

WELL NAME: Hartman # 1
COMPANY: Castle Resources Inc.
LOCATION: Sec. 5 Twp. 11S Rge. 28W
Gove County Kansas
DATE: 02/27/97

TRILOBITE TESTING L.L.C.

OPERATOR : Castle Resources Inc.

DATE 2/3/97

WELL NAME: Hartman #1

KB 0.00 ft

TICKET NO: 8581

DST #1

LOCATION : 5-11s-28w

GR 2800.00 ft

FORMATION: "I & J"

INTERVAL : 4072.00 To 4120.00 ft

TD 4120.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11038	11038	2351			PF Fr. 0400 to 0430 hr
SI 30 Range(Psi)	5075.0	5075.0	4995.0	0.0	0.0	IS Fr. 0430 to 0500 hr
SF 15 Clock(hrs)	12 hr	12 hr	Elec.			SF Fr. 0500 to 0515 hr
FS 0 Depth(ft)	4117.0	4117.0	4080.0	0.0	0.0	FS Fr. to hr

	Field	1	2	3	4	
A. Init Hydro	2004.0	2027.0	1990.0	0.0	0.0	T STARTED 0200 hr
B. First Flow	68.0	68.0	24.0	0.0	0.0	T ON BOTM 0358 hr
B1. Final Flow	68.0	72.0	25.0	0.0	0.0	T OPEN 0400 hr
C. In Shut-in	82.0	72.0	36.0	0.0	0.0	T PULLED 0515 hr
D. Init Flow	68.0	72.0	25.0	0.0	0.0	T OUT 0710 hr
E. Final Flow	68.0	80.0	28.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0	
G. Final Hydro	1978.0	2007.0	1987.0	0.0	0.0	TOOL DATA-----
Inside/Outside	0	0	I			Tool Wt. 1800.00 lbs

RECOVERY

Tot Fluid 15.00 ft of 15.00 ft in DC and 0.00 ft in DP

15.00 ft of Drilling Mud

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

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

BLOW DESCRIPTION

Initial Flow:

Surface blow, died in 25 mins

Initial Shut In:

Final Flow:

No blow, Flushed tool, No blow

Final Shut In:

SAMPLES: No

SENT TO:

Test Successful: Y

MUD DATA-----

Mud Type	Chemical
Weight	8.80 lb/c
Vis.	47.00 S/L
W.L.	9.80 in3
F.C.	0.00 in
Mud Drop Y	50.0 ft

Amt. of fill 0.00 ft

Btm. H. Temp. 109.00 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 TOM HORACEK

Co. Rep. JERRY GREEN

Contr. Discovery Drlg.

Rig # 2

Unit #

Pump T.

*** TOOL DIAGRAM *** CONV.

WELL NAME: Hartman #1

LOCATION : 5-11s-28w

TICKET No. 8581 D.S.T. No. 1 DATE 2/3/97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20 ft.

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 17 ft.

TOTAL TOOL 37 ft.

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 1 Total 31 ft.

TOTAL ASSEMBLY 68 ft.

D.C. ABOVE TOOLS.Stands Single 1 Total 30 ft.

D.P. ABOVE TOOLS.Stands57 Single Total 4045 ft.

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4143 ft.

TOTAL DEPTH 4120 ft.

TOTAL DRILL PIPE ABOVE K.B. 23 ft.

REMARKS:

SAMPLER

P.O. SUB

C.O. SUB

4052

S.I. TOOL

4058

HMV Hyd. Tool

4063

JARS

SAFETY JOINT

PACKER Top

4075

PACKER Bottom

4072

DEPTH 4072

STUBB 1 ft.

4073

ANCHOR Perf 1 ft.

4074

Perf 5 ft.

4079

Alpine Rec. @ 4080

Perf 3 ft.

4082

T.C.

DEPTH

C.O. 1 ft.

4083

D.P. 31 ft.

4114

C.O. 1 ft.

4115

AK-1 Rec. @ 4117

BULLNOSE Bull Plug 5 ft.

4120

T.D.

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8581 DST #1 Hartman #1 Castle Res. Inc.

