

Well Name: R. Miller #1-23
Company: Abercrombie Drilling Inc.
Location: 23-15s-29w
Gove County Kansas
Date: 12-10-98

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drlg.Inc.

DATE 12-7-98

WELL NAME: R. Miller #1-23

KB 2513.00 ft

TICKET NO: 11365

DST #1

LOCATION : 23-15S-29W Gove KS.

GR 2508.00 ft

FORMATION: L/KC "I"

INTERVAL : 3839.00 To 3872.00 ft

TD 3872.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	3024			PF Fr. 0921 to 0951 hr
SI 45 Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0951 to 1036 hr
SF 60 Clock(hrs)	12 HR	12	ALP			SF Fr. 1036 to 1136 hr
FS 45 Depth(ft)	3850.0	3850.0	3841.0	0.0	0.0	FS Fr. 1136 to 1216 hr

	Field	1	2	3	4	
A. Init Hydro	1922.0	1910.0	1853.0	0.0	0.0	T STARTED 0750 hr
B. First Flow	41.0	74.0	15.0	0.0	0.0	T ON BOTM 0919 hr
B1. Final Flow	52.0	76.0	54.0	0.0	0.0	T OPEN 0921 hr
C. In Shut-in	969.0	990.0	989.0	0.0	0.0	T PULLED 1216 hr
D. Init Flow	83.0	113.0	60.0	0.0	0.0	T OUT 1415 hr
E. Final Flow	124.0	135.0	120.0	0.0	0.0	
F. Fl Shut-in	919.0	953.0	950.0	0.0	0.0	
G. Final Hydro	1862.0	1885.0	1833.0	0.0	0.0	TOOL DATA-----
Inside/Outside	O	O	I			Tool Wt. 1800.00 lbs

RECOVERY

Tot Fluid 210.00 ft of 0.00 ft in DC and 210.00 ft in DP
 30.00 ft of Drilling mud
 180.00 ft of Water Mud 40% water 60% 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 RW .21 @ 80 deg =

SALINITY 30000.00 P.P.M. A.P.I. Gravity 0.00

Wt Set On Packer 30000.00 lbs
 Wt Pulled Loose 72000.00 lbs
 Initial Str Wt 60000.00 lbs
 Unseated Str Wt 60000.00 lbs
 Bot Choke 0.75 in
 Hole Size 8.88 in
 D Col. ID 0.00 in
 D. Pipe ID 3.80 in
 D.C. Length 0.00 ft
 D.P. Length 3257.00 ft
 H.W. I.D 2.80 in
 H.W. Length 566.00 ft

BLOW DESCRIPTION

Initial Flow:

Weak surface blow steady throughout

Final Flow:

Weak Surface return steady

MUD DATA-----
 Mud Type Chemical
 Weight 9.20 lb/cf
 Vis. 44.00 S/L
 W.L. 9.60 in3
 F.C. 0.00 in
 Mud Drop N

Amt. of fill 0.00 ft
 Btm. H. Temp. 121.00 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. Steve Davis
 Contr. Abercrombie
 Rig # 8
 Unit #
 Pump T.

SAMPLES:

SENT TO:

Test Successful:

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: R. Miller #1-23

LOCATION : 23-15S-29W Gove KS.

TICKET No. 11365 D.S.T. No. 1 DATE 12-7-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL 33

BOTTOM PACKERS AND ANCHOR

TOTAL TOOL 53

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 53

C. ABOVE TOOLS.Stands Single Total

P. ABOVE TOOLS.Stands62 Single Total 3853

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3906

TOTAL DEPTH 3872

TOTAL DRILL PIPE ABOVE K.B. 34

REMARKS:

