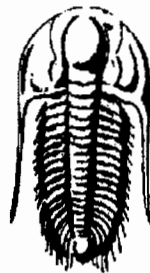


15-033-21253



**TRILOBITE
TESTING, INC.**

RECEIVED
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KCC WICHITA

DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc.**

Garden City KS 67846

ORIGINAL

ATTN: Al Downing

31-31S-18W Comanche

Brass "1-31"

Start Date: 2001.08.21 @ 01:55:06

End Date: 2001.08.21 @ 10:42:36

Job Ticket #: 14823 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

ORIGINAL


**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

American Warrior Inc.

Garden City KS 67846

ATTN: Al Downing

Brass "1-31"

31-31S-18W Comanche

Job Ticket: 14823

DST#: 1

Test Start: 2001.08.21 @ 01:55:06

GENERAL INFORMATION:

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

Time Tool Opened: 04:29:06

Time Test Ended: 10:42:36

Test Type: **Conventional Bottom Hole**Tester: **Lanny Saloga**Unit No: **14**Interval: **4947.00 ft (KB) To 4980.00 ft (KB) (TVD)**Total Depth: **4980.00 ft (KB) (TVD)**Hole Diameter: **7.88 inches** Hole Condition: **Fair**Reference Elevations: **2104.00 ft (KB)****2091.00 ft (CF)**KB to GR/CF: **13.00 ft**Serial #: **3289**

Inside

Press@RunDepth: **186.70 psig @ 4949.00 ft (KB)**Start Date: **2001.08.21**

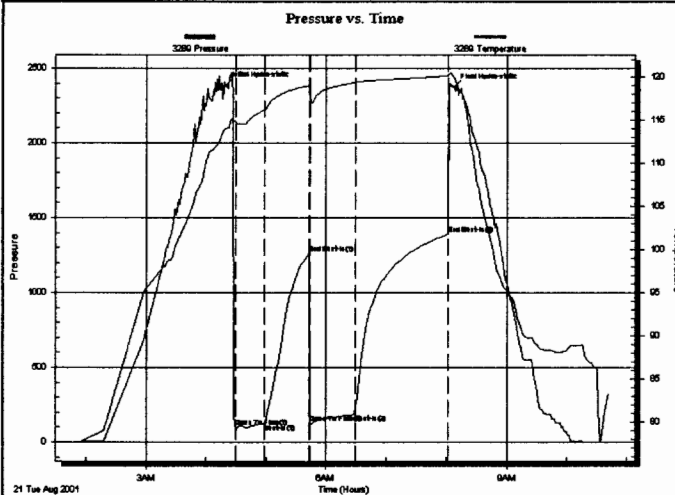
End Date:

2001.08.21Start Time: **01:55:11**

End Time:

10:42:36Capacity: **7000.00 psig**Last Calib.: **2001.01.22**Time On Btm: **2001.08.21 @ 04:19:06**Time Off Btm: **2001.08.21 @ 08:06:51**

TEST COMMENT: Strong BOB in 20 sec. GTS in 16 min. See flow chart. I.F.P.
 Surface blow-back. I.S.I.P. "Gas burned."
 Strong BOB immed. See flow Chart. F.F.P.
 7" blow-back. F.S.I.P.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2382.93	113.97	Initial Hydro-static
10	105.63	114.87	Open To Flow (1)
40	124.67	116.16	Shut-In(1)
84	1261.28	118.96	End Shut-In(1)
85	130.60	117.67	Open To Flow (2)
130	186.70	119.35	Shut-In(2)
223	1389.95	120.14	End Shut-In(2)
228	2372.19	119.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Wtr 100%W Rw 0.069 at 80 F. 100,000	F0.30
60.00	Cln Gassy Oil 40%G 60%O 42 Gravity	0.30
60.00	Sli M&WcGassy O 10%G 60%O 27%W	30.30
230.00	Hvy G,OcWtry M 50%G 16%O 6%W 28%	1.61
40.00	O&GcMud 6%G 8%O 86%M	0.56

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	0.80	5.69
Last Gas Rate	0.13	6.00	7.63
Max. Gas Rate	0.13	6.00	7.63

ORIGINAL


TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Warrior Inc.

