

15-101-21717

26-19s-28w

WELL NAME: Gary Shapland
OPERATOR: Rheem Resources Inc
LOCATION: Sec 26 Rge 19S Twp 28W
Lane County Kansas
DATE: 04/08/96

TRILOBITE TESTING L.L.C.

OPERATOR : Rheem Resources Inc. DATE 4-3-96
 WELL NAME: Gary Shapland #1 KB 2768.00 ft TICKET NO: 9157 DST #1
 LOCATION : 26-19S-28W, Lane Cty KS GR 2757.00 ft FORMATION: Lans/KC 180'zn
 INTERVAL : 4254.00 To 4300.00 ft TD 4300.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	2342			PF Fr. 2058 to 2128 hr
SI 45 Range (Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 2128 to 2213 hr
SF 45 Clock (hrs)	AK-1	AK-1	Alpin			SF Fr. 2213 to 2258 hr
FS 60 Depth (ft)	4295.0	4295.0	4260.0	0.0	0.0	FS Fr. 2258 to 2358 hr

	Field	1	2	3	4	
A. Init Hydro	2123.0	2109.0	2058.0	0.0	0.0	T STARTED 1730 hr
B. First Flow	93.0	94.0	37.0	0.0	0.0	T ON BOTM 2054 hr
B1. Final Flow	322.0	339.0	350.0	0.0	0.0	T OPEN 2058 hr
C. In Shut-in	849.0	856.0	851.0	0.0	0.0	T PULLED 2358 hr
D. Init Flow	384.0	389.0	358.0	0.0	0.0	T OUT 0400 hr
E. Final Flow	539.0	549.0	543.0	0.0	0.0	
F. Fl Shut-in	849.0	852.0	848.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2093.0	2089.0	2028.0	0.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 90000.00 lbs
						Initial Str Wt 75000.00 lbs
						Unseated Str Wt 80000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 496.00 ft
						D.P. Length 3748.00 ft

RECOVERY

Tot Fluid 1185.00 ft of 496.00 ft in DC and 689.00 ft in DP
 5.00 ft of Free oil - 100% oil
 185.00 ft of Muddy water w/ trc oil - 70% water, 30% mud
 499.00 ft of Sulpher Water in DP
 496.00 ft of Sulpher Water in DC

RW .35 @ 70 F

SALINITY 20000.00 P.P.M. A.P.I. Gravity 32.60

BLOW DESCRIPTION

Initial Flow -
 Fair to strong blow off bottom in 7.5 mins.

Initial Shutin -
 Bled off blow, no return

Final Flow -
 Weak blow, slowly built to bottom in 15 min

Final Shutin -
 Bled off blow, no return

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/c
Vis.	47.00 S/L
W.L.	8.00 in3
F.C.	0.00 in
Mud Drop Y	50.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	135.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Rod Steinbrink
Co. Rep.	Roger Martin
Contr.	Murfin Drlg.
Rig #	21
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

9157 DST #1 Shapland #1 Rheem Res. Inc.

Flag Points

t (Min.)	P (PSig)
A: 0.00	2058.15
B: 0.00	37.67
C: 34.00	349.63
D: 47.00	851.19
E: 0.00	358.03
F: 49.00	543.00
G: 60.00	847.66
Q: 0.00	2028.11

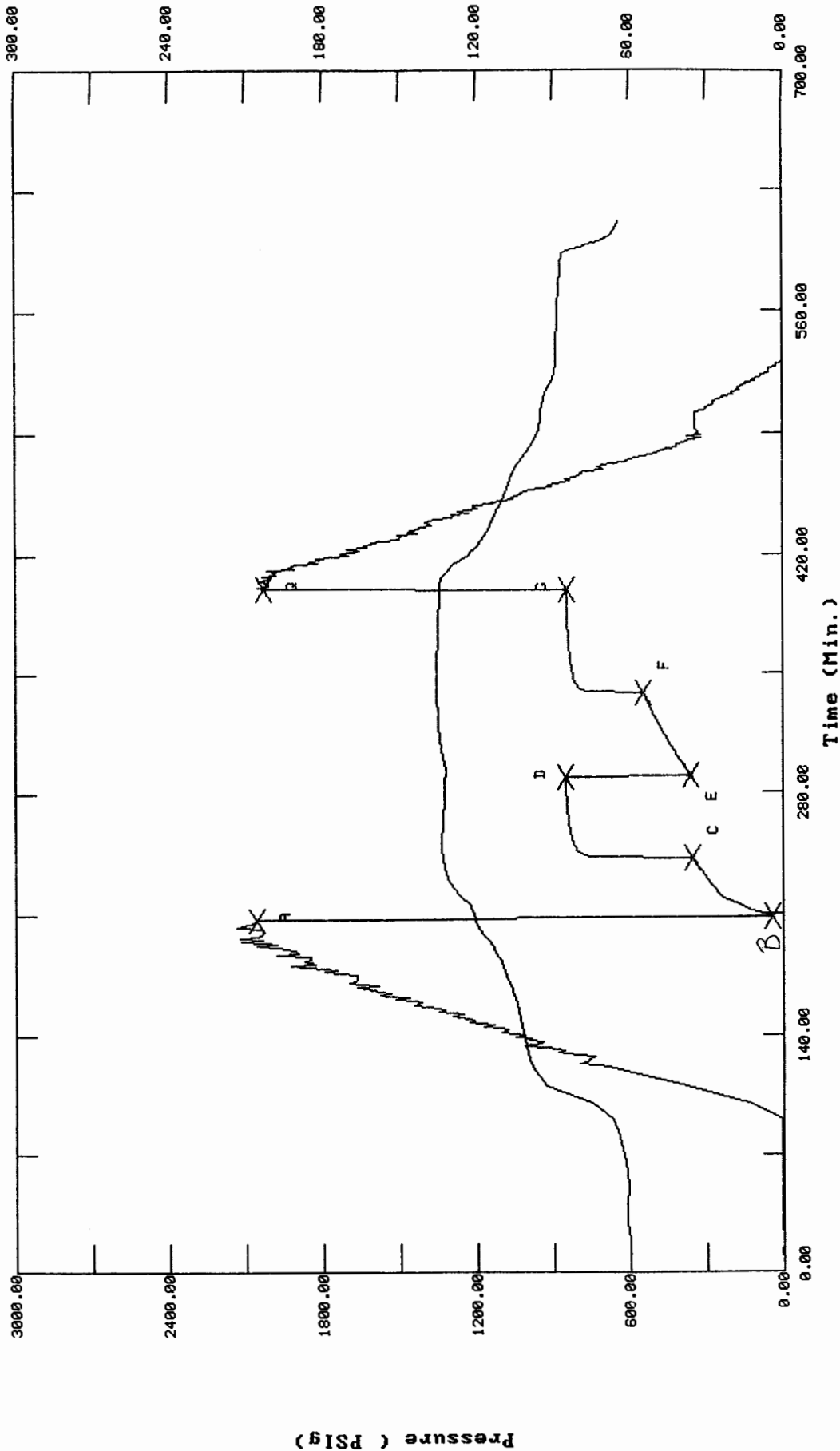
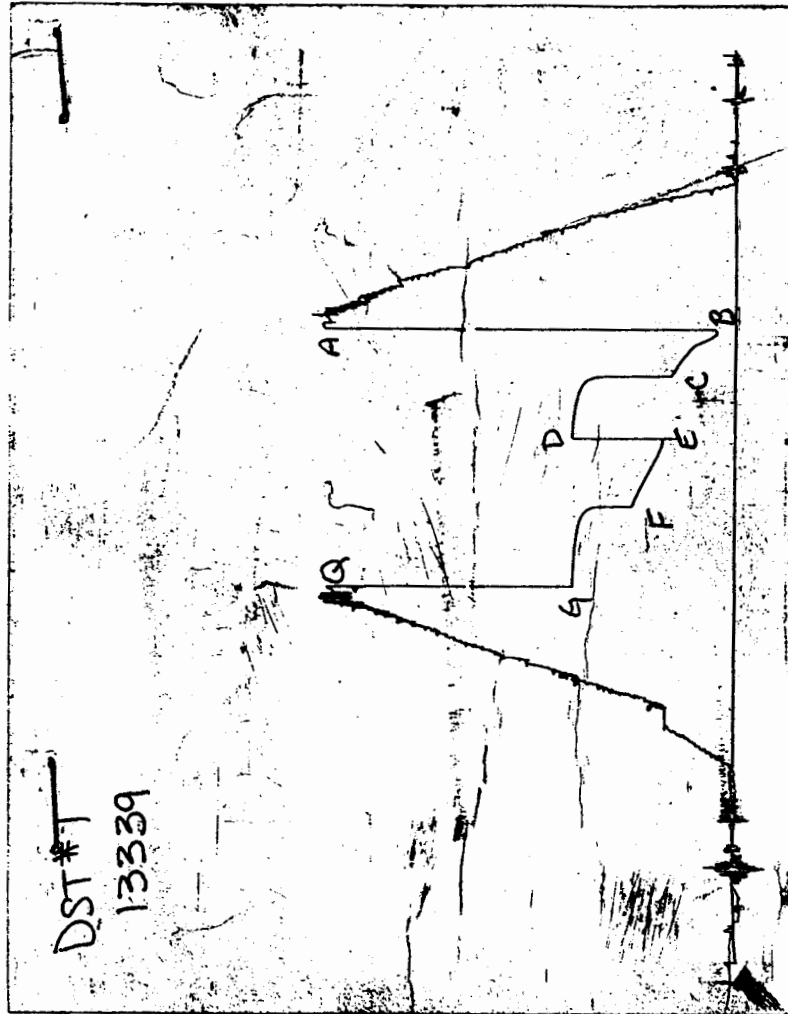


CHART PAGE



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

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9157 DST #1 Shapland #1 Rheem Res. Inc.

DATE: 04/03/96 TIME: 17:30:07

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	207.00	2058.2	0.0	120.59		
***** Start Flow 1	0.00	37.7	0.0	120.70		
	1.00	58.4	20.7	120.85		
	2.00	77.6	39.9	121.00		
	3.00	98.4	60.8	121.19		
	4.00	115.3	77.6	121.42		
	5.00	133.4	95.8	121.71		
	6.00	148.9	111.2	122.08		
	7.00	165.6	127.9	122.53		
	8.00	183.4	145.7	123.09		
	9.00	199.7	162.0	123.78		
	10.00	214.3	176.7	124.53		
	11.00	231.0	193.3	125.29		
	12.00	240.4	202.7	126.02		
	13.00	245.5	207.8	126.70		
	14.00	251.0	213.3	127.32		
	15.00	256.3	218.6	127.92		
	16.00	261.7	224.0	128.45		
	17.00	267.2	229.5	128.93		
	18.00	272.5	234.8	129.38		
	19.00	278.0	240.4	129.79		
	20.00	283.5	245.8	130.17		
	21.00	288.5	250.8	130.52		
	22.00	293.7	256.1	130.84		
	23.00	298.5	260.8	131.14		
	24.00	303.1	265.5	131.41		
	25.00	308.1	270.4	131.65		
	26.00	312.7	275.0	131.87		
	27.00	317.3	279.6	132.08		
	28.00	322.2	284.5	132.27		
	29.00	326.7	289.0	132.43		
	30.00	331.3	293.6	132.59		
	31.00	336.0	298.4	132.73		
	32.00	340.5	302.8	132.87		
	33.00	344.9	307.2	132.99		
***** End Flow 1	34.00	349.6	312.0	133.10		
***** Start Shutin 1	0.00	349.6	0.0	133.10	0.0000	0.122
	1.00	751.1	401.4	133.23	35.0000	0.564
	2.00	779.1	429.5	133.34	18.0000	0.607
	3.00	791.6	442.0	133.43	12.3333	0.627
	4.00	799.8	450.2	133.49	9.5000	0.640
	5.00	805.9	456.2	133.54	7.8000	0.649
	6.00	810.7	461.0	133.58	6.6667	0.657
	7.00	814.5	464.9	133.60	5.8571	0.663
	8.00	817.8	468.1	133.62	5.2500	0.669
	9.00	820.6	471.0	133.63	4.7778	0.673
	10.00	823.0	473.4	133.63	4.4000	0.677
	11.00	825.2	475.5	133.61	4.0909	0.681
	12.00	827.1	477.5	133.58	3.8333	0.684
	13.00	828.8	479.1	133.55	3.6154	0.687
	14.00	830.4	480.7	133.51	3.4286	0.690

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9157 DST #1 Shapland #1 Rheem Res. Inc.

DATE: 04/03/96

TIME: 17:30:07

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	15.00	831.9	482.2	133.47	3.2667	0.692
	16.00	833.1	483.5	133.42	3.1250	0.694
	17.00	834.3	484.7	133.38	3.0000	0.696
	18.00	835.4	485.8	133.32	2.8889	0.698
	19.00	836.5	486.9	133.28	2.7895	0.700
	20.00	837.4	487.8	133.22	2.7000	0.701
	21.00	838.4	488.8	133.17	2.6190	0.703
	22.00	839.3	489.6	133.14	2.5455	0.704
	23.00	840.1	490.5	133.10	2.4783	0.706
	24.00	840.9	491.2	133.07	2.4167	0.707
	25.00	841.5	491.9	133.02	2.3600	0.708
	26.00	842.2	492.6	132.97	2.3077	0.709
	27.00	843.0	493.3	132.92	2.2593	0.711
	28.00	843.5	493.9	132.86	2.2143	0.712
	29.00	844.1	494.5	132.81	2.1724	0.713
	30.00	844.7	495.1	132.76	2.1333	0.714
	31.00	845.3	495.7	132.71	2.0968	0.715
	32.00	845.7	496.1	132.66	2.0625	0.715
	33.00	846.2	496.6	132.62	2.0303	0.716
	34.00	846.7	497.0	132.58	2.0000	0.717
	35.00	847.1	497.4	132.54	1.9714	0.718
	36.00	847.6	497.9	132.51	1.9444	0.718
	37.00	847.9	498.3	132.48	1.9189	0.719
	38.00	848.3	498.7	132.44	1.8947	0.720
	39.00	848.7	499.0	132.43	1.8718	0.720
	40.00	849.1	499.5	132.39	1.8500	0.721
	41.00	849.3	499.7	132.37	1.8293	0.721
	42.00	849.7	500.0	132.35	1.8095	0.722
	43.00	850.1	500.5	132.32	1.7907	0.723
	44.00	850.4	500.8	132.30	1.7727	0.723
	45.00	850.6	501.0	132.28	1.7556	0.724
	46.00	850.9	501.3	132.27	1.7391	0.724
***** End Shut-in 1	47.00	851.2	501.6	132.25	1.7234	0.725
***** Start Flow 2	0.00	358.0	0.0	132.20		
	1.00	363.1	5.0	132.17		
	2.00	367.9	9.9	132.14		
	3.00	372.6	14.6	132.12		
	4.00	377.4	19.4	132.14		
	5.00	381.8	23.8	132.19		
	6.00	386.1	28.1	132.28		
	7.00	390.9	32.9	132.40		
	8.00	395.1	37.1	132.55		
	9.00	399.3	41.3	132.70		
	10.00	404.0	46.0	132.86		
	11.00	408.2	50.2	133.02		
	12.00	412.4	54.4	133.17		
	13.00	416.9	58.8	133.31		
	14.00	420.8	62.8	133.45		
	15.00	424.9	66.9	133.58		
	16.00	429.0	71.0	133.71		
	17.00	433.1	75.1	133.82		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9157 DST #1 Shapland #1 Rheem Res. Inc.

DATE: 04/03/96

TIME: 17:30:07

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
18.00	437.0	79.0	133.93			
19.00	440.9	82.8	134.04			
20.00	445.0	86.9	134.12			
21.00	448.7	90.6	134.22			
22.00	452.5	94.5	134.31			
23.00	456.3	98.3	134.39			
24.00	460.2	102.1	134.47			
25.00	463.8	105.7	134.54			
26.00	467.3	109.3	134.61			
27.00	471.2	113.1	134.67			
28.00	474.9	116.8	134.73			
29.00	478.3	120.3	134.78			
30.00	481.9	123.9	134.83			
31.00	485.7	127.7	134.87			
32.00	489.0	130.9	134.91			
33.00	492.3	134.3	134.95			
34.00	495.5	137.5	134.99			
35.00	499.0	141.0	135.02			
36.00	502.4	144.4	135.06			
37.00	505.7	147.6	135.09			
38.00	508.8	150.7	135.12			
39.00	512.3	154.3	135.15			
40.00	515.4	157.4	135.18			
41.00	518.4	160.4	135.21			
42.00	521.4	163.4	135.24			
43.00	524.5	166.4	135.27			
44.00	527.9	169.9	135.30			
45.00	530.8	172.8	135.35			
46.00	533.8	175.7	135.37			
47.00	536.8	178.8	135.39			
48.00	539.9	181.9	135.43			
49.00	543.0	185.0	135.45			
***** End Flow 2						
***** Start Shutin 2	0.00	543.0	0.0	135.45	0.0000	0.295
	1.00	769.2	226.2	135.49	84.0000	0.592
	2.00	790.9	247.9	135.51	42.5000	0.626
	3.00	799.7	256.7	135.54	28.6667	0.639
	4.00	805.3	262.3	135.56	21.7500	0.648
	5.00	809.5	266.5	135.58	17.6000	0.655
	6.00	812.9	269.9	135.60	14.8333	0.661
	7.00	815.7	272.7	135.62	12.8571	0.665
	8.00	818.0	274.9	135.61	11.3750	0.669
	9.00	820.0	277.0	135.62	10.2222	0.672
	10.00	821.8	278.8	135.63	9.3000	0.675
	11.00	823.5	280.5	135.62	8.5455	0.678
	12.00	824.8	281.8	135.62	7.9167	0.680
	13.00	826.2	283.2	135.61	7.3846	0.683
	14.00	827.4	284.4	135.60	6.9286	0.685
	15.00	828.5	285.5	135.57	6.5333	0.686
	16.00	829.5	286.5	135.54	6.1875	0.688
	17.00	830.5	287.5	135.53	5.8824	0.690
	18.00	831.4	288.4	135.50	5.6111	0.691

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9157 DST #1 Shapland #1 Rheem Res. Inc.

