

DST REPORT

GENERAL INFORMATION

DATE	: 1-15-95	TICKET	: 20648
CUSTOMER	: HUMMON CORPORATION	LEASE	: KOEHN
WELL	: #1	TEST:	1
ELEVATION	: 1897 G.L.	GEOLOGIST	: ARDEN RATZLAFF
SECTION	: 10	FORMATION	: MARROW SAND
RANGE	: 21W	TOWNSHIP	: 33S
Gauge SN#	: 1051	STATE	: KS
	COUNTY: CLARK	CLOCK	: 12
	RANGE : 4250		

WELL INFORMATION

PERFORATION INTERVAL FROM:	5238.00 ft	TO:	5284.00 ft	TVD:	5284.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	GAS
DEPTH OF RECORDERS:	5242.0 ft		5245.0 ft		
TEMPERATURE:	124.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:		0.000 in	
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH :	5218.0 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:	5233.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	5238.0 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. :	DUKE #5	VISCOSITY :	47.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	11.200 cc
WEIGHT :	9.200 ppg		
CHLORIDES :	5700 ppm	SERIAL NUMBER:	
JARS-MAKE :	NO	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

STRONG BLOW 1.5 MINUTES ON INITIAL FLOW PERIOD.
GAS TO SURFACE IN 13 MINUTES ON INITIAL FLOW
PERIOD. SEE ATTACHED SHEET FOR GAS MEASUREMENTS

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
50.0	0.0	1.0	0.0	99.0	GAS CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB		
GAS VOLUME:	0.0394	SCF	TOTAL FLOW TIME:	90.0000 min.
MUD VOLUME:	0.6943	STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000	STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.6943	STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2562.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	53.00	32.00
INITIAL SHUT-IN	60.00		1281.00
FINAL FLOW	60.00	53.00	32.00
FINAL SHUT-IN	90.00		1228.00

FINAL HYDROSTATIC PRESSURE: 2562.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2564.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	107.00	38.00
INITIAL SHUT-IN	60.00		1260.00
FINAL FLOW	60.00	53.00	30.00
FINAL SHUT-IN	90.00		1217.00

FINAL HYDROSTATIC PRESSURE: 2660.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 1-15-95	TICKET : 20648
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1 TEST: 1	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W COUNTY: CLARK	STATE : KS
GAUGE SN#: 1057 RANGE : 4250	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
13 MIN.	MERLA	0.500	GAS TO SURF.	0 SCF/D
20 MIN.	MERLA	0.500	3 PSIG	59200 SCF/D
30 MIN.	MERLA	0.500	4 PSIG	68800 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.500	7 PSIG	94500 SCF/D
20 MIN.	MERLA	0.500	6 PSIG	86300 SCF/D
30 MIN.	MERLA	0.500	6 PSIG	86300 SCF/D
40 MIN.	MERLA	0.500	7 PSIG	94500 SCF/D
50 MIN.	MERLA	0.500	7 PSIG	94500 SCF/D
60 MIN.	MERLA	0.500	7 PSIG	94500 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1-15-95	TICKET : 20648
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1 TEST: 1	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W COUNTY: CLARK	STATE : KS
GAUGE SN#: 1057 RANGE : 4250	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	107.00	107.00
5.00	62.00	-45.00
10.00	53.00	-9.00
15.00	38.00	-15.00
20.00	38.00	0.00
25.00	38.00	0.00
30.00	38.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	739.00	739.00	11.00
6.00	1076.00	337.00	6.00
9.00	1154.00	78.00	4.33
12.00	1182.00	28.00	3.50
15.00	1215.00	33.00	3.00
18.00	1232.00	17.00	2.67
21.00	1243.00	11.00	2.43
24.00	1247.00	4.00	2.25
27.00	1255.00	8.00	2.11
30.00	1260.00	5.00	2.00
33.00	1260.00	0.00	1.91
36.00	1260.00	0.00	1.83
39.00	1260.00	0.00	1.77
42.00	1260.00	0.00	1.71
45.00	1260.00	0.00	1.67
48.00	1260.00	0.00	1.63
51.00	1260.00	0.00	1.59
54.00	1260.00	0.00	1.56
57.00	1260.00	0.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1260.00	0.00	1.50

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	53.00	53.00
5.00	53.00	0.00
10.00	47.00	-6.00
15.00	38.00	-9.00
20.00	38.00	0.00
25.00	32.00	-6.00
30.00	32.00	0.00
35.00	30.00	-2.00
40.00	30.00	0.00
45.00	30.00	0.00
50.00	30.00	0.00
55.00	30.00	0.00
60.00	30.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	835.00	835.00	21.00
6.00	1069.00	234.00	11.00
9.00	1122.00	53.00	7.67
12.00	1143.00	21.00	6.00
15.00	1162.00	19.00	5.00
18.00	1182.00	20.00	4.33
21.00	1196.00	14.00	3.86
24.00	1202.00	6.00	3.50
27.00	1205.00	3.00	3.22
30.00	1207.00	2.00	3.00
33.00	1211.00	4.00	2.82
36.00	1213.00	2.00	2.67
39.00	1213.00	0.00	2.54
42.00	1213.00	0.00	2.43
45.00	1213.00	0.00	2.33
48.00	1215.00	2.00	2.25

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

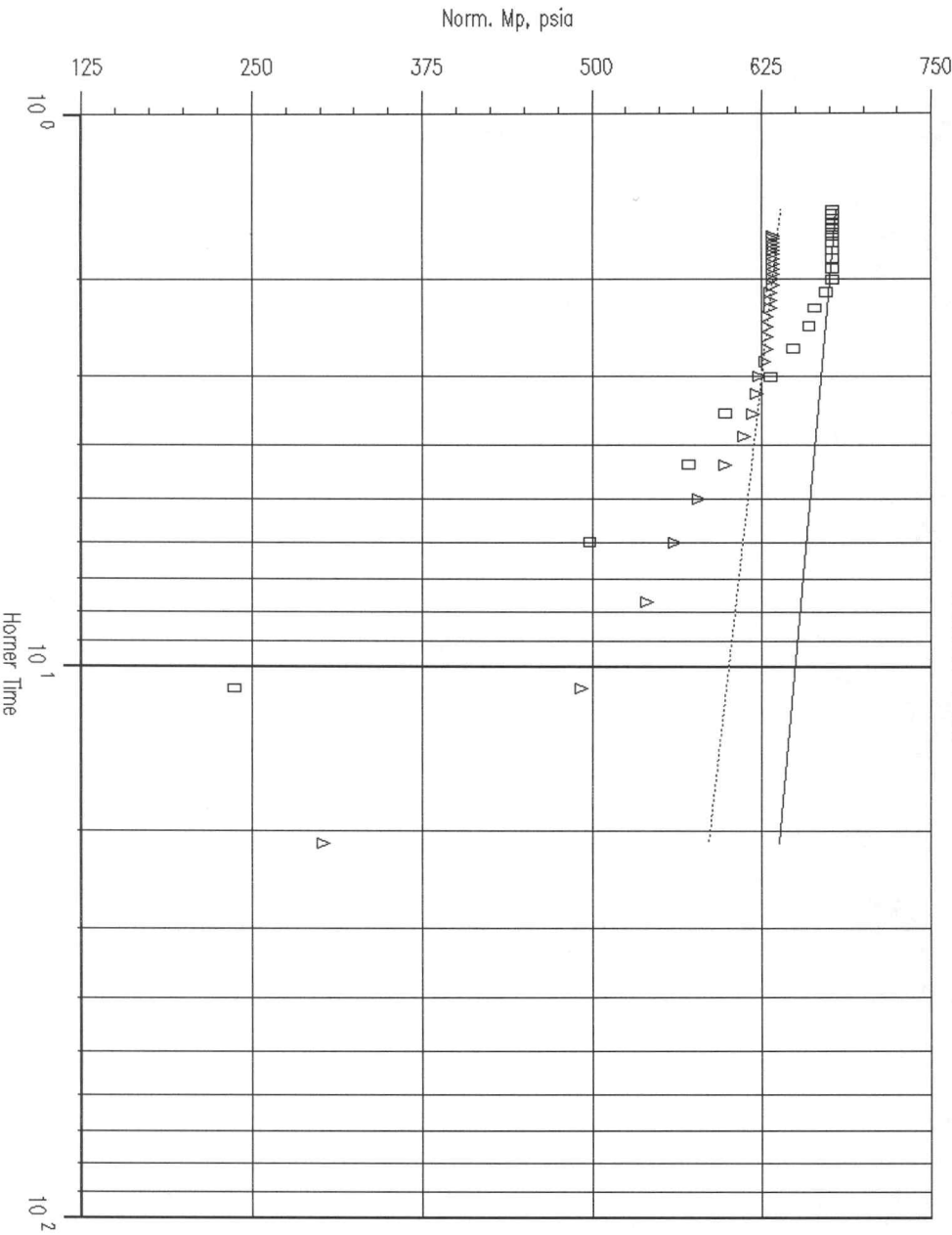
Time (min)	Pressure	Delta P	Horner T
51.00	1215.00	0.00	2.18
54.00	1215.00	0.00	2.11
57.00	1217.00	2.00	2.05
60.00	1217.00	0.00	2.00
63.00	1217.00	0.00	1.95
66.00	1217.00	0.00	1.91
69.00	1217.00	0.00	1.87
72.00	1217.00	0.00	1.83
75.00	1217.00	0.00	1.80
78.00	1217.00	0.00	1.77
81.00	1217.00	0.00	1.74
84.00	1217.00	0.00	1.71
87.00	1217.00	0.00	1.69
90.00	1217.00	0.00	1.67

DATE 1-15-95
 CUSTOMER HUMMON CORPORATION
 WELL #1
 ELEVATION 1897 G.L.
 SECTION 10
 RANGE 21W
 GAUGE SN# 1051

TEST 1
 COUNTY CLARK
 RANGE 4250

TICKET 20648
 LEASE KOEHN
 GEOLOGIST ARDEN RAITZLAFF
 FORMATION MARROW SAND
 TOWNSHIP 33S
 STATE KS
 CLOCK 12

Horner Plot



Result

	#1	#2
tp, hrs	0.50	1.00
Slope	-36.26	-46.68
Pstar, psig	1268.58	1230.77
P1hr, psig	680.09	633.33
Skin	18.35	12.31
k, md	0.90	0.70
kh/u, md-ft/cp	900.96	699.88
ri, ft	13.50	16.83
DR, %	5.72	4.28
Drawdown Factor, %		0.034
Drawdown P*		0.030

