6-16-24W

Computer Invented
JUL 6
CONFIDENTIAL

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name 1-6 McNINCH Test No. 1 Date 6/15/93

Company ENSIGN OPERATING COMPANY Zone MISSISSIPPI

Address 621 17th ST #1800 DENVER CO 80293 Elevation 2489

Co. Rep./Geo. DUANE MOREDOCK Cont. DUKE #4 Est. Ft. of Pay

Location: Sec. 6 Twp. 16S Rge. 24W Co. NESS State KS

Interval Tested 4436-4486 Drill Pipe Size 4.5" XH

Anchor Length 50 Wt. Pipe I.D. - 2.7 Ft. Run 161

Top Packer Depth 4431 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4436 Mud Wt. 9.4 lb/Gal.

Total Depth 4486 Viscosity 49 Filtrate 12

Tool Open @ 9:49 PM Initial Blow PACKER FAILURE -- TRIED TO SET AGAIN -- NO HELP

Final Blow

Recovery - Total Feet 520 Flush Tool? NO

RECEIVED
STATE CORPORATION COMMISSION
JUL 12 1993
CONSERVATION DIVISION
Wichita, Kansas

Rec. 520 Feet of MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

RELEASED
SEP 6 1994
FROM CONFIDENTIAL

BHT °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides ppm System

(A) Initial Hydrostatic Mud PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure PSI @ (depth) 4440 w / Clock No. 31154

(C) First Final Flow Pressure PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure PSI @ (depth) 4482 w / Clock No. 25814

(E) Second Initial Flow Pressure PSI AK1 Recorder No. Range

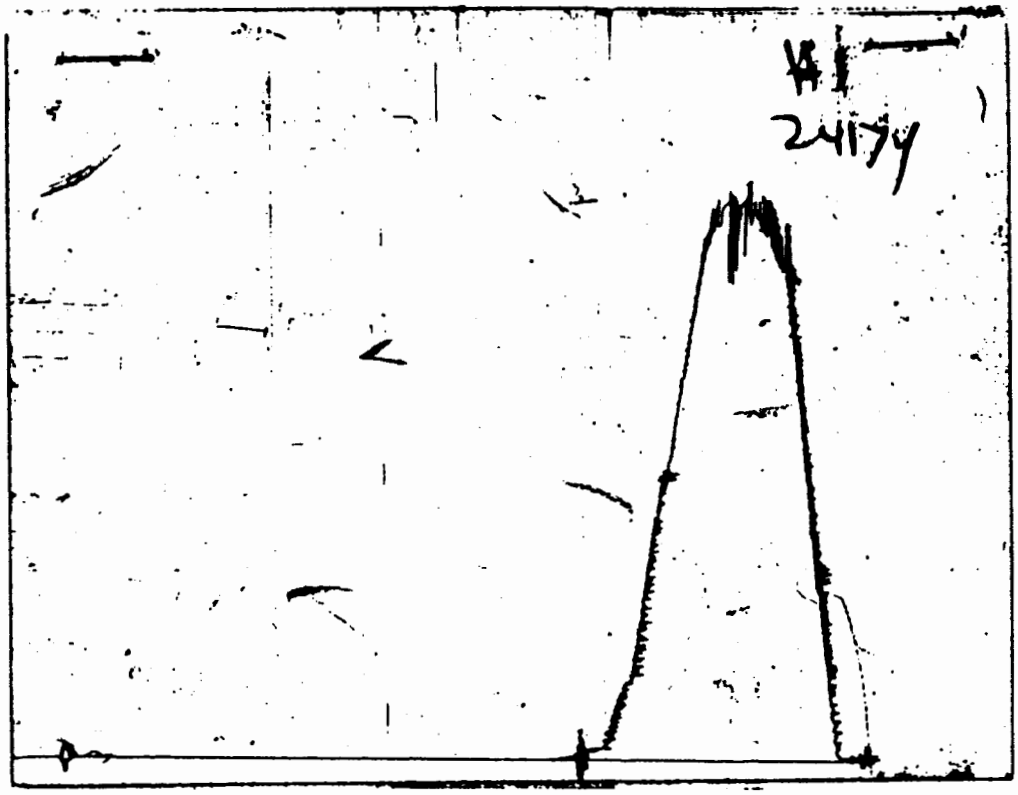
(F) Second Final Flow Pressure PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure PSI Initial Opening Final Flow

(H) Final Hydrostatic Mud PSI Initial Shut-in Final Shut-in

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD		
(B) FIRST INITIAL FLOW PRESSURE		
(C) FIRST FINAL FLOW PRESSURE		
(D) INITIAL CLOSED-IN PRESSURE		
(E) SECOND INITIAL FLOW PRESSURE		
(F) SECOND FINAL FLOW PRESSURE		
(G) FINAL CLOSED-IN PRESSURE		
(H) FINAL HYDROSTATIC MUD		

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name 1-6 McNINCH Test No. 2 Date 6/16/93

Company ENSIGN OPERATING COMPANY Zone MISSISSIPPI

Address 621 17th ST #1800 DENVER CO 80293 Elevation 2489

Co. Rep./Geo. DUANE MOREDOCK Cont. DUKE #4 Est. Ft. of Pay

Location: Sec. 6 Twp. 16S Rge. 24W Co. NESS State KS

Interval Tested 4468-4486 Drill Pipe Size 4.5" XH

Anchor Length 18 Wt. Pipe I.D. - 2.7 Ft. Run 161

Top Packer Depth 4463 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4468 Mud Wt. 9.4 lb/Gal.