DATE: 02/02/97

TIME: 23:28:01

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	136.00	1990.1	0.0	104.48		
***** Start Flow 1	0.00	24.2	0.0	104.69		
	1.00	24.4	0.2	104.77		
	2.00	24.5	0.3	104.83		
	3.00	24.7	0.4	104.88		
	4.00	24.8	0.5	104.93		
	5.00	24.8	0.5	104.98		
	6.00	24.8	0.5	105.02		
	7.00	24.8	0.6	105.05		
	8.00	24.8	0.6	105.10		
	9.00	24.9	0.7	105.14		
	10.00	24.9	0.7	105.19		
	11.00	25.0	0.8	105.23		
	12.00	25.0	0.8	105.28		
	13.00	24.9	0.7	105.32		
	14.00	24.9	0.7	105.37		
	15.00	25.1	0.8	105.42		
	16.00	25.1	0.8	105.46		
	17.00	25.1	0.8	105.51		
	18.00	25.2	0.9	105.56		
	19.00	25.2	0.9	105.61		
	20.00	25.2	0.9	105.66		
	21.00	25.3	1.0	105.71		
	22.00	25.3	1.0	105.75		
	23.00	25.3	1.0	105.80		
	24.00	25.3	1.1	105.85		
	25.00	25.3	1.1	105.90		
	26.00	25.3	1.1	105.95		
	27.00	25.3	1.1	105.99		
	28.00	25.3	1.1	106.04		
	29.00	25.3	1.1	106.09		
***** End Flow 1	30.00	25.4	1.2	106.14		
***** Start Shutin 1	0.00	25.4	0.0	106.14	0.0000	0.001
	1.00	24.6	-0.8	106.19	31.0000	0.001
	2.00	25.2	-0.3	106.24	16.0000	0.001
	3.00	25.6	0.2	106.28	11.0000	0.001
	4.00	25.9	0.5	106.34	8.5000	0.001
	5.00	26.4	1.0	106.39	7.0000	0.001
	6.00	26.8	1.4	106.43	6.0000	0.001
	7.00	27.2	1.8	106.48	5.2857	0.001
	8.00	27.6	2.2	106.52	4.7500	0.001
	9.00	28.0	2.6	106.57	4.3333	0.001
	10.00	28.4	3.0	106.63	4.0000	0.001
	11.00	28.9	3.4	106.68	3.7273	0.001
	12.00	29.2	3.8	106.72	3.5000	0.001
	13.00	29.5	4.1	106.77	3.3077	0.001
	14.00	30.0	4.6	106.82	3.1429	0.001
	15.00	30.4	5.0	106.87	3.0000	0.001
	16.00	30.6	5.2	106.91	2.8750	0.001
	17.00	31.1	5.7	106.96	2.7647	0.001
	18.00	31.6	6.2	107.02	2.6667	0.001

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8581 DST #1 Hartman #1 Castle Res. Inc.

DATE: 02/02/97

TIME: 23:28:01

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dt)/dt	P^2/10^6
	19.00	32.1	6.6	107.06	2.5789	0.001
	20.00	32.4	7.0	107.11	2.5000	0.001
	21.00	32.9	7.5	107.16	2.4286	0.001
	22.00	33.2	7.8	107.20	2.3636	0.001
	23.00	33.7	8.3	107.25	2.3043	0.001
	24.00	34.1	8.6	107.30	2.2500	0.001
	25.00	34.5	9.1	107.35	2.2000	0.001
	26.00	34.8	9.4	107.39	2.1538	0.001
	27.00	35.3	9.9	107.44	2.1111	0.001
	28.00	35.7	10.3	107.48	2.0714	0.001
	29.00	36.0	10.6	107.53	2.0345	0.001
***** End Shut-in 1	30.00	36.5	11.1	107.58	2.0000	0.001
***** Start Flow 2	0.00	25.4	0.0	107.62		
	1.00	25.6	0.2	107.67		
	2.00	25.7	0.3	107.71		
	3.00	25.8	0.3	107.76		
	4.00	25.8	0.3	107.81		
	5.00	25.7	0.3	107.85		
	6.00	25.7	0.3	107.89		
	7.00	25.0	-0.4	107.94		
	8.00	1994.9	1969.5	108.06		
	9.00	28.4	2.9	108.07		
	10.00	28.4	3.0	108.09		
	11.00	28.6	3.2	108.11		
	12.00	28.7	3.3	108.13		
	13.00	28.7	3.3	108.17		
	14.00	28.7	3.3	108.20		
	15.00	28.8	3.4	108.26		
***** End Flow 2	16.00	28.1	2.7	108.30		
***** Start Shutin 2	0.00	28.1	0.0	108.30	0.0000	0.001
***** End Shut-in 2	1.00	1987.0	1958.9	108.44	47.0000	3.948
***** Final Hydro.	216.00	1987.0	0.0	108.44		

8581 DST #1 Hartman #1 Castle Res. Inc. TEST HISTORY

Flag Points

t(Min.) P(PSig)

