



DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Company**

PO Box 2758
Wichita KS 67201

ATTN: Kevin Kessler

15 16S 23W Ness KS

Zimmerman-Scott #1-15

Start Date: 2006.11.20 @ 05:18:33

End Date: 2006.11.20 @ 10:51:46

Job Ticket #: 26008 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

Mull Drilling Company

PO Box 2758
Wichita KS 67201

ATTN: Kevin Kessler

Zimmerman-Scott #1-15

15 16S 23W Ness KS

Job Ticket: 26008

DST#: 1

Test Start: 2006.11.20 @ 05:18:33

GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:16:16

Time Test Ended: 10:51:46

Test Type: Conventional Bottom Hole

Tester: Michael Shinn

Unit No: 2

Interval: **4310.00 ft (KB) To 4370.00 ft (KB) (TVD)**

Total Depth: 4370.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2448.00 ft (KB)

2443.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6672

Inside

Press@RunDepth: 26.76 psig @ 4311.00 ft (KB)

Start Date: 2006.11.20

End Date:

2006.11.20

Capacity: 7000.00 psig

Last Calib.: 2006.11.20

Start Time: 05:18:33

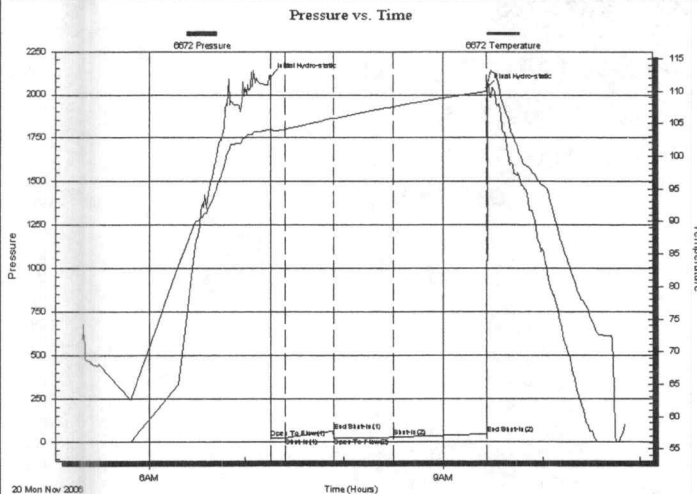
End Time:

10:51:46

Time On Btm: 2006.11.20 @ 07:16:01

Time Off Btm: 2006.11.20 @ 09:26:31

TEST COMMENT: IF Return blow to 1 in died to 3/4 in
IS No return
FF No return blow
ISI No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2105.18	104.16	Initial Hydro-static
1	23.16	103.82	Open To Flow (1)
9	24.05	104.09	Shut-In (1)
38	63.14	105.81	End Shut-In (1)
39	24.22	105.80	Open To Flow (2)
75	26.76	107.58	Shut-In (2)
130	46.52	109.92	End Shut-In (2)
131	2040.11	110.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	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

Mull Drilling Company

PO Box 2758
Wichita KS 67201

ATTN: Kevin Kessler

Zimmerman-Scott #1-15

15 16S 23W Ness KS

Job Ticket: 26008

DST#: 1

Test Start: 2006.11.20 @ 05:18:33

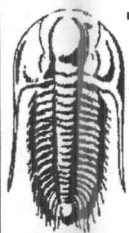
Tool Information

Drill Pipe:	Length: 4198.00 ft	Diameter: 3.80 inches	Volume: 58.89 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	70000.00 lb
			Total Volume: 59.50 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	4310.00 ft			Final	460000.0 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	80.00 ft				
Number of Packers:	1	Diameter:	inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4295.00	
Hydraulic tool	5.00			4300.00	
Packer	5.00			4305.00	20.00 Bottom Of Top Packer
Packer	5.00			4310.00	
Change Over Sub	1.00			4311.00	
Recorder	0.00	6672	Inside	4311.00	
Drill Pipe	31.00			4342.00	
Change Over Sub	1.00			4343.00	
Perforations	22.00			4365.00	
Recorder	0.00	11020	Inside	4365.00	
Bullnose	5.00			4370.00	60.00 Bottom Packers & Anchor

Total Tool Length: 80.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Company

Zimmerman-Scott #1-15

PO Box 2758
Wichita KS 67201

15 16S 23W Ness KS

Job Ticket: 26008

DST#: 1

ATTN: Kevin Kessler

Test Start: 2006.11.20 @ 05:18:33

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 9.48 in³

Resistivity: 0.00 ohm.m

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100%M	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:

DST Test Number: 1

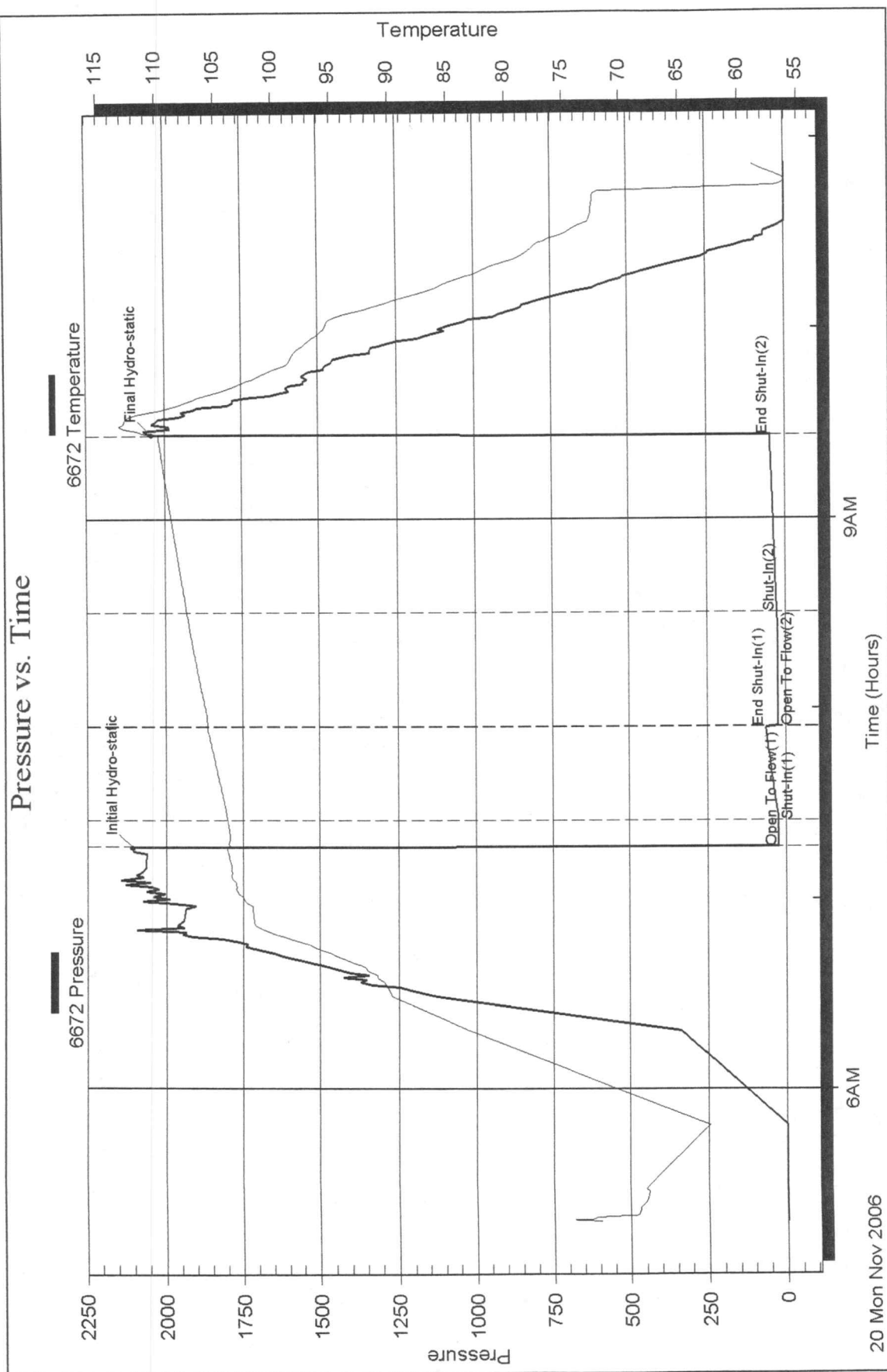
15 16S 23W Ness KS

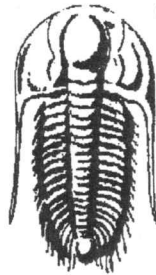
Mull Drilling Company

Inside

Serial #: 6672

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Company**

PO Box 2758
Wichita KS 67201

ATTN: Kevin Kessler

15 16S 23W Ness KS

Zimmerman-Scott #1-15

Start Date: 2006.11.20 @ 22:34:12

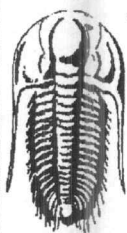
End Date: 2006.11.21 @ 05:08:25

Job Ticket #: 26009 DST #: 2

Trilobite Testing, Inc

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DRILL STEM TEST REPORT

Mull Drilling Company

PO Box 2758
Wichita KS 67201

ATTN: Kevin Kessler

Zimmerman-Scott #1-15

15 16S 23W Ness KS

Job Ticket: 26009

DST#: 2

Test Start: 2006.11.20 @ 22:34:12

GENERAL INFORMATION:

Formation: **Cherokee Shale**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:43:25

Time Test Ended: 05:08:25

Test Type: Conventional Bottom Hole

Tester: Michael Shinn

Unit No: 2

Interval: **4365.00 ft (KB) To 4435.00 ft (KB) (TVD)**

Total Depth: 4435.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2448.00 ft (KB)

2443.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6672

Inside

Press@RunDepth: 29.99 psig @ 4376.00 ft (KB)

Start Date: 2006.11.20

End Date:

2006.11.21

Capacity: 7000.00 psig

Last Calib.: 2006.11.21

Start Time: 22:34:12

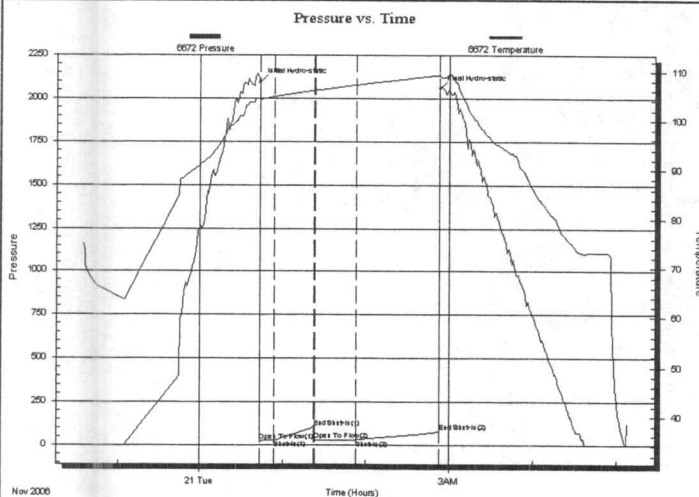
End Time:

05:08:25

Time On Btm: 2006.11.21 @ 00:43:10

Time Off Btm: 2006.11.21 @ 02:53:10

