WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET Nº 20181

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

Elevation 1746 KB Formation Viola Eff. Pay Ft.

District Pratt Date 1-14-93 Customer Order No.

COMPANY NAME Mike McNaul

ADDRESS 720 North Main St Hutchinson Kansas 67501

LEASE AND WELL NO. D.D. Dyche 1-A COUNTY Kingman STATE Kansas Sec. 14 Twp 27S Rge. 10W

Mail Invoice To Mike McNaul #1-A D.D. DYCHE No. Copies Requested Reg
Co. Name

Mail Charts To Emphasis Drilling Co (Rig #5) No. Copies Requested Reg
Address Address

Formation Test No. 2 Interval Tested From 4244 ft. to 4270 ft. Total Depth 4290 ft.

Packer Depth 4239 ft. Size 6 5/8 in. Packer Depth — ft. Size — in.

Packer Depth 4244 ft. Size 6 5/8 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside) 4247 ft. Recorder Number 1057 Cap. 4250

Bottom Recorder Depth (Outside) 4250 ft. Recorder Number 4332 Cap. 4200

Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor Emphasis Drilling #5

Mud Type Chem Viscosity 58

Weight 9.2 Water Loss 8.8 cc.

Chlorides 8,000 P.P.M.

Jars: Make NO Serial Number —

Did Well Flow? No Reversed Out NO

Drill Collar Length -0- I. D. — in.

Weight Pipe Length 348 I. D. 2.5 in.

Drill Pipe Length 3876 I. D. 3.8 in.

Test Tool Length 20 ft. Tool Size 5½ FH in.

Anchor Length 46 ft. Size 5½ FH in.

Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½ XH in.

Blow: blow built to Bench in 15 minutes + died back to 6" blow on initial 4" blow decreasing to a 2" blow on final flow

Recovered 800 ft. of gas in pipe

Recovered 300 ft. of gas + oil cut mud 20% gas 10% oil 70% mud

Recovered 180 ft. of gas + oil cut watery mud 15% gas - 5% oil 40% water 40% mud

Recovered ft. of

Recovered 720 ft. of water 62,000 P.P.M

Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 8:00 A.M. P.M. Time Pick Up Tool 8:30 A.M. P.M. Time Off Location 8:00 A.M. P.M.

Time Set Packer(s) 11:40 A.M. P.M. Time Started Off Bottom 3:40 A.M. P.M. Maximum Temperature 134 °F

Initial Hydrostatic Pressure		(A) 2187	P.S.I.	
Initial Flow Period	Minutes 30	(B) 161	P.S.I. to (C) 247	P.S.I.
Initial Closed In Period	Minutes 60	(D) 1172	P.S.I.	
Final Flow Period	Minutes 60	(E) 355	P.S.I. to (F) 538	P.S.I.
Final Closed In Period	Minutes 90	(G) 1069	P.S.I.	
Final Hydrostatic Pressure		(H) 2134	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 J. MICHADIX
Signature of Customer or his authorized representative

Western Representative Ted Pratt - Shrunk Lowe

FIELD INVOICE

Open Hole Test	$ 2
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Fluid Sampler	$

WESTERN TESTING CO., INC.
Pressure Data

Date 1-14-93 Test Ticket No. 20181

Recorder No. 1051 Capacity Location Ft.

Clock No. Elevation Well Temperature °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2176 P.S.I.	Open Tool	M	
B First Initial Flow Pressure	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	90 Mins.	93 Mins.
F Second Final Flow Pressure	P.S.I.			
G Final Closed-in Pressure	P.S.I.			
H Final Hydrostatic Mud	2119 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	146
P 2 5	146
P 3 10	149
P 4 15	167
P 5 20	186
P 6 25	210
P 7 30	226
P 8 35	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14 65	
P15 70	
P16 75	
P17 80	
P18 85	
P19 90	
P20 95	
100	

Initial Shut-In
Breakdown: Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	226
3	918
6	982
9	1005
12	1025
15	1036
18	1043
21	1049
24	1055
27	1058
30	1060
33	1061
36	1062
39	1063
42	1063
45	1063
48	
51	
54	
57	
60	1063

Second Flow Pressure
Breakdown: Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	347
5	347
10	347
15	350
20	360
25	376
30	397
35	415
40	438
45	458
50	479
55	500
60	517
65	
70	
75	
80	
85	
90	
95	
100	

Final Shut-In
Breakdown: Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	517
3	924
6	984
9	1008
12	1021
15	1031
18	1037
21	1040
24	1045
27	1048
30	1048
33	1049
36	1050
39	1051
42	1052
45	1053
48	1054
51	1055
54	1056
57	1057
60	1058

WESTERN TESTING CO., INC.

Pressure Data

Date 1-14-93 Test Ticket No. 20181

Recorder No. 1051 Capacity Location Ft.

