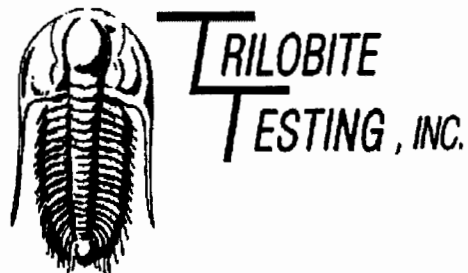


15-199-20311

26-15s-42w



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc.**

250 N Water Ste #300
Wichita KS 67202

ATTN: Paul Gunzelman

26-15S-42W Wallace

Thiesing #1-26

Start Date: 2003.12.02 @ 05:10:07

End Date: 2003.12.02 @ 12:29:07

Job Ticket #: 18029 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

Murfin Drilling Company Inc.

250 N Water Ste #300
Wichita KS 67202

ATTN: Paul Gunzelman

Thiesing #1-26

26-15S-42W Wallace

Job Ticket: 18029

DST#: 1

Test Start: 2003.12.02 @ 05:10:07

GENERAL INFORMATION:

Formation: **Lans "A"**

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

Time Tool Opened: 06:45:52

Time Test Ended: 12:29:07

Test Type: **Conventional Bottom Hole**

Tester: **Rod Steinbrink**

Unit No: **22**

Interval: **4170.00 ft (KB) To 4191.00 ft (KB) (TVD)**

Total Depth: **4247.00 ft (KB) (TVD)**

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

Reference Elevations: **3850.00 ft (KB)**

3841.00 ft (CF)

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

Serial #: **6799**

Inside

Press@RunDepth: **785.19 psig @ 4171.00 ft (KB)**

Start Date: **2003.12.02**

End Date:

2003.12.02

Start Time: **05:10:17**

End Time:

12:29:07

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Time On Btm: **2003.12.02 @ 06:44:22**

Time Off Btm: **2003.12.02 @ 10:18:52**

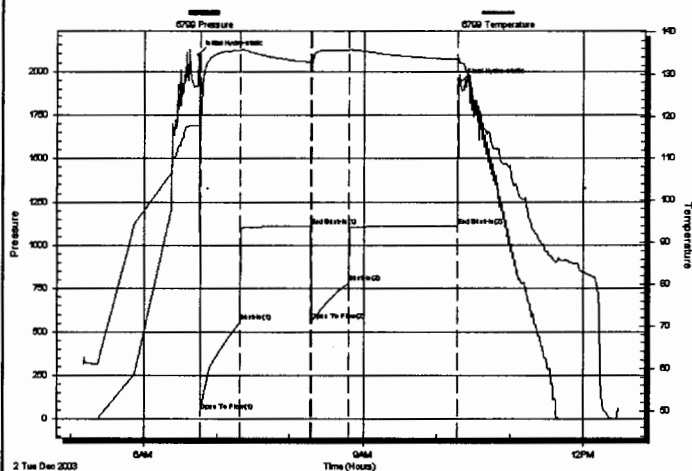
TEST COMMENT: IF; Fair to strong off btm 4 mins

IS; No return blow

FF; Fair to strong off btm 7 mins

FS; No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.70	117.90	Initial Hydro-static
2	44.18	117.17	Open To Flow (1)
35	557.65	135.68	Shut-In (1)
93	1109.29	132.84	End Shut-In (1)
94	564.97	132.61	Open To Flow (2)
124	785.19	135.68	Shut-In (2)
213	1109.66	133.49	End Shut-In (2)
215	1937.10	132.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1700.00	Sulphur Water	18.65

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc.