Brass "1-31"

Garden City KS 67846

31-31S-18W Comanche

Job Ticket: 14823

DST#: 1

ATTN: Al Downing

Test Start: 2001.08.21 @ 01:55:06

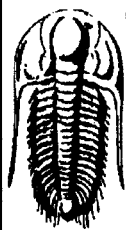
Tool Information

Drill Pipe:	Length: 4576.00 ft	Diameter: 3.80 inches	Volume: 64.19 bbl	Tool Weight: 1800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 357.00 ft	Diameter: 2.25 inches	Volume: 1.76 bbl	Weight to Pull Loose: 4000.00 lb
		Total Volume:	65.95 bbl	Tool Chased ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4947.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4921.00	
S.I. Tool	5.00			4926.00	
HMV	5.00			4931.00	
Jars	5.00			4936.00	
Safety Joint	2.00			4938.00	
Packer	4.00			4942.00	27.00 Bottom Of Top Packer
Packer	5.00			4947.00	
Stubb	1.00			4948.00	
Perforations	1.00			4949.00	
Recorder	0.00	3289	Inside	4949.00	
Perforations	29.00			4978.00	
Recorder	0.00	10242	Inside	4978.00	
Bullnose	2.00			4980.00	33.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior Inc.

Brass "1-31"

Garden City KS 67846

31-31S-18W Comanche

Job Ticket: 14823

DST#: 1

ATTN: Al Downing

Test Start: 2001.08.21 @ 01:55:06

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

42 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

100000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.16 cm³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Wtr 100%W Rw 0.069 at 80 F. 100,000 PPM	0.295
60.00	Cln Gassy Oil 40%G 60%O 42 Gravity	0.295
60.00	Sli M&WcGassy O 10%G 60%O 27%W 3%M	0.295
230.00	Hvy G,OcWtry M 50%G 16%O 6%W 28%M	1.614
40.00	O&GcMud 6%G 8%O 86%M	0.561

Total Length: 450.00 ft

Total Volume: 3.060 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: 1

Laboratory Name: Caraway

Laboratory Location: Liberal, Ks

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

American Warrior Inc.

Brass "1-31"

Garden City KS 67846

31-31S-18W Comanche

Job Ticket: 14823

DST#: 1

ATTN: Al Downing

Test Start: 2001.08.21 @ 01:55:06

Gas Rates Information

Temperature: 59 deg C

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	20	0.13	0.80	5.69
1	30	0.13	3.20	6.59
2	10	0.13	4.80	7.19
2	20	0.13	5.30	7.37
2	30	0.13	5.80	7.56
2	40	0.13	6.00	7.63
2	45	0.13	6.00	7.63

Serial #: 3289

Inside

American Warrior Inc.

