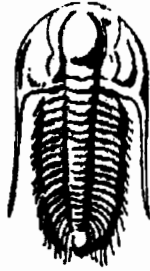


31-2-26w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**
Wichita, KS

ATTN: Murfin Drilling Co.

31-2-26

Stites 1-31

Start Date: 2001.09.25 @ 06:40:17

End Date: 2001.09.25 @ 12:10:11

Job Ticket #: 15487 DST #: 1

RECEIVED
FEB 28 2002
KCC WICHITA

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

Murfin Drilling Co.

Sites 1-31

31-2-26

DST # 1

Toronto

2001.09.25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

Wichita, KS

ATTN: Murfin Drilling Co.

Stites 1-31

31-2-26

Job Ticket: 15487

DST#: 1

Test Start: 2001.09.25 @ 06:40:17

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:12

Time Test Ended: 12:10:11

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 15

Interval: 3500.00 ft (KB) To 3538.00 ft (KB) (TVD)

Total Depth: 3538.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2635.00 ft (KB)

2630.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2346 Inside

Press@RunDepth: 24.20 psig @ 3501.00 ft (KB)

Start Date: 2001.09.25

End Date:

2001.09.25

Capacity: 7000.00 psig

Last Calib.:

2001.01.26

Start Time: 06:40:17

End Time:

12:10:11

Time On Btm:

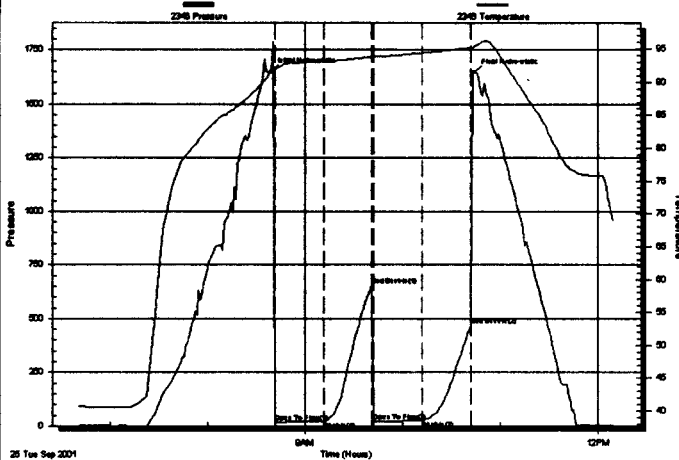
2001.09.25 @ 08:39:12

Time Off Btm:

2001.09.25 @ 10:44:12

TEST COMMENT: Bubble to open tool, no blow
No return
No blow
No return

Pressure vs. Time



PRESSURE SUMMARY

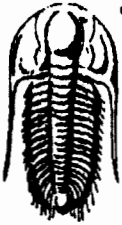
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1650.49	91.43	Initial Hydro-static
2	17.81	91.79	Open To Flow (1)
32	20.93	93.09	Shut-In(1)
62	655.31	93.80	End Shut-In(1)
63	22.21	93.81	Open To Flow (2)
93	24.20	94.36	Shut-In(2)
123	467.54	95.17	End Shut-In(2)
125	1646.02	95.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	drilling mud 100% mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15487

DST#: 1

ATTN: Murfin Drilling Co.

Test Start: 2001.09.25 @ 06:40:17

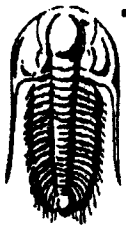
Tool Information

Drill Pipe:	Length: 3055.00 ft	Diameter: 3.80 inches	Volume: 42.85 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: 443.00 ft	Diameter: 2.25 inches	Volume: 2.18 bbl	Weight to Pull Loose: 65000.00 lb
		Total Volume: 45.03 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3500.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3479.00	
S.I. Tool	5.00			3484.00	
HMV	5.00			3489.00	
Safety Joint	2.00			3491.00	
Packer	5.00			3496.00	22.00 Bottom Of Top Packer
Packer	4.00			3500.00	
Stubb	1.00			3501.00	
Recorder	0.00	2346	inside	3501.00	
Perforations	32.00	24174		3533.00	
Recorder	0.00	11057	Outside	3533.00	
Bullnose	5.00			3538.00	38.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Stites 1-31

Wichita , KS

31-2-26

Job Ticket: 15487

DST#: 1

ATTN: Murfin Drilling Co.

Test Start: 2001.09.25 @ 06:40:17

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: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	drilling mud 100% mud	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

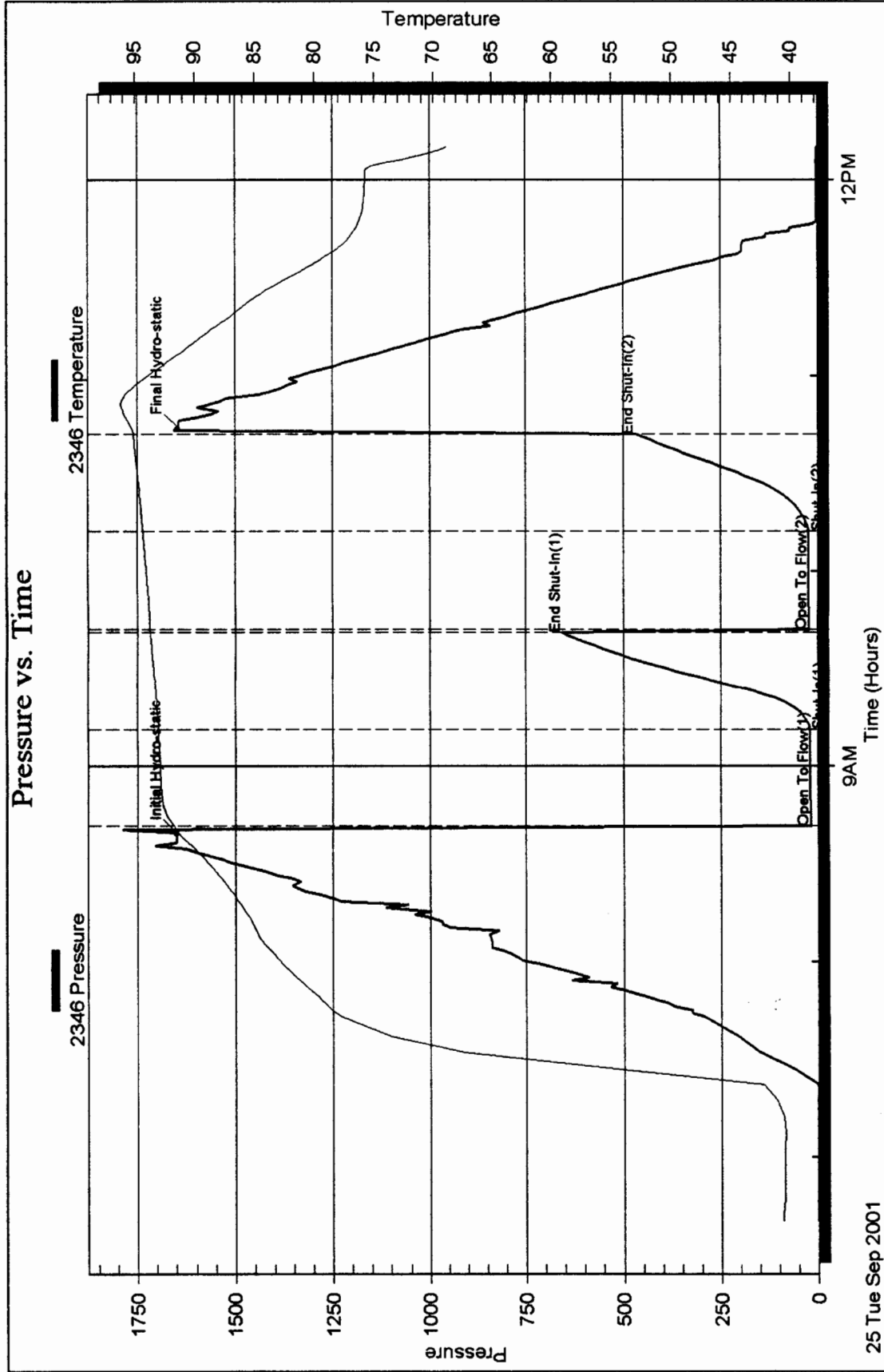
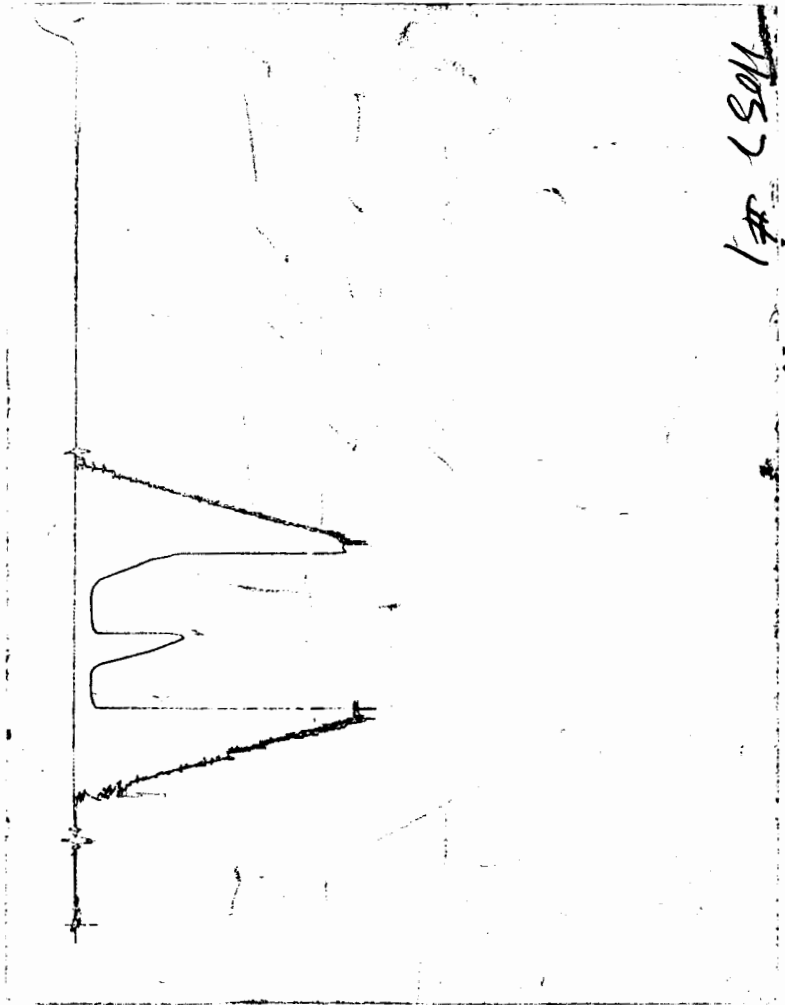
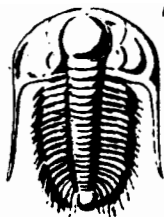


CHART PAGE

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

MOS 2 #1





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15487

Test Ticket

Well Name & No. Stites 1-31 Test No. #1 Date 9-25-01
 Company Murkin Drilling Co. Inc. Zone Tested Toronto
 Address Wichita, Ks Elevation 2635 KB 2430 GL
 Co. Rep / Geo. Paul Gunzelman Cont. Murkin #3 Est. Ft. of Pay Por. %
 Location: Sec. 31 Twp. 2s Rge. 26w Co. State Ks
 No. of Copies Norm. Distribution Sheet (Y, N) N Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3500 3538 Initial Str Wt./Lbs. 50000 Unseated Str Wt./Lbs. 50,000
 Anchor Length 38 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 65,000
 Top Packer Depth 3495 Tool Weight 1,500
 Bottom Packer Depth 3500 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3538 Wt. Pipe Run Drill Collar Run 443'
 Mud Wt. LCM Vis. WL Drill Pipe Size 4 1/2 XH Ft. Run 3055'
 Blow Description Bubble to open tool, no blow
No return
No blow
No return

Recovery — Total Feet 5' GIP Ft. in DC 5' Ft. in DP
 Rec. 5' Feet Of Drilling 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 95° °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1650</u>	<u>1650</u>	<u> </u>	<u>2346</u>	<u>05:05 a.m.</u>
(B) First Initial Flow Pressure	<u>17</u>	<u>17</u>	<u> </u>	(depth) <u>3501'</u>	T-Started <u>06:35 a.m.</u>
(C) First Final Flow Pressure	<u>20</u>	<u>20</u>	<u> </u>	Recorder No. <u>11057</u>	T-Open <u>08:35 a.m.</u>
(D) Initial Shut-In Pressure	<u>655</u>	<u>655</u>	<u> </u>	(depth) <u>3533'</u>	T-Pulled <u>10:35 a.m.</u>
(E) Second Initial Flow Pressure	<u>22</u>	<u>22</u>	<u> </u>	Recorder No. <u> </u>	T-Out <u>12:10 p.m.</u>
(F) Second Final Flow Pressure	<u>24</u>	<u>24</u>	<u> </u>	(depth) <u> </u>	T-Off Location <u>13:05 p.m.</u>
(G) Final Shut-in Pressure	<u>467</u>	<u>467</u>	<u> </u>	Initial Opening <u>30</u>	Test <u>X</u> <u>700</u>
(Q) Final Hydrostatic Mud	<u>1646</u>	<u>1646</u>	<u> </u>	Initial Shut-in <u>30</u>	Jars <u> </u>

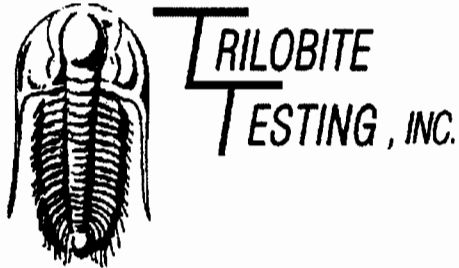
Final Flow 30 Safety Joint X 50
 Final Shut-in 30 Straddle

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 Gunzelman

Our Representative Shane M. B. D.

Circ. Sub X n/c
 Sampler
 Extra Packer
 Elec. Rec X 150
 Mileage X 130 1 way
 Other
 TOTAL PRICE \$ 1030



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**
Wichita , KS

ATTN: Murfin Drilling Co.

31-2-26

Stites 1-31

Start Date: 2001.09.25 @ 18:44:48

End Date: 2001.09.26 @ 01:33:42

Job Ticket #: 15488 DST #: 2

Murfin Drilling Co.

Sites 1-31

31-2-26

DST # 2

pollnow

2001.09.25

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 Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15488

DST#: 2

ATTN: Murfin Drilling Co.

Test Start: 2001.09.25 @ 18:44:48

GENERAL INFORMATION:

Formation: **pollnow**

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

Time Tool Opened: 20:16:43

Time Test Ended: 01:33:42

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **15**

Interval: **3550.00 ft (KB) To 3576.00 ft (KB) (TVD)**

Reference Elevations: **2635.00 ft (KB)**

Total Depth: **3576.00 ft (KB) (TVD)**

2630.00 ft (CF)

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

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

Serial #: 2346

Inside

Press@RunDepth: **47.89 psig @ 3551.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2001.09.25**

End Date:

2001.09.26

Last Calib.:

2001.01.26

Start Time: **18:44:48**

End Time:

01:33:42

Time On Btm:

2001.09.25 @ 20:15:43

Time Off Btm:

2001.09.25 @ 23:54:43

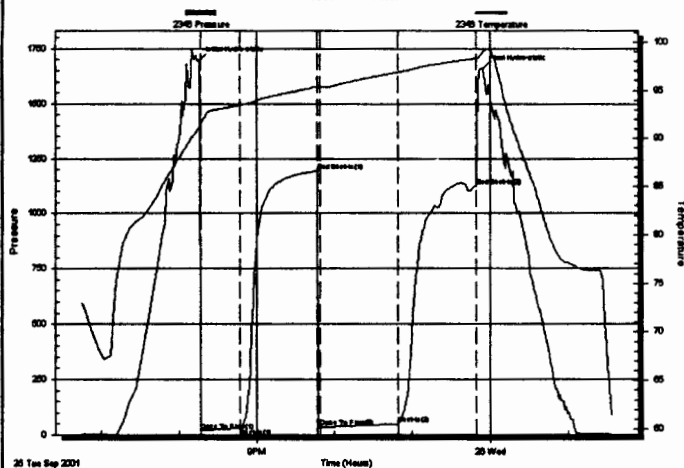
TEST COMMENT: **1/4" in. @ open built to 3/4" in.**

No return

Weak surface blow in 20 min.

No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1696.33	91.40	Initial Hydro-static
1	17.99	91.63	Open To Flow (1)
31	29.38	93.47	Shut-In(1)
91	1192.75	95.38	End Shut-In(1)
93	33.69	95.39	Open To Flow (2)
153	47.89	96.87	Shut-In(2)
214	1124.35	98.31	End Shut-In(2)
219	1657.98	98.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	free oil	0.00
19.00	s o c m w 2%o 60%m 38% w	0.09
40.00	s m c w 5%m 95%w	0.20

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15488

DST#: 2

ATTN: Murfin Drilling Co.

Test Start: 2001.09.25 @ 18:44:48

Tool Information

Drill Pipe:	Length: 3117.00 ft	Diameter: 3.80 inches	Volume: 43.72 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: 443.00 ft	Diameter: 2.25 inches	Volume: 2.18 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 45.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3550.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3531.00	
S.I. Tool	5.00			3536.00	
HMV	5.00			3541.00	
Packer	5.00			3546.00	20.00 Bottom Of Top Packer
Packer	4.00			3550.00	
Stubb	1.00			3551.00	
Recorder	0.00	2346	Inside	3551.00	
Perforations	20.00	24174		3571.00	
Recorder	0.00	11057	Outside	3571.00	
Bullnose	5.00			3576.00	26.00 Bottom Packers & Anchor
Total Tool Length:	46.00				



**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15488

DST#: 2

ATTN: Murfin Drilling Co.

Test Start: 2001.09.25 @ 18:44:48

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: 46.00 sec/qt

Cushion Volume:

bbf

Gas Cushion Type:

Water Loss: 7.18 in³

Gas Cushion Pressure:

psig

Resistivity: 0.00 ohm.m

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
1.00	free oil	0.005
19.00	s o c m w 2%o 60%m 38% w	0.093
40.00	s m c w 5%m 95%w	0.197

Total Length: 60.00 ft Total Volume: 0.295 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 2346

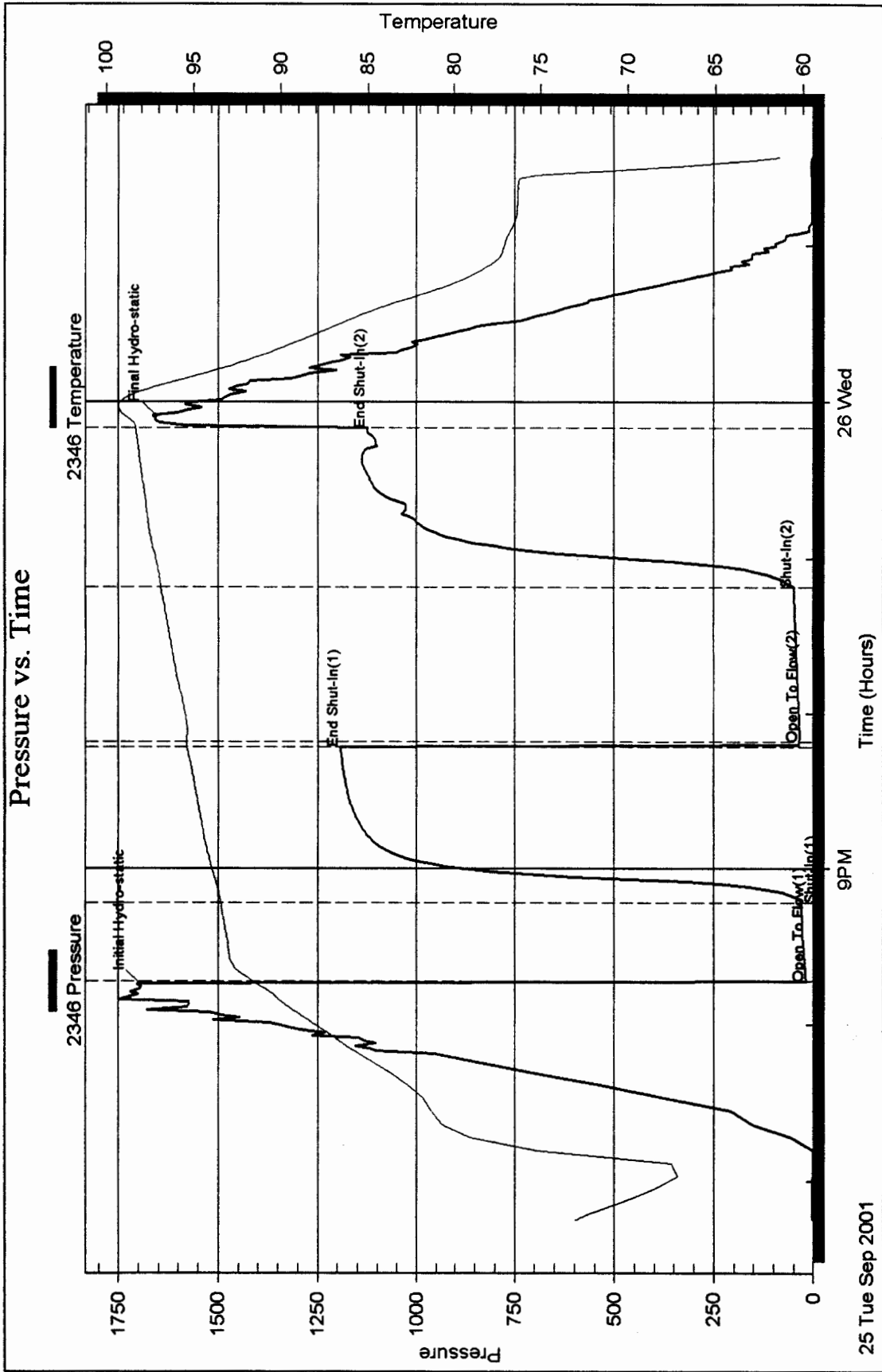
Inside

Murfin Drilling Co.

31-2-26

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

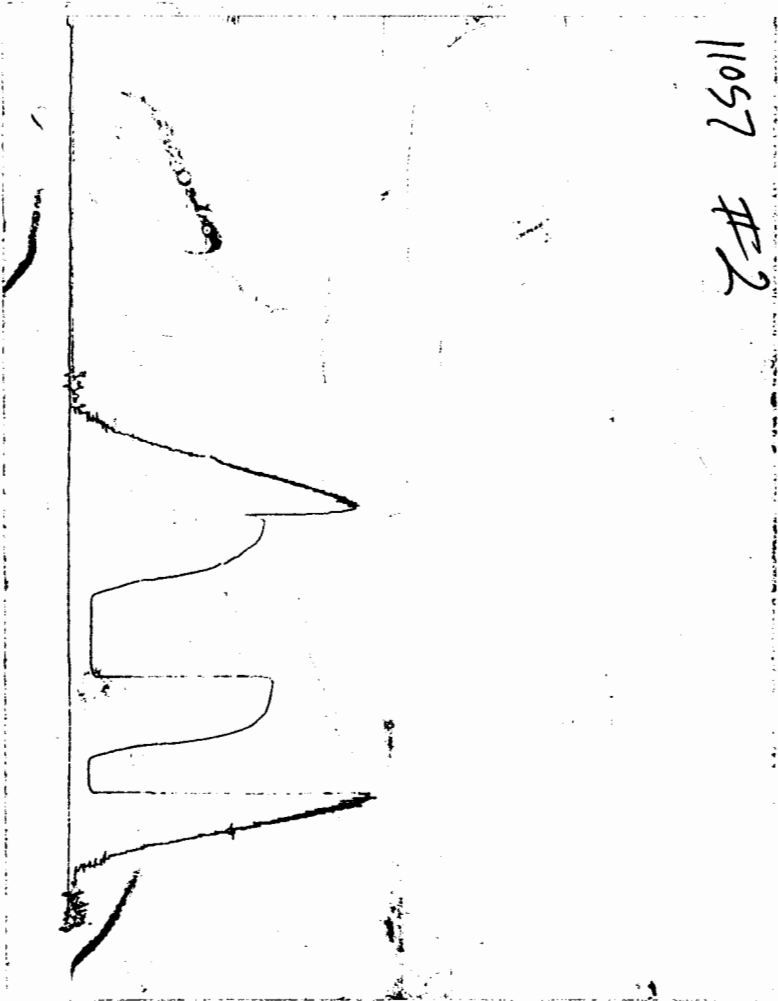
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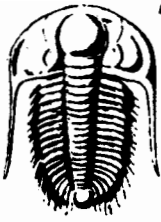
Printed: 2001.09.28 @ 09:30:55 Page 5

CHART PAGE

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

11057 #2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15488

Test Ticket

Well Name & No. Stites 1-35 Test No. #2 Date 9-25-01
 Company Murfin Drilling Co. Zone Tested Pollnow
 Address Wichita, KS Elevation 2635 KB 2630 GL
 Co. Rep / Geo. Paul Garzelman Cont. Murfin #3 Est. Ft. of Pay ___ Por. ___ %
 Location: Sec. 31 Twp. 2s Rge. 26w Co. Decatur State KS
 No. of Copies Norm Distribution Sheet (Y, N) n Turnkey (Y, N) ___ Evaluation (Y, N) ___

Interval Tested 3550 3576 Initial Str Wt./Lbs. 50000 Unseated Str Wt./Lbs. 50000
 Anchor Length 26 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 65,000
 Top Packer Depth 3545 Tool Weight 1,500
 Bottom Packer Depth 3550 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3576 Wt. Pipe Run ___ Drill Collar Run 443'
 Mud Wt. 8.8 LCM TR Vis. 46 WL 7.2 Drill Pipe Size 4 1/2 XH Ft. Run 3117'
 Blow Description 1/4" @ open built to 3/4" in
No return
Weak surface blow in 20 min.
No return

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>1</u> Feet Of <u>free oil</u>	___	<u>60'</u>	___
Rec. <u>19</u> Feet Of <u>50 cmw</u>	___	%gas <u>100</u> %oil ___ %water ___ %mud ___	___
Rec. <u>40</u> Feet Of <u>5 mcw</u>	___	%gas <u>2</u> %oil ___ %water <u>38</u> %mud <u>60</u>	___
Rec. ___ Feet Of ___	___	%gas ___ %oil ___ %water <u>95</u> %mud <u>5</u>	___
Rec. ___ Feet Of ___	___	%gas ___ %oil ___ %water ___ %mud ___	___
Rec. ___ Feet Of ___	___	%gas ___ %oil ___ %water ___ %mud ___	___

BHT 99° °F Gravity ___ °API D@ ___ °F Corrected Gravity ___ °API
 RW 213 @ 50 °F Chlorides 41,000 ppm Recovery Chlorides 800 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1696</u>		<u>2346</u>	<u>18:05 p.m.</u>
(B) First Initial Flow Pressure		<u>17</u>		(depth) <u>3551'</u>	T-Started <u>18:40 p.m.</u>
(C) First Final Flow Pressure		<u>29</u>		Recorder No. <u>11057</u>	T-Open <u>20:10 p.m.</u>
(D) Initial Shut-In Pressure		<u>1192</u>		(depth) <u>3571'</u>	T-Pulled <u>23:40 p.m.</u>
(E) Second Initial Flow Pressure		<u>33</u>		Recorder No. ___	T-Out <u>01:40 a.m.</u>
(F) Second Final Flow Pressure		<u>47</u>		(depth) ___	T-Off Location <u>02:30 a.m.</u>
(G) Final Shut-in Pressure		<u>1124</u>		Initial Opening <u>30</u>	Test <u>X</u> <u>700</u>
(Q) Final Hydrostatic Mud		<u>1657</u>		Initial Shut-in <u>60</u>	Jars ___

Final Flow 60 Safety Joint X 50
 Final Shut-in 60 Straddle ___
 Circ. Sub X n/c
 Sampler ___
 Extra Packer ___
 Elec. Rec. X 150
 Mileage ___
 Other ___
 TOTAL PRICE \$ 900

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 Garzelman
 Our Representative Steve M. B. D.



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**
Wichita , KS

ATTN: Murfin Drilling Co.

31-2-26

Stites 1-31

Start Date: 2001.09.26 @ 07:32:38

End Date: 2001.09.26 @ 14:36:32

Job Ticket #: 15489 DST #: 3

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

Murfin Drilling Co.

Stites 1-31

31-2-26

DST # 3

KC

2001.09.26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15489

DST#: 3

ATTN: Murfin Drilling Co.

Test Start: 2001.09.26 @ 07:32:38

GENERAL INFORMATION:

Formation: **KC**

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

Time Tool Opened: 09:29:33

Time Test Ended: 14:36:32

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **15**

Interval: **3570.00 ft (KB) To 3593.00 ft (KB) (TVD)**

Total Depth: **3593.00 ft (KB) (TVD)**

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

Reference Elevations: **2635.00 ft (KB)**

2630.00 ft (CF)

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

Serial #: **2346**

Inside

Press@RunDepth: **124.85 psig @ 3571.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2001.09.26**

End Date: **2001.09.26**

Last Calib.: **2001.01.27**

Start Time: **07:32:38**

End Time: **14:36:32**

Time On Btr: **2001.09.26 @ 09:28:33**

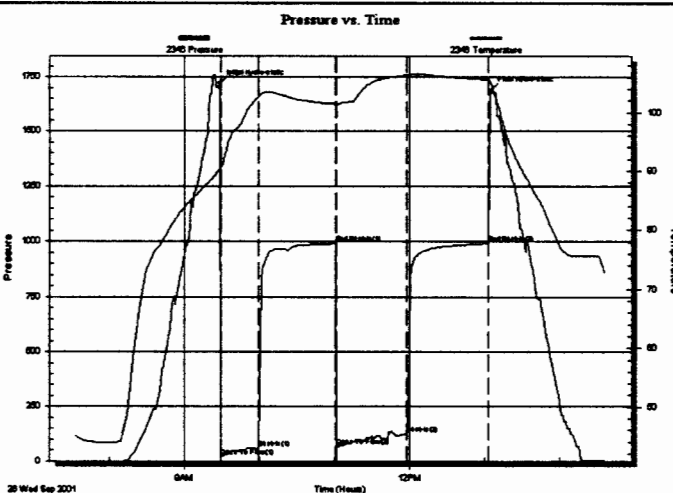
Time Off Btr: **2001.09.26 @ 13:04:33**

TEST COMMENT: **1/2" in. @ open, built to 4 3/4" in. slide tool 3' to bottom**

No return

Surface blow in 3 min., built to 3/4" in.

No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1721.88	90.34	Initial Hydro-static
1	22.49	90.65	Open To Flow (1)
31	61.45	102.77	Shut-In(1)
92	991.85	101.45	End Shut-In(1)
93	68.20	101.43	Open To Flow (2)
149	124.85	106.41	Shut-In(2)
214	990.91	105.63	End Shut-In(2)
216	1687.64	105.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud cut w ater 50%w 50%m	0.30
240.00	s m c w 5%m 95%w	1.18

Gas Rates

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



**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15489

DST#: 3

ATTN: Murfin Drilling Co.

Test Start: 2001.09.26 @ 07:32:38

Tool Information

Drill Pipe:	Length: 3117.00 ft	Diameter: 3.80 inches	Volume: 43.72 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: 443.00 ft	Diameter: 2.25 inches	Volume: 2.18 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 45.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3570.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3551.00	
S.I. Tool	5.00			3556.00	
HMV	5.00			3561.00	
Packer	5.00			3566.00	20.00 Bottom Of Top Packer
Packer	4.00			3570.00	
Stubb	1.00			3571.00	
Recorder	0.00	2346	Inside	3571.00	
Perforations	17.00	24174		3588.00	
Recorder	0.00	11057	Outside	3588.00	
Bullnose	5.00			3593.00	23.00 Bottom Packers & Anchor
Total Tool Length:	43.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15489

DST#: 3

ATTN: Murfin Drilling Co.

Test Start: 2001.09.26 @ 07:32:38

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:

42500 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 850.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	mud cut w ater 50%w 50%m	0.295
240.00	s m c w 5%m 95%w	1.180

Total Length: 300.00 ft

Total Volume: 1.475 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

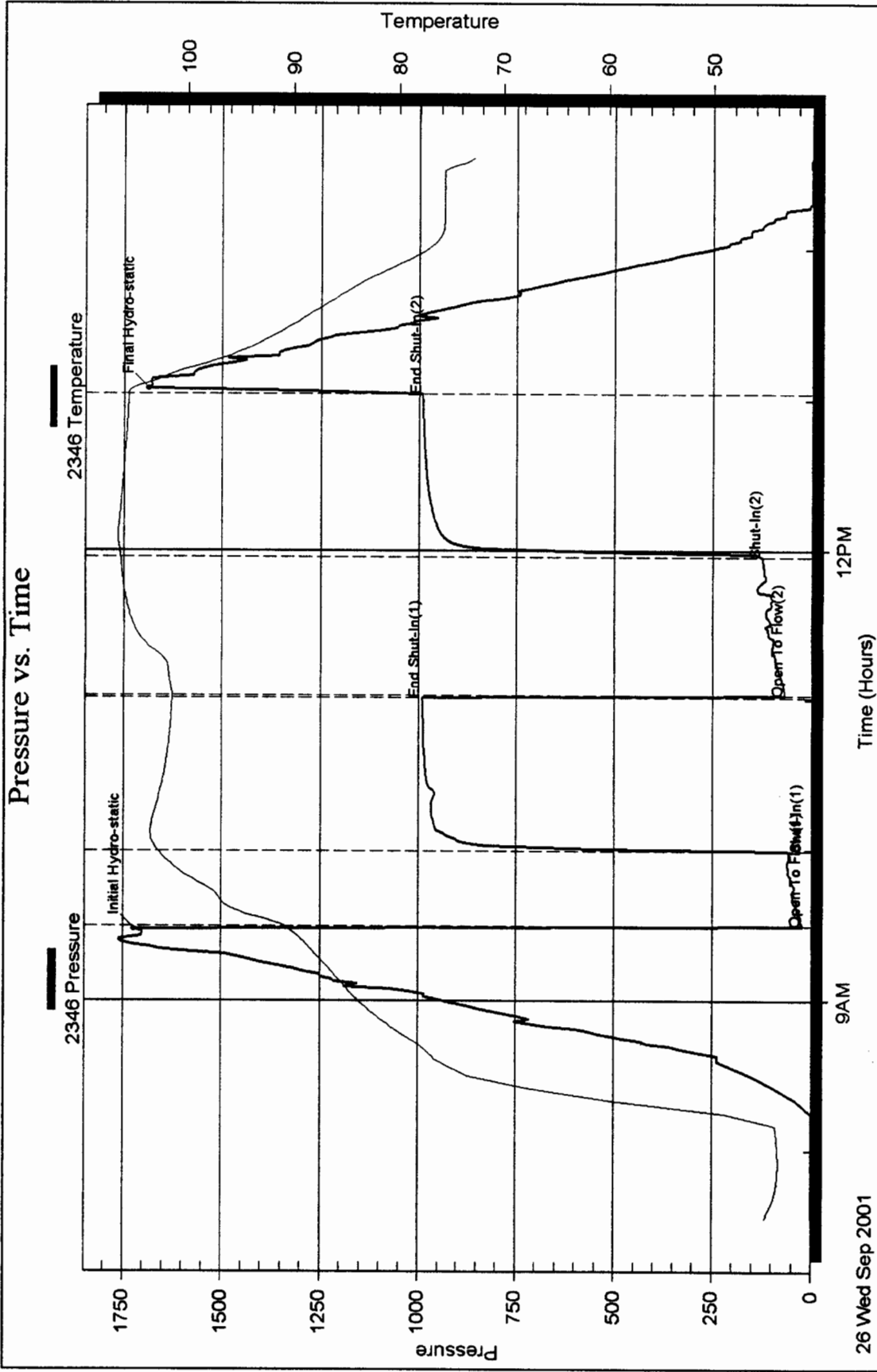
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



26 Wed Sep 2001

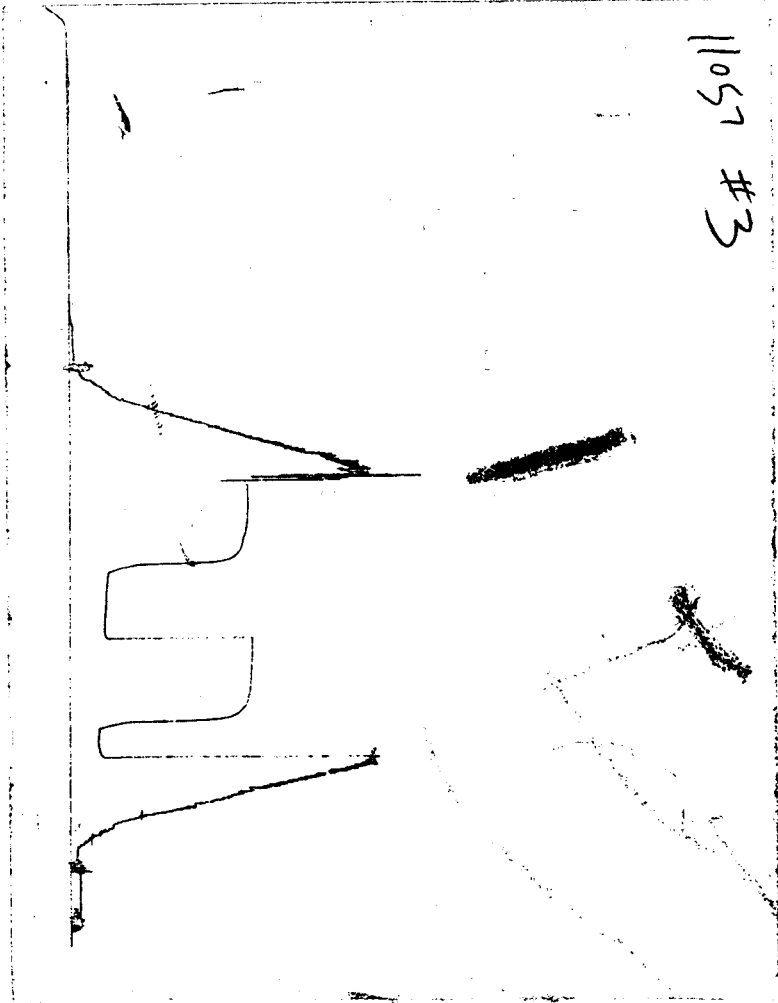
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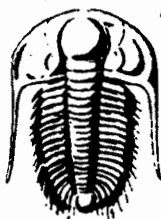
12PM

CHART PAGE

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

11057 #3





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15489

Test Ticket

Well Name & No. Stites 1-31 Test No. #3 Date 9-26-01
 Company Murkin Drilling Co. Zone Tested KC
 Address Wichita, KS Elevation 2635 KB 2630 GL
 Co. Rep / Geo. Paul Gundelman Cont. Murkin #3 Est. Ft. of Pay Por. %
 Location: Sec. 31 Twp. 25 Rge. 26w Co. DeWatur State KS
 No. of Copies 1 Distribution Sheet (Y, N) N Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3570 3593 Initial Str Wt./Lbs. 52,000 Unseated Str Wt./Lbs. 52,000
 Anchor Length 23 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 85,000
 Top Packer Depth 3565 Tool Weight 1500
 Bottom Packer Depth 3570 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3593 Wt. Pipe Run Drill Collar Run 443'
 Mud Wt. 9.0 LCM 0 Vis. 50 WL 7.6 Drill Pipe Size 4 1/2 X 4 Ft. Run 3117'
 Blow Description 1/2" @ open built to 4 3/4" in.
No return
Surface blow in 3 min, built to 3/4" in.
No return

Recovery — Total Feet 300' GIP Ft. in DC 300' Ft. in DP
 Rec. 60' Feet Of Muddy Water %gas %oil 50 %water 50 %mud
 Rec. 240' Feet Of SMCW %gas %oil 95 %water 5 %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 BHT 105° °F Gravity °API D@ °F Corrected Gravity °API
 RW .168 @ 75 °F Chlorides 42,500 ppm Recovery Chlorides 850 ppm System

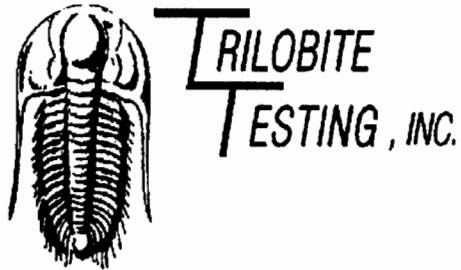
	AK-1	Alpine	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1721</u> PSI	<u>2346</u>	<u>6:25 A.M.</u>
(B) First Initial Flow Pressure		<u>22</u> PSI	(depth) <u>3571'</u>	T-Started <u>07:25 A.M.</u>
(C) First Final Flow Pressure		<u>61</u> PSI	Recorder No. <u>11057</u>	T-Open <u>09:25 A.M.</u>
(D) Initial Shut-In Pressure		<u>991</u> PSI	(depth) <u>3588'</u>	T-Pulled <u>12:55 P.M.</u>
(E) Second Initial Flow Pressure		<u>68</u> PSI	Recorder No. <u> </u>	T-Out <u>14:45 P.M.</u>
(F) Second Final Flow Pressure		<u>124</u> PSI	(depth) <u> </u>	T-Off Location <u>15:30 P.M.</u>
(G) Final Shut-in Pressure		<u>990</u> PSI	Initial Opening <u>30</u>	Test Y <u>780</u>
(Q) Final Hydrostatic Mud		<u>1687</u> PSI	Initial Shut-in <u>60</u>	Jars <u> </u>
			Final Flow <u>60</u>	Safety Joint <u>X 50</u>
			Final Shut-in <u>60</u>	Straddle <u> </u>
				Circ. Sub <u>X nk</u>
				Sampler <u> </u>
				Extra Packer <u> </u>
				Elec. Rec. <u>X 150</u>
				Mileage <u> </u>
				Other <u> </u>

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 Gundelman

Our Representative Shane M. Budd

TOTAL PRICE \$ 900



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**
Wichita , KS

ATTN: Murfin Drilling Co.

31-2-26

Stites 1-31

Start Date: 2001.09.27 @ 02:20:31

End Date: 2001.09.27 @ 09:39:25

Job Ticket #: 15490 DST #: 4

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

Murfin Drilling Co.

Stites 1-31

31-2-26

DST # 4

KC

2001.09.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

Wichita, KS

ATTN: Murfin Drilling Co.

Stites 1-31

31-2-26

Job Ticket: 15490

DST#: 4

Test Start: 2001.09.27 @ 02:20:31

GENERAL INFORMATION:

Formation: **KC**

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

Time Tool Opened: 04:21:26

Time Test Ended: 09:39:25

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **15**

Interval: **3636.00 ft (KB) To 3724.00 ft (KB) (TVD)**

Total Depth: **3724.00 ft (KB) (TVD)**

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

Reference Elevations: **2635.00 ft (KB)**

2630.00 ft (CF)

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

Serial #: 2346

Inside

Press@RunDepth: **39.68 psig @ 3637.00 ft (KB)**

Start Date: **2001.09.27**

End Date: **2001.09.27**

Start Time: **02:20:31**

End Time: **09:39:25**

Capacity: **7000.00 psig**

Last Calib.: **2001.01.27**

Time On Btm: **2001.09.27 @ 04:19:26**

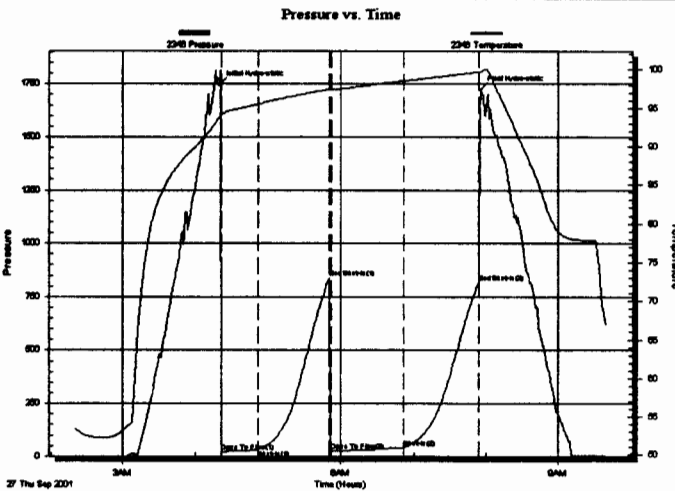
Time Off Btm: **2001.09.27 @ 07:55:26**

TEST COMMENT: **1/4" in. blow**

No return

No blow @ open, very weak surface blow in 20 min.

No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.94	93.75	Initial Hydro-static
2	19.53	94.07	Open To Flow (1)
32	30.08	95.53	Shut-in (1)
91	840.75	97.47	End Shut-in (1)
93	23.88	97.49	Open To Flow (2)
152	39.68	98.55	Shut-in (2)
214	817.74	99.71	End Shut-in (2)
216	1722.57	99.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	oil cut mud 35%oil 65% m	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15490

DST#: 4

ATTN: Murfin Drilling Co.

Test Start: 2001.09.27 @ 02:20:31

Tool Information

Drill Pipe:	Length: 3180.00 ft	Diameter: 3.80 inches	Volume: 44.61 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: 443.00 ft	Diameter: 2.25 inches	Volume: 2.18 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 46.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3636.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	110.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3615.00	
S.I. Tool	5.00			3620.00	
HMV	5.00			3625.00	
Safety Joint	2.00			3627.00	
Packer	5.00			3632.00	22.00 Bottom Of Top Packer
Packer	4.00			3636.00	
Stubb	1.00			3637.00	
Recorder	0.00	2346	Inside	3637.00	
Perforations	18.00	24174		3655.00	
C.O. Sub	1.00			3656.00	
drillpipe	62.00			3718.00	
C.O. Sub	1.00			3719.00	
Recorder	0.00	11057	Outside	3719.00	
Bullnose	5.00			3724.00	88.00 Bottom Packers & Anchor
Total Tool Length:	110.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Stites 1-31

Wichita, KS

31-2-26

Job Ticket: 15490

DST#: 4

ATTN: Murfin Drilling Co.

Test Start: 2001.09.27 @ 02:20:31

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: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	oil cut mud 35%oil 65%w	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

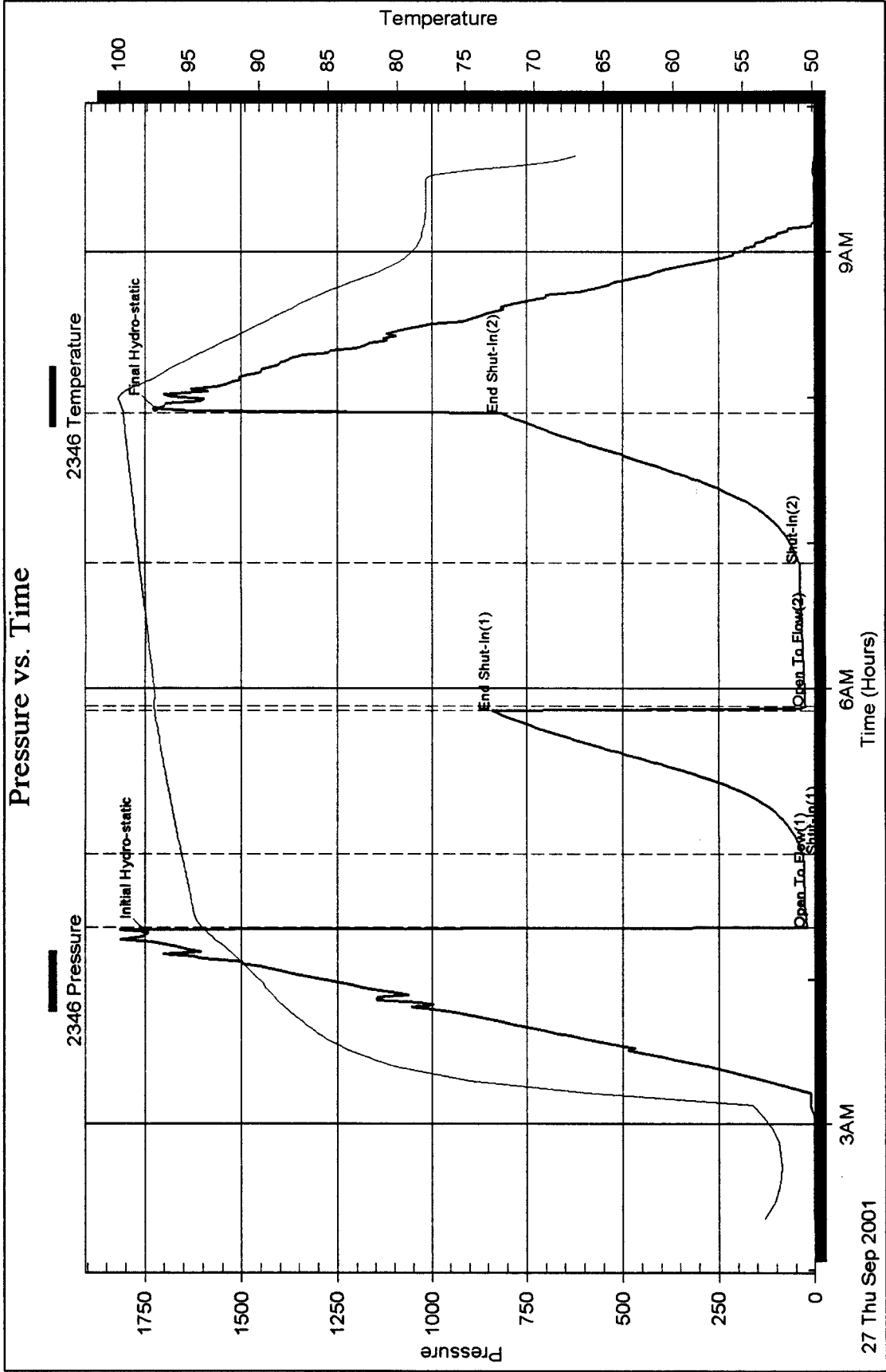
Serial #:

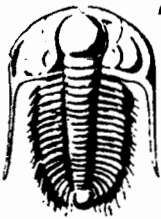
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15490

Test Ticket

Well Name & No. Stites 1-31 Test No. #4 Date 9-27-01
 Company Martin Drilling Co. Zone Tested KC
 Address Wichita, Ks Elevation 2635 KB 2630 GL
 Co. Rep / Geo. Paul Gunzelman Cont. Martin #3 Est. Ft. of Pay Por. %
 Location: Sec. 31 Twp. 25 Rge. 26w Co. Decatur State Ks
 No. of Copies None Distribution Sheet (Y, N) N Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3636 3724 Initial Str Wt./Lbs. 54,000 Unseated Str Wt./Lbs. 54,000
 Anchor Length 88 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 85,000
 Top Packer Depth 3631 Tool Weight 1,500
 Bottom Packer Depth 3636 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3724 Wt. Pipe Run Drill Collar Run 443'
 Mud Wt. 9.1 LCM 0 Vis. 53 WL 7.6 Drill Pipe Size 4 1/2 X 4 Ft. Run
 Blow Description 1/4" in blow

No return
No blow @ open very weak surface blow in 20 min.
No return

Recovery — Total Feet 60' GIP Ft. in DC 60' Ft. in DP
 Rec. 60' Feet Of oil cut mud %gas 35% oil %water 65% 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 100° °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 1000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		1745		2346	01:30 a.m.
(B) First Initial Flow Pressure		19		(depth) 3637'	T-Started 02:15 a.m.
(C) First Final Flow Pressure	<u>clark</u>	30		Recorder No. 11057	T-Open 04:15 a.m.
(D) Initial Shut-In Pressure	<u>stiff</u>	840		(depth) 3719'	T-Pulled 07:45 a.m.
(E) Second Initial Flow Pressure		23		Recorder No. <u> </u>	T-Out 09:55 a.m.
(F) Second Final Flow Pressure		39		(depth) <u> </u>	T-Off Location 11:10 a.m.
(G) Final Shut-in Pressure		817		PSI Initial Opening 30	Test <u>700</u>
(Q) Final Hydrostatic Mud		1722		PSI Initial Shut-in 60	Jars <u> </u>

Final Flow 60 Safety Joint X 30
 Final Shut-in 60 Straddle
 Circ. Sub X n/c
 Sampler
 Extra Packer
 Elec. Rec. X 150
 Mileage
 Other
 TOTAL PRICE \$ 900

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 Gunzelman
 Our Representative Steve M. B...