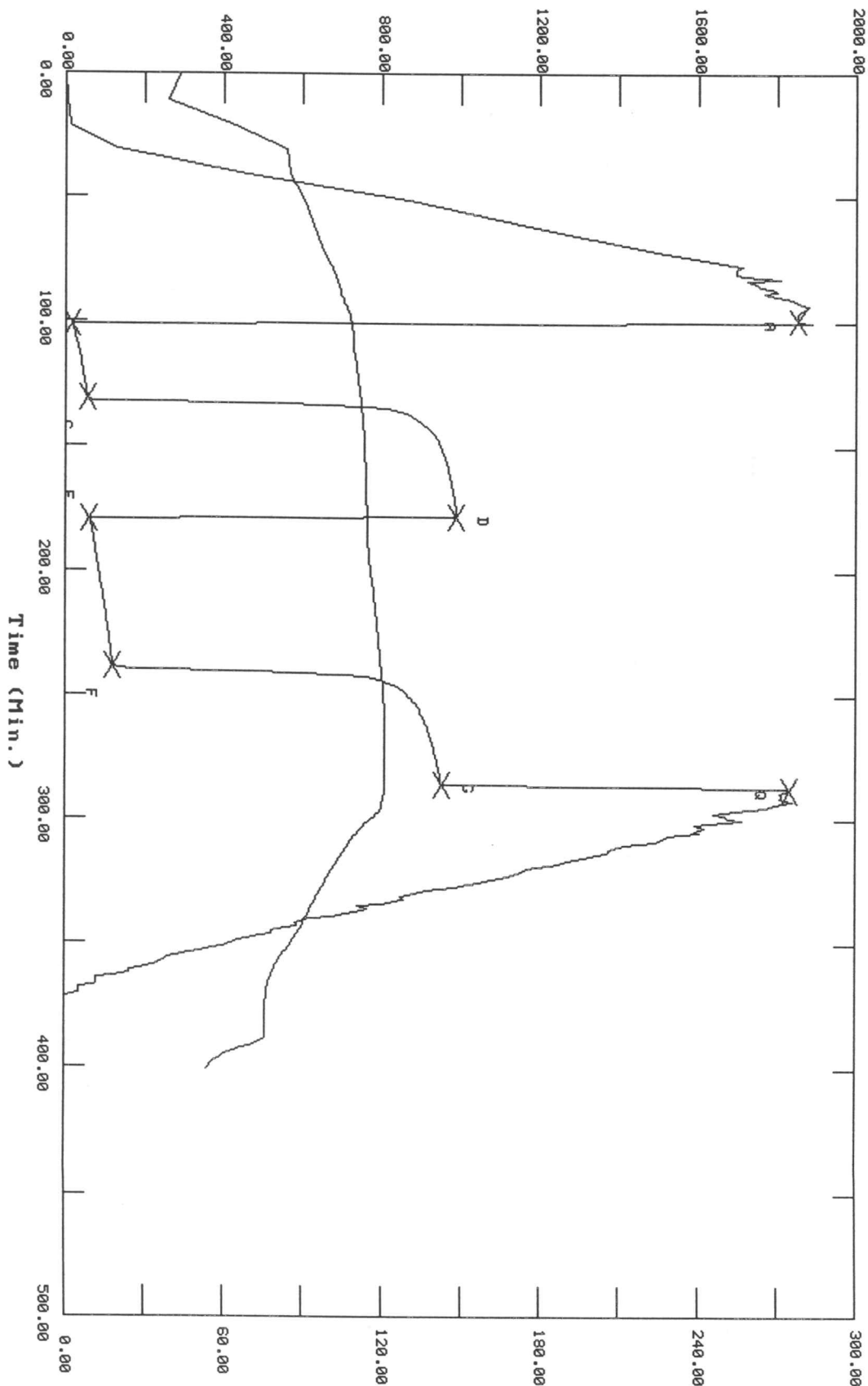
P.O. SUB 1' Above 120' WP	3699
C.O. SUB 1'	3819
S.I. TOOL 5'	3825
HMV 5'	3830
JARS n/a	
SAFETY JOINT n/a	
PACKER 4'	3834
PACKER 5'	3839
DEPTH	
STUBB 1'	3840
ANCHOR	
ALP Rec. @	3841
AK-1 rec. @	3850
27' Perf.	3867
T.C.	
DEPTH	
BULLNOSE 5'	
T.D.	3872

11365 DST #1 R. Miller #1-23 Abercrombie Drig. Inc.

TEST HISTORY

Flag Points
t(Min.) P(PSig)

A:	0.00	1853.22
B:	0.00	15.06
C:	30.00	54.78
D:	47.00	989.27
E:	0.00	60.43
F:	60.00	120.21
G:	47.00	950.58
Q:	0.00	1833.32



