

DST REPORT

GENERAL INFORMATION

DATE : 7-31-95
CUSTOMER : RITCHIE EXPLORATION INC.
WELL : #1 TEST: 1
ELEVATION: 2221 KB
SECTION : 20
RANGE : 22W COUNTY: NORTON
GAUGE SN#: 1562 RANGE : 3900

TICKET : 21370
LEASE : GRIFFEY JR., BURRTON
GEOLOGIST: ?
FORMATION: LOWER KANSAS CITY
TOWNSHIP : 5
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3441.00 ft TO: 3464.00 ft TVD: 3464.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3451.0 ft 3454.0 ft
TEMPERATURE: 106.0

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 :	3421.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	23.0 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:	3436.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3441.0 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. : WHITE & ELLIS #9
MUD TYPE : CHEMICAL
WEIGHT : 9.300 ppg
CHLORIDES : 1100 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 41.00 cp
WATER LOSS: 9.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD-WEAK TO STRONG, OFF BOTTOM OF
BUCKET IN 9 MINUTES. FINAL FLOW PERIOD-STRONG
BLOW, OFF BOTTOM OF BUCKET IN 2 MINUTES.

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

RW=.128 @ 78 DEGREES.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
427.0	0.0	0.0	90.0	10.0	MUDDY WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 54,000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000	STB		
GAS VOLUME:	0.0000	SCF		
MUD VOLUME:	0.5989	STB		
WATER VOLUME:	5.3903	STB		
TOTAL FLUID :	5.9893	STB		
			TOTAL FLOW TIME:	55.0000 min.
			AVERAGE OIL RATE:	0.0000 STB/D
			AVERAGE WATER RATE:	156.8095 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1766.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	60.00	112.00
INITIAL SHUT-IN	30.00		114.00
FINAL FLOW	30.00	170.00	210.00
FINAL SHUT-IN	30.00		1075.00

FINAL HYDROSTATIC PRESSURE: 1737.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1760.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	60.00	115.00
INITIAL SHUT-IN	33.00		1120.00
FINAL FLOW	25.00	164.00	208.00
FINAL SHUT-IN	33.00		1084.00

FINAL HYDROSTATIC PRESSURE: 1732.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 7-31-95	TICKET : 21370
CUSTOMER : RITCHIE EXPLORATION INC.	LEASE : GRIFFEY JR., BURRTON
WELL : #1	GEOLOGIST: ?
ELEVATION: 2221 KB	FORMATION: LOWER KANSAS CITY
SECTION : 20	TOWNSHIP : 5
RANGE : 22W	STATE : KS
GAUGE SN#: 1562	CLOCK : 12
COUNTY: NORTON	
RANGE : 3900	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	60.00	60.00
5.00	64.00	4.00
10.00	71.00	7.00
15.00	80.00	9.00
20.00	92.00	12.00
25.00	105.00	13.00
30.00	115.00	10.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	580.00	580.00	0.00
6.00	786.00	206.00	0.00
9.00	884.00	98.00	0.00
12.00	943.00	59.00	0.00
15.00	987.00	44.00	0.00
18.00	1021.00	34.00	0.00
21.00	1045.00	24.00	0.00
24.00	1071.00	26.00	0.00
27.00	1089.00	18.00	0.00
30.00	1109.00	20.00	0.00
33.00	1120.00	11.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
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PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

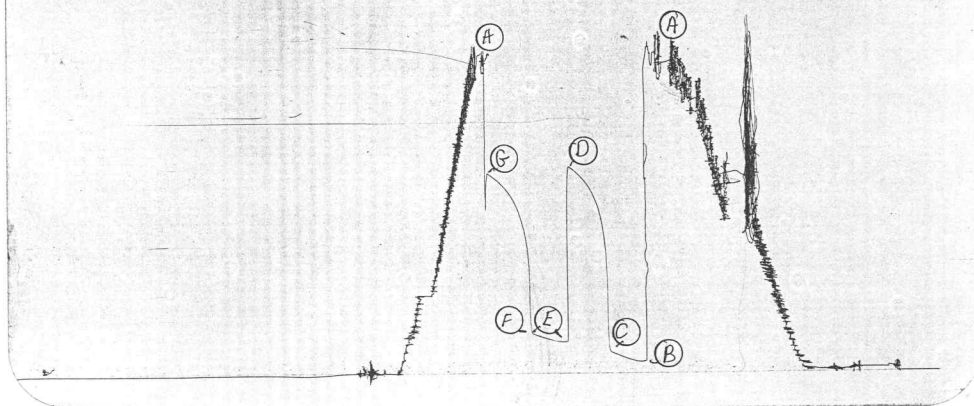
Time (min)	Pressure	Delta P
0.00	164.00	164.00
5.00	172.00	8.00
10.00	179.00	7.00
15.00	187.00	8.00
20.00	197.00	10.00
25.00	208.00	11.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	665.00	665.00	0.00
6.00	784.00	119.00	0.00
9.00	852.00	68.00	0.00
12.00	909.00	57.00	0.00
15.00	945.00	36.00	0.00
18.00	978.00	33.00	0.00
21.00	1005.00	27.00	0.00
24.00	1029.00	24.00	0.00
27.00	1047.00	18.00	0.00
30.00	1064.00	17.00	0.00
33.00	1084.00	20.00	0.00