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 1-15-95	TICKET : 20648
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1	TEST: 1
ELEVATION: 1897 G.L.	GEOLOGIST: ARDEN RATZLAFF
SECTION : 10	FORMATION: MARROW SAND
RANGE : 21W	TOWNSHIP : 33S
COUNTY: CLARK	STATE : KS
GAUGE SN#: 1051	RANGE : 4250
	CLOCK : 12

Input Data

Porosity 0.200 Rw: 0.328 ft h: 14.000 ft

qg 94500.0 STB

Pvt Data

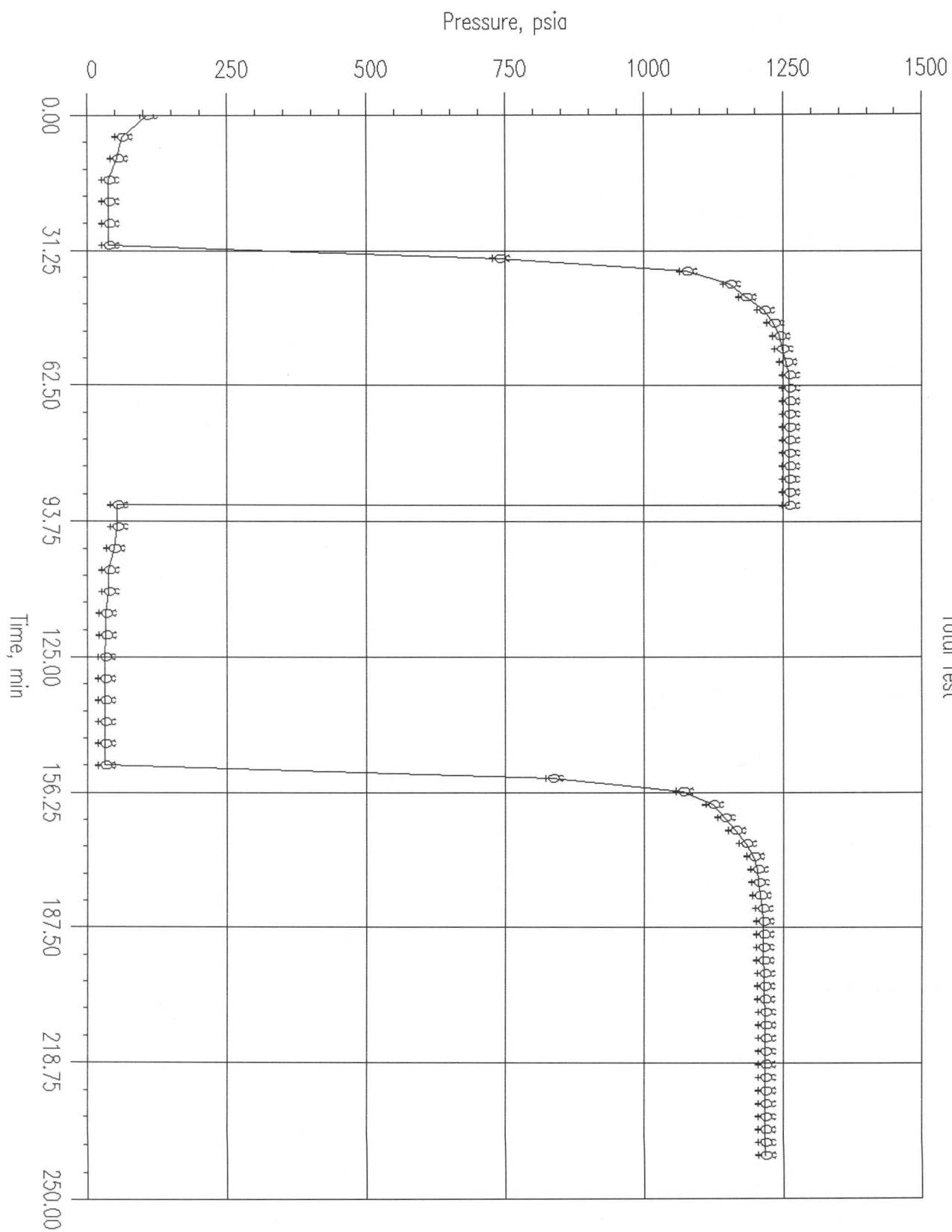
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 Evaluation Temperature: 124.0

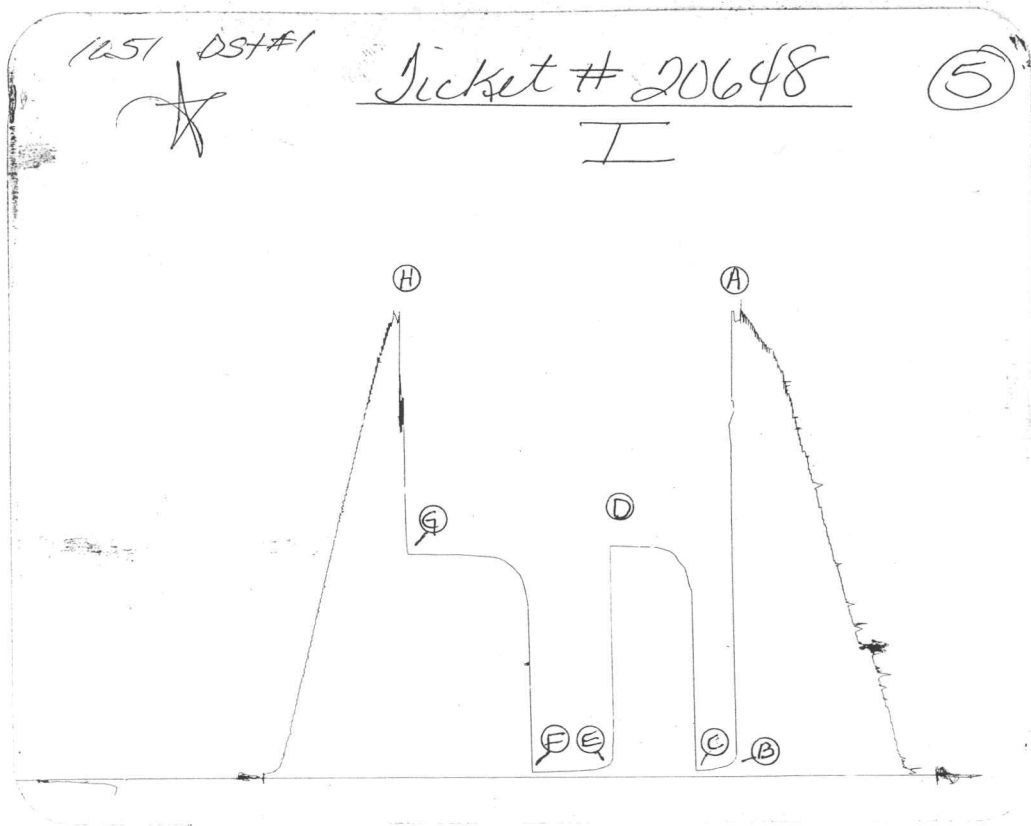
Gas Grav 0.65 API
 Bg 0.002 RBL/STB Vis 0.014 cp Ct 9.3109E-004 1/PSI

Horner Results

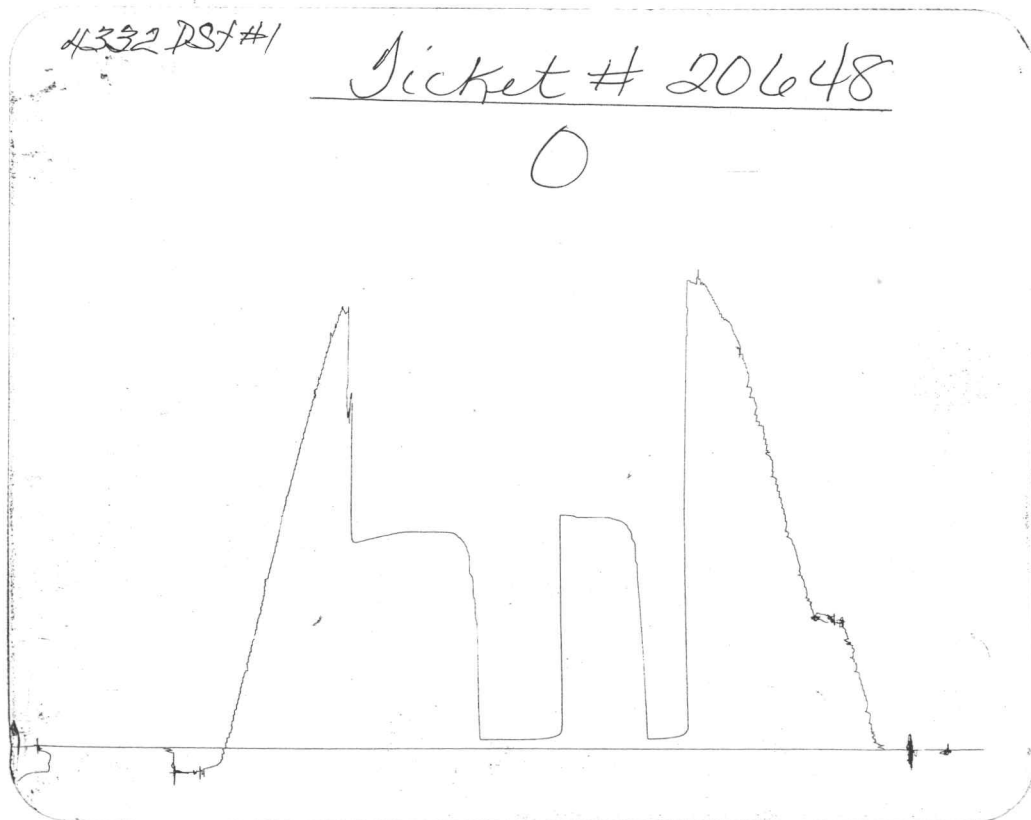
	Initial Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	1.00 hrs
slope	-36.26	-46.68
pstar	1268.58 psig	1230.77 psig
plhr	680.09 psig	633.33 psig
skin	18.35	12.31
permeability	0.90 md	0.70 md
transmissability	900.96 md-ft/cp	699.88 md-ft/cp
radius of investigation	13.50 ft	16.83 ft
Damage-Ratio	5.7 percent	4.3 percent
Drawdown Factor		0.034 percent
Drawdown P*		0.030 percent