A: 0.00 1990.09
 B: 0.00 24.25
 C: 30.00 25.42
 D: 30.00 36.50
 E: 0.00 25.42
 F: 16.00 28.11
 Q: 0.00 1986.98

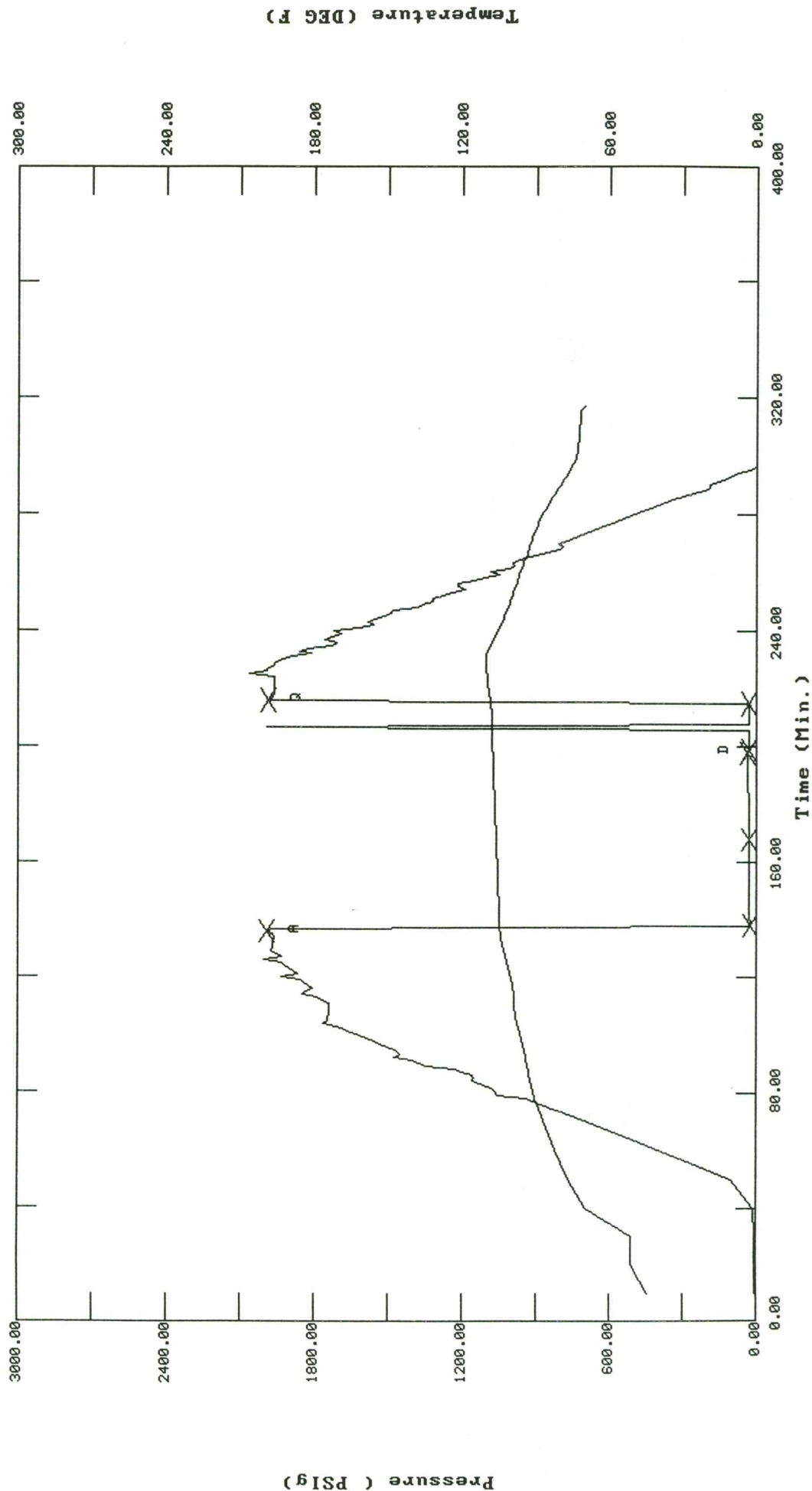
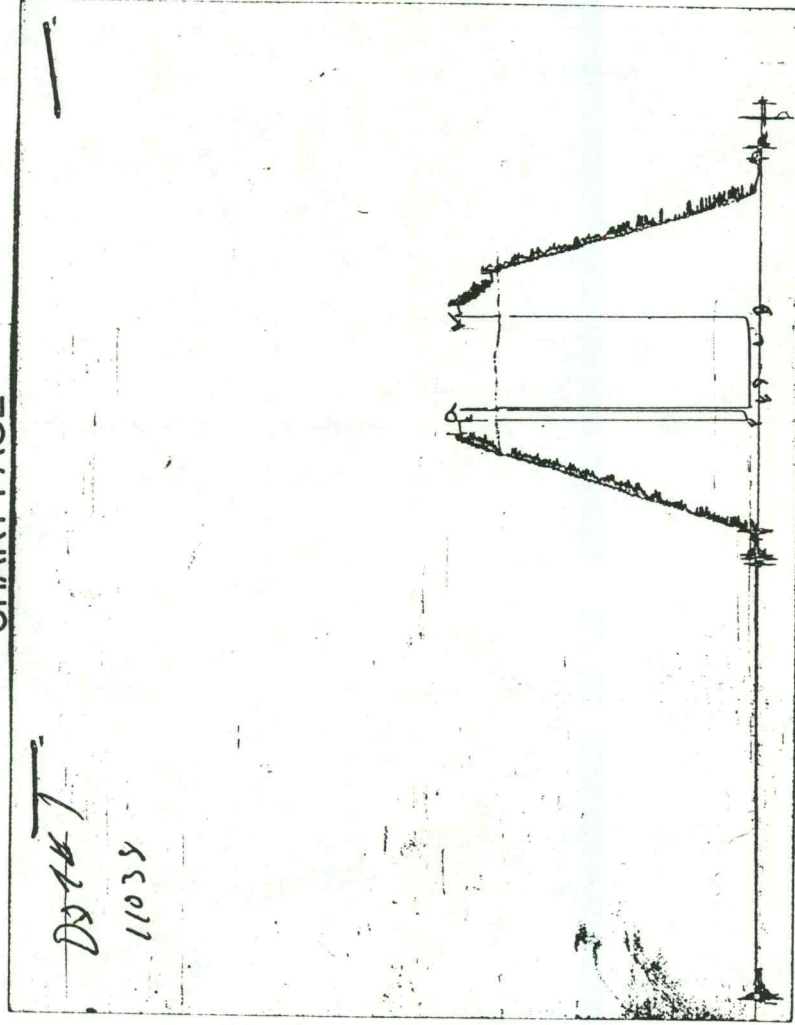


