

DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company Inc.**

12950 E. 13th St
Wichita KS 67230-1457

ATTN: Wes Hansen

16-22s-33w Finney

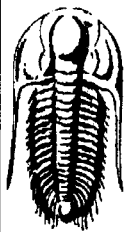
Ward #5

Start Date: 2004.08.20 @ 19:16:17

End Date: 2004.08.21 @ 02:27:02

Job Ticket #: 19592 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

Hartman Oil Company Inc.

12950 E 13th St
Wichita KS 67230-1457

ATTN: Wes Hansen

Ward #5

16-22s-33w Finney

Job Ticket: 19592

DST#: 1

Test Start: 2004.08.20 @ 19:16:17

GENERAL INFORMATION:

Formation: **marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:44:47

Time Test Ended: 02:27:02

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 15

Interval: **4330.00 ft (KB) To 4416.00 ft (KB) (TVD)**

Total Depth: 4416.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6724

Inside

Press@RunDepth: 44.47 psig @ 4331.00 ft (KB)

Start Date: 2004.08.20

End Date:

2004.08.21

Start Time: 19:16:32

End Time:

02:27:02

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

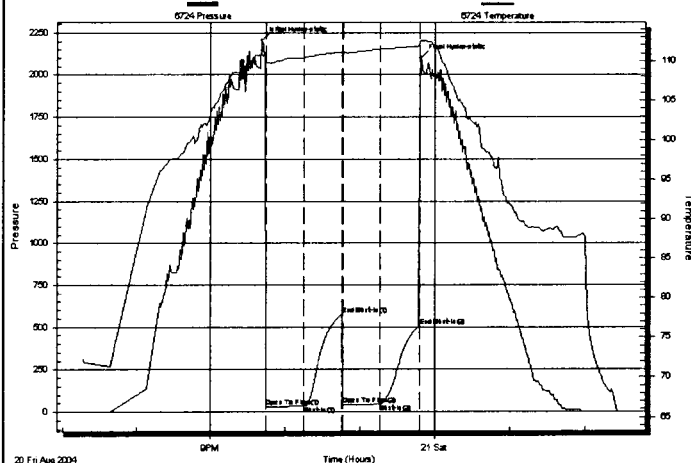
Time On Btm: 2004.08.20 @ 21:41:17

Time Off Btm: 2004.08.20 @ 23:49:02

TEST COMMENT: IF: Weak blow died in 25 Min.

FF: No blow

Pressure vs. Time



PRESSURE SUMMARY

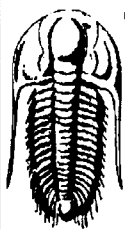
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2204.20	110.81	Initial Hydro-static
4	28.45	110.16	Open To Flow (1)
34	34.74	110.41	Shut-In(1)
65	573.86	111.12	End Shut-In(1)
65	39.23	110.99	Open To Flow (2)
95	44.47	111.49	Shut-In(2)
127	504.21	111.86	End Shut-In(2)
128	2101.18	112.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Drig Mud.	0.10

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Company Inc.

Ward #5

12950 E 13th St
Wichita KS 67230-1457

16-22s-33w Finney

Job Ticket: 19592

DST#: 1

ATTN: Wes Hansen

Test Start: 2004.08.20 @ 19:16:17

Tool Information

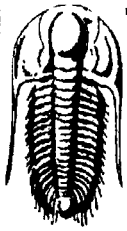
Drill Pipe:	Length:	3971.00 ft	Diameter:	3.80 inches	Volume:	55.70 bbl	Tool Weight:	65000.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	350.00 ft	Diameter:	2.25 inches	Volume:	1.72 bbl	Weight to Pull Loose:	65000.00 lb
					Total Volume:	57.42 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		19.00 ft					String Weight: Initial	65000.00 lb
Depth to Top Packer:		4330.00 ft					Final	65000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		86.00 ft						
Tool Length:		114.00 ft						
Number of Packers:		2	Diameter:	6.73 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4307.00	
Hydraulic tool	5.00			4312.00	
Jars	5.00			4317.00	
Safety Joint	3.00			4320.00	
Packer	5.00		Fluid	4325.00	28.00 Bottom Of Top Packer
Packer	5.00			4330.00	
Stubb	1.00			4331.00	
Recorder	0.00	6724	Inside	4331.00	
Perforations	17.00			4348.00	
Change Over Sub	1.00			4349.00	
Perforations	62.00			4411.00	
Change Over Sub	1.00			4412.00	
Recorder	0.00	13849	Outside	4412.00	
Bullnose	4.00			4416.00	86.00 Bottom Packers & Anchor

Total Tool Length: 114.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company Inc.

Ward #5

12950 E 13th St
Wichita KS 67230-1457

16-22s-33w Finney

Job Ticket: 19592

DST#: 1

ATTN: Wes Hansen

Test Start: 2004.08.20 @ 19:16:17

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: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.10 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Drig Mud.	0.098

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

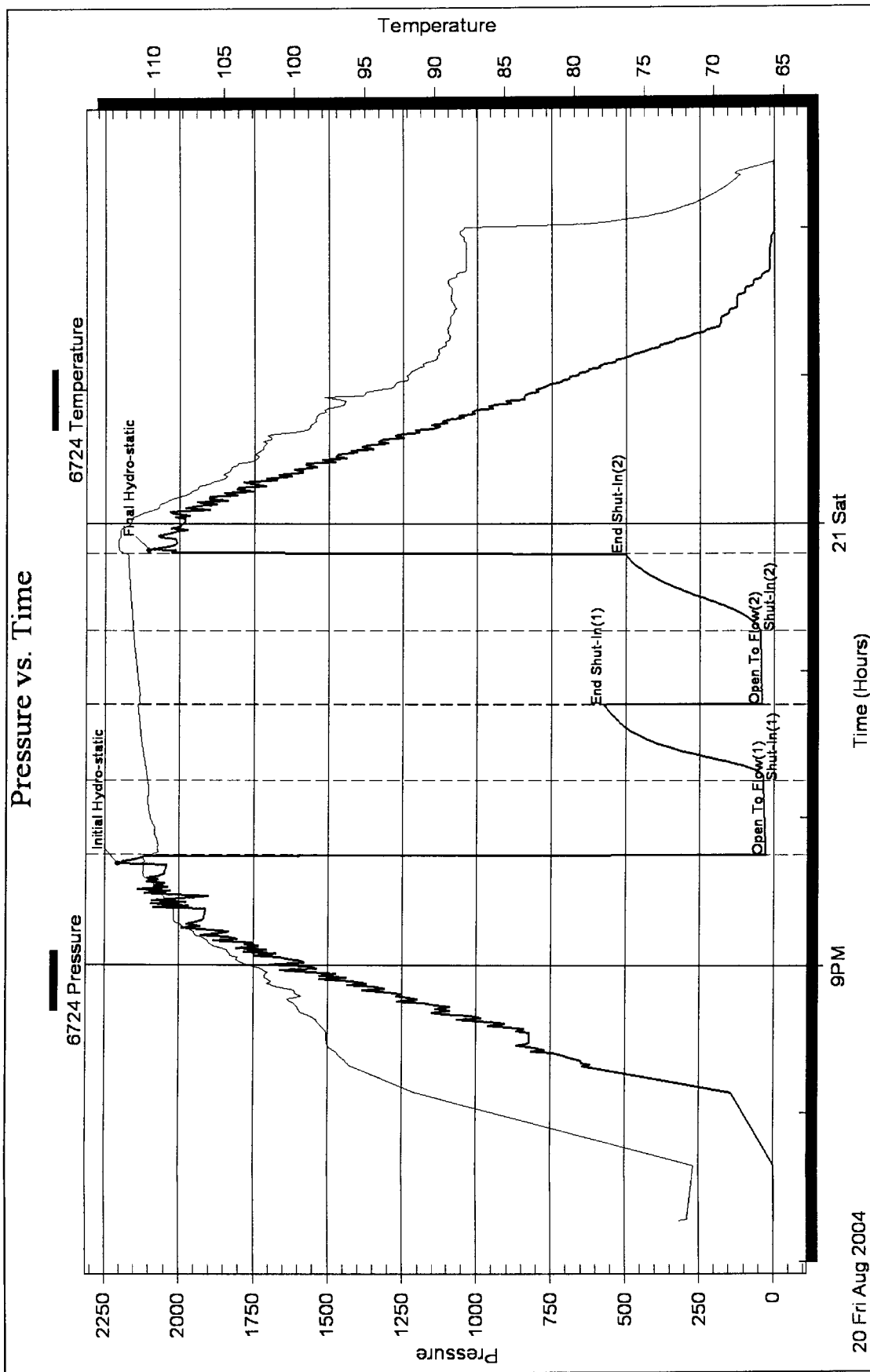
Num Gas Bombs: 0

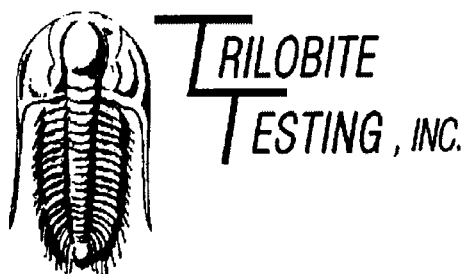
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company Inc.**

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Wichita KS 67230-1457

ATTN: Wes Hansen

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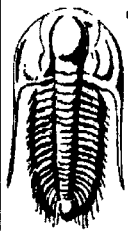
Ward #5

Start Date: 2004.08.21 @ 08:20:37

End Date: 2004.08.21 @ 17:42:52

Job Ticket #: 19593 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

Hartman Oil Company Inc.

12950 E 13th St
Wichita KS 67230-1457

ATTN: Wes Hansen

Ward #5

16-22s-33w Finney

Job Ticket: 19593

DST#: 2

Test Start: 2004.08.21 @ 08:20:37

GENERAL INFORMATION:

Formation: St. Louis

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:52:22

Time Test Ended: 17:42:52

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 15

Interval: 4666.00 ft (KB) To 4671.00 ft (KB) (TVD)

Total Depth: 4681.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6724

Inside

Press@RunDepth: 161.05 psig @ 4667.00 ft (KB)

Start Date: 2004.08.21

End Date:

2004.08.21

Start Time: 08:20:52

End Time:

17:42:52

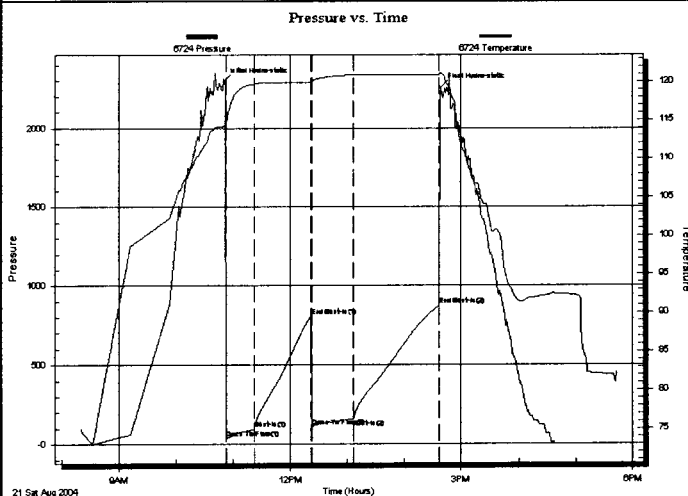
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2004.08.21 @ 10:50:07

Time Off Btm: 2004.08.21 @ 14:38:52

TEST COMMENT: IF: Weak blow Bluiding to 10"
IS: V/ Weak surface blow.
FF: Weak 1/2" blow building to 7".
FS: Weak 1/2" blow



PRESSURE SUMMARY

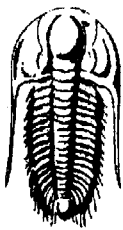
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.10	114.27	Initial Hydro-static
3	37.86	114.28	Open To Flow (1)
32	95.64	119.72	Shut-In(1)
92	806.57	119.97	End Shut-In(1)
93	111.80	119.87	Open To Flow (2)
137	161.05	120.92	Shut-In(2)
227	870.91	120.92	End Shut-In(2)
229	2257.78	121.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	MW 90%W 10%M	1.18
60.00	SLO&WCM 10%O 30%W 60%M	0.30
30.00	CL Oil 100%	0.15
110.00	Gas	1.39

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Company Inc.

Ward #5

12950 E 13th St
Wichita KS 67230-1457

16-22s-33w Finney

Job Ticket: 19593

DST#: 2

ATTN: Wes Hansen

Test Start: 2004.08.21 @ 08:20:37

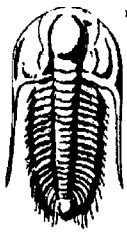
Tool Information

Drill Pipe:	Length: 4315.00 ft	Diameter: 3.80 inches	Volume: 60.53 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 347.00 ft	Diameter: 2.25 inches	Volume: 1.71 bbl	Weight to Pull Loose: 81000.00 lb
		Total Volume:	62.24 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4666.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.73 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4643.00	
Hydraulic tool	5.00			4648.00	
Jars	5.00			4653.00	
Safety Joint	3.00			4656.00	
Packer	5.00		Fluid	4661.00	28.00 Bottom Of Top Packer
Packer	5.00			4666.00	
Stubb	1.00			4667.00	
Recorder	0.00	6724	Inside	4667.00	
Perforations	10.00			4677.00	
Recorder	0.00	13849	Outside	4677.00	
Bullnose	4.00			4681.00	15.00 Bottom Packers & Anchor

Total Tool Length: 43.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company Inc.

Ward #5

12950 E 13th St
Wichita KS 67230-1457

16-22s-33w Finney

Job Ticket: 19593

DST#: 2

ATTN: Wes Hansen

Test Start: 2004.08.21 @ 08:20:37

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

23000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.10 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	MW 90%W 10%M	1.180
60.00	SLO&WCM 10%O 30%W 60%M	0.295
30.00	CL Oil 100%	0.148
110.00	Gas	1.388

Total Length: 440.00 ft

Total Volume: 3.011 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

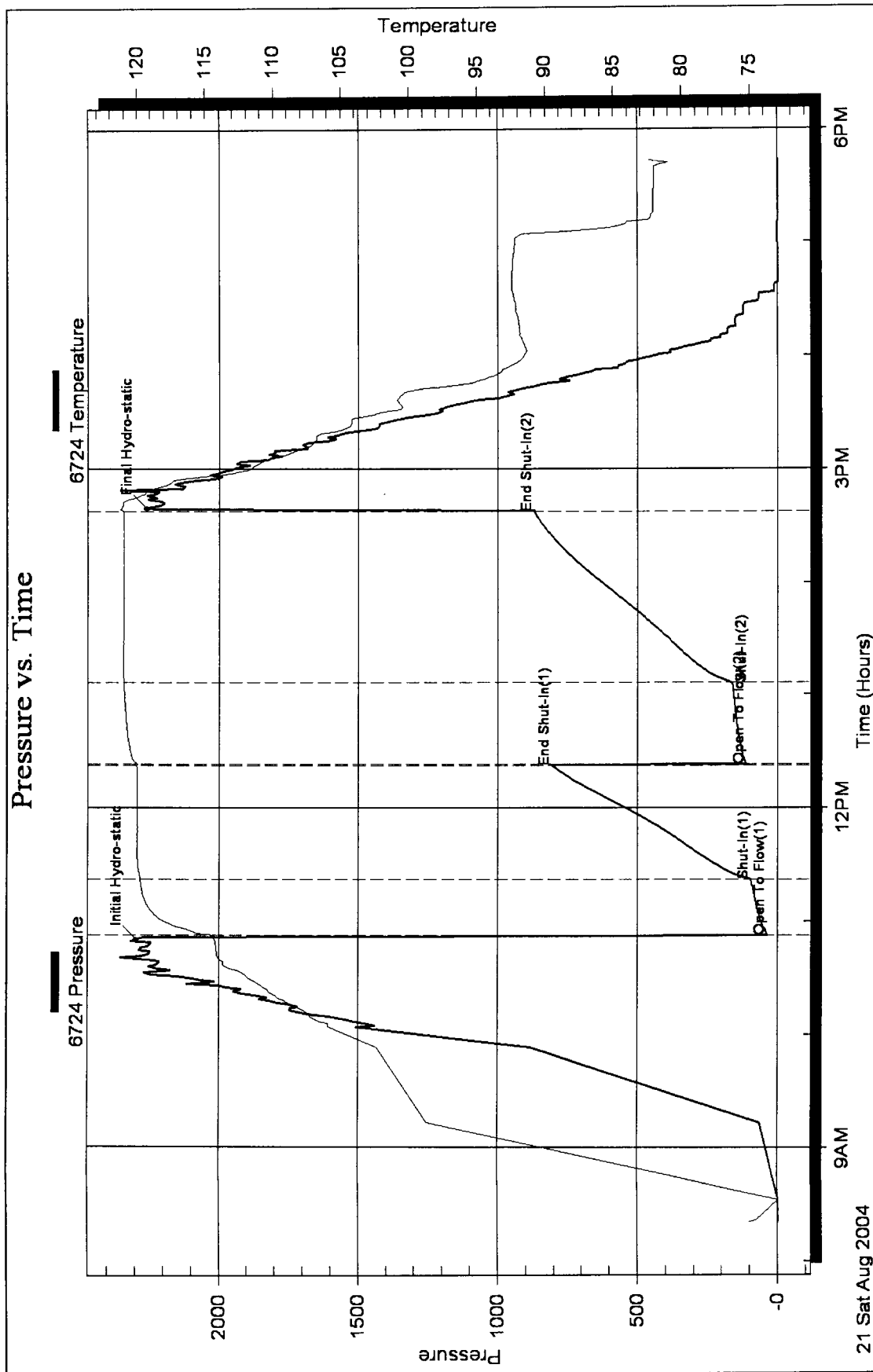
Serial #:

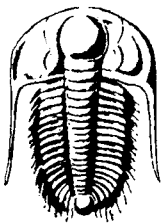
Laboratory Name:

Laboratory Location:

Recovery Comments: .22 @ 89

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No. 19592

05/03

Test Ticket

Well Name & No. Ward # 4 Test No. 1 Date 8-19-04
Company Hartman Oil Company Inc. Zone Tested Marm / Pawnee
Address 12950 E. 13th Wichita, KS. 67230-1457 Elevation 2894 KB 2889 GL
Co. Rep / Geo. Wes Hansen Cont. Abercrombie #8 Est. Ft. of Pay _____ Por. _____ %
Location: Sec. 16 Twp. 22^s Rge. 33^w Co. Finney State KS.
No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4330 - 4416 Initial Str Wt./Lbs. 65,000 Unseated Str Wt./Lbs. 65,000
Anchor Length 86' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 65,000
Top Packer Depth 4325 Tool Weight 2,500
Bottom Packer Depth 4330 Hole Size 7 7/8" Rubber Size 6 3/4"
Total Depth 4416 Wt. Pipe Run — Drill Collar Run 350'
Mud Wt. 9.1 LCM — Vis. 54 WL 9.6 Drill Pipe Size 4 1/2" xH Ft. Run 3971'
Blow Description 1F: Weak blow died in 25 mins.

FF: No return

Recovery - Total Feet 20' GIP — Ft. in DC 20' Ft. in DP —
Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud
Rec. 20' Feet of Drlg. Mud %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 111° °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 4,000 ppm System

AK-1

Alpine

(A) Initial Hydrostatic Mud	<u>2204</u> PSI	Recorder No. <u>6724</u>	Test <u>1000</u>
(B) First Initial Flow Pressure	<u>28</u> PSI	(depth) <u>4331</u>	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>34</u> PSI	Recorder No. <u>13849</u>	Jars <u>X</u> <u>200</u>
(D) Initial Shut-In Pressure	<u>573</u> PSI	(depth) <u>4412</u>	Safety Jt. <u>X</u> <u>50</u>
(E) Second Initial Flow Pressure	<u>39</u> PSI	Recorder No. _____	Circ Sub <u>X</u> <u>11/4</u>
(F) Second Final Flow Pressure	<u>44</u> PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>504</u> PSI	Initial Opening <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2101</u> PSI	Initial Shut-In <u>30</u>	Ext. Packer _____

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.

Approved By Wesley Hansen

Our Representative Rod Steinbrink

Final Flow 30
Final Shut-In 30
T-On Location 1730
T-Started 1916
T-Open 2144
T-Pulled 2347
T-Out 0227

Shale Packer _____
Mileage 1 way 30 51.00
Sub Total: 1301.00
Std. By _____
Other _____
Total: _____

CHART PAGE

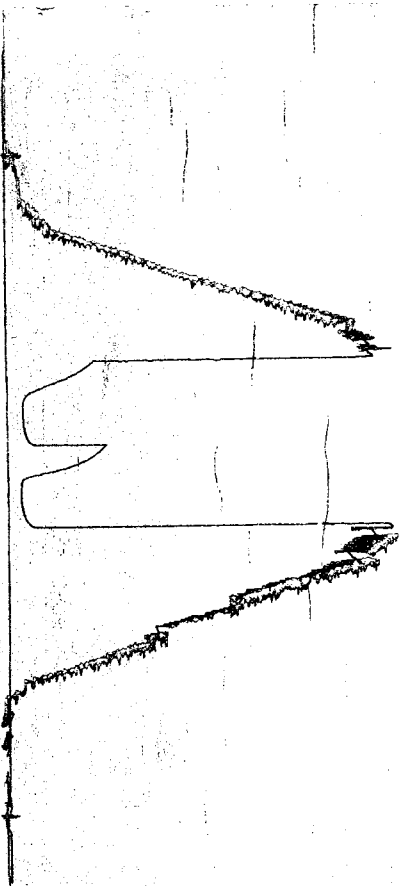
This is a photocopy of the actual AK-1 recorder chart

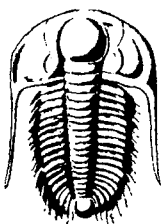
Hartman Oil

Ward #4

DST #1

13849





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 19593

05/03

Test Ticket

Well Name & No.	Ward #4	Test No.	2	Date	8-21-04
Company	Hartman Oil Company Inc.	Zone Tested	ST. LOUIS		
Address		Elevation	2894	KB	2889
Co. Rep / Geo.	Wes Hansen	Cont.	Abercrombie #8	Est. Ft. of Pay	Por. %
Location: Sec.	16	Twp.	22 ^S	Rge.	33 ^W
		Co.	Finney	State	KS
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested	4666'-4681'	Initial Str Wt./Lbs.	74,000	Unseated Str Wt./Lbs.	74000
Anchor Length	15'	Wt. Set Lbs.	20,000	Wt. Pulled Loose/Lbs.	81000
Top Packer Depth	4666'	Tool Weight	2000		
Bottom Packer Depth	4671'	Hole Size	7 7/8"	Rubber Size	6 3/4"
Total Depth	4681'	Wt. Pipe Run		Drill Collar Run	347
Mud Wt.	9.0 LCM	Drill Pipe Size	4 1/2" X hole	Ft. Run	4315
Vis.	48				
WL	8.8				
Blow Description	Weak 1" blow building to 10"				
	ISI - w/ weak surface blow				
	FSI - weak 1/2" blow building to 7"				
	FSI - weak 1/2" blow				

Recovery - Total Feet	330	GIP	110'	Ft. in DC	330	Ft. in DP	
Rec.	2'10"	Feet of	MW	%gas		%oil	96
				%water	10	%mud	
Rec.	60'	Feet of	SLO + WCM	%gas	10	%oil	30
				%water	60	%mud	
Rec.	30	Feet of	CI OIL	%gas	100	%oil	
				%water		%mud	
Rec.		Feet of		%gas		%oil	
				%water		%mud	
Rec.		Feet of		%gas		%oil	
				%water		%mud	
BHT	121	*F Gravity	34	*API D @	90	*F Corrected Gravity	31
RW	22	@	89	*F Chlorides		ppm Recovery	23000
						Chlorides	ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	2295	PSI	Recorder No.	6724	Test	Y	1000
(B) First Initial Flow Pressure			38	PSI	(depth)	4674	Elec. Rec.		
(C) First Final Flow Pressure			96	PSI	Recorder No.	13849	Jars	X	
(D) Initial Shut-In Pressure			807	PSI	(depth)	4676	Safety Jt.	X	
(E) Second Initial Flow Pressure			112	PSI	Recorder No.		Circ Sub		
(F) Second Final Flow Pressure			161	PSI	(depth)		Sampler		
(G) Final Shut-In Pressure			871	PSI	Initial Opening	30	Straddle		
(Q) Final Hydrostatic Mud			2258	PSI	Initial Shut-In	60	Ext. Packer		
					Final Flow	45	Shale Packer		
					Final Shut-In	90	Mileage	28	47.60
					T-On Location		Sub Total:		1047.60
					T-Started	0820	Std. By	1/2 hr	15
					T-Open	1050	Other		
					T-Pulled	1435	Total:		1062.60
					T-Out	1742			

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Approved By Wesley Hansen

Our Representative Brendon T.

CHART PAGE

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