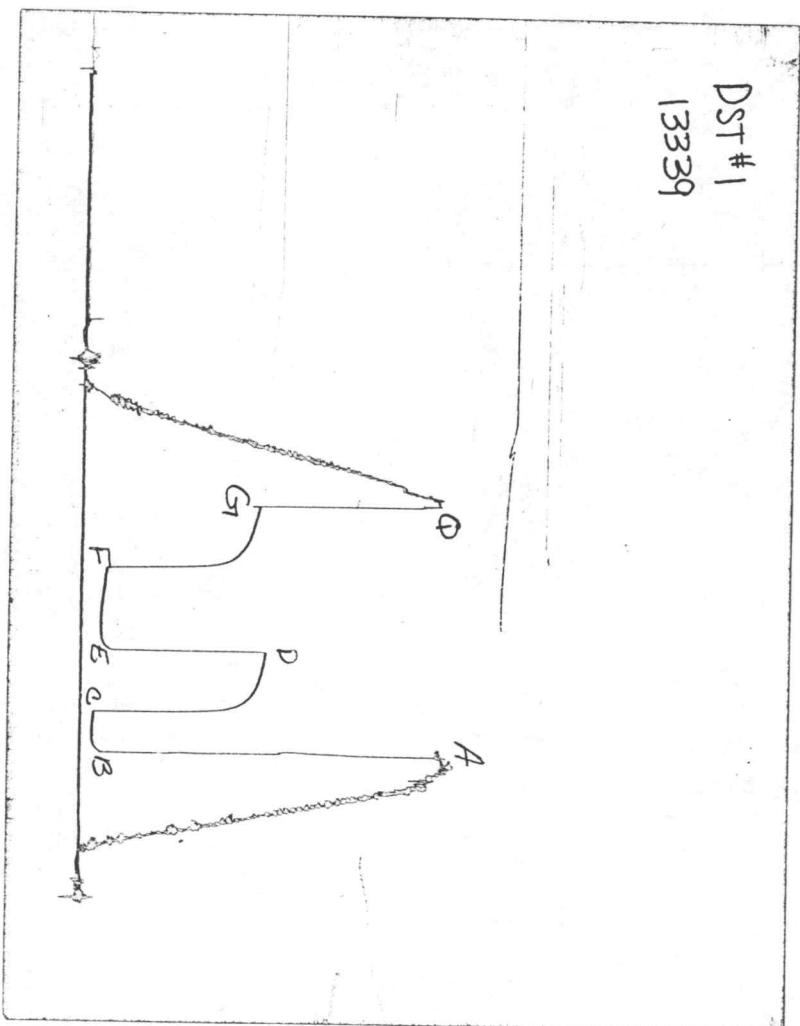
Pressure (PSig)

Temperature (DEG F)

Time (Min.)

CHART PAGE

DST #1
13339



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 11365

Well Name & No.	<u>R. Miller #1-23</u>	Test No.	<u>1</u>	Date	<u>12-7-98</u>
Company	<u>Abercrombie Drilling Inc.</u>	Zone Tested	<u>L/KC I</u>		
Address	<u>150 N Main Ste 801 Wichita, KS. 67202</u>	Elevation	<u>2513</u>	KB	<u>2508 GL</u>
Co. Rep / Geo.	<u>Steve Davis</u>	Cont.	<u>Abercrombie #8</u>	Est. Ft. of Pay	<u> </u> Por. <u> </u> %
Location: Sec.	<u>23</u>	Twp.	<u>15^S</u>	Rge.	<u>29^W</u> Co. <u>Gove</u> State <u>KS</u>
No. of Copies	<u>Nml</u>	Distribution Sheet (Y, N)	<u>N</u>	Turnkey (Y, N)	<u>N</u> Evaluation (Y, N) <u> </u>

Interval Tested	<u>3839 - 3872</u>	Initial Str Wt./Lbs.	<u>60,000</u>	Unseated Str Wt./Lbs.	<u>60,000</u>
Anchor Length	<u>33'</u>	Wt. Set Lbs.	<u>30,000</u>	Wt. Pulled Loose/Lbs.	<u>73,000</u>
Top Packer Depth	<u>3834</u>	Tool Weight	<u>1,800</u>		
Bottom Packer Depth	<u>3839</u>	Hole Size — 7 7/8"		Rubber Size — 6 3/4"	
Total Depth	<u>3872</u>	Wt. Pipe Run	<u>566'</u>	Drill Collar Run	<u>287</u>
Mud Wt. <u>9.4</u> LCM <u> </u> Vis. <u>44</u> WL <u>9.6</u>		Drill Pipe Size	<u>4 1/2" XH</u>	Ft. Run	<u>3833' (62)</u>
Blow Description	<u>IF: Weak surface blow steady throughout</u>				

