



WESTERN TESTING CO., INC.  
FORMATION TESTING

last  
TICKET No 20091

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2746 GL 2751 KB Formation FT. SCOTT + Cher. Eff. Pay Ft.

District GREAT Bend Date 11-5-93 Customer Order No. -

COMPANY NAME Viking Resources, Inc.

ADDRESS 105 S. Broadway, Ste 1040 Wichita, Ks, 67202

LEASE AND WELL NO. Yost "A" #1 COUNTY Lane STATE Ks Sec. 9 Twp 18<sup>s</sup> Rge 28<sup>w</sup>

Mail Invoice To SAME #1 Yost A Co. Name Address No. Copies Requested Reg

Mail Charts To SAME Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 4475 ft. to 4600 ft. Total Depth 4600 ft.  
Packer Depth 4470 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
Packer Depth 4475 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4478 ft. Recorder Number 10270 Cap. 4150  
Bottom Recorder Depth (Outside) 4481 ft. Recorder Number 13550 Cap. 4175  
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor MALLARD Drlg rig 1 Drill Collar Length 300 I. D. 2.2 in.  
Mud Type Chemical Viscosity 49 Weight Pipe Length - I. D. 3.8 in.  
Weight 9.4 Water Loss 5 cc. Drill Pipe Length 4153 I. D. 3.8 in.  
Chlorides 3000 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.  
Jars: Make - Serial Number - Anchor Length 125 ft. Size 5 1/2 in.  
Did Well Flow? - Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: IF - WEAK building to a strong Blow in 22 min  
FF - WEAK building to a strong Blow in 30 min

Recovered 690 ft. of GAS IN Pipe  
Recovered 60 ft. of HEAVY OIL - gas cut mud 20% gas 35% oil 45% mud  
Recovered 120 ft. of Gassy muddy oil 42% gas 48% oil 10% mud  
Recovered 120 ft. of Gassy muddy oil 63% gas 31% oil 6% mud  
Recovered 60 ft. of Gassy muddy oil 45% gas 37% oil 18% mud  
Chlorides - P.P.M. Sample Jars used 5 Remarks:

Time On Location 1:00 A.M. P.M. Time Pick Up Tool 2:30 A.M. P.M. Time Off Location A.M. P.M.  
Time Set Packer(s) 4:35 A.M. P.M. Time Started Off Bottom 8:05 A.M. P.M. Maximum Temperature 129°  
Initial Hydrostatic Pressure (A) 2286 P.S.I.  
Initial Flow Period (B) 30 Minutes (C) 63 P.S.I. to (D) 105 P.S.I.  
Initial Closed In Period (E) 60 Minutes (F) 1238 P.S.I.  
Final Flow Period (G) 45 Minutes (H) 116 P.S.I. to (I) 137 P.S.I.  
Final Closed In Period (J) 75 Minutes (K) 1186 P.S.I.  
Final Hydrostatic Pressure (L) 2255 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made. All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative Ray Schwager Thank you 904

FIELD INVOICE

Open Hole Test \$  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

Date 11-5-93 Test Ticket No. 2091  
 Recorder No. 10220 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft. \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2296</u> P.S.I.		M	
B First Initial Flow Pressure	P.S.I.	First Flow Pressure	Mins.	Mins.
C First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	Mins.	Mins.
D Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	Mins.	Mins.
E Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	Mins.	<u>75</u> Mins.
F Second Final Flow Pressure	P.S.I.			
G Final Closed-in Pressure	P.S.I.			
H Final Hydrostatic Mud	<u>2249</u> P.S.I.			

