TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Computer Inventoried Drill-Stem Test Data

Well Name J R EWING #3 Test No. 1 Date 7/9/94

Company VIKING RESOURCES INC Zone LKC 140'

Address 105 S BROADWAY #1040 WICHITA KS 67202-4224 Elevation 2601 KB

Co. Rep./Geo. ROB PATTON Cont. ABERCROMBIE #8 Est. Ft. of Pay

Location: Sec. 7 Twp. 16S Rge. 27W Co. LANE State KS

Interval Tested 4004-4040 Drill Pipe Size 4.5" XH

Anchor Length 36 Wt. Pipe I.D. - 2.7 Ft. Run 636

Top Packer Depth 3999 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4004 Mud Wt. 9.1 lb/Gal.

Total Depth 4040 Viscosity 48 Filtrate 10.4

Tool Open @ 12:45 P.M. Initial Blow WEAK BLOW BUILDING TO 1"

Final Blow NO BLOW

Recovery - Total Feet 30 Flush Tool? NO

Rec. 30 Feet of OIL STAINED WATERY MUD 20% WATER/80% MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 112 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides ppm System

(A) Initial Hydrostatic Mud 1937.9 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 41.4 PSI @ (depth) 4010 w / Clock No. 25109

(C) First Final Flow Pressure 41.4 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 1028.6 PSI @ (depth) 4037 w / Clock No. 23839

(E) Second Initial Flow Pressure 46.6 PSI AK1 Recorder No. Range

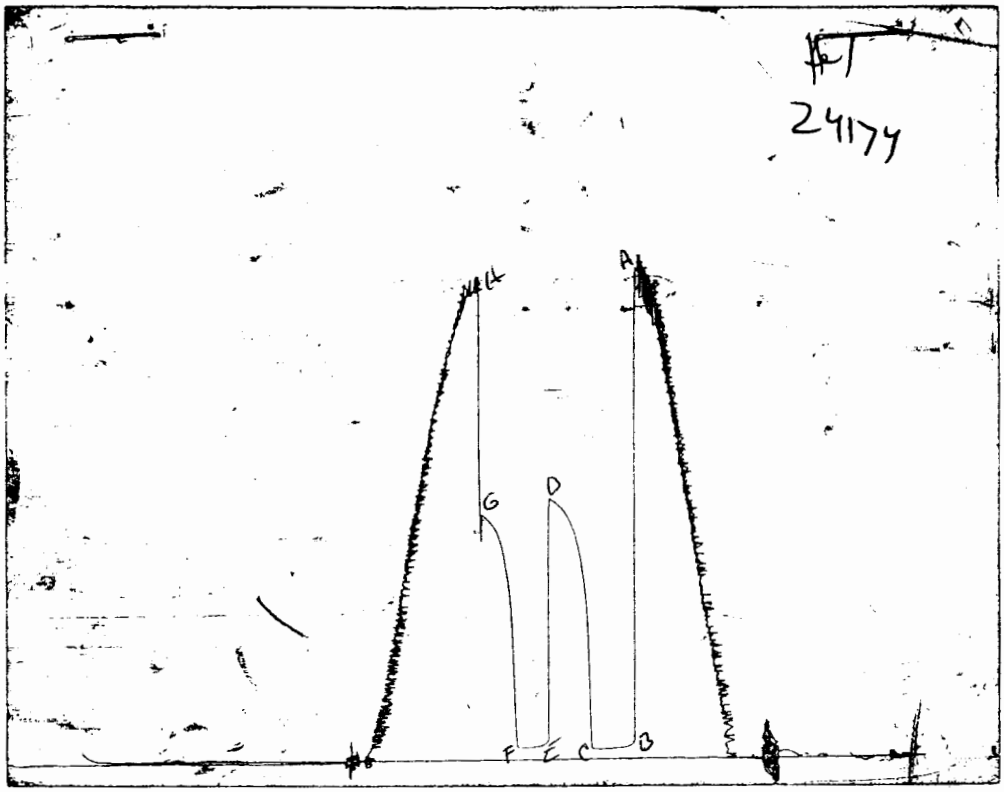
(F) Second Final Flow Pressure 46.6 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 965.1 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1910.9 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart 24174

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1934	1937.9
(B) FIRST INITIAL FLOW PRESSURE	37	41.4
(C) FIRST FINAL FLOW PRESSURE	37	41.4
(D) INITIAL CLOSED-IN PRESSURE	1024	1028.6
(E) SECOND INITIAL FLOW PRESSURE	37	46.6
(F) SECOND FINAL FLOW PRESSURE	37	46.6
(G) FINAL CLOSED-IN PRESSURE	956	965.1
(H) FINAL HYDROSTATIC MUD	1911	1910.9

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name: J R EWING #3 | Test No.: 2 | Date: 7/9/94

Company: VIKING RESOURCES INC | Zone: LKC '160-180

Address: 105 S BROADWAY #1040 WICHITA KS 67202-4224 | Elevation: 2601 KB

Co. Rep./Geo.: ROB PATTON | Cont.: ABERCROMBIE #8 | Est. Ft. of Pay:

Location: Sec.: 7 | Twp.: 16S | Rge.: 27W | Co.: LANE | State: KS

Interval Tested: 4040-4110 | Drill Pipe Size: 4.5" XH

Anchor Length: 70 | Wt. Pipe I.D. - 2.7 Ft. Run: 636

Top Packer Depth: 4035 | Drill Collar – 2.25 Ft. Run:

Bottom Packer Depth: 4040 | Mud Wt.: 9.0 lb/Gal.

Total Depth: 4110 | Viscosity: 48 | Filtrate: 10.4

Tool Open @: 2:05 A.M. | Initial Blow: WEAK 1/2" BLOW BUILDING TO 1 1/2"

Final Blow: 1" BLOW BUILDING TO 3 1/2"

Recovery - Total Feet: 30 | Flush Tool?: NO

Rec. 40 Feet of GAS IN PIPE

Rec. 30 Feet of SLIGHTLY OIL CUT MUD 5% OIL/95% MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 116 °F | Gravity °API @ °F | Corrected Gravity °API

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

(A) Initial Hydrostatic Mud: 2005.9 PSI | AK1 Recorder No.: 22150 | Range: 3925

(B) First Initial Flow Pressure: 59.3 PSI | @ (depth): 4046 | w / Clock No.: 23839

(C) First Final Flow Pressure: 59.3 PSI | AK1 Recorder No.: 24174 | Range: 3050

(D) Initial Shut-in Pressure: 93.6 PSI | @ (depth): 4103 | w / Clock No.: 23935

(E) Second Initial Flow Pressure: 64.5 PSI | AK1 Recorder No.: | Range:

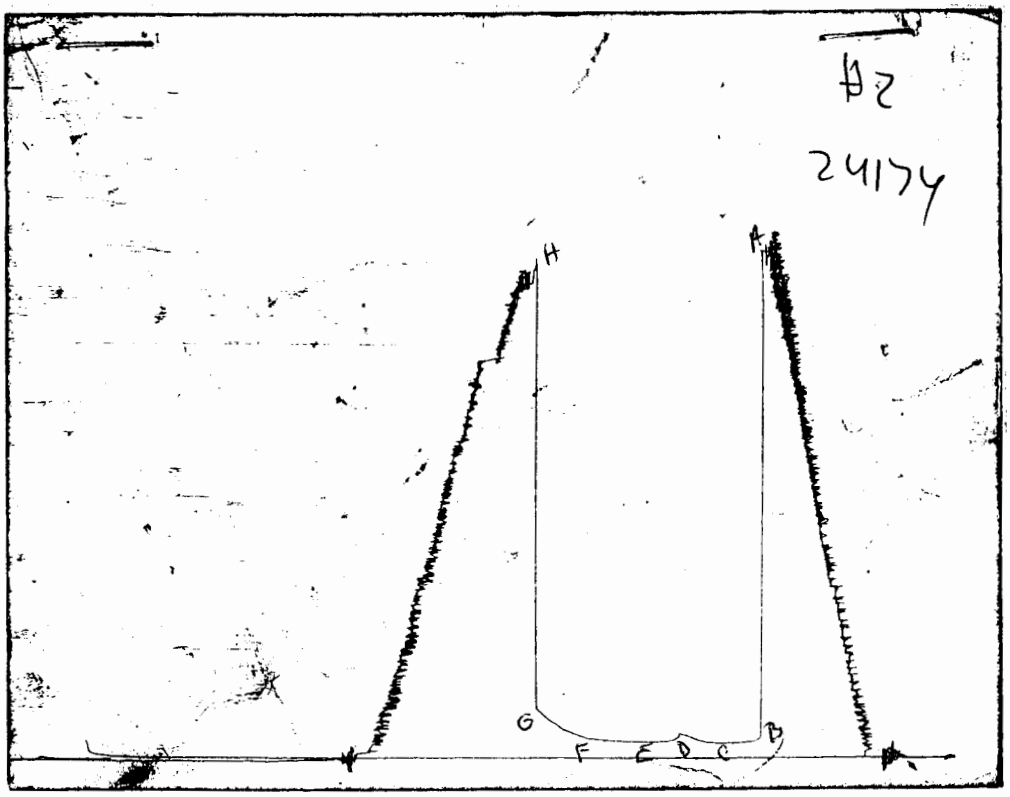
(F) Second Final Flow Pressure: 64.5 PSI | @ (depth): | w / Clock No.:

(G) Final Shut-in Pressure: 194.4 PSI | Initial Opening: 30 | Final Flow: 45

(H) Final Hydrostatic Mud: 1975.7 PSI | Initial Shut-in: 30 | 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	2011	2005.9
(B) FIRST INITIAL FLOW PRESSURE	52	59.3
(C) FIRST FINAL FLOW PRESSURE	52	59.3
(D) INITIAL CLOSED-IN PRESSURE	97	93.6
(E) SECOND INITIAL FLOW PRESSURE	59	64.5
(F) SECOND FINAL FLOW PRESSURE	59	64.5
(G) FINAL CLOSED-IN PRESSURE	187	194.4
(H) FINAL HYDROSTATIC MUD	1980	1975.7

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name J R EWING #3 Test No. 3 Date 7/10/94

Company VIKING RESOURCES INC Zone LKC 'K'

Address 105 S BROADWAY #1040 WICHITA KS 67202-4224 Elevation 2601 KB

Co. Rep./Geo. ROB PATTON Cont. ABERCROMBIE #8 Est. Ft. of Pay 9

Location: Sec. 7 Twp. 16S Rge. 27W Co. LANE State KS

Interval Tested 4100-4125 Drill Pipe Size 4.5" XH

Anchor Length 25 Wt. Pipe I.D. - 2.7 Ft. Run 636

Top Packer Depth 4095 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4100 Mud Wt. lb/Gal.

Total Depth 4125 Viscosity Filtrate

Tool Open @ 2:41PM Initial Blow 1" BLOW BUILDING TO BOTTOM OF BUCKET IN 8 MINUTES
BLOW BACK BUILT TO 2 1/2"

Final Blow 1" BLOW BUILDING TO BOTTOM OF BUCKET IN 8 MINUTES
BLOW BACK BUILT TO 7"

Recovery - Total Feet 520 Flush Tool? NO

Rec. 880 Feet of GAS IN PIPE

Rec. 220 Feet of CLEAN GASSY OIL 40%GAS/60%OIL

Rec. 60 Feet of GASSY MUD CUT OIL 30%GAS/50%OIL/20%MUD

Rec. 60 Feet of GASSY OIL & WATER CUT MUD 25%GAS/15%OIL/10%H20/50%MUD

Rec. 60 Feet of SLIGHTLY OIL CUT WATERY MUD 5%GAS/5%OIL/40%H20/50%MUD

120 MUDDY WATER 85%WATER/15%MUD

BHT 120 °F Gravity 42 °API @ 90 °F Corrected Gravity 39 °API

RW 0.08 @ 85.8 °F Chlorides 65000 ppm Recovery Chlorides ppm System

(A) Initial Hydrostatic Mud 2020.3 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 62.2 PSI @ (depth) 4105 w / Clock No. 23839

(C) First Final Flow Pressure 107.1 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 912.1 PSI @ (depth) 4121 w / Clock No. 25109