Profile Plot Total Test





Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 1-16-95
CUSTOMER : HUMMON CORPORATION
WELL : #1 TEST: 2
ELEVATION: 1897 G.L.
SECTION : 10
RANGE : 21W COUNTY: CLARK
GAUGE SN#: 1051 RANGE : 4250

TICKET : 20649
LEASE : KOEHN
GEOLOGIST: ARDEN RATZLAFF
FORMATION: MARROW SAND
TOWNSHIP : 33S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 5287.00 ft TO: 5324.00 ft TVD: 5324.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 5292.0 ft 5295.0 ft
TEMPERATURE: 126.0

DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	5267.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	37.0 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:	5282.0 ft	SIZE:	6.630 in
PACKER DEPTH:	5287.0 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. : DUKE #5
MUD TYPE : CHEMICAL
WEIGHT : 9.100 ppg
CHLORIDES : 7600 ppm
JARS-MAKE : NO
DID WELL FLOW?: NO

VISCOSITY : 48.00 cp
WATER LOSS: 8.800 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

STRONG BLOW, GAS TO SURFACE IN 10 MINUTES ON
INITIAL FLOW PERIOD. SEE ATTACHED SHEET FOR GAS
MEASUREMENTS.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
90.0	0.0	10.0	0.0	90.0	GAS C/MUD SLI. OIL SKIM
120.0	0.0	10.0	50.0	40.0	GAS & MUD CUT WATER
596.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 110,000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	90.0000	min.
GAS VOLUME:	1.6539	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	1.8094	STB	AVERAGE WATER RATE:	157.9929	STB/D
WATER VOLUME:	9.2013	STB			
TOTAL FLUID :	11.0107	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2562.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	139.00	161.00
INITIAL SHUT-IN	60.00		1281.00
FINAL FLOW	60.00	215.00	333.00
FINAL SHUT-IN	120.00		1281.00

FINAL HYDROSTATIC PRESSURE: 2562.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2565.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	191.00	144.00
INITIAL SHUT-IN	60.00		1202.00
FINAL FLOW	60.00	215.00	302.00
FINAL SHUT-IN	90.00		1266.00

FINAL HYDROSTATIC PRESSURE: 2565.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 1-16-95	TICKET : 20649
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W	STATE : KS
COUNTY: CLARK	CLOCK : 12
GAUGE SN#: 1057	RANGE : 4250

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.500	GAS TO SURF.	0 SCF/D
20 MIN.	MERLA	0.500	5 PSIG	78100 SCF/D
30 MIN.	MERLA	0.500	5 PSIG	78100 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.500	4 PSIG	68800 SCF/D
20 MIN.	MERLA	0.500	4 PSIG	68800 SCF/D
30 MIN.	MERLA	0.500	5 PSIG	78100 SCF/D
40 MIN.	MERLA	0.500	5 PSIG	78100 SCF/D
50 MIN.	MERLA	0.500	5 PSIG	78100 SCF/D
60 MIN.	MERLA	0.500	5 PSIG	78100 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1-16-95	TICKET : 20649
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W	STATE : KS
GAUGE SN#: 1057	CLOCK : 12
COUNTY: CLARK	
RANGE : 4250	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	191.00	191.00
5.00	139.00	-52.00
10.00	131.00	-8.00
15.00	131.00	0.00
20.00	139.00	8.00
25.00	146.00	7.00
30.00	144.00	-2.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	830.00	830.00	11.00
6.00	1056.00	226.00	6.00
9.00	1080.00	24.00	4.33
12.00	1110.00	30.00	3.50
15.00	1124.00	14.00	3.00
18.00	1140.00	16.00	2.67
21.00	1154.00	14.00	2.43
24.00	1164.00	10.00	2.25
27.00	1172.00	8.00	2.11
30.00	1180.00	8.00	2.00
33.00	1182.00	2.00	1.91
36.00	1186.00	4.00	1.83
39.00	1190.00	4.00	1.77
42.00	1192.00	2.00	1.71
45.00	1194.00	2.00	1.67
48.00	1196.00	2.00	1.63
51.00	1198.00	2.00	1.59
54.00	1199.00	1.00	1.56
57.00	1200.00	1.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1202.00	2.00	1.50

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	215.00	215.00
5.00	215.00	0.00
10.00	215.00	0.00
15.00	215.00	0.00
20.00	219.00	4.00
25.00	230.00	11.00
30.00	238.00	8.00
35.00	246.00	8.00
40.00	276.00	30.00
45.00	286.00	10.00
50.00	292.00	6.00
55.00	298.00	6.00
60.00	302.00	4.00

FINAL SHUT IN

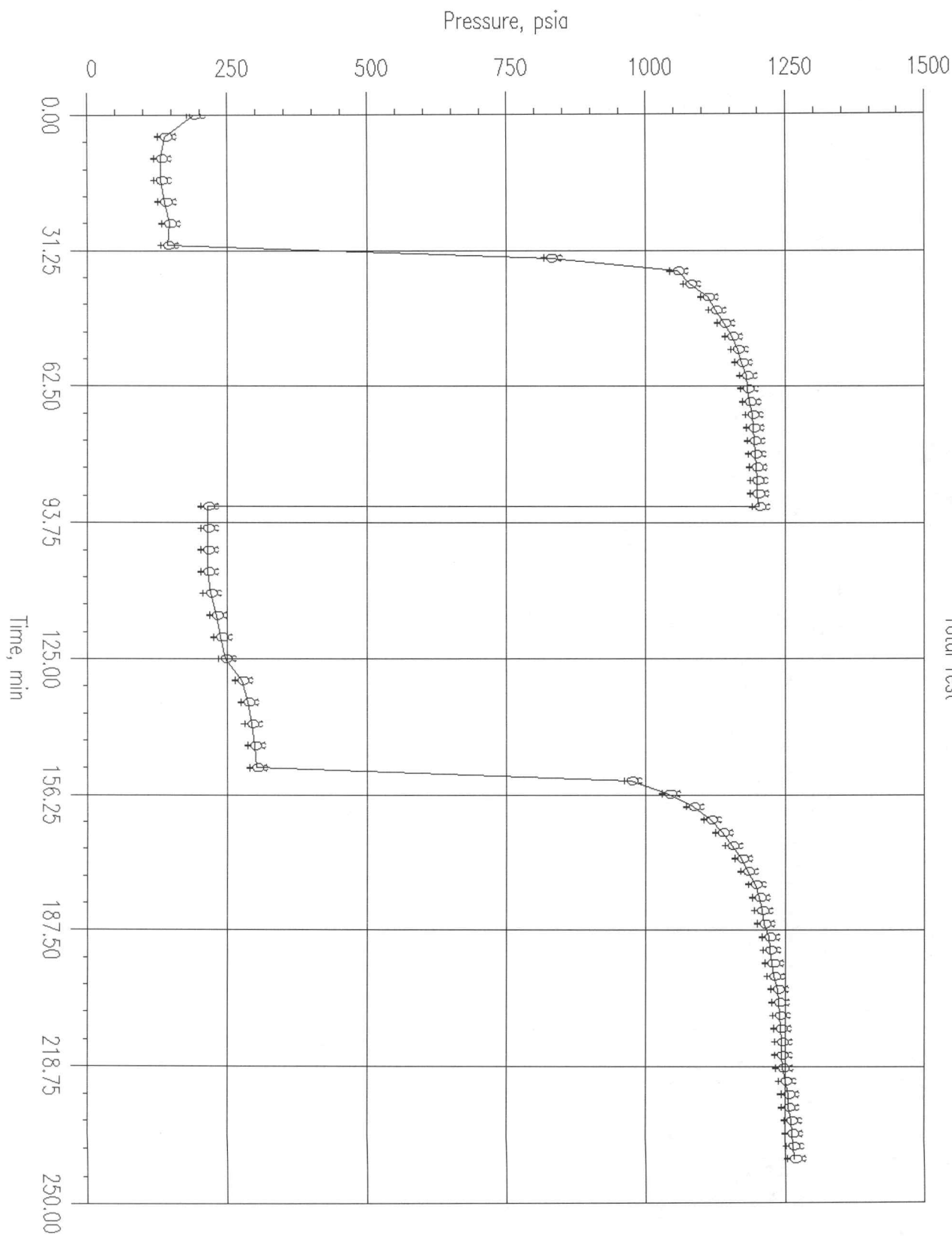
Time (min)	Pressure	Delta P	Horner T
3.00	974.00	974.00	21.00
6.00	1042.00	68.00	11.00
9.00	1084.00	42.00	7.67
12.00	1116.00	32.00	6.00
15.00	1137.00	21.00	5.00
18.00	1154.00	17.00	4.33
21.00	1171.00	17.00	3.86
24.00	1182.00	11.00	3.50
27.00	1196.00	14.00	3.22
30.00	1202.00	6.00	3.00
33.00	1207.00	5.00	2.82
36.00	1211.00	4.00	2.67
39.00	1220.00	9.00	2.54
42.00	1222.00	2.00	2.43
45.00	1226.00	4.00	2.33
48.00	1228.00	2.00	2.25

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
51.00	1235.00	7.00	2.18
54.00	1237.00	2.00	2.11
57.00	1239.00	2.00	2.05
60.00	1241.00	2.00	2.00
63.00	1242.00	1.00	1.95
66.00	1243.00	1.00	1.91
69.00	1245.00	2.00	1.87
72.00	1249.00	4.00	1.83
75.00	1254.00	5.00	1.80
78.00	1255.00	1.00	1.77
81.00	1260.00	5.00	1.74
84.00	1262.00	2.00	1.71
87.00	1264.00	2.00	1.69
90.00	1266.00	2.00	1.67

