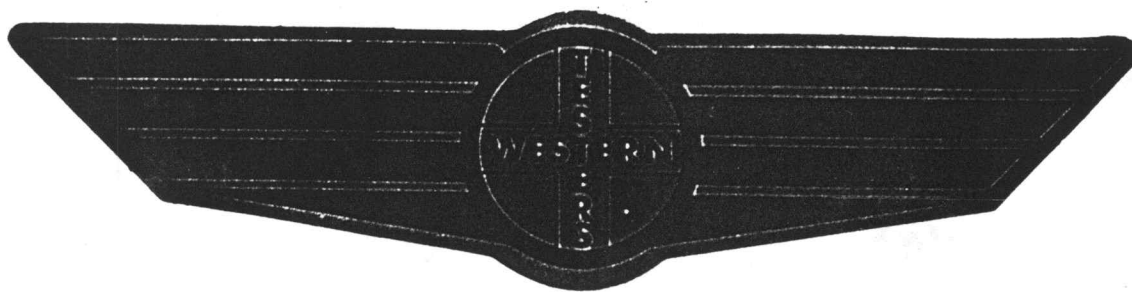


FORMATION TEST REPORT



Home Office:

P.O. Box 1599

Wichita, Kansas 67201

Phone (316) 262-5861

MEANY
RITCHIE EXPLORATION, INC. LEASE & WELL NO. #1 SPENCER SEC. 29 TWP. 25S RGE. 39W TEST NO. 1 DATE 10/9/86

WESTERN TESTING CO INC.
SUBSURFACE PRESSURE SURVEY

DATE : 10-9-86
CUSTOMER : RITCHIE EXPLORATION INC.
WELL : #1 TEST: 1
ELEVATION : 3392
SECTION : 29
RANGE : 39W COUNTY : HAMILTON
GAUGE SN# : 10270 RANGE : 4150
TICKET : 11637
LEASE : SPENCER
GEOLOGIST : J. CHRISTIAN
FORMATION : CHASE
TOWNSHIP : 25S
STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 2476 TO : 2536 TOTAL DEPTH : 2536
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 2471 SIZE : 6.63
PACKER DEPTH : 2476 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : MURFIN RIG #24
MUD TYPE : CHEMICAL VISCOSITY : NA
WEIGHT : NA WATER LOSS (CC) : NA
CHLORIDES (PPM) : NA
JARS-MAKE : -- SERIAL NUMBER :
DID WELL FLOW ? : -- REVERSED OUT ? : --

DRILL COLLAR LENGTH : 360 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 350 FT I.D. inch : 2.70
DRILL PIPE LENGTH : 1746 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 60 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 : VERY WEAK 1/4" BLOW THROUGHOUT THE INITIAL FLOW.
BLOW COMMENT #2 : NO BLOW ON THE FINAL FLOW.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

WESTERN TESTING CO INC.
WICHITA KANSAS

Pressure Transient Report

COMPANY : RITCHIE EXPLORATION INC.
RIG : HAMILTON-KANSAS
FIELD : SPENCER
WELL : #1
DATE : 10-9-86
GAUGE NO : 10270

OPERATIONAL COMMENTS

SLID TOOL APPROX. 20 FEET TO BOTTOM AFTER TOOL WAS OPENED

RECOVERED : 310 FT OF: MUD

Total Barrels Fluid = 1.46
Total Fluid Prod Rate = 34.98 BFPD
Indicated Wtr Rate = 31.48 BWPD