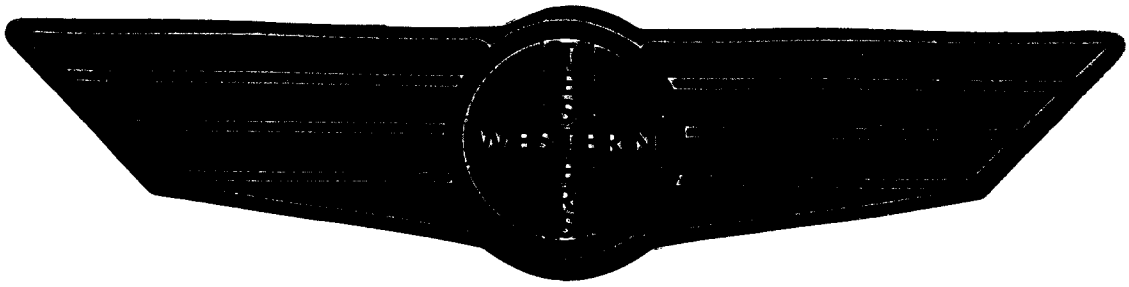
Clock No. Elevation Well Temperature °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	P.S.I.	Open Tool	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.	Mins.
F Second Final Flow Pressure	P.S.I.			
G Final Closed-in Pressure	P.S.I.			
H Final Hydrostatic Mud	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 mins. and a		of mins. and a		of mins. and a		of mins. and a	
final inc. of Min.		final inc. of Min.		final inc. of Min.		final inc. of Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105		63		105		63	1058
P 2 110		66		110		66	
P 3 115		69		115		69	
P 4 120		72		120		72	
P 5 125		75		125		75	1058
P 6 130		78		130		78	
P 7 135		81		135		81	
P 8 140		84		140		84	
P 9 145		87		145		87	
P10 150		90		150		90	1058
P11 155		93		155		93	1058
P12 160		96		160		96	
P13 165		99		165		99	
P14 170		102		170		102	
P15 175		105		175		105	
P16 180		108		180		108	
P17 185		111		185		111	
P18 190		114		190		114	
P19 195		117		195		117	
P20 200		120		200		120	

FORMATION TEST REPORT



Home Office:

P.O. Box 1599

Wichita, Kansas 67201

Phone 1-800-688-7021

COMPANY MIKE MCNAUL LEASE & WELL NO. #1-A D D DYCHE SEC. 14 TWP. 27S RGE. 10W TEST NO. 2 DATE 1/14/93

DST REPORT

GENERAL INFORMATION

DATE	: 1-14-93			TICKET	: 20181
CUSTOMER	: MIKE MCNAUL			LEASE	: D.D. DYCHE
WELL	: #1-A	TEST:	2	GEOLOGIST:	HADIX
ELEVATION:	1746 KB			FORMATION:	VIOLA
SECTION	: 14			TOWNSHIP	: 27S
RANGE	: 10W	COUNTY:	KINGMAN	STATE	: KS
GAUGE SN#:	1051	RANGE	: 4250	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4244.00 ft TO: 4290.00 ft TVD: 4290.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4247.0 ft 4250.0 ft
TEMPERATURE: 134.0

DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH :	348.0 ft	I.D.:	2.500 in
DRILL PIPE LENGTH :	3876.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	46.0 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:	4239.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4244.0 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.	: EMPHASIS RIG #5		
MUD TYPE	: CHEMICAL	VISCOSITY :	58.00 cp
WEIGHT	: 9.200 ppg	WATER LOSS:	8.800 cc
CHLORIDES	: 8000 ppm		
JARS-MAKE	:	SERIAL NUMBER:	
DID WELL FLOW?:	NO	REVERSED OUT?:	NO

COMMENTS

Comment

INITIAL FLOW PERIOD BLOW BUILT TO 8 INCHES IN 15 MINUTES AND DIED BACK TO 6 INCHES. FINAL FLOW PERIOD 4 INCH BLOW DEPLETING TO A 2 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	10.0	0.0	0.0	0.0	800 FT GAS ABOVE FLUID
300.0	10.0	20.0	0.0	70.0	GAS & OIL CUT MUD
180.0	5.0	15.0	40.0	40.0	GAS & OIL CUT WATERY MUD
720.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 62000 PPM

RATE INFORMATION

OIL VOLUME:	0.5470 STB		
GAS VOLUME:	6.8519 SCF	TOTAL FLOW TIME:	90.0000 min.
MUD VOLUME:	3.9554 STB	AVERAGE OIL RATE:	57.6764 STB/D
WATER VOLUME:	8.3404 STB	AVERAGE WATER RATE:	147.8093 STB/D
TOTAL FLUID :	12.8429 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2187.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	161.00	247.00
INITIAL SHUT-IN	60.00		1122.00
FINAL FLOW	60.00	355.00	538.00
FINAL SHUT-IN	90.00		1069.00

FINAL HYDROSTATIC PRESSURE: 2134.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2176.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	146.00	226.00
INITIAL SHUT-IN	60.00		1063.00
FINAL FLOW	60.00	347.00	517.00
FINAL SHUT-IN	93.00		1058.00

