



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No 16669

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

Elevation 1299 KB 1294 GL Formation *Miss* Eff. Pay *—* Ft.

District *Augusta* Date *1-4-83* Customer Order No. *—*

COMPANY NAME *White & Ellis Drilling Inc.*

ADDRESS *401 East Douglas Suite 500 Wichita, Ks 67202*

LEASE AND WELL NO. *Renn #1* COUNTY *Sumner* STATE *Ks* Sec. *13* Twp. *31S* Rge. *2W*

Mail Invoice To *Same #1 Renn* No. Copies Requested *1*

Mail Charts To *Same* No. Copies Requested *5*

Go. Name Address

Formation Test No. *1* Interval Tested From *3773* ft. to *3788* ft. Total Depth *3788* ft.

Packer Depth *3773* ft. Size *6 3/4* in. Packer Depth *—* ft. Size *—* in.

Packer Depth *3768* ft. Size *6 3/4* in. Packer Depth *—* ft. Size *—* in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) *3781* ft. Recorder Number *13268* Cap. *4225*

Bottom Recorder Depth (Outside) *3784* ft. Recorder Number *11019* Cap. *4500*

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

Drilling Contractor *White & Ellis Drilling #4* Drill Collar Length *275* I. D. *2 1/4* in.

Mud Type *Chem* Viscosity *4.1* Weight Pipe Length *—* I. D. *—* in.

Weight *9.5* Water Loss *10.4* cc. Drill Pipe Length *3478* I. D. *3.8* in.

Chlorides *4000* P.P.M. Test Tool Length *20* ft. Tool Size *5 1/2 00* in.

Jars: Make *—* Serial Number *—* Anchor Length *15* ft. Size *5 1/2 00* in.

Did Well Flow? *—* Reversed Out *No* Surface Choke Size *3/4* in. Bottom Choke Size *3/4* in.

Main Hole Size *7 1/8* in. Tool Joint Size *4 1/2 X H* in.

Blow: *2 air diminishing to weak at end of test*

Recovered *125* ft. of *Mud w/ few specks of oil*

Recovered *150* ft. of *Salt water 58,000 PPM Chlorides*

Recovered *—* ft. of

Recovered *—* ft. of

Recovered *—* ft. of

Remarks: *2 sample jars*

Time On Location *3:00* *1-4* P.M. Time Pick Up Tool *4:30* P.M. Time Off Location *1:00* *1-5* A.M.

Time Set Packer (s) *6:00* P.M. Time Started Off Bottom *9:15* P.M. Maximum Temperature *118*

Initial Hydrostatic Pressure (A) *1940* P.S.I.

Initial Flow Period (B) *30* Minutes (C) *20* P.S.I. to (D) *75* P.S.I.

Initial Closed In Period (E) *45* Minutes (F) *1435* P.S.I.

Final Flow Period (G) *60* Minutes (H) *130* P.S.I. to (I) *150* P.S.I.

Final Closed In Period (J) *60* Minutes (K) *1425* P.S.I.

Final Hydrostatic Pressure (L) *1900* 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.

*M. Dixon*

Test Approved By *Norman Allen*  
Signature of Customer or his authorized representative

Western Representative *Norman Allen*

FIELD INVOICE

Open Hole Test	\$ <i>600.00</i>
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$ <i>50.00</i>
Telecopier	\$
TOTAL	\$ <i>650.00</i>

WESTERN TESTING CO., INC.

Pressure Data

Date 1-4-83 Test Ticket No. 16669  
 Recorder No. 13268 Capacity 4225 Location 3781 Ft.  
 Clock No. --- Elevation 1299 KB Well Temperature 118 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1945</u> P.S.I.		<u>6:00 P</u> M	
B First Initial Flow Pressure	<u>17</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>64</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1427</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>111</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>146</u> P.S.I.			
G Final Closed-in Pressure	<u>1409</u> P.S.I.			
H Final Hydrostatic Mud	<u>1890</u> P.S.I.			