Profile Plot Total Test

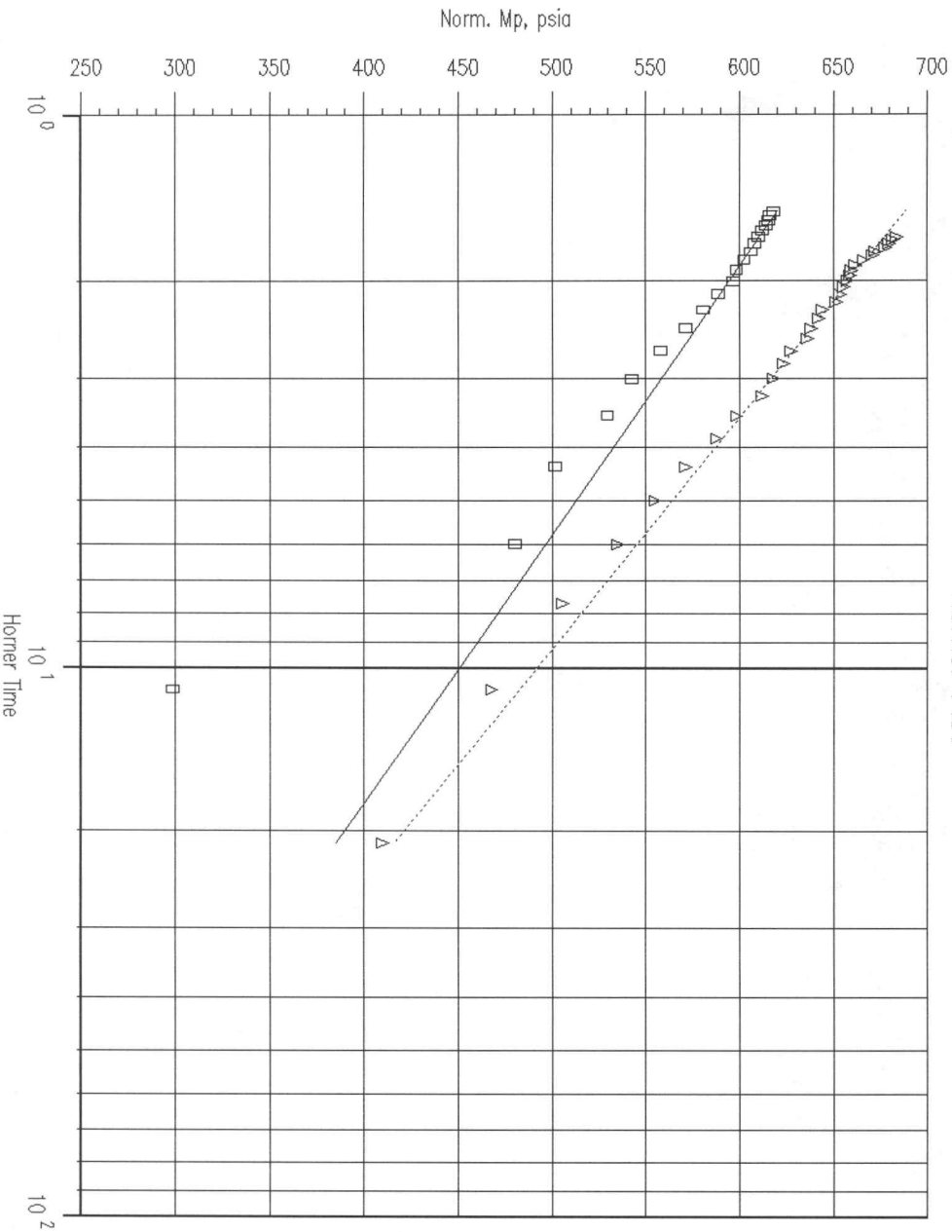


DATE 1-16-95
 CUSTOMER HUMMON CORPORATION
 WELL #1
 ELEVATION 1897 G.L.
 SECTION 10
 RANGE 21W
 GAUGE SN# 1057

TEST 2
 COUNTY CLARK
 RANGE 4250

TICKET 20649
 LEASE KOEHN
 GEOLOGIST ARDEN RAITZLAFF
 FORMATION MARROW SAND
 TOWNSHIP 33S
 STATE KS
 CLOCK 12

Horner Plot



Result

	#1	#2
tp, hrs	0.50	1.00
Slope	-205.14	-237.42
Pstar, psig	1239.65	1309.66
P1hr, psig	620.26	658.55
Skin	0.78	0.22
k, md	0.19	0.16
kh/u, md-ft/cp	132.32	114.33
ri, ft	7.59	9.98
DR, %	1.07	0.96
Drawdown Factor, %	-0.053	-0.053
Drawdown P*	-0.056	-0.056

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 1-16-95	TICKET : 20649
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1 TEST: 2	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W COUNTY: CLARK	STATE : KS
GAUGE SN#: 1057 RANGE : 4250	CLOCK : 12

Input Data

Porosity 0.130 Rw: 0.328 ft h: 10.000 ft

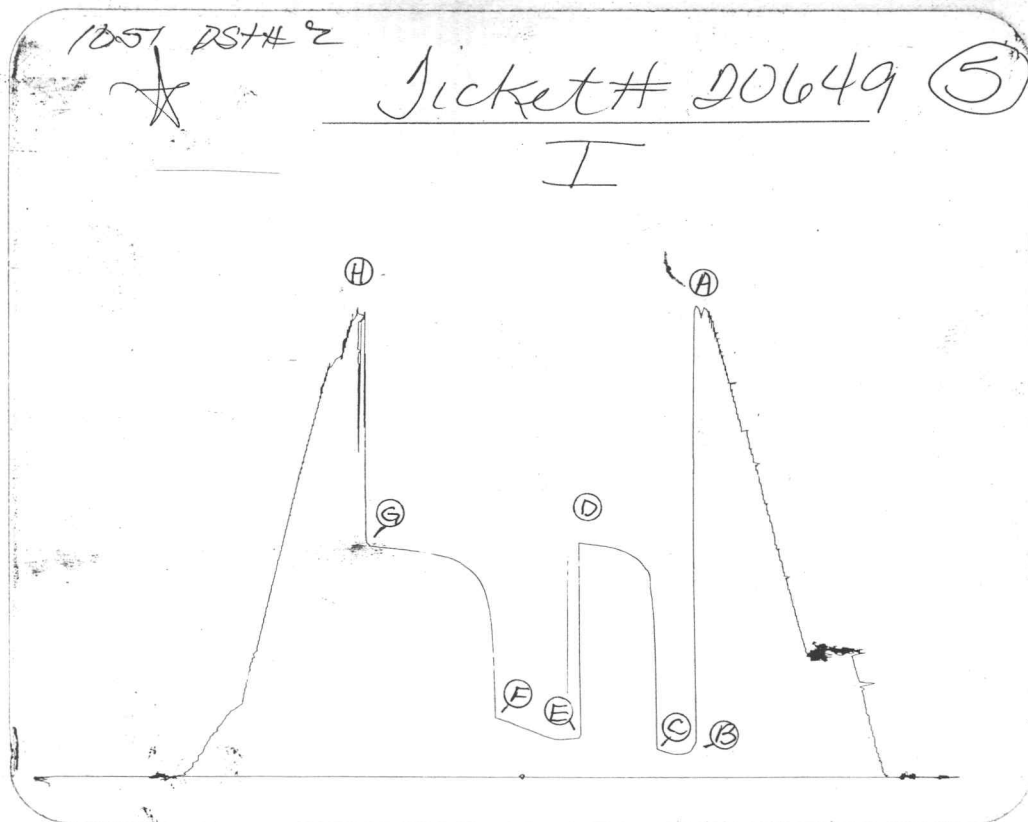
qg 78100.0 STB

Pvt Data
 Evalutation Pressure : 1202.0
 Evalutation Temperature: 126.0

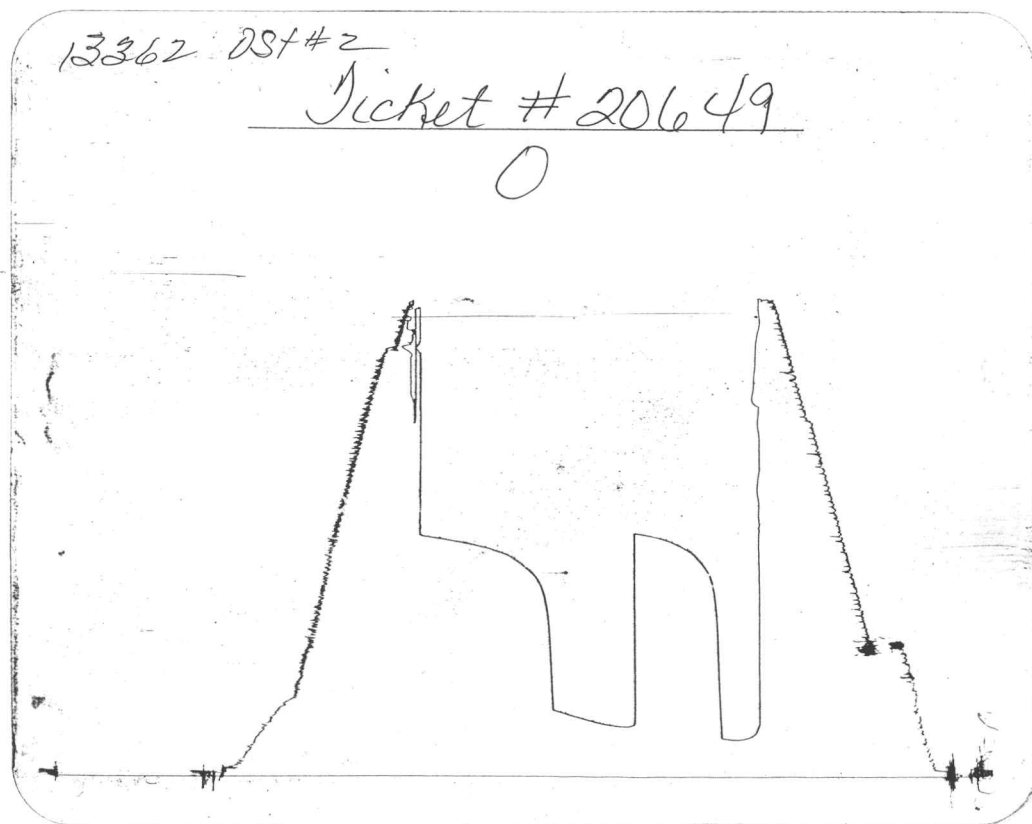
Gas Grav 0.65 API
 Bg 0.002 RBL/STB Vis 0.014 cp Ct 9.3206E-004 1/PSI

