



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 10820

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 2105 K.B Formation Cherokee Eff. Pay Ft.

District Great Bend Date 5-17-87 Customer Order No.

COMPANY NAME F. C. Hall Estate

ADDRESS Box 780167 6427 East Kellogg Wichita Ks 67207

LEASE AND WELL NO. Massey C#2-2 COUNTY Edwards STATE Ks Sec. 2 Twp. 24 Rge. 17

Mail Invoice To Same As Above Massey C#2-2 No. Copies Requested 4542

Co. Name Copy 'Art Kleenick' Address PO Box 158 Beloe, Ks. 67519
Mail Charts To No. Copies Requested Usual

Formation Test No. 1 Interval Tested From 4245 ft. to 4277 ft. Total Depth 4277 ft.

Packer Depth 4240 ft. Size 6 5/8 in. Packer Depth 4245 ft. Size 6 5/8 in.

Packer Depth ft. Size in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) ft. Recorder Number Cap.

Bottom Recorder Depth (Outside) 4269 ft. Recorder Number 13267 Cap. 4050

Below Straddle Recorder Depth 4272 ft. * Recorder Number 13549 Cap. 4100

Drilling Contractor Sterling Drilling Rig-4 Drill Collar Length 424 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 51 Weight Pipe Length I. D. in.

Weight 9.3 + Water Loss 11.2 cc. Drill Pipe Length 3797 I. D. 3.8 in.

Chlorides 14,000 P.P.M. Test Tool Length 24 ft. Tool Size 4 3/4 OD in.

Jars: Make Serial Number Anchor Length 32 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 7/8 in. Bottom Choke Size 3/4 in.

Main Hole Size 1 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Pre Flow - weak Increased to 9"

2nd Flow - Strong 7 1/4" Out Flow Period

Recovered 45 ft. of Mud 1 1/2" Solids

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 2 Remarks: P.S.I. From Recorder #13549

Time On Location 6:15 (A.M.) Time Pick Up Tool 9:05 (A.M.) Time Off Location (A.M.)

Time Set Packer(s) 10:45 (A.M.) Time Started Off Bottom 1:45 (A.M.) Maximum Temperature 120

Initial Hydrostatic Pressure (A) 2172 P.S.I.

Initial Flow Period 32 Minutes (B) 52 P.S.I. to (C) 52 P.S.I.

Initial Closed In Period 30 Minutes (D) 443 P.S.I.

Final Flow Period 60 Minutes (E) 52 P.S.I. to (F) 52 P.S.I.

Final Closed In Period 60 Minutes (G) 940 P.S.I.

Final Hydrostatic Pressure (H) 2059 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 Frank Greenbaum
Signature of Customer or his authorized representative

Western Representative May Driye

Thank you
1150

FIELD INVOICE

Open Hole Test \$ 450
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$ 3250
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$ 75
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

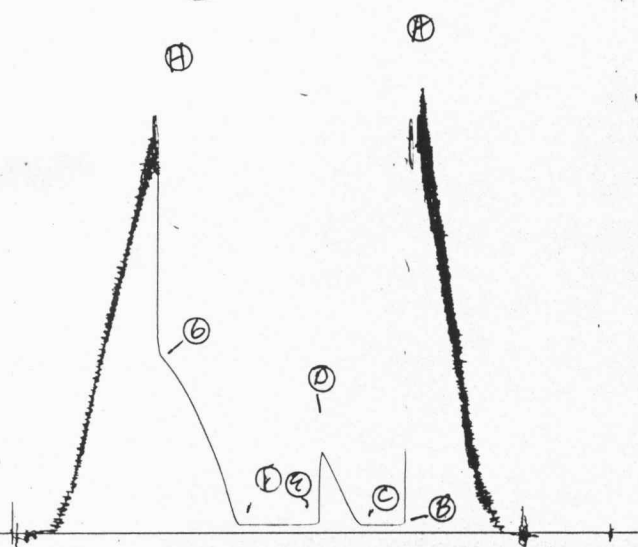
Date 5-17-87 Test Ticket No. 10830
 Recorder No. 13549 Capacity 4100 Location _____ Ft.
 Clog No. _____ Elevation _____ Well Temperature 120 °F
 Point Pressure Time Given Time Computed
 A Initial Hydrostatic Mud 2239 P.S.I. Open Tool 10:45 A 11:45 P
 B First Initial Flow Pressure 41 P.S.I. First Flow Pressure 30 Mins. 30 Mins.
 C First Final Flow Pressure 41 P.S.I. Initial Closed-in Pressure 30 Mins. 30 Mins.
 D Initial Closed-in Pressure 437 P.S.I. Second Flow Pressure 60 Mins. 60 Mins.
 E Second Initial Flow Pressure 44 P.S.I. Final Closed-in Pressure 60 Mins. 60 Mins.
 F Second Final Flow Pressure 44 P.S.I.
 G Final Closed-in Pressure 954 P.S.I.
 H Final Hydrostatic Mud 2223 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>41</u>	0		0	<u>44</u>	0	
P 2 5		3	<u>58</u>	5		3	<u>79</u>
P 3 10	<u>41</u>	6	<u>95</u>	10		6	<u>154</u>
P 4 15		9	<u>143</u>	15		9	<u>239</u>
P 5 20	<u>41</u>	12	<u>195</u>	20		12	<u>306</u>
P 6 25		15	<u>241</u>	25		15	<u>368</u>
P 7 30	<u>41</u>	18	<u>283</u>	30		18	<u>425</u>
P 8 35		21	<u>333</u>	35		21	<u>477</u>
P 9 40		24	<u>379</u>	40	<u>44</u>	24	<u>522</u>
P 10 45		27	<u>416</u>	45		27	<u>571</u>
P 11 50		30	<u>437</u>	50		30	<u>618</u>
P 12 55		33		55		33	<u>661</u>
P 13 60		36		60	<u>44</u>	36	<u>705</u>
P 14 65		39		65		39	<u>743</u>
P 15 70		42		70		42	<u>782</u>
P 16 75		45		75		45	<u>815</u>
P 17 80		48		80		48	<u>846</u>
P 18 85		51		85		51	<u>875</u>
P 19 90		54		90		54	<u>905</u>
P 20 95		57		95		57	<u>934</u>
100		60		100		60	<u>954</u>