TEST COMMENT: IF Return blow to 1 1/4 in died to 1/2 in
IS No return
FF No return blow
ISI No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2092.97	104.51	Initial Hydro-static
1	24.20	104.22	Open To Flow (1)
11	25.71	104.81	Shut-In(1)
40	103.24	106.10	End Shut-In(1)
40	26.81	106.11	Open To Flow (2)
70	29.99	107.24	Shut-In(2)
130	77.85	109.27	End Shut-In(2)
131	2056.40	109.60	Final Hydro-static

Recovery

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

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Company

Zimmerman-Scott #1-15

PO Box 2758
Wichita KS 67201

15 16S 23W Ness KS

Job Ticket: 26009

DST#: 2

ATTN: Kevin Kessler

Test Start: 2006.11.20 @ 22:34:12

Tool Information

Drill Pipe:	Length: 4239.00 ft	Diameter: 3.80 inches	Volume: 59.46 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	60000.00 lb
		Total Volume:	60.07 bbl	Tool Chased	5.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	4365.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	90.00 ft				
Number of Packers:	1	Diameter:	inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4350.00	
Hydraulic tool	5.00			4355.00	
Packer	5.00			4360.00	20.00 Bottom Of Top Packer
Packer	5.00			4365.00	
Perforations	10.00			4375.00	
Change Over Sub	1.00			4376.00	
Recorder	0.00	6672	Inside	4376.00	
Drill Pipe	31.00			4407.00	
Change Over Sub	1.00			4408.00	
Perforations	22.00			4430.00	
Recorder	0.00	11020	Inside	4430.00	
Bullnose	5.00			4435.00	70.00 Bottom Packers & Anchor