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 8581

Well Name & No. <u>Hartman #1</u>	Test No. <u>41</u>	Date <u>2-3-97</u>
Company <u>Castle Res. Inc.</u>	Zone Tested <u>IFS</u>	
Address <u>1200 E. 27th St Hays, KS 67601</u>	Elevation _____	KB <u>2800</u> GL
Co. Rep / Geo. <u>Jerry Green</u>	Cont. <u>Discovery Drly 2</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>5</u> Twp. <u>11</u> Rge. <u>28</u> Co. <u>Gove</u> State <u>Ks</u>		
No. of Copies _____	Distribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested <u>4072 - 4120</u>	Initial Str Wt./Lbs. <u>50,000</u>	Unseated Str Wt./Lbs. <u>50,000</u>
Anchor Length <u>48'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>55,000</u>
Top Packer Depth <u>4067</u>	Hole Size — 7 7/8" _____	Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4072</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____	
Total Depth <u>4120</u>	Drill Collar — 2.25 Ft. Run <u>30'</u>	
Mud Wt. <u>8.8</u> LCM <u>24</u> Vis. <u>47</u> WL <u>9.8</u>	Drill Pipe Size <u>4.5 x-Hole</u>	Ft. Run <u>4045'</u>
Blow Description <u>1st - surface blow - Dried in 25 min.</u>		

2nd. NO blow - Flushed tool - NO blow

Recovery — Total Feet <u>15'</u>	Ft. in DC <u>15'</u>	Ft. in WP _____	Ft. in DP _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. <u>15'</u> Feet Of <u>Dry mud</u>	%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 109 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 2000 ppm System

(A) Initial Hydrostatic Mud <u>1990</u>	<u>2004</u> PSI	Recorder No. <u>2351</u>	T-Started <u>0200</u>
(B) First Initial Flow Pressure <u>24</u>	<u>68</u> PSI	@ (depth) <u>4080</u>	T-Open <u>0500</u>
(C) First Final Flow Pressure <u>25</u>	<u>68</u> PSI	Recorder No. <u>11038</u>	T-Pulled <u>0515</u>
(D) Initial Shut-in Pressure <u>36</u>	<u>82</u> PSI	@ (depth) <u>4117</u>	T-Out <u>0710</u>
(E) Second Initial Flow Pressure <u>25</u>	<u>68</u> PSI	Recorder No. _____	
(F) Second Final Flow Pressure <u>28</u>	<u>68</u> PSI	@ (depth) _____	
(G) Final Shut-in Pressure <u>-</u>	<u>-</u> PSI	Initial Opening <u>30 min</u>	Test <u>X</u> <u>700</u>
(H) Final Hydrostatic Mud <u>1961</u>	<u>1978</u> PSI	Initial Shut-in <u>30 min</u>	Jars _____

Alpine 987 AK-1

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Final Flow 15 min Safety Joint _____
 Final Shut-in out Straddle _____
 _____ Circ. Sub _____
 _____ Sampler _____

Approved By _____
 Our Representative Tom Hurack

Extra Packer _____
 Elect. Rec. X 150
 Other _____
 TOTAL PRICE \$ 850

(m)

TRILOBITE TESTING L.L.C.

OPERATOR : Castle Resources Inc.