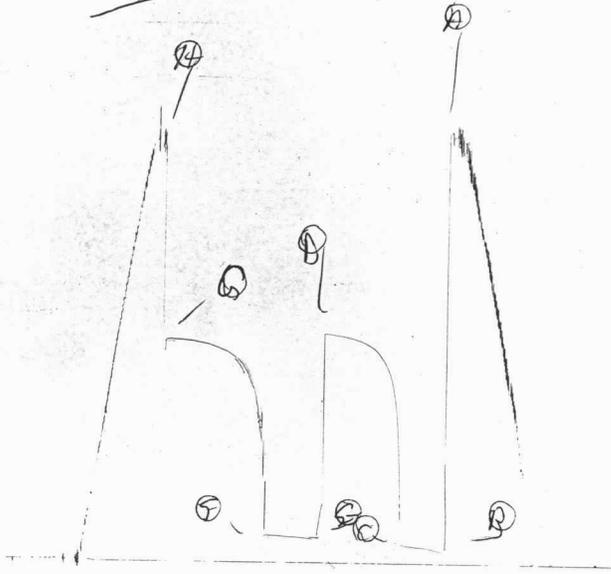
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>57</u>	0		0	<u>132</u>	0	
P 2 5	<u>70</u>	3	<u>558</u>	5	<u>132</u>	3	<u>564</u>
P 3 10	<u>78</u>	6	<u>810</u>	10	<u>132</u>	6	<u>750</u>
P 4 15	<u>84</u>	9	<u>974</u>	15	<u>134</u>	9	<u>887</u>
P 5 20	<u>89</u>	12	<u>1044</u>	20	<u>136</u>	12	<u>955</u>
P 6 25	<u>93</u>	15	<u>1086</u>	25	<u>139</u>	15	<u>1014</u>
P 7 30	<u>96</u>	18	<u>1117</u>	30	<u>142</u>	18	<u>1055</u>
P 8 35	<u>102</u>	21	<u>1142</u>	35	<u>144</u>	21	<u>1082</u>
P 9 40		24	<u>1165</u>	40	<u>146</u>	24	<u>1100</u>
P10 45		27	<u>1174</u>	45	<u>148</u>	27	<u>1115</u>
P11 50		30	<u>1185</u>	50		30	<u>1124</u>
P12 55		33	<u>1194</u>	55		33	<u>1140</u>
P13 60		36	<u>1201</u>	60		36	<u>1148</u>
P14 65		39	<u>1207</u>	65		39	<u>1158</u>
P15 70		42	<u>1214</u>	70		42	<u>1167</u>
P16 75		45	<u>1217</u>	75		45	<u>1172</u>
P17 80		48	<u>1221</u>	80		48	<u>1177</u>
P18 85		51	<u>1225</u>	85		51	<u>1182</u>
P19 90		54	<u>1228</u>	90		54	<u>1187</u>
P20 95		57	<u>1230</u>	95		57	<u>1191</u>
100		60	<u>1232</u>	100		60	<u>1192</u>

60 1195  
 65 1196  
 70 1198  
 75 1199

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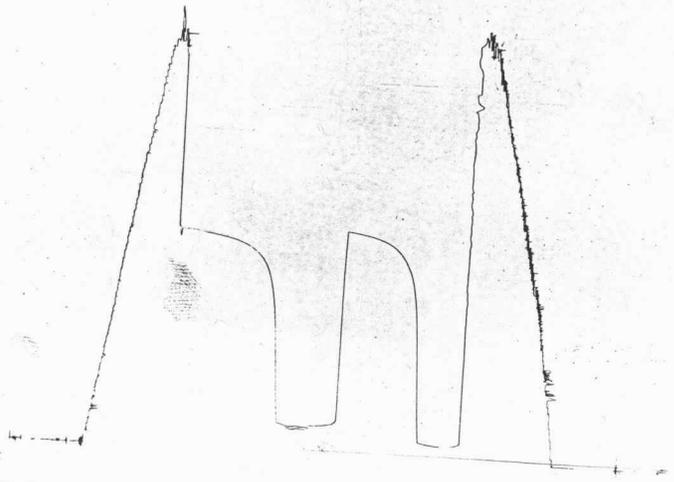
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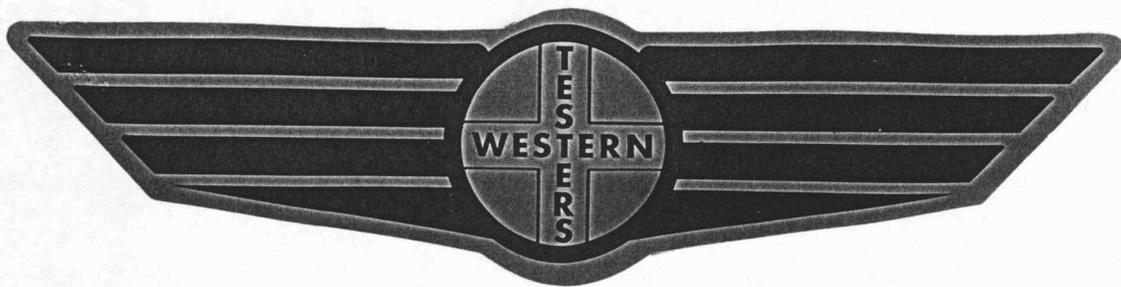
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# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 80 - 688 - 7021