250 N Water Ste #300
Wichita KS 67202

ATTN: Paul Gunzelman

Thiesing #1-26

26-15S-42W Wallace

Job Ticket: 18029

DST#: 1

Test Start: 2003.12.02 @ 05:10:07

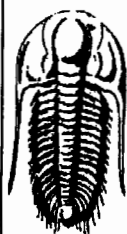
Tool Information

Drill Pipe:	Length: 3595.00 ft	Diameter: 3.80 inches	Volume: 50.43 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 570.00 ft	Diameter: 2.25 inches	Volume: 2.80 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume:	53.23 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4170.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	77.00 ft			
Tool Length:	104.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4148.00	
Hydraulic tool	5.00			4153.00	
Jars	5.00			4158.00	
Safety Joint	2.00			4160.00	
Packer	5.00			4165.00	27.00 Bottom Of Top Packer
Packer	5.00			4170.00	
Stubb	1.00			4171.00	
Recorder	0.00	6799	Inside	4171.00	
Perforations	14.00			4185.00	
Recorder	0.00	13309	Outside	4185.00	
Blank Off Sub	1.00			4186.00	77.00 Tool Interval
Packer	5.00			4191.00	
Stubb	1.00			4192.00	
Perforations	17.00			4209.00	
Change Over Sub	1.00			4210.00	
Anchor	31.00			4241.00	
Change Over Sub	1.00			4242.00	
Recorder	0.00	13371	Below	4242.00	
Bullnose	5.00			4247.00	1000103.00 Bottom Packers & Anchor

Total Tool Length: 104.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc.

Thiesing #1-26

250 N Water Ste #300
Wichita KS 67202

26-15S-42W Wallace

Job Ticket: 18029

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2003.12.02 @ 05:10:07

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:

40000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1700.00	Sulpher Water	18.654

Total Length: 1700.00 ft Total Volume: 18.654 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .19 @ 70 deg = 40,000 Chlorides

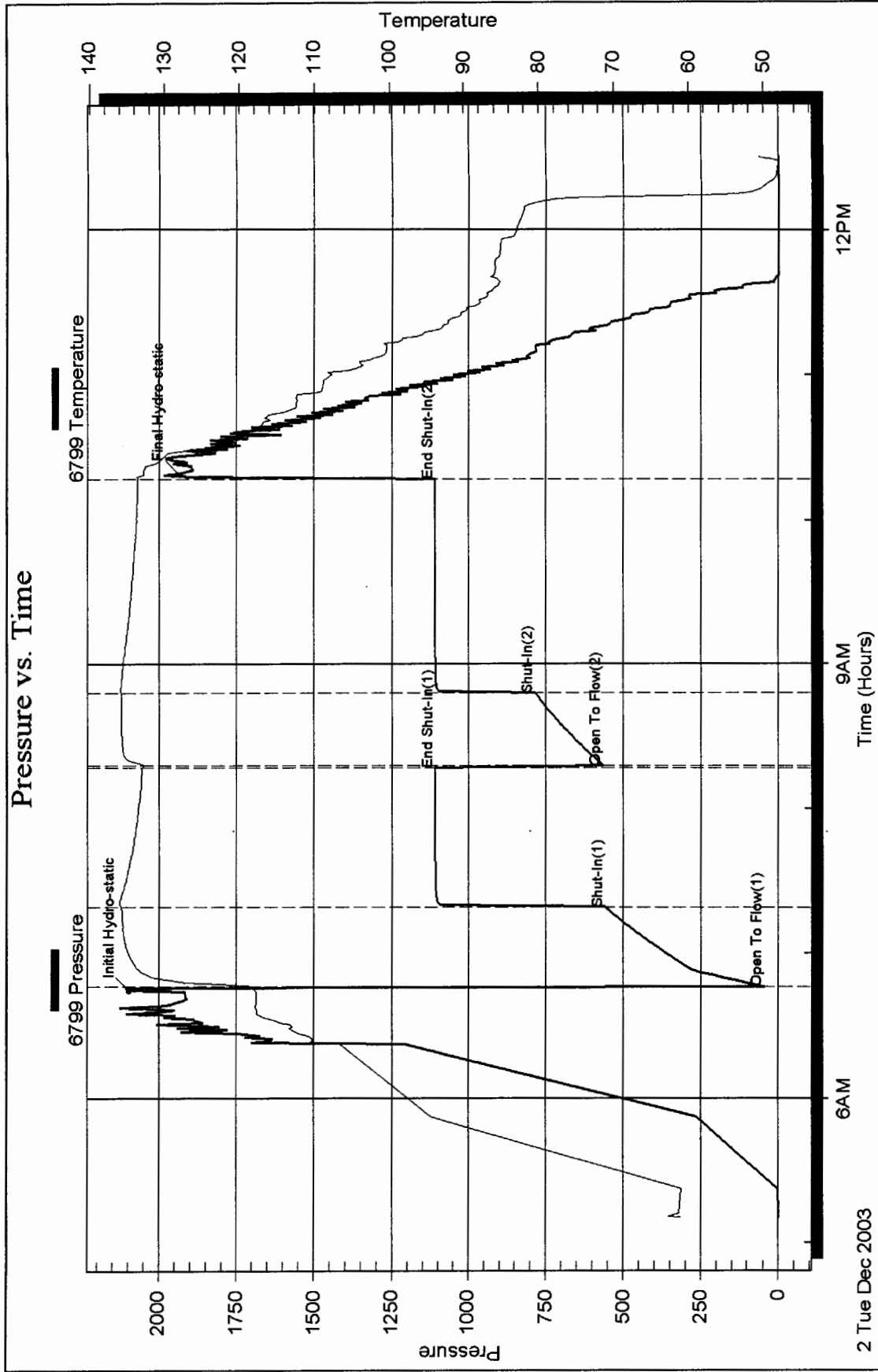
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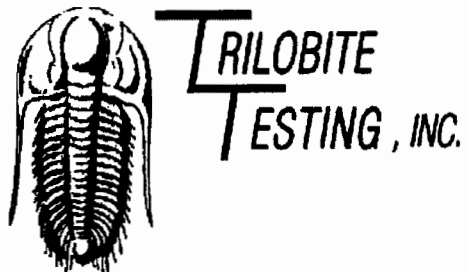
Inside