31-31S-18W Comanche

DST Test Number: 1

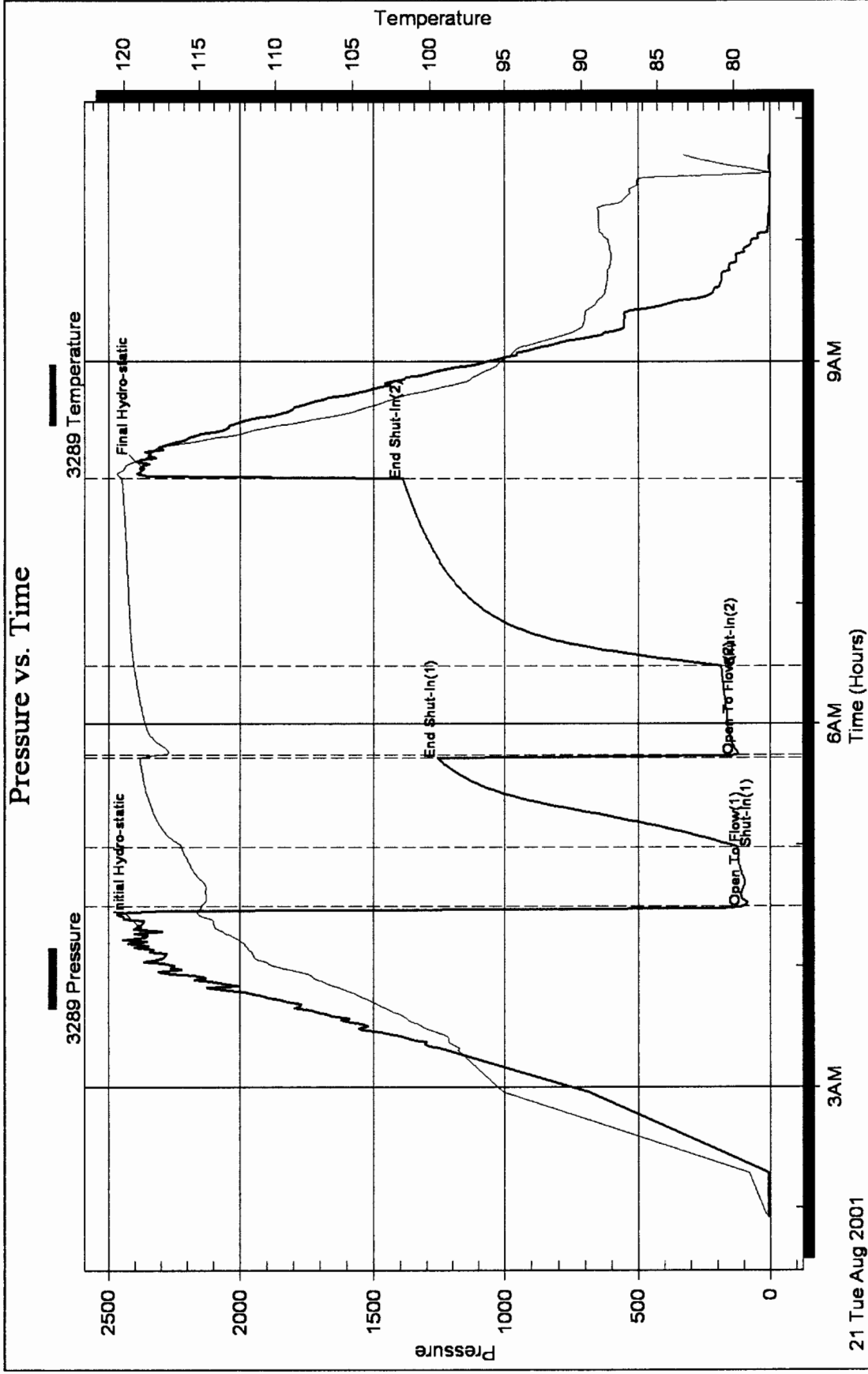
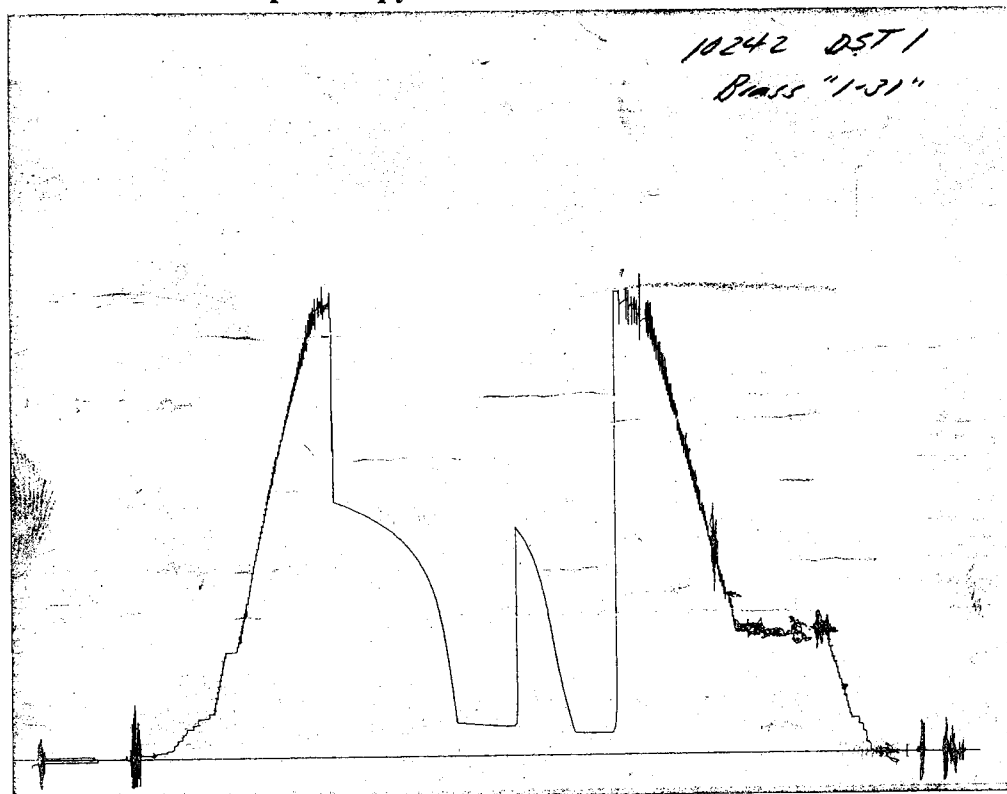