FF: Weak surface return steady throughout

Recovery — Total Feet	<u>210'</u>	GIP	<u> </u>	Ft. in DC	<u> </u>	Ft. in ^{WP} DP	<u>210'</u>
Rec. <u> </u> Feet Of <u> </u>		%gas		%oil		%water	%mud
Rec. <u>30'</u> Feet Of <u>Drilg Mud</u>		%gas		%oil		%water	%mud
Rec. <u> </u> Feet Of <u> </u>		%gas		%oil		%water	%mud
Rec. <u>180'</u> Feet Of <u>WM</u>		%gas		%oil	<u>40</u>	%water	<u>60</u> %mud
Rec. <u> </u> Feet Of <u> </u>		%gas		%oil		%water	%mud

BHT 121.21 °F Gravity 80" °API D@ °F Corrected Gravity °API

RW .21 @ 80° °F Chlorides 30,000 ppm Recovery Chlorides 2,000 ppm System

(A) Initial Hydrostatic Mud	<u>1922</u>	<u>1853</u>	PSI	Recorder No.	<u>3024</u>	T-Started	<u>0750</u>
(B) First Initial Flow Pressure	<u>41</u>	<u>15</u>	PSI	(depth)	<u>3841</u>	T-Open	<u>0921</u>
(C) First Final Flow Pressure	<u>52</u>	<u>54</u>	PSI	Recorder No.	<u>13339</u>	T-Pulled	<u>1216</u>
(D) Initial Shut-in Pressure	<u>969</u>	<u>989</u>	PSI	(depth)	<u>3850</u>	T-Out	<u>1415</u>
(E) Second Initial Flow Pressure	<u>83</u>	<u>60</u>	PSI	Recorder No.	<u> </u>		
(F) Second Final Flow Pressure	<u>124</u>	<u>120</u>	PSI	(depth)	<u> </u>		
(G) Final Shut-in Pressure	<u>919</u>	<u>950</u>	PSI	Initial Opening	<u>30</u>	Test	<u> </u>
(H) Final Hydrostatic Mud	<u>1862</u>	<u>1833</u>	PSI	Initial Shut-in	<u>45</u>	Jars	<u> </u>

AK-1 Mech. Alp Elec.

Final Flow 60 Safety Joint

Final Shut-in 45 Straddle

on loc. 0615 Circ. Sub X N/C

off loc. 1500 Sampler

Extra Packer

Elect. Rec. X

Other

TOTAL PRICE \$

Approved By

Our Representative Rod Steinbrink

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.

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drlg.Inc.

DATE 12-8-98

WELL NAME: R. Miller #1-23

KB 2513.00 ft TICKET NO: 11366 DST #2

LOCATION : 23-15S-29W Gove KS.

GR 2508.00 ft FORMATION: Lans/KC "K"

INTERVAL : 3895.00 To 3914.00 ft

TD 3914.00 ft TEST TYPE: COVNVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	3024			PF Fr. 0454 to 0524 hr
SI 45 Range (Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0524 to 0609 hr
SF 30 Clock (hrs)	12 HR	12	ALP			SF Fr. 0609 to 0639 hr
FS 45 Depth (ft)	3905.0	3905.0	3900.0	0.0	0.0	FS Fr. 0639 to 0724 hr

	Field	1	2	3	4	
A. Init Hydro	1972.0	1976.0	1914.0	0.0	0.0	T STARTED 0240 hr
B. First Flow	20.0	32.0	13.0	0.0	0.0	T ON BOTM 0452 hr
B1. Final Flow	20.0	32.0	16.0	0.0	0.0	T OPEN 0454 hr
C. In Shut-in	415.0	431.0	422.0	0.0	0.0	T PULLED 0724 hr
D. Init Flow	41.0	85.0	16.0	0.0	0.0	T OUT 0930 hr
E. Final Flow	41.0	75.0	21.0	0.0	0.0	
F. Fl Shut-in	405.0	424.0	413.0	0.0	0.0	
G. Final Hydro	1962.0	1970.0	1886.0	0.0	0.0	
Inside/Outside	O	O	I			

RECOVERY

Tot Fluid 20.00 ft of 0.00 ft in DC and 20.00 ft in DP

20.00 ft of Drillin 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:

Steady 1/4" blow throughout

Final Flow:

Surface return died in 10 mins.

