

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name EHM #1 Test No. 1 Date 7/5/94
Company VIKING RESOURCES INC Zone L.K.C.
Address 105 S BROADWAY #1040 WICHITA KS 67202-4224 Elevation 2059 KB
Co. Rep./Geo. BILL PETERSON Cont. _____ Est. Ft. of Pay _____
Location: Sec. 23 Twp. 3S Rge. 19W Co. PHILLIPS State KS

Interval Tested <u>3226-3288</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>62</u>	Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth <u>3221</u>	Drill Collar - 2.25 Ft. Run <u>525</u>
Bottom Packer Depth <u>3226</u>	Mud Wt. <u>9.3</u> lb/Gal.
Total Depth <u>3288</u>	Viscosity <u>48</u> Filtrate <u>8.8</u>

Tool Open @ 5:04 A.M. Initial Blow WEAK SURFACE BLOW - DIED IN 30 MIN.

Final Blow NO BLOW

Recovery - Total Feet 15 Flush Tool? NO

Rec. <u>15</u>	Feet of <u>MUD WITH OIL SPOTS @ TOP</u>
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT 96 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1636.6 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 62.2 PSI @ (depth) 3259 w / Clock No. 25109

(C) First Final Flow Pressure 62.2 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 523.6 PSI @ (depth) 3286 w / Clock No. 23839

(E) Second Initial Flow Pressure 69.7 PSI AK1 Recorder No. _____ Range _____

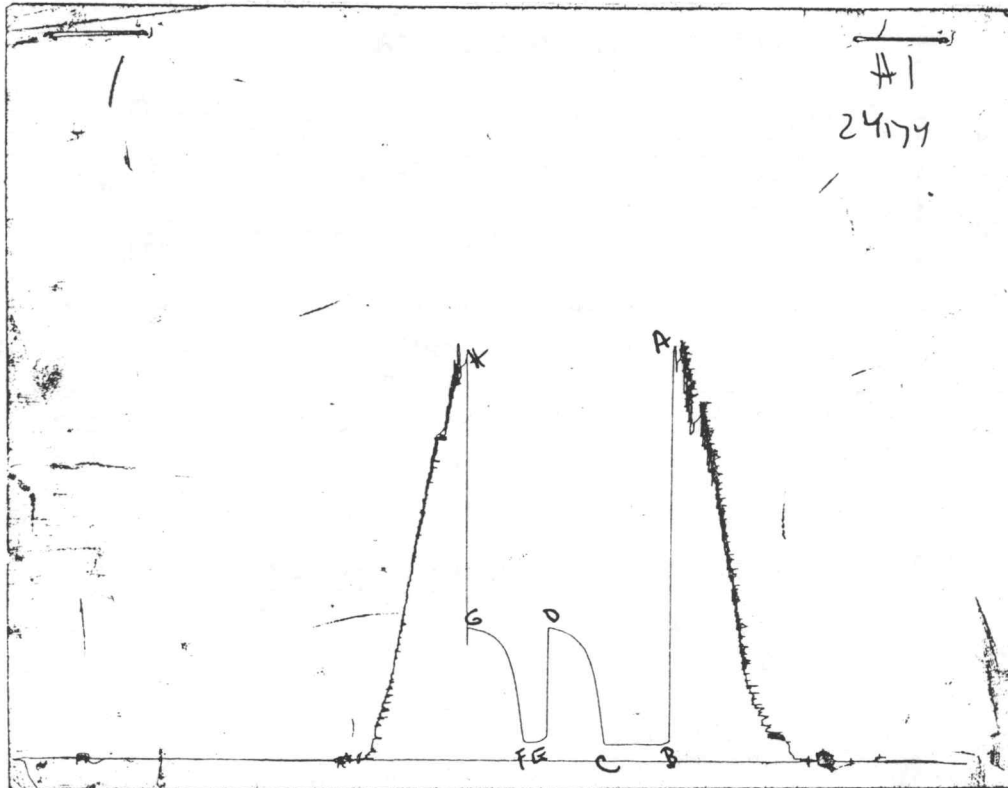
(F) Second Final Flow Pressure 69.7 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 522.0 PSI Initial Opening 45 Final Flow 15

(H) Final Hydrostatic Mud 1600.9 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart 24174

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1636	1636.6
(B) FIRST INITIAL FLOW PRESSURE	59	62.2
(C) FIRST FINAL FLOW PRESSURE	59	62.2
(D) INITIAL CLOSED-IN PRESSURE	522	523.6
(E) SECOND INITIAL FLOW PRESSURE	59	69.7
(F) SECOND FINAL FLOW PRESSURE	59	69.7
(G) FINAL CLOSED-IN PRESSURE	514	522
(H) FINAL HYDROSTATIC MUD	1598	1600.9

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Drill-Stem Test Data

Well Name EHM #1 Test No. 2 Date 7/5/94
Company VIKING RESOURCES INC Zone L.K.C.
Address 105 S BROADWAY #1040 WICHITA KS 67202-4224 Elevation 2059 KB
Co. Rep./Geo. BILL PETERSON Cont. MURFIN#8 Est. Ft. of Pay 6
Location: Sec. 23 Twp. 3S Rge. 19W Co. PHILLIPS State KS

Interval Tested <u>3336-3372</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>36</u>	Wt. Pipe I.D. - 2.7 Ft. Run <u>525</u>
Top Packer Depth <u>3331</u>	Drill Collar - 2.25 Ft. Run <u>9.4</u>
Bottom Packer Depth <u>3336</u>	Mud Wt. <u>55</u> lb/Gal.
Total Depth <u>3372</u>	Viscosity <u>8.0</u> Filtrate

Tool Open @ 7:07 P.M. Initial Blow WEAK 1/4" BLOW BUILDING TO 5"

Final Blow SURFACE BLOW BUILDING TO 4 "

Recovery - Total Feet 245 Flush Tool? NO

Rec. <u>185</u>	Feet of <u>CLEAN GASSY OIL 10% GAS/90% OIL</u>
Rec. <u>60</u>	Feet of <u>SLIGHTLY OIL CUT MUD 10% OIL/ 90% MUD</u>
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT 98 °F Gravity 31 °API @ 50 °F Corrected Gravity 29 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1742.3 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 55.5 PSI @ (depth) 3340 w / Clock No. 23839

(C) First Final Flow Pressure 77.2 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 847.6 PSI @ (depth) 3370 w / Clock No. 25109

(E) Second Initial Flow Pressure 120.6 PSI AK1 Recorder No. _____ Range _____

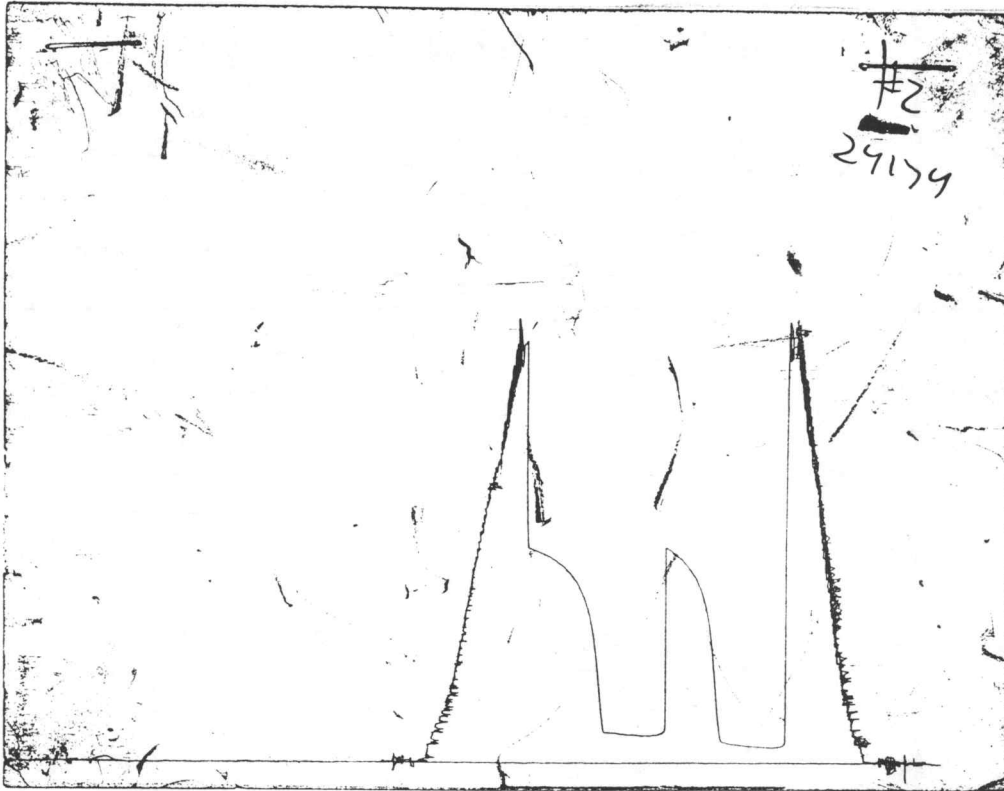
(F) Second Final Flow Pressure 116.1 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 846.8 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1666.2 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart 24174

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1742	1742.3
(B) FIRST INITIAL FLOW PRESSURE	52	55.5
(C) FIRST FINAL FLOW PRESSURE	74	77.2
(D) INITIAL CLOSED-IN PRESSURE	842	847.6
(E) SECOND INITIAL FLOW PRESSURE	97	120.6
(F) SECOND FINAL FLOW PRESSURE	112	116.1
(G) FINAL CLOSED-IN PRESSURE	834	846.8
(H) FINAL HYDROSTATIC MUD	1658	1666.2

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.
VIKING RESOURCES INC

EHM #1 DST 2

23 3S 19W PHILLIPS KS

ELEVATION:	2059	KB	EST. PAY	14	FT
DATUM:	-1312		ZONE TESTED:	L.K.C.	
TEST INTERVAL:	3336-3372		TIME INTERVALS:	45-45-45-60	
RECORDER DEPTH:	3370		VISCOSITY:	34.25	CP
BOTTOM HOLE TEMP:	98		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	0.51		
TOTAL FEET OF RECOVERY:	245.00	CORRECTED PIPE FILLUP:	302.344
TOTAL BARRELS OF RECOVERY:	1.20	CORR. BARRELS OF RECOVERY:	1.478 BBL
BARRELS IN DRILL PIPE:	0.00	API GRAVITY:	29
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.384
BARRELS IN DRILL COLLARS:	1.20		
GAS OIL RATIO:	0.42	CU.FT/BBL	
BUBBLE POINT PRESSURE:	4		
UNCORRECTED INITIAL PRODUCTION:			19.17 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			23.65 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			10.031

INITIAL SLOPE	606.10	PSI/CYCL	FINAL SLOPE	402.87	PSI/CYCLE
INITIAL P*	1039.29	PSI	FINAL P*	1007.12	PSI

TRANSMISSIBILITY	9.55	(MD.-FT./CP.)
PERMEABILITY	23.35	(MD.)
INDICATED FLOW CAPACITY	326.96	(MD.FT)
PRODUCTIVITY INDEX	0.01	(BARREL/DAY/PSI)
DAMAGE RATIO	0.40	
RADIUS OF INVESTIGATION	45.85	(FT,)
POTENTIOMETRIC SURFACE	1024.51	(FT.)
DRAWDOWN FACTOR	3.095	(%)

INITIAL FLOW

RECORDER 24174

DST # 2

TIME(MIN) PRESSURE <> PRESSURE

0	22.5	22.5
3	55.5	33.0
6	55.5	0.0
9	55.5	0.0
12	58.5	3.0
15	58.5	0.0
18	58.5	0.0
21	60.0	1.5
24	60.8	0.8
27	62.2	1.4
30	63.7	1.5
33	65.2	1.5
36	66.7	1.5
39	69.7	3.0
42	70.4	0.7
45	73.4	3.0

FINAL FLOW

RECORDER 24174

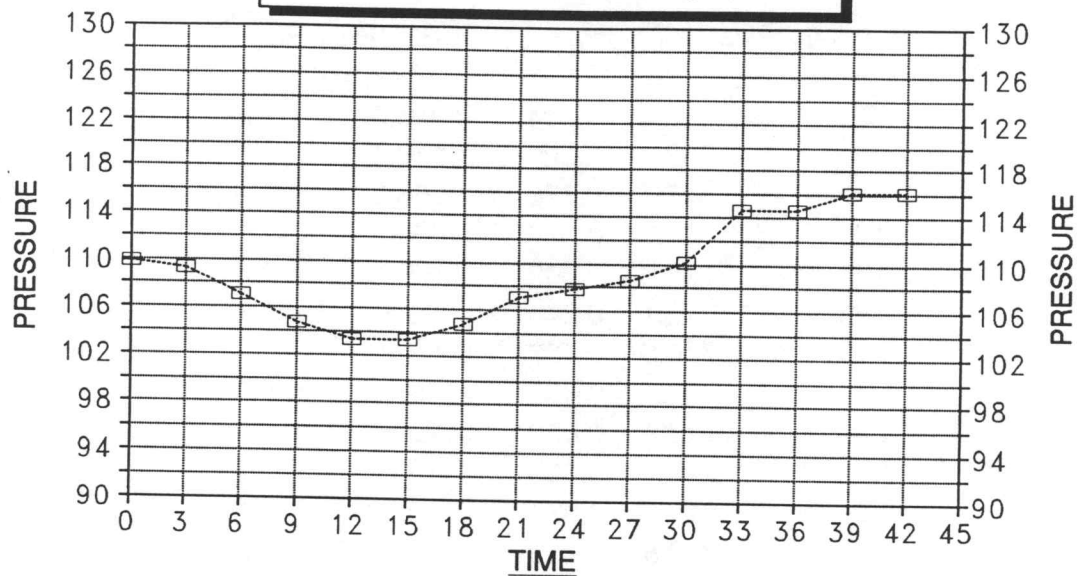
DST # 2

TIME(MIN) PRESSURE <> PRESSURE

0	109.9	109.9
3	109.3	-0.6
6	107.1	-2.2
9	104.8	-2.3
12	103.3	-1.5
15	103.3	0.0
18	104.8	1.5
21	107.1	2.3
24	107.8	0.7
27	108.6	0.8
30	110.1	1.5
33	114.6	4.5
36	114.6	0.0
39	116.1	1.5

DELTA T DELTA P

FINAL FLOW / DST #2



--- EHM #1

INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:

10.031

EHM #1
INITIAL

DST #2 SHUTIN		-----			
45	INITIAL FLOW TIME	SLOPE	606.1	PSI/CYCLE	
		P*	1039.29	PSI	

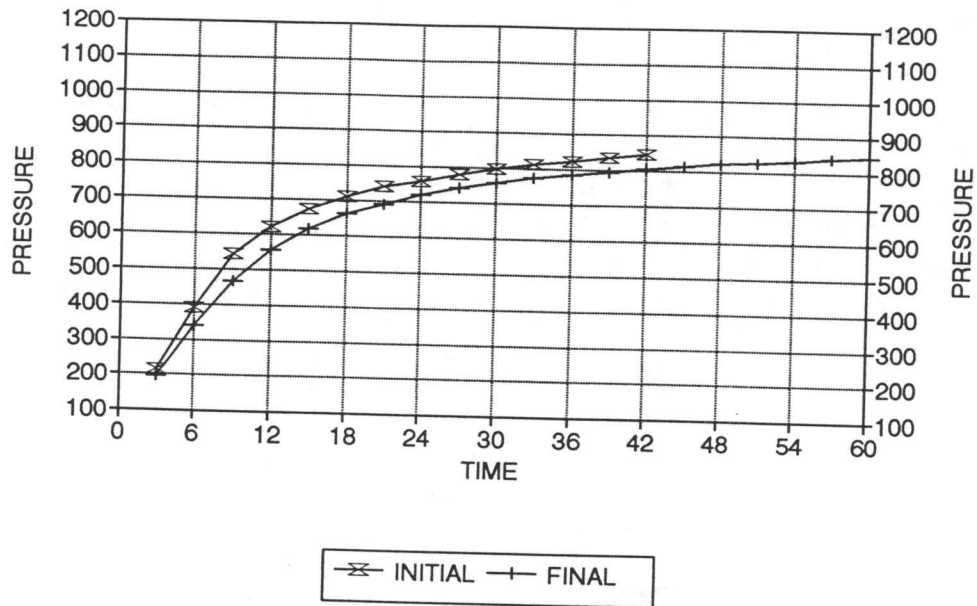
		Log	<>		
	TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T
		-----	-----	-----	-----
	3	215.6	1.204	215.6	16
	6	392.1	0.929	176.5	9
	9	545.7	0.778	153.6	6
	12	621.3	0.677	75.6	5
	15	674.0	0.602	52.7	4
	18	712.1	0.544	38.1	4
	21	740.3	0.497	28.2	3
	24	759.4	0.459	19.1	3
	27	779.9	0.426	20.5	3
X	30	798.1	0.398	18.2	3
	33	811.1	0.374	13.0	2
	36	822.5	0.352	11.4	2
	39	834.7	0.333	12.2	2
X	42	847.6	0.316	12.9	2

EHM #1
FINAL

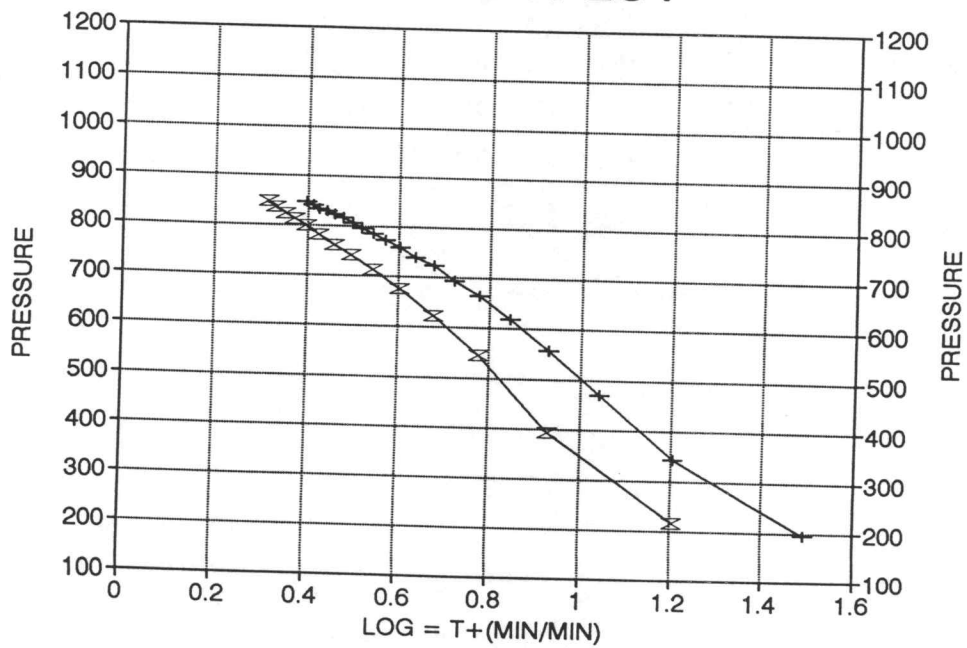
DST #2 SHUTIN		-----			
90	TOTAL FLOW TIME	SLOPE	402.9	PSI/CYCLE	
		P*	1007.1	PSI	

		Log	<>		
		Horn T	PRESSURE	Horn T	
		-----	-----	-----	
	3	194.4	1.491	194.4	31
	6	342.5	1.204	148.1	16
	9	469.3	1.041	126.8	11
	12	556.4	0.929	87.1	9
	15	617.5	0.845	61.1	7
	18	662.6	0.778	45.1	6
	21	692.3	0.723	29.7	5
	24	721.3	0.677	29.0	5
	27	739.5	0.637	18.2	4
	30	757.1	0.602	17.6	4
	33	772.3	0.571	15.2	4
	36	785.2	0.544	12.9	4
	39	795.1	0.520	9.9	3
	42	805.8	0.497	10.7	3
X	45	814.9	0.477	9.1	3
	48	821.7	0.459	6.8	3
	51	827.1	0.442	5.4	3
	54	833.1	0.426	6.0	3
	57	840.7	0.411	7.6	3
✓	60	846.0	0.398	8.1	3

EHM #1 DST #2 DELTA T DELTA P



HORNER PLOT



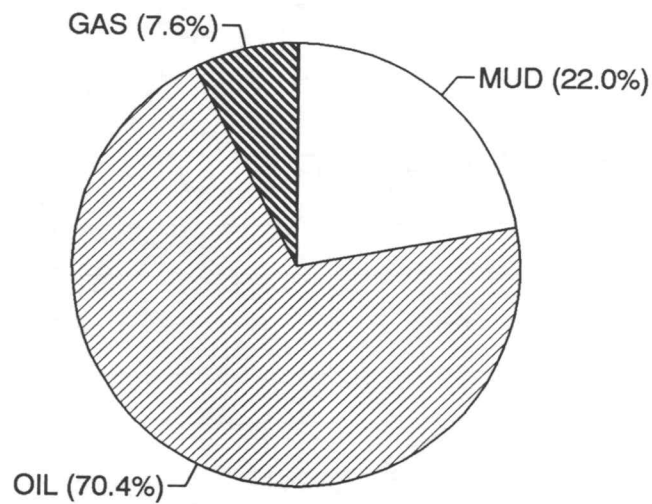
DST #

2

TICKET 7081

SAMPLE	TOTAL	GAS		OIL		WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	185	10	18.5	90	166.5		0		0
2	60		0	10	6		0	90	54
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	245	7.55	18.5	70.41	172.5	0.00	0	22.040816	54

			HRS OP	BBL/DAY
BBL OIL=	0.843525	*	1.5	13.4964
BBL WATER=	0	*		0
BBL MUD=	0.26406			
BBL GAS=	0.090465			



MUD
OIL
GAS
WTR