CHART PAGE

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





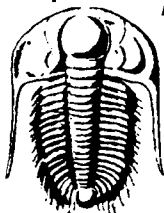
GAS VOLUME REPORT

DST NO

I.F.P.

F.F.P.

Remarks: Gas burned.
1 sample to CARANAY.



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 14823

Test Ticket

Well Name & No. <u>Boss "1-31"</u>	Test No. <u>1</u>	Date <u>8-21-2001</u>
Company <u>American Warrior Inc.</u>	Zone Tested <u>Altamont</u>	
Address <u>G.C. KS. 67846</u>	Elevation <u>2104</u> KB <u>2091</u> GL	
Co. Rep / Geo. <u>Al Downing</u>	Cont. <u>Duke Rig 7</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> %
Location: Sec. <u>31</u> Twp. <u>31.5</u> Rge. <u>18W</u>	Co. <u>Comanche</u> State <u>KS</u>	
No. of Copies <u>Rep</u> Distribution Sheet (Y, N) <u>N</u>	Turnkey (Y, N) <u>N</u>	Evaluation (Y, N) <u> </u>

Interval Tested <u>4947-4980</u>	Initial Str Wt./Lbs. <u>25,000</u>	Unseated Str Wt./Lbs. <u>26,000</u>
Anchor Length <u>33'</u> <u>Tool = 27'</u>	Wt. Set Lbs. <u>20,000</u>	Wt. Pulled Loose/Lbs. <u>4,000</u>
Top Packer Depth <u>4942</u>	Tool Weight <u>1,800</u>	
Bottom Packer Depth <u>4947</u>	Hole Size — 7 7/8" <u> </u>	Rubber Size — 6 3/4" <u> </u>
Total Depth <u>4980</u>	Wt. Pipe Run <u> </u>	Drill Collar Run <u>357</u>
Mud Wt. <u>9.4</u> LCM <u>0</u> Vis. <u>50</u> WL <u>10.2</u>	Drill Pipe Size <u>4 1/2 XH</u>	Ft. Run <u>4576</u> <u>13' up</u>

Blow Description Strong OBB in 20 sec. GTS in 14 min. See Flow chart. I.F.P.
Surface blow-back. I.S.I.P.
Strong OBB in 20 sec. See Flow chart. F.F.P.
7" blow-back. F.S.I.P.

Recovery — Total Feet <u>450</u>	GIP <u>4483</u>	Ft. in DC <u>357</u>	Ft. in DP <u>93</u>
Rec. <u>40</u> Feet Of <u>0.26 cm</u>	<u>6</u> %gas <u>8</u> %oil	<u> </u> %water <u>86</u> %mud	
Rec. <u>230</u> Feet Of <u>Hex G, 0 cut w/ty M</u>	<u>50</u> %gas <u>16</u> %oil	<u>6</u> %water <u>28</u> %mud	
Rec. <u>60</u> Feet Of <u>51" M/W cut heavy oil</u>	<u>10</u> %gas <u>60</u> %oil	<u>27</u> %water <u>3</u> %mud	
Rec. <u>60</u> Feet Of <u>cln heavy oil</u>	<u>40</u> %gas <u>60</u> %oil	<u> </u> %water <u> </u> %mud	
Rec. <u>60</u> Feet Of <u>Wt.</u>	<u> </u> %gas <u> </u> %oil	<u>100</u> %water <u> </u> %mud	
BHT <u>130</u> °F Gravity <u>45</u>	°API D@ <u>90</u>	°F Corrected Gravity <u>42</u>	°API <u> </u>
RW <u>0.069</u> @ <u>80</u> °F	Chlorides <u>100,000</u> ppm Recovery	Chlorides <u>6,200</u> ppm System	