Total Tool Length: 90.00



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FLUID SUMMARY

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Wichita KS 67201

ATTN: Kevin Kessler

Zimmerman-Scott #1-15

15 16S 23W Ness KS

Job Ticket: 26009

DST#: 2

Test Start: 2006.11.20 @ 22:34:12

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 44.00 sec/qt

Water Loss: 9.49 in³

Resistivity: 0.00 ohm.m

Salinity: 3700.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

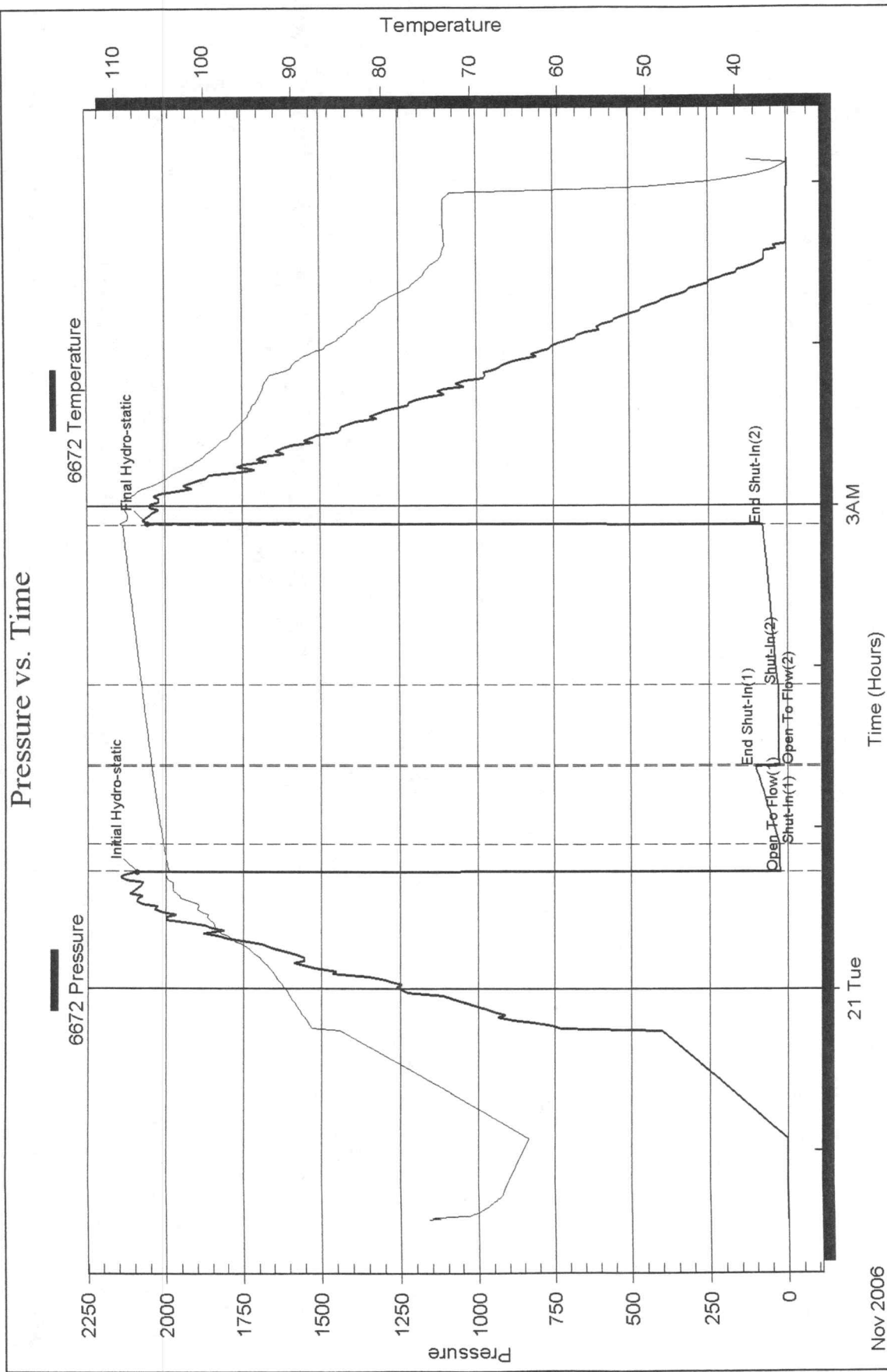
Serial #:

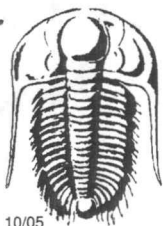
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

9554

26008

Test Ticket

Well Name & No. Zimmerman-Scott #1-15 Test No. 1 Date 11-20-06
 Company Full Drilling Company Zone Tested FT. Scott
 Address P.O. Box 2758 Wichita, KS 67201 Elevation 2448 KB 2443 GL
 Co. Rep / Geo. Brian Kessler Rig 22-W Drilling Rig #2
 Location: Sec. 15 Twp. 16S Rge. 23W Co. Neosho State KS
 Comment: _____ Release date / time: _____

Interval Tested 4310' 4320' Initial Str Wt./Lbs. 45,000 Unseated Str Wt./Lbs. 46,000
 Anchor Length 60' Wt. Set Lbs. 2500 Wt. Pulled Loose/Lbs. 20,000
 Top Packer Depth 4315' Tool Weight 1500
 Bottom Packer Depth 4310' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth 4320' Wt. Pipe Run ✓ Drill Collar Run 124'
 Mud Wt. 9.1 LCM 0 Vis. 46 WL 9.5 Drill Pipe Size 4 1/2 XH Ft. Run 4198'
 Blow Description 5K, 10 turns blow to lin, did to 3/4 in.

IS, No Return
PS, No Return below
IS, No Return

Recovery - Total Feet 10 GIP _____ Ft. in DC _____ Ft. in DP _____
 Rec. 10' Feet of mud %gas _____ %oil _____ %water 100% %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 110 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 3400 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2105</u> PSI		<u>6672</u>	<u>X 7/200.00</u>
(B) First Initial Flow Pressure	<u>23</u> PSI		(depth) <u>4310'</u>	Jars _____
(C) First Final Flow Pressure	<u>24</u> PSI		Recorder No. _____	Safety Jt. _____
(D) Initial Shut-In Pressure	<u>63</u> PSI		(depth) _____	Circ Sub <u>X N/C</u>
(E) Second Initial Flow Pressure	<u>24</u> PSI		Recorder No. <u>11020</u>	Sampler _____
(F) Second Final Flow Pressure	<u>27</u> PSI		(depth) <u>4365'</u>	Straddle _____
(G) Final Shut-In Pressure	<u>47</u> PSI	Initial Opening <u>10</u>		Ext. Packer _____
(Q) Final Hydrostatic Mud	<u>2040</u> PSI	Initial Shut-In <u>30</u>		Shale Packer _____
		Final Flow <u>30</u>		Ruined Packer <u>X 200.00</u>
		Final Shut-In <u>60</u>		Mileage <u>X 144 180</u>

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

T-On Location

T-Started 07:20 a.m.
 T-Open 09:15 a.m.
 T-Pulled 12:25
 T-Out 12:55 a.m.

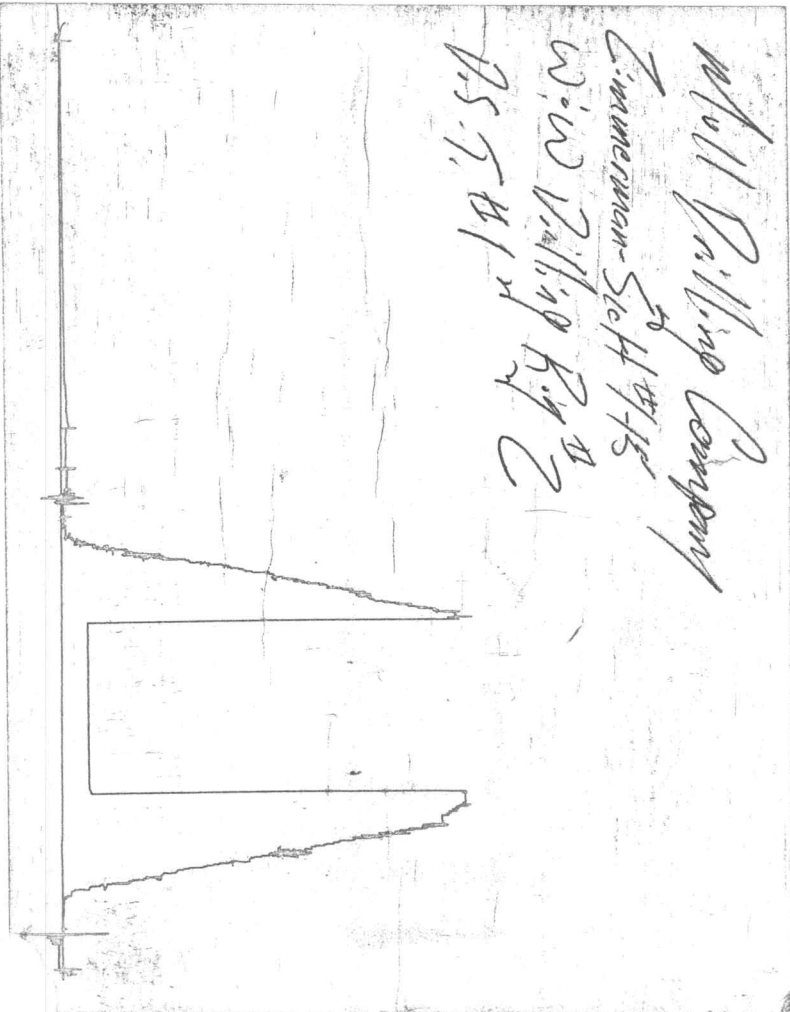
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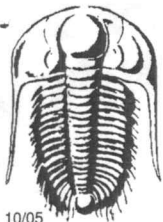
Std. By _____
 Acc. Chg: 61580
 Other: _____
 Total: _____