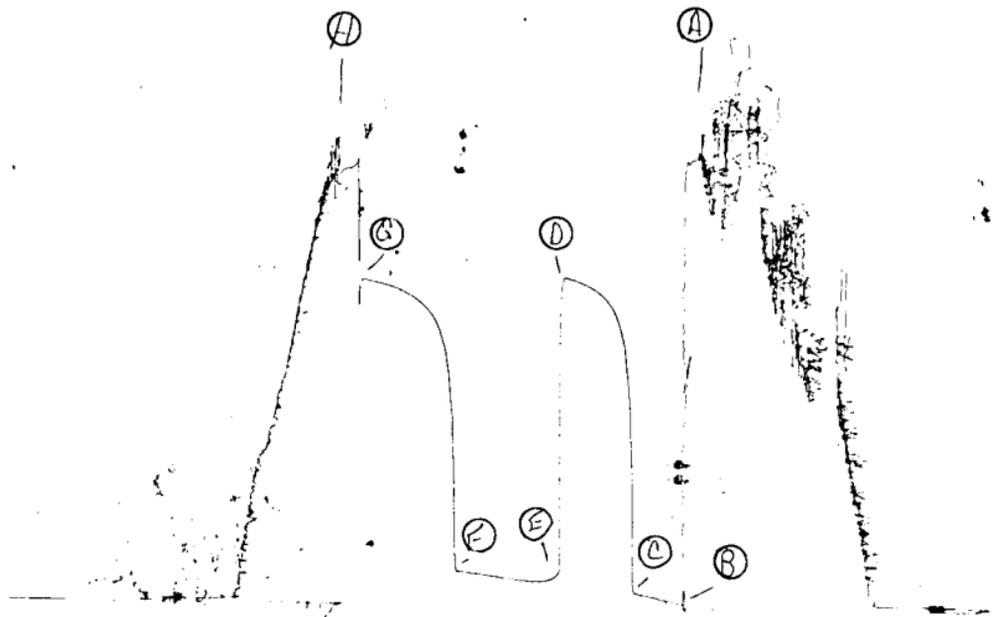
PRESSURE BREAKDOWN

<p>First Flow Pressure                  Breakdown: <u>6</u> Inc.                  of <u>5</u> mins. and a                  final inc. of <u>0</u> Min.</p>	<p>Initial Shut-In                  Breakdown: <u>15</u> Inc.                  of <u>3</u> mins. and a                  final inc. of <u>0</u> Min.</p>	<p>Second Flow Pressure                  Breakdown: <u>12</u> Inc.                  of <u>5</u> mins. and a                  final inc. of <u>0</u> Min.</p>	<p>Final Shut-In                  Breakdown: <u>30</u> Inc.                  of <u>3</u> mins. and a                  final inc. of <u>0</u> Min.</p>
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>17</u>	0	<u>64</u>	0	<u>111</u>	0	<u>146</u>
P 2 5	<u>27</u>	3	<u>649</u>	5	<u>113</u>	3	<u>626</u>
P 3 10	<u>33</u>	6	<u>981</u>	10	<u>111</u>	6	<u>940</u>
P 4 15	<u>42</u>	9	<u>1148</u>	15	<u>111</u>	9	<u>1104</u>
P 5 20	<u>50</u>	12	<u>1229</u>	20	<u>113</u>	12	<u>1183</u>
P 6 25	<u>57</u>	15	<u>1284</u>	25	<u>118</u>	15	<u>1234</u>
P 7 30	<u>64</u>	18	<u>1320</u>	30	<u>121</u>	18	<u>1273</u>
P 8 35		21	<u>1345</u>	35	<u>125</u>	21	<u>1294</u>
P 9 40		24	<u>1361</u>	40	<u>130</u>	24	<u>1314</u>
P10 45		27	<u>1378</u>	45	<u>136</u>	27	<u>1330</u>
P11 50		30	<u>1389</u>	50	<u>140</u>	30	<u>1343</u>
P12 55		33	<u>1399</u>	55	<u>144</u>	33	<u>1356</u>
P13 60		36	<u>1409</u>	60	<u>146</u>	36	<u>1365</u>
P14		39	<u>1417</u>	65		39	<u>1376</u>
P15		42	<u>1423</u>	70		42	<u>1384</u>
P16		45	<u>1427</u>	75		45	<u>1390</u>
P17		48		80		48	<u>1396</u>
P18		51		85		51	<u>1400</u>
P19		54		90		54	<u>1404</u>
P20		57				57	<u>1409</u>
		60				60	<u>1409</u>