(E) Second Initial Flow Pressure 158.2 PSI AK1 Recorder No. Range

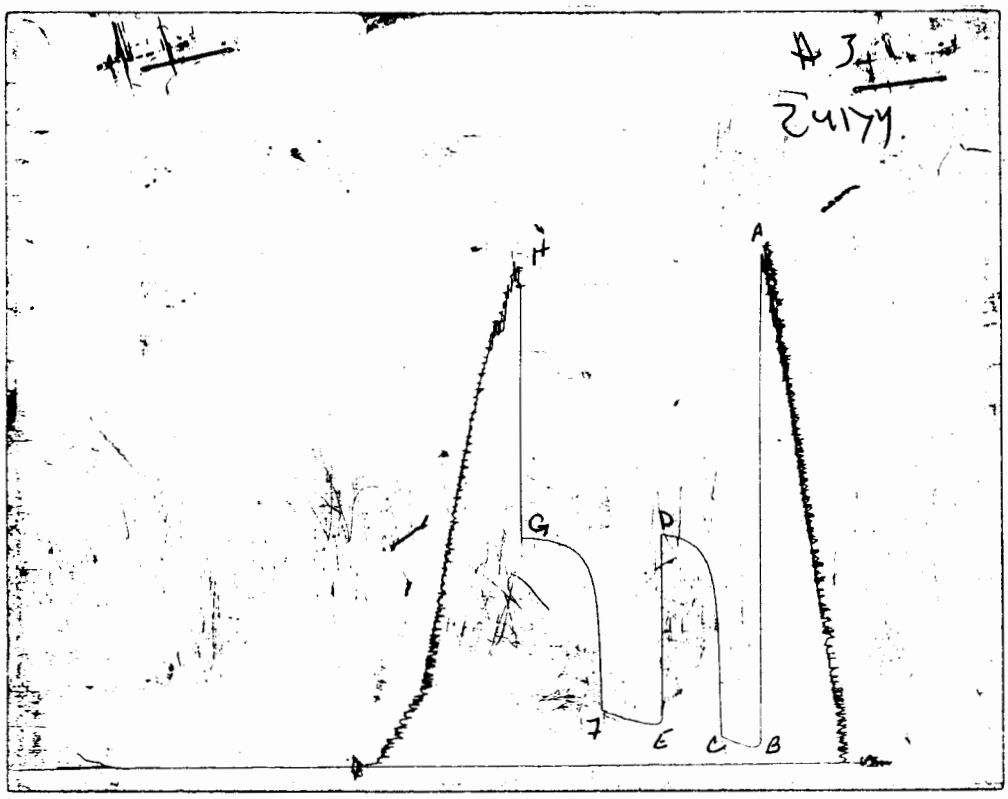
(F) Second Final Flow Pressure 211.1 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 907.5 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1995.4 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	2011	2020.3
(B) FIRST INITIAL FLOW PRESSURE	62	62.2
(C) FIRST FINAL FLOW PRESSURE	104	107.1
(D) INITIAL CLOSED-IN PRESSURE	911	912.1
(E) SECOND INITIAL FLOW PRESSURE	149	158.2
(F) SECOND FINAL FLOW PRESSURE	202	211.1
(G) FINAL CLOSED-IN PRESSURE	903	907.5
(H) FINAL HYDROSTATIC MUD	1973	1995.4

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

VIKING RESOURCES INC

J R EWING #3 DST 3

7 16S 27W LANE KS

ELEVATION:	2601	KB	EST. PAY	9	FT
DATUM:	-1521		ZONE TESTED:	LKC 'K'	
TEST INTERVAL:	4100-4125		TIME INTERVALS:	30-45-45-60	
RECORDER DEPTH:	4121		VISCOSITY:	3.78	CP
BOTTOM HOLE TEMP:	120		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	65.52			
TOTAL FEET OF RECOVERY:	520.00	CORRECTED PIPE FILLUP:	588.022	
TOTAL BARRELS OF RECOVERY:	3.64	CORR. BARRELS OF RECOVERY:	4.116	BBL
BARRELS IN DRILL PIPE:	0.00	API GRAVITY:	39	
BARRELS IN WEIGHT PIPE:	3.64	FLUID GRADIENT:	0.359	
BARRELS IN DRILL COLLARS:	0.00			
GAS OIL RATIO:	18.00	CU.FT/BBL		
BUBBLE POINT PRESSURE:	126			
UNCORRECTED INITIAL PRODUCTION:			69.89	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			79.03	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			44.925	

INITIAL SLOPE	186.83	PSI/CYCL	FINAL SLOPE	124.17	PSI/CYCLE
INITIAL P*	951.49	PSI	FINAL P*	949.78	PSI

TRANSMISSIBILITY	103.49	(MD.-FT./CP.)
PERMEABILITY	43.47	(MD.)
INDICATED FLOW CAPACITY	391.26	(MD.FT)
PRODUCTIVITY INDEX	0.1169	(BARREL/DAY/PSI)
DAMAGE RATIO	1.09	
RADIUS OF INVESTIGATION	57.10	(FT,)
POTENTIOMETRIC SURFACE	682.55	(FT.)
DRAWDOWN FACTOR	0.180	(%)
THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE	86.03	
THEORETICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE	48.91	

INITIAL FLOW

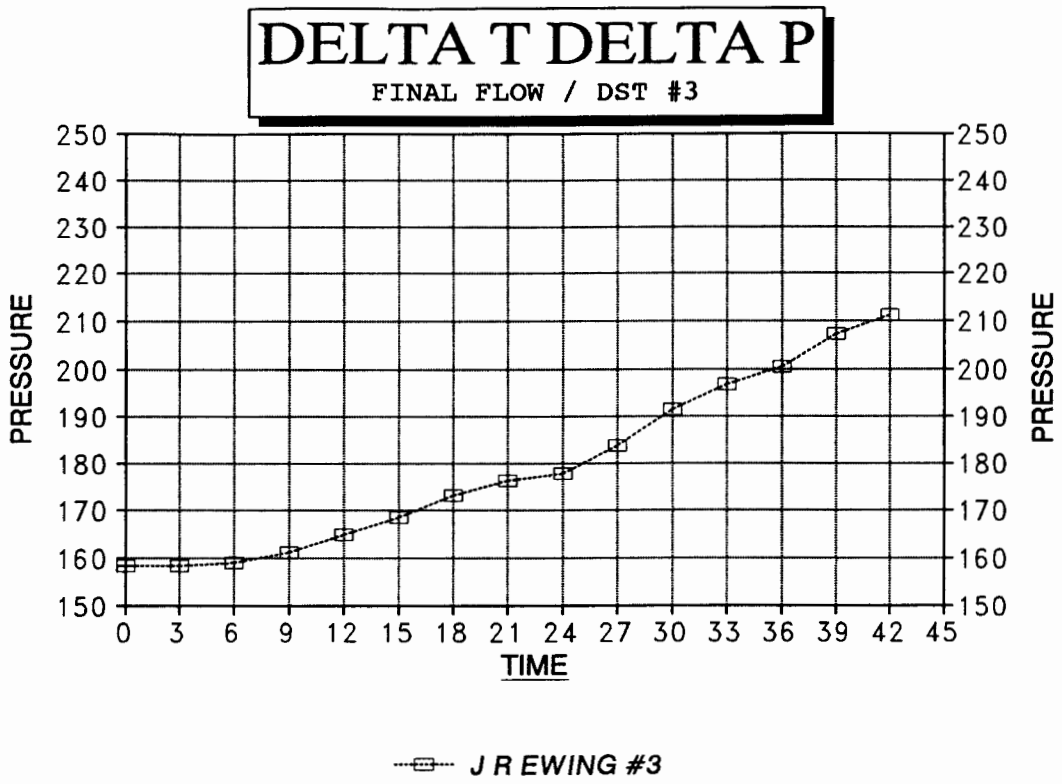
RECORDER 24174 DST # 3

TIME(MIN)	PRESSURE	<>PRESSURE
0	62.2	62.2
3	64.5	2.3
6	68.2	3.7
9	72.7	4.5
12	78.6	5.9
15	83.1	4.5
18	88.4	5.3
21	94.3	5.9
24	101.8	7.5
27	107.1	5.3

FINAL FLOW

RECORDER 24174 DST # 3

TIME(MIN)	PRESSURE	<> PRESSURE
0	158.2	158.2
3	158.2	0.0
6	158.9	0.7
9	161.2	2.3
12	165.1	3.9
15	168.7	3.6
18	173.2	4.5
21	176.3	3.1
24	177.8	1.5
27	183.8	6.0
30	191.4	7.6
33	196.7	5.3
36	200.4	3.7
39	207.3	6.9
42	211.1	3.8



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 44.925

J R EWING #3
INITIAL

DST #3
SHUTIN

30 INITIAL FLOW TIME

SLOPE	186.8 PSI/CYCLE
P*	951.5 PSI/CYCLE

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	302.9	1.041	302.9	11
	6	609.1	0.778	306.2	6
	9	732.7	0.637	123.6	4
	12	782.9	0.544	50.2	4
	15	817.9	0.477	35.0	3
	18	841.5	0.426	23.6	3
	21	856.7	0.385	15.2	2
	24	868.8	0.352	12.1	2
	27	877.9	0.325	9.1	2
	30	887.1	0.301	9.2	2
	33	893.9	0.281	6.8	2
	36	901.5	0.263	7.6	2
X	39	905.2	0.248	3.7	2
	42	906.1	0.234	0.9	2
	45	909.8	0.222	3.7	2
X	48	912.1	0.211	2.3	2

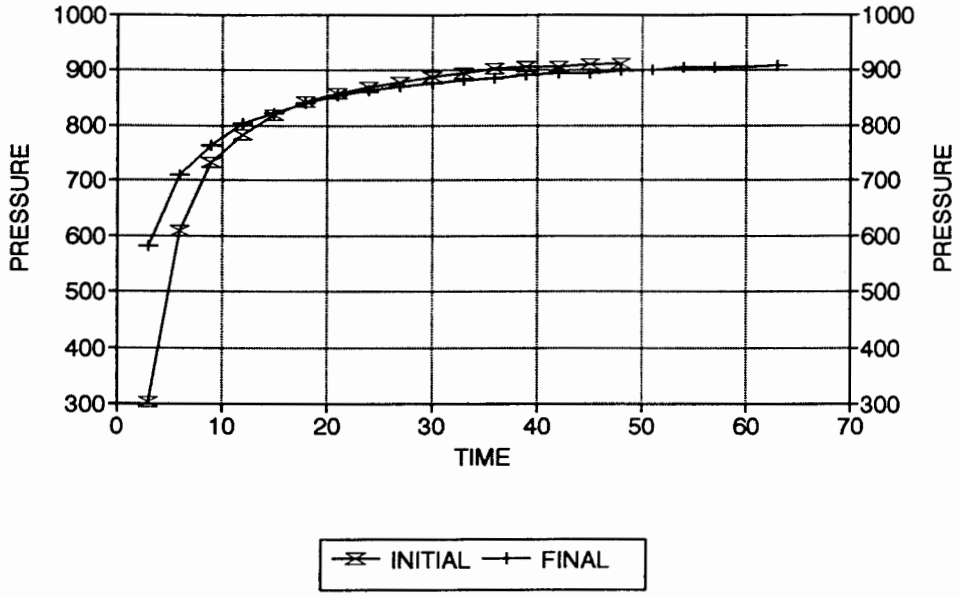
J R EWING #3 DST #3
FINAL SHUTIN

75 TOTAL FLOW TIME

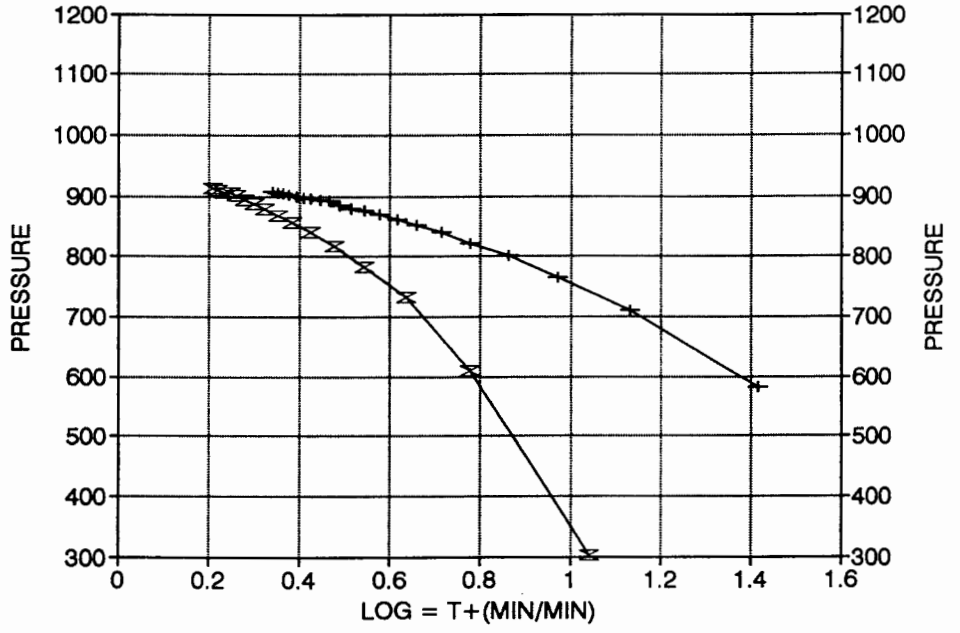
SLOPE 124.2 PSI/CYCLE
P* 949.8 PSI

			Log Horn T	<> PRESSURE	Horn T
	3	581.6	1.415	581.6	26
	6	710.6	1.130	129.0	14
	9	764.7	0.970	54.1	9
	12	802.7	0.860	38.0	7
	15	821.7	0.778	19.0	6
	18	840.7	0.713	19.0	5
	21	853.6	0.660	12.9	5
	24	862.1	0.615	8.5	4
	27	869.6	0.577	7.5	4
	30	876.4	0.544	6.8	4
	33	881.1	0.515	4.7	3
	36	885.5	0.489	4.4	3
	39	891.6	0.466	6.1	3
	42	893.9	0.445	2.3	3
	45	895.4	0.426	1.5	3
	48	897.7	0.409	2.3	3
	51	899.9	0.393	2.2	2
	54	903.1	0.378	3.2	2
X	57	904.5	0.365	1.4	2
	60	906.1	0.352	1.6	2
X	63	907.5	0.341	1.4	2

J R EWING #3 / DST #3
DELTA T DELTA P



HORNER PLOT

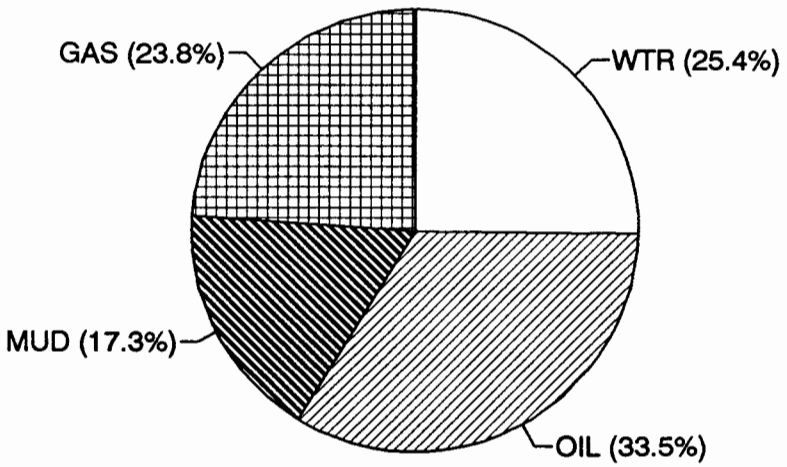


CALCULATED RECOVERY ANALYSIS WEIGHT PIPE

DST # 3 TICKET # 7086

SAMPLE	TOTAL		GAS		OIL		WATER		MUD
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	220	40	88	60	132		0		0
2	60	30	18	50	30		0	20	12
3	60	25	15	15	9	10	6	50	30
4	60	5	3	5	3	40	24	50	30
5	120		0		0	85	102	15	18
TOTAL	520	23.85	124	33.461538	174	25.385	132	17.308	90

			HRS OPEN	BBL/DAY
BBL OIL=	1.218	*	1.25	23.3856
BBL WATER=	0.924	*		17.7408
BBL MUD=	0.63			
BBL GAS=	0.868			



TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name J R EWING #3 Test No. 4 Date 7/11/94

Company VIKING RESOURCES INC Zone LKC 'L'

Address 105 S BROADWAY #1040 WICHITA KS 67202-4224 Elevation 2601 KB

Co. Rep./Geo. ROB PATTON Cont. ABERCROMBIE #8 Est. Ft. of Pay 10

Location: Sec. 7 Twp. 16S Rge. 27W Co. LANE State KS

Interval Tested 4135-4160 Drill Pipe Size 4.5" XH

Anchor Length 25 Wt. Pipe I.D. - 2.7 Ft. Run 636

Top Packer Depth 4130 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4135 Mud Wt. 9.1 lb/Gal.

Total Depth 4160 Viscosity 57 Filtrate 10.4

Tool Open @ 4:20AM Initial Blow STRONG - BOTTOM OF BUCKET IN 4 MINUTES

BLOW BACK BUILT TO BOTTOM OF BUCKET IN 8 MINUTES

Final Blow 1" BLOW BUILDING TO BOTTOM OF BUCKET IN 7 MINUTES

BLOW BACK BUILT TO BOTTOM OF BUCKET IN 7 MINUTES

Recovery - Total Feet 756 Flush Tool? NO

Rec. 2070 Feet of GAS IN PIPE

Rec. 406 Feet of CLEAN GASSY OIL 20%GAS/80%OIL

Rec. 230 Feet of GASSY OIL CUT MUD 40%GAS/40%OIL/20%MUD

Rec. 60 Feet of GASSY HEAVY OIL CUT MUD 5%GAS/25%OIL/70%MUD

Rec. 60 Feet of MUDDY WATER 70%WATER/30%MUD

BHT 124 °F Gravity 41 °API @ 80 °F Corrected Gravity 39 °API

RW 0.1 @ 92.4 °F Chlorides 58000 ppm Recovery Chlorides 2400 ppm System

(A) Initial Hydrostatic Mud 2090.3 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 65.2 PSI @ (depth) 4140 w / Clock No. 25109

(C) First Final Flow Pressure 122.1 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 941.6 PSI @ (depth) 4152 w / Clock No. 23839

(E) Second Initial Flow Pressure 178.5 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 258.8 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 931.1 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2045.8 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

VIKING RESOURCES INC

J R EWING #3 DST 4

7 16S 27W LANE KS

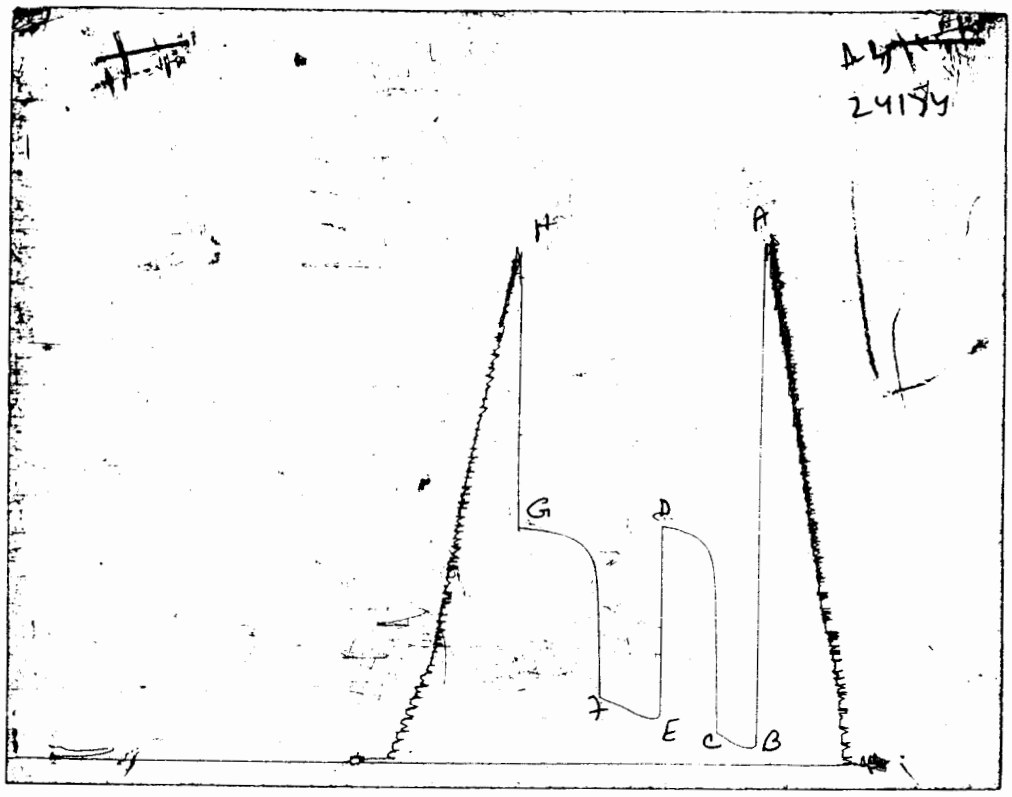
ELEVATION:	2601	KB	EST. PAY	10	FT
DATUM:	-1552		ZONE TESTED:	LKC 'L'	
TEST INTERVAL:	4135-4160		TIME INTERVALS:	30-45-45-60	
RECORDER DEPTH:	4152		VISCOSITY:	3.24	CP
BOTTOM HOLE TEMP:	124		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	165.27			
TOTAL FEET OF RECOVERY:	756.00	CORRECTED PIPE FILLUP:	720.891	
TOTAL BARRELS OF RECOVERY:	6.16	CORR. BARRELS OF RECOVERY:	5.659	BBL
BARRELS IN DRILL PIPE:	1.71	API GRAVITY:	39	
BARRELS IN WEIGHT PIPE:	4.45	FLUID GRADIENT:	0.359	
BARRELS IN DRILL COLLARS:	0.00			
GAS OIL RATIO:	26.84	CU.FT/BBL		
BUBBLE POINT PRESSURE:	178			
UNCORRECTED INITIAL PRODUCTION:			118.24	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			108.66	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			61.261	

INITIAL SLOPE	209.66	PSI/CYCL	FINAL SLOPE	74.62	PSI/CYCLE
INITIAL P*	990.68	PSI	FINAL P*	956.51	PSI

TRANSMISSIBILITY	236.76	(MD.-FT./CP.)
PERMEABILITY	76.64	(MD.)
INDICATED FLOW CAPACITY	766.43	(MD.FT)
PRODUCTIVITY INDEX	0.2675	(BARREL/DAY/PSI)
DAMAGE RATIO	1.71	
RADIUS OF INVESTIGATION	75.82	(FT,)
POTENTIOMETRIC SURFACE	667.15	(FT.)
DRAWDOWN FACTOR	3.449	(%)
THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE	185.91	
THEORETICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE	104.82	

CHART PAGE



This is an actual photograph of recorder chart 24174

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2066	2090.3
(B) FIRST INITIAL FLOW PRESSURE	67	65.2
(C) FIRST FINAL FLOW PRESSURE	119	122.1
(D) INITIAL CLOSED-IN PRESSURE	941	941.6
(E) SECOND INITIAL FLOW PRESSURE	172	178.5
(F) SECOND FINAL FLOW PRESSURE	255	258.8
(G) FINAL CLOSED-IN PRESSURE	933	931.1
(H) FINAL HYDROSTATIC MUD	2027	2045.8

INITIAL FLOW

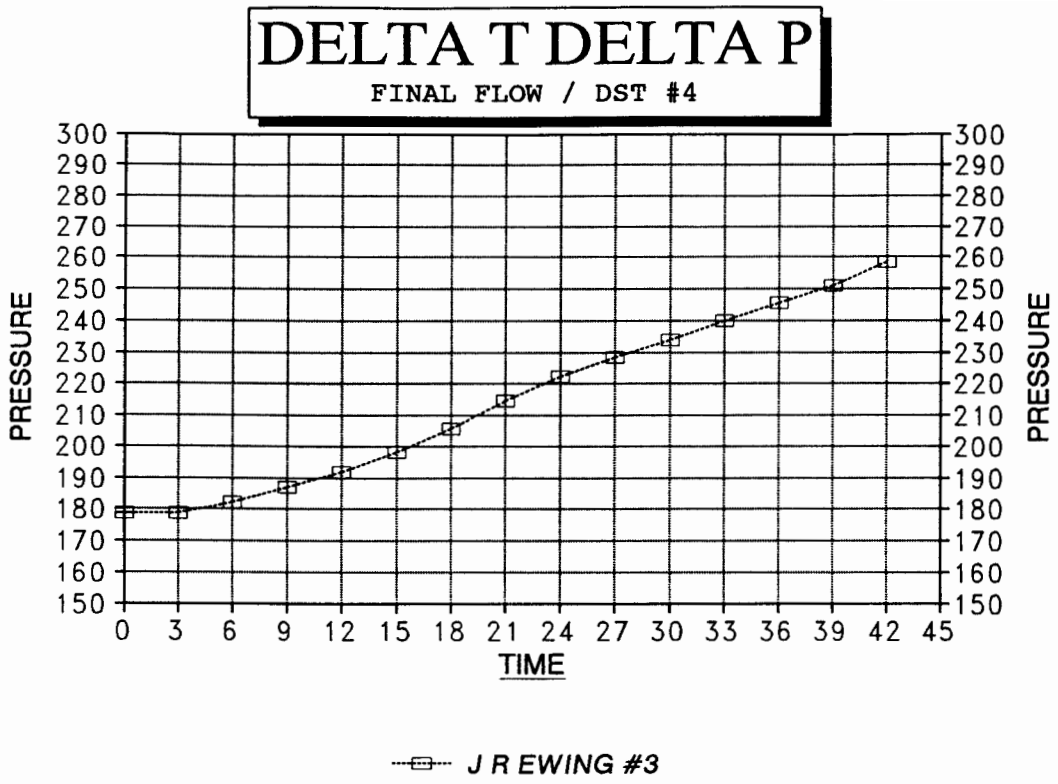
RECORDER 24174 DST # 4

TIME(MIN)	PRESSURE	<>PRESSURE
0	65.2	65.2
3	66.7	1.5
6	69.1	2.4
9	72.7	3.6
12	79.4	6.7
15	85.4	6.0
18	93.6	8.2
21	104.1	10.5
24	113.8	9.7
27	122.1	8.3

FINAL FLOW

RECORDER 24174 DST # 4

TIME(MIN)	PRESSURE	<> PRESSURE
0	178.5	178.5
3	178.5	0.0
6	182.3	3.8
9	186.8	4.5
12	192.1	5.3
15	198.2	6.1
18	205.7	7.5
21	214.8	9.1
24	222.4	7.6
27	228.5	6.1
30	233.8	5.3
33	239.8	6.0
36	245.9	6.1
39	251.2	5.3
42	258.8	7.6



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 61.261

J R EWING #3 DST #4
INITIAL SHUTIN

30 INITIAL FLOW TIME

SLOPE 209.7 PSI/CYCLE
P* 990.7 PSI/CYCLE

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	636.6	1.041	636.6	11
	6	815.6	0.778	179.0	6
	9	850.6	0.637	35.0	4
	12	871.9	0.544	21.3	4
	15	887.8	0.477	15.9	3
	18	900.7	0.426	12.9	3
	21	909.1	0.385	8.4	2
	24	914.3	0.352	5.2	2
	27	920.4	0.325	6.1	2
	30	925.7	0.301	5.3	2
X	33	931.8	0.281	6.1	2
	36	937.8	0.263	6.0	2
	39	940.1	0.248	2.3	2
X	42	941.6	0.234	1.5	2

J R EWING #3
FINAL

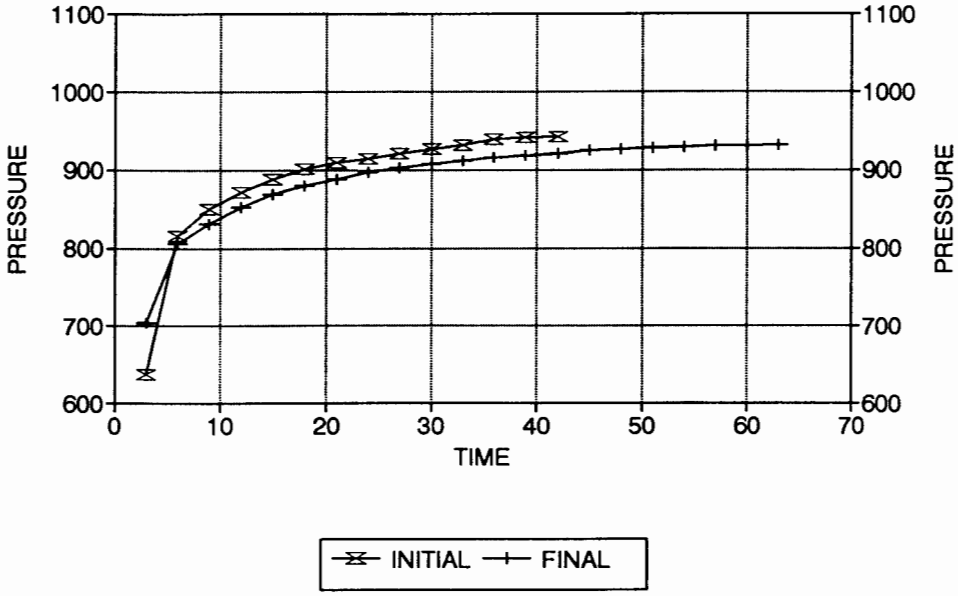
DST #4
SHUTIN

75 TOTAL FLOW TIME

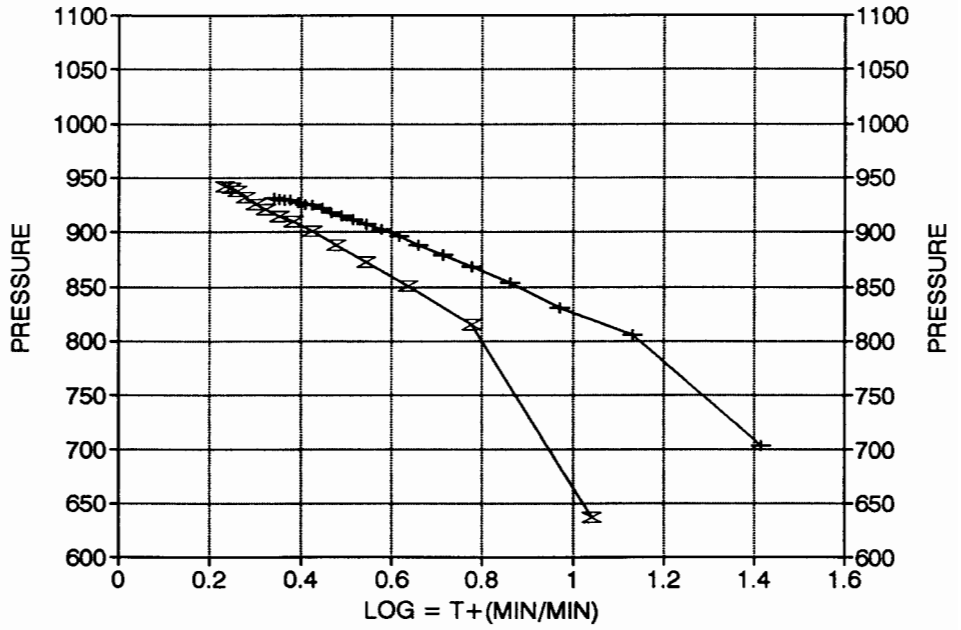
SLOPE 74.6 PSI/CYCLE
P* 956.5 PSI

			Log Horn T	<> PRESSURE	Horn T
	3	703.7	1.415	703.7	26
	6	805.8	1.130	102.1	14
	9	830.9	0.970	25.1	9
	12	852.9	0.860	22.0	7
	15	868.8	0.778	15.9	6
	18	878.7	0.713	9.9	5
	21	887.8	0.660	9.1	5
	24	896.1	0.615	8.3	4
	27	902.2	0.577	6.1	4
	30	907.5	0.544	5.3	4
	33	911.3	0.515	3.8	3
	36	915.1	0.489	3.8	3
	39	918.1	0.466	3.0	3
	42	921.2	0.445	3.1	3
	45	924.2	0.426	3.0	3
	48	925.7	0.409	1.5	3
X	51	927.2	0.393	1.5	2
	54	928.7	0.378	1.5	2
	57	929.5	0.365	0.8	2
	60	930.3	0.352	0.8	2
X	63	931.1	0.341	0.8	2

J R EWING #3 / DST #4
DELTA T DELTA P



HORNER PLOT

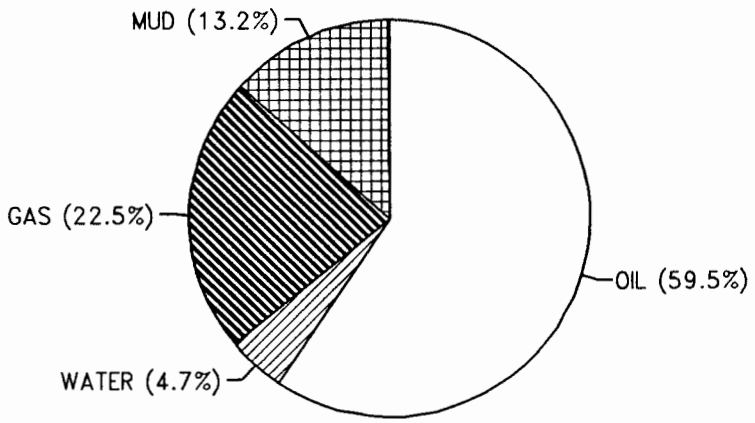


CALCULATED RECOVERY ANALYSIS

DST 4 TICKET # 7087

SAMPLE	#	TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
DRILL	1	120	20	24	80	96		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	286	20	57.2	80	228.8		0		0
PIPE	2	230	40	92	40	92		0	20	46
	3	60	5	3	25	15		0	70	42
	4	60		0		0	70	42	30	18
DRILL	1			0		0		0		0
COLLAR	2			0		0		0		0
	3			0		0		0		0
	4			0		0		0		0
	5			0		0		0		0
TOTAL		756		176.2		431.8		42		106

			HRS OPEN	BBL/DAY
BBL OIL=	3.71572	*	1.25	71.341824
BBL WATER=	0.294	*		5.6448
BBL MUD=	0.8268			
BBL GAS =	1.40668			



TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name J R EWING #3 Test No. 5 Date 7/12/94

Company VIKING RESOURCES INC Zone FORT SCOTT

Address 105 S BROADWAY #1040 WICHITA KS 67202-4224 Elevation 2601 KB

Co. Rep./Geo. DAN REYNOLDS Cont. ABERCROMBIE #8 Est. Ft. of Pay

Location: Sec. 7 Twp. 16S Rge. 27W Co. LANE State KS

Interval Tested 4350-4395 Drill Pipe Size 4.5" XH

Anchor Length 45 Wt. Pipe I.D. - 2.7 Ft. Run 636

Top Packer Depth 4345 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4350 Mud Wt. 9.1 lb/Gal.

Total Depth 4395 Viscosity 55 Filtrate 9.6

Tool Open @ 4:22 A.M. Initial Blow WEAK 1/2" BLOW DECREASED TO 1/4

Final Blow NO BLOW

Recovery - Total Feet 5 Flush Tool? NO

Rec. 5 Feet of MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 120 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides ppm System

(A) Initial Hydrostatic Mud 2276.0 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 31.0 PSI @ (depth) 4356 w / Clock No. 23839

(C) First Final Flow Pressure 31.0 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 43.6 PSI @ (depth) 4390 w / Clock No. 23935

(E) Second Initial Flow Pressure 36.2 PSI AK1 Recorder No. Range

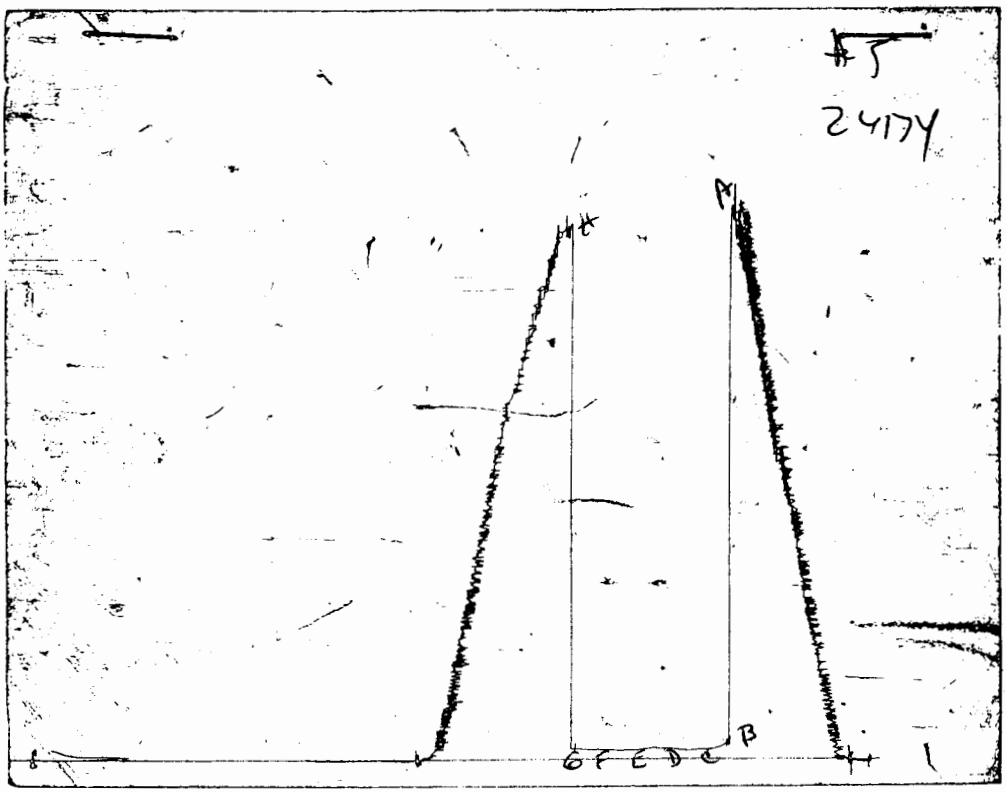
(F) Second Final Flow Pressure 36.2 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 42.9 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2159.9 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart 24174

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2198	2276
(B) FIRST INITIAL FLOW PRESSURE	27	31
(C) FIRST FINAL FLOW PRESSURE	27	31
(D) INITIAL CLOSED-IN PRESSURE	37	43.6
(E) SECOND INITIAL FLOW PRESSURE	27	36.2
(F) SECOND FINAL FLOW PRESSURE	27	36.2
(G) FINAL CLOSED-IN PRESSURE	37	42.9
(H) FINAL HYDROSTATIC MUD	2128	2159.9