WESTERN TESTERS

P. O. BOX 793 PHONE 793-7903

GREAT BEND, KANSAS

WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No. 20224

Formation Morrow Sand Elevation 1911 KB Eff. Pay _____ Ft.

District Liberal Date 8-9-74 Customer Order No. _____

COMPANY NAME Robert L. Haynie

ADDRESS 802 Colo Club Bldg., 4155 E Jewell, Denver, Colo. 80222

LEASE AND WELL NO. Tuttle #4 COUNTY Clark STATE Kans Sec. 3 Twp. 35s Rge. 22w

Mail Inv. To _____ No. Copies Requested _____
Co. Name Address

Mail Charts To 4 copies to R.L. Haynie No. Copies Requested 5
1 copy to: Don Calvin 262 N Waco Address 2, Wichita, Ks.

Formation Test No. 1 O.K. ✓ Misrun — Interval Tested From 5585' to 5650' Total Depth 5650'

Size Main Hole 7⅞" Rat Hole — Conv. — B.T. ✓ Damaged — Yes ✓ No Conv. — B.T. ✓ Damaged — Yes ✓ No

Top Packer Depth 5580 Ft. Size 6¾" Bottom Packer Depth 5585 Ft. Size 6¾"

Straddle no Conv. — B.T. — Damaged — Yes — No Packer Depth — Ft. Size —

Tool Size 5½" OD Tool Joint Size FH Anchor Length 65 Ft. Size 30"x6"-Dev. 5"x5½" Surface Choke Size ¾ In. Bottom Choke Size ¾ In.

RECORDERS Depth 5601 Ft. Clock No. 8378 Depth 5604 Ft. Clock No. 4763

Top Make Kuster Cap. 6200 No. 1562 (Inside) Outside Bottom Make Kuster Cap. 6000 No. 1560 ~~Inside~~ (Outside) Inside

Below Straddle: Depth — Rec. No. — Clock No. — Inside Outside Depth — Ft. Rec. No. — Clock No. — Inside Outside

Time Set Packer 4:43 PM

Tool Open I.F.P. From 4:45 PM. to 5:— M. — Hr. 15 Min. From (B) 75 104 P.S.I. To (C) 75 79 P.S.I.

Tool Closed I.C.I.P. From 5:— PM. to 6:— M. 1 Hr. — Min. (D) 1948 1940 P.S.I.

Tool Open F.F.P. From 6:— M. to 7:— M. 1 Hr. — Min. From (E) 6084 P.S.I. To (F) 60 51 P.S.I.

Tool Closed F.C.I.P. From 7:— M. to 8:— PM. 1 Hr. — Min. (G) 1935 1921 P.S.I.

Initial Hydrostatic Pressure (A) 2916 2991 P.S.I. Final Hydrostatic Pressure (H) 2886 2788 P.S.I. Maximum Temp. 128

INFORMATION

BLOW Good GTS in 17 min. See Attached sheet.

Did Well Flow — Yes ✓ No Recovery Total Ft. 15' mud.

Reversed Out — Yes ✓ No Mud Type starch Viscosity 70 Weight 9⁰ Water Loss 14 cc. Chlorides 32,000

EXTRA EQUIPMENT: Type Circ. Sub. pin Safety Joint NO Jars: Size 4½" OD In. Make WTC Ser. No. 402

Dual Packers yes Did Packers Hold? yes Did Tool Plug? no Where? —

DRILLING CONTRACTOR Thomas #2 Length Drill Pipe 5055 ft. I.D. Drill Pipe 3.8 In. Tool Joint Size FH In.

Length Weight Pipe none ft. I.D. Weight Pipe — In. Tool Joint Size — In. Length Drill Collars 533 ft. I.D. Drill Collars 2¼ In.

Tool Joint Size XH In. Length D.S.T. Tool 91 ft.

Remarks Run a complete evaluation.

K. G. S. LIBRARY RECEIVED AUG 12 1974

INVOICE SECTION

Open Hole Test	$360 00
Straddle Test	$
Jars	$150 00
Selective Zone	$
Safety Joint	$
Misrun	$
Evaluation	$35 00
Packer	$
Circ. Sub.	$
	$
Total	$545 00

COMPANY TERMS

Western Testing Co., Inc., shall not be liable for damage 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, or 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 Don G Calvin Western Representative Dean Blagrave
Signature of Customer or his Authorized Representative

Operator's Time _____ Hrs.

WESTERN TESTERS

P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Robert L. Haynie LEASE & WELL NO. Tuttle #4

TEST NO. 1 INTERVAL TESTED FROM 5585' TO 5650'

TIME	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW
Second flow		
3 min	8" w/r thru 1¼" orifice	124 MCFD
5 "	6 " " " "	107 "
10 "	7 " " 3/4"	37.4 "
15 "	26" w/r thru ½" orifice	31.9 "
20 "	34 " " " "	36.5 "
25 "	8" w/r thru 3/4" orifice	40 MCF/D
30	8"	40 "
35	9"	42.5 "
40	"	" "
45	"	"
50	10" w/r.	44.8 "
55 min.	11 "	47.2 MCF/D

SIZE CHOKE _____ SURFACE _____ IN. _____ BOTTOM 3/4 IN. _____

REMARKS GTS in 17 mins.

WESTERN TESTING CO., INC.
Pressure Data

Date 8-9-74 Test Ticket No. 20224

Recorder No. 1562 Capacity 6200 Location 5601' Ft.