1562
DST #1
Top

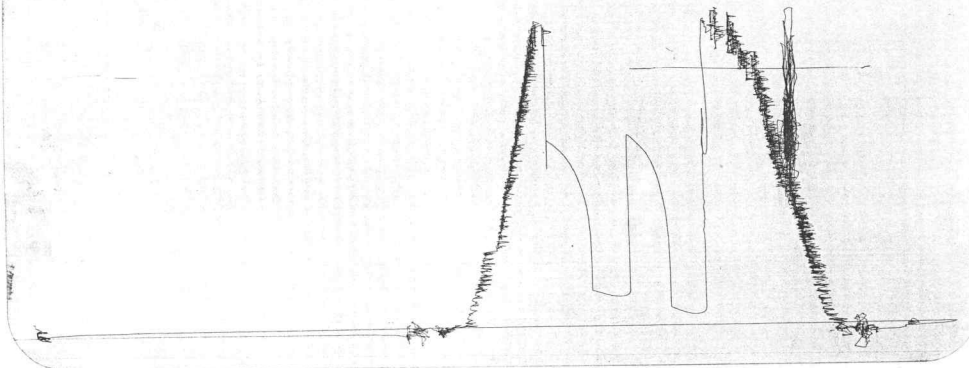
Ticket # 21370
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Inside Recorder

2605
DST #1
Bottom

Ticket # 21370
O.



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE	: 7-31-95	TICKET	: 21371
CUSTOMER	: RITCHIE EXPLORATION INC.	LEASE	: GRIFFEY JR., BURRTON
WELL	: #1	TEST: 2	GEOLOGIST: ?
ELEVATION	: 2221 KB	FORMATION	: LOWER KANSAS CITY
SECTION	: 20	TOWNSHIP	: 5
RANGE	: 22W	COUNTY: NORTON	STATE : KS
GAUGE SN#	: 1562	RANGE : 3900	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3461.00 ft	TO:	3498.00 ft	TVD:	3498.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	3471.0 ft		3474.0 ft		
TEMPERATURE:	108.0				
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 :	3441.0 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:	3456.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	3461.0 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. :	WHITE & ELLIS #9	VISCOSITY :	47.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.000 cc
WEIGHT :	9.300 ppg		
CHLORIDES :	2100 ppm	SERIAL NUMBER:	
JARS-MAKE :		REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD-WEAK BLOW SLOWLY BUILDING TO
BOTTOM OF BUCKET IN 41 MINUTES.
FINAL FLOW PERIOD-WEAK BLOW SLOWLY BUILDING TO 8

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

INCHES IN BUCKET.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
90.0	75.0	0.0	0.0	25.0	HEAVY OIL CUT MUD
60.0	5.0	0.0	75.0	20.0	SLIGHTLY OIL & MUD CUT
0.0	0.0	0.0	0.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 42,000 PPM

RATE INFORMATION

OIL VOLUME:	0.9889 STB	TOTAL FLOW TIME:	85.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	22.2772 STB/D
MUD VOLUME:	0.4839 STB	AVERAGE WATER RATE:	13.3663 STB/D
WATER VOLUME:	0.6312 STB		
TOTAL FLUID :	2.1040 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1786.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	80.00	100.00
INITIAL SHUT-IN	45.00		1233.00
FINAL FLOW	45.00	120.00	136.00
FINAL SHUT-IN	45.00		1164.00
FINAL HYDROSTATIC PRESSURE:	1737.00		

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1768.00

Description	Duration	p1	p End
INITIAL FLOW	40.00	78.00	88.00
INITIAL SHUT-IN	48.00		1218.00
FINAL FLOW	45.00	116.00	121.00
FINAL SHUT-IN	48.00		1198.00

