

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Computer Inventoried

Drill-Stem Test Data

Well Name McKINNIS #3 Test No. 1 Date 11/20/91
Company THOMAS C. LUTZ Zone Tested MISSISSIPPI
Address P.O. DRAWER 0940 FAYETTEVILLE AR Elevation 2599
Co. Rep./Geo. MR RON NELSON Cont. RED TIGER RIG #5 Est. Ft. of Pay 16
Location: Sec. 24 Twp. 16S Rge. 26W Co. NESS State KS

Interval Tested 4517-4541 Drill Pipe Size 4.5 XH
Anchor Length 24 Wt. Pipe I.D. - 2.7 Ft. Run 606
Top Packer Depth 4517 Drill Collar - 2.25 Ft. Run 177
Bottom Packer Depth 4541
Total Depth 4581

Mud Wt. 9.5 lb / gal. Viscosity 50 Filtrate 8.4

Tool Open @ 1:48 AM Initial Blow OFF BOTTOM IN 8 MINUTES 45 SECONDS

Final Blow OFF BOTTOM IN 16 MINUTES-1/2" BLOW ON SHUTIN

Recovery — Total Feet 781 Flush Tool? NO

Rec. 192 Feet of GAS IN PIPE

Rec. 721 Feet of CLEAN GASSY OIL-2%GAS/98%OIL

Rec. 60 Feet of GASSY MUD CUT OIL-2%GAS/88%OIL/10%MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 118 °F Gravity 40 °API @ 70 °F Corrected Gravity 39 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2370.9 PSI AK1 Recorder No. 13308 Range 4700

(B) First Initial Flow Pressure 65.4 PSI @ (depth) 4520 w/Clock No. 27573

(C) First Final Flow Pressure 142.6 PSI AK1 Recorder No. 2023 Range 4000

(D) Initial Shut-in Pressure 718.9 PSI @ (depth) 4536 w/Clock No. 8376

(E) Second Initial Flow Pressure 154.7 PSI AK1 Recorder No. 10248 Range 4400

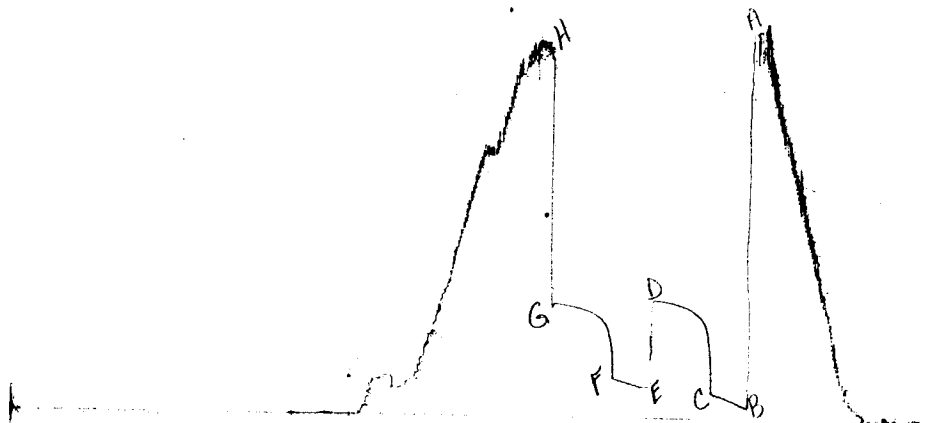
(F) Second Final Flow Pressure 231.6 PSI @ (depth) 4576 w/Clock No. 25810

(G) Final Shut-in Pressure 710.5 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2310.5 PSI Initial Shut-In 45 Final Shut-In 45

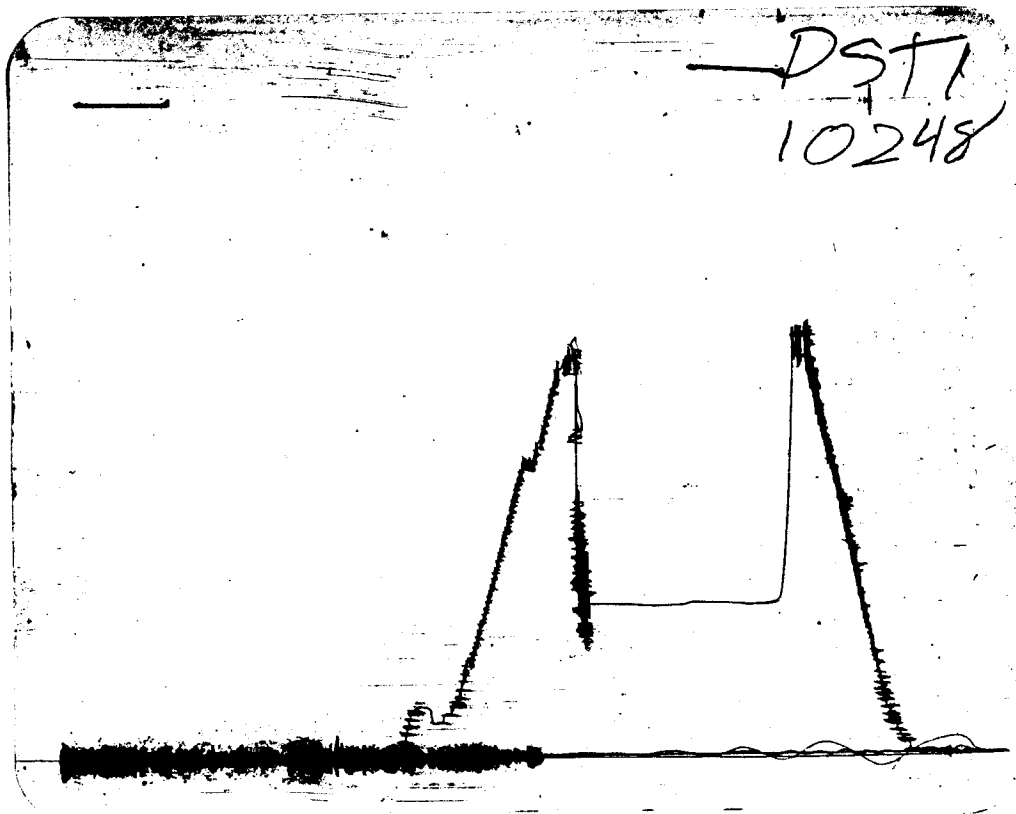
Our Representative MARK HERSKOWITZ TOTAL PRICE \$ 950