DATE: 04/03/96

TIME: 17:30:07

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
19.00	832.3	289.3	135.46	5.3684	0.693
20.00	833.1	290.1	135.43	5.1500	0.694
21.00	833.7	290.7	135.40	4.9524	0.695
22.00	834.3	291.3	135.37	4.7727	0.696
23.00	835.1	292.1	135.32	4.6087	0.697
24.00	835.7	292.7	135.30	4.4583	0.698
25.00	836.3	293.3	135.27	4.3200	0.699
26.00	836.9	293.9	135.23	4.1923	0.700
27.00	837.4	294.4	135.20	4.0741	0.701
28.00	838.0	295.0	135.17	3.9643	0.702
29.00	838.5	295.5	135.14	3.8621	0.703
30.00	838.9	295.9	135.11	3.7667	0.704
31.00	839.4	296.4	135.08	3.6774	0.705
32.00	839.9	296.9	135.06	3.5938	0.705
33.00	840.3	297.3	135.03	3.5152	0.706
34.00	840.7	297.7	135.01	3.4412	0.707
35.00	841.0	298.0	134.98	3.3714	0.707
36.00	841.5	298.4	134.96	3.3056	0.708
37.00	841.8	298.8	134.93	3.2432	0.709
38.00	842.2	299.2	134.90	3.1842	0.709
39.00	842.5	299.5	134.87	3.1282	0.710
40.00	842.8	299.8	134.85	3.0750	0.710
41.00	843.1	300.1	134.82	3.0244	0.711
42.00	843.5	300.5	134.80	2.9762	0.711
43.00	843.7	300.7	134.78	2.9302	0.712
44.00	844.0	301.0	134.76	2.8864	0.712
45.00	844.3	301.3	134.74	2.8444	0.713
46.00	844.6	301.6	134.71	2.8043	0.713
47.00	844.8	301.8	134.69	2.7660	0.714
48.00	845.1	302.1	134.67	2.7292	0.714
49.00	845.3	302.3	134.65	2.6939	0.715
50.00	845.6	302.6	134.64	2.6600	0.715
51.00	845.8	302.8	134.62	2.6275	0.715
52.00	846.0	303.0	134.60	2.5962	0.716
53.00	846.2	303.2	134.59	2.5660	0.716
54.00	846.5	303.5	134.58	2.5370	0.717
55.00	846.7	303.7	134.55	2.5091	0.717
56.00	846.9	303.9	134.54	2.4821	0.717
57.00	847.1	304.1	134.54	2.4561	0.718
58.00	847.4	304.4	134.51	2.4310	0.718
59.00	847.5	304.5	134.49	2.4068	0.718
60.00	847.7	304.7	134.48	2.3833	0.719
***** End Shut-in 2					
***** Final Hydro.	400.00	2028.1	0.0	134.54	

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Gary Shapland

LOCATION : 26-19S-28W, Lane Cty KS

TICKET No. 9157 D.S.T. No. 1 DATE 4-3-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 46

TOTAL TOOL 66

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 66

D.C. ABOVE TOOLS.Stands8 Single Total 496

D.P. ABOVE TOOLS.Stands60 Single Total 3748

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4310

TOTAL DEPTH 4300

TOTAL DRILL PIPE ABOVE K.B. 10

REMARKS:

P.O. SUB 1' 120' above DC.	4114
C.O. SUB 1'	4234
S.I. TOOL 5'	4240
HMV 5'	4245
JARS N/A	
SAFETY JOINT N/A	
PACKER 5'	4249
PACKER 5'	4254
DEPTH STUBB 1'	4255
ANCHOR	
Alp. Rec. @	4260
40'	4295
T.C. DEPTH	
AK-1 recorder	4295
BULLNOSE 5'	
T.D.	4300

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 9157

Well Name & No. <u>Gary Shapland #1</u>		Test No. <u>1</u>	Date <u>4-3-96</u>
Company <u>Rheem Resources, Inc.</u>		Zone Tested <u>L/KC 180' or J'</u>	
Address <u>100 S. Main Ste 505 Wichita, KS 67202-3738</u>		Elevation <u>2768</u>	KB <u>2757</u> GL
Co. Rep / Geo. <u>Roger Martin</u>	Cont. <u>Murfin #21</u>	Est. Ft. of Pay	Por. %
Location: Sec. <u>26</u>	Twp. <u>19^s</u>	Rge. <u>28^w</u>	Co. <u>Lane</u> State <u>KS</u>
No. of Copies	Distribution Sheet (Y, N)	Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested <u>4254 - 4300</u>	Initial Str Wt./Lbs. <u>75,000</u>	Unseated Str Wt./Lbs. <u>80,000</u>
Anchor Length <u>46'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>90,000</u>
Top Packer Depth <u>4249</u>	Hole Size — 7 7/8" _____	Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4254</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____	
Total Depth <u>4300</u>	Drill Collar — 2.25 Ft. Run <u>496'</u>	
Mud Wt. <u>9.3</u> LCM <u>0</u> Vis. <u>47</u> WL <u>8.0</u>	Drill Pipe Size <u>4 1/2" x 4</u>	Ft. Run <u>3748'</u>
Blow Description <u>IF: Fair to strong blow off bttm in 7 1/2 mins.</u>		
<u>ISI: Bled off blow - no return</u>		
<u>FF: Weak blow slowly built to bttm in 15 mins</u>		
<u>FSI: Bled off blow - no return</u>		

Recovery — Total Feet <u>1185'</u>	Ft. in DC <u>496'</u>	Ft. in WP _____	Ft. in DP <u>689'</u>
Rec. <u>5'</u> Feet Of <u>Free Oil</u>	%gas _____	%oil _____	%water _____ %mud _____
Rec. <u>185'</u> Feet Of <u>MW</u>	%gas <u>trc.</u>	%oil <u>70</u>	%water _____ %mud _____
Rec. <u>995'</u> Feet Of <u>Sulphur Water</u>	%gas _____	%oil <u>100</u>	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____

BHT 135° °F Gravity 32 °API D₄₀ 54° °F Corrected Gravity 32.6 °API

RW .35 @ 70° °F Chlorides 20,000 ppm Recovery Chlorides 4,000 ppm System

(A) Initial Hydrostatic Mud <u>2058</u> <u>2123</u> PSI	Recorder No. <u>2350</u>	T-Started <u>1730</u>
(B) First Initial Flow Pressure <u>37</u> <u>93</u> PSI	@ (depth) <u>4260</u>	T-Open <u>2058</u>
(C) First Final Flow Pressure <u>349</u> <u>322</u> PSI	Recorder No. <u>13339</u>	T-Pulled <u>28 1558</u>
(D) Initial Shut-in Pressure <u>851</u> <u>849</u> PSI	@ (depth) <u>4295</u>	T-Out <u>0400</u>
(E) Second Initial Flow Pressure <u>358</u> <u>384</u> PSI	Recorder No. _____	
(F) Second Final Flow Pressure <u>543</u> <u>539</u> PSI	@ (depth) _____	
(G) Final Shut-in Pressure <u>847</u> <u>849</u> PSI	Initial Opening <u>30</u>	Test <u>600</u>
(H) Final Hydrostatic Mud <u>2028</u> <u>2093</u> PSI	Initial Shut-in <u>45</u>	Jars _____
Elec. Alp. _____	Mech. AK-1 _____	Safety Joint _____
	Final Flow <u>2045</u>	
	Final Shut-in <u>60</u>	Straddle _____

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 Roger L. Martin

Our Representative Rod Steinbrink

Circ. Sub X N/C

Sampler _____

Extra Packer _____

Elect. Rec. X 150

Other _____

TOTAL PRICE \$ 750

5
D

TRILOBITE TESTING L.L.C.

OPERATOR : Rheem Resources Inc.

DATE 4-4-96

WELL NAME: Gary Shapland #1

KB 2768.00 ft

TICKET NO: 9158

DST #2

LOCATION : 26-19S-28W, Lane Cty KS

GR 2757.00 ft

FORMATION: K "KC"

INTERVAL : 4303.00 To 4324.00 ft

TD 4324.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	13339	13339	2342			PF Fr. 1701 to 1731 hr
SI 30	Range(Psi)	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 1731 to 1801 hr
SF 30	Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 1801 to 1831 hr
FS 30	Depth(ft)	4319.0	4319.0	4305.0	0.0	0.0	FS Fr. 1831 to 1901 hr

	Field	1	2	3	4	
A. Init Hydro	2143.0	2119.0	2086.0	0.0	0.0	T STARTED 1423 hr
B. First Flow	20.0	19.0	12.0	0.0	0.0	T ON BOTM 1658 hr
B1. Final Flow	20.0	19.0	13.0	0.0	0.0	T OPEN 1701 hr
C. In Shut-in	395.0	393.0	427.0	0.0	0.0	T PULLED 1901 hr
D. Init Flow	20.0	23.0	12.0	0.0	0.0	T OUT 2200 hr
E. Final Flow	20.0	23.0	14.0	0.0	0.0	
F. Fl Shut-in	539.0	539.0	565.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2093.0	2083.0	2030.0	0.0	0.0	Tool Wt. 5000.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 27000.00 lbs
						Wt Pulled Loose 80000.00 lbs
						Initial Str Wt 77000.00 lbs
						Unseated Str Wt 77000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 496.00 ft
						D.P. Length 3810.00 ft

RECOVERY

Tot Fluid 5.00 ft of 5.00 ft in DC and 0.00 ft in DP
 5.00 ft of Drilling mud w/ few oil specks

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow -
 Weak surface blow, died in 8 min

Final Flow -
 No blow, flushed tool 5 min, good
 surge, no blow

SAMPLES:
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	48.00 S/I
W.L.	11.00 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	GOOD
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	DAN BANGLE
Co. Rep.	Roger Martin
Contr.	Murfin
Rig #	21
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

9158 DST #2 GARY SHAPLAND #1 RHEEM

Flag Points

t (Min.)	P (PSig)
A: 0.00	2085.51
B: 0.00	11.66
C: 31.00	12.92
D: 28.00	427.18
E: 0.00	12.24
F: 29.00	14.26
G: 31.00	564.57
Q: 0.00	2029.62

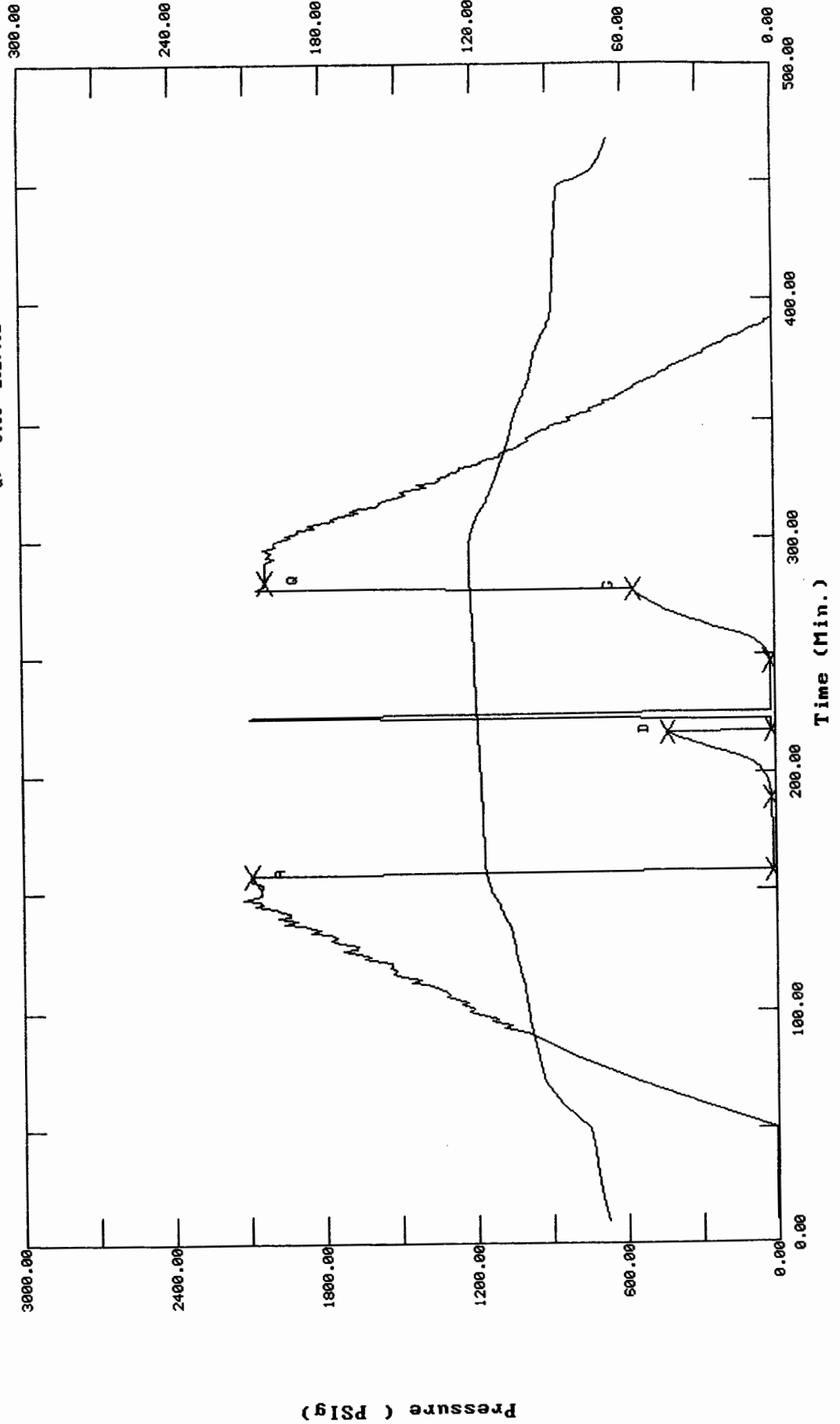
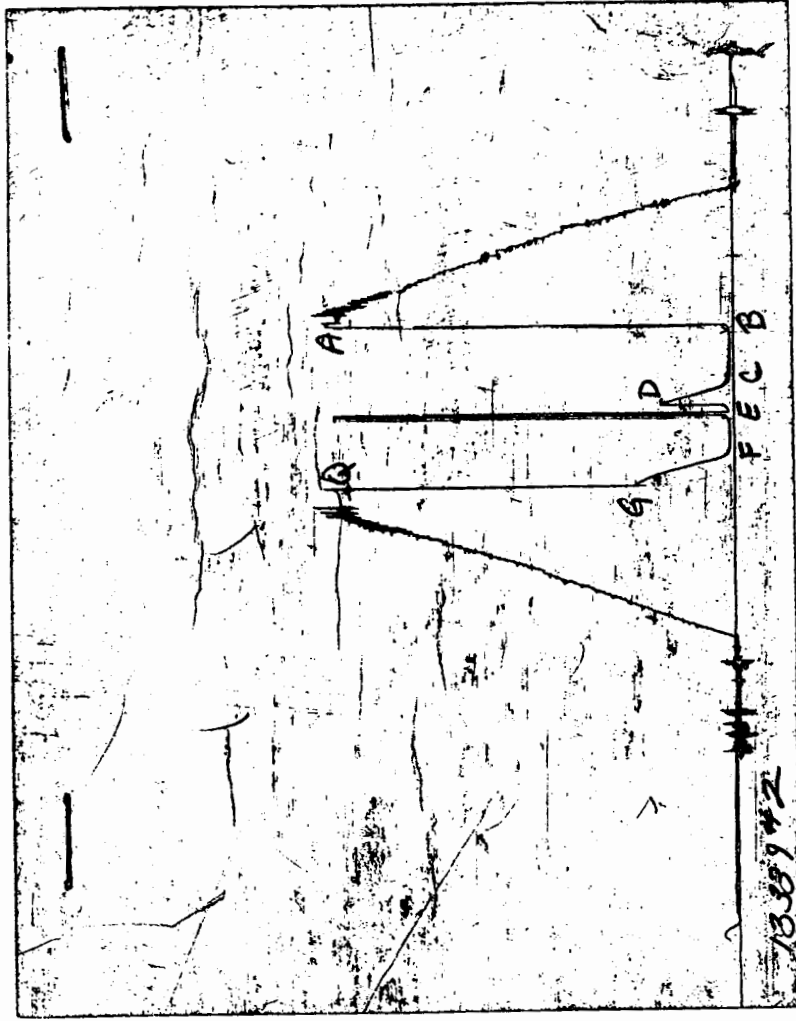


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9158 DST #2 GARY SHAPLAND #1 RHEEM

DATE: 04/04/96 TIME: 08:24:26

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	157.00	2085.5	0.0	115.66		
***** Start Flow 1	0.00	11.7	0.0	115.79		
	1.00	11.7	0.1	115.95		
	2.00	11.8	0.2	116.05		
	3.00	11.9	0.3	116.12		
	4.00	12.1	0.4	116.18		
	5.00	12.1	0.4	116.24		
	6.00	12.0	0.3	116.27		
	7.00	12.2	0.5	116.31		
	8.00	12.2	0.5	116.33		
	9.00	12.2	0.5	116.37		
	10.00	12.2	0.5	116.41		
	11.00	12.2	0.6	116.44		
	12.00	12.2	0.6	116.47		
	13.00	12.3	0.7	116.51		
	14.00	12.3	0.7	116.54		
	15.00	12.4	0.8	116.58		
	16.00	12.5	0.8	116.62		
	17.00	12.5	0.8	116.66		
	18.00	12.5	0.8	116.70		
	19.00	12.6	0.9	116.74		
	20.00	12.6	0.9	116.77		
	21.00	12.6	0.9	116.82		
	22.00	12.6	0.9	116.86		
	23.00	12.7	1.0	116.90		
	24.00	12.7	1.0	116.94		
	25.00	12.7	1.0	116.99		
	26.00	12.8	1.1	117.04		
	27.00	12.8	1.1	117.08		
	28.00	12.8	1.1	117.13		
	29.00	12.8	1.2	117.17		
	30.00	12.9	1.3	117.21		
***** End Flow 1	31.00	12.9	1.3	117.26		
***** Start Shutin 1	0.00	12.9	0.0	117.26	0.0000	0.000
	1.00	14.3	1.4	117.30	32.0000	0.000
	2.00	15.8	2.8	117.35	16.5000	0.000
	3.00	17.4	4.4	117.39	11.3333	0.000
	4.00	19.4	6.5	117.44	8.7500	0.000
	5.00	21.6	8.6	117.49	7.2000	0.000
	6.00	24.0	11.1	117.53	6.1667	0.001
	7.00	26.8	13.9	117.58	5.4286	0.001
	8.00	30.2	17.3	117.63	4.8750	0.001
	9.00	34.1	21.1	117.67	4.4444	0.001
	10.00	38.8	25.8	117.72	4.1000	0.002
	11.00	44.4	31.5	117.77	3.8182	0.002
	12.00	51.3	38.4	117.81	3.5833	0.003
	13.00	59.8	46.9	117.86	3.3846	0.004
	14.00	70.6	57.7	117.91	3.2143	0.005
	15.00	84.1	71.2	117.96	3.0667	0.007
	16.00	100.8	87.9	118.02	2.9375	0.010
	17.00	121.4	108.5	118.06	2.8235	0.015

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9158 DST #2 GARY SHAPLAND #1 RHEEM
 DATE: 04/04/96 TIME: 08:24:26

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	18.00	146.1	133.2	118.11	2.7222	0.021
	19.00	173.7	160.8	118.16	2.6316	0.030
	20.00	202.3	189.3	118.21	2.5500	0.041
	21.00	233.9	221.0	118.27	2.4762	0.055
	22.00	265.5	252.6	118.32	2.4091	0.071
	23.00	296.4	283.5	118.38	2.3478	0.088
	24.00	326.1	313.1	118.44	2.2917	0.106
	25.00	353.9	341.0	118.49	2.2400	0.125
	26.00	380.0	367.1	118.55	2.1923	0.144
	27.00	404.6	391.7	118.61	2.1481	0.164
***** End Shut-in 1	28.00	427.2	414.3	118.67	2.1071	0.182
***** Start Flow 2	0.00	12.2	0.0	118.71		
	1.00	13.0	0.8	118.76		
	2.00	13.2	0.9	118.80		
	3.00	13.2	0.9	118.84		
	4.00	13.3	1.0	118.87		
	5.00	13.4	1.2	118.90		
	6.00	2097.2	2084.9	119.01		
	7.00	2078.5	2066.3	119.13		
	8.00	15.0	2.8	119.15		
	9.00	15.2	2.9	119.22		
	10.00	15.2	2.9	119.27		
	11.00	15.4	3.1	119.31		
	12.00	15.4	3.1	119.34		
	13.00	15.4	3.2	119.38		
	14.00	15.4	3.2	119.42		
	15.00	15.6	3.4	119.46		
	16.00	15.6	3.4	119.49		
	17.00	15.6	3.4	119.53		
	18.00	15.6	3.4	119.56		
	19.00	15.6	3.4	119.60		
	20.00	15.7	3.4	119.65		
	21.00	15.7	3.4	119.68		
	22.00	15.8	3.5	119.72		
	23.00	15.9	3.6	119.75		
	24.00	15.9	3.6	119.79		
	25.00	15.9	3.6	119.82		
	26.00	15.9	3.7	119.86		
	27.00	16.0	3.8	119.89		
	28.00	16.0	3.8	119.92		
***** End Flow 2	29.00	14.3	2.0	119.95		
***** Start Shutin 2	0.00	14.3	0.0	119.95	0.0000	0.000
	1.00	17.1	2.9	119.98	61.0000	0.000
	2.00	20.2	6.0	120.00	31.0000	0.000
	3.00	23.9	9.7	120.03	21.0000	0.001
	4.00	28.5	14.3	120.06	16.0000	0.001
	5.00	34.1	19.8	120.08	13.0000	0.001
	6.00	41.2	26.9	120.11	11.0000	0.002
	7.00	50.1	35.8	120.15	9.5714	0.003
	8.00	61.5	47.3	120.17	8.5000	0.004
	9.00	76.2	61.9	120.22	7.6667	0.006

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9158 DST #2 GARY SHAPLAND #1 RHEEM