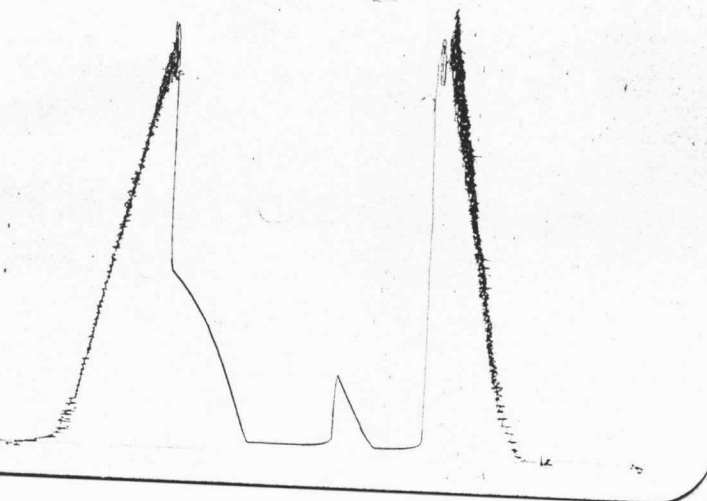
IR # 10820

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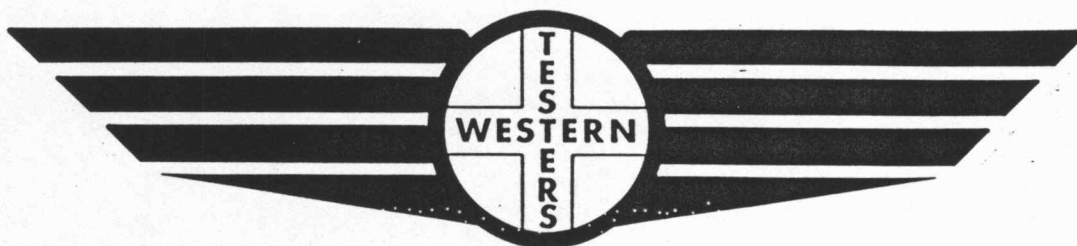


IR # 10820

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY F G HOLL ESTATE LEASE & WELL NO. MASSEY C #2-2 SEC. 2 TWP. 24S RGE. 17W TEST NO. 1 DATE 5/17/87

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	5-17-87	TICKET	:	10820
CUSTOMER	:	F. G. HOLL ESTATE	LEASE	:	MASSEY 'C'
WELL	:	#2-2 TEST: 1	GEOLOGIST	:	F. GREENBAUM
ELEVATION	:	2105 KB	FORMATION	:	CHEROKEE
SECTION	:	2	TOWNSHIP	:	24S
RANGE	:	17W	STATE	:	KANSAS
GAUGE SN#	:	13549	CLOCK	:	12
		COUNTY :	EDWARDS		
		RANGE :	4100		