FINAL HYDROSTATIC PRESSURE: 2119.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 1-14-93			TICKET	: 20181
CUSTOMER	: MIKE MCNAUL			LEASE	: D.D. DYCHE
WELL	: #1-A	TEST: 2		GEOLOGIST	: HADIX
ELEVATION	: 1746 KB			FORMATION	: VIOLA
SECTION	: 14			TOWNSHIP	: 27S
RANGE	: 10W	COUNTY:	KINGMAN	STATE	: KS
GAUGE SN#	: 1051	RANGE :	4250	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	146.00	146.00
5.00	146.00	0.00
10.00	149.00	3.00
15.00	167.00	18.00
20.00	186.00	19.00
25.00	210.00	24.00
30.00	226.00	16.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	918.00	918.00	11.00
6.00	982.00	64.00	6.00
9.00	1005.00	23.00	4.33
12.00	1025.00	20.00	3.50
15.00	1036.00	11.00	3.00
18.00	1043.00	7.00	2.67
21.00	1049.00	6.00	2.43
24.00	1055.00	6.00	2.25
27.00	1058.00	3.00	2.11
30.00	1060.00	2.00	2.00
33.00	1061.00	1.00	1.91
36.00	1062.00	1.00	1.83
39.00	1063.00	1.00	1.77
42.00	1063.00	0.00	1.71
45.00	1063.00	0.00	1.67
48.00	1063.00	0.00	1.63
51.00	1063.00	0.00	1.59
54.00	1063.00	0.00	1.56
57.00	1063.00	0.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1063.00	0.00	1.50

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	347.00	347.00
5.00	347.00	0.00
10.00	347.00	0.00
15.00	350.00	3.00
20.00	360.00	10.00
25.00	376.00	16.00
30.00	397.00	21.00
35.00	415.00	18.00
40.00	438.00	23.00
45.00	458.00	20.00
50.00	479.00	21.00
55.00	500.00	21.00
60.00	517.00	17.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	924.00	924.00	21.00
6.00	984.00	60.00	11.00
9.00	1008.00	24.00	7.67
12.00	1021.00	13.00	6.00
15.00	1031.00	10.00	5.00
18.00	1037.00	6.00	4.33
21.00	1040.00	3.00	3.86
24.00	1045.00	5.00	3.50
27.00	1047.00	2.00	3.22
30.00	1048.00	1.00	3.00
33.00	1049.00	1.00	2.82
36.00	1050.00	1.00	2.67
39.00	1051.00	1.00	2.54
42.00	1052.00	1.00	2.43
45.00	1053.00	1.00	2.33
48.00	1054.00	1.00	2.25

PRESSURE TRANSIENT REPORT (CONTINUED)

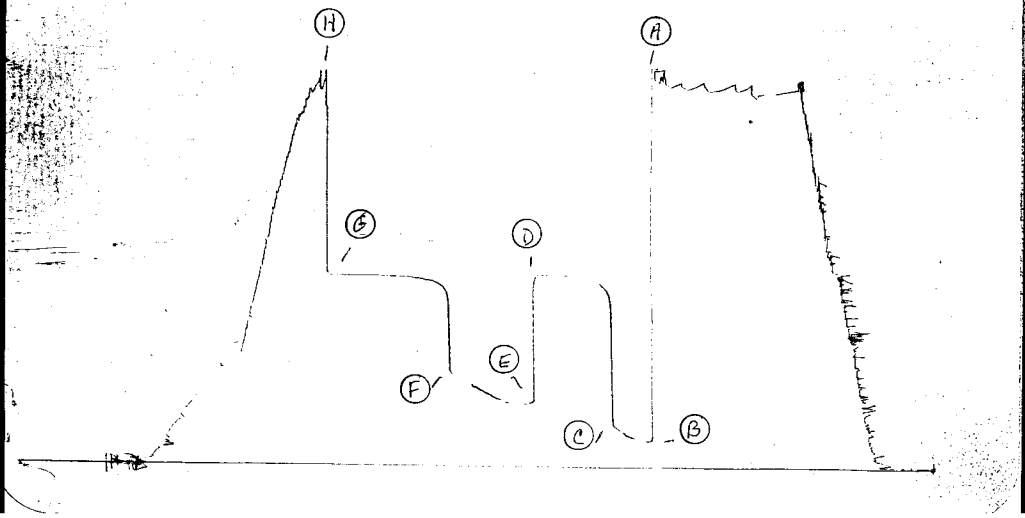
FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
51.00	1055.00	1.00	2.18
54.00	1056.00	1.00	2.11
57.00	1057.00	1.00	2.05
60.00	1058.00	1.00	2.00
63.00	1058.00	0.00	1.95
66.00	1058.00	0.00	1.91
69.00	1058.00	0.00	1.87
72.00	1058.00	0.00	1.83
75.00	1058.00	0.00	1.80
78.00	1058.00	0.00	1.77
81.00	1058.00	0.00	1.74
84.00	1058.00	0.00	1.71
87.00	1058.00	0.00	1.69
90.00	1058.00	0.00	1.67
93.00	1058.00	0.00	1.65

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