

DRILL STEM TEST REPORT

Prepared For: **American Warrior**

P.O. Box 399
Garden City KS 67846-0399

ATTN: Alen Downing

8/31/17

Bunnell #1-8

Start Date: 2005.02.04 @ 12:26:18

End Date: 2005.02.04 @ 20:56:33

Job Ticket #: 20600 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

American Warrior
P.O. Box 399
Garden City KS 67846-0399
ATTN: Alen Downing

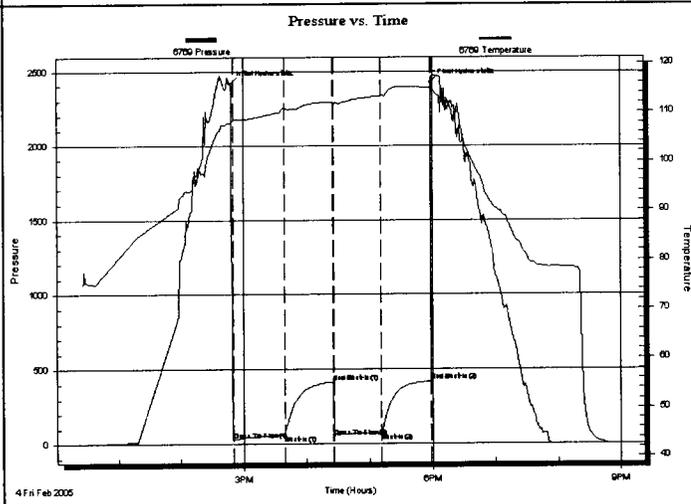
Bunnell #1-8
8/31/17
Job Ticket: 20600 **DST#: 1**
Test Start: 2005.02.04 @ 12:26:18

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: **No Whipstock:** ft (KB)
Time Tool Opened: 14:50:03
Time Test Ended: 20:56:33
Interval: **4972.00 ft (KB) To 5083.00 ft (KB) (TVD)**
Total Depth: **5083.00 ft (KB) (TVD)**
Hole Diameter: **7.78 inches** Hole Condition: **Poor**
Test Type: **Conventional Bottom Hole**
Tester: **Harley Davidson**
Unit No: **15**
Reference Elevations: **2148.00 ft (KB)**
2133.00 ft (CF)
KB to GR/CF: **15.00 ft**

Serial #: 6769 **Inside**
Press@RunDepth: **73.19 psig @ 4979.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.02.04** End Date: **2005.02.04** Last Calib.: **1899.12.30**
Start Time: **12:26:20** End Time: **20:56:33** Time On Btm: **2005.02.04 @ 14:47:18**
Time Off Btm: **2005.02.04 @ 17:59:03**

TEST COMMENT: **F-** Weak building blow BOB 15 min. NO GTS.
IS- No blow back.
FF- BOB ASAO, No GTS.
FS- No blow back.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2417.04	107.65	Initial Hydro-static
3	28.72	108.31	Open To Flow (1)
52	58.56	110.80	Shut-In(1)
98	414.91	112.08	End Shut-In(1)
99	46.29	111.57	Open To Flow (2)
144	73.19	113.25	Shut-In(2)
191	419.48	114.96	End Shut-In(2)
192	2424.51	117.09	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
180.00	100% mud	0.89
0.00	1500 foot GIP.	0.00

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Warrior
P.O. Box 399
Garden City KS 67846-0399
ATTN: Alen Downing

Bunnell #1-8
8/31/17
Job Ticket: 20600 **DST#: 1**
Test Start: 2005.02.04 @ 12:26:18

Tool Information

Drill Pipe:	Length: 4780.00 ft	Diameter: 3.00 inches	Volume: 41.79 bbl	Tool Weight: 2000.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 42.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4972.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	111.00 ft			
Tool Length:	138.00 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			4946.00	
Shut In Tool	5.00			4951.00	
Hydraulic tool	5.00			4956.00	
Jars	5.00			4961.00	
Safety Joint	2.00			4963.00	
Packer	5.00			4968.00	27.00 Bottom Of Top Packer
Packer	4.00			4972.00	
Stubb	1.00			4973.00	
Perforations	1.00			4974.00	
Perforations	5.00			4979.00	
Recorder	0.00	6769	Inside	4979.00	
Change Over Sub	1.00			4980.00	
Drill Pipe	93.00			5073.00	
Change Over Sub	1.00			5074.00	
Perforations	5.00			5079.00	
Recorder	0.00	6724	Outside	5079.00	
Bullnose	4.00			5083.00	111.00 Bottom Packers & Anchor
Total Tool Length:	138.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior

Bunnell #1-8

P.O. Box 399
Garden City KS 67846-0399

8/31/17

Job Ticket: 20600

DST#: 1

ATTN: Alen Downing

Test Start: 2005.02.04 @ 12:26:18

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:

bbbl

Water Loss: 11.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	100% mud	0.885
0.00	1500 foot GIP.	0.000

Total Length: 180.00 ft Total Volume: 0.885 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

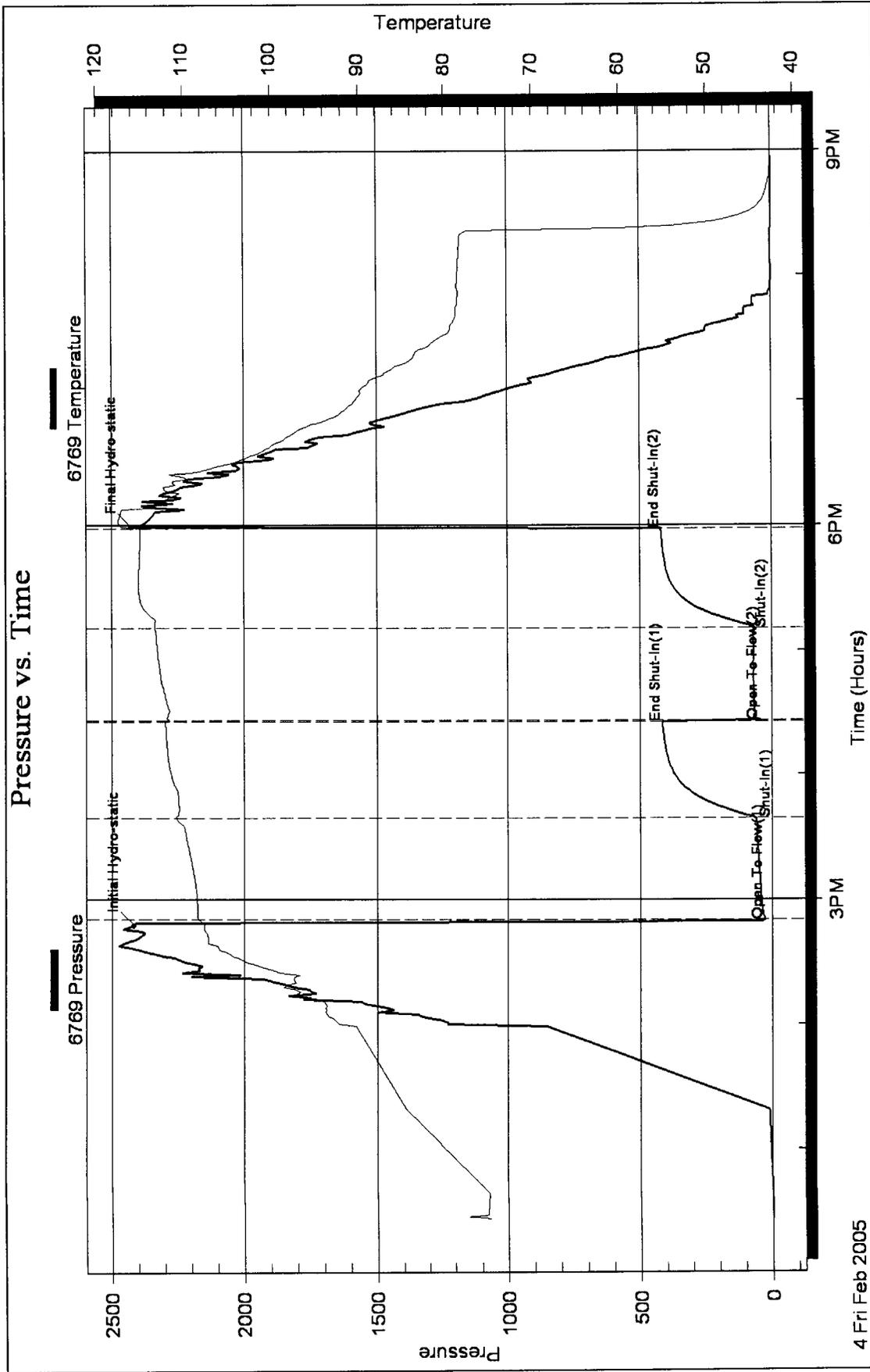
Serial #: 6769

Inside

American Warrior

8/31/17

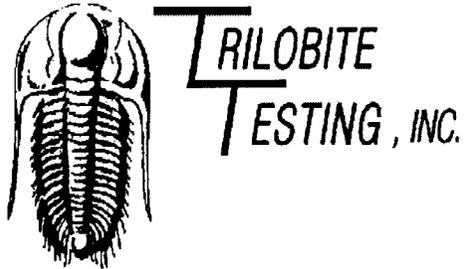
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 20600

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DRILL STEM TEST REPORT

Prepared For: **American Warrior**

P.O. Box 399
Garden City KS 67846-0399

ATTN: Alen Downing

8/31/17

Bunnell #1-8

Start Date: 2005.02.05 @ 17:48:06

End Date: 2005.02.06 @ 02:26:06

Job Ticket #: 21801 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

American Warrior
P.O. Box 399
Garden City KS 67846-0399

Bunnell #1-8

8/31/17

Job Ticket: 21801

DST#: 2

ATTN: Alen Downing

Test Start: 2005.02.05 @ 17:48:06

GENERAL INFORMATION:

Formation: **Lansing A**

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

Time Tool Opened: 20:41:06

Time Test Ended: 02:26:06

Test Type: **Conventional Straddle**

Tester: **Harley Davidson**

Unit No: **15**

Interval: **4418.00 ft (KB) To 4430.00 ft (KB) (TVD)**

Total Depth: **5190.00 ft (KB) (TVD)**

Hole Diameter: **7.78 inches** Hole Condition: **Poor**

Reference Elevations: **2148.00 ft (KB)**

2133.00 ft (CF)

KB to GRVCF: **15.00 ft**

Serial #: 6769

Inside

Press@RunDepth: **47.91 psig @ 4420.00 ft (KB)**

Start Date: **2005.02.05**

End Date:

2005.02.06

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Start Time: **17:48:08**

End Time:

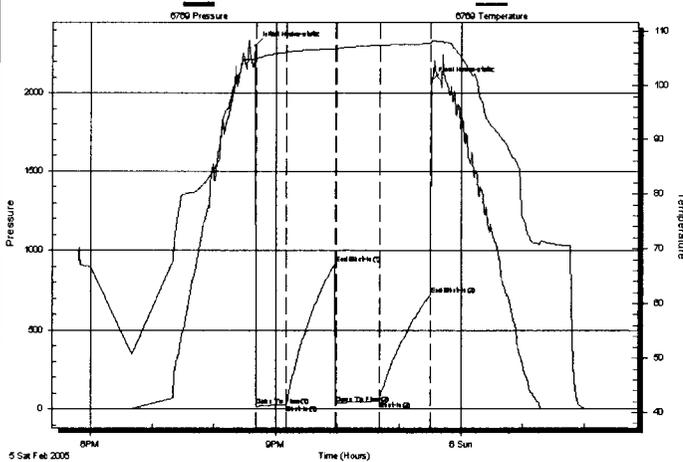
02:26:06

Time On Btm: **2005.02.05 @ 20:40:06**

Time Off Btm: **2005.02.05 @ 23:31:06**

TEST COMMENT: IF- BOB ASAO, No GTS.
IS- No blow back.
FF- BOB ASAO, No GTS.
FSI- No blow back.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2303.59	104.92	Initial Hydro-static
1	18.17	104.56	Open To Flow (1)
31	27.07	106.15	Shut-In(1)
78	914.85	106.76	End Shut-In(1)
79	31.17	106.69	Open To Flow (2)
121	47.91	107.42	Shut-In(2)
170	722.50	107.74	End Shut-In(2)
171	2082.31	108.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	100% mud	0.34
0.00	2200 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Warrior

Bunnell #1-8

P.O. Box 399
Garden City KS 67846-0399

8/31/17

Job Ticket: 21801

DST#: 2

ATTN: Alen Downing

Test Start: 2005.02.05 @ 17:48:06

Tool Information

Drill Pipe:	Length: 4230.00 ft	Diameter: 3.80 inches	Volume: 59.34 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 60000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 60.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4418.00 ft			Final lb
Depth to Bottom Packer:	4430.00 ft			
Interval between Packers:	12.00 ft			
Tool Length:	799.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	2.00			4392.00	
Shut In Tool	5.00			4397.00	
Hydraulic tool	5.00			4402.00	
Jars	5.00			4407.00	
Safety Joint	2.00			4409.00	
Packer	5.00			4414.00	28.00 Bottom Of Top Packer
Packer	4.00			4418.00	
Stubb	1.00			4419.00	
Recorder	0.00	16770	Inside	4419.00	
Perforations	1.00			4420.00	
Recorder	0.00	6769	Inside	4420.00	
Perforations	10.00			4430.00	12.00 Tool Interval
Packer	5.00			4435.00	
Perforations	4.00			4439.00	
Change Over Sub	1.00			4440.00	
Drill Pipe	744.00			5184.00	
Change Over Sub	1.00			5185.00	
Recorder	0.00	13849	Outside	5185.00	
Bullnose	4.00			5189.00	759.00 Bottom Packers & Anchor

Total Tool Length: 799.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior

Bunnell #1-8

P.O. Box 399
Garden City KS 67846-0399

8/31/17

Job Ticket: 21801

DST#: 2

ATTN: Alen Downing

Test Start: 2005.02.05 @ 17:48:06

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: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 21.57 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
70.00	100% mud	0.344
0.00	2200 GIP	0.000

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

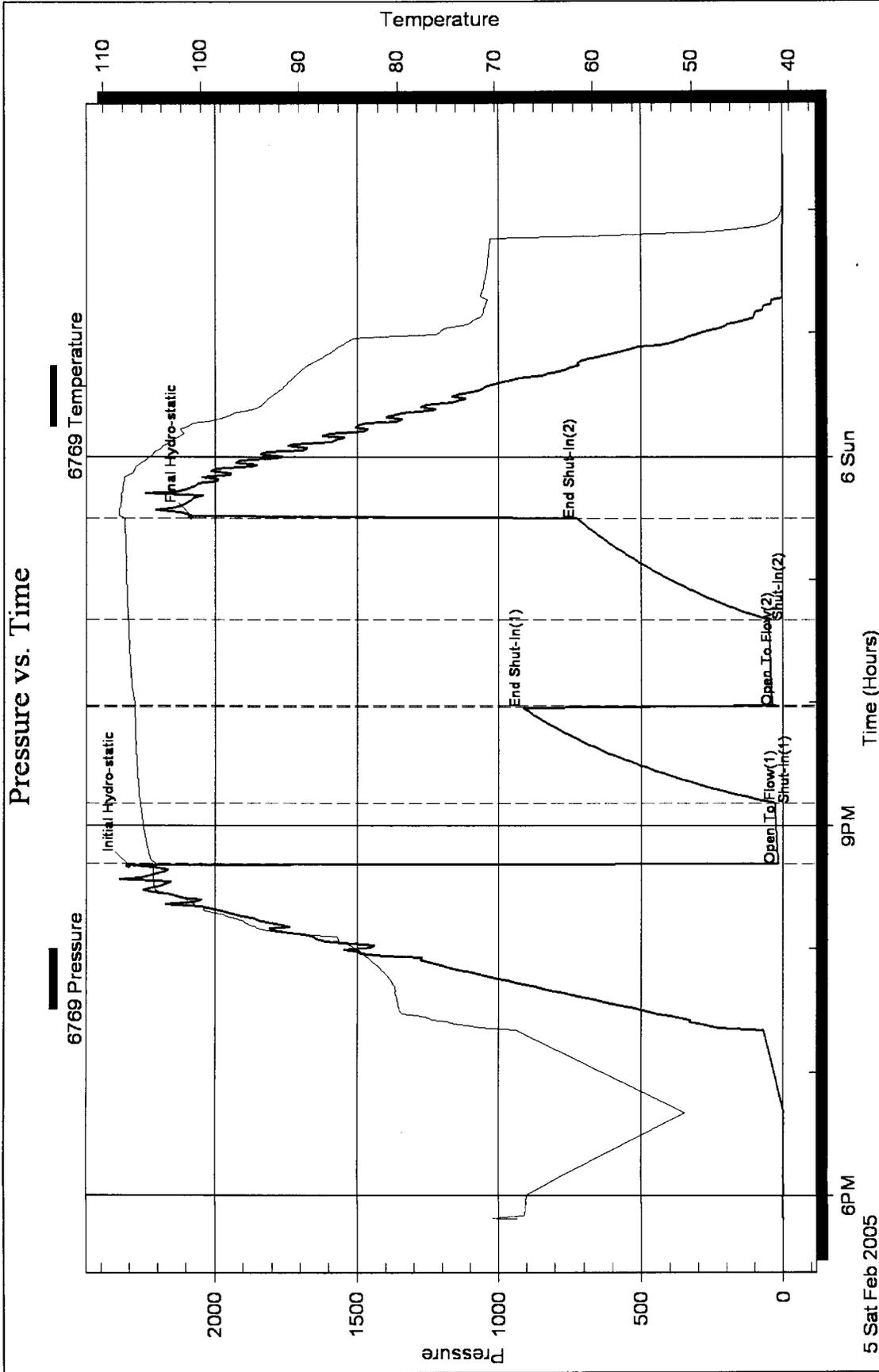
Serial #:

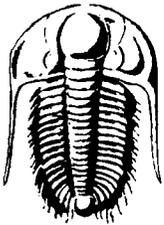
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 20600

05/03

Test Ticket

Well Name & No. American Warrior Inc 25 Test No. #1 Date 2-4-05
 Company Bunnell #1-8 Zone Tested Mississippi
 Address PO Box 399 Garden City Ks. 67846-0399 Elevation 2148 KB 2133 GL
 Co. Rep / Geo. Al Downing Cont. Duke #7 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 8 Twp. 31 Rge. 17 Co. Comanche State KS.
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4972 - 5083 Initial Str Wt./Lbs. 80K Unseated Str Wt./Lbs. 80K
 Anchor Length 111 Wt. Set Lbs. 30K Wt. Pulled Loose/Lbs. 90K
 Top Packer Depth 4967 Tool Weight 2000
 Bottom Packer Depth 4969 4972 Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 5083 Wt. Pipe Run 0 Drill Collar Run 185
 Mud Wt. 9 LCM 4# Vis. 46 WL 11.2 Drill Pipe Size 4.5 Ft. Run 4780

Blow Description Weak building blow BOB 15 min. No GTS
ISI - No blow back.
FF - BOB, ASAO, No GTS
FST - No blow back

Recovery - Total Feet 180 GIP 1500 Ft. in DC _____ Ft. in DP _____
 Rec. 180 Feet of _____ %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 _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 7000 ppm System

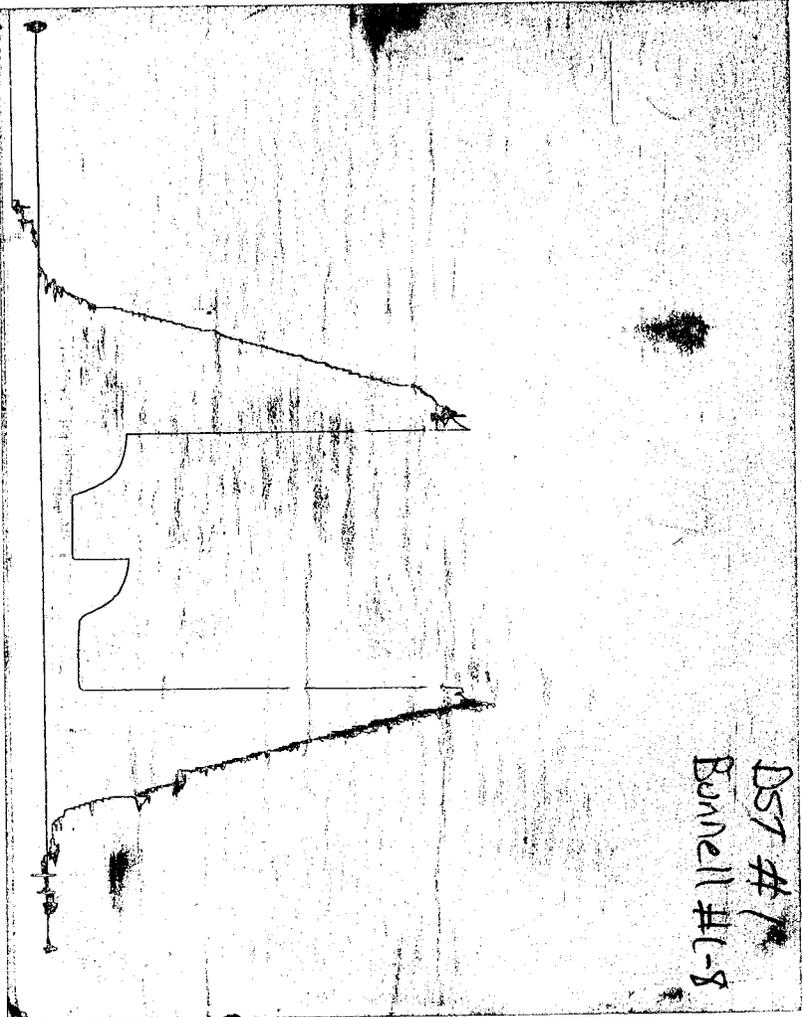
	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		<u>2417</u> PSI	<u>6769</u>	<u>1100⁰⁰</u>
(B) First Initial Flow Pressure		<u>29</u> PSI	(depth) <u>5082</u>	Elec. Rec. _____
(C) First Final Flow Pressure		<u>59</u> PSI	Recorder No. <u>6769</u>	Jars: <u>200⁰⁰</u>
(D) Initial Shut-In Pressure		<u>415</u> PSI	(depth) <u>4972</u>	Safety Jt. <u>50⁰⁰</u>
(E) Second Initial Flow Pressure		<u>46</u> PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure		<u>73</u> PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure		<u>419</u> PSI	Initial Opening <u>45</u>	Straddle _____
(Q) Final Hydrostatic Mud		<u>2424</u> PSI	Initial Shut-In <u>45</u>	Ext. Packer _____
			Final Flow <u>45</u>	Shale Packer _____
			Final Shut-In <u>45</u>	Mileage <u>? Pratt</u>

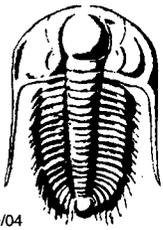
TRILLOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS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

Approved By [Signature] T-Started 1230
 Our Representative Harley Davis T-Open 245 - 1445
 T-Pulled 600 - 1800
 T-Out 900 - 2100
 Sub Total: _____ Std. By 30⁰⁰
 Other _____ Total: 176

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 21801

Test Ticket

Well Name & No. Bunnell #1-8 Test No. 2 Date 2-5-05
 Company American Warrior Inc. Zone Tested Lansing A
 Address PO box 399 Garden City Ks. 67846-0399 Elevation 2148 KB 2133 GL
 Co. Rep / Geo. Alan Downing Cont. Duke #7 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 8 Twp. 31 Rge. 17 Co. Comanche State KS
 No. of Copies 1 Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4418-4430 Initial Str Wt./Lbs. 80K Unseated Str Wt/Lbs. _____
 Anchor Length 12 Wt. Set Lbs. 60K Wt. Pulled Loose/Lbs. _____
 Top Packer Depth 4413 Tool Weight 30K _____
 Bottom Packer Depth 4418 Hole Size 7 7/8" Rubber Size 6 3/4" _____
 Total Depth 5190 Wt. Pipe Run 0 Drill Collar Run 185
 Mud Wt. 9.2 LCM 4 Vis. 55 WL 21.6 Drill Pipe Size 4.5 Ft. Run 4230

Blow Description IF-BOB ASAO - No GTS
ISI - No blow back
FF-BOB ASAO - No GTS
EST - No blow back

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>70</u>	<u>2200</u>		
Feet of _____		%gas _____	%oil _____ %water <u>100</u> %mud _____
Rec. _____		%gas _____	%oil _____ %water _____ %mud _____
Rec. _____		%gas _____	%oil _____ %water _____ %mud _____
Rec. _____		%gas _____	%oil _____ %water _____ %mud _____
Rec. _____		%gas _____	%oil _____ %water _____ %mud _____

BHT _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides _____ ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		<u>2303</u> PSI		<u>1100°</u>
(B) First Initial Flow Pressure		<u>18</u> PSI	(depth) _____	Jars <u>200°</u>
(C) First Final Flow Pressure		<u>27</u> PSI	Recorder No. _____	Safety Jt. <u>50°</u>
(D) Initial Shut-In Pressure		<u>915</u> PSI	(depth) _____	Circ Sub _____
(E) Second Initial Flow Pressure		<u>31</u> PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure		<u>47</u> PSI	(depth) _____	Straddle <u>250°</u>
(G) Final Shut-In Pressure		<u>722</u> PSI	Initial Opening <u>30</u>	Ext. Packer <u>150°</u>
(Q) Final Hydrostatic Mud		<u>2082</u> PSI	Initial Shut-In <u>45</u>	Shale Packer _____
			Final Flow <u>45</u>	Ruined Packer _____
			Final Shut-In <u>45</u>	Mileage <u>? Matt</u>
			T-On Location <u>500 - 1700</u>	Sub Total: <u>1750-183</u>
			T-Started <u>545 - 1745</u>	Std. By <u>2 hour 15° 15</u>
			T-Open <u>830 - 2030</u>	Other <u>#1745</u>
			T-Pulled <u>1130 - 2330</u>	Total: _____
			T-Out <u>230 - 0230</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.

Approved By _____

Our Representative Harley Dandison

Note: mileage will be added at office

CHART PAGE

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