	AK-1	Alpine	
(A) Initial Hydrostatic Mud	<u>2382</u>	PSI	Recorder No. <u>3289 "01:55"</u> T-On Location <u>12:00 AM.</u>
(B) First Initial Flow Pressure	<u>105</u>	PSI	(depth) <u>4949</u> T-Started <u>1:55 AM.</u>
(C) First Final Flow Pressure	<u>124</u>	PSI	Recorder No. <u>10242</u> T-Open <u>4:30 AM.</u>
(D) Initial Shut-In Pressure	<u>1261</u>	PSI	(depth) <u>4977</u> T-Pulled <u>7:00 AM 8:00</u>
(E) Second Initial Flow Pressure	<u>130</u>	PSI	Recorder No. <u> </u> T-Out <u>11:00 AM.</u>
(F) Second Final Flow Pressure	<u>186</u>	PSI	(depth) <u> </u> T-Off Location <u> </u>
(G) Final Shut-in Pressure	<u>1389</u>	PSI	Initial Opening <u>30</u> Test <u>200</u> ✓
(Q) Final Hydrostatic Mud	<u>2372</u>	PSI	Initial Shut-in <u>45</u> Jars <u>500</u> ✓
			Final Flow <u>45</u> Safety Joint <u>150</u> ✓
			Final Shut-in <u>60 90</u> Straddle <u> </u>
			Circ. Sub <u> </u>
			Sampler <u> </u>
			Extra Packer <u> </u>
			Elec. Rec. <u>159</u> ✓
			Mileage <u>60</u> ✓
			Other <u>1003 Hrs.</u> ✓

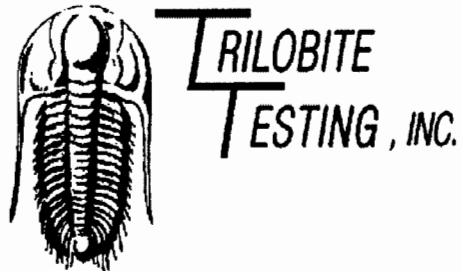
82110155.289
 TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY 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 [Signature]

Our Representative [Signature]

TOTAL PRICE \$ 4320.00

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DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc.**

Garden City KS 67846

ATTN: Al Downing

31-31S-18W Comanche

Brass "1-31"

Start Date: 2001.08.24 @ 11:40:09

End Date: 2001.08.24 @ 20:24:39

Job Ticket #: 14984 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 Inc.

Garden City KS 67846

ATTN: Al Downing

Brass "1-31"

31-31S-18W Comanche

Job Ticket: 14984

DST#: 2

Test Start: 2001.08.24 @ 11:40:09

GENERAL INFORMATION:

Formation: **Viola**

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

Time Tool Opened: 14:00:09

Time Test Ended: 20:24:39

Test Type: **Conventional Bottom Hole**

Tester: **Darren L. Amerine**

Unit No: **19**

Interval: **5649.00 ft (KB) To 5672.00 ft (KB) (TVD)**

Total Depth: **5672.00 ft (KB) (TVD)**

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

Reference Elevations: **2104.00 ft (KB)**

2091.00 ft (CF)

KB to GR/CF: **13.00 ft**

Serial #: **3302**

Inside

Press@RunDepth: **477.53 psig @ 5650.00 ft (KB)**

Start Date: **2001.08.24**

End Date:

2001.08.24

Start Time: **11:40:11**

End Time:

20:24:39

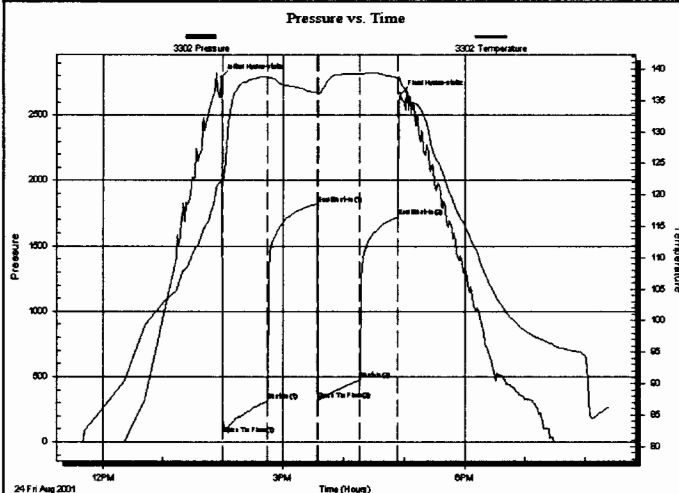
Capacity: **7000.00 psig**

Last Calib.: **2001.08.24**

Time On Btm: **2001.08.24 @ 13:58:09**

Time Off Btm: **2001.08.24 @ 16:56:09**

TEST COMMENT: IF: Strong blow b.o.b in 5-1/2 mins.
IS: Bled down for 5 mins built back to 1/4" in H2O bucket.
FF: Fair blow b.o.b in 20 mins.
FS: Bled down for 10 mins. built back to 1/4" in H2O bucket.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2789.44	122.08	Initial Hydro-static
2	61.39	122.15	Open To Flow (1)
47	316.15	138.76	Shut-In(1)
96	1821.22	136.32	End Shut-In(1)
97	321.56	136.29	Open To Flow (2)
138	477.53	139.23	Shut-In(2)
176	1722.01	138.61	End Shut-In(2)
178	2666.35	137.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
800.00	200 - Gas cut Water	7.97
412.00	500 - Mud and Oil and Gas cut Water	5.78
1040.00	Gas in Pipe	14.59

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Warrior Inc.

Garden City KS 67846

ATTN: Al Dow ning

Brass "1-31"

31-31S-18W Comanche

Job Ticket: 14984

DST#: 2

Test Start: 2001.08.24 @ 11:40:09

Tool Information

Drill Pipe:	Length: 5290.61 ft	Diameter: 3.80 inches	Volume: 74.21 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 357.39 ft	Diameter: 2.25 inches	Volume: 1.76 bbl	Weight to Pull Loose:	90000.00 lb
			Total Volume: 75.97 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	82000.00 lb
Depth to Top Packer:	5649.00 ft			Final	85000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	51.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			5622.00	
S.I. Tool	5.00			5627.00	
HMV	5.00			5632.00	
Jars	5.00			5637.00	
Safety Joint	2.00			5639.00	
Packer	5.00			5644.00	28.00 Bottom Of Top Packer
Packer	5.00			5649.00	
Stubb	1.00			5650.00	
Recorder	0.00	3302	Inside	5650.00	
Anchor	17.00			5667.00	
Recorder	0.00	13769	Outside	5667.00	
Bullnose	5.00			5672.00	23.00 Bottom Packers & Anchor

Total Tool Length: 51.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior Inc.

Brass "1-31"

Garden City KS 67846

31-31S-18W Comanche

Job Ticket: 14984

DST#: 2

ATTN: Al Downing

Test Start: 2001.08.24 @ 11:40:09

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: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 cm³

Gas Cushion Type:

Resistivity: 0.15 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
800.00	200 - Gas cut Water	7.966
412.00	500 - Mud and Oil and Gas cut Water	5.779
1040.00	Gas in Pipe	14.588

