

Computer Inventoried

ORIGINAL

RELEASED

SEP 28 1989

FROM

**WELL NAME:**

**COMPANY:**

**LOCATION:**

**DATE:**

Lawrence Manhart

Ritchie Exploration

27-9S-29W

Sheridan County Kansas

04/10/97

PLEASE KEEP THIS  
INFORMATION  
CONFIDENTIAL

15-179-21091

Not  
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CONFIDENTIAL

**CONFIDENTIAL**

TRILOBITE TESTING L.L.C.

**ORIGINAL**

OPERATOR : Ritchie Exploration  
WELL NAME: Lawrence Manhart  
LOCATION : 27-9-29- Sheridan KS  
INTERVAL : 3962.00 To 4000.00 ft

DATE 4/7/97

KB 2892.00 ft TICKET NO: 9955 DST #1  
GR 2882.00 ft FORMATION: Toronto  
TD 4000.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11057	11057	11058			PF Fr. 1112 to 1142 hr
SI 30 Range(Psi )	4500.0	4500.0	4475.0	0.0	0.0	IS Fr. 1142 to 1212 hr
SF 30 Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 1212 to 1242 hr
FS 30 Depth(ft )	3968.0	3968.0	3997.0	0.0	0.0	FS Fr. 1242 to 1312 hr

	Field	1	2	3	4	
A. Init Hydro	1970.0	1925.0	0.0	0.0	0.0	T STARTED 0920 hr
B. First Flow	33.0	43.0	0.0	0.0	0.0	T ON BOTM 1100 hr
B1. Final Flow	22.0	21.0	0.0	0.0	0.0	T OPEN 1112 hr
C. In Shut-in	973.0	962.0	0.0	0.0	0.0	T PULLED 1312 hr
D. Init Flow	33.0	40.0	0.0	0.0	0.0	T OUT 1600 hr
E. Final Flow	22.0	36.0	0.0	0.0	0.0	
F. Fl Shut-in	950.0	930.0	0.0	0.0	0.0	
G. Final Hydro	1959.0	1866.0	0.0	0.0	0.0	TOOL DATA-----
Inside/Outside	I	I	O			Tool Wt. 4000.00 lbs
						Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 0.00 lbs
						Initial Str Wt 6000.00 lbs
						Unseated Str Wt 60000.00 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 0.00 ft
						D.P. Length 3973.00 ft

RECOVERY

Tot Fluid 20.00 ft of 0.00 ft in DC and 20.00 ft in DP  
20.00 ft of Slight Oil Cut Mud  
0.00 ft of 3%oil 97%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

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

BLOW DESCRIPTION

Initial Flow:  
Weak surface blow

Initial Shut In:  
No return

Final Flow:  
Bubble to open tool, no blow

Final Shut In:  
No return

SAMPLES:  
SENT TO:

Test Successful: Y

MUD DATA-----

Mud Type	Chmical
Weight	9.20 lb/cf
Vis.	45.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	111.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Shane McBride
Co. Rep.	Jeff Christian
Contr.	White & Ellis
Rig #	
Unit #	
Pump T.	

RELEASED

SEP 28 1999

FROM C

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

N° 9955

Well Name & No. #/Lawrence Manhart Test No. #/ Date 4-7-97  
Company Ritchie Exploration Zone Tested Tarrant  
Address 2511 Market Suite 100, Wichita, KS 67602 Elevation 2892' KB 282' GL  
Co. Rep / Geol J.F. Christian Cont. White, C.H.S. Est. Ft. of Pay      Por.      %  
Location: Sec. 27 Twp. 9 Rge. 29 Co. Shenandoah State Ks  
No. of Copies Ann Distribution Sheet (Y, N)      Turnkey (Y, N) N Evaluation (Y, N)     

Interval Tested 3962' 4000' Initial Str Wt./Lbs. 60,000 Unseated Str Wt./Lbs. 60,000  
Anchor Length      38' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs.       
Top Packer Depth      3957' Tool Weight 4,000  
Bottom Packer Depth      3962' Hole Size — 7 7/8"  Rubber Size — 6 3/4"   
Total Depth      4000' Wt. Pipe Run      Drill Collar Run       
Mud Wt. 9.2 LCM      Vis. 45 WL 9.6 Drill Pipe Size 4 1/2 XH Ft. Run 3973'  
Blow Description seal surface blow