DATE 2/3/97

WELL NAME: Hartman #1

KB 0.00 ft

TICKET NO: 8582

DST #2

LOCATION : 5-11s-28w

GR 2800.00 ft

FORMATION: "K & L"

INTERVAL : 4122.00 To 4188.00 ft

TD 4188.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11038	11038	2351			PF Fr. 1945 to 2015 hr
SI 30 Range(Psi)	5075.0	5075.0	4995.0	0.0	0.0	IS Fr. 2015 to 2045 hr
SF 15 Clock(hrs)	12 hr	12 hr	Elec.			SF Fr. 2045 to 2100 hr
FS 0 Depth(ft)	4185.0	4185.0	4131.0	0.0	0.0	FS Fr. to hr

	Field	1	2	3	4	
A. Init Hydro	2004.0	1997.0	2025.0	0.0	0.0	T STARTED 1730 hr
B. First Flow	27.0	44.0	28.0	0.0	0.0	T ON BOTM 1943 hr
B1. Final Flow	27.0	53.0	29.0	0.0	0.0	T OPEN 1945 hr
C. In Shut-in	41.0	53.0	37.0	0.0	0.0	T PULLED 2100 hr
D. Init Flow	27.0	53.0	29.0	0.0	0.0	T OUT 2300 hr
E. Final Flow	27.0	53.0	32.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1978.0	1965.0	1998.0	0.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 55000.00 lbs
						Initial Str Wt 50000.00 lbs
						Unseated Str Wt 50000.00 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 30.00 ft
						D.P. Length 4106.00 ft

RECOVERY

Tot Fluid 15.00 ft of 15.00 ft in DC and 0.00 ft in DP

15.00 ft of Drilling Mud

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

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

BLOW DESCRIPTION

Initial Flow:

Surface blow, died in 20 mins

Initial Shut In:

Final Flow:

No blow, flushed tool, no blow

Final Shut In:

SAMPLES: No

SENT TO:

Test Successful: Y

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	45.00 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.	107.00 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	TOM HORACEK
Co. Rep.	JERRY GREEN
Contr.	Discovery Drlg.
Rig #	2
Unit #	
Pump T.	

*** TOOL DIAGRAM *** CONV.

WELL NAME: Hartman #1

LOCATION : 5-11s-28w

TICKET No. 8582 D.S.T. No. 2 DATE 2/3/97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20 ft.

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 34 ft.

TOTAL TOOL 54 ft.

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 1 Total 32 ft.

TOTAL ASSEMBLY 86 ft.

D.C. ABOVE TOOLS.Stands Single 1 Total 30 ft.

D.P. ABOVE TOOLS.Stands67 Single 1 Total 4106 ft.

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4222 ft.

TOTAL DEPTH 4188 ft.

TOTAL DRILL PIPE ABOVE K.B. 34 ft.

REMARKS:

SAMPLER

P.O. SUB

C.O. SUB

4102

S.I. TOOL

4108

HMV Hyd. Tool

4113

JARS

SAFETY JOINT

PACKER Top

4117

PACKER Bottom

4122

DEPTH 4122

STUBB 1 ft.

4123

ANCHOR Perf 2 ft.

4125

Perf 5 ft.

4130

Alpine rec. @ 4131

Perf 5 ft.

4135

T.C.

DEPTH

Perf 5 ft.

4140

Perf 5 ft.

4145

Perf 4 ft.

4149

C.O. 1 ft.

4150

D.P. 32 ft.

4182

C.O. 1 ft.

4183

AK-1 Rec. @ 4185

BULLNOSE Bull Plug 5 ft.

4188

T.D.

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8582 DST #2 Hartman #1 Castle Res. Inc.

