TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HORCHEM "A" #3 Test No. 1 Date 9/30/93

Company PICKRELL DRILLING COMPANY, INC. Zone FT SCOTT

Address 110 N MARKET #205 WICHITA KS 67202 Elevation 2608

Co. Rep./Geo. BILL KLAVER Cont. PICKRELL DRLG RIG #10 Est. Ft. of Pay

Location: Sec. 30 Twp. 16S Rge. 25W Co. NESS State KS

Interval Tested 4415-4460

Anchor Length 45

Top Packer Depth 4410

Bottom Packer Depth 4415

Total Depth 4460

Drill Pipe Size 4.5 XH

Wt. Pipe I.D. - 2.7 Ft. Run

Drill Collar – 2.25 Ft. Run 150

Mud Wt. 9.3 lb/Gal.

Viscosity 46 Filtrate 11.2

Tool Open @ 10:15 AM Initial Blow WEAK BLOW -(1/4" TO 1/2")

Final Blow NO BLOW - FLUSHED TOOL 7 MINUTES INTO 2nd OPEN

Recovery - Total Feet 10 Flush Tool? YES

Rec. 10 Feet of MUD WITH OIL SPOTS

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 119 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides 1000 ppm Recovery Chlorides 3000 ppm System

(A) Initial Hydrostatic Mud 2133.6 PSI AK1 Recorder No. 13278 Range 4400

(B) First Initial Flow Pressure 15.4 PSI @ (depth) 4457 w / Clock No. 22993

(C) First Final Flow Pressure 17.6 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 90.1 PSI @ (depth) 4418 w / Clock No. 30410

(E) Second Initial Flow Pressure 22.4 PSI AK1 Recorder No. Range

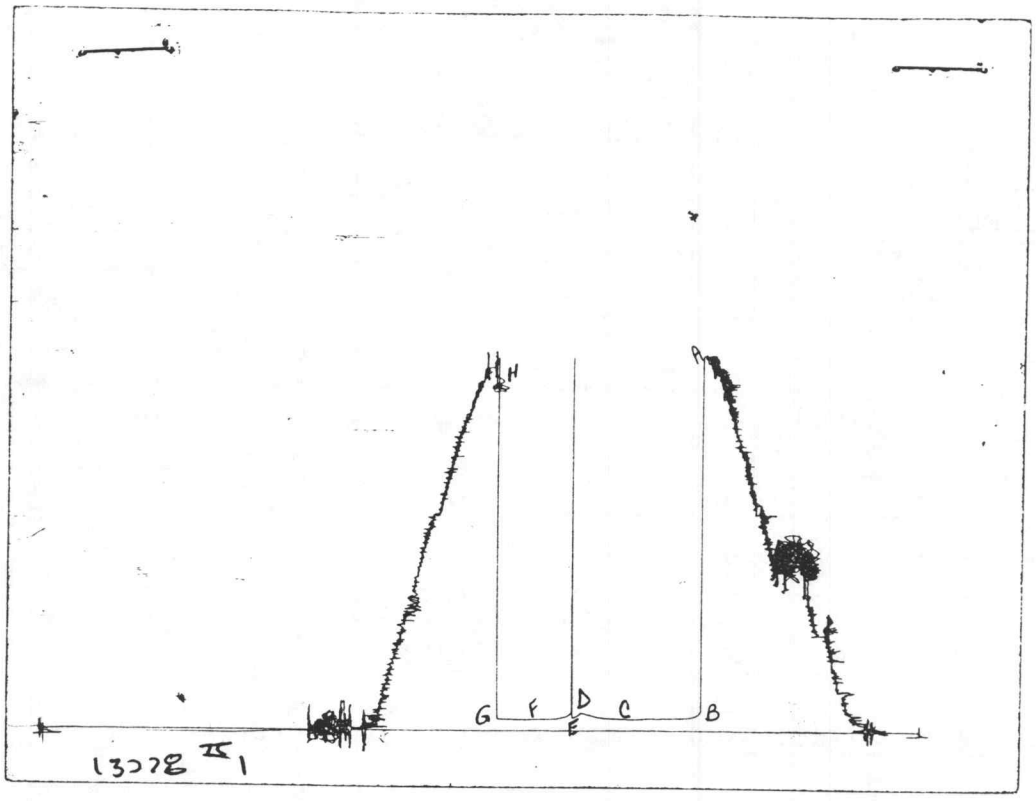
(F) Second Final Flow Pressure 26.1 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 37.8 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2077.9 PSI Initial Shut-in 60 Final Shut-in 30