TKT 16669

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Company White & Ellis Drilling, Inc. Lease & Well No. #1 Renn  
 Elevation 1299 Kelly Bushing Formation Mississippi Effective Pay -- Ft. Ticket No. 16669  
1294 Ground Level  
 Date 1/4/83 Sec. 13 Twp. 31S Range 24W County Sumner State Kansas  
 Test Approved by M. Dixon Western Representative Norman Allen

Formation Test No. 1 Interval Tested from 3773 ft. to 3788 ft. Total Depth 3788 ft.  
 Packer Depth 3773 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 3768 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3781 ft. Recorder Number 13268 Cap. 4225  
 Bottom Recorder Depth (Outside) 3784 ft. Recorder Number 11019 Cap. 4500  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drlg. Rig #4 Drill Collar Length 275 I. D. 2 1/4 in.  
 Mud Type chemical Viscosity 41 Weight Pipe Length - I. D. - in.  
 Weight 9.5 Water Loss 10.4 cc. Drill Pipe Length 3478 I. D. 3.8 in.  
 Chlorides 4,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.  
 Jars: Make - Serial Number - Anchor Length 15 ft. Size 5 1/2 OD in.  
 Did Well Flow? - 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: Fair diminishing to weak at end of test.

Recovered 125 ft. of mud with few specks of oil  
 Recovered 150 ft. of salt water Chlorides 58,000 ppm  
 Recovered - ft. of -  
 Recovered - ft. of -  
 Recovered - ft. of -

Remarks: -

Time Set Packer(s) 6:00 ~~A.M.~~ P.M. Time Started Off Bottom 9:15 ~~A.M.~~ P.M. Maximum Temperature 118°  
 Initial Hydrostatic Pressure ..... (A) 1945 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 17 P.S.I. to (C) 64 P.S.I.  
 Initial Closed In Period ..... Minutes 45 (D) 1427 P.S.I.  
 Final Flow Period ..... Minutes 60 (E) 111 P.S.I. to (F) 146 P.S.I.  
 Final Closed In Period ..... Minutes 60 (G) 1409 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 1890 P.S.I.

# WESTERN TESTING CO., INC.

## Pressure Data

Date 1/4/83 Test Ticket No. 16669  
 Recorder No. 13268 Capacity 4225 Location 3781 Ft.  
 Clock No. -- Elevation 1299 Kelly Bushing Well Temperature 118 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1945	P.S.I.	6:00P	M
B First Initial Flow Pressure	17	P.S.I.	30	30
C First Final Flow Pressure	64	P.S.I.	45	45
D Initial Closed-in Pressure	1427	P.S.I.	60	60
E Second Initial Flow Pressure	111	P.S.I.	60	60
F Second Final Flow Pressure	146	P.S.I.		
G Final Closed-in Pressure	1409	P.S.I.		
H Final Hydrostatic Mud	1890	P.S.I.		

### PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In			
	Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.			
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	17	0	64	0	111	0	146
P 2	27	3	649	5	111	3	626
P 3	33	6	981	10	111	6	940
P 4	42	9	1148	15	111	9	1104
P 5	50	12	1229	20	113	12	1183
P 6	57	15	1284	25	118	15	1234
P 7	64	18	1320	30	121	18	1273
P 8		21	1345	35	125	21	1294
P 9		24	1361	40	130	24	1314
P10		27	1378	45	136	27	1330
P11		30	1389	50	140	30	1343
P12		33	1399	55	144	33	1356
P13		36	1409	60	146	36	1365
P14		39	1417			39	1376
P15		42	1423			42	1384
P16		45	1427			45	1390
P17						48	1396
P18						51	1400
P19						54	1404
P20						57	1409
						60	1409