DATE: 04/04/96

TIME: 08:24:26

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	10.00	94.7	80.5	120.25	7.0000	0.009
	11.00	117.6	103.3	120.29	6.4545	0.014
	12.00	144.3	130.1	120.34	6.0000	0.021
	13.00	174.3	160.1	120.38	5.6154	0.030
	14.00	206.1	191.9	120.43	5.2857	0.042
	15.00	237.9	223.7	120.47	5.0000	0.057
	16.00	269.7	255.4	120.52	4.7500	0.073
	17.00	300.4	286.1	120.57	4.5294	0.090
	18.00	329.7	315.4	120.62	4.3333	0.109
	19.00	357.2	342.9	120.67	4.1579	0.128
	20.00	383.0	368.8	120.72	4.0000	0.147
	21.00	407.0	392.8	120.78	3.8571	0.166
	22.00	429.1	414.9	120.83	3.7273	0.184
	23.00	449.6	435.3	120.88	3.6087	0.202
	24.00	468.5	454.2	120.93	3.5000	0.219
	25.00	485.9	471.7	120.99	3.4000	0.236
	26.00	501.9	487.6	121.04	3.3077	0.252
	27.00	516.7	502.5	121.08	3.2222	0.267
	28.00	530.2	516.0	121.13	3.1429	0.281
	29.00	542.6	528.3	121.17	3.0690	0.294
	30.00	554.1	539.8	121.23	3.0000	0.307
***** End Shut-in 2	31.00	564.6	550.3	121.28	2.9355	0.319
***** Final Hydro.	282.00	2029.6	0.0	121.64		

*** TOOL DIAGRAM *** CONV.

WELL NAME: Gary Shapland #1

LOCATION : 26-19S-28W, Lane Cty KS

TICKET No. 9158 D.S.T. No. 2 DATE 4-4-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 21

TOTAL TOOL 41

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 41

D.C. ABOVE TOOLS.Stands8 Single Total 496

D.P. ABOVE TOOLS.Stands61 Single Total 3810

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4347

TOTAL DEPTH 4324

TOTAL DRILL PIPE ABOVE K.B. 23

REMARKS:

P.O. SUB	
C.O. SUB 1'	4283
S.I. TOOL 5'	4289
HMV 5'	4294
JARS	
SAFETY JOINT	
PACKER top	4298
PACKER bottom	4303
DEPTH 4303	
STUBB 1'	4304
ANCHOR	
15'-perf	4319
T.C.	
DEPTH	
BULLNOSE 5'	
T.D.	4324

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 9158

Well Name & No. <u>Gary Shapland #1</u>		Test No. <u>2</u>	Date <u>4-4-96</u>
Company <u>Rheem Resources Inc.</u>		Zone Tested <u>"K" KC</u>	
Address <u>100 S. main Ste. 505 Wichita, KS 67202-3738</u>		Elevation <u>2768'</u>	KB <u>2757</u> GL
Co. Rep / Geo. <u>Roger Martin</u>	Cont. <u>Martin #21</u>	Est. Ft. of Pay	Por. %
Location: Sec. <u>26</u>	Twp. <u>19^s</u>	Rge. <u>28^w</u>	Co. <u>LANE</u> State <u>KS</u>
No. of Copies	Distribution Sheet (Y, N)	Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested <u>4303' - 4324'</u>	Initial Str Wt./Lbs. <u>77,000</u>	Unseated Str Wt./Lbs. <u>77,000</u>
Anchor Length <u>21'</u>	Wt. Set Lbs. <u>27,000</u>	Wt. Pulled Loose/Lbs. <u>80,000</u>
Top Packer Depth <u>4298'</u>	Hole Size — 7 7/8" <input checked="" type="checkbox"/>	Rubber Size — 6 3/4" <input checked="" type="checkbox"/>
Bottom Packer Depth <u>4303'</u>	Wt. Pipe I.D. — 2.7 Ft. Run	
Total Depth <u>4324'</u>	Drill Collar — 2.25 Ft. Run <u>496'</u>	
Mud Wt. <u>9.2+</u> LCM <u>0</u> Vis. <u>48</u> WL <u>11.0</u>	Drill Pipe Size <u>4 1/2 XH</u>	Ft. Run <u>3810'</u>
Blow Description <u>Weak surface died in 8 min.</u>		

I.S.I: No return

F.I: No Blow - Flush tool 5 min. - good surge - No Blow.

F.S.I:

Recovery — Total Feet	Ft. in DC	Ft. in WP	Ft. in DP	%gas	%oil	%water	%mud
<u>5</u>	<u>5</u>						
Rec. <u>5</u> Feet Of <u>D.M w/a few oil specks</u>							
Rec. _____ Feet Of _____							
Rec. _____ Feet Of _____							
Rec. _____ Feet Of _____							
Rec. _____ Feet Of _____							

BHT 118 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3500 ppm System

(A) Initial Hydrostatic Mud <u>2085</u> <u>2085</u> PSI	Recorder No. <u>2350</u>	T-Started <u>14:23 P.M.</u>
(B) First Initial Flow Pressure <u>12</u> <u>20</u> PSI	@ (depth) <u>4305'</u>	T-Open <u>17:01 P.M.</u>
(C) First Final Flow Pressure <u>13</u> <u>20</u> PSI	Recorder No. <u>13339</u>	T-Pulled <u>19:01 P.M.</u>
(D) Initial Shut-in Pressure <u>427</u> <u>395</u> PSI	@ (depth) <u>4319'</u>	T-Out <u>22:00 P.M.</u>
(E) Second Initial Flow Pressure <u>12</u> <u>20</u> PSI	Recorder No. _____	
(F) Second Final Flow Pressure <u>16</u> <u>20</u> PSI	@ (depth) _____	
(G) Final Shut-in Pressure <u>564</u> <u>539</u> PSI	Initial Opening <u>30</u>	Test <u>X</u> <u>600</u>
(H) Final Hydrostatic Mud <u>2029</u> <u>2029</u> PSI	Initial Shut-in <u>30</u>	Jars _____
<u>Alp.</u> <u>AK-1</u>	Final Flow <u>30</u>	Safety Joint _____
	Final Shut-in <u>30</u>	Straddle _____
		Circ. Sub <u>X</u> <u>NC</u>
		Sampler _____
		Extra Packer _____
		Elect. Rec. <u>X</u> <u>150</u>
		Other _____
		TOTAL PRICE \$ <u>750</u>

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 Roger Martin

Our Representative Dan Bangle / Shane McBride

5
D

CALCULATED RECOVERY ANALYSIS

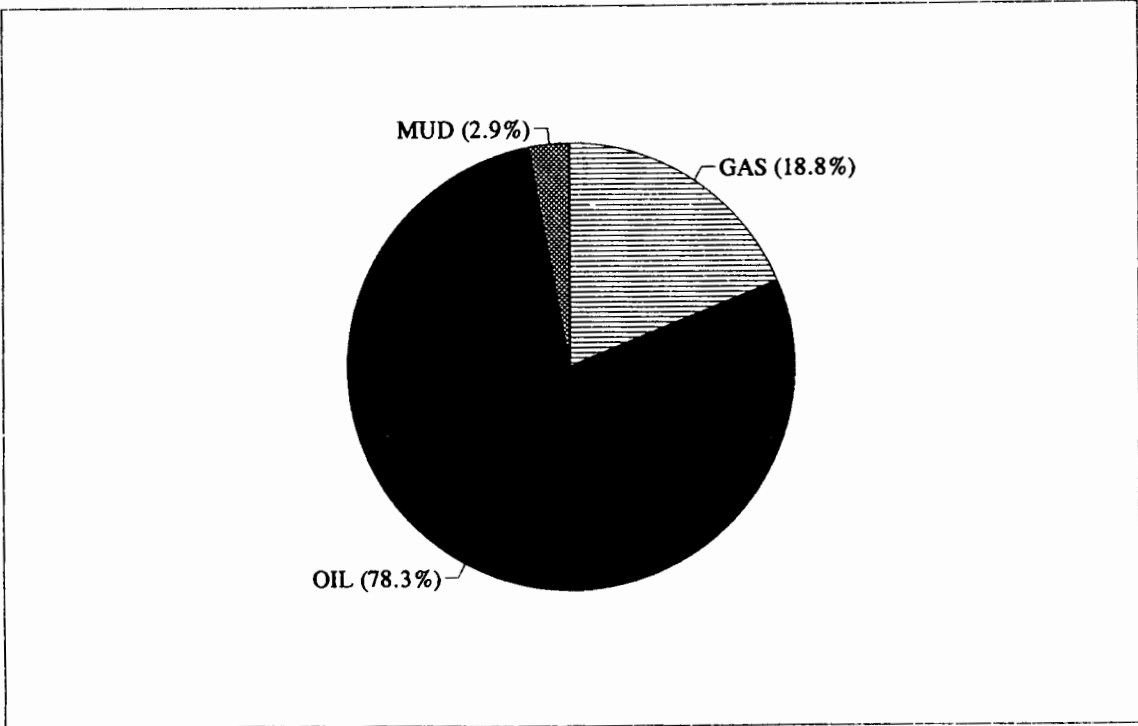
DST # 3

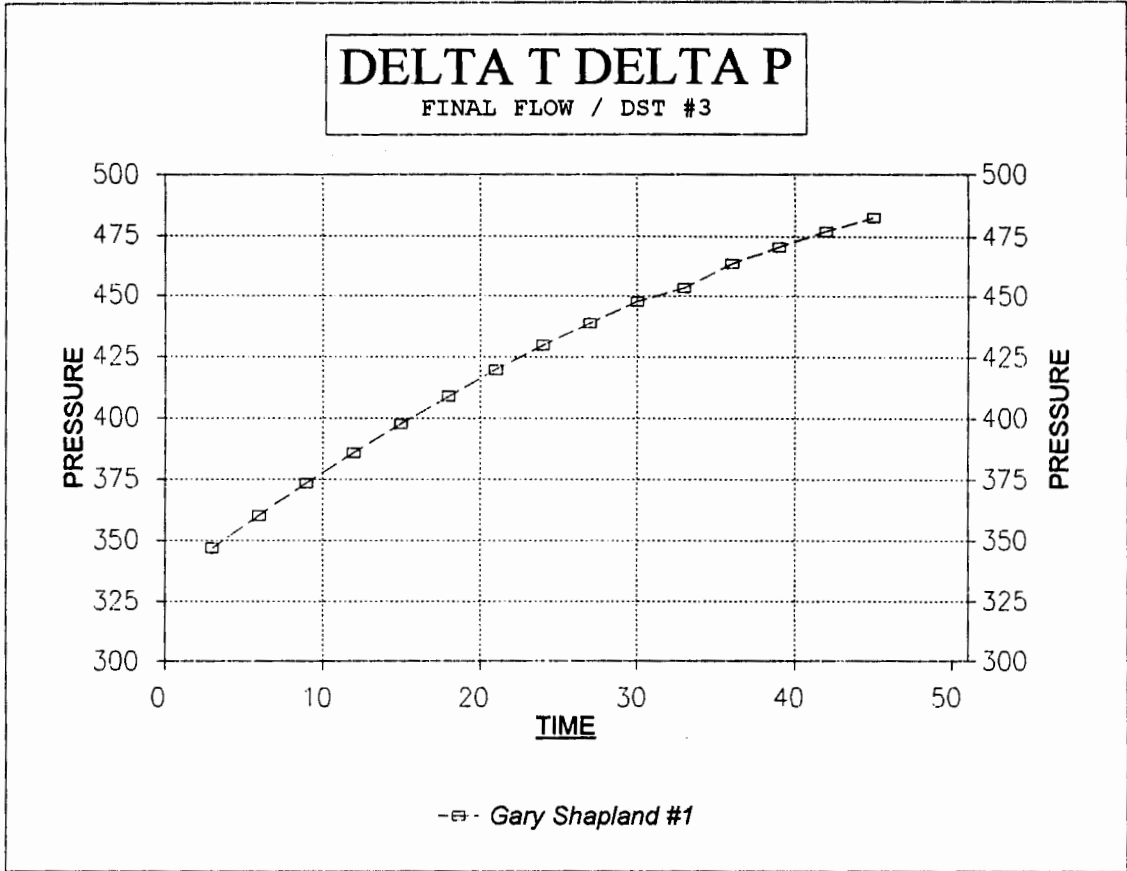
TICKET 9159

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRL PIPE 1	873	20	174.6	80	698.4		0		0
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WGT PIPE 1			0		0		0		0
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
COLLARS 1	310	20	62	80	248		0		0
2	186		0	52	96.72		0	48	89.28
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	1369		236.6		1043.12		0		89.28

HRS OPE BBL/DAY

BBL OIL= 11.61693 * 1.25 223.045
 BBL WATER= 0 * 0
 BBL MUD= 0.436579
 BBL GAS = 2.785992





INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW S 183.576

Operator.....: Rheem Resources, Inc
Well Name.....: Gary Shapland #1
DST Number.....: 3

Location.: 26-19S-28W, Lane Cty KS Recorder No...: 2342
Test Type: Conventional Recorder Depth: 4341
Formation: LKC "L" Test Interval.: 4340-4355

RESERVOIR CALCULATIONS: Fluid calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay.....: 5.00 ft
Porosity.....: 10.00 %
Bottom Hole Temp.....: 118.00 F
Specific Gravity.....: 0.030
API Gravity.....: 36.00
Compressibility.....: 0.210000 /psi
Viscosity.....: 3.4581 cp
Total Recovery.....: 1369.00 ft
Total Flowing Time.....: 75.00 min.
Flow Rate.....: 223.04 bbls/d
Final Flowing Pressure.....: 23.00 psi
Horner Slope.....: 40.8359 psi/cycle
Extrapolated Pressure.....: 619.21 psi
Formation Volume Factor.....: 1.06 Reservoir/Surface
Well Bore Radius.....: 3.94 in

RESULTS:

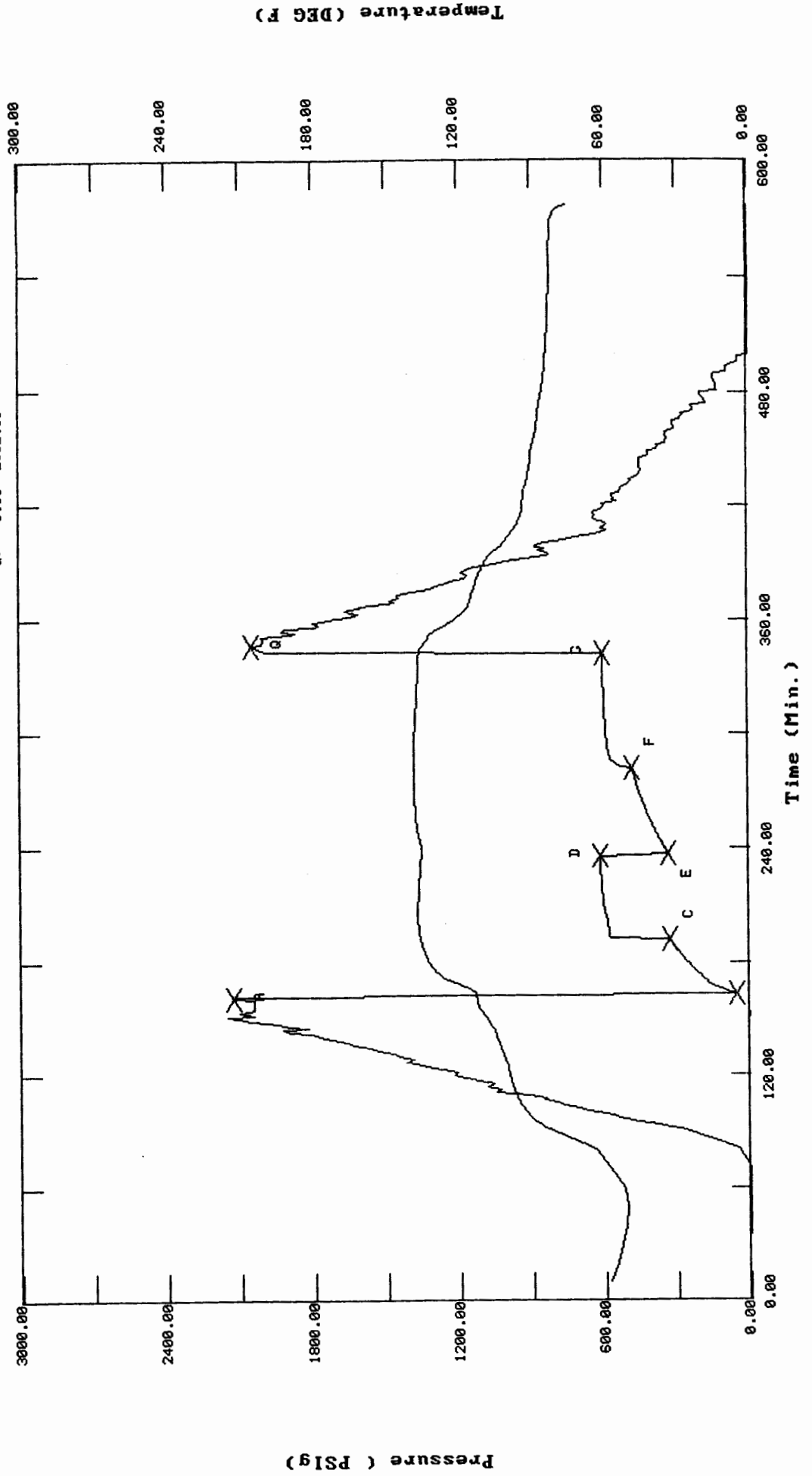
Effective Permeability.....: 649.252204 md
Flow Capacity.....: 3246.2610 md.ft
Transmissibility.....: 938.7412 md.ft/cp
Skin Factor.....: 15.1844
Radius of Investigation.....: 3.06571 ft
Damage Ratio.....: 10.3704
Productivity Index.....: 0.3741 bbls/psi.d
Productivity Index W/O Damage..: 3.8796 bbls/psi.d

TEST HISTORY

TK#9159 DST#3 GARY SHAPLAND#1 RHEEM

Flag Points

t (Min.)	P (PSIg)
A: 0.00	2129.24
B: 0.00	53.96
C: 29.00	325.80
D: 44.00	617.03
E: 0.00	332.93
F: 45.00	483.00
G: 60.00	605.03
Q: 0.00	2052.61



TEST HISTORY

TX#9159 DST#3 GARY SHAPLAND#1 RHEEM

Flag Points

	t (Min.)	P (PSig)
A:	0.00	2129.24
B:	0.00	53.96
C:	29.00	325.80
D:	44.00	617.03
E:	0.00	332.93
F:	45.00	483.00
G:	60.00	605.03
Q:	0.00	2052.61