Our Representative GARY PEVOTEAUX

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2129	2133.6
(B) FIRST INITIAL FLOW PRESSURE	18	15.4
(C) FIRST FINAL FLOW PRESSURE	18	17.6
(D) INITIAL CLOSED-IN PRESSURE	87	90.1
(E) SECOND INITIAL FLOW PRESSURE	20	22.4
(F) SECOND FINAL FLOW PRESSURE	23	26.1
(G) FINAL CLOSED-IN PRESSURE	32	37.8
(H) FINAL HYDROSTATIC MUD	2074	2077.9

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Test Ticket

№ 6113

Well Name & No. Horchem "A" #3 Test No. 1 Date 9-30-93

Company Pickrell Drlg. Co. Inc. Zone Tested Ft. Scott

Address 110 N. Market, Suite 205, Wichita, Ks. 67202 Elevation 2608 K.B.

Co. Rep./Geo. Bill Klaver Cont. Co. Tools. #10 Est. Ft. of Pay

Location: Sec. 30 Twp. 16S Rge. 25W Co. Ness State Ks.

No. of Copies 5 Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 4415 - 4460' Drill Pipe Size 4½" X.H.

Anchor Length 45' Top Choke — 1" ✓ Bottom Choke — ¾" ✓

Top Packer Depth 4410' Hole Size — 7⅞" ✓ Rubber Size — 6¾" ✓

Bottom Packer Depth 4415' Wt. Pipe I.D. — 2.7 Ft. Run None

Total Depth 4460' Drill Collar — 2.25 Ft. Run 150'

Mud Wt. 9.3 lb/gal. Viscosity 46 Filtrate 11.2 cc.

Tool Open @ 10:15 A.M. Initial Blow Weak blow. (1/4 - 1/2")

Final Blow No blow. Flushed tool 7 mins. in the 2ND open.

Recovery — Total Feet 10' Feet of Gas in Pipe None Flush Tool? Yes.

Rec. 10'	Feet Of	Mud w/ oil spots	%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud

BHT 119° °F Gravity N.A. °API @ ~ °F Corrected Gravity N.A. °API

RW N.A. @ ~ °F Chlorides 1,000 ppm Recovery Chlorides 3,000 ppm System

(A) Initial Hydrostatic Mud	2129 PSI	AK1 Recorder No.	13278	Range	4400
(B) First Initial Flow Pressure	18 PSI	@ (depth)	4457'	w/Clock No.	22993
(C) First Final Flow Pressure	18 PSI	AK1 Recorder No.	10248	Range	4400
(D) Initial Shut-In Pressure	87 PSI	@ (depth)	4418'	w/Clock No.	30410
(E) Second Initial Flow Pressure	20 PSI	AK1 Recorder No.	~	Range	~
(F) Second Final Flow Pressure	23 PSI	@ (depth)	~	w/Clock No.	~
(G) Final Shut-In Pressure	32 PSI	Initial Opening	30	Test	✓
(H) Final Hydrostatic Mud	2074 PSI	Initial Shut-In	60	Jars	
		Final Flow	30	Safety Joint	
		Final Shut-In	30	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	
				TOTAL PRICE $	✓ 1,000.00

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 Bill Klaver

Our Representative Tony Pivaronas

Printcraft Printers . Hays, KS

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P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HORCHEM "A" #3 Test No. 2 Date 10/1/93

Company PICKRELL DRILLING COMPANY, INC. Zone MISSISSIPPI

Address 110 N MARKET #205 WICHITA KS 67202 Elevation 2608

Co. Rep./Geo. BILL KLAVER Cont. PICKRELL DRLG RIG #10 Est. Ft. of Pay

Location: Sec. 30 Twp. 16S Rge. 25W Co. NESS State KS

Interval Tested 4492-4522 Drill Pipe Size 4.5 XH

Anchor Length 30 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 4487 Drill Collar – 2.25 Ft. Run 180

Bottom Packer Depth 4492 Mud Wt. 9.3 lb/Gal.