SEI: No return  
F: Bubble to open tool — No Blow  
SI: No return

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>20'</u> Feet Of <u>Slightly oil cut mud</u>	<u>    </u>	<u>    </u>	<u>20'</u>
Rec. <u>    </u> Feet Of <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
Rec. <u>    </u> Feet Of <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
Rec. <u>    </u> Feet Of <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
Rec. <u>    </u> Feet Of <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

BHT 111° °F Gravity      °API D@      °F Corrected Gravity      °API

RW      @      °F Chlorides      ppm Recovery Chlorides 500 ppm System

- (A) Initial Hydrostatic Mud 1970 PSI Recorder No. 11057 T-Started 09:20 A.M.
- (B) First Initial Flow Pressure 33 PSI (depth) 3968' T-Open 11:12 A.M.
- (C) First Final Flow Pressure 22 PSI Recorder No. 11058 T-Pulled 13:12 P.M.
- (D) Initial Shut-in Pressure 973 PSI (depth) 3977' T-Out
- (E) Second Initial Flow Pressure 33 PSI Recorder No.
- (F) Second Final Flow Pressure 22 PSI (depth)
- (G) Final Shut-in Pressure 950 PSI Initial Opening 30 Test X
- (H) Final Hydrostatic Mud 1959 PSI Initial Shut-in 30 Jars

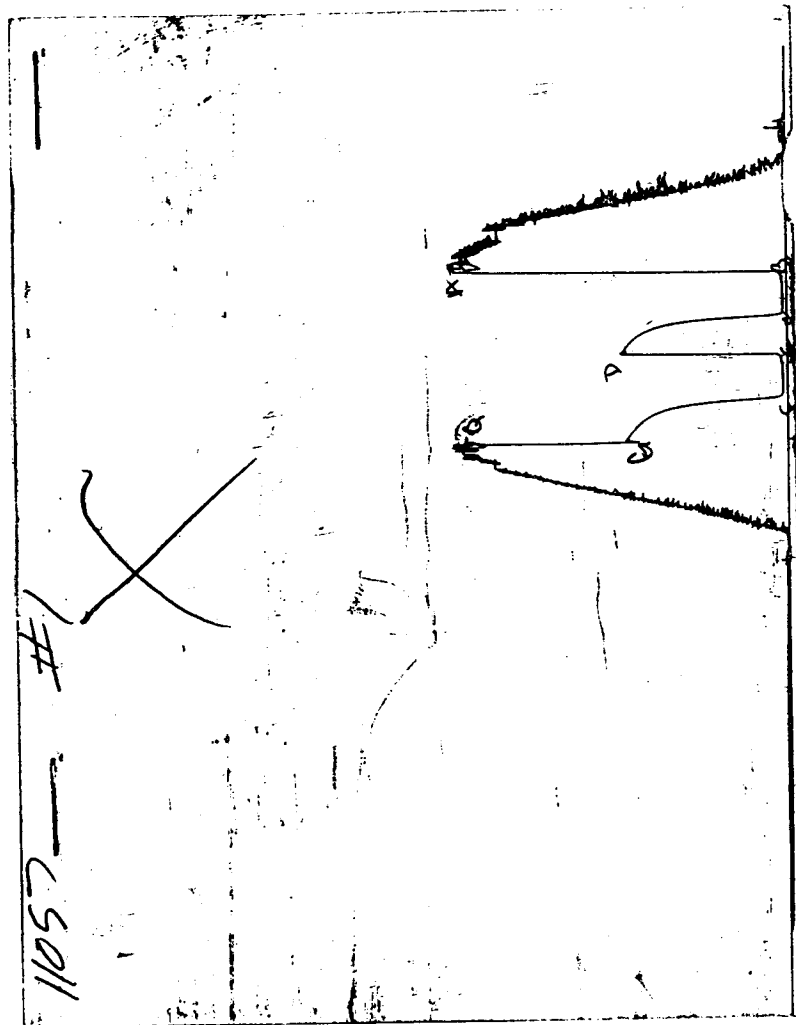
Final Flow 30 Safety Joint       
Final Shut-in 30 Straddle     

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 J.F. Christian  
Our Representative J.F. Christian