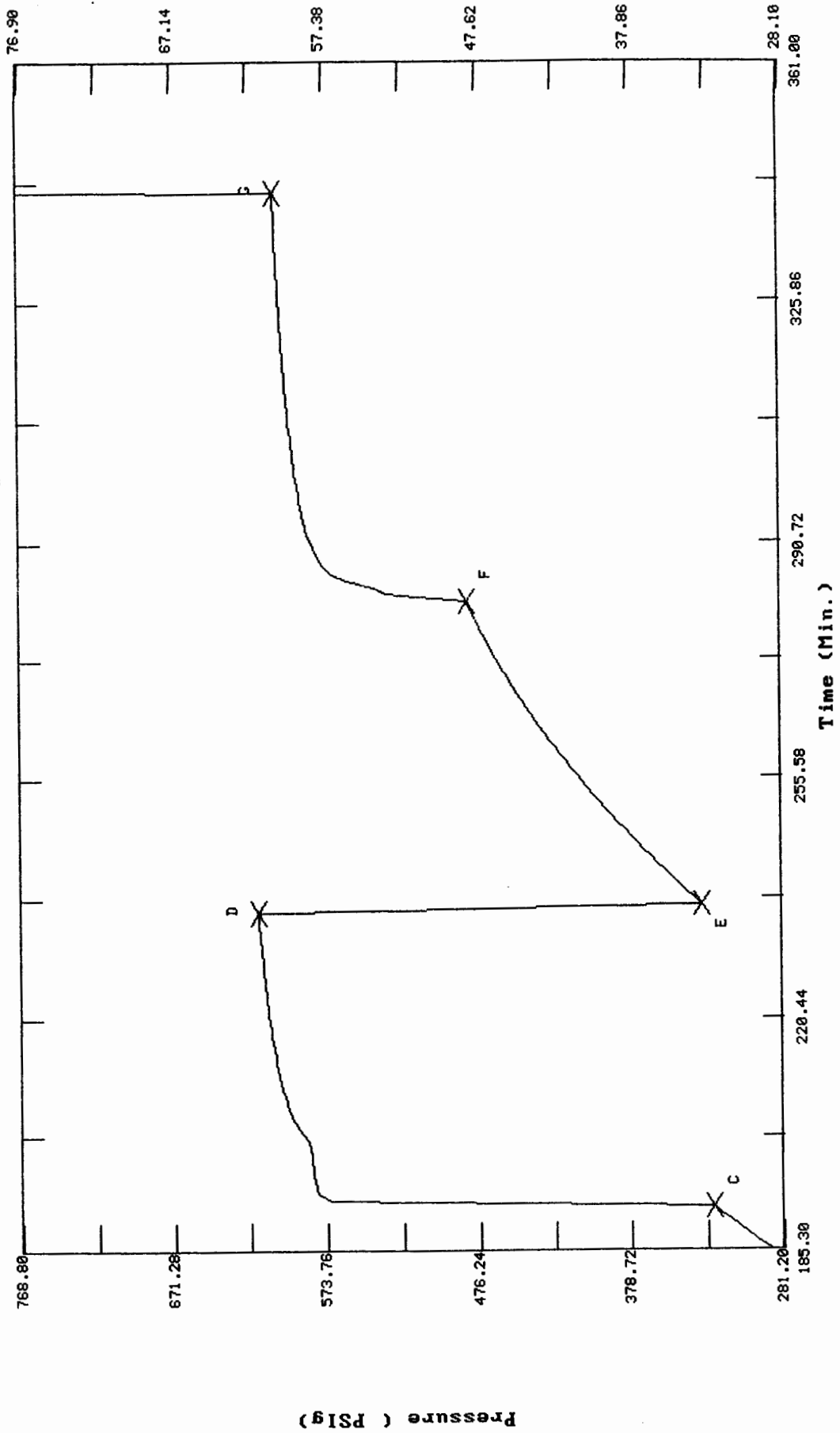
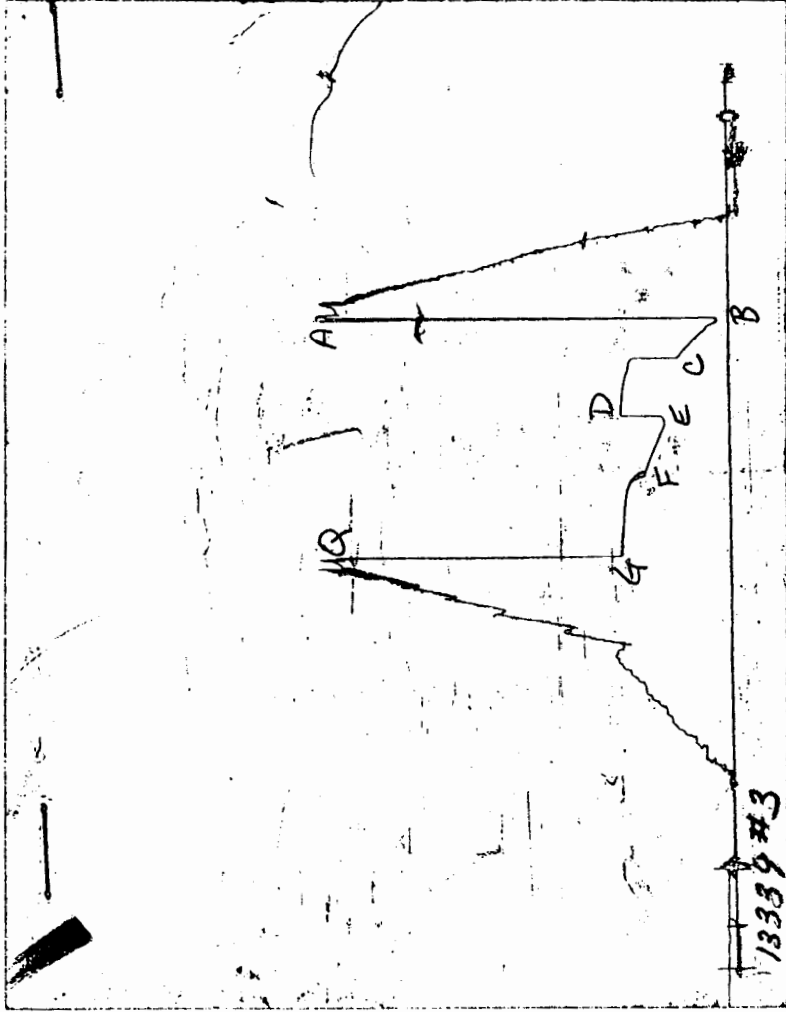


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9159 DST#3 GARY SHAPLAND#1 RHEEM

DATE: 04/05/96

TIME: 00:22:26

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	161.00	2129.2	0.0	112.93		
***** Start Flow 1	0.00	54.0	0.0	113.23		
	1.00	74.9	20.9	113.56		
	2.00	95.7	41.7	114.38		
	3.00	116.1	62.1	115.79		
	4.00	134.3	80.3	117.62		
	5.00	153.5	99.5	119.61		
	6.00	173.7	119.8	121.55		
	7.00	173.9	119.9	123.34		
	8.00	181.6	127.7	124.94		
	9.00	190.3	136.3	126.31		
	10.00	198.6	144.6	127.51		
	11.00	207.0	153.1	128.52		
	12.00	215.1	161.1	129.43		
	13.00	223.0	169.0	130.20		
	14.00	231.1	177.2	130.88		
	15.00	238.8	184.8	131.46		
	16.00	246.2	192.3	131.99		
	17.00	253.5	199.5	132.46		
	18.00	260.3	206.4	132.87		
	19.00	268.1	214.1	133.26		
	20.00	274.5	220.6	133.61		
	21.00	280.6	226.6	133.93		
	22.00	286.5	232.6	134.23		
	23.00	292.5	238.5	134.52		
	24.00	298.4	244.4	134.78		
	25.00	304.1	250.1	135.02		
	26.00	309.6	255.6	135.25		
	27.00	315.1	261.1	135.48		
	28.00	320.6	266.6	135.69		
***** End Flow 1	29.00	325.8	271.8	135.89		
***** Start Shutin 1	0.00	325.8	0.0	135.89	0.0000	0.106
	1.00	572.0	246.2	136.09	30.0000	0.327
	2.00	579.6	253.8	136.29	15.5000	0.336
	3.00	580.9	255.1	136.46	10.6667	0.337
	4.00	581.7	255.9	136.61	8.2500	0.338
	5.00	582.5	256.7	136.75	6.8000	0.339
	6.00	583.0	257.2	136.86	5.8333	0.340
	7.00	583.5	257.7	136.96	5.1429	0.340
	8.00	583.9	258.1	137.04	4.6250	0.341
	9.00	584.7	258.9	137.10	4.2222	0.342
	10.00	585.8	260.0	137.15	3.9000	0.343
	11.00	588.3	262.5	137.18	3.6364	0.346
	12.00	591.3	265.5	137.20	3.4167	0.350
	13.00	594.0	268.2	137.21	3.2308	0.353
	14.00	596.1	270.3	137.21	3.0714	0.355
	15.00	597.9	272.1	137.21	2.9333	0.357
	16.00	599.2	273.4	137.19	2.8125	0.359
	17.00	600.5	274.7	137.17	2.7059	0.361
	18.00	601.7	275.9	137.14	2.6111	0.362
	19.00	602.8	277.0	137.12	2.5263	0.363

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9159 DST#3 GARY SHAPLAND#1 RHEEM
 DATE: 04/05/96 TIME: 00:22:26

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	20.00	603.8	278.0	137.07	2.4500	0.365
	21.00	604.7	278.9	137.04	2.3810	0.366
	22.00	605.6	279.8	137.00	2.3182	0.367
	23.00	606.5	280.7	136.96	2.2609	0.368
	24.00	607.2	281.4	136.92	2.2083	0.369
	25.00	608.0	282.2	136.87	2.1600	0.370
	26.00	608.7	282.9	136.81	2.1154	0.371
	27.00	609.3	283.5	136.77	2.0741	0.371
	28.00	610.0	284.2	136.71	2.0357	0.372
	29.00	610.5	284.7	136.67	2.0000	0.373
	30.00	611.0	285.2	136.61	1.9667	0.373
	31.00	611.6	285.8	136.55	1.9355	0.374
	32.00	612.1	286.3	136.49	1.9062	0.375
	33.00	612.7	286.9	136.38	1.8788	0.375
	34.00	612.9	287.1	136.32	1.8529	0.376
	35.00	613.4	287.6	136.29	1.8286	0.376
	36.00	613.9	288.1	136.25	1.8056	0.377
	37.00	614.3	288.5	136.19	1.7838	0.377
	38.00	614.8	289.0	136.13	1.7632	0.378
	39.00	615.2	289.4	136.07	1.7436	0.378
	40.00	615.6	289.8	136.01	1.7250	0.379
	41.00	616.0	290.2	135.95	1.7073	0.379
	42.00	616.4	290.6	135.89	1.6905	0.380
	43.00	616.8	291.0	135.83	1.6744	0.380
***** End Shut-in 1	44.00	617.0	291.2	135.77	1.6591	0.381
***** Start Flow 2	0.00	332.9	0.0	135.70		
	1.00	337.8	4.9	135.58		
	2.00	342.4	9.5	135.49		
	3.00	347.1	14.2	135.48		
	4.00	351.6	18.6	135.57		
	5.00	356.2	23.2	135.73		
	6.00	360.5	27.6	135.93		
	7.00	364.9	32.0	136.14		
	8.00	369.4	36.5	136.36		
	9.00	373.5	40.5	136.56		
	10.00	377.8	44.9	136.75		
	11.00	381.9	48.9	136.93		
	12.00	386.1	53.2	137.10		
	13.00	389.9	57.0	137.24		
	14.00	393.9	61.0	137.38		
	15.00	397.7	64.8	137.51		
	16.00	401.6	68.7	137.62		
	17.00	405.5	72.6	137.72		
	18.00	409.1	76.2	137.81		
	19.00	412.7	79.8	137.89		
	20.00	416.4	83.4	137.96		
	21.00	419.8	86.9	138.03		
	22.00	423.2	90.2	138.09		
	23.00	426.4	93.5	138.15		
	24.00	429.8	96.9	138.19		
	25.00	433.0	100.0	138.24		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9159 DST#3 GARY SHAPLAND#1 RHEEM

DATE: 04/05/96

TIME: 00:22:26

	Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	26.00	435.9	103.0	138.28		
	27.00	438.9	106.0	138.33		
	28.00	442.0	109.0	138.35		
	29.00	444.8	111.9	138.37		
	30.00	447.7	114.8	138.40		
	31.00	450.6	117.7	138.43		
	32.00	453.3	120.4	138.45		
	33.00	456.0	123.0	138.47		
	34.00	458.6	125.6	138.49		
	35.00	461.3	128.4	138.51		
	36.00	463.6	130.7	138.52		
	37.00	466.0	133.0	138.54		
	38.00	468.2	135.3	138.54		
	39.00	470.6	137.6	138.55		
	40.00	472.9	140.0	138.55		
	41.00	475.0	142.1	138.56		
	42.00	477.2	144.3	138.56		
	43.00	479.2	146.3	138.57		
	44.00	481.6	148.6	138.57		
***** End Flow 2	45.00	483.0	150.1	138.57		
***** Start Shutin 2	0.00	483.0	0.0	138.57	0.0000	0.233
	1.00	535.0	52.0	138.56	75.0000	0.286
	2.00	542.9	59.9	138.57	38.0000	0.295
	3.00	559.2	76.2	138.57	25.6667	0.313
	4.00	568.5	85.5	138.58	19.5000	0.323
	5.00	574.0	91.0	138.58	15.8000	0.329
	6.00	576.9	93.9	138.58	13.3333	0.333
	7.00	578.3	95.3	138.59	11.5714	0.334
	8.00	580.7	97.7	138.58	10.2500	0.337
	9.00	582.5	99.5	138.58	9.2222	0.339
	10.00	584.0	101.0	138.56	8.4000	0.341
	11.00	585.3	102.3	138.54	7.7273	0.343
	12.00	586.4	103.4	138.53	7.1667	0.344
	13.00	587.4	104.4	138.50	6.6923	0.345
	14.00	588.2	105.2	138.47	6.2857	0.346
	15.00	588.9	105.9	138.44	5.9333	0.347
	16.00	589.8	106.8	138.40	5.6250	0.348
	17.00	590.6	107.6	138.36	5.3529	0.349
	18.00	591.3	108.4	138.33	5.1111	0.350
	19.00	591.9	108.9	138.28	4.8947	0.350
	20.00	592.6	109.6	138.24	4.7000	0.351
	21.00	593.2	110.2	138.19	4.5238	0.352
	22.00	593.7	110.7	138.14	4.3636	0.352
	23.00	594.4	111.4	138.09	4.2174	0.353
	24.00	594.7	111.7	138.04	4.0833	0.354
	25.00	595.3	112.3	138.00	3.9600	0.354
	26.00	595.8	112.8	137.94	3.8462	0.355
	27.00	596.2	113.2	137.89	3.7407	0.355
	28.00	596.6	113.6	137.84	3.6429	0.356
	29.00	597.1	114.1	137.78	3.5517	0.357
	30.00	597.5	114.5	137.73	3.4667	0.357

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9159 DST#3 GARY SHAPLAND#1 RHEEM

DATE: 04/05/96

TIME: 00:22:26

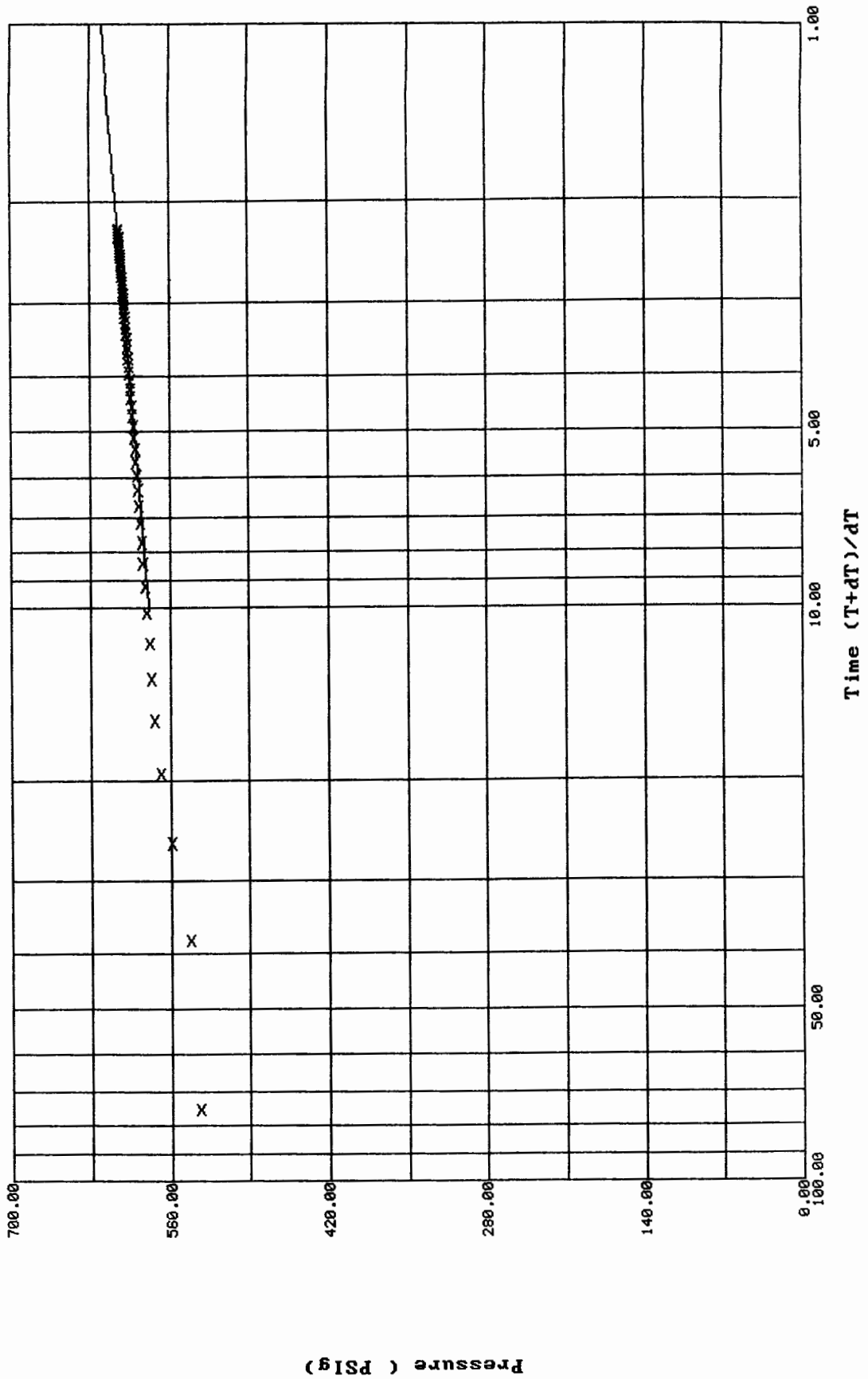
Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
31.00	597.8	114.8	137.69	3.3871	0.357	
32.00	598.2	115.2	137.64	3.3125	0.358	
33.00	598.6	115.6	137.58	3.2424	0.358	
34.00	599.0	116.0	137.54	3.1765	0.359	
35.00	599.2	116.2	137.48	3.1143	0.359	
36.00	599.6	116.6	137.44	3.0556	0.359	
37.00	599.9	116.9	137.39	3.0000	0.360	
38.00	600.1	117.1	137.34	2.9474	0.360	
39.00	600.4	117.4	137.29	2.8974	0.360	
40.00	600.7	117.8	137.24	2.8500	0.361	
41.00	601.0	118.0	137.19	2.8049	0.361	
42.00	601.3	118.3	137.15	2.7619	0.362	
43.00	601.5	118.5	137.10	2.7209	0.362	
44.00	601.8	118.8	137.06	2.6818	0.362	
45.00	602.0	119.0	137.02	2.6444	0.362	
46.00	602.2	119.2	136.97	2.6087	0.363	
47.00	602.5	119.5	136.93	2.5745	0.363	
48.00	602.7	119.7	136.89	2.5417	0.363	
49.00	602.8	119.8	136.85	2.5102	0.363	
50.00	603.1	120.1	136.80	2.4800	0.364	
51.00	603.3	120.4	136.76	2.4510	0.364	
52.00	603.6	120.6	136.73	2.4231	0.364	
53.00	603.7	120.7	136.69	2.3962	0.364	
54.00	603.9	120.9	136.64	2.3704	0.365	
55.00	604.1	121.1	136.61	2.3455	0.365	
56.00	604.3	121.3	136.57	2.3214	0.365	
57.00	604.4	121.4	136.54	2.2982	0.365	
58.00	604.6	121.6	136.50	2.2759	0.366	
59.00	604.8	121.8	136.47	2.2542	0.366	
***** End Shut-in 2	60.00	605.0	122.0	136.43	2.2333	0.366
***** Final Hydro.	346.00	2052.6	0.0	135.04		