DST
13308



POINT This is an actual photograph of recorder chart PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2365	2370.9
(B) FIRST INITIAL FLOW PRESSURE	60	65.4
(C) FIRST FINAL FLOW PRESSURE	133	142.6
(D) INITIAL CLOSED-IN PRESSURE	713	718.9
(E) SECOND INITIAL FLOW PRESSURE	150	154.7
(F) SECOND FINAL FLOW PRESSURE	228	231.6
(G) FINAL CLOSED-IN PRESSURE	701	710.5
(H) FINAL HYDROSTATIC MUD	2306	2310.5



POINT

This is an actual photograph of recorder chart
PRESSURE

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

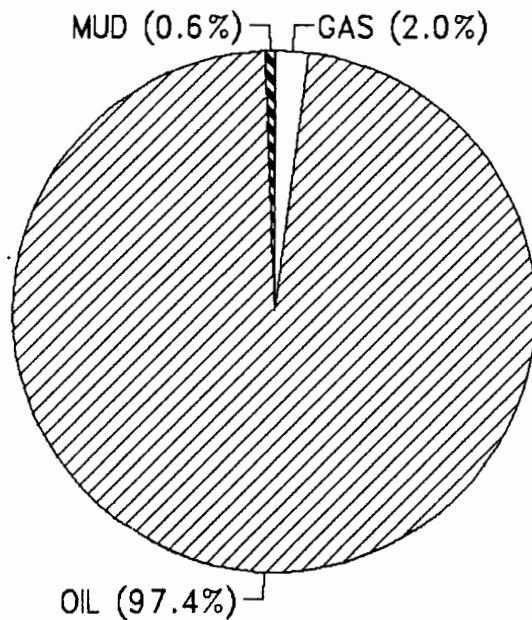
CALCULATED RECOVERY ANALYSIS

DST # 1 TICKET # 4282

SAMPLE #	TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
DRILL 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT 1	604	2	12.08	98	591.92	0	0	0	0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1	117	2	2.34	98	114.66	0	0	0	0
COLLAR 2	60	2	1.2	88	52.8	0	0	10	6
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	781		15.62		759.38		0		6

HRS OPEN BBL/DAY

BBL OIL= 4.962319 * 1.25 95.2765
 BBL WATER 0 * 0
 BBL MUD= 0.02934
 BBL GAS =0.101871



TRILOBITE TESTING COMPANY

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Test Ticket

No 4282

Well Name & No. MCKINNIS 3 Test No. 1 Date 11-20-91
 Company THOMAS C LUTS Lutz Zone Tested MISS
 Address P.O. DRAWER 0940 Elevation 2599
 Co. Rep./Geo. _____ Cont. RED TIGER Rigs Est. Ft. of Pay 16
 Location: Sec. 24 Twp. 14S Rge. 2CN Co. NESS State KS
 No. of Copies _____ Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 4517 - 4512 Drill Pipe Size 4 1/2 X H
 Anchor Length 24 ft 4512 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 4517 Hole Size — 77/8" _____ Rubber Size — 63/4" _____
 Bottom Packer Depth 40 ft 4541 Wt. Pipe I.D. — 2.7 Ft. Run 606
 Total Depth 4581 Drill Collar — 2.25 Ft. Run 177
 Mud Wt. 9.5 lb/gal. Viscosity 50 Filtrate 8.4
 Tool Open @ 1:48 AM Initial Blow OFF BOTTOM IN 8 MIN 45 SEC

Final Blow OFF BOTTOM IN 16 MIN
1/2" Blow ON SHUT-IN

Recovery — Total Feet 781 Feet of Gas in Pipe 192 Flush Tool? ☒
 Rec. 721 Feet Of C. GAS OIL 2% gas 98% oil %water _____ %mud _____
 Rec. 60 Feet Of GAS MUD OIL 2% gas 88% oil %water 10 %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 40 °API @ 70 °F Corrected Gravity 39 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2365 PSI AK1 Recorder No. 2013308 Range 4700

(B) First Initial Flow Pressure 60 PSI @ (depth) 4520 w/Clock No. 27573

(C) First Final Flow Pressure 133 PSI AK1 Recorder No. 2023 Range 4000

(D) Initial Shut-In Pressure 713 PSI @ (depth) 4534 w/Clock No. 8376

(E) Second Initial Flow Pressure 150 PSI AK1 Recorder No. 10248 Range 4400

(F) Second Final Flow Pressure 228 PSI @ (depth) 4574 w/Clock No. 25810

(G) Final Shut-In Pressure 201 PSI Initial Opening 30 Test 550.00

(H) Final Hydrostatic Mud 2306 PSI Initial Shut-In 45 Jars _____

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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.

Final Flow 30 Safety Joint _____

Final Shut-In 45 Straddle 25000

Circ. Sub 35.00

Sampler _____

Extra Packer 1000

Other _____

Approved By _____

Our Representative Mark Herdley

TOTAL PRICE \$ 2500