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb/cf
Vis.	50.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop N	

Amt. of fill	0.00 ft
Btm. H. Temp.	115.00 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.	Steve Davis
Contr.	Abercrombie
Rig #	8
Unit #	
Pump T.	

SAMPLES:

SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** COVNVENTIONAL

ELL NAME: R. Miller #1-23

OCATION : 23-15S-29W Gove KS.

ICKET No. 11366 D.S.T. No. 2 DATE 12-8-98

OTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL 19

OTTOM PACKERS AND ANCHOR

OTAL TOOL 39

RILL COLLAR ANCHOR IN INTERVAL

.C. ANCHOR STND.Stands Single Total

.P. ANCHOR STND.Stands Single Total

OTAL ASSEMBLY 39

.C. ABOVE TOOLS.Stands Single Total

.P. ABOVE TOOLS.Stands62 Single 1 Total 3885

OTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3924

OTAL DEPTH 3914

OTAL DRILL PIPE ABOVE K.B. 10

EMARKS:

P.O. SUB 1' Above 120' WP	3755
C.O. SUB 1'	3876
S.I. TOOL 5'	3881
HMV 5'	3886
JARS n/a	
SAFETY JOINT n/a	
PACKER 4'	3890
PACKER 5'	3895
DEPTH	
STUBB 1'	3896
ANCHOR	
ALP. Rec. @	3900
AK-1 Rec. @	3905
13' Perf	3909
T.C.	
DEPTH	
BULLNOSE 5'	
T.D.	3914

TEST HISTORY

11366 DST #2 R. Miller #1-23 Abercrombie Dr Ig. Inc.

Flag Points
t(Min.) P(PSig)

R:	0.00	1914.09
B:	0.00	13.52
C:	33.00	16.01
D:	43.00	422.52
E:	0.00	16.65
F:	29.00	21.07
G:	46.00	413.53
Q:	0.00	1886.07