Circ. Sub X N/C  
Sampler       
Extra Packer       
Elect. Rec.       
Other       
TOTAL PRICE \$

CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Ritchie Exploration DATE 4/8/97  
 WELL NAME: Lawrence Manhart #1 KB 2892.00 ft . TICKET NO: 9956 DST #2  
 LOCATION : 27-9-29 Sheridan KS GR 2882.00 ft FORMATION: Lansing KC "E-F"  
 INTERVAL : 4060.00 To 4090.00 ft TD 4090.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	11057	11057	11058		PF Fr. 0655 to 0725 hr
SI 30	Range(Psi )	4500.0	4500.0	4475.0	0.0	0.0 IS Fr. 0725 to 0755 hr
SF 30	Clock(hrs)	12 Hr	12 HR	12 HR		SF Fr. 0755 to 0825 hr
FS 30	Depth(ft )	4065.0	4065.0	4087.0	0.0	0.0 FS Fr. 0825 to 0855 hr

	Field	1	2	3	4	
A. Init Hydro	1959.0	1952.0	0.0	0.0	0.0	T STARTED 0435 hr
B. First Flow	33.0	65.0	0.0	0.0	0.0	T ON BOTM 0645 hr
B1. Final Flow	44.0	65.0	0.0	0.0	0.0	T OPEN 0655 hr
C. In Shut-in	1466.0	1477.0	0.0	0.0	0.0	T PULLED 0855 hr
D. Init Flow	56.0	97.0	0.0	0.0	0.0	T OUT 1050 hr
E. Final Flow	67.0	84.0	0.0	0.0	0.0	
F. Fl Shut-in	1264.0	1262.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1948.0	1940.0	0.0	0.0	0.0	Tool Wt. 4000.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 70000.00 lbs
						Initial Str Wt 61000.00 lbs
						Unseated Str Wt 61000.00 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 0.00 ft
						D.P. Length 4071.00 ft

RECOVERY

Tot Fluid 120.00 ft of 0.00 ft in DC and 120.00 ft in DP  
 120.00 ft of Water Cut Mud  
 0.00 ft of 30%water 70%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 .35 @ 65F  
 SALINITY 20000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/cf
Vis.	47.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	shane McBride
Co. Rep.	Jeff Christian
Contr.	White & Ellis
Rig #	
Unit #	
Pump T.	

BLOW DESCRIPTION

Initial Flow:  
 1/2" blow at open, built to 1.5"  
 Initial Shut In:  
 No return  
 Final Flow:  
 Weak surface blow in 10 min .25"  
 Final Shut In:  
 No return

SAMPLES:  
 SENT TO:

Test Successful: Y

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

Nº 9956

Well Name & No. <u>Lawrence Marhart</u>	Test No. <u>2</u>	Date <u>4-8-97</u>
Company <u>Ritchie Exploration</u>	Zone Tested <u>("E-F")</u>	
Address <u>125 N. Market Suite 1000, Wichita KS 67202</u>	Elevation <u>2892'</u>	KB <u>2882'</u> GL
Co. Rep / Geo. <u>Jeff Christian</u>	Cont. <u>White &amp; Ellis</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>27</u> Twp. <u>9</u> Rge. <u>29</u>	Co. <u>Sheridan</u>	State <u>KS</u>
No. of Copies <u>N/A</u>	Distribution Sheet (Y, N) <u>N</u>	Turnkey (Y, N) <u>N</u> Evaluation (Y, N) _____

Interval Tested <u>4060'</u>	<u>4090'</u>	Initial Str Wt./Lbs. <u>61,000</u>	Unseated Str Wt./Lbs. <u>61,000</u>
Anchor Length _____	<u>30'</u>	Wt. Set Lbs. <u>26,000</u>	Wt. Pulled Loose/Lbs. <u>71,000</u>
Top Packer Depth _____	<u>4055'</u>	Tool Weight <u>4,000</u>	
Bottom Packer Depth _____	<u>4060'</u>	Hole Size — 7 7/8" <input checked="" type="checkbox"/>	Rubber Size — 6 3/4" <input checked="" type="checkbox"/>
Total Depth _____	<u>4090'</u>	Wt. Pipe Run _____	Drill Collar Run _____
Mud Wt. <u>9.3</u> LCM _____ Vis. <u>47</u> WL <u>8.8</u>		Drill Pipe Size <u>4 1/2 XH</u>	Ft. Run <u>4071'</u>
Blow Description <u>1/2" @ open built to 1 1/2" in.</u>			