Total Depth 4486 Viscosity 49 Filtrate 12

Tool Open ● 1:10 AM Initial Blow WEAK 1/2" BLOW BUILDING TO 1 1/4"

Final Blow NO BLOW

Recovery - Total Feet 63 Flush Tool? NO

Rec. 1 Feet of OIL

Rec. 62 Feet of THIN WATERY MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 120 °F Gravity 39 °API ● 80 °F Corrected Gravity 37 °API

RW 0.35 ● 68 °F Chlorides ppm Recovery Chlorides 7600 ppm System

(A) Initial Hydrostatic Mud 2269.5 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 16.5 PSI ● (depth) 4471 w / Clock No. 31154

(C) First Final Flow Pressure 36.4 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 1098.4 PSI ● (depth) 4482 w / Clock No. 25814

(E) Second Initial Flow Pressure 45.9 PSI AK1 Recorder No. Range

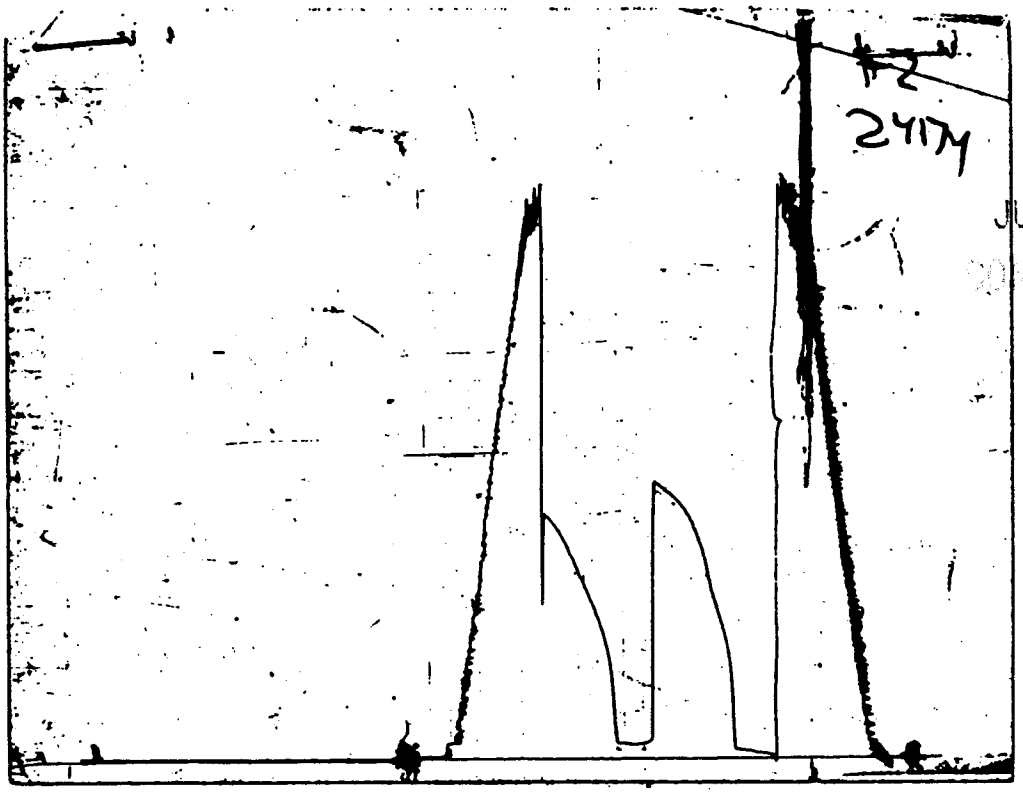
(F) Second Final Flow Pressure 59.4 PSI ● (depth) w / Clock No.

(G) Final Shut-in Pressure 936.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2255.6 PSI Initial Shut-in 60 Final Shut-in 60

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2261	2269.5
(B) FIRST INITIAL FLOW PRESSURE	7	16.5
(C) FIRST FINAL FLOW PRESSURE	30	36.4
(D) INITIAL CLOSED-IN PRESSURE	1085	1098.4
(E) SECOND INITIAL FLOW PRESSURE	37	45.9
(F) SECOND FINAL FLOW PRESSURE	44	59.4
(G) FINAL CLOSED-IN PRESSURE	949	936.2
(H) FINAL HYDROSTATIC MUD	2245	2255.6

FLUID SAMPLER DATA

Ticket No.: 6009 Date: 6/16/93

Company: ENSIGN OPERATING COMPANY

Lease: 1-6 McNINCH Test No.: 2

County: NESS Sec.: 6 Twp.: 16S Rng.: 24W

SAMPLER RECOVERY

Gas		
Oil	50	
Mud	2300	
Water	1650	
Other		
Pressure	50	
TOTAL	4000	

SAMPLER ANALYSIS

Resistivity	0.35	ohms@	68 F
Chlorides	20000		ppm.
Gravity	37		corrected @60F

PIT MUD ANALYSIS

Chlorides	7600		
Resistivity	0.7	ohms@	80 F
Viscosity	49		
Mud Wt.	9.4		
Filtrate	12		
Other			

PIPE RECOVERY

TOP		
Resistivity	ohms@	F
Chlorides		ppm
MIDDLE		
Resistivity	ohms@	F
Chlorides		ppm
BOTTOM		
Resistivity	ohms@	F
Chlorides		ppm