Total Depth 4522 Viscosity 45 Filtrate 12.8

Tool Open @ 7:30 AM Initial Blow WEAK TO FAIR BLOW (1-5")

Final Blow WEAK BUILDING BLOW-OFF BOTTOM OF BUCKET IN 56 MIN
STRONG BLOW FOR FINAL 64 MINUTES

Recovery - Total Feet 335 Flush Tool? NO

Rec. 175 Feet of GAS IN PIPE

Rec. 225 Feet of CLEAN GASSY OIL-5% GAS/ 95% OIL

Rec. 100 Feet of GASSY OIL CUT MUD-5% GAS/ 15% OIL/ 80% MUD

Rec. Feet of

Rec. Feet of

BHT 123 °F Gravity 40 °API @ 76 °F Corrected Gravity 39 °API

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

(A) Initial Hydrostatic Mud 2241.6 PSI AK1 Recorder No. 13278 Range 4400

(B) First Initial Flow Pressure 35.7 PSI @ (depth) 4519 w / Clock No. 22993

(C) First Final Flow Pressure 90.1 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 1081.2 PSI @ (depth) 4514 w / Clock No. 30410

(E) Second Initial Flow Pressure 90.1 PSI AK1 Recorder No. Range

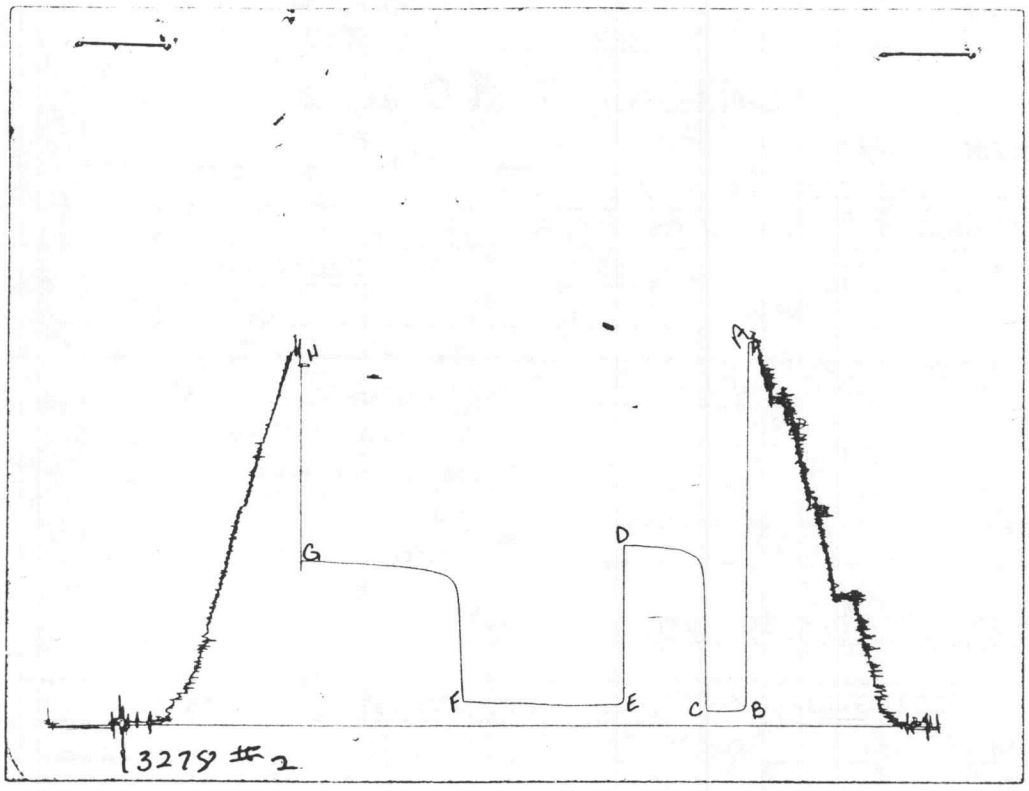
(F) Second Final Flow Pressure 141.6 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 980.4 PSI Initial Opening 30 Final Flow 120

(H) Final Hydrostatic Mud 2166.3 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative GARY PEVOTEAUX