I.S.I: No return  
 F.F. weak surface blow in 10 min 1/4" in  
 F.S.I: No return

Recovery — Total Feet <u>120'</u>	GIP _____	Ft. in DC _____	Ft. in DP <u>120'</u>
Rec. <u>120'</u> Feet Of <u>Water Cut Mud</u>	%gas _____	%oil _____	<u>30</u> %water <u>70</u> %mud
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____

BHT 118° °F Gravity \_\_\_\_\_ °API D@ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW 35 @ 65° °F Chlorides 20,000 ppm Recovery Chlorides 500 ppm System

- (A) Initial Hydrostatic Mud 1959 PSI Recorder No. 11057 T-Started 04:35 AM
- (B) First Initial Flow Pressure 33 PSI (depth) 4065' T-Open 06:55 AM
- (C) First Final Flow Pressure 44 PSI Recorder No. 11058 T-Pulled 08:55 AM
- (D) Initial Shut-in Pressure 1466 PSI (depth) 4087' T-Out 10:50 AM
- (E) Second Initial Flow Pressure 56 PSI Recorder No. \_\_\_\_\_
- (F) Second Final Flow Pressure 67 PSI (depth) \_\_\_\_\_
- (G) Final Shut-in Pressure 1264 PSI Initial Opening 30 Test X
- (H) Final Hydrostatic Mud 1948 PSI Initial Shut-in 30 Jars \_\_\_\_\_

