u>3159</u>	Elec. Rec.	<u>✓</u>
(C) First Final Flow Pressure		<u>76</u> PSI	Recorder No.	<u>13308</u>	Jars	
(D) Initial Shut-In Pressure		<u>1093</u> PSI	(depth)	<u>3162</u>	Safety Jt.	
(E) Second Initial Flow Pressure		<u>78</u> PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure		<u>107</u> PSI	(depth)		Sampler	
(G) Final Shut-In Pressure		<u>1094</u> PSI	Initial Opening	<u>45</u>	Straddle	
(Q) Final Hydrostatic Mud		<u>1542</u> PSI	Initial Shut-In	<u>45</u>	Ext. Packer	
			Final Flow	<u>45</u>	Shale Packer	
			Final Shut-In	<u>60</u>	Mileage	
			T-On Location	<u>13:15</u>	Sub Total:	
			T-Started	<u>13:42</u>	Std. By	
			T-Open	<u>15:13</u>	Other	
			T-Pulled	<u>18:28</u>	Total:	
			T-Out	<u>20:08</u>		

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Approved By _____

Our Representative John J. Schmidt

CHART PAGE

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

13308

DST#7

