

Company K. B. W. Oil & Gas Company Lease & Well No. Harbaugh #1
 Elevation 1477 Formation Mississippi Effective Pay ---- Ft. Ticket No. 4282
 Date 12/18/79 Sec. 13 Twp. 34S Range 12W County Barber State Kansas
 Test Approved by Gordon W. Keen Western Representative Roger Lisenby
 Formation Test No. 1 Interval Tested from 4695 ft. to 4740 ft. Total Depth 4740 ft.
 Packer Depth 4690 ft. Size 6 3/4 in. Packer Depth 4695 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4733 ft. Recorder Number 1051 Cap. 4250
 Bottom Recorder Depth (Outside) 4736 ft. Recorder Number 969 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor Sweetman Drilling Rig #1 Drill Collar Length 284 I. D. 2 1/4 in.
 Mud Type starch Viscosity 59 Weight Pipe Length - I. D. - in.
 Weight 9.3 Water Loss 6.0 cc. Drill Pipe Length 4384 I. D. 3.8 in.
 Chlorides -- P.P.M. Test Tool Length 27 ft. Tool Size 4 3/4 in.
 Jars: Make WTC Serial Number 410 Anchor Length 45 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No 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: Good increasing blow off bottom of bucket first opening; Gas to surface in ten minutes
on second opening. See attached sheet for gas measurements.

Recovered 65 ft. of gas cut mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Remarks:

Time Set Packer(s) 2:53 A.M. Time Started Off Bottom 7:25 A.M. Maximum Temperature 127⁰
P.M. P.M.
 Initial Hydrostatic Pressure 2637 P.S.I.
 Initial Flow Period 30 Minutes (B) 112 P.S.I. to (C) 82 P.S.I.
 Initial Closed In Period 69 Minutes (D) 1063 P.S.I.
 Final Flow Period 60 Minutes (E) 80 P.S.I. to (F) 69 P.S.I.
 Final Closed In Period 129 Minutes (G) 1739 P.S.I.
 Final Hydrostatic Pressure 2472 P.S.I. (H)

GAS FLOW REPORT

Date 12/18/79 Ticket 4282 Company K.B.W. Oil & Gas Company
 Well Name and No. Harbaugh #1 Dst No. 1 Interval Tested 4695'-4740'
 County Barber State Kansas Sec. 13 Twp. 34S Rg. 12W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Meria Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						

SECOND FLOW						
	10 min.	GAS TO SURFACE				
	20 min.	8" of water 1/4" orifice				4,760 CFPD
	30 min.	10" of water 1/4" orifice				5,320 CFPD
	40 min.	10" of water 1/4" orifice				5,320 CFPD
	50 min.	10" of water 1/4" orifice				5,320 CFPD
	60 min.	10" of water 1/4" orifice				5,320 CFPD
	NO GAS	BOTTLE REQUESTED				

GAS BOTTLE

Serial No. ---- Date Bottle Filled ---- Date to be Invoiced 12/18/79

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME K.B.W. Oil & Gas Company
 Authorized by Gordon W. Keen

WESTERN TESTING CO., INC.

Pressure Data

Date 12/18/79 Test Ticket No. 4282
 Recorder No. 1051 Capacity 4250 Location 4733 Ft.
 Clock No. - - - Elevation 1477 Well Temperature 127 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	2637 P.S.I.	2:53A	M
B First Initial Flow Pressure	112 P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	82 P.S.I.	60 Mins.	69 Mins.
D Initial Closed-in Pressure	1063 P.S.I.	60 Mins.	60 Mins.
E Second Initial Flow Pressure	80 P.S.I.	120 Mins.	129 Mins.
F Second Final Flow Pressure	69 P.S.I.		
G Final Closed-in Pressure	1739 P.S.I.		
H Final Hydrostatic Mud	2472 P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>23</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>43</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1	0	112	0	82	0	80	0	69
P 2	5	112	3	82	5	80	3	120
P 3	10	91	6	82	10	71	6	221
P 4	15	84	9	82	15	69	9	319
P 5	20	82	12	82	20	69	12	424
P 6	25	82	15	82	25	69	15	517
P 7	30	82	18	84	30	69	18	606
P 8			21	87	35	69	21	695
P 9			24	90	40	69	24	783
P10			27	96	45	69	27	857
P11			30	101	50	69	39	900
P12			33	116	55	69	33	970
P13			36	167	60	69	36	1078
P14			39	243			39	1140
P15			42	340			42	1207
P16			45	414			45	1258
P17			48	508			48	1320
P18			51	604			51	1371
P19			54	693			54	1407
P20			57	784			57	1444
			60	866				
			63	945			60	1475
			66	1034				
			69	1063				

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WESTERN TESTING CO., INC.

Pressure Data

Date 12/18/79 Test Ticket No. 4282
 Recorder No. 1051 Capacity 4250 Location 4733 Ft.
 Clock No. - - - Elevation 1477 Well Temperature 127 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2637</u> P.S.I.	Open Tool	<u>2:53A</u> M	
B First Initial Flow Pressure	<u>112</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>82</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>69</u> Mins.
D Initial Closed-in Pressure	<u>1063</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>80</u> P.S.I.	Final Closed-in Pressure	<u>120</u> Mins.	<u>129</u> Mins.
F Second Final Flow Pressure	<u>69</u> P.S.I.			
G Final Closed-in Pressure	<u>1739</u> P.S.I.			
H Final Hydrostatic Mud	<u>2472</u> P.S.I.			

PRESSURE BREAKDOWN

Point	First Flow Pressure Breakdown:	Initial Shut-In Breakdown:	Second Flow Pressure Breakdown:	Final Shut-In Breakdown:	
	<u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<u>23</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	<u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<u>43</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				63	1502
P 2				66	1523
P 3				69	1545
P 4				72	1568
P 5				75	1585
P 6				78	1600
P 7				81	1615
P 8				84	1626
P 9				87	1638
P10				90	1651
P11				93	1664
P12				96	1675
P13				99	1683
P14				102	1692
P15				105	1700
P16				108	1706
P17				111	1712
P18				114	1718
P19				117	1723
P20				120	1728
				123	1733
				126	1735
				129	1739

INL # 4282
I

105-1

(H)

(G)

(D)

(F)

(E)

(C)

(B)

(A)

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