Murfin Drilling Company Inc.

26-15S-42W Wallace

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc.**

250 N Water Ste #300
Wichita KS 67202

ATTN: Paul Gunzelman

26-15S-42W Wallace

Thiesing #1-26

Start Date: 2003.12.04 @ 12:45:02

End Date: 2003.12.04 @ 20:29:15

Job Ticket #: 17754 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

Murfin Drilling Company Inc.

250 N Water Ste #300
Wichita KS 67202

ATTN: Paul Gunzelman

Thiesing #1-26

26-15S-42W Wallace

Job Ticket: 17754

DST#: 2

Test Start: 2003.12.04 @ 12:45:02

GENERAL INFORMATION:

Formation: **morrow**

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

Time Tool Opened: 14:44:30

Time Test Ended: 20:29:15

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 25

Interval: **5002.00 ft (KB) To 5113.00 ft (KB) (TVD)**

Total Depth: **5113.00 ft (KB) (TVD)**

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

Reference Elevations: **3850.00 ft (KB)**

3841.00 ft (CF)

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

Serial #: **6753**

Inside

Press@RunDepth: **358.83 psig @ 5003.00 ft (KB)**

Start Date: **2003.12.04**

End Date:

2003.12.04

Start Time: **12:45:02**

End Time:

20:29:15

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Time On Btm: **2003.12.04 @ 14:44:00**

Time Off Btm: **2003.12.04 @ 18:16:00**

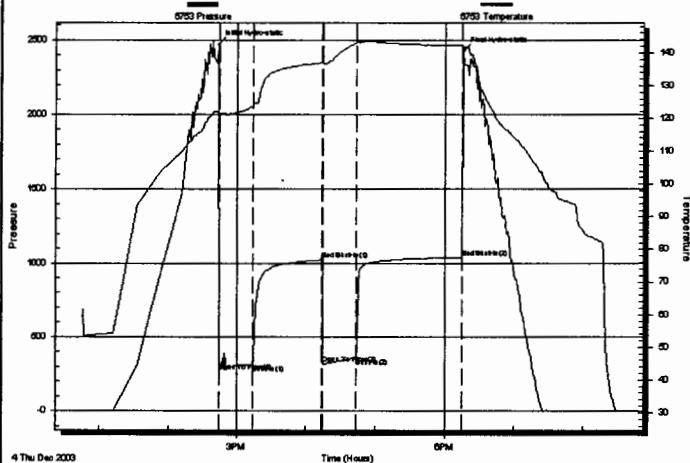
TEST COMMENT: **4" in. @ open B.O.B. in 8 min.**

No return

Surface blow in 3 min. built to 3" in.

No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2470.36	121.80	Initial Hydro-static
1	264.75	121.13	Open To Flow (1)
31	313.90	124.14	Shut-In (1)
90	1020.29	136.97	End Shut-In (1)
91	316.34	136.69	Open To Flow (2)
120	358.83	143.09	Shut-In (2)
211	1037.05	142.27	End Shut-In (2)
212	2425.39	140.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
372.00	water 100%w	1.83
186.00	m c w 30% m 70% w	0.91
177.00	w c m 30% w 70% m	2.37

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc.