CHART PAGE



This is an actual photograph of recorder chart

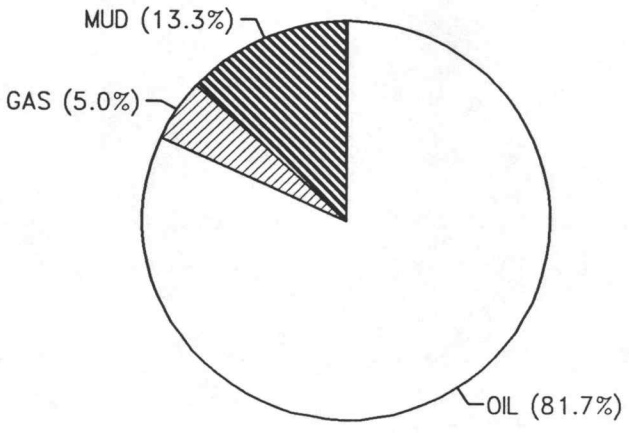
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2236	2241.6
(B) FIRST INITIAL FLOW PRESSURE	34	35.7
(C) FIRST FINAL FLOW PRESSURE	84	90.1
(D) INITIAL CLOSED-IN PRESSURE	1078	1081.2
(E) SECOND INITIAL FLOW PRESSURE	85	90.1
(F) SECOND FINAL FLOW PRESSURE	139	141.6
(G) FINAL CLOSED-IN PRESSURE	977	980.4
(H) FINAL HYDROSTATIC MUD	2160	2166.3

CALCULATED RECOVERY ANALYSIS

DST 2 TICKET # 6114

SAMPLE #	TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
DRILL 1	145	5	7.25	95	137.75	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			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1	80	5	4	95	76	0	0	0	0
COLLAR 2	100	5	5	15	15	0	0	80	80
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	325		16.25		228.75		0		80

			HRS OPEN	BBL/DAY
BBL OIL=	2.403795	*	2.5	23.076432
BBL WATER=	0	*		0
BBL MUD=	0.3912			
BBL GAS =	0.147105			



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Test Ticket

№ 6114

Well Name & No. Horchem "A" #3 Test No. 2 Date 10-1-93

Company Pickrell Drlg. Co. Inc. Zone Tested Mississippi

Address 110 N. Market, Suite 205, Wichita Ks. 67202 Elevation 2,608 K.B.

Co. Rep./Geo. Bill Klaver Cont. Co. Tools #10 Est. Ft. of Pay

Location: Sec. 30 Twp. 16S Rge. 25W Co. Ness State Ks.

No. of Copies 5 Distribution Sheet ____ Yes ____ No Turnkey ____ Yes ____ No ____ Evaluation

Interval Tested 4492 - 4522' Drill Pipe Size 4 1/2" X.H.

Anchor Length 30' Top Choke — 1" ✓ Bottom Choke — ¾" ✓

Top Packer Depth 4487' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Bottom Packer Depth 4492' Wt. Pipe I.D. — 2.7 Ft. Run None

Total Depth 4522' Drill Collar — 2.25 Ft. Run 180'

Mud Wt. 9.3 lb/gal. Viscosity 45 Filtrate 12.8 cc.

Tool Open @ 7:30 A.M. Initial Blow Weak to fair blow. (1-5")

Final Blow Weak building blow. (off btm. of bucket in 56 mins.) Strong blow for final 64 mins.

Recovery — Total Feet 335' Feet of Gas in Pipe 175' Flush Tool? No

Rec.	225	Feet Of	Clean gassy oil	5 %gas	95 %oil	%water		%mud
Rec.	100	Feet Of	G.O.C.M.	5 %gas	15 %oil	%water	80	%mud
Rec.		Feet Of		%gas	%oil	%water		%mud
Rec.		Feet Of		%gas	%oil	%water		%mud
Rec.		Feet Of		%gas	%oil	%water		%mud

BHT 123 °F Gravity 46 °API @ 76 °F Corrected Gravity 39 °API

RW N.A. @ ~ °F Chlorides 4,000 ppm Recovery Chlorides 4,000 ppm System

(A) Initial Hydrostatic Mud	2236 PSI	AK1 Recorder No.	13278	Range	4400
(B) First Initial Flow Pressure	34 PSI	@ (depth)	4519'	w/Clock No.	22993
(C) First Final Flow Pressure	90.1 84 PSI	AK1 Recorder No.	10248	Range	4400
(D) Initial Shut-In Pressure	1078 PSI	@ (depth)	4514'	w/Clock No.	30410
(E) Second Initial Flow Pressure	90.1 85 PSI	AK1 Recorder No.	~	Range	~
(F) Second Final Flow Pressure	139 PSI	@ (depth)	~	w/Clock No.	~
(G) Final Shut-In Pressure	977 PSI	Initial Opening	30	Test	✓
(H) Final Hydrostatic Mud	2160 PSI	Initial Shut-In	60	Jars	
		Final Flow	120	Safety Joint	
		Final Shut-In	120	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	
				TOTAL PRICE	$ 1,600.00

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