Horner Plot: shut-in #2

TK#9159 DST#3 GARY SHAPLAND#1 RHEEM

Slope: 40.8359 PSig/cycle

Ext. Pressure: 619.2148 PSig

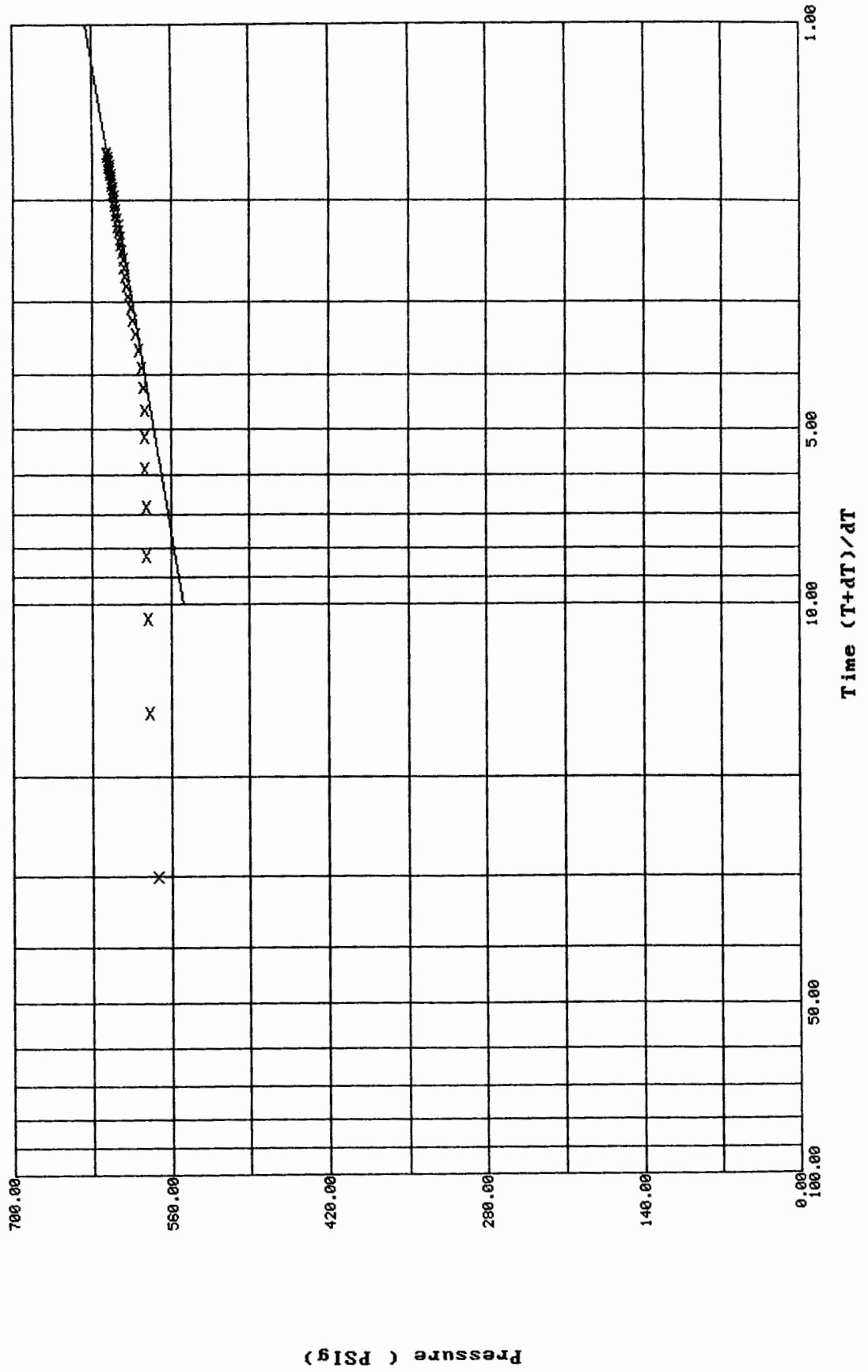


Horner Plot: shut-in #1

TK#9159 DST#3 GARY SHAPLAND#1 RHEEM

Slope: 86.8242 PSig/cycle

Ext. Pressure: 636.1594 PSig



*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Gary Shapland #1
 LOCATION : 26-19S-28W, Lane Cty KS
 TICKET No. 9159 D.S.T. No. 3 DATE 4-5-96
 TOTAL TOOL TO BOTTOM OF TOP PACKERS 20
 INTERVAL TOOL
 BOTTOM PACKERS AND ANCHOR 15
 TOTAL TOOL 35
 DRILL COLLAR ANCHOR IN INTERVAL
 D.C. ANCHOR STND.Stands Single Total
 D.P. ANCHOR STND.Stands Single Total
 TOTAL ASSEMBLY 35
 D.C. ABOVE TOOLS.Stands8 Single Total 496
 D.P. ABOVE TOOLS.Stands61 Single 1 Total 3847
 TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4378
 TOTAL DEPTH 4355
 TOTAL DRILL PIPE ABOVE K.B. 23
 REMARKS:

P.O. SUB	
C.O. SUB	4320
S.I. TOOL	4326
HMV	4331
JARS NA	
SAFETY JOINT NA	
PACKER	4335
PACKER	4340
DEPTH 4340	
STUBB 1'	4341
ANCHOR	
ALPIN RECORDER	4341
5' PERFS	4346
T.C.	
DEPTH	
4' PERFS	4350
AK-1 RECORDER	4352
BULLNOSE 5' BULLPLUG	
T.D.	4355

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 9159

Well Name & No. <u>Gary Shapland #1</u>	Test No. <u>3</u>	Date <u>4-5-96</u>
Company <u>Rheem Resources Inc</u>	Zone Tested <u>"L"</u>	<u>4KC</u>
Address _____	Elevation <u>2768</u>	KB <u>2757</u> GL
Co. Rep / Geo. <u>Roger Martin</u>	Cont. <u>Martin #21</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>26</u>	Twp. <u>19</u>	Rge. <u>28</u> Co. <u>Lane</u> State <u>Ks.</u>
No. of Copies _____	Distribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4340 - 4355 Initial Str Wt./Lbs. 27,000 Unseated Str Wt./Lbs. 90,000
Anchor Length 15 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 82,000
Top Packer Depth 4335 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Bottom Packer Depth 4340 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 4355 Drill Collar — 2.25 Ft. Run 496
Mud Wt. 9.2 LCM _____ Vis. 49 WL 8 Drill Pipe Size 4.5 XH Ft. Run 3847
Blow Description I.F. Strong - B.O.B. in 3.5 min.
ISI - Bled off blow - Built to B.O.B. in 5 min.
E.F. Strong - B.C.B. in 6 min
ESI - Bled off blow - No return

Recovery — Total Feet 1369' Ft. in DC 496 Ft. in WP _____ Ft. in DP 873
Rec. 992 Feet Of Gas in pipe %gas _____ %oil _____ %water _____ %mud _____
Rec. 1183 Feet Of Cln gassy Oil %gas _____ %oil _____ %water _____ %mud _____
Rec. ~~186~~ 186 Feet Of HMCOIL %gas 52 %oil _____ %water 48 %mud _____
Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____

BHT 118 °F Gravity 35 °API D@ 70 °F Corrected Gravity 36 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3,000 ppm System

(A) Initial Hydrostatic Mud <u>2129</u> <u>2153</u> PSI	Recorder No. <u>2350</u>	T-Started <u>07:45</u>
(B) First Initial Flow Pressure <u>54</u> <u>83</u> PSI	@ (depth) <u>4341</u>	T-Open <u>10:27</u>
(C) First Final Flow Pressure <u>326</u> <u>280</u> PSI	Recorder No. <u>13339</u>	T-Pulled <u>13:27</u>
(D) Initial Shut-in Pressure <u>617</u> <u>579</u> PSI	@ (depth) <u>4352</u>	T-Out <u>17:20</u>
(E) Second Initial Flow Pressure <u>373</u> <u>353</u> PSI	Recorder No. _____	
(F) Second Final Flow Pressure <u>483</u> <u>457</u> PSI	@ (depth) _____	
(G) Final Shut-in Pressure <u>605</u> <u>579</u> PSI	Initial Opening <u>30</u>	Test <u>600</u>
(H) Final Hydrostatic Mud <u>2052</u> <u>2123</u> PSI	Initial Shut-in <u>45</u>	Jars _____
<u>AIP</u> <u>AK-1</u>	Final Flow <u>45</u>	Safety Joint _____
	Final Shut-in <u>60</u>	Straddle _____
		Circ. Sub _____
		Sampler _____

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 Roger L. Martin
Our Representative Dan Banale

5
D
Elect. Rec. X 150
Other _____
TOTAL PRICE \$ 750

TRILOBITE TESTING L.L.C.

OPERATOR : Rheem Resources, Inc DATE 4-6-96
 WELL NAME: Gary Shapland #1 KB 2768.00 ft TICKET NO: 9160 DST #4
 LOCATION : 26-19S-28W, Lane Cty KS GR 2757.00 ft FORMATION: PLEASANTON
 INTERVAL : 4383.00 To 4405.00 ft TD 4405.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 45	Rec.	13339	13339	2342			PF Fr. 0641 to 0726 hr
SI 45	Range (Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0726 to 0811 hr
SF 30	Clock (hrs)	AK-1	AK-1	ALPIN			SF Fr. 0811 to 0841 hr
FS 30	Depth (ft)	4402.0	4402.0	4385.0	0.0	0.0	FS Fr. 0841 to 0911 hr

	Field	1	2	3	4	
A. Init Hydro	2173.0	2081.0	2008.0	0.0	0.0	T STARTED 0440 hr
B. First Flow	31.0	22.0	12.0	0.0	0.0	T ON BOTM 0638 hr
B1. Final Flow	31.0	25.0	17.0	0.0	0.0	T OPEN 0641 hr
C. In Shut-in	979.0	986.0	1004.0	0.0	0.0	T PULLED 0911 hr
D. Init Flow	31.0	27.0	19.0	0.0	0.0	T OUT 1200 hr
E. Final Flow	31.0	28.0	23.0	0.0	0.0	
F. Fl Shut-in	819.0	822.0	849.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2123.0	2067.0	2025.0	0.0	0.0	Tool Wt. 5000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 83000.00 lbs
						Initial Str Wt 80000.00 lbs
						Unseated Str Wt 80000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 496.00 ft
						D.P. Length 3877.00 ft

RECOVERY

Tot Fluid 10.00 ft of 10.00 ft in DC and 0.00 ft in DP
 10.00 ft of Drilling mud with few oil spots

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow -
 .125" blow, decreasing to weak surface
 blow

Final Flow -
 Weak surface blow, died in 5 min,
 flushed tool, good surge, weak blow,
 died in 20 min

SAMPLES:
 SENT TO:

MUD DATA-----
 Mud Type Chemical
 Weight 9.20 lb/c
 Vis. 49.00 S/L
 W.L. 8.00 in3
 F.C. 0.00 in
 Mud Drop N
 Amt. of fill 0.00 ft
 Btm. H. Temp. 123.00 F
 Hole Condition GOOD
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 2
 Cushion Amt. 0.00
 Cushion Type
 Reversed Out N
 Tool Chased N
 Tester DAN BANGLE
 Co. Rep. ROGER MARTIN
 Contr. MURFIN
 Rig # 21
 Unit #
 Pump T.

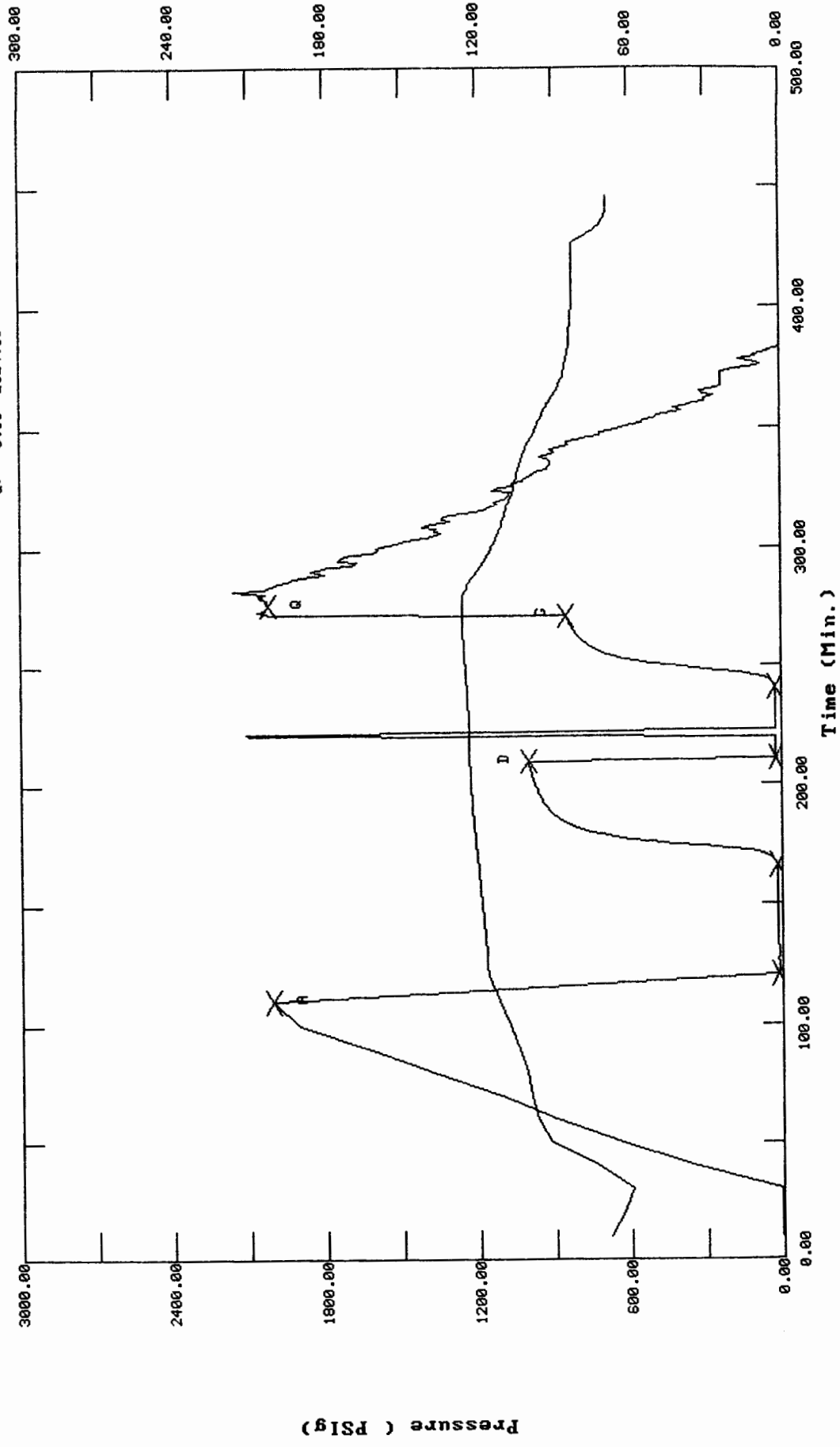
Test Successful:

TEST HISTORY

TK#9160 DST#4 GARY SHAPLAND #1 RHEEM

Flag Points

t (Min.)	PK	PSig
R: 0.00	2008.13	
B: 0.00	12.24	
C: 45.00	16.86	
D: 44.00	1003.68	
E: 0.00	18.62	
F: 30.00	23.07	
G: 30.00	849.17	
Q: 0.00	2024.83	

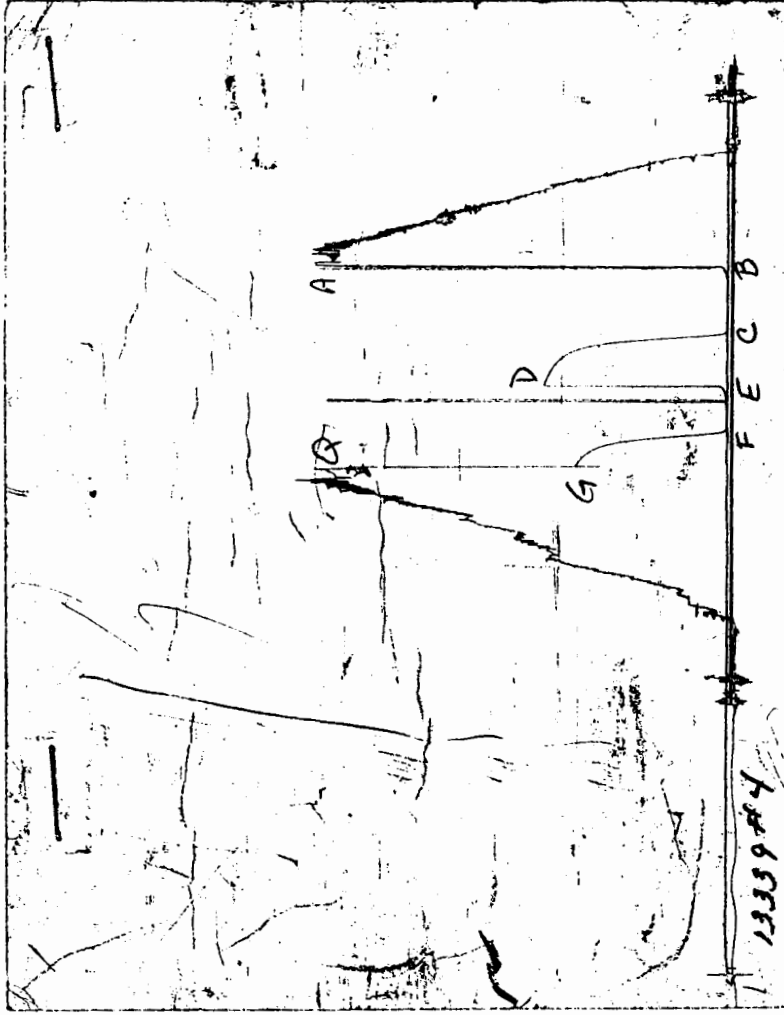


Temperature (DEG F)

Pressure (PSig)

Time (Min.)

CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9160 DST#4 GARY SHAPLAND #1 RHEEM

DATE: 04/06/96 TIME: 08:22:20

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	110.00	2008.1	0.0	112.04		
***** Start Flow 1	0.00	12.2	0.0	116.35		
	1.00	12.4	0.2	116.48		
	2.00	12.5	0.3	116.57		
	3.00	12.6	0.3	116.64		
	4.00	12.6	0.3	116.70		
	5.00	12.6	0.3	116.76		
	6.00	12.7	0.4	116.82		
	7.00	12.5	0.3	116.87		
	8.00	12.5	0.3	116.93		
	9.00	12.6	0.3	117.00		
	10.00	12.6	0.3	117.06		
	11.00	12.6	0.3	117.13		
	12.00	12.8	0.5	117.19		
	13.00	12.8	0.5	117.26		
	14.00	12.8	0.6	117.34		
	15.00	13.1	0.8	117.42		
	16.00	13.2	0.9	117.48		
	17.00	13.3	1.1	117.57		
	18.00	13.4	1.2	117.65		
	19.00	13.5	1.3	117.74		
	20.00	13.8	1.5	117.83		
	21.00	14.0	1.8	117.91		
	22.00	14.1	1.8	118.01		
	23.00	14.2	1.9	118.10		
	24.00	14.3	2.1	118.20		
	25.00	14.5	2.3	118.28		
	26.00	14.5	2.3	118.38		
	27.00	14.7	2.4	118.48		
	28.00	14.9	2.7	118.56		
	29.00	15.1	2.9	118.66		
	30.00	15.2	2.9	118.75		
	31.00	15.4	3.1	118.84		
	32.00	15.4	3.1	118.94		
	33.00	15.4	3.2	119.03		
	34.00	15.5	3.3	119.13		
	35.00	15.8	3.5	119.22		
	36.00	15.9	3.6	119.32		
	37.00	15.9	3.6	119.41		
	38.00	16.1	3.9	119.50		
	39.00	16.3	4.0	119.59		
	40.00	16.4	4.1	119.68		
	41.00	16.5	4.3	119.78		
	42.00	16.7	4.5	119.86		
	43.00	16.8	4.5	119.95		
	44.00	16.8	4.5	120.04		
***** End Flow 1	45.00	16.9	4.6	120.13		
***** Start Shutin 1	0.00	16.9	0.0	120.13	0.0000	0.000
	1.00	21.8	5.0	120.21	46.0000	0.000
	2.00	28.4	11.6	120.30	23.5000	0.001
	3.00	38.1	21.2	120.39	16.0000	0.001

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: TK#9160 DST#4 GARY SHAPLAND #1 RHEEM
 DATE: 04/06/96 TIME: 08:22:20