Final Flow 30 Safety Joint \_\_\_\_\_  
 Final Shut-in 30 Straddle \_\_\_\_\_

Circ. Sub X N/C

Sampler \_\_\_\_\_

Extra Packer \_\_\_\_\_

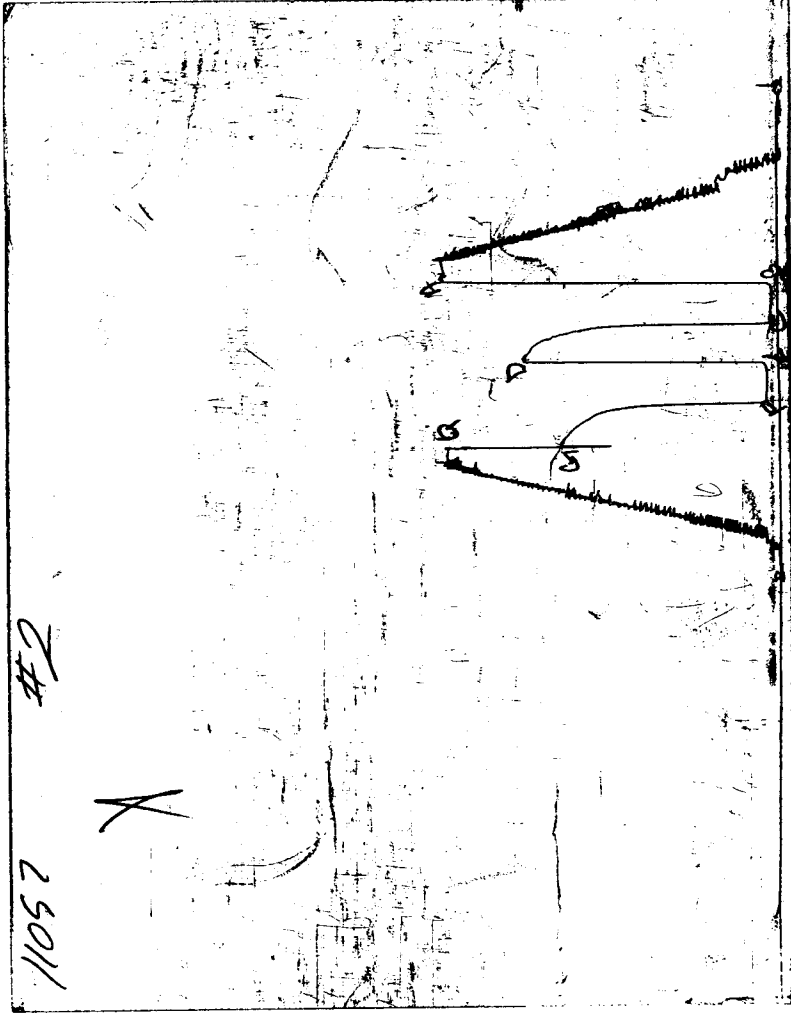
Elect. Rec. \_\_\_\_\_

Other \_\_\_\_\_

Approved By Jeff Christian

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CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Ritchie Exlporation DATE 4-9-97  
 WELL NAME: Lawrence Manhart #1 KB 2892.00 ft TICKET NO: 9957 DST #3  
 LOCATION : 27-9-29 GR 2882.00 ft FORMATION: Lansing KS "H-L"  
 INTERVAL : 4119.00 To 4260.00 ft TD 4260.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 15 Rec.	11057	11057	11058			PF Fr. 0808 to 0823 hr
SI 0 Range(Psi )	4500.0	4500.0	4257.0	0.0	0.0	IS Fr. to hr
SF 0 Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. to hr
FS 15 Depth(ft )	4125.0	4125.0	4257.0	0.0	0.0	FS Fr. 0823 to 0838 hr

	Field	1	2	3	4	
A. Init Hydro	2038.0	2059.0	0.0	0.0	0.0	T STARTED 0615 hr
B. First Flow	33.0	43.0	0.0	0.0	0.0	T ON BOTM 0800 hr
B1. Final Flow	22.0	27.0	0.0	0.0	0.0	T OPEN 0808 hr
C. In Shut-in	0.0	0.0	0.0	0.0	0.0	T PULLED 0838 hr
D. Init Flow	0.0	0.0	0.0	0.0	0.0	T OUT 1045 hr
E. Final Flow	0.0	0.0	0.0	0.0	0.0	
F. Fl Shut-in	928.0	905.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2027.0	2038.0	0.0	0.0	0.0	Tool Wt. 6000.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 90000.00 lbs
						Initial Str Wt 63000.00 lbs
						Unseated Str Wt 63000.00 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 0.00 ft
						D.P. Length 4255.00 ft

RECOVERY

Tot Fluid 25.00 ft of 0.00 ft in DC and 25.00 ft in DP  
 25.00 ft of Drilling Mud Trace Oil  
 0.00 ft of 2%oil 98%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:  
 1/2" blow

Initial Shut In:

Final Flow:

Final Shut In:  
 No return

SAMPLES:  
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	48.00 S/L
W.L.	8.90 in3
F.C.	0.00 in
Mud Drop	

Amt. of fill	0.00 ft
Btm. H. Temp.	112.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00

Cushion Type  
 Reversed Out  
 Tool Chased  
 Tester Shane McBride  
 Co. Rep. Jeff Christian  
 Contr. White & Ellis  
 Rig #  
 Unit #  
 Pump T.

Test Successful: Y

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

N<sup>o</sup> 9957

Well Name & No. #1 Lawrence Manhattan Test No. 3 Date 4-9-97  
Company R. Ichie Exploration Zone Tested ("H-L")  
Address 125 N. Market Suite 1000, Wichita, KS 67602 Elevation 2892' KB 2882' GL  
Co. Rep / Geo. Jesse Christian Cont. White & Ellis Est. Ft. of Pay      Por.      %  
Location: Sec. 27 Twp. 9 Rge. 29 Co. Sheridan State KS  
No. of Copies None Distribution Sheet (Y, N) N Turnkey (Y, N) N Evaluation (Y, N)     

Interval Tested 4119' - 4260' Initial Str Wt./Lbs. 63,000 Unseated Str Wt./Lbs. 63,000  
Anchor Length      141' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs. 94,000  
Top Packer Depth      4114' Tool Weight 6,000  
Bottom Packer Depth      4119' Hole Size — 7 7/8"  Rubber Size — 6 3/4"   
Total Depth      4260' Wt. Pipe Run      Drill Collar Run       
Mud Wt. 9.2 LCM      Vis. 48 WL 8.9 Drill Pipe Size 4 1/2 XH Ft. Run 4255'  
Blow Description 1/2" in blow

ISI:     

FF:     