DATE: 02/03/97

TIME: 15:21:33

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	130.00	2025.1	0.0	105.46		
***** Start Flow 1	0.00	28.9	0.0	105.46		
	1.00	29.0	0.1	105.42		
	2.00	29.1	0.2	105.37		
	3.00	29.2	0.3	105.33		
	4.00	29.3	0.3	105.29		
	5.00	29.2	0.3	105.27		
	6.00	29.4	0.4	105.24		
	7.00	29.4	0.4	105.23		
	8.00	29.4	0.4	105.24		
	9.00	29.3	0.3	105.24		
	10.00	29.4	0.5	105.25		
	11.00	29.4	0.5	105.26		
	12.00	29.4	0.5	105.28		
	13.00	29.4	0.5	105.29		
	14.00	29.4	0.5	105.32		
	15.00	29.4	0.5	105.34		
	16.00	29.4	0.5	105.37		
	17.00	29.5	0.6	105.40		
	18.00	29.5	0.6	105.42		
	19.00	29.5	0.6	105.46		
	20.00	29.6	0.7	105.49		
	21.00	29.6	0.7	105.52		
	22.00	29.6	0.7	105.56		
	23.00	29.5	0.6	105.60		
	24.00	29.5	0.6	105.63		
	25.00	29.7	0.8	105.67		
	26.00	29.7	0.8	105.71		
	27.00	29.7	0.8	105.75		
	28.00	29.7	0.8	105.78		
	29.00	29.9	0.9	105.81		
***** End Flow 1	30.00	29.8	0.8	105.85		
***** Start Shutin 1	0.00	29.8	0.0	105.85	0.0000	0.001
	1.00	28.9	-0.9	105.90	31.0000	0.001
	2.00	29.5	-0.3	105.94	16.0000	0.001
	3.00	30.0	0.3	105.98	11.0000	0.001
	4.00	30.6	0.8	106.01	8.5000	0.001
	5.00	31.1	1.3	106.05	7.0000	0.001
	6.00	31.8	2.0	106.09	6.0000	0.001
	7.00	32.4	2.6	106.13	5.2857	0.001
	8.00	33.0	3.2	106.17	4.7500	0.001
	9.00	33.6	3.9	106.21	4.3333	0.001
	10.00	34.2	4.4	106.25	4.0000	0.001
	11.00	34.8	5.0	106.29	3.7273	0.001
	12.00	35.5	5.7	106.33	3.5000	0.001
	13.00	36.2	6.4	106.37	3.3077	0.001
	14.00	36.9	7.1	106.41	3.1429	0.001
	15.00	37.5	7.7	106.44	3.0000	0.001
	16.00	38.1	8.3	106.48	2.8750	0.001
	17.00	38.9	9.1	106.53	2.7647	0.002
	18.00	39.6	9.8	106.57	2.6667	0.002

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8582 DST #2 Hartman #1 Castle Res. Inc.

DATE: 02/03/97

TIME: 15:21:33

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	19.00	40.3	10.5	106.61	2.5789	0.002
	20.00	40.9	11.2	106.64	2.5000	0.002
	21.00	41.6	11.8	106.68	2.4286	0.002
	22.00	41.1	11.3	106.72	2.3636	0.002
	23.00	40.4	10.7	106.76	2.3043	0.002
	24.00	39.9	10.2	106.81	2.2500	0.002
	25.00	39.3	9.5	106.83	2.2000	0.002
	26.00	38.8	9.0	106.87	2.1538	0.002
	27.00	38.3	8.6	106.91	2.1111	0.001
	28.00	37.9	8.1	106.95	2.0714	0.001
	29.00	37.7	7.9	106.99	2.0345	0.001
***** End Shut-in 1	30.00	37.3	7.6	107.03	2.0000	0.001
***** Start Flow 2	0.00	29.7	0.0	107.07		
	1.00	29.9	0.2	107.10		
	2.00	29.9	0.2	107.14		
	3.00	29.9	0.2	107.18		
	4.00	29.9	0.2	107.21		
	5.00	29.9	0.2	107.25		
	6.00	2018.7	1989.0	107.36		
	7.00	32.9	3.2	107.37		
	8.00	33.1	3.4	107.36		
	9.00	33.1	3.4	107.36		
	10.00	33.2	3.5	107.37		
	11.00	33.3	3.6	107.39		
	12.00	33.3	3.6	107.40		
	13.00	33.3	3.6	107.42		
	14.00	33.3	3.6	107.45		
	15.00	33.1	3.4	107.48		
***** End Flow 2	16.00	32.0	2.3	107.51		
***** Start Shutin 2	0.00	32.0	0.0	107.51	0.0000	0.001
	1.00	33.1	1.2	107.54	47.0000	0.001
	2.00	34.2	2.3	107.57	24.0000	0.001
	3.00	35.2	3.3	107.61	16.3333	0.001
***** End Shut-in 2	4.00	1998.2	1966.3	107.73	12.5000	3.993
***** Final Hydro.	213.00	1998.2	0.0	107.73		

TEST HISTORY

8582 DST #2 Hartman #1 Castle Res. Inc.

Flag Points

t(Min.) P(PSig)