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	4.00	53.2	36.3	120.47	12.2500	0.003
	5.00	78.6	61.8	120.56	10.0000	0.006
	6.00	125.4	108.5	120.65	8.5000	0.016
	7.00	205.1	188.3	120.73	7.4286	0.042
	8.00	312.1	295.3	120.83	6.6250	0.097
	9.00	421.8	405.0	120.92	6.0000	0.178
	10.00	517.8	501.0	121.02	5.5000	0.268
	11.00	596.8	579.9	121.12	5.0909	0.356
	12.00	660.8	643.9	121.22	4.7500	0.437
	13.00	712.2	695.3	121.32	4.4615	0.507
	14.00	753.9	737.1	121.41	4.2143	0.568
	15.00	787.7	770.8	121.50	4.0000	0.620
	16.00	815.5	798.7	121.60	3.8125	0.665
	17.00	838.3	821.5	121.69	3.6471	0.703
	18.00	857.4	840.5	121.77	3.5000	0.735
	19.00	873.3	856.5	121.85	3.3684	0.763
	20.00	886.9	870.0	121.92	3.2500	0.787
	21.00	898.4	881.6	122.00	3.1429	0.807
	22.00	908.5	891.6	122.07	3.0455	0.825
	23.00	917.4	900.5	122.14	2.9565	0.842
	24.00	925.3	908.4	122.22	2.8750	0.856
	25.00	932.3	915.4	122.28	2.8000	0.869
	26.00	938.7	921.9	122.34	2.7308	0.881
	27.00	944.5	927.7	122.39	2.6667	0.892
	28.00	949.8	932.9	122.46	2.6071	0.902
	29.00	954.7	937.8	122.52	2.5517	0.911
	30.00	959.2	942.3	122.58	2.5000	0.920
	31.00	963.5	946.6	122.63	2.4516	0.928
	32.00	967.5	950.7	122.71	2.4062	0.936
	33.00	971.2	954.3	122.74	2.3636	0.943
	34.00	974.8	958.0	122.80	2.3235	0.950
	35.00	978.3	961.4	122.85	2.2857	0.957
	36.00	981.6	964.8	122.90	2.2500	0.964
	37.00	984.7	967.9	122.95	2.2162	0.970
	38.00	987.7	970.9	123.01	2.1842	0.976
	39.00	990.7	973.8	123.05	2.1538	0.981
	40.00	993.4	976.5	123.10	2.1250	0.987
	41.00	996.1	979.3	123.15	2.0976	0.992
	42.00	998.7	981.9	123.19	2.0714	0.997
	43.00	1001.3	984.5	123.24	2.0465	1.003
***** End Shut-in 1	44.00	1003.7	986.8	123.29	2.0227	1.007
***** Start Flow 2	0.00	18.6	0.0	123.29		
	1.00	19.0	0.4	123.31		
	2.00	19.2	0.6	123.31		
	3.00	19.2	0.6	123.33		
	4.00	19.3	0.7	123.33		
	5.00	19.0	0.4	123.35		
	6.00	19.0	0.4	123.37		
	7.00	19.0	0.3	123.39		
	8.00	19.0	0.3	123.43		
	9.00	19.1	0.5	123.45		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9160 DST#4 GARY SHAPLAND #1 RHEEM

DATE: 04/06/96 TIME: 08:22:20

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	10.00	2103.1	2084.4	123.58		
	11.00	2113.9	2095.3	123.68		
	12.00	21.7	3.1	123.65		
	13.00	22.1	3.4	123.66		
	14.00	22.1	3.5	123.66		
	15.00	22.2	3.6	123.67		
	16.00	22.3	3.7	123.68		
	17.00	22.3	3.7	123.70		
	18.00	22.3	3.7	123.74		
	19.00	22.4	3.8	123.78		
	20.00	22.6	3.9	123.81		
	21.00	22.6	3.9	123.86		
	22.00	22.7	4.0	123.91		
	23.00	22.7	4.1	123.96		
	24.00	22.8	4.2	124.02		
	25.00	22.9	4.3	124.08		
	26.00	22.9	4.3	124.13		
	27.00	22.9	4.3	124.19		
	28.00	22.8	4.2	124.25		
	29.00	23.0	4.4	124.30		
***** End Flow 2	30.00	23.1	4.4	124.36		
***** Start Shutin 2	0.00	23.1	0.0	124.36	0.0000	0.001
	1.00	25.7	2.6	124.42	76.0000	0.001
	2.00	34.3	11.2	124.47	38.5000	0.001
	3.00	47.1	24.0	124.53	26.0000	0.002
	4.00	67.8	44.7	124.58	19.7500	0.005
	5.00	103.1	80.1	124.65	16.0000	0.011
	6.00	163.6	140.5	124.71	13.5000	0.027
	7.00	250.5	227.4	124.77	11.7143	0.063
	8.00	347.9	324.8	124.84	10.3750	0.121
	9.00	437.4	414.4	124.90	9.3333	0.191
	10.00	512.8	489.7	124.97	8.5000	0.263
	11.00	573.7	550.7	125.05	7.8182	0.329
	12.00	622.2	599.2	125.12	7.2500	0.387
	13.00	660.8	637.7	125.18	6.7692	0.437
	14.00	691.6	668.5	125.25	6.3571	0.478
	15.00	716.7	693.6	125.32	6.0000	0.514
	16.00	736.9	713.8	125.38	5.6875	0.543
	17.00	753.7	730.6	125.44	5.4118	0.568
	18.00	767.8	744.8	125.50	5.1667	0.590
	19.00	779.8	756.7	125.55	4.9474	0.608
	20.00	790.1	767.0	125.60	4.7500	0.624
	21.00	799.0	775.9	125.65	4.5714	0.638
	22.00	806.9	783.8	125.70	4.4091	0.651
	23.00	813.9	790.9	125.74	4.2609	0.662
	24.00	820.3	797.2	125.79	4.1250	0.673
	25.00	826.1	803.0	125.83	4.0000	0.682
	26.00	831.4	808.3	125.87	3.8846	0.691
	27.00	836.3	813.3	125.92	3.7778	0.699
	28.00	840.9	817.8	125.95	3.6786	0.707
	29.00	845.1	822.1	126.00	3.5862	0.714

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9160 DST#4 GARY SHAPLAND #1 RHEEM

DATE: 04/06/96 TIME: 08:22:20

	Time	Pressure PSig	delta P PSig	P	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** End Shut-in 2	30.00	849.2	826.1		126.03	3.5000	0.721
***** Final Hydro.	276.00	2024.8	0.0		126.17		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 9160

Well Name & No. Gary Shapland #1 Test No. 4 Date 4-6-96
Company Rheem Resources, Inc Zone Tested Pleasanton
Address _____ Elevation 2768 KB 2737 GL
Co. Rep / Geo. Roger Martin Cont. Martin #21 Est. Ft. of Pay _____ Por. _____ %
Location: Sec. 26 Twp. 19 Rge. 28 Co. lane State Ks
No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4383 - 4405 Initial Str Wt./Lbs. 80,000 Unseated Str Wt./Lbs. 80,000
Anchor Length 22 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 83,000
Top Packer Depth 4378 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Bottom Packer Depth 4383 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 4405 Drill Collar — 2.25 Ft. Run 496
Mud Wt. 9.2 LCM _____ Vis. 49 WL 8 Drill Pipe Size 4.5xH Ft. Run 3871
Blow Description I.F. 1/8" blow decreasing to weak surface blow.

F.F. weak surface blow - Died in 5 min - flushed tool
Good Surge - weak blow - Died in 20 min.

Recovery — Total Feet	Ft. in DC	Ft. in WP	Ft. in DP	%gas	%oil	%water	%mud
<u>10</u>	<u>10</u>						
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
Rec. _____	Feet Of _____			%gas	%oil	%water	%mud

BHT 123 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3,000 ppm System

(A) Initial Hydrostatic Mud	<u>2008</u>	<u>2173</u>	PSI	Recorder No.	<u>2350</u>	T-Started	<u>04:40</u>
(B) First Initial Flow Pressure	<u>12</u>	<u>31</u>	PSI	@ (depth)	<u>4385</u>	T-Open	<u>06:41</u>
(C) First Final Flow Pressure	<u>17</u>	<u>31</u>	PSI	Recorder No.	<u>13339</u>	T-Pulled	<u>09:11</u>
(D) Initial Shut-in Pressure	<u>1004</u>	<u>979</u>	PSI	@ (depth)	<u>4402</u>	T-Out	<u>12:00</u>
(E) Second Initial Flow Pressure	<u>19</u>	<u>31</u>	PSI	Recorder No.			
(F) Second Final Flow Pressure	<u>23</u>	<u>31</u>	PSI	@ (depth)			
(G) Final Shut-in Pressure	<u>849</u>	<u>819</u>	PSI	Initial Opening	<u>45</u>	Test	<u>600</u>
(H) Final Hydrostatic Mud	<u>1978</u>	<u>2123</u>	PSI	Initial Shut-in	<u>45</u>	Jars	
	<u>AIP</u>	<u>AK-1</u>		Final Flow	<u>30</u>	Safety Joint	
				Final Shut-in	<u>30</u>	Straddle	
						Circ. Sub	
						Sampler	

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 Roger L. Martin

Our Representative Dan Rangle

Extra Packer _____
Elect. Rec. X 150
Other _____
TOTAL PRICE \$ 750

5
D

TRILOBITE TESTING L.L.C.

OPERATOR : Rheem Resources, Inc
 WELL NAME: Gary Shapland #1
 LOCATION : 26-19S-28W,
 INTERVAL : 4395.00 To 4635.00 ft

DATE 4-7-96
 KB 2768.00 ft TICKET NO: 9161 DST #5
 GR 2757.00 ft FORMATION: MARMATON/CHEROKEE
 TD 4635.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	13339	13339	2342			PF Fr. 1335 to 1420 hr
SI 45 Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 1420 to 1505 hr
SF 45 Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 1505 to 1550 hr
FS 45 Depth(ft)	4632.0	4632.0	4396.0	0.0	0.0	FS Fr. 1550 to 1635 hr

	Field	1	2	3	4	
A. Init Hydro	2303.0	2248.0	2137.0	0.0	0.0	T STARTED 1040 hr
B. First Flow	135.0	137.0	20.0	0.0	0.0	T ON BOTM 1330 hr
B1. Final Flow	135.0	148.0	52.0	0.0	0.0	T OPEN 1335 hr
C. In Shut-in	1200.0	1207.0	1125.0	0.0	0.0	T PULLED 1635 hr
D. Init Flow	166.0	175.0	57.0	0.0	0.0	T OUT 1930 hr
E. Final Flow	187.0	187.0	88.0	0.0	0.0	
F. Fl Shut-in	1150.0	1163.0	1089.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2223.0	2215.0	2083.0	0.0	0.0	Tool Wt. 5000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 85000.00 lbs
						Initial Str Wt 82000.00 lbs
						Unseated Str Wt 82000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 279.00 ft
						D.P. Length 4120.00 ft

RECOVERY

Tot Fluid 130.00 ft of 130.00 ft in DC and 0.00 ft in DP
 130.00 ft of Drilling mud w/ oil spots in tool

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow -
 Weak, .5" blow decreasing to .25"

Final Flow -
 No blow, flushed tool, good surge,
 weak blow died 30 min after flush

SAMPLES:
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/c
Vis.	48.00 S/L
W.L.	6.40 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	127.00 F
Hole Condition	GOOD
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	DAN BANGLE
Co. Rep.	ROGER MARTIN
Contr.	MURFIN
Rig #	21
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

TK#9161 DST#5 GARY SHAPLAND#1 RHEEM

Flag Points

t (Min.) P (PSIg)

A:	0.00	2136.71
B:	0.00	19.63
C:	45.00	51.52
D:	43.00	1124.88
E:	0.00	57.40
F:	44.00	87.70
G:	45.00	1089.37
Q:	0.00	2083.33

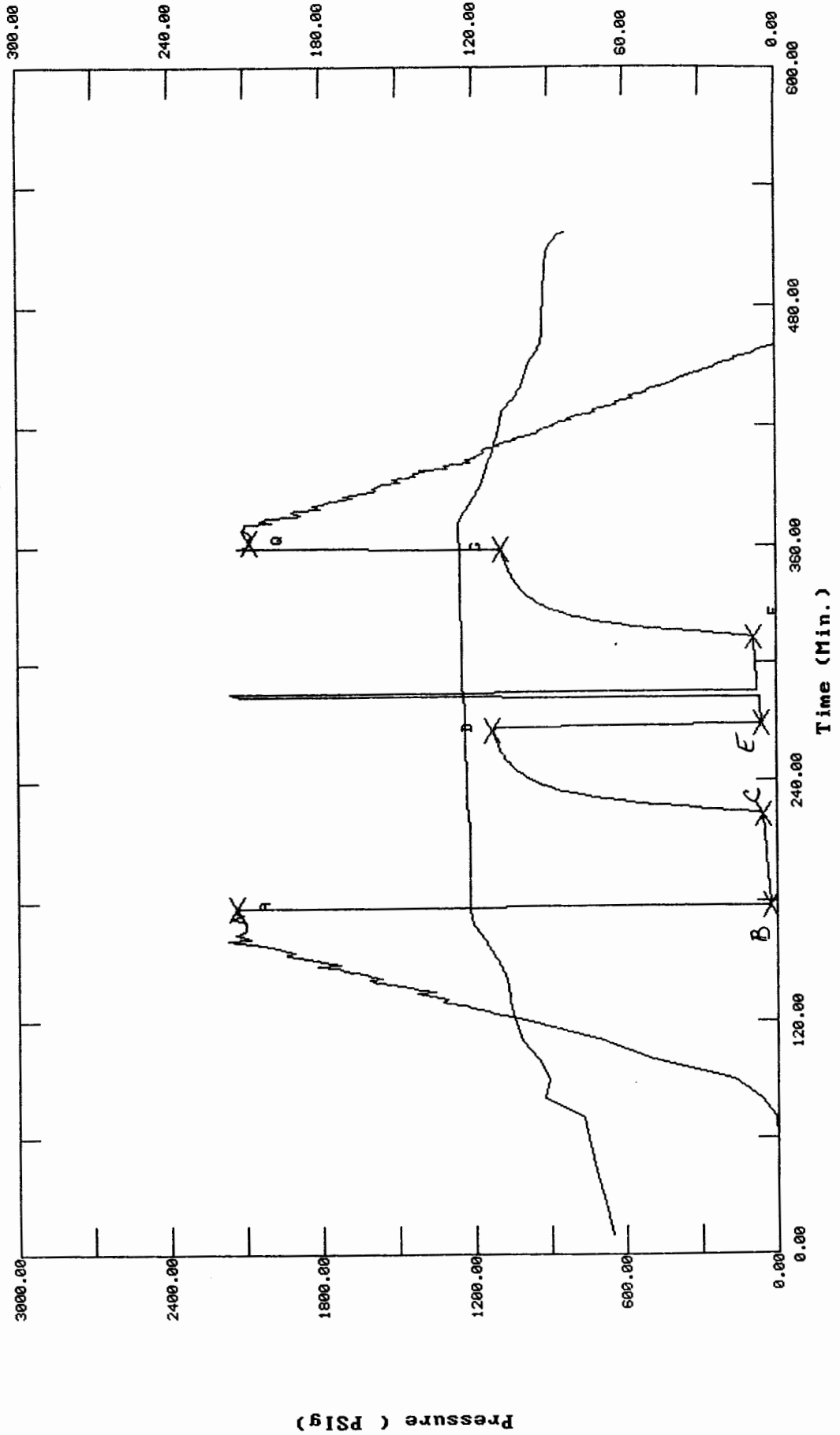
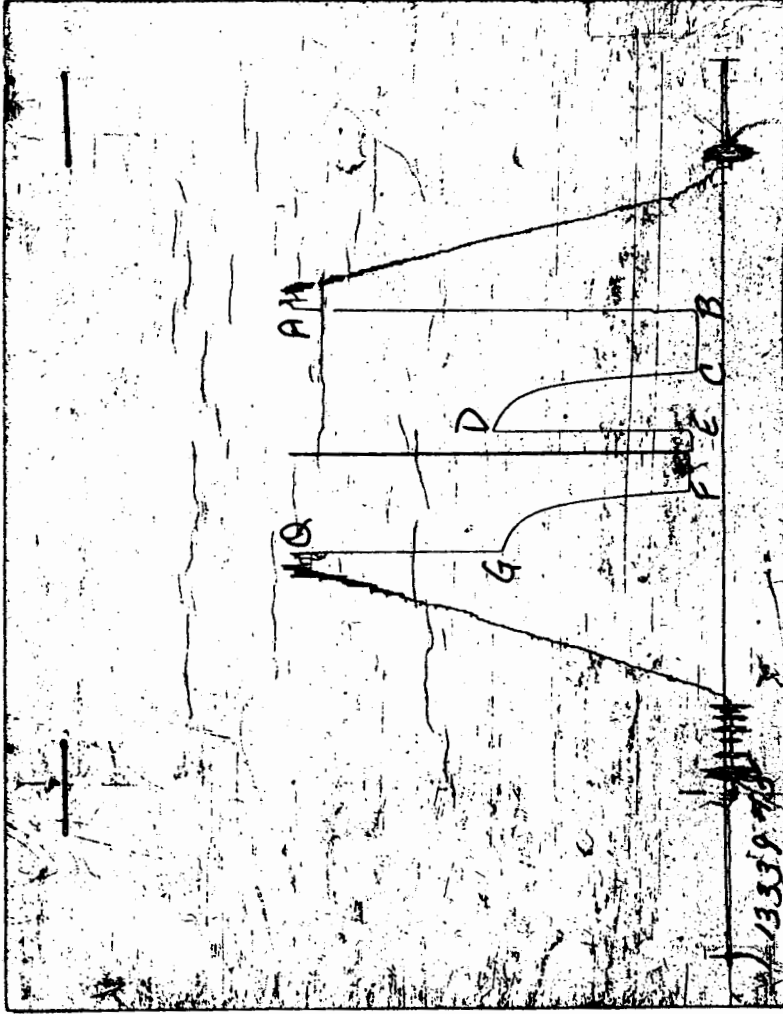


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9161 DST#5 GARY SHAPLAND#1 RHEEM

DATE: 04/07/96 TIME: 10:24:26

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	177.00	2136.7	0.0	121.80		
***** Start Flow 1	0.00	19.6	0.0	121.79		
	1.00	21.0	1.3	121.78		
	2.00	22.1	2.4	121.74		
	3.00	22.9	3.3	121.70		
	4.00	23.9	4.3	121.65		
	5.00	24.8	5.2	121.60		
	6.00	25.5	5.9	121.57		
	7.00	26.3	6.7	121.55		
	8.00	27.0	7.4	121.53		
	9.00	27.5	7.9	121.52		
	10.00	28.4	8.7	121.52		
	11.00	29.2	9.6	121.53		
	12.00	29.9	10.2	121.53		
	13.00	30.7	11.1	121.54		
	14.00	31.5	11.8	121.54		
	15.00	32.1	12.5	121.56		
	16.00	33.1	13.4	121.58		
	17.00	33.7	14.1	121.59		
	18.00	34.5	14.9	121.60		
	19.00	35.2	15.6	121.61		
	20.00	35.9	16.3	121.61		
	21.00	36.8	17.1	121.60		
	22.00	37.4	17.8	121.60		
	23.00	38.0	18.4	121.59		
	24.00	38.8	19.1	121.57		
	25.00	39.4	19.8	121.55		
	26.00	40.1	20.5	121.53		
	27.00	40.8	21.1	121.51		
	28.00	41.5	21.9	121.49		
	29.00	42.0	22.3	121.47		
	30.00	42.3	22.7	121.47		
	31.00	42.3	22.7	121.49		
	32.00	43.1	23.5	121.50		
	33.00	44.2	24.6	121.52		
	34.00	45.0	25.3	121.54		
	35.00	45.5	25.8	121.57		
	36.00	46.0	26.4	121.60		
	37.00	46.4	26.8	121.64		
	38.00	46.6	26.9	121.69		
	39.00	47.3	27.7	121.75		
	40.00	48.4	28.8	121.79		
	41.00	49.1	29.5	121.86		
	42.00	49.8	30.1	121.94		
	43.00	50.3	30.6	122.04		
	44.00	51.0	31.4	122.14		
***** End Flow 1	45.00	51.5	31.9	122.25		
***** Start Shutin 1	0.00	51.5	0.0	122.25	0.0000	0.003
	1.00	66.3	14.8	122.36	46.0000	0.004
	2.00	161.6	110.1	122.47	23.5000	0.026
	3.00	268.1	216.5	122.57	16.0000	0.072

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9161 DST#5 GARY SHAPLAND#1 RHEEM