250 N Water Ste #300
Wichita KS 67202

ATTN: Paul Gunzelman

Thiesing #1-26

26-15S-42W Wallace

Job Ticket: 17754

DST#: 2

Test Start: 2003.12.04 @ 12:45:02

Tool Information

Drill Pipe:	Length: 4440.00 ft	Diameter: 3.80 inches	Volume: 62.28 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 570.00 ft	Diameter: 2.25 inches	Volume: 2.80 bbl	Weight to Pull Loose:	105000.0 lb
		Total Volume:	65.08 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	78000.00 lb
Depth to Top Packer:	5002.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	111.00 ft				
Tool Length:	133.00 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			4981.00	
Shut In Tool	5.00			4986.00	
Hydraulic tool	5.00			4991.00	
Safety Joint	2.00			4993.00	
Packer	5.00			4998.00	22.00 Bottom Of Top Packer
Packer	4.00			5002.00	
Stubb	1.00			5003.00	
Recorder	0.00	6753	Inside	5003.00	
Perforations	10.00			5013.00	
Change Over Sub	1.00			5014.00	
drillpipe	93.00			5107.00	
Change Over Sub	1.00			5108.00	
Recorder	0.00	11058	Outside	5108.00	
Bullnose	5.00			5113.00	111.00 Bottom Packers & Anchor

Total Tool Length: 133.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc.

Thiesing #1-26

250 N Water Ste #300
Wichita KS 67202

26-15S-42W Wallace

Job Ticket: 17754

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2003.12.04 @ 12:45:02

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: 39000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
372.00	water 100%w	1.829
186.00	m c w 30%m 70%w	0.915
177.00	w c m 30%w 70%m	2.374