Horner Results

	Inital Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	1.00 hrs
slope	-205.14	-237.42
pstar	1239.65 psig	1309.66 psig
plhr	620.26 psig	658.55 psig
skin	0.78	0.22
permeability	0.19 md	0.16 md
transmisability	132.32 md-ft/cp	114.33 md-ft/cp
radius of investigation	7.59 ft	9.98 ft
Damage-Ratio	1.1 percent	0.96 percent
Drawdown Factor		-0.053 percent
Drawdown P*		-0.056 percent



Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE	: 1-16-95	TICKET	: 20650
CUSTOMER	: HUMMON CORPORATION	LEASE	: KOEHN
WELL	: #1	TEST:	3
ELEVATION	: 1897 G.L.	GEOLOGIST	: ARDEN RATZLAFF
SECTION	: 10	FORMATION	: MARROW SAND
RANGE	: 21W	TOWNSHIP	: 33S
Gauge SN#	: 1051	STATE	: KS
		CLOCK	: 12
COUNTY	: CLARK		
RANGE	: 4250		

WELL INFORMATION

PERFORATION INTERVAL FROM:	5327.00 ft	TO:	5342.00 ft	TVD:	5342.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	GAS
DEPTH OF RECORDERS:	5332.0 ft		5335.0 ft		
TEMPERATURE:	125.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:		0.000 in	
WEIGHT PIPE LENGTH:	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH:	5307.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH:	20.0 ft	TOOL SIZE:		5.500 in	
ANCHOR LENGTH:	15.0 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:	5322.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	5327.0 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.:	DUKE #5	VISCOSITY:	57.00 cp
MUD TYPE:	CHEMICAL	WATER LOSS:	10.400 cc
WEIGHT:	9.200 ppg		
CHLORIDES:	9500 ppm	SERIAL NUMBER:	
JARS-MAKE:	NO	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

STRONG BLOW IN 3 MINUTES ON INITIAL FLOW.
STRONG BLOW ON FINAL FLOW, NO GAS TO SURFACE.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	1380 FEET GAS ABOVE FLUID
73.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	90.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	1.0239	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	1.0239	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2615.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	53.00	53.00
INITIAL SHUT-IN	60.00		1546.00
FINAL FLOW	60.00	86.00	86.00
FINAL SHUT-IN	90.00		1546.00

FINAL HYDROSTATIC PRESSURE: 2615.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2636.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	46.00	46.00
INITIAL SHUT-IN	60.00		1516.00
FINAL FLOW	60.00	60.00	60.00
FINAL SHUT-IN	93.00		1534.00

FINAL HYDROSTATIC PRESSURE: 2626.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1-16-95	TICKET : 20650
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W	STATE : KS
GAUGE SN#: 1051	CLOCK : 12
COUNTY: CLARK	
RANGE : 4250	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	46.00	46.00
5.00	46.00	0.00
10.00	46.00	0.00
15.00	46.00	0.00
20.00	46.00	0.00
25.00	46.00	0.00
30.00	46.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	96.00	96.00	11.00
6.00	97.00	1.00	6.00
9.00	182.00	85.00	4.33
12.00	290.00	108.00	3.50
15.00	431.00	141.00	3.00
18.00	552.00	121.00	2.67
21.00	661.00	109.00	2.43
24.00	774.00	113.00	2.25
27.00	868.00	94.00	2.11
30.00	966.00	98.00	2.00
33.00	1056.00	90.00	1.91
36.00	1141.00	85.00	1.83
39.00	1218.00	77.00	1.77
42.00	1282.00	64.00	1.71
45.00	1332.00	50.00	1.67
48.00	1379.00	47.00	1.63
51.00	1422.00	43.00	1.59
54.00	1457.00	35.00	1.56
57.00	1490.00	33.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1516.00	26.00	1.50

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	60.00	60.00
5.00	60.00	0.00
10.00	60.00	0.00
15.00	60.00	0.00
20.00	60.00	0.00
25.00	60.00	0.00
30.00	60.00	0.00
35.00	60.00	0.00
40.00	60.00	0.00
45.00	60.00	0.00
50.00	60.00	0.00
55.00	60.00	0.00
60.00	60.00	0.00

FINAL SHUT IN

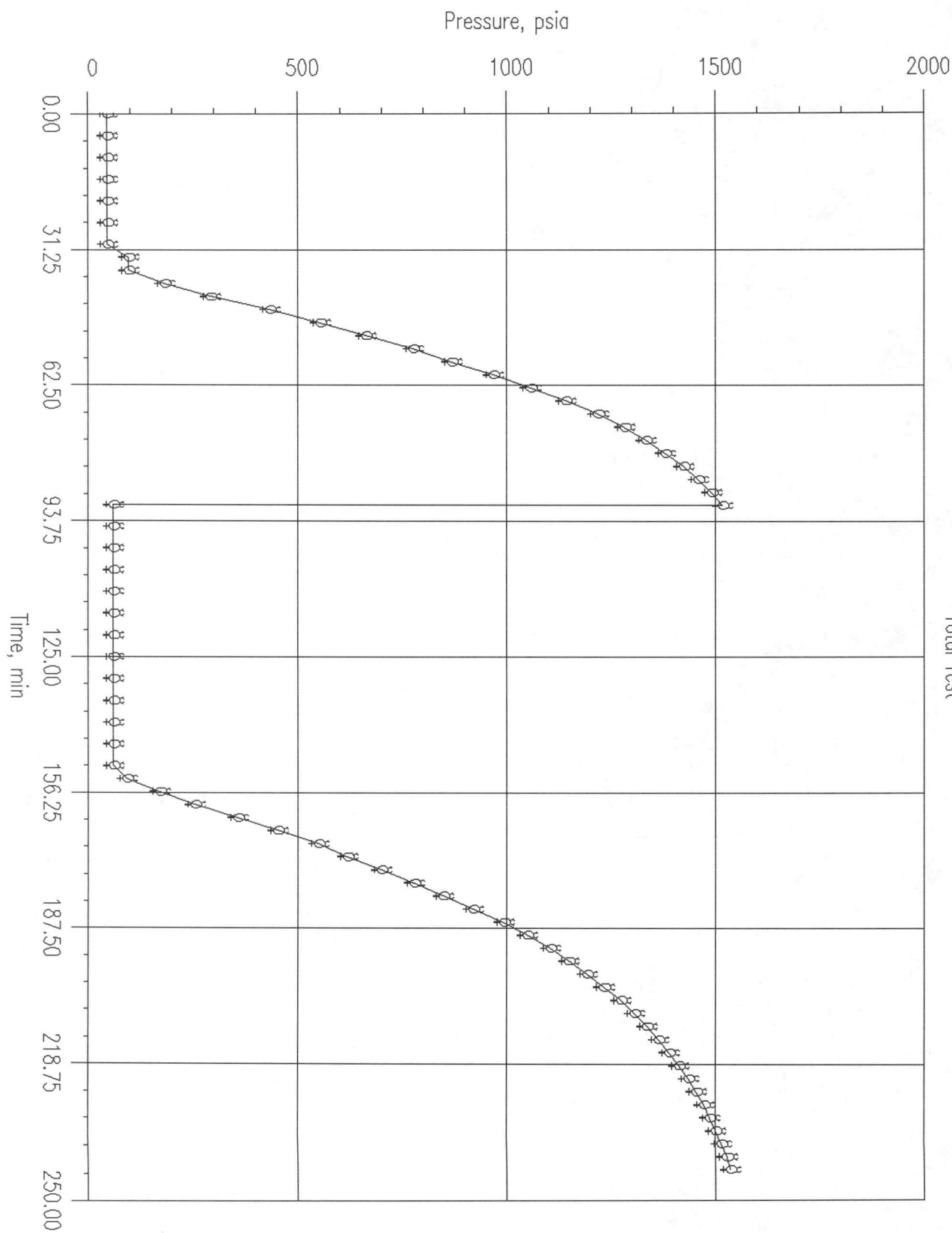
Time (min)	Pressure	Delta P	Horner T
3.00	91.00	91.00	21.00
6.00	170.00	79.00	11.00
9.00	253.00	83.00	7.67
12.00	356.00	103.00	6.00
15.00	450.00	94.00	5.00
18.00	548.00	98.00	4.33
21.00	618.00	70.00	3.86
24.00	698.00	80.00	3.50
27.00	776.00	78.00	3.22
30.00	846.00	70.00	3.00
33.00	919.00	73.00	2.82
36.00	993.00	74.00	2.67
39.00	1048.00	55.00	2.54
42.00	1104.00	56.00	2.43
45.00	1148.00	44.00	2.33
48.00	1192.00	44.00	2.25

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
51.00	1232.00	40.00	2.18
54.00	1273.00	41.00	2.11
57.00	1304.00	31.00	2.05
60.00	1335.00	31.00	2.00
63.00	1362.00	27.00	1.95
66.00	1389.00	27.00	1.91
69.00	1411.00	22.00	1.87
72.00	1434.00	23.00	1.83
75.00	1453.00	19.00	1.80
78.00	1472.00	19.00	1.77
81.00	1486.00	14.00	1.74
84.00	1500.00	14.00	1.71
87.00	1513.00	13.00	1.69
90.00	1526.00	13.00	1.67
93.00	1534.00	8.00	1.65