A: 0.00 2025.09
 B: 0.00 28.95
 C: 30.00 29.79
 D: 30.00 37.34
 E: 0.00 29.70
 F: 16.00 31.97
 G: 0.00 1998.23

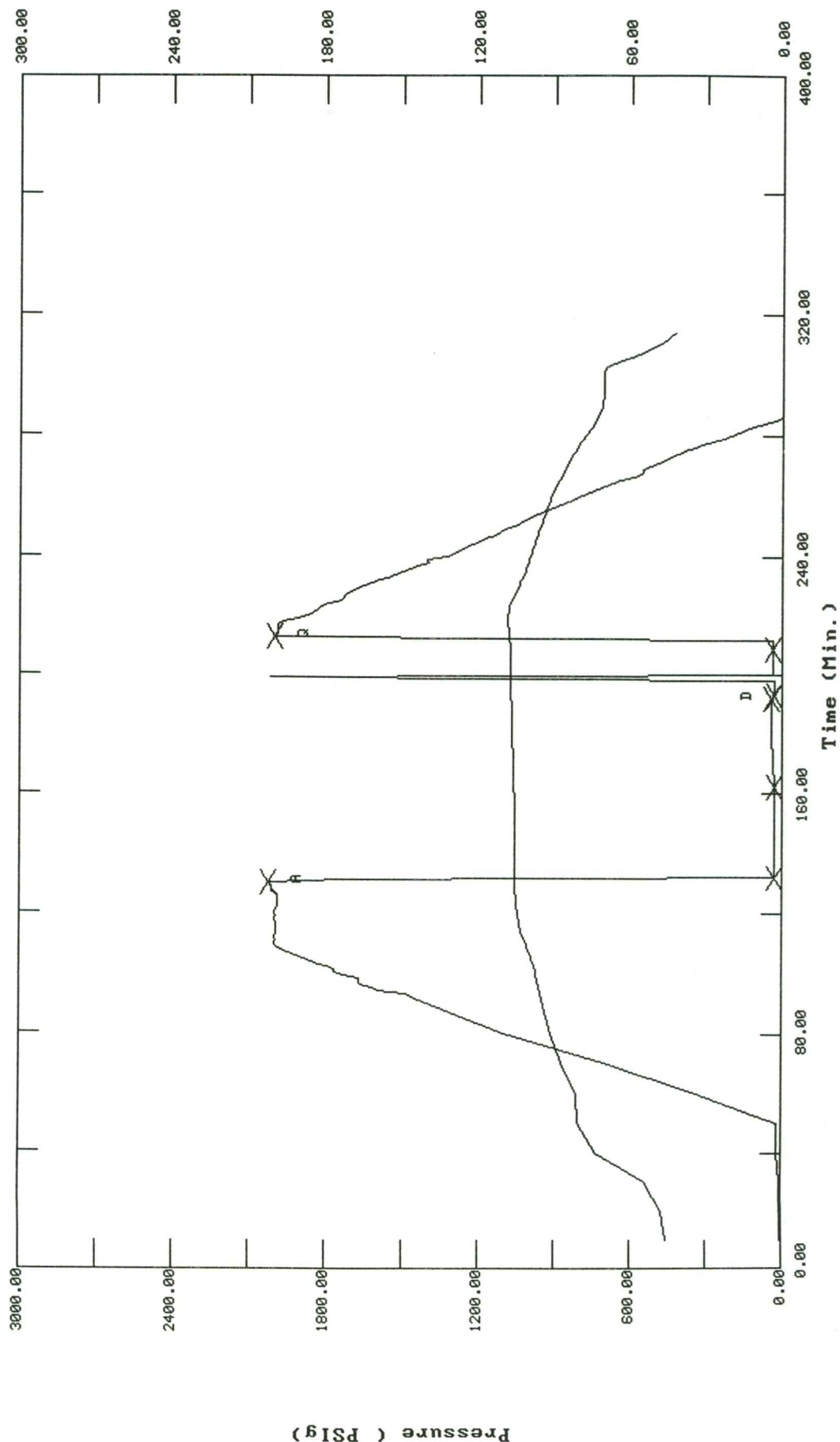
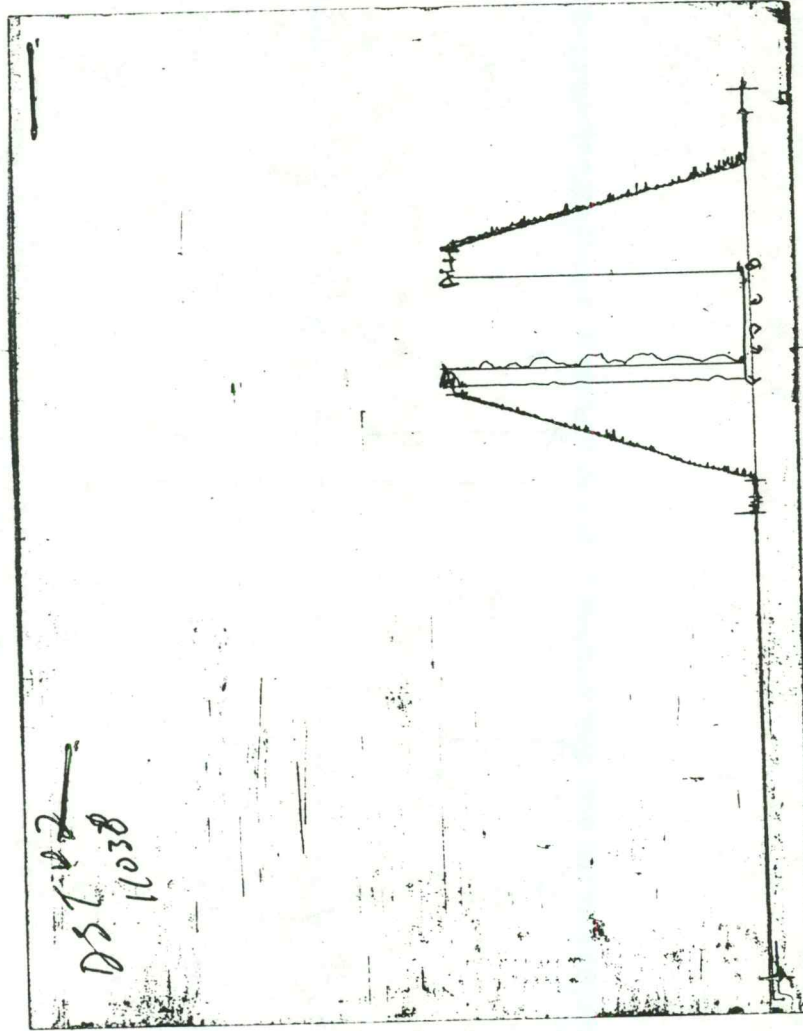