INTERVAL FROM	:	4245	TO	:	4277	TOTAL DEPTH	:	4277
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	4240	SIZE	:	6.63			
PACKER DEPTH	:	4245	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	STERLING DRILLING RIG #4			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	51
WEIGHT	:	9.3+	WATER LOSS (CC)	:	11.2
CHLORIDES (PPM)	:	14000			
JARS-MAKE	:	-]	SERIAL NUMBER	:	-
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	424	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	3797	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	24	FT	TOOL SIZE	:	4.75
ANCHOR LENGTH	:	32	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1	:	WEAK BLOW INCREASED TO A 9" BLOW ON THE INITIAL FLOW.
BLOW COMMENT #2	:	STRONG BLOW THROUGHOUT THE FINAL FLOW.
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 45 FT OF: MUD (1 1/2% SOLIDS)

Total Barrels Fluid = 0.22
Total Fluid Prod Rate = 3.54 BFPD
Indicated Wtr Rate = 0.35 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 10:45 AM

TIME STARTED OFF BOTTOM : 1:45 PM

WELL TEMPERATURE : 120

INITIAL HYDROSTATIC PRESSURE

(A) 2239

INITIAL FLOW PERIOD MIN: 30

(B) 41 PSI TO (C) : 41

INITIAL CLOSED IN PERIOD MIN: 30

(D) 437

FINAL FLOW PERIOD MIN: 60

(E) 44 PSI TO (F) : 44

FINAL CLOSED IN PERIOD MIN: 60

(G) 956

FINAL HYDROSTATIC PRESSURE

(H) 2223

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : F. G. HOLL ESTATE
RIG : EDWARDS-KANSAS
FIELD : MASSEY 'C'
WELL : #2-2
DATE : 5-17-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

COMPANY : F. G. HOLL ESTATE

WELL : #2-2

GAUGE # : 13549

DATE : 17/ 5/87

FIELD : MASSEY 'C'

JOB # : 10820

DEPTH : 4277

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	10:45: 0	0.000	41.000	120.00	0.000
2	10:49:59	0.083	41.000	120.00	0.000
3	10:55: 0	0.167	41.000	120.00	0.000
4	11: 0: 0	0.250	41.000	120.00	0.000
5	11: 4:59	0.333	41.000	120.00	0.000
6	11:10: 0	0.417	41.000	120.00	0.000
7	11:15: 0	0.500	41.000	120.00	0.000
8	11:18: 0	0.550	58.000	120.00	17.000
9	11:21: 0	0.600	95.000	120.00	37.000
10	11:24: 0	0.650	143.000	120.00	48.000
11	11:27: 0	0.700	195.000	120.00	52.000
12	11:30: 0	0.750	241.000	120.00	46.000
13	11:33: 0	0.800	283.000	120.00	42.000
14	11:36: 0	0.850	333.000	120.00	50.000
15	11:39: 0	0.900	379.000	120.00	46.000
16	11:42: 0	0.950	416.000	120.00	37.000
17	11:45: 0	1.000	437.000	120.00	21.000
18	11:46: 0	1.017	44.000	120.00	-393.000
19	11:49:59	1.083	44.000	120.00	0.000
20	11:55: 0	1.167	44.000	120.00	0.000
21	12: 0: 0	1.250	44.000	120.00	0.000
22	12: 4:59	1.333	44.000	120.00	0.000
23	12:10: 0	1.417	44.000	120.00	0.000
24	12:15: 0	1.500	44.000	120.00	0.000
25	12:19:59	1.583	44.000	120.00	0.000
26	12:25: 0	1.667	44.000	120.00	0.000
27	12:30: 0	1.750	44.000	120.00	0.000
28	12:34:59	1.833	44.000	120.00	0.000
29	12:40: 0	1.917	44.000	120.00	0.000
30	12:45: 0	2.000	44.000	120.00	0.000
31	12:48: 0	2.050	79.000	120.00	35.000
32	12:51: 0	2.100	154.000	120.00	75.000
33	12:54: 0	2.150	239.000	120.00	85.000
34	12:57: 0	2.200	306.000	120.00	67.000
35	13: 0: 0	2.250	368.000	120.00	62.000
36	13: 3: 0	2.300	435.000	120.00	67.000
37	13: 6: 0	2.350	477.000	120.00	42.000
38	13: 9: 0	2.400	522.000	120.00	45.000
39	13:12: 0	2.450	571.000	120.00	49.000
40	13:15: 0	2.500	618.000	120.00	47.000
41	13:18: 0	2.550	661.000	120.00	43.000
42	13:21: 0	2.600	705.000	120.00	44.000
43	13:24: 0	2.650	743.000	120.00	38.000
44	13:27: 0	2.700	782.000	120.00	39.000
45	13:30: 0	2.750	815.000	120.00	33.000
46	13:33: 0	2.800	846.000	120.00	31.000
47	13:36: 0	2.850	875.000	120.00	29.000
48	13:39: 0	2.900	905.000	120.00	30.000
49	13:42: 0	2.950	934.000	120.00	29.000
50	13:45: 0	3.000	956.000	120.00	22.000

WESTERN TESTING CO. INC.