Profile Plot Total Test

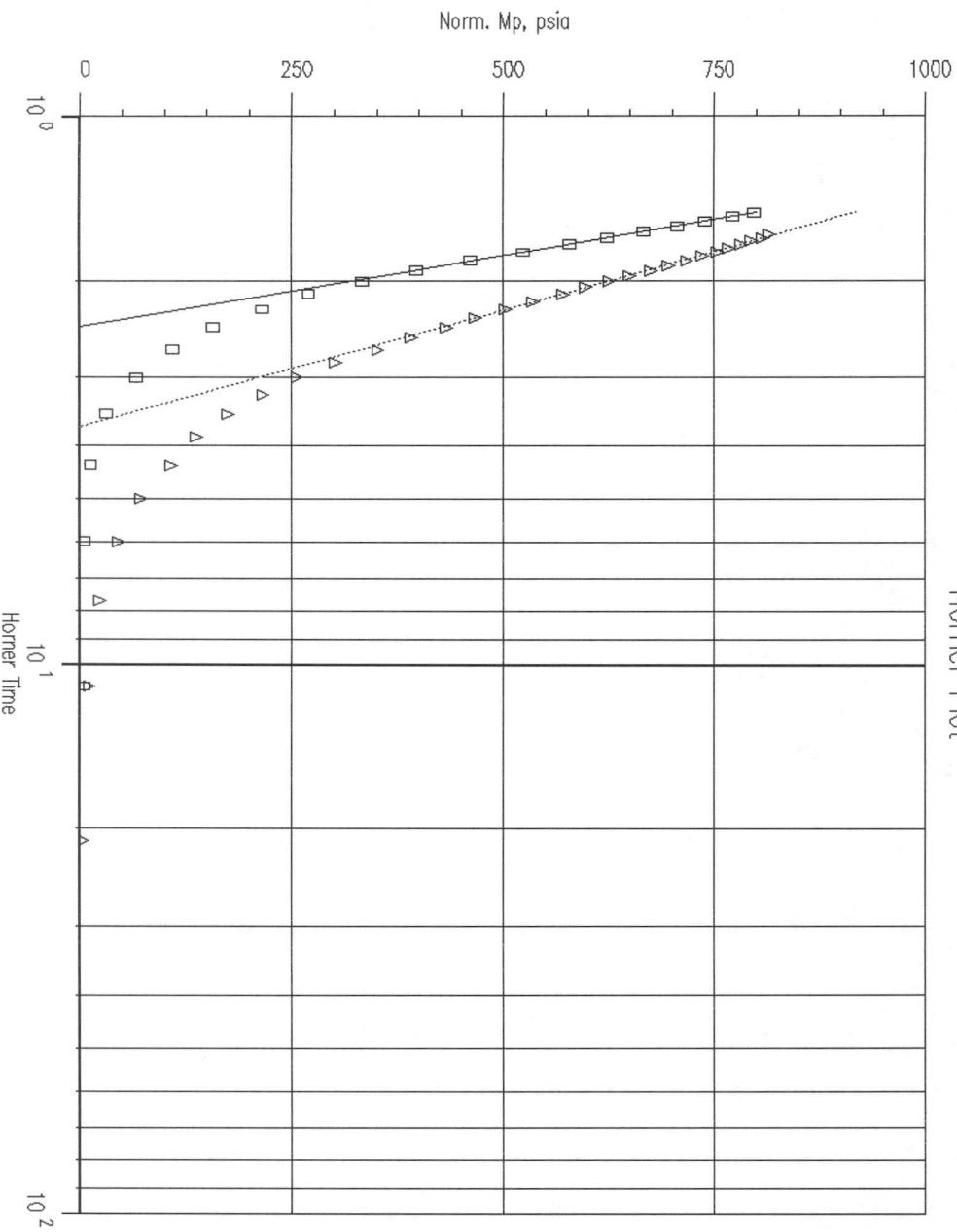


DATE 1-16-95
 CUSTOMER HUMMON CORPORATION
 WELL #1
 ELEVATION 1897 G.L.
 SECTION 10
 RANGE 21W
 GAUGE SN# 1051

TEST 3
 COUNTY CLARK
 RANGE 4250

TICKET 20650
 LEASE KOEHN
 GEOLOGIST ARDEN RATZLAFF
 FORMATION MARROW SAND
 TOWNSHIP 33S
 STATE KS
 CLOCK 12

Horner Plot



Result

	#1	#2
tp, hrs	0.50	1.00
Slope	-3860.96	-2343.72
Pstar, psig	2116.16	1995.66
P1hr, psig	800.11	624.89
Skin	-1.17	-1.55
k, md	0.01	0.02
kh/u, md-ft/cp	5.41	8.92
ri, ft	2.19	3.98
DR, %	0.12	0.14
Drawdown Factor, %		-0.012
Drawdown P*		0.057

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 1-16-95	TICKET : 20650
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1	TEST: 3
ELEVATION: 1897 G.L.	GEOLOGIST: ARDEN RATZLAFF
SECTION : 10	FORMATION: MARROW SAND
RANGE : 21W	TOWNSHIP : 33S
COUNTY: CLARK	STATE : KS
GAUGE SN#: 1051	RANGE : 4250
	CLOCK : 12

Input Data

Porosity 0.100 Rw: 0.328 ft h: 8.000 ft

qg 78100.0 STB

Pvt Data

Evalutation Pressure : 1516.0
 Evalutation Temperature: 125.0

Gas Grav 0.65 API

Bg 0.002 RBL/STB Vis 0.015 cp Ct 7.4288E-004 1/PSI

Horner Results

Inital Shut-In

Final Shut-In

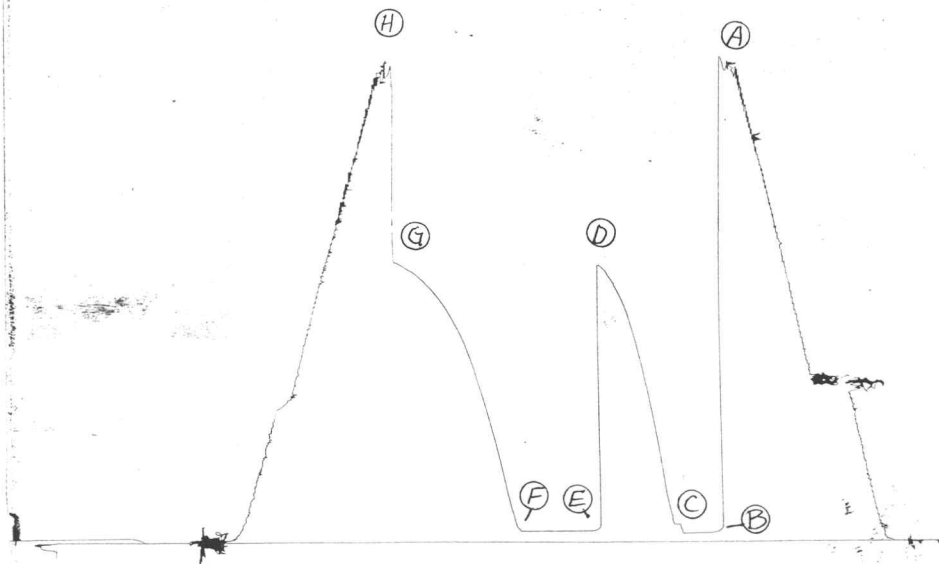
pseudo pressure time	0.50 hrs	1.00 hrs
slope	-3860.96	-2343.72
pstar	2116.16 psig	1995.66 psig
plhr	800.11 psig	624.89 psig
skin	-1.17	-1.55
permeability	0.01 md	0.02 md
transmisability	5.41 md-ft/cp	8.92 md-ft/cp
radius of investigation	2.19 ft	3.98 ft
Damage-Ratio	0.12 percent	0.14 percent
Drawdown Factor		-0.012 percent
Drawdown P*		0.057 percent

1051 DST#3

*

Ticket # 20650

I

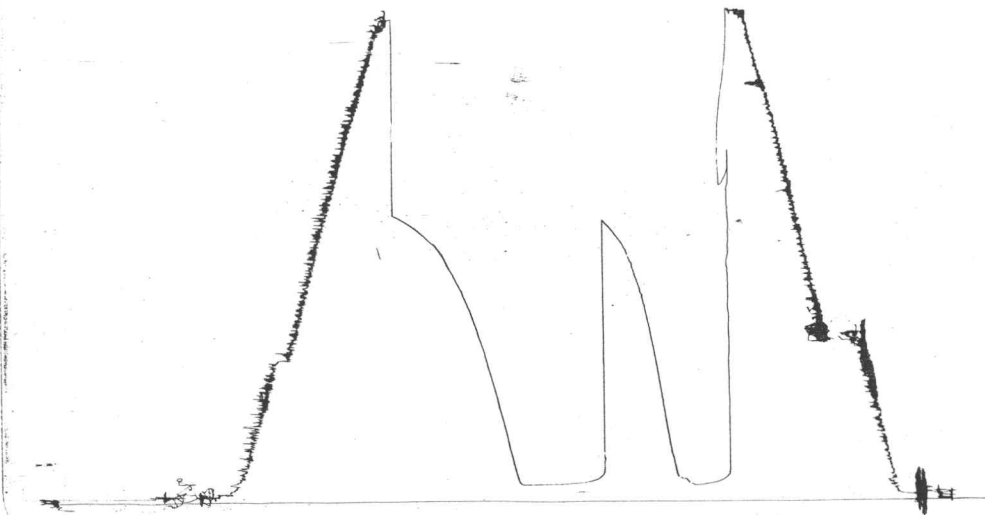


Inside Recorder

13268 DST#3

Ticket # 20650

O



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE	: 1/17/95	TICKET	: 21376
CUSTOMER	: HUMMON CORPORATION	LEASE	: KOEHN
WELL	: #1	TEST:	4
ELEVATION	: 1897 G.L.	GEOLOGIST	: ARDEN RATZLAFF
SECTION	: 10	FORMATION	: MARROW SAND
RANGE	: 21W	TOWNSHIP	: 33S
Gauge SN#	: 1051	STATE	: KS
COUNTY	: CLARK	CLOCK	: 12
RANGE	: 4250		