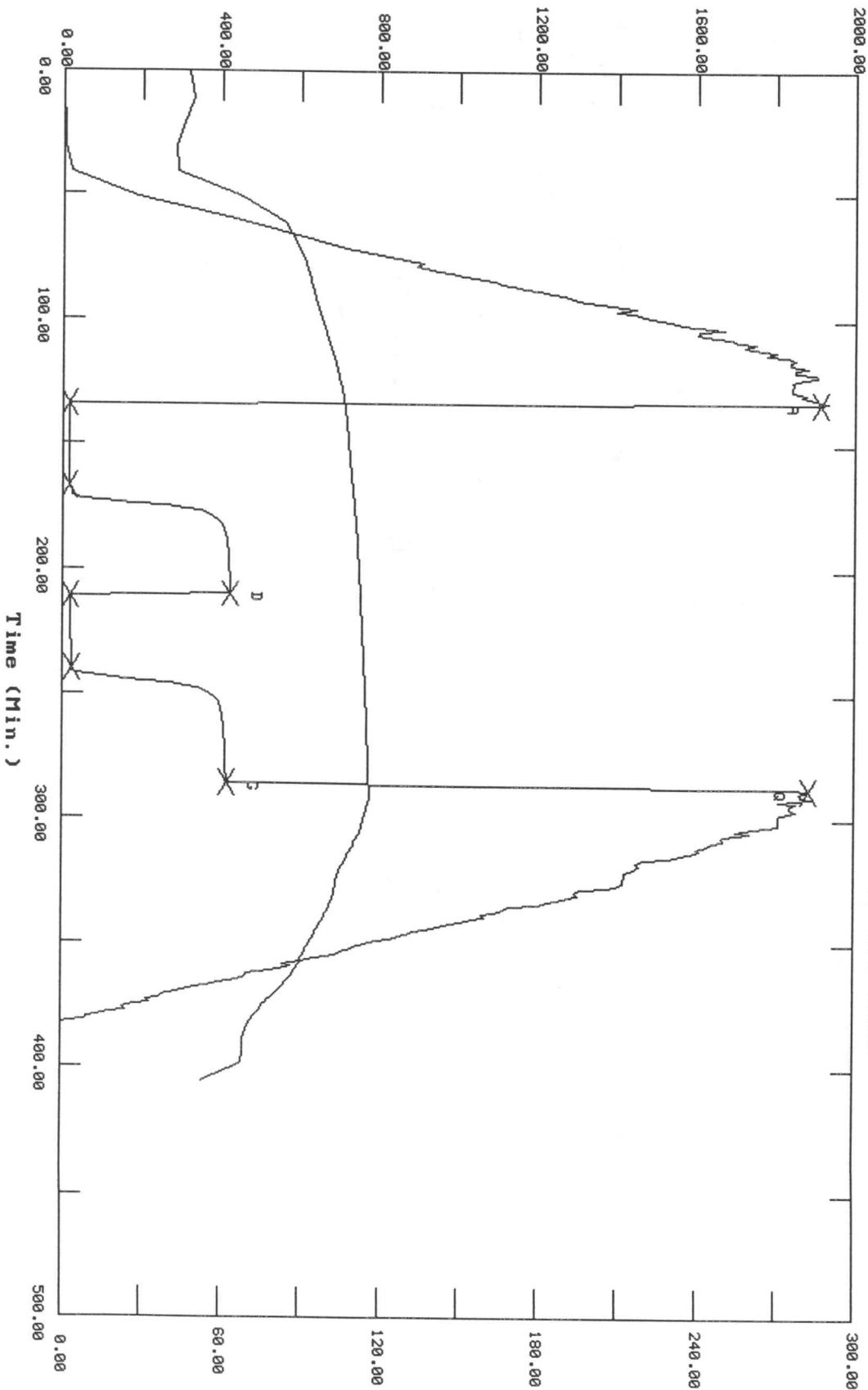
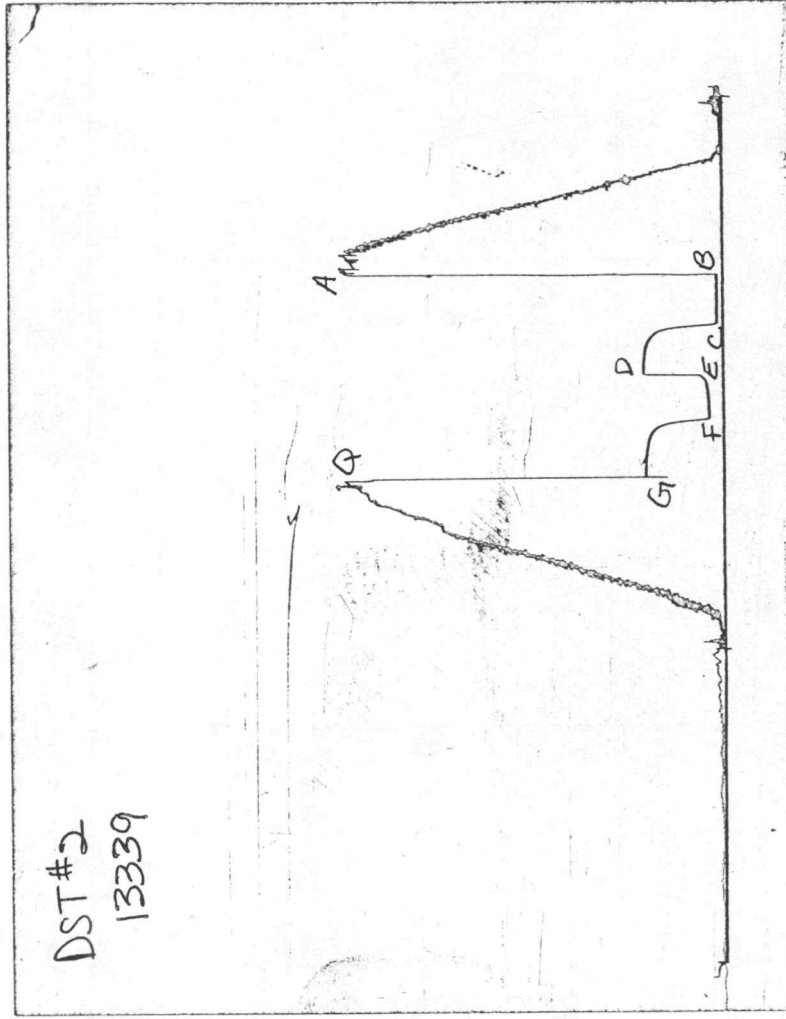