DATE: 04/07/96

TIME: 10:24:26

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
4.00	371.1	319.6	122.66	12.2500	0.138	
5.00	463.8	412.3	122.73	10.0000	0.215	
6.00	544.7	493.2	122.79	8.5000	0.297	
7.00	614.6	563.1	122.85	7.4286	0.378	
8.00	675.0	623.5	122.90	6.6250	0.456	
9.00	727.1	675.5	122.94	6.0000	0.529	
10.00	772.0	720.5	122.97	5.5000	0.596	
11.00	811.0	759.5	123.00	5.0909	0.658	
12.00	844.8	793.3	123.03	4.7500	0.714	
13.00	874.4	822.8	123.06	4.4615	0.764	
14.00	900.2	848.7	123.08	4.2143	0.810	
15.00	922.9	871.4	123.09	4.0000	0.852	
16.00	943.0	891.5	123.11	3.8125	0.889	
17.00	960.8	909.3	123.12	3.6471	0.923	
18.00	976.7	925.1	123.13	3.5000	0.954	
19.00	990.8	939.2	123.15	3.3684	0.982	
20.00	1003.5	952.0	123.15	3.2500	1.007	
21.00	1014.9	963.4	123.17	3.1429	1.030	
22.00	1025.3	973.8	123.17	3.0455	1.051	
23.00	1034.6	983.0	123.18	2.9565	1.070	
24.00	1043.0	991.5	123.19	2.8750	1.088	
25.00	1050.9	999.3	123.20	2.8000	1.104	
26.00	1058.0	1006.5	123.20	2.7308	1.119	
27.00	1064.4	1012.9	123.21	2.6667	1.133	
28.00	1070.5	1019.0	123.22	2.6071	1.146	
29.00	1076.1	1024.6	123.23	2.5517	1.158	
30.00	1081.2	1029.7	123.24	2.5000	1.169	
31.00	1086.0	1034.5	123.24	2.4516	1.179	
32.00	1090.5	1038.9	123.25	2.4062	1.189	
33.00	1094.6	1043.1	123.26	2.3636	1.198	
34.00	1098.4	1046.9	123.27	2.3235	1.207	
35.00	1102.1	1050.6	123.28	2.2857	1.215	
36.00	1105.5	1054.0	123.29	2.2500	1.222	
37.00	1108.8	1057.2	123.31	2.2162	1.229	
38.00	1111.7	1060.2	123.32	2.1842	1.236	
39.00	1114.7	1063.2	123.33	2.1538	1.243	
40.00	1117.5	1066.0	123.34	2.1250	1.249	
41.00	1120.0	1068.5	123.35	2.0976	1.254	
42.00	1122.4	1070.9	123.36	2.0714	1.260	
***** End Shut-in 1	43.00	1124.9	1073.4	123.37	2.0465	1.265
***** Start Flow 2	0.00	57.4	0.0	123.36		
	1.00	58.4	1.0	123.37		
	2.00	58.8	1.4	123.36		
	3.00	59.2	1.8	123.36		
	4.00	59.8	2.4	123.37		
	5.00	60.3	2.9	123.41		
	6.00	60.8	3.4	123.47		
	7.00	61.3	3.9	123.54		
	8.00	61.8	4.4	123.61		
	9.00	62.3	4.9	123.68		
	10.00	63.0	5.6	123.74		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9161 DST#5 GARY SHAPLAND#1 RHEEM

DATE: 04/07/96 TIME: 10:24:26

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
11.00	63.8	6.4	123.79			
12.00	64.1	6.7	123.84			
13.00	64.6	7.2	123.89			
14.00	65.2	7.8	123.95			
15.00	2120.3	2062.9	124.08			
16.00	2160.7	2103.3	124.25			
17.00	73.3	15.9	124.39			
18.00	73.9	16.5	124.52			
19.00	74.6	17.2	124.59			
20.00	75.3	17.9	124.62			
21.00	75.9	18.5	124.62			
22.00	76.4	19.1	124.61			
23.00	77.0	19.6	124.60			
24.00	77.5	20.1	124.59			
25.00	78.0	20.6	124.57			
26.00	78.6	21.2	124.55			
27.00	79.1	21.7	124.54			
28.00	79.7	22.3	124.52			
29.00	80.2	22.8	124.51			
30.00	80.7	23.3	124.50			
31.00	81.2	23.8	124.49			
32.00	81.8	24.4	124.48			
33.00	82.4	25.0	124.47			
34.00	82.8	25.4	124.47			
35.00	83.3	25.9	124.47			
36.00	83.8	26.4	124.46			
37.00	84.3	26.9	124.46			
38.00	84.8	27.4	124.46			
39.00	85.3	27.9	124.47			
40.00	85.8	28.4	124.47			
41.00	86.3	28.9	124.48			
42.00	86.6	29.2	124.50			
43.00	87.1	29.7	124.51			
44.00	87.7	30.3	124.55			
***** End Flow 2						
***** Start Shutin 2	0.00	87.7	0.0	124.55	0.0000	0.008
	1.00	127.8	40.1	124.60	90.0000	0.016
	2.00	227.4	139.7	124.67	45.5000	0.052
	3.00	324.0	236.3	124.74	30.6667	0.105
	4.00	413.2	325.5	124.79	23.2500	0.171
	5.00	492.8	405.1	124.85	18.8000	0.243
	6.00	562.6	474.9	124.89	15.8333	0.317
	7.00	623.5	535.8	124.94	13.7143	0.389
	8.00	676.4	588.8	124.98	12.1250	0.458
	9.00	722.2	634.5	125.00	10.8889	0.522
	10.00	762.1	674.4	125.03	9.9000	0.581
	11.00	796.7	709.0	125.06	9.0909	0.635
	12.00	826.9	739.2	125.08	8.4167	0.684
	13.00	853.4	765.7	125.11	7.8462	0.728
	14.00	876.7	789.0	125.12	7.3571	0.769
	15.00	897.1	809.4	125.13	6.9333	0.805
	16.00	915.3	827.6	125.14	6.5625	0.838

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9161 DST#5 GARY SHAPLAND#1 RHEEM

DATE: 04/07/96

TIME: 10:24:26

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
17.00	931.4	843.7	125.15	6.2353	0.868	
18.00	945.9	858.2	125.16	5.9444	0.895	
19.00	958.9	871.2	125.08	5.6842	0.919	
20.00	970.4	882.8	125.18	5.4500	0.942	
21.00	980.9	893.2	125.18	5.2381	0.962	
22.00	990.4	902.7	125.19	5.0455	0.981	
23.00	998.9	911.2	125.20	4.8696	0.998	
24.00	1006.9	919.2	125.20	4.7083	1.014	
25.00	1014.0	926.3	125.21	4.5600	1.028	
26.00	1020.7	933.0	125.22	4.4231	1.042	
27.00	1026.8	939.2	125.22	4.2963	1.054	
28.00	1032.5	944.8	125.23	4.1786	1.066	
29.00	1037.7	950.0	125.23	4.0690	1.077	
30.00	1042.5	954.8	125.24	3.9667	1.087	
31.00	1047.2	959.5	125.25	3.8710	1.097	
32.00	1051.3	963.6	125.25	3.7812	1.105	
33.00	1055.4	967.7	125.27	3.6970	1.114	
34.00	1059.0	971.3	125.27	3.6176	1.121	
35.00	1062.5	974.8	125.27	3.5429	1.129	
36.00	1066.0	978.3	125.28	3.4722	1.136	
37.00	1069.0	981.3	125.29	3.4054	1.143	
38.00	1072.0	984.3	125.29	3.3421	1.149	
39.00	1074.9	987.2	125.30	3.2821	1.155	
40.00	1077.5	989.8	125.32	3.2250	1.161	
41.00	1080.1	992.4	125.32	3.1707	1.167	
42.00	1082.7	995.0	125.33	3.1190	1.172	
43.00	1084.9	997.2	125.34	3.0698	1.177	
44.00	1087.2	999.5	125.35	3.0227	1.182	
***** End Shut-in 2	45.00	1089.4	1001.7	125.36	2.9778	1.187
***** Final Hydro.	362.00	2083.3	0.0	125.63		

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Gary Shapland #1

LOCATION : 26-19S-28W,

TICKET No. 9161 D.S.T. No. 5 DATE 4-7-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 23

TOTAL TOOL 43

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands3 Single 1 Total 217

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 260

D.C. ABOVE TOOLS.Stands4 Single 1 Total 279

D.P. ABOVE TOOLS.Stands66 Single Total 4120

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4659

TOTAL DEPTH 4635

TOTAL DRILL PIPE ABOVE K.B. 24

REMARKS:

P.O. SUB	
C.O. SUB	4375
S.I. TOOL	4381
HMV	4386
JARS NA	
SAFETY JOINT NA	
PACKER	4390
PACKER	4395
DEPTH 4395	
STUBB 1'	4396
ANCHOR	
ALPIN RECORDER	4396
5' PERFS	4401
5' PERFS	4406
1' CO SUB	4407
217' COLLARS	4624
T.C.	
DEPTH	
1' CO SUB	4625
5' PERFS	4630
AK-1 RECORDER	4632
BULLNOSE 5' BULLPLUG	
T.D.	4635

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 9161

Well Name & No. Gary Shapland #1 Test No. 5 Date 4-7-96
 Company Rheem Resources, Inc. Zone Tested Marmaton/Cherokee
 Address _____ Elevation 2768 KB2757 GL
 Co. Rep / Geo. Roger Martin Cont. Murfin #21 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 26 Twp. 19 Rge. 28 Co. Lawe State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4395 - 4635 Initial Str Wt./Lbs. 82,000 Unseated Str Wt./Lbs. 82,000
 Anchor Length 240 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 85,000
 Top Packer Depth 4390 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Bottom Packer Depth 4395 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 4635 Drill Collar — 2.25 Ft. Run 279' Above Tool
 Mud Wt. 9 LCM _____ Vis. 48 WL 6.4 Drill Pipe Size 4.5 x H Ft. Run 4120
 Blow Description I.F. Weak - 1/2" blow decreasing to 1/4"

F.F. No blow - flushed Tool - Good Surge - Weak blow
Died in 30 min after flush

Recovery — Total Feet	Ft. in DC	Ft. in WP	Ft. in DP	%gas	%oil	%water	%mud
Rec. <u>130</u>	Feet Of <u>D.M w/oil spots in</u>						
Rec. _____	Feet Of <u>Tool</u>						
Rec. _____	Feet Of _____						
Rec. _____	Feet Of _____						
Rec. _____	Feet Of _____						

BHT 127 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3,000 ppm System

(A) Initial Hydrostatic Mud <u>2126</u> <u>2303</u> PSI	Recorder No. <u>2350</u>	T-Started <u>10:40</u>
(B) First Initial Flow Pressure <u>20</u> <u>135</u> PSI	@ (depth) <u>4396</u>	T-Open <u>13:35</u>
(C) First Final Flow Pressure <u>66</u> <u>135</u> PSI	Recorder No. <u>13339</u>	T-Pulled <u>16:35</u>
(D) Initial Shut-in Pressure <u>1119</u> <u>1200</u> PSI	@ (depth) <u>4632</u>	T-Out <u>19:30</u>
(E) Second Initial Flow Pressure <u>57</u> <u>166</u> PSI	Recorder No. _____	
(F) Second Final Flow Pressure <u>88</u> <u>187</u> PSI	@ (depth) _____	
(G) Final Shut-in Pressure <u>1089</u> <u>1150</u> PSI	Initial Opening <u>45</u>	Test <u>600</u>
(H) Final Hydrostatic Mud <u>2128</u> <u>2223</u> PSI	Initial Shut-in <u>45</u>	Jars _____
<u>AIP</u> <u>AK-1</u>	Final Flow <u>45</u>	Safety Joint _____
	Final Shut-in <u>45</u>	Straddle _____
		Circ. Sub _____
		Sampler _____
		Extra Packer _____
		Elect. Rec. <u>X</u> <u>150</u>
		Other _____
		TOTAL PRICE \$ <u>750</u>

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 Roger Martin

Our Representative Dan Rangle

5

D

TRILOBITE TESTING L.L.C.

OPERATOR : Rheem Resources, Inc DATE 4-8-96
 WELL NAME: Gary Shapland #1 KB 2768.00 ft TICKET NO: 9162 DST #6
 LOCATION : 26-19S-28W, Lane Cty KS GR 2757.00 ft FORMATION: "L" LKC
 INTERVAL : 4352.00 To 4366.00 ft TD 4667.00 ft TEST TYPE: CONV STRADDLE

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13276	13276	2342	13339		PF Fr. 1358 to 1428 hr
SI 45 Range(Psi)	4046.0	4046.0	4995.0	4027.0	0.0	IS Fr. 1428 to 1513 hr
SF 45 Clock(hrs)	AK-1	AK-1	Alpin	AK-1		SF Fr. 1513 to 1558 hr
FS 60 Depth(ft)	4359.0	4359.0	4353.0	4667.0	0.0	FS Fr. 1558 to 1658 hr

	Field	1	2	3	4	
A. Init Hydro	2073.0	2056.0	2117.0	2193.0	0.0	T STARTED 1210 hr
B. First Flow	150.0	158.0	154.0	0.0	0.0	T ON BOTM 1355 hr
B1. Final Flow	465.0	476.0	504.0	0.0	0.0	T OPEN 1358 hr
C. In Shut-in	642.0	657.0	662.0	0.0	0.0	T PULLED 1658 hr
D. Init Flow	524.0	542.0	512.0	0.0	0.0	T OUT 2030 hr
E. Final Flow	602.0	619.0	626.0	0.0	0.0	
F. Fl Shut-in	642.0	668.0	664.0	0.0	0.0	
G. Final Hydro	2053.0	2033.0	2102.0	2183.0	0.0	
Inside/Outside	0	0	I	T		

TOOL DATA-----
 Tool Wt. 5000.00 lbs
 Wt Set On Packer 25000.00 lbs
 Wt Pulled Loose 102000.00 lbs
 Initial Str Wt 82000.00 lbs
 Unseated Str Wt 86000.00 lbs
 Bot Choke 0.75 in
 Hole Size 7.88 in
 D Col. ID 2.25 in
 D. Pipe ID 3.80 in
 D.C. Length 496.00 ft
 D.P. Length 3870.00 ft

RECOVERY

Tot Fluid 1364.00 ft of 496.00 ft in DC and 868.00 ft in DP
 68.00 ft of Mud cut water - trc. oil, 60% water, 40% mud
 1296.00 ft of Salt water

RW .21 @ 80 F

SALINITY 28000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Strong, bottom of bucket in 2 min

Initial Shutin -
 Bled off blow, no blow back

Final Flow -
 Strong, bottom of bucket in 10 min

Final Shutin -
 Bled off blow, no blow back

SAMPLES:
 SENT TO:

MUD DATA-----
 Mud Type CHEM
 Weight 8.50 lb/c
 Vis. 48.00 S/L
 W.L. 6.40 in
 F.C. 0.00 in
 Mud Drop N
 Amt. of fill 0.00 ft
 Btm. H. Temp. 136.00 F
 Hole Condition GOOD
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 3
 Cushion Amt. 0.00
 Cushion Type
 Reversed Out: N
 Tool Chased N
 Tester DAN BANGLE
 Co. Rep. ROGER MARTIN
 Contr. MURFIN
 Rig # 21
 Unit #
 Pump T.

Test Successful: Y

TEST HISTORY

TK#9162 DST#6 GARY SHAPLAND#1 RHEEM

Flag Points

t(Min.) PK PSig)

R:	0.00	2117.15
B:	0.00	153.50
C:	28.00	503.98
D:	46.00	662.35
E:	0.00	512.37
F:	43.00	626.43
G:	65.00	664.36
Q:	0.00	2101.54

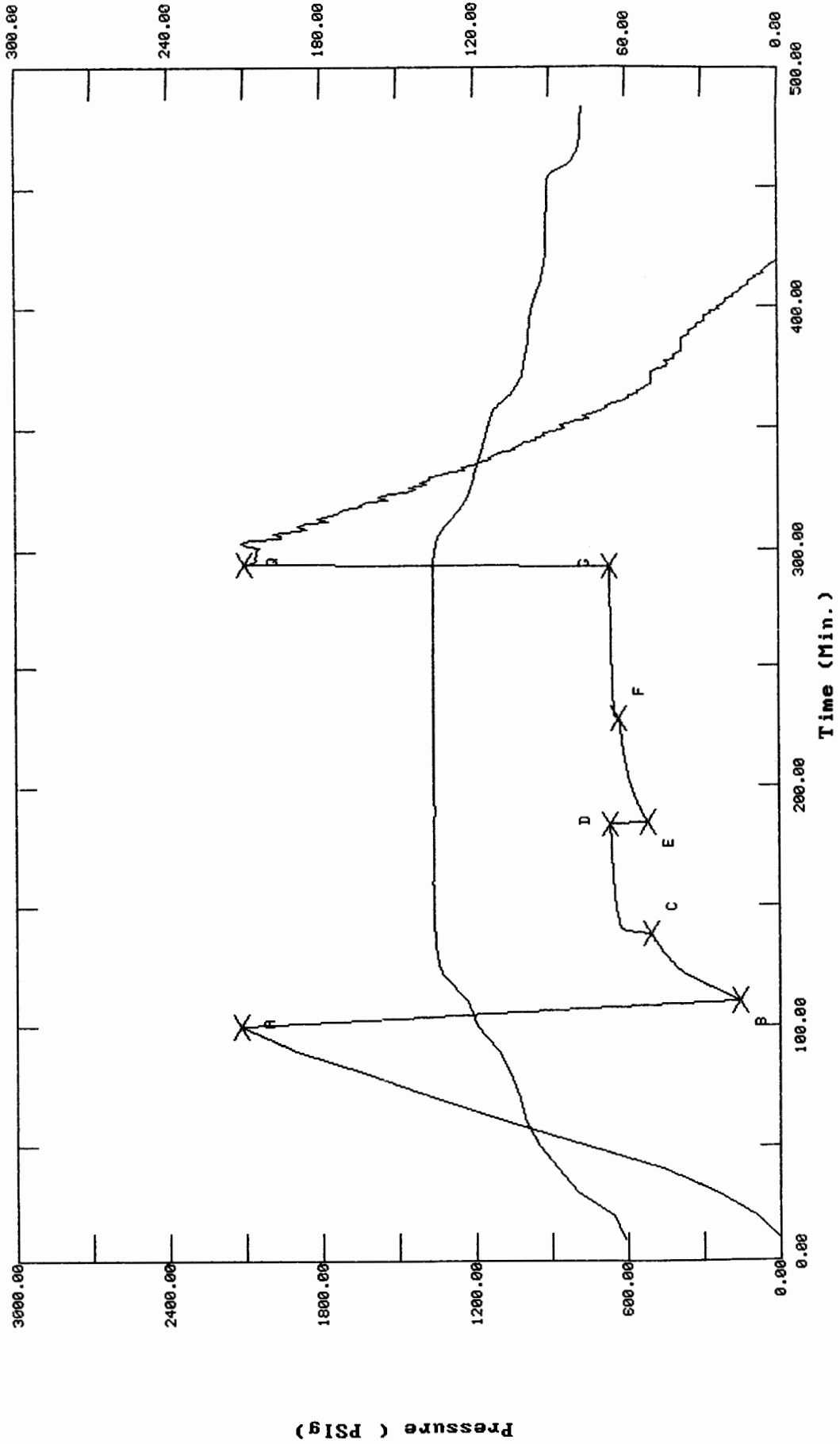
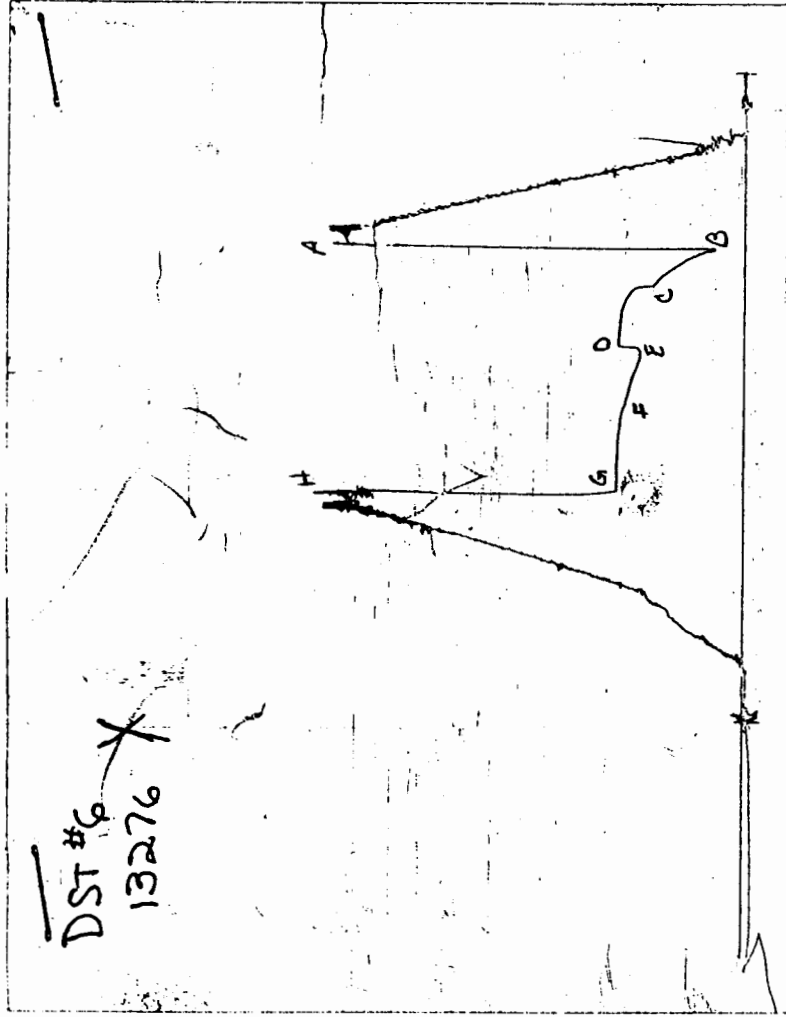
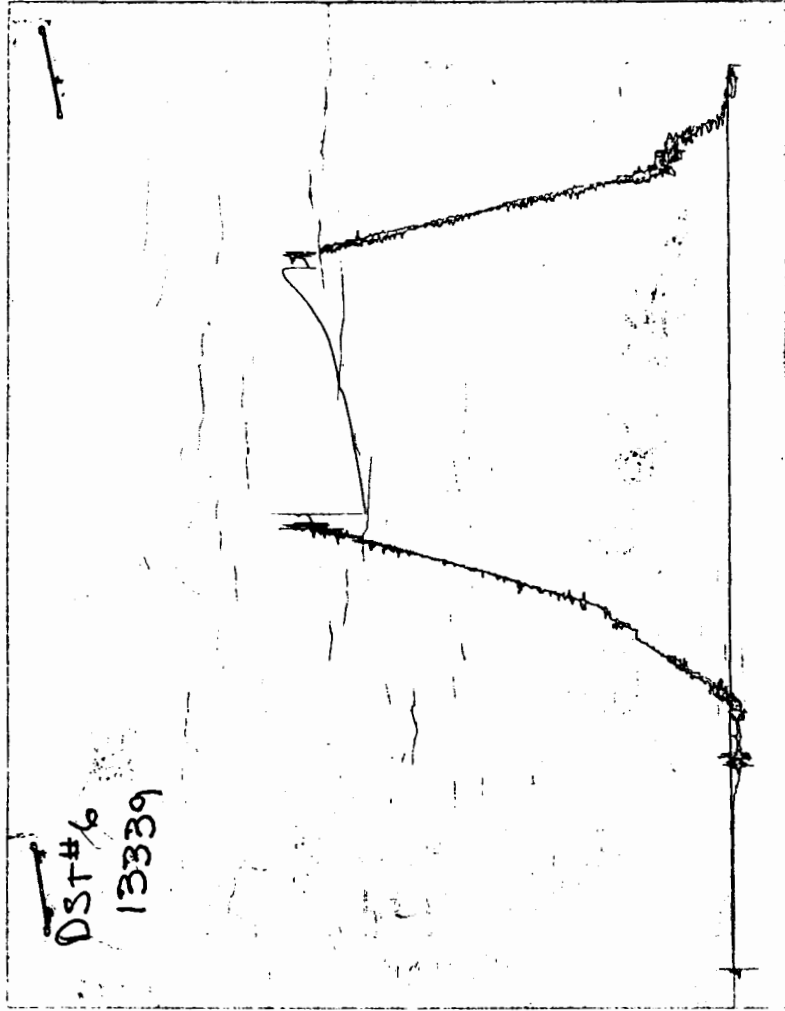