WELL INFORMATION

PERFORATION INTERVAL FROM:	5292.00 ft	TO:	5302.00 ft	TVD:	5399.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	GAS
DEPTH OF RECORDERS:	5294.0 ft		5297.0 ft		
TEMPERATURE:	126.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:		0.000 in	
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH :	5272.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	10.0 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:	5287.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	5292.0 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. :	DUKE RIG #5	VISCOSITY :	50.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	12.600 cc
WEIGHT :	9.200 ppg	SERIAL NUMBER:	
CHLORIDES :	8700 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

COMMENTS

Comment

STRONG BLOW ON INITIAL FLOW- GAS TO SURFACE IN 15 MINUTES. SEE GAS FLOW CHART FOR MEASUREMENTS.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
70.0	0.0	20.0	30.0	50.0	GAS AND WATER CUT MUD
410.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES- 110,000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000	STB		
GAS VOLUME:	1.1026	SCF	TOTAL FLOW TIME:	60.0000 min.
MUD VOLUME:	0.4909	STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	6.0454	STB	AVERAGE WATER RATE:	156.8708 STB/D
TOTAL FLUID :	6.5363	STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2669.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	86.00	107.00
INITIAL SHUT-IN	60.00		1281.00
FINAL FLOW	30.00	182.00	215.00
FINAL SHUT-IN	60.00		1281.00

FINAL HYDROSTATIC PRESSURE: 2615.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2653.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	87.00	108.00
INITIAL SHUT-IN	60.00		1276.00
FINAL FLOW	30.00	173.00	187.00
FINAL SHUT-IN	63.00		1262.00

FINAL HYDROSTATIC PRESSURE: 2602.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 1/17/95	TICKET : 21376
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1 TEST: 4	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W COUNTY: CLARK	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
15 MIN	MERLA	0.500		0 SCF/D
20 MIN	MERLA	0.500	4 PSIG	68800 SCF/D
30 MIN	MERLA	0.500	4 PSIG	68800 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	0.500	7 PSIG	94500 SCF/D
20 MIN	MERLA	0.500	7 PSIG	94500 SCF/D
30 MIN	MERLA	0.500	7 PSIG	94500 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1/17/95	TICKET : 21376
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1 TEST: 4	GEOLOGIST: ARDEN RATZLAFF
ELEVATION: 1897 G.L.	FORMATION: MARROW SAND
SECTION : 10	TOWNSHIP : 33S
RANGE : 21W COUNTY: CLARK	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	87.00	87.00
5.00	87.00	0.00
10.00	87.00	0.00
15.00	87.00	0.00
20.00	89.00	2.00
25.00	96.00	7.00
30.00	108.00	12.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	815.00	815.00	11.00
6.00	977.00	162.00	6.00
9.00	1051.00	74.00	4.33
12.00	1100.00	49.00	3.50
15.00	1141.00	41.00	3.00
18.00	1168.00	27.00	2.67
21.00	1186.00	18.00	2.43
24.00	1200.00	14.00	2.25
27.00	1211.00	11.00	2.11
30.00	1220.00	9.00	2.00
33.00	1227.00	7.00	1.91
36.00	1234.00	7.00	1.83
39.00	1240.00	6.00	1.77
42.00	1246.00	6.00	1.71
45.00	1251.00	5.00	1.67
48.00	1256.00	5.00	1.63
51.00	1261.00	5.00	1.59
54.00	1266.00	5.00	1.56
57.00	1271.00	5.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1276.00	5.00	1.50

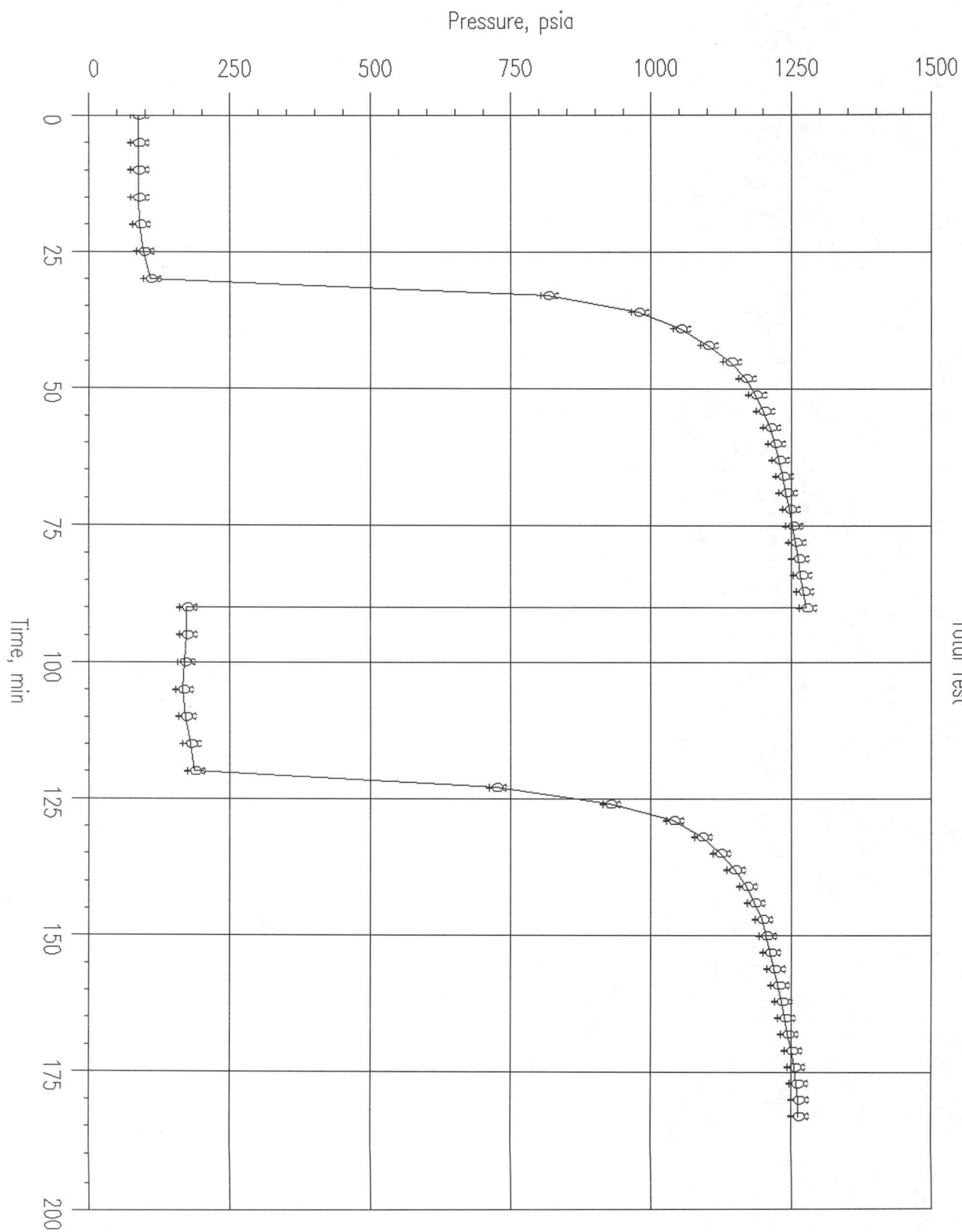
FINAL FLOW

Time (min)	Pressure	Delta P
0.00	173.00	173.00
5.00	173.00	0.00
10.00	170.00	-3.00
15.00	166.00	-4.00
20.00	171.00	5.00
25.00	179.00	8.00
30.00	187.00	8.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	723.00	723.00	11.00
6.00	927.00	204.00	6.00
9.00	1040.00	113.00	4.33
12.00	1090.00	50.00	3.50
15.00	1123.00	33.00	3.00
18.00	1148.00	25.00	2.67
21.00	1169.00	21.00	2.43
24.00	1184.00	15.00	2.25
27.00	1198.00	14.00	2.11
30.00	1205.00	7.00	2.00
33.00	1212.00	7.00	1.91
36.00	1219.00	7.00	1.83
39.00	1226.00	7.00	1.77
42.00	1232.00	6.00	1.71
45.00	1237.00	5.00	1.67
48.00	1243.00	6.00	1.63
51.00	1250.00	7.00	1.59
54.00	1255.00	5.00	1.56
57.00	1259.00	4.00	1.53
60.00	1261.00	2.00	1.50
63.00	1262.00	1.00	1.48