FINAL HYDROSTATIC PRESSURE: 1722.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 7-31-95	TICKET	: 21371
CUSTOMER	: RITCHIE EXPLORATION INC.	LEASE	: GRIFFEY JR., BURRTON
WELL	: #1	GEOLOGIST	: ?
ELEVATION	: 2221 KB	FORMATION	: LOWER KANSAS CITY
SECTION	: 20	TOWNSHIP	: 5
RANGE	: 22W	STATE	: KS
GAUGE SN#	: 1562	CLOCK	: 12
	COUNTY: NORTON		
	RANGE : 3900		

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	78.00	78.00
5.00	76.00	-2.00
10.00	75.00	-1.00
15.00	77.00	2.00
20.00	79.00	2.00
25.00	81.00	2.00
30.00	83.00	2.00
35.00	86.00	3.00
40.00	88.00	2.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	215.00	215.00	14.33
6.00	489.00	274.00	7.67
9.00	646.00	157.00	5.44
12.00	912.00	266.00	4.33
15.00	993.00	81.00	3.67
18.00	1043.00	50.00	3.22
21.00	1082.00	39.00	2.90
24.00	1111.00	29.00	2.67
27.00	1137.00	26.00	2.48
30.00	1153.00	16.00	2.33
33.00	1171.00	18.00	2.21
36.00	1182.00	11.00	2.11
39.00	1194.00	12.00	2.03
42.00	1203.00	9.00	1.95
45.00	1213.00	10.00	1.89
48.00	1218.00	5.00	1.83

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	116.00	116.00
5.00	115.00	-1.00
10.00	111.00	-4.00
15.00	112.00	1.00
20.00	112.00	0.00
25.00	114.00	2.00
30.00	117.00	3.00
35.00	118.00	1.00
40.00	120.00	2.00
45.00	121.00	1.00

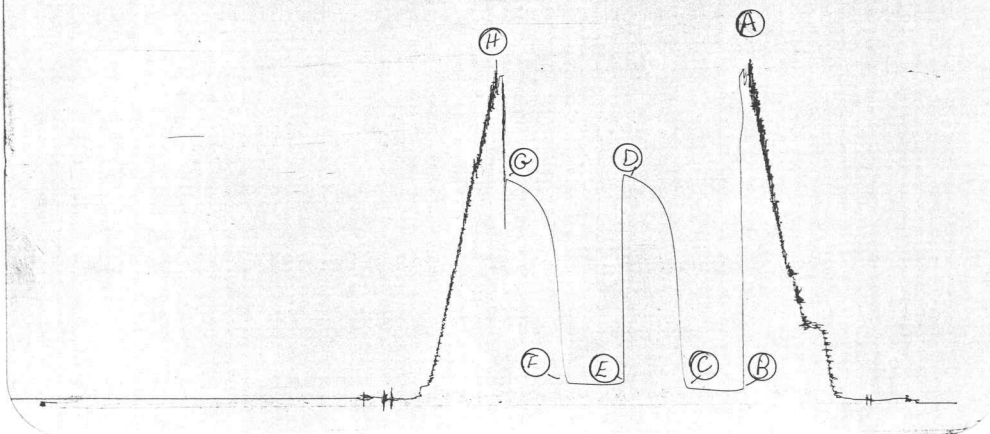
FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	204.00	204.00	16.00
6.00	463.00	259.00	8.50
9.00	704.00	241.00	6.00
12.00	882.00	178.00	4.75
15.00	964.00	82.00	4.00
18.00	1018.00	54.00	3.50
21.00	1057.00	39.00	3.14
24.00	1086.00	29.00	2.88
27.00	1107.00	21.00	2.67
30.00	1131.00	24.00	2.50
33.00	1146.00	15.00	2.36
36.00	1161.00	15.00	2.25
39.00	1171.00	10.00	2.15
42.00	1182.00	11.00	2.07
45.00	1191.00	9.00	2.00
48.00	1198.00	7.00	1.94