CHART PAGE



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 11366

Well Name & No.	<u>R. Miller #1-23</u>	Test No.	<u>2</u>	Date	<u>12-8-98</u>
Company	<u>Abercrombie Drilling Inc</u>	Zone Tested	<u>Lans/KC 'K'</u>		
Address	<u>150 N. Main Ste 801 Wichita, KS. 67202</u>	Elevation	<u>2513</u>	KB	<u>2508 GL</u>
Co. Rep / Geo.	<u>Steve Davis</u>	Cont.	<u>Abercrombie #8</u>	Est. Ft. of Pay	<u> </u> Por. <u> </u> %
Location: Sec.	<u>23</u>	Twp.	<u>15 S</u>	Rge.	<u>29 W</u> Co. <u>Gove</u> State <u>KS</u>
No. of Copies	<u>Nml</u>	Distribution Sheet (Y, N)	<u>N</u>	Turnkey (Y, N)	<u>N</u> Evaluation (Y, N) <u> </u>

Interval Tested	<u>3895 - 3914</u>	Initial Str Wt./Lbs.	<u>60,000</u>	Unseated Str Wt./Lbs.	<u>60,000</u>
Anchor Length	<u>19'</u>	Wt. Set Lbs.	<u>30,000</u>	Wt. Pulled Loose/Lbs.	<u>65,000</u>
Top Packer Depth	<u>3890</u>	Tool Weight	<u>1,800</u>		
Bottom Packer Depth	<u>3895</u>	Hole Size — 7 7/8"		Rubber Size — 6 3/4"	
Total Depth	<u>3914</u>	Wt. Pipe Run	<u>566 (19)</u>	Drill Collar Run	<u> </u>
Mud Wt. <u>9.1</u> LCM <u> </u> Vis. <u>50</u> WL <u>9.6</u>		Drill Pipe Size	<u>4 1/2" XH</u>	Ft. Run	<u>3319' (53)</u>
Blow Description	<u>IF: Steady 1/4" blow throughout</u>				

FF: Surface return died in 10 mins.

Recovery — Total Feet	<u>20'</u>	GIP	<u> </u>	Ft. in DC	<u> </u>	Ft. in ^{WP} BP	<u>20'</u>
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
Rec.	<u>20'</u>	Feet Of	<u>Drilg Mud</u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud

BHT 115° °F Gravity °API D@ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 2,000 ppm System

(A) Initial Hydrostatic Mud	<u>1972</u>	<u>1914</u>	PSI	Recorder No.	<u>3024</u>	T-Started	<u>0240</u>
(B) First Initial Flow Pressure	<u>20</u>	<u>13</u>	PSI	(depth)	<u>3900</u>	T-Open	<u>0454</u>
(C) First Final Flow Pressure	<u>20</u>	<u>16</u>	PSI	Recorder No.	<u>13339</u>	T-Pulled	<u>0724</u>
(D) Initial Shut-in Pressure	<u>415</u>	<u>422</u>	PSI	(depth)	<u>3905</u>	T-Out	<u>0930</u>
(E) Second Initial Flow Pressure	<u>41</u>	<u>16</u>	PSI	Recorder No.	<u> </u>		
(F) Second Final Flow Pressure	<u>41</u>	<u>21</u>	PSI	(depth)	<u> </u>		
(G) Final Shut-in Pressure	<u>405</u>	<u>413</u>	PSI	Initial Opening	<u>30</u>	Test	<u> </u>
(H) Final Hydrostatic Mud	<u>1962</u>	<u>1886</u>	PSI	Initial Shut-in	<u>45</u>	Jars	<u> </u>

AK-1 Mech Alp Elec.

Final Flow 30 Safety Joint

Final Shut-in 45 Straddle

on loc 0130 Circ. Sub X N/C

off loc 1000 Sampler

Extra Packer

Elect. Rec. X

Other

TOTAL PRICE \$

Approved By St. Os

Our Representative Rod Steinbrink

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.