CHART PAGE



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

CHART PAGE



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

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9162 DST#6 GARY SHAPLAND#1 RHEEM

DATE: 04/08/96

TIME: 00:20:16

	Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	100.00	2117.2	0.0	119.51		
***** Start Flow 1	0.00	153.5	0.0	122.98		
	11.00	372.7	219.2	132.61		
	12.00	383.4	229.9	133.04		
	13.00	393.7	240.2	133.41		
	14.00	403.3	249.8	133.75		
	15.00	412.6	259.1	134.04		
	16.00	421.6	268.1	134.29		
	17.00	430.2	276.7	134.51		
	18.00	438.5	285.0	134.70		
	19.00	446.6	293.1	134.87		
	20.00	454.1	300.6	135.02		
	21.00	461.4	307.9	135.16		
	22.00	468.2	314.7	135.28		
	23.00	475.0	321.5	135.39		
	24.00	481.1	327.7	135.49		
	25.00	487.4	333.9	135.57		
	26.00	493.0	339.5	135.64		
	27.00	498.7	345.2	135.70		
***** End Flow 1	28.00	504.0	350.5	135.77		
***** Start Shutin 1	0.00	504.0	0.0	135.77	0.0000	0.254
	1.00	604.1	100.1	135.83	29.0000	0.365
	2.00	615.5	111.5	135.88	15.0000	0.379
	3.00	621.4	117.4	135.93	10.3333	0.386
	4.00	625.6	121.6	135.96	8.0000	0.391
	5.00	628.5	124.5	135.99	6.6000	0.395
	6.00	631.1	127.2	136.02	5.6667	0.398
	7.00	633.3	129.3	136.04	5.0000	0.401
	8.00	635.2	131.3	136.05	4.5000	0.404
	9.00	637.0	133.0	136.07	4.1111	0.406
	10.00	638.5	134.5	136.08	3.8000	0.408
	11.00	639.9	136.0	136.10	3.5455	0.410
	12.00	641.2	137.2	136.12	3.3333	0.411
	13.00	642.5	138.5	136.17	3.1538	0.413
	14.00	643.6	139.7	136.20	3.0000	0.414
	15.00	644.6	140.7	136.26	2.8667	0.416
	16.00	645.6	141.7	136.30	2.7500	0.417
	17.00	646.5	142.5	136.35	2.6471	0.418
	18.00	647.4	143.4	136.39	2.5556	0.419
	19.00	648.3	144.4	136.42	2.4737	0.420
	20.00	649.1	145.1	136.43	2.4000	0.421
	21.00	649.9	146.0	136.44	2.3333	0.422
	22.00	650.7	146.7	136.44	2.2727	0.423
	23.00	651.4	147.5	136.44	2.2174	0.424
	24.00	652.0	148.0	136.42	2.1667	0.425
	25.00	652.8	148.8	136.41	2.1200	0.426
	26.00	653.5	149.5	136.39	2.0769	0.427
	27.00	654.0	150.1	136.38	2.0370	0.428
	28.00	654.6	150.7	136.35	2.0000	0.429
	29.00	655.1	151.2	136.34	1.9655	0.429
	30.00	655.7	151.7	136.32	1.9333	0.430

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9162 DST#6 GARY SHAPLAND#1 RHEEM

DATE: 04/08/96 TIME: 00:20:16

	Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	31.00	656.3	152.3	136.28	1.9032	0.431
	32.00	656.9	152.9	136.27	1.8750	0.432
	33.00	657.4	153.4	136.23	1.8485	0.432
	34.00	657.9	153.9	136.18	1.8235	0.433
	35.00	658.3	154.3	136.12	1.8000	0.433
	36.00	658.7	154.8	136.09	1.7778	0.434
	37.00	659.2	155.2	136.06	1.7568	0.434
	38.00	659.5	155.5	136.04	1.7368	0.435
	39.00	659.9	155.9	136.02	1.7179	0.435
	40.00	660.3	156.4	136.01	1.7000	0.436
	41.00	660.9	156.9	136.01	1.6829	0.437
	42.00	661.3	157.3	136.00	1.6667	0.437
	43.00	661.6	157.6	135.99	1.6512	0.438
	44.00	661.9	158.0	135.97	1.6364	0.438
	45.00	662.3	158.4	135.96	1.6222	0.439
***** End Shut-in 1	46.00	662.3	158.4	135.95	1.6087	0.439
***** Start Flow 2	0.00	512.4	0.0	135.93		
	1.00	518.7	6.3	135.89		
	2.00	524.6	12.3	135.85		
	3.00	530.4	18.0	135.81		
	4.00	535.5	23.2	135.80		
	5.00	540.8	28.5	135.80		
	6.00	545.4	33.1	135.81		
	7.00	549.8	37.4	135.82		
	8.00	554.3	41.9	135.84		
	9.00	558.4	46.0	135.86		
	10.00	562.1	49.8	135.89		
	11.00	566.0	53.6	135.91		
	12.00	569.4	57.1	135.94		
	13.00	572.6	60.3	135.97		
	14.00	575.8	63.4	136.00		
	15.00	578.9	66.6	136.02		
	16.00	581.9	69.6	136.04		
	17.00	584.6	72.3	136.06		
	18.00	587.2	74.8	136.09		
	19.00	589.6	77.2	136.11		
	20.00	591.9	79.6	136.13		
	21.00	594.5	82.1	136.16		
	22.00	596.6	84.3	136.17		
	23.00	598.7	86.4	136.19		
	24.00	600.7	88.4	136.21		
	25.00	602.6	90.2	136.22		
	26.00	604.4	92.0	136.23		
	27.00	606.3	93.9	136.24		
	28.00	608.0	95.7	136.25		
	29.00	609.6	97.2	136.27		
	30.00	611.1	98.7	136.29		
	31.00	612.4	100.0	136.31		
	32.00	613.9	101.6	136.32		
	33.00	615.2	102.8	136.32		
	34.00	616.5	104.2	136.32		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9162 DST#6 GARY SHAPLAND#1 RHEEM

DATE: 04/08/96

TIME: 00:20:16

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	35.00	617.7	105.3	136.32		
	36.00	618.9	106.5	136.33		
	37.00	620.3	107.9	136.33		
	38.00	621.4	109.0	136.34		
	39.00	622.4	110.0	136.34		
	40.00	623.7	111.3	136.35		
	41.00	624.6	112.2	136.35		
	42.00	625.5	113.1	136.35		
***** End Flow 2	43.00	626.4	114.1	136.35		
***** Start Shutin 2	0.00	626.4	0.0	136.35	0.0000	0.392
	1.00	638.1	11.7	136.35	72.0000	0.407
	2.00	644.2	17.8	136.34	36.5000	0.415
	3.00	645.9	19.5	136.33	24.6667	0.417
	4.00	646.8	20.4	136.34	18.7500	0.418
	5.00	647.7	21.2	136.33	15.2000	0.419
	6.00	648.4	22.0	136.32	12.8333	0.420
	7.00	649.2	22.7	136.30	11.1429	0.421
	8.00	649.7	23.2	136.29	9.8750	0.422
	9.00	650.2	23.8	136.27	8.8889	0.423
	10.00	650.6	24.2	136.25	8.1000	0.423
	11.00	651.1	24.7	136.24	7.4545	0.424
	12.00	651.6	25.2	136.22	6.9167	0.425
	13.00	652.1	25.7	136.20	6.4615	0.425
	14.00	652.4	26.0	136.20	6.0714	0.426
	15.00	652.9	26.4	136.20	5.7333	0.426
	16.00	653.2	26.8	136.18	5.4375	0.427
	17.00	653.6	27.2	136.17	5.1765	0.427
	18.00	654.0	27.5	136.15	4.9444	0.428
	19.00	654.2	27.8	136.16	4.7368	0.428
	20.00	654.6	28.2	136.14	4.5500	0.429
	21.00	655.0	28.5	136.14	4.3810	0.429
	22.00	655.3	28.9	136.14	4.2273	0.429
	23.00	655.6	29.2	136.13	4.0870	0.430
	24.00	655.9	29.5	136.13	3.9583	0.430
	25.00	656.2	29.8	136.13	3.8400	0.431
	26.00	656.5	30.0	136.13	3.7308	0.431
	27.00	656.6	30.2	136.12	3.6296	0.431
	28.00	657.0	30.5	136.11	3.5357	0.432
	29.00	657.2	30.8	136.12	3.4483	0.432
	30.00	657.5	31.1	136.12	3.3667	0.432
	31.00	657.8	31.4	136.12	3.2903	0.433
	32.00	658.1	31.6	136.12	3.2188	0.433
	33.00	658.3	31.9	136.12	3.1515	0.433
	34.00	658.6	32.1	136.11	3.0882	0.434
	35.00	658.7	32.3	136.12	3.0286	0.434
	36.00	659.1	32.6	136.11	2.9722	0.434
	37.00	659.2	32.8	136.10	2.9189	0.435
	38.00	659.6	33.2	136.10	2.8684	0.435
	39.00	659.7	33.3	136.10	2.8205	0.435
	40.00	659.9	33.5	136.10	2.7750	0.435
	41.00	660.1	33.7	136.10	2.7317	0.436

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TK#9162 DST#6 GARY SHAPLAND#1 RHEEM

DATE: 04/08/96

TIME: 00:20:16

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	42.00	660.3	33.9	136.10	2.6905	0.436
	43.00	660.6	34.2	136.10	2.6512	0.436
	44.00	660.8	34.3	136.10	2.6136	0.437
	45.00	661.0	34.6	136.10	2.5778	0.437
	46.00	661.1	34.7	136.10	2.5435	0.437
	47.00	661.3	34.9	136.10	2.5106	0.437
	48.00	661.5	35.1	136.11	2.4792	0.438
	49.00	661.7	35.2	136.11	2.4490	0.438
	50.00	661.9	35.5	136.10	2.4200	0.438
	51.00	662.1	35.7	136.11	2.3922	0.438
	52.00	662.3	35.8	136.12	2.3654	0.439
	53.00	662.4	36.0	136.12	2.3396	0.439
	54.00	662.6	36.2	136.12	2.3148	0.439
	55.00	662.8	36.3	136.12	2.2909	0.439
	56.00	662.9	36.5	136.12	2.2679	0.439
	57.00	663.1	36.7	136.12	2.2456	0.440
	58.00	663.3	36.8	136.12	2.2241	0.440
	59.00	663.4	37.0	136.13	2.2034	0.440
	60.00	663.5	37.1	136.16	2.1833	0.440
	61.00	663.8	37.3	136.17	2.1639	0.441
	62.00	663.9	37.5	136.20	2.1452	0.441
	63.00	664.0	37.6	136.23	2.1270	0.441
	64.00	664.2	37.8	136.25	2.1094	0.441
***** End Shut-in 2	65.00	664.4	37.9	136.26	2.0923	0.441
***** Final Hydro.	294.00	2101.5	0.0	136.33		

*** TOOL DIAGRAM *** CONV STRADDLE

WELL NAME: GARY SHAPLAND

LOCATION : 26-19S-28W LANE KS

TICKET No. 9162 D.S.T. No. 6 DATE 4-8-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL 14

BOTTOM PACKERS AND ANCHOR 19

TOTAL TOOL 53

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 4 Single 1 Total 282

TOTAL ASSEMBLY 335

D.C. ABOVE TOOLS.Stands8 Single Total 496

D.P. ABOVE TOOLS.Stands62 Single Total 3870

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4701

TOTAL DEPTH 4669

TOTAL DRILL PIPE ABOVE K.B. 32

REMARKS:

P.O. SUB	
C.O. SUB	4332
S.I. TOOL	4338
HMV	4343
JARS NA	
SAFETY JOINT NA	
PACKER	4347
PACKER	4352
DEPTH 4352	
STUBB 1'	4353
ANCHOR	
ALPIN RECORDER	4353
5' PERFS	4358
AK-1 RECORDER	4359
4' PERFS	4362
T.C.	
DEPTH	
PACKER	4366
1' STUBB	4367
11' PERFS	4378
1' CO	4379
282' DP	4661
1'CO	4662
AK-1 RECORDER	4664
BULLNOSE 5' BULLPLUG	
T.D.	4667

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 9162

Well Name & No. <u>Gary Shapland</u>		Test No. <u>6</u>	Date <u>4-8-96</u>
Company <u>Rheem Resources, Inc.</u>		Zone Tested <u>L</u>	<u>LKC</u>
Address _____		Elevation <u>2768</u> KB <u>2757</u> GL	
Co. Rep / Geo. <u>Roger Martin</u>		Cont. <u>Murfin #21</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>26</u>	Twp. <u>19</u>	Rge. <u>28</u>	Co. <u>Lane</u> State <u>Ks.</u>
No. of Copies _____	Distribution Sheet (Y, N) _____	Turnkey (Y, N) _____	Evaluation (Y, N) _____

Interval Tested <u>4352 - 4366</u>	Initial Str Wt./Lbs. <u>82,000</u>	Unseated Str Wt./Lbs. <u>86,000</u>
Anchor Length <u>14'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>102,000</u>
Top Packer Depth <u>4352</u>	Hole Size — 7 7/8" _____	Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4366</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____	
Total Depth <u>4667</u>	Drill Collar — 2.25 Ft. Run <u>496</u>	
Mud Wt. <u>8.5</u> LCM _____	Vis. <u>48</u> WL <u>6.4</u>	Drill Pipe Size <u>4.5 X H</u> Ft. Run <u>3870 3870'</u>
Blow Description <u>I.F. Strong - B.O.B. in 2 min.</u>		
<u>151 - No blow back</u>		
<u>FF - Strong B.O.B. in 10 min.</u>		
<u>FSI - No blow back</u>		

Recovery — Total Feet <u>1364</u>	Ft. in DC <u>496'</u>	Ft. in WP _____	Ft. in DP <u>868'</u>
Rec. <u>68'</u>	Feet Of <u>MCW w/ trc. oil</u>	%gas <u>trc</u>	%oil <u>60</u> %water <u>40</u> %mud _____
Rec. <u>800'</u>	Feet Of <u>SW in DP</u>	%gas _____	%oil _____ %water _____ %mud _____
Rec. <u>496'</u>	Feet Of <u>SW in DC</u>	%gas _____	%oil _____ %water _____ %mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____ %water _____ %mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____ %water _____ %mud _____

BHT 136 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW .21 @ 80' °F Chlorides 28,000 ppm Recovery Chlorides 3,000 ppm System

(A) Initial Hydrostatic Mud <u>2117</u> <u>2073</u> PSI	Recorder No. <u>2350</u>	T-Started <u>12:10</u>
(B) First Initial Flow Pressure <u>153</u> <u>150</u> PSI	@ (depth) <u>4353</u>	T-Open <u>13:58</u>
(C) First Final Flow Pressure <u>503</u> <u>465</u> PSI	Recorder No. <u>13276</u>	T-Pulled <u>16:58</u>
(D) Initial Shut-in Pressure <u>662</u> <u>642</u> PSI	@ (depth) <u>4359</u>	T-Out <u>20:30</u>
(E) Second Initial Flow Pressure <u>512</u> <u>524</u> PSI	Recorder No. <u>13339</u>	
(F) Second Final Flow Pressure <u>626</u> <u>602</u> PSI	@ (depth) <u>4664</u>	
(G) Final Shut-in Pressure <u>664</u> <u>642</u> PSI	Initial Opening <u>30</u>	Test <u>600</u>
(H) Final Hydrostatic Mud <u>2101</u> <u>2053</u> PSI	Initial Shut-in <u>45</u>	Jars _____

<u>Elec. Alp.</u>	<u>AK-1 Mech.</u>	Final Flow <u>45</u>	Safety Joint _____
		Final Shut-in <u>60</u>	Straddle <u>X</u> <u>250</u>
			Circ. Sub <u>X</u> <u>NIC</u>
			Sampler _____

Approved By Roger Martin

Our Representative Dan Kanale

Extra Packer X 150

Elect. Rec. X 150

Other _____

TOTAL PRICE \$ 1150

5
D

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.