1562
DS #2
Top

Ticket # 21371

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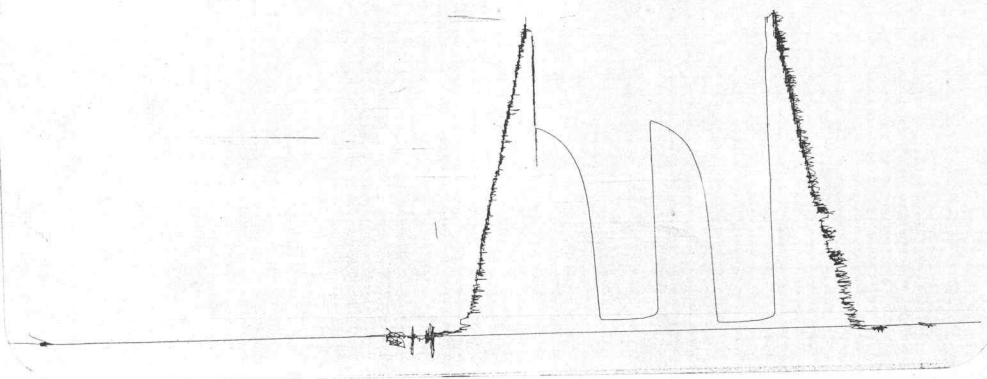


Inside Recorder

2603
DS #2
Bottom

Ticket # 21371

0



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 8-1-95
CUSTOMER : RITCHIE EXPLORATION INC.
WELL : #1 TEST: 3
ELEVATION: 2221 KB
SECTION : 20
RANGE : 22W COUNTY: NORTON
GAUGE SN#: 1562 RANGE : 3900

TICKET : 21372
LEASE : GRIFFEY JR., BURRTON
GEOLOGIST: ?
FORMATION: LOWER KANSAS CITY
TOWNSHIP : 5
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3550.00 ft TO: 3584.00 ft TVD: 3584.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3560.0 ft 3563.0 ft
TEMPERATURE: 111.0

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 :	3530.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	34.0 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:	3545.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3550.0 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. : WHITE & ELLIS #9
MUD TYPE : CHEMICAL
WEIGHT : 9.400 ppg
CHLORIDES : 1800 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 45.00 cp
WATER LOSS: 9.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD-WEAK BLOW SLOWLY BUILDING TO
BOTTOM OF BUCKET IN 38 MINUTES.
FINAL FLOW PERIOD-WEAK BUILDING TO BOTTOM OF

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

BUCKET IN 10 MINUTES.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	444FT. GAS ABOVE FLUID
60.0	100.0	0.0	0.0	0.0	FREE GASSY OIL 34 GRAVITY
0.0	0.0	0.0	0.0	0.0	CORRECTED TO 68 DEGREES
174.0	85.0	0.0	0.0	15.0	HEAVY OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	2.9161 STB	TOTAL FLOW TIME:	85.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	55.6038 STB/D
MUD VOLUME:	0.3661 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	3.2822 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1786.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	50.00	70.00
INITIAL SHUT-IN	60.00		300.00
FINAL FLOW	45.00	90.00	110.00
FINAL SHUT-IN	60.00		300.00

FINAL HYDROSTATIC PRESSURE: 1766.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1766.00

Description	Duration	p1	p End
INITIAL FLOW	40.00	54.00	74.00
INITIAL SHUT-IN	60.00		298.00
FINAL FLOW	45.00	94.00	113.00
FINAL SHUT-IN	60.00		298.00

FINAL HYDROSTATIC PRESSURE: 1744.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 8-1-95	TICKET : 21372
CUSTOMER : RITCHIE EXPLORATION INC.	LEASE : GRIFFEY JR., BURRTON
WELL : #1	GEOLOGIST: ?
ELEVATION: 2221 KB	FORMATION: LOWER KANSAS CITY
SECTION : 20	TOWNSHIP : 5
RANGE : 22W	STATE : KS
GAUGE SN#: 1562	CLOCK : 12
COUNTY: NORTON	
RANGE : 3900	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	54.00	54.00
5.00	51.00	-3.00
10.00	51.00	0.00
15.00	53.00	2.00
20.00	55.00	2.00
25.00	60.00	5.00
30.00	64.00	4.00
35.00	69.00	5.00
40.00	74.00	5.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	152.00	152.00	14.33
6.00	218.00	66.00	7.67
9.00	243.00	25.00	5.44
12.00	253.00	10.00	4.33
15.00	260.00	7.00	3.67
18.00	266.00	6.00	3.22
21.00	273.00	7.00	2.90
24.00	277.00	4.00	2.67
27.00	280.00	3.00	2.48
30.00	282.00	2.00	2.33
33.00	285.00	3.00	2.21
36.00	288.00	3.00	2.11
39.00	292.00	4.00	2.03
42.00	293.00	1.00	1.95
45.00	294.00	1.00	1.89
48.00	295.00	1.00	1.83
51.00	295.00	0.00	1.78