DST REPORT

GENERAL INFORMATION

DATE : 11/5/93  
CUSTOMER : VIKING RESOURCES, INC.  
WELL : #1 TEST: 1  
ELEVATION: 2751 KB  
SECTION : 9  
RANGE : 28W COUNTY: LANE  
GAUGE SN#: 10270 RANGE : 4150  
TICKET : 20091  
LEASE : YOST A  
GEOLOGIST: ?  
FORMATION: FT SCOTT & CHEROKEE  
TOWNSHIP : 18S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4475.00 ft TO: 4600.00 ft TVD: 4600.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 4478.0 ft 4481.0 ft  
TEMPERATURE: 129.0  
DRILL COLLAR LENGTH: 300.0 ft I.D.: 2.200 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 4153.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 22.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 125.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 4470.0 ft SIZE: 6.630 in  
PACKER DEPTH: 4475.0 ft SIZE: 6.630 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : MALLARD RIG #1  
MUD TYPE : CHEMICAL  
WEIGHT : 9.400 ppg  
CHLORIDES : 3000 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO  
VISCOSITY : 49.00 cp  
WATER LOSS: 5.000 cc  
SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG  
BLOW IN 22 MINUTES. FINAL FLOW PERIOD WEAK BLOW  
BUILDING TO A STRONG BLOW IN 30 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	690 FT GAS ABOVE FLUID
60.0	35.0	20.0	0.0	45.0	HEAVY OIL & GAS CUT MUD
120.0	48.0	42.0	0.0	10.0	GASSY MUDDY OIL
120.0	31.0	63.0	0.0	6.0	GASSY MUDDY OIL
60.0	37.0	45.0	0.0	18.0	GASSY MUDDY OIL

RATE INFORMATION

OIL VOLUME:	0.8446 STB	TOTAL FLOW TIME:	80.0000 min.
GAS VOLUME:	4.9840 SCF	AVERAGE OIL RATE:	24.5586 STB/D
MUD VOLUME:	0.5198 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	1.3644 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2286.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	63.00	105.00
INITIAL SHUT-IN	60.00		1238.00
FINAL FLOW	45.00	116.00	137.00
FINAL SHUT-IN	75.00		1186.00

FINAL HYDROSTATIC PRESSURE: 2255.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2296.00

Description	Duration	p1	p End
INITIAL FLOW	35.00	57.00	102.00
INITIAL SHUT-IN	60.00		1232.00
FINAL FLOW	45.00	133.00	148.00
FINAL SHUT-IN	75.00		1199.00

FINAL HYDROSTATIC PRESSURE: 2249.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 11/5/93	TICKET : 20091
CUSTOMER : VIKING RESOURCES, INC.	LEASE : YOST A
WELL : #1 TEST: 1	GEOLOGIST: ?
ELEVATION: 2751 KB	FORMATION: FT SCOTT & CHEROKEE
SECTION : 9	TOWNSHIP : 18S
RANGE : 28W COUNTY: LANE	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	57.00	57.00
5.00	70.00	13.00
10.00	78.00	8.00
15.00	84.00	6.00
20.00	89.00	5.00
25.00	93.00	4.00
30.00	96.00	3.00
35.00	102.00	6.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	558.00	558.00	0.00
6.00	863.00	305.00	0.00
9.00	974.00	111.00	0.00
12.00	1044.00	70.00	0.00
15.00	1086.00	42.00	0.00
18.00	1117.00	31.00	0.00
21.00	1143.00	26.00	0.00
24.00	1162.00	19.00	0.00
27.00	1174.00	12.00	0.00
30.00	1185.00	11.00	0.00
33.00	1194.00	9.00	0.00
36.00	1201.00	7.00	0.00
39.00	1207.00	6.00	0.00
42.00	1214.00	7.00	0.00
45.00	1217.00	3.00	0.00
48.00	1221.00	4.00	0.00
51.00	1225.00	4.00	0.00
54.00	1228.00	3.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
57.00	1230.00	2.00	0.00
60.00	1232.00	2.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	133.00	133.00
5.00	133.00	0.00
10.00	133.00	0.00
15.00	134.00	1.00
20.00	136.00	2.00
25.00	139.00	3.00
30.00	142.00	3.00
35.00	144.00	2.00
40.00	146.00	2.00
45.00	148.00	2.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	564.00	564.00	0.00
6.00	750.00	186.00	0.00
9.00	887.00	137.00	0.00
12.00	955.00	68.00	0.00
15.00	1016.00	61.00	0.00
18.00	1055.00	39.00	0.00
21.00	1082.00	27.00	0.00
24.00	1100.00	18.00	0.00
27.00	1115.00	15.00	0.00
30.00	1131.00	16.00	0.00
33.00	1140.00	9.00	0.00
36.00	1148.00	8.00	0.00
39.00	1158.00	10.00	0.00
42.00	1167.00	9.00	0.00
45.00	1173.00	6.00	0.00
48.00	1177.00	4.00	0.00
51.00	1183.00	6.00	0.00
54.00	1187.00	4.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
57.00	1191.00	4.00	0.00
60.00	1193.00	2.00	0.00
63.00	1195.00	2.00	0.00
66.00	1196.00	1.00	0.00
69.00	1197.00	1.00	0.00
72.00	1198.00	1.00	0.00
75.00	1199.00	1.00	0.00