Profile Plot Total Test

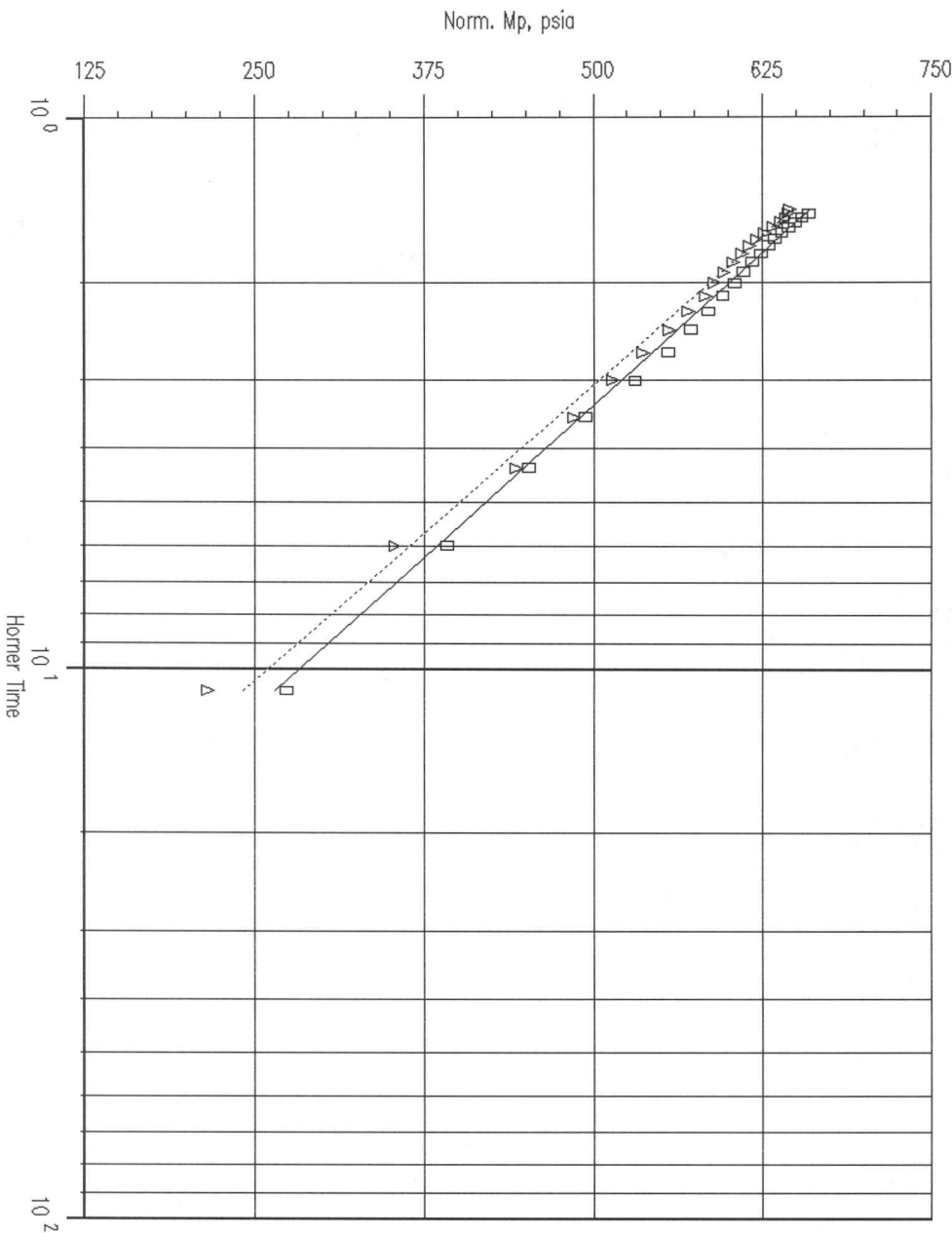


DATE 1/17/95
 CUSTOMER HUMMON CORPORATION
 WELL #1
 ELEVATION 1897 G.L.
 SECTION 10
 RANGE 21W
 GAUGE SN# 1051

TEST 4
 COUNTY CLARK
 RANGE 4250

TICKET 21376
 LEASE KOEHN
 GEOLOGIST ARDEN RAIZLAFF
 FORMATION MARROW SAND
 TOWNSHIP 33S
 STATE KS
 CLOCK 12

Horner Plot



Result

	#1	#2
tp, hrs	0.50	0.50
Slope	-452.82	-465.32
Pstar, psig	1351.32	1341.24
P1hr, psig	656.84	644.09
Skin	-0.99	-1.08
k, md	0.19	0.19
kh/u, md-ft/cp	67.86	66.04
r _i , ft	7.63	7.52
DR, %	0.52	0.49
Drawdown Factor, %		0.011
Drawdown P*		0.007

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 1/17/95	TICKET : 21376
CUSTOMER : HUMMON CORPORATION	LEASE : KOEHN
WELL : #1	TEST: 4
ELEVATION: 1897 G.L.	GEOLOGIST: ARDEN RATZLAFF
SECTION : 10	FORMATION: MARROW SAND
RANGE : 21W	TOWNSHIP : 33S
COUNTY: CLARK	STATE : KS
GAUGE SN#: 1051	RANGE : 4250
	CLOCK : 12

Input Data

Porosity 0.140 Rw: 0.328 ft h: 5.000 ft

qg 94500.0 STB

Pvt Data

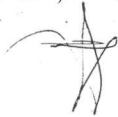
Evaluation Pressure : 1276.0
Evaluation Temperature: 126.0

Gas Grav 0.65 API Bg 0.002 RBL/STB Vis 0.014 cp Ct 8.7898E-004 1/PSI

Horner Results

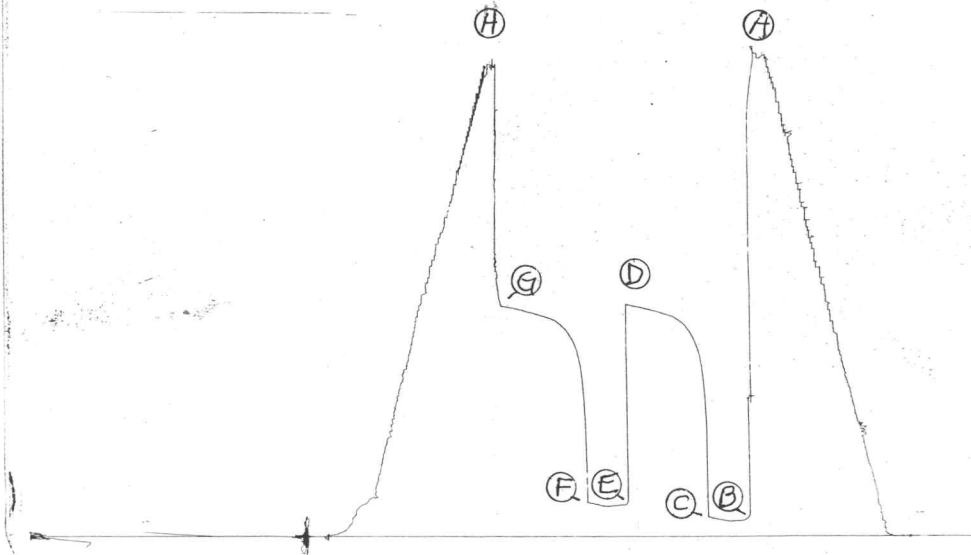
	Initial Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	0.50 hrs
slope	-452.82	-465.32
pstar	1351.32 psig	1341.24 psig
plhr	656.84 psig	644.09 psig
skin	-0.99	-1.08
permeability	0.19 md	0.19 md
transmissability	67.86 md-ft/cp	66.04 md-ft/cp
radius of investigation	7.63 ft	7.52 ft
Damage-Ratio	0.52 percent	0.49 percent
Drawdown Factor		0.011 percent
Drawdown P*		0.007 percent

1051 #4



Ticket # 21376

I

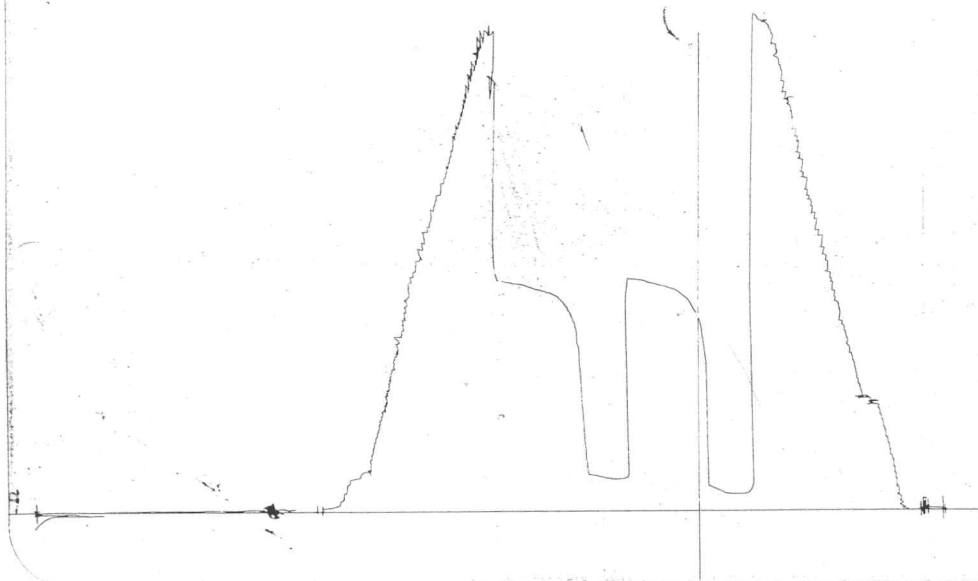


Inside Recorder

4332 #4

Ticket # 21376

O

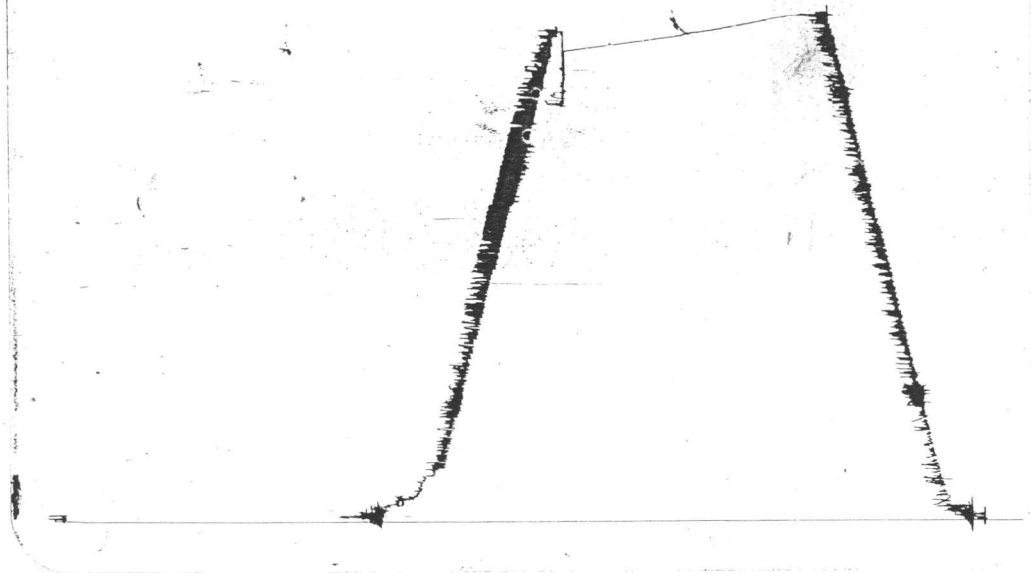


Outside Recorder

13262 #4

Ticket # 21376

Below Straddle



Inside Recorder

Outside Recorder