Approved By Brian Kessler
 Our Representative _____

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

26009

Test Ticket

Well Name & No. Zimmerman - Scott #1-15 Test No. 2 Date 11-10-06
 Company Well Drilling Company Zone Tested Cherokee Shale
 Address P.O. Box 2758 Wichita, KS 67202 Elevation 2448 KB 2443 GL
 Co. Rep / Geo. Kevin Kessler Rig Well Drilling Rig #2
 Location: Sec. 15 Twp. 16S Rge. 23W Co. Neos State KS
 Comment: Test slide 5' to bottom Release date / time: _____

Interval Tested 4365' 4435' Initial Str Wt./Lbs. 50,000 Unseated Str Wt./Lbs. 50,000
 Anchor Length 4365' 70" Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 4365' Tool Weight 1,500
 Bottom Packer Depth 4365' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth 4436' Wt. Pipe Run ✓ Drill Collar Run 124'
 Mud Wt. 9.3 LCM 1# Vis. 44 WL 9.5 Drill Pipe Size 4 1/2 XH Ft. Run 4239'
 Blow Description IFC Return blow to 1/4" in hole to 1/2 in.

IS in No Return
IFC No Return blow
IS in No Return

Recovery - Total Feet 5' GIP _____ Ft. in DC _____ Ft. in DP _____
 Rec. 5' Feet of Mud %gas _____ %oil _____ %water 100 %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 109 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 3,700 ppm System

	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>2125</u>	PSI	Recorder No.	<u>6672</u>
(B) First Initial Flow Pressure	<u>24</u>	PSI	(depth)	<u>4355'</u>
(C) First Final Flow Pressure	<u>26</u>	PSI	Recorder No.	
(D) Initial Shut-In Pressure	<u>103</u>	PSI	(depth)	
(E) Second Initial Flow Pressure	<u>27</u>	PSI	Recorder No.	<u>11020</u>
(F) Second Final Flow Pressure	<u>30</u>	PSI	(depth)	<u>4430'</u>
(G) Final Shut-In Pressure	<u>28</u>	PSI	Initial Opening	<u>10</u>
(Q) Final Hydrostatic Mud	<u>2056</u>	PSI	Initial Shut-In	<u>30</u>

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Approved By Kevin Kessler

Our Representative [Signature]

Final Flow 30
 Final Shut-In 60
 T-On Location 22:30 pm
 T-Started 23:00 pm
 T-Open 01:05 a.m.
 T-Pulled 03:15 a.m.
 T-Out 05:35 a.m.

Test \$1200.00
 Jars \$250.00
 Safety Jt. _____
 Circ Sub X N/C
 Sampler _____
 Straddle _____
 Ext. Packer _____
 Shale Packer _____
 Ruined Packer \$700.00
 Mileage X 144 180
 Sub Total: _____
 Std. By X 4 hours 400
 Acc. Chg: _____
 Other: _____
 Total: \$7730

CHART PAGE

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

