

TRILOBITE TESTING COMPANY, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name MACHIN #1 Test No. 1 Date 4/14/92
Company ESP DEVELOPMENT INC Zone Tested LKC-"A-B-C"
Address RR #1 BOX 18 PARADISE KS 67658 Elevation 1585 G.L.
Co. Rep./Geo. MR RANDY KILIAN Cont. DUKE Est. Ft. of Pay _____
Location: Sec. 4 Twp. 13S Rge. 14W Co. RUSSELL State KS

Interval Tested 2769-2820 Drill Pipe Size 4.5" FH
Anchor Length 51 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 2764 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 2769
Total Depth 2820

Mud Wt. 9.5 lb / gal. Viscosity 43 Filtrate N/A

Tool Open @ 9:00 AM Initial Blow WEAK THROUGHOUT-4" IN WATER

Final Blow VERY WEAK-1" IN WATER

Recovery - Total Feet 210 Flush Tool? NO

Rec. 30 Feet of OIL & GAS WTR CUT MUD-30%GAS/10%OIL/10%WTR/50%MUD

Rec. 120 Feet of SLTLY GSY WTRY MUD-20%GAS/10%WTR/70%MUD

Rec. 60 Feet of SLTLY GSY WTR CUT MUD-10%GAS/30%WTR/60%MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 90 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.06 @ 88 °F Chlorides 140000 ppm Recovery Chlorides N/A ppm System

(A) Initial Hydrostatic Mud 1499.6 PSI AK1 Recorder No. 2023 Range 4000

(B) First Initial Flow Pressure 71.2 PSI @ (depth) 2810 w/Clock No. 7452

(C) First Final Flow Pressure 90.5 PSI AK1 Recorder No. 13308 Range 4500

(D) Initial Shut-in Pressure 570.2 PSI @ (depth) 2820 w/Clock No. 8376

(E) Second Initial Flow Pressure 111.4 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 135.6 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 520.4 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1498.5 PSI Initial Shut-in 30 Final Shut-in 60

Our Representative HARRY SCHMIDT

TOTAL PRICE \$ 550

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Drill-Stem Test Data

Well Name MACHIN #1 Test No. 2 Date 4/14/92
Company ESP DEVELOPMENT INC Zone Tested LKC-"E-F"
Address RR #1 BOX 18 PARADISE KS 67658 Elevation 1585 G.L.
Co. Rep./Geo. MR RANDY KILIAN Cont. DUKE Est. Ft. of Pay _____
Location: Sec. 4 Twp. 13S Rge. 14W Co. RUSSELL State KS

Interval Tested 2847-2875 Drill Pipe Size 4.5" FH
Anchor Length 28 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 2842 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 2847
Total Depth 2875

Mud Wt. 9.5 lb / gal. Viscosity 43 Filtrate N/A

Tool Open @ 9:45 PM Initial Blow WEAK-1" IN WATER

Final Blow SAME AS INITIAL

Recovery - Total Feet 90 Flush Tool? NO

Rec. 30 Feet of OIL & GAS CUT MUD-30%GAS/20%OIL/20%WTR/30%MUD

Rec. 60 Feet of OIL & WTR CUT MUD-5%OIL/20%WTR/75%MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 90 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides N/A ppm System

(A) Initial Hydrostatic Mud 1574.2 PSI Ak1 Recorder No. 2023 Range 4000

(B) First Initial Flow Pressure 25.6 PSI @ (depth) 2852 w/Clock No. 7452

(C) First Final Flow Pressure 33.7 PSI AK1 Recorder No. 13308 Range 4500

(D) Initial Shut-in Pressure 755.8 PSI @ (depth) 2875 w/Clock No. 8376

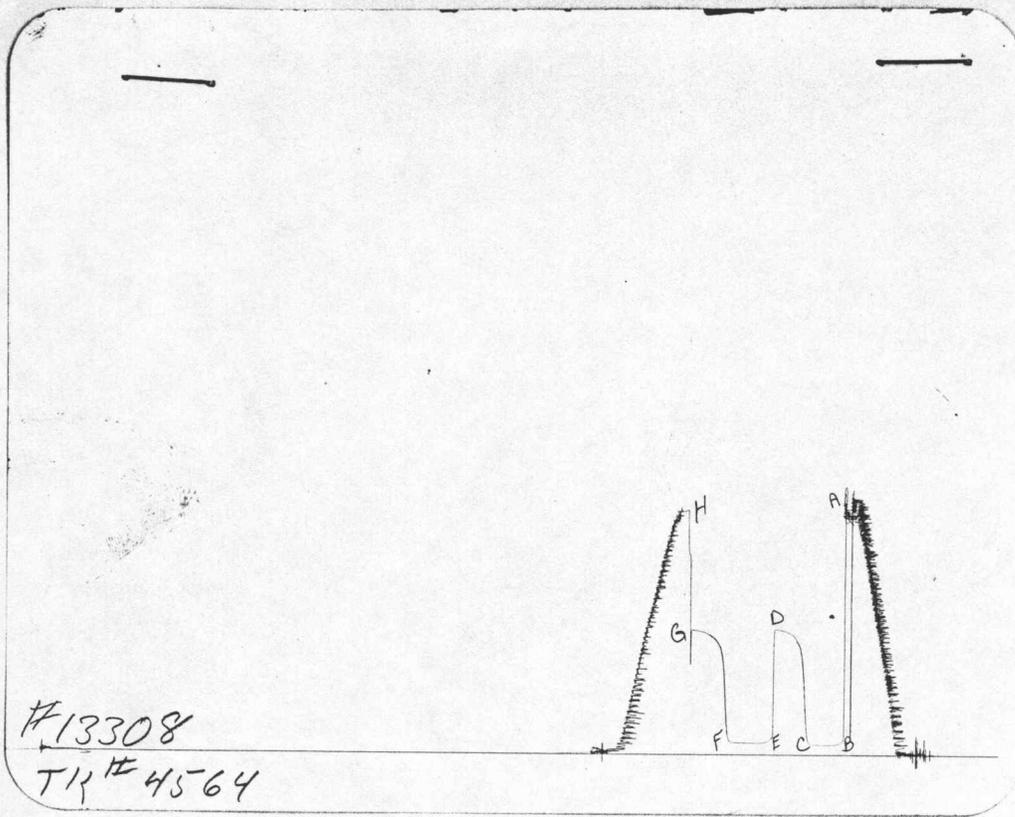
(E) Second Initial Flow Pressure 33.7 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 45.8 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 755.8 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1566.4 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative HARRY SCHMIDT TOTAL PRICE \$ 550



POINT This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1569	1574.2
(B) FIRST INITIAL FLOW PRESSURE	22	25.6
(C) FIRST FINAL FLOW PRESSURE	33	33.7
(D) INITIAL CLOSED-IN PRESSURE	752	755.8
(E) SECOND INITIAL FLOW PRESSURE	33	33.7
(F) SECOND FINAL FLOW PRESSURE	44	45.8
(G) FINAL CLOSED-IN PRESSURE	752	755.8
(H) FINAL HYDROSTATIC MUD	1560	1566.4