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

No 8582

Test Ticket

Well Name & No. <u>Hartman #1</u>	Test No. <u>#2</u>	Date <u>2-3-97</u>
Company <u>Castle Res. Inc.</u>	Zone Tested <u>R/L</u>	
Address <u>1200 E. 27th St Hays, Ks. 67601</u>	Elevation <u> </u>	KB <u>2800</u> GL <u> </u>
Co. Rep / Geo. <u>Jerry Green</u>	Cont. <u>Discovery Drilling</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> % <u> </u>
Location: Sec. <u>5</u>	Twp. <u>11 S</u>	Rge. <u>28 W</u> Co. <u>Gove</u> State <u>Ks</u>
No. of Copies <u> </u>	Distribution Sheet (Y, N) <u>N</u>	Turnkey (Y, N) <u>N</u> Evaluation (Y, N) <u> </u>

Interval Tested <u>4122 - 4188</u>	Initial Str Wt./Lbs. <u>50,000</u>	Unseated Str Wt./Lbs. <u>50,000</u>
Anchor Length <u>66'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>55,000</u>
Top Packer Depth <u>4117</u>	Hole Size — 7 7/8" <u> </u>	Rubber Size — 6 3/4" <u> </u>
Bottom Packer Depth <u>4122</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u> </u>	
Total Depth <u>4188</u>	Drill Collar — 2.25 Ft. Run <u>30'</u>	
Mud Wt. <u>9.2</u> LCM <u>1/4</u> Vis. <u>45</u> WL <u>8.0</u>	Drill Pipe Size <u>4.5x-10 1/2</u>	Ft. Run <u>4106</u>
Blow Description <u>1st. Surface blow - Dried in 20 min.</u>		

2nd. No blow - Flushed tool - No blow

Recovery — Total Feet <u>15'</u>	Ft. in DC <u>15'</u>	Ft. in WP <u> </u>	Ft. in DP <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud <u> </u>
Rec. <u>15'</u> Feet Of <u>Drilling mud</u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud <u> </u>

BHT 107 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 2000 ppm System

(A) Initial Hydrostatic Mud <u>2025</u>	<u>2004</u> PSI	Recorder No. <u>2351</u>	T-Started <u>1730</u>
(B) First Initial Flow Pressure <u>28</u>	<u>27</u> PSI	@ (depth) <u>4131</u>	T-Open <u>1945</u>
(C) First Final Flow Pressure <u>29</u>	<u>27</u> PSI	Recorder No. <u>11038</u>	T-Pulled <u>2100</u>
(D) Initial Shut-in Pressure <u>37</u>	<u>41</u> PSI	@ (depth) <u>4185</u>	T-Out <u>2300</u>
(E) Second Initial Flow Pressure <u>29</u>	<u>27</u> PSI	Recorder No. <u> </u>	
(F) Second Final Flow Pressure <u>32</u>	<u>27</u> PSI	@ (depth) <u> </u>	
(G) Final Shut-in Pressure <u> </u>	PSI	Initial Opening <u>30 min.</u>	Test <u>X</u> <u>700</u>
(H) Final Hydrostatic Mud <u>1998</u>	<u>1978</u> PSI	Initial Shut-in <u>30 min.</u>	Jars <u> </u>

Final Flow 15 min. Safety Joint
 Final Shut-in 004 Straddle

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Approved By

Our Representative Tom Horacek

Circ. Sub
 Sampler
 Extra Packer
 Elect. Rec. X 150
 Other
 TOTAL PRICE \$ 850