Total Length: 2252.00 ft

Total Volume: 28.333 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

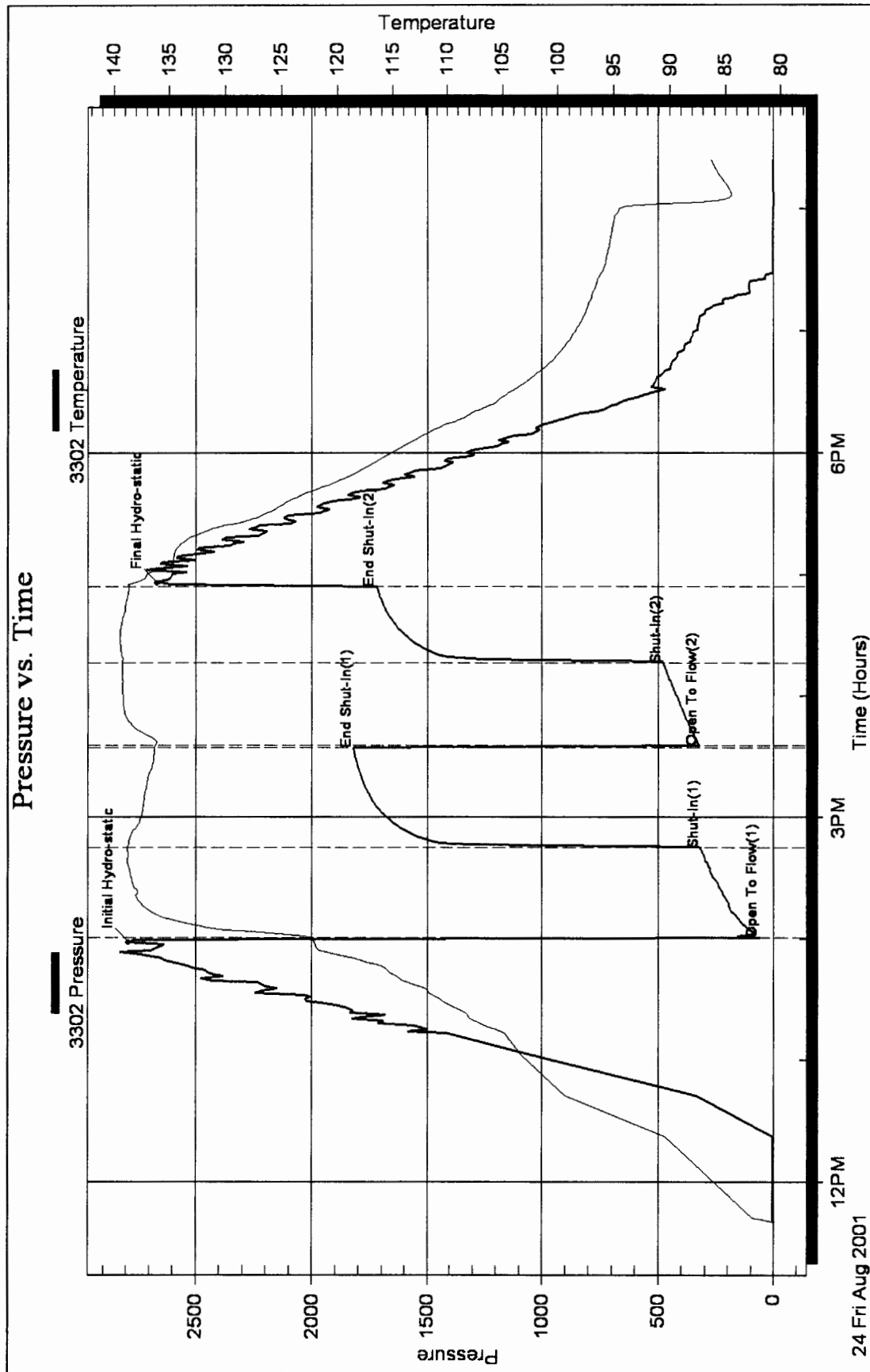
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 10#LCM