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
54.00	296.00	1.00	1.74
57.00	297.00	1.00	1.70
60.00	298.00	1.00	1.67

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	94.00	94.00
5.00	93.00	-1.00
10.00	92.00	-1.00
15.00	95.00	3.00
20.00	97.00	2.00
25.00	99.00	2.00
30.00	105.00	6.00
35.00	107.00	2.00
40.00	109.00	2.00
45.00	113.00	4.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	182.00	182.00	16.00
6.00	227.00	45.00	8.50
9.00	243.00	16.00	6.00
12.00	251.00	8.00	4.75
15.00	261.00	10.00	4.00
18.00	266.00	5.00	3.50
21.00	271.00	5.00	3.14
24.00	276.00	5.00	2.88
27.00	279.00	3.00	2.67
30.00	282.00	3.00	2.50
33.00	287.00	5.00	2.36
36.00	288.00	1.00	2.25
39.00	290.00	2.00	2.15
42.00	292.00	2.00	2.07
45.00	293.00	1.00	2.00
48.00	294.00	1.00	1.94
51.00	295.00	1.00	1.88

PRESSURE TRANSIENT REPORT (CONTINUED)

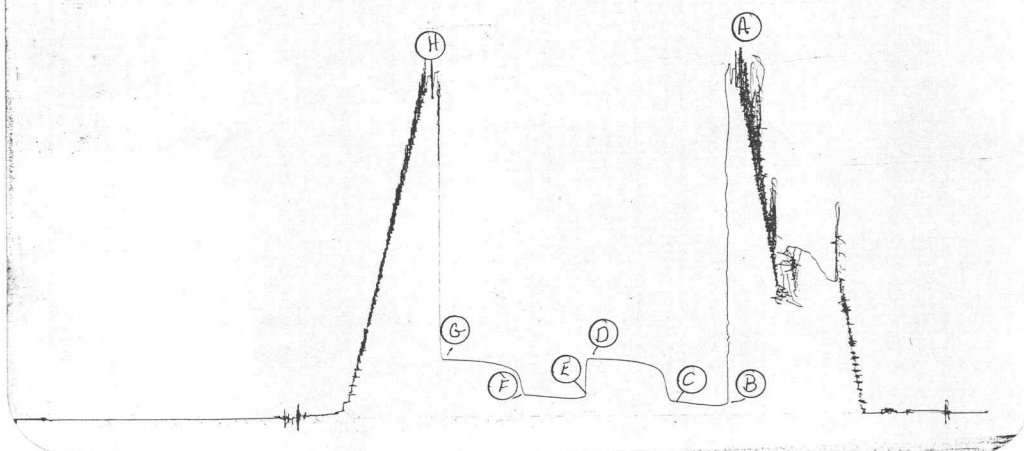
FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
54.00	296.00	1.00	1.83
57.00	297.00	1.00	1.79
60.00	298.00	1.00	1.75

1562
DST #3
Top

Ticket # 21372

I

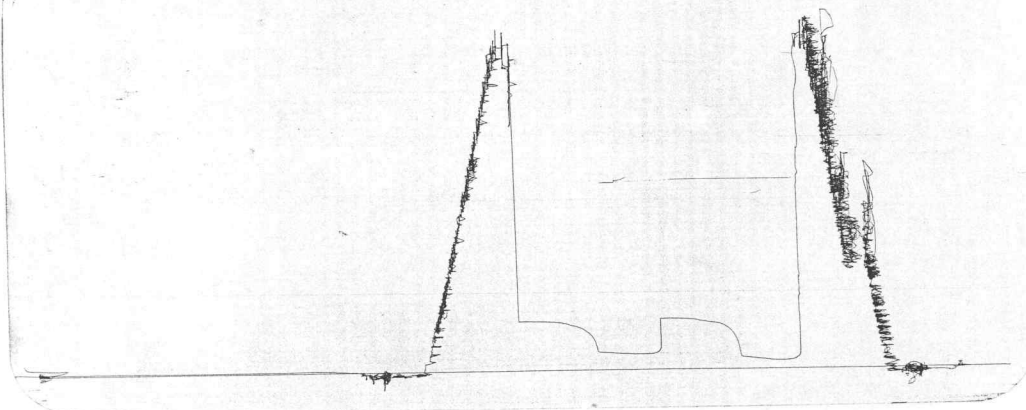


Inside Recorder

2605
DST #3
Bottom

Ticket # 21372

O



Outside Recorder