Total Length: 735.00 ft

Total Volume: 5.118 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

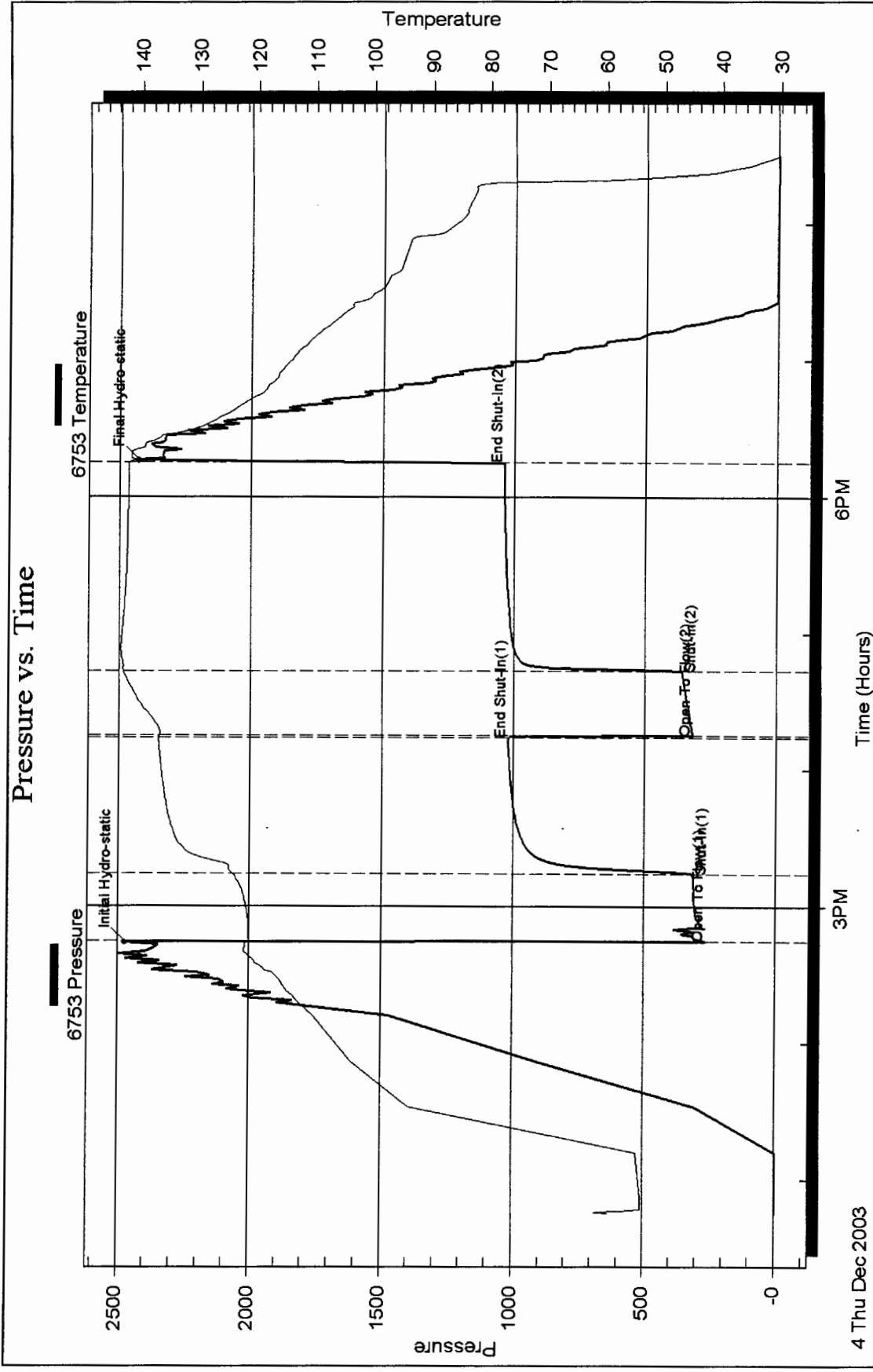
Serial #: 6753

Inside

Murfin Drilling Company Inc.

26-15S-42W Wallace

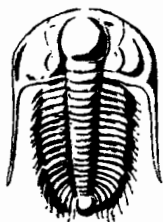
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 17754

Printed: 2003.12.17 @ 09:56:14 Page 5



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18029

05/03

Test Ticket

Well Name & No. Thiesing #1-26 Test No. 1 Date 12-2-03
 Company Murfin Drilling Company Inc. Zone Tested Lans. 'A'
 Address 250 N. Water Ste #300 Wichita, KS. 67202 Elevation 3850 KB 3841 GL
 Co. Rep / Geo. Paul Gunzelman Cont. Murfin #25 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 26 Twp. 15^S Rge. 42^W Co. Wallace State KS.
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4170 - 4191 Initial Str Wt./Lbs. 70,000 Unseated Str Wt./Lbs. 80,000
 Anchor Length 21' Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 85,000
 Top Packer Depth 4165 - 4170 Tool Weight 3,000
 Bottom Packer Depth 4191 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth 4247 Wt. Pipe Run _____ Drill Collar Run 570'
 Mud Wt. 9.1 LCM 1# Vis. 50 WL 8.0 Drill Pipe Size 4 1/2" KH Ft. Run 3626'
 Blow Description IF: Fair to strong off bttm 4 mins.
ISI: No return
FF: Fair to strong off bttm 7 mins.
FSI:

Recovery - Total Feet 1700' GIP — Ft. in DC 570' Ft. in DP 1130'
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud
 Rec. 1700' Feet of Sulphur Wtr. %gas _____ %oil _____ %water _____ %mud
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud
 BHT 133° °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW .19 @ 70° °F Chlorides 40,000 ppm Recovery _____ Chlorides 3,200 ppm System

AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>2095</u> PSI	Recorder No. <u>6799</u>	Test <u>800</u>
(B) First Initial Flow Pressure	<u>44</u> PSI	(depth) <u>4171</u>	Elec. Rec. <u>X</u> <u>150</u>
(C) First Final Flow Pressure	<u>557</u> PSI	Recorder No. <u>13309</u>	Jars _____
(D) Initial Shut-In Pressure	<u>1109</u> PSI	(depth) <u>4186</u>	Safety Jt. <u>X</u> <u>50</u>
(E) Second Initial Flow Pressure	<u>564</u> PSI	Recorder No. <u>13371</u>	Circ Sub <u>X</u> <u>N/C</u>
(F) Second Final Flow Pressure	<u>785</u> PSI	(depth) <u>4242</u>	Sampler _____
(G) Final Shut-In Pressure	<u>1109</u> PSI	Initial Opening <u>30</u>	Straddle <u>X</u> <u>250</u>
(Q) Final Hydrostatic Mud	<u>1937</u> PSI	Initial Shut-In <u>60</u>	Ext. Packer <u>X</u> <u>150</u>
		Final Flow <u>30</u>	Shale Packer _____
		Final Shut-In <u>90</u>	Mileage <u>1 way 75 75</u>
		T-On Location <u>0415 12-2-03</u>	Sub Total: <u>1975</u>
		T-Started <u>0510</u>	Std. By _____
		T-Open <u>0645</u>	Other _____
		T-Pulled <u>1016</u>	Total: _____
		T-Out <u>1229</u>	
		T-Off <u>1315</u>	

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Approved By Paul Gunzelman

Our Representative Red Steinbrink

CHART PAGE

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

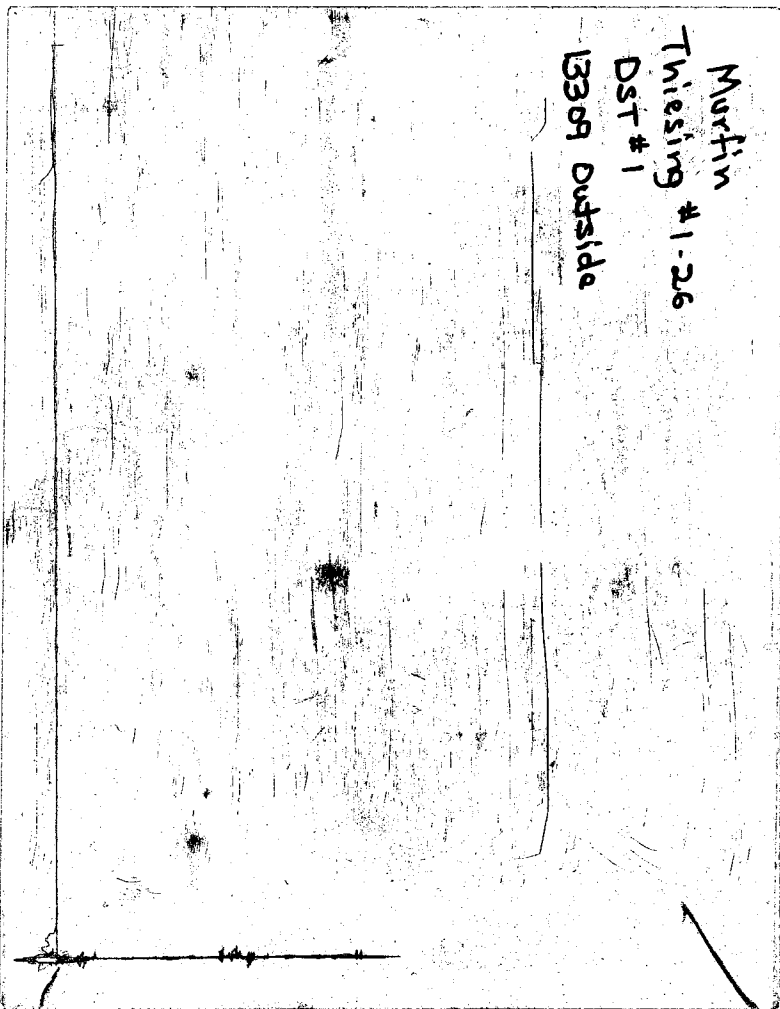
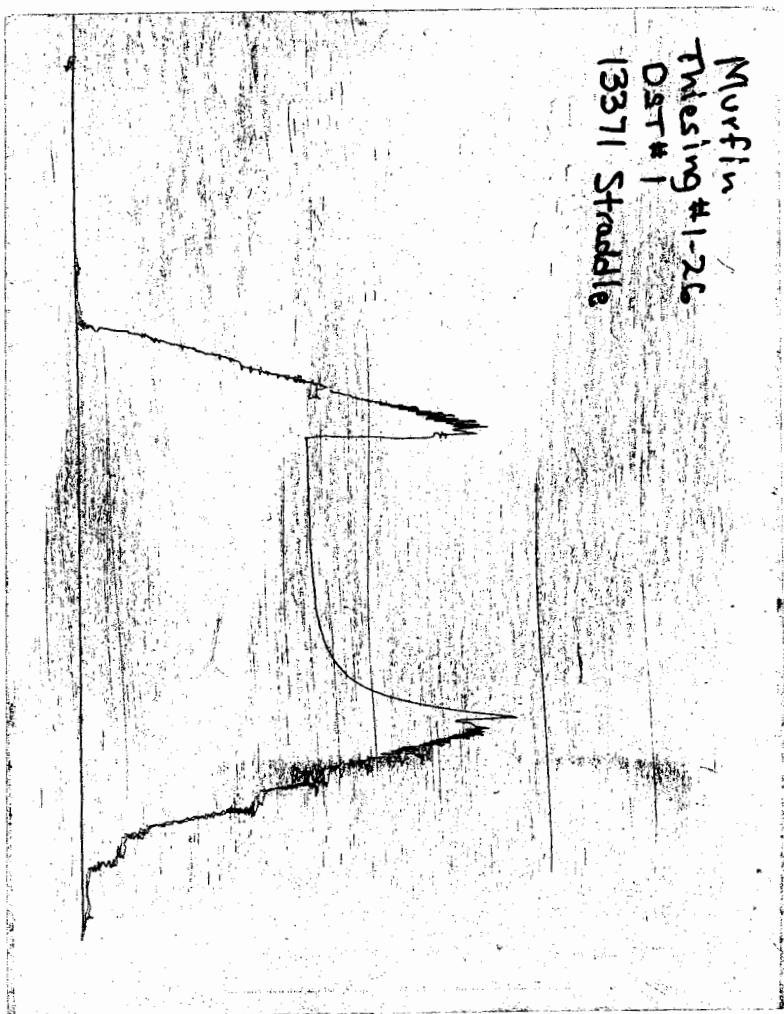
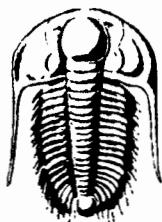


CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 17754

12/02

Test Ticket

Well Name & No. Theising #1-26 Test No. #2 Date 12-4-03
 Company Murfin Drilling Zone Tested morrow
 Address 250N Water, Suite 300 Wichita, KS 67202 Elevation 3850' KB 3841' GL
 Co. Rep / Geo. Paul Gurselman Cont. Murfin #25 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 26 Twp. 15 Rge. 42W Co. Wallace State KS
 No. of Copies 4 Norm. Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 5002' 5113' Initial Str Wt./Lbs. 78,000 Unseated Str Wt./Lbs. 80,000
 Anchor Length _____ 111' Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 105,000
 Top Packer Depth _____ 4997' Tool Weight 1,500
 Bottom Packer Depth _____ 5002' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth _____ 5113' Wt. Pipe Run _____ Drill Collar Run 570' H-90
 Mud Wt. 9.1 LCM #3 Vis. 55 WL 7.2 Drill Pipe Size 4 1/2 XH Ft. Run 4440'
 Blow Description 4" in @ open B.O.B. in 8 min.

No return

Surface blow in 3 min, built to 3" in.

No return

Recovery - Total Feet 735' GIP _____ Ft. in DC 570' Ft. in DP 165'
 Rec. 177' Feet of wcm 30% W 70% M
 Rec. 186' Feet of mcw 30% M 70% W
 Rec. 372' Feet of water 100% W
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 BHT 142' °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW 1262 @ 500 °F Chlorides 39,000 ppm Recovery 39,000 Chlorides 3000 ppm System

AK-1

Alpine

(A) Initial Hydrostatic Mud	<u>2470</u> PSI	Recorder No.	<u>6753</u>	Test X	<u>\$900.00</u>
(B) First Initial Flow Pressure	<u>264</u> PSI	(depth)	<u>5003'</u>	Elec. Rec. X	<u>\$150.00</u>
(C) First Final Flow Pressure	<u>313</u> PSI	Recorder No.	<u>11058</u>	Jars	
(D) Initial Shut-In Pressure	<u>1020</u> PSI	(depth)	<u>5108'</u>	Safety Jt. X	<u>\$50.00</u>
(E) Second Initial Flow Pressure	<u>316</u> PSI	Recorder No.		Circ Sub X	<u>N/C</u>
(F) Second Final Flow Pressure	<u>358</u> PSI	(depth)		Sampler	
(G) Final Shut-In Pressure	<u>1037</u> PSI	Initial Opening	<u>30</u>	Straddle	
(Q) Final Hydrostatic Mud	<u>2425</u> PSI	Initial Shut-In	<u>60</u>	Ext. Packer	

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE 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.

Approved By Paul Gurselman

Our Representative Shane McLeod

Final Flow 30
 Final Shut-In 90
 T-On Location 12:00 p.m.
 T-Started 12:45 p.m.
 T-Open 14:45 p.m.
 T-Pulled 18:15 p.m.
 T-Out _____
 Mileage X 75 1 way \$75.00
 Sub Total: \$1,175.00
 Std. By _____
 Other _____
 Total: \$1,175.00

CHART PAGE

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