FST: No return

Recovery — Total Feet 25' GIP      Ft. in DC      Ft. in DP 25'  
Rec. 25' Feet Of Drty Mud Trace %gas 2 %oil      %water 98 %mud       
Rec.      Feet Of      %gas      %oil      %water      %mud       
Rec.      Feet Of      %gas      %oil      %water      %mud       
Rec.      Feet Of      %gas      %oil      %water      %mud       
Rec. 112' Feet Of      %gas      %oil      %water      %mud       
BHT      °F Gravity      °API @      °F Corrected Gravity      °API  
RW      @      °F Chlorides      ppm Recovery Chlorides 500 ppm System

(A) Initial Hydrostatic Mud 2038 PSI Recorder No. 11057 T-Started 06:15 AM  
(B) First Initial Flow Pressure 33 PSI (depth) 4125' T-Open 08:08 AM  
(C) First Final Flow Pressure 22 PSI Recorder No. 11058 T-Pulled 08:38 AM  
(D) Initial Shut-in Pressure      PSI (depth) 4257' T-Out 10:45 AM  
(E) Second Initial Flow Pressure      PSI Recorder No.       
(F) Second Final Flow Pressure      PSI (depth)       
(G) Final Shut-in Pressure 928 PSI Initial Opening 15 Test X  
(H) Final Hydrostatic Mud 2027 PSI Initial Shut-in      Jars     

Final Flow      Safety Joint     

Final Shut-in 15 Straddle     

Circ. Sub X N/C

Sampler     

Extra Packer     

Elect. Rec.     

Other     

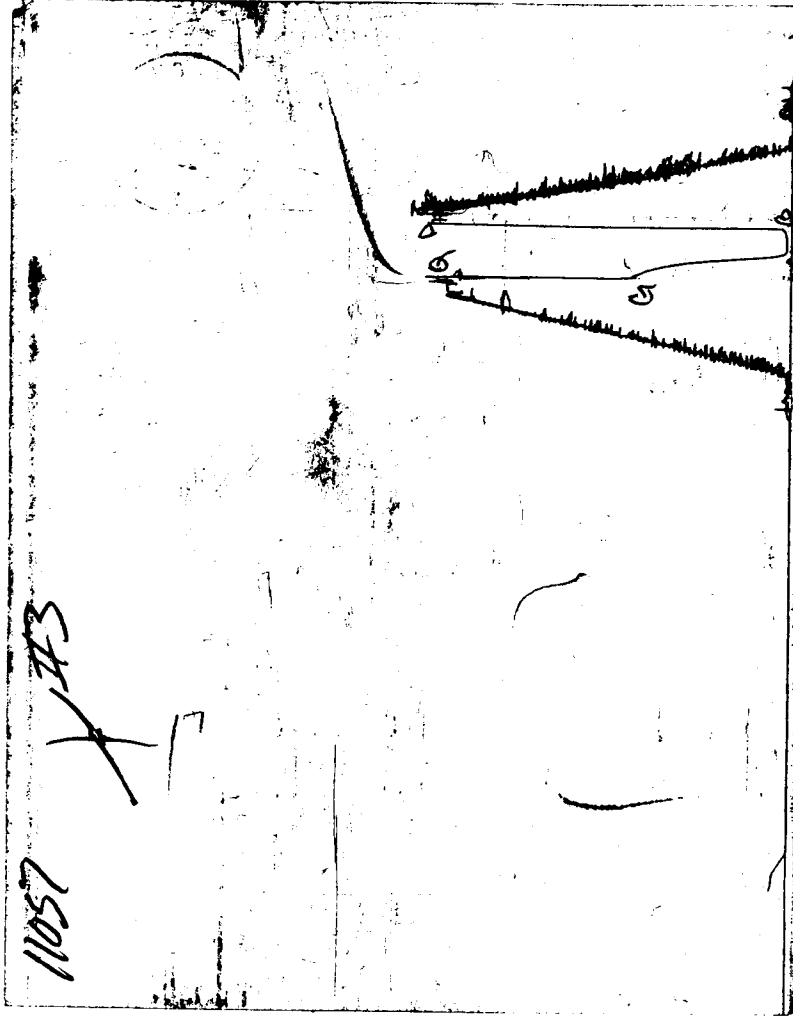
TOTAL PRICE \$     

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Approved By Jesse Christian

Our Representative Shane McBride

CHART PAGE



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