Clock No. 6378 Elevation 1911 K.B. Well Temperature 128° °F

Point		Pressure	
A	Initial Hydrostatic Mud	2991	P.S.I.
B	First Initial Flow Pressure	104	P.S.I.
C	First Final Flow Pressure	79	P.S.I.
D	Initial Closed-in Pressure	1940	P.S.I.
E	Second Initial Flow Pressure	84	P.S.I.
F	Second Final Flow Pressure	51	P.S.I.
G	Final Closed-in Pressure	1921	P.S.I.
H	Final Hydrostatic Mud	2768	P.S.I.

	Time Given	Time Computed
Open Tool	4:45 PM	
First Flow Pressure	15 Mins.	15 Mins.
Initial Closed-in Pressure	60 Mins.	60 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc. of 5 mins. and a final inc. of 0 Min.

Point Mins.	Press.
P 1 0	104
P 2 5	75
P 3 10	78
P 4 15	79
P 5 ~~20~~	
P 6 ~~25~~	
P 7 ~~30~~	
P 8 ~~35~~	
P 9 ~~40~~	
P10 ~~45~~	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

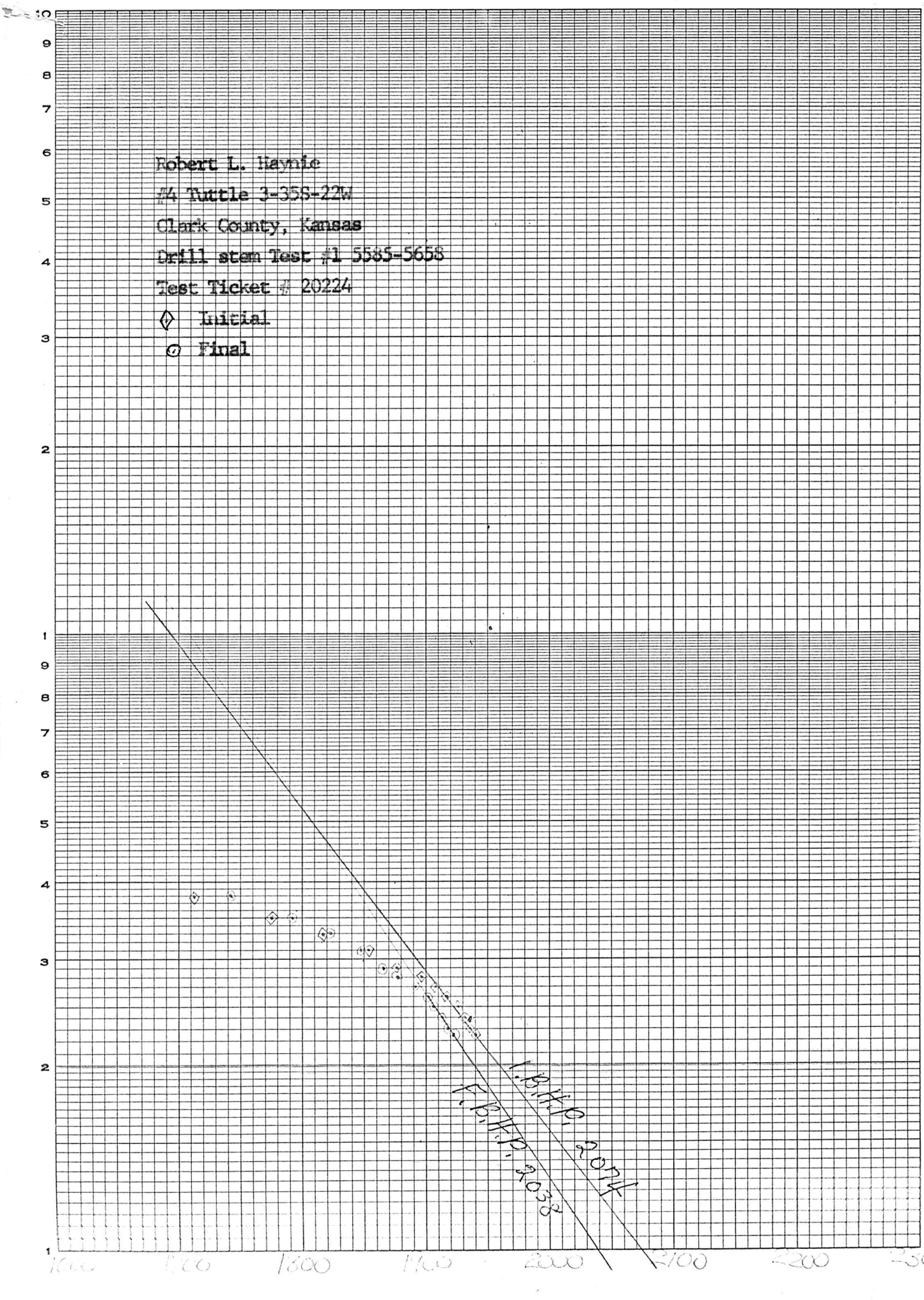
Point Minutes	Press.
0	79
3	287
6	529
9	749
12	973
15	1202
18	1382
21	1527
24	1636
27	1712
30	1775
33	1818
36	1853
39	1877
42	1897
45	1909
48	~~1918~~ 1918
51	1927
54	1932
57	1936
60	1940

Second Flow Pressure
Breakdown: 12 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	84
5	57
10	53
15	53
20	54
25	55
30	56
35	56
40	55
45	54
50	53
55	52
60	51

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	51
3	343
6	623
9	866
12	1091
15	1298
18	1455
21	1585
24	1679
27	1742
30	1792
33	1835
36	1848
39	1867
42	1879
45	1891
48	1901
51	1905
54	1914
57	~~1919~~ 1919
60	1921



EUGENE DIETZGEN CO.
MADE IN U. S. A.

NO. 341-L210 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
2 CYCLES X 10 DIVISIONS PER INCH