Pressure vs. Time



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CHART PAGE

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





№ 14984

Well Name & No. Drass # 1-31 Test No. #2 Date 08/24/01
Company American Warrior, Inc. Zone Tested Viola
Address P.O. box 599 Garden City KS 67846-0599 Elevation 2104 KB 2091 GL
Co. Rep / Geo. Alan Downing Cont. Duke #7 Est. Ft. of Pay Por. %
Location: Sec. 31 Twp. 31S Rge. 18W Co. Comanche State KS
No. of Copies 5 Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested	5649' - 5672'	Initial Str Wt./Lbs.	81,000	Unseated Str Wt./Lbs.	85,000
Anchor Length	23'	Wt. Set Lbs.	20,000	Wt. Pulled Loose/Lbs.	90,000
Top Packer Depth	5644'	Tool Weight	2100		
Bottom Packer Depth	5649'	Hole Size — 7 7/8"	✓	Rubber Size — 6 3/4"	✓
Total Depth	5672'	Wt. Pipe Run	N/A	Drill Collar Run	357.39
Mud Wt.	9.0 LCM 10 th Vis. 56 WL 8.0	Drill Pipe Size	4 1/2 XH	Ft. Run	

Flow Description *IF: Strong slows op in 5 1/2 mins*
F5I: Bled for 5 mins built back to 1/4" in 1/20 bucket
FF: Fair blow built to 60.6 in 20 mins
F5I: Bled down for 10 mins built back to 1/4" in 1/20 bucket

Recovery — Total Feet		1212	1	GIP	1040	Ft. in DC	357	Ft. in DP	855
Rec.	412	Feet Of	H680C	20% gas	0% oil	50% water	20% mud		
Rec.	800	Feet Of	6CSW	10% gas	% oil	90% water	% mud		
Rec.	1040	Feet Of	GIP	% gas	% oil	% water	% mud		
Rec.		Feet Of		% gas	% oil	% water	% mud		
Rec.		Feet Of		% gas	% oil	% water	% mud		
BHT	139°	°F Gravity		°API D@		°F Corrected Gravity		°API	
RW	.06	@	75°	F Chlorides	125000	ppm Recovery	Chlorides	5500	ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud		2789	PSI	Recorder No. 3302	T-On Location 1045
(B) First Initial Flow Pressure		61	PSI	(depth) 5650' 1	T-Started 1140
(C) First Final Flow Pressure		316	PSI	Recorder No. 13769	T-Open 1340
(D) Initial Shut-In Pressure		1821	PSI	(depth) 5667' 0	T-Pulled 1640
(E) Second Initial Flow Pressure		322	PSI	Recorder No.	T-Out 2024
(F) Second Final Flow Pressure		478	PSI	(depth)	T-Off Location 2130
(G) Final Shut-in Pressure		1222	PSI	Initial Opening 45	Test 900 ✓
(Q) Final Hydrostatic Mud		2666	PSI	Initial Shut-in 45	Jars 200 ✓
				Final Flow 45	Safety Joint 50 ✓
				Final Shut-in 45	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

Our Representative

T-On Location 1045
T-Started 1140
T-Open 1340
T-Pulled 1640
T-Out 2024
T-Off Location 2130
Test 900 ✓
Jars 200 ✓
Safety Joint 50 ✓
Straddle _____
Circ. Sub _____
Sampler _____
Extra Packer _____
Elec. Rec. 150 ✓
Mileage 5660
Other _____
TOTAL PRICE \$ 1360

NATURAL GAS ANALYSIS REPORT

Sampled by:

Trilobite Testing, L. L. C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:

Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number: 20014258

Analyzed: 09/12/01

Sample From: Brass 1-31 DST 1

Pressure:

Producer: American Warrior, Inc.

Temperature:

Date: 08/21/01

Location: 31-31-18

Time:

County: Comanche

Sampler: Lanny

State: Kansas

Source:

Formation: Altamont

	Mole %	GPM
Helium	He: 0.029	0.000
Hydrogen	H2: 2.118	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 1.561	0.000
Carbon Dioxide	CO2: 0.009	0.000
Methane	C1: 59.421	0.000
Ethane	C2: 9.494	2.539
Propane	C3: 12.701	3.500
Iso Butane	iC4: 1.820	0.595
Normal Butane	nC4: 5.185	1.635
Iso Pentane	iC5: 1.329	0.486
Normal Pentane	nC5: 1.648	0.597
Hexanes Plus	C6+: 4.685	2.044

TOTAL: 100.000 11.396

Z Fact: 0.9928

SP.GR.: 1.0110

BTU (SAT): 1669.1 @ 14.73 psia

BTU (DRY): 1698.6 @ 14.73 psia

OCTANE RATING: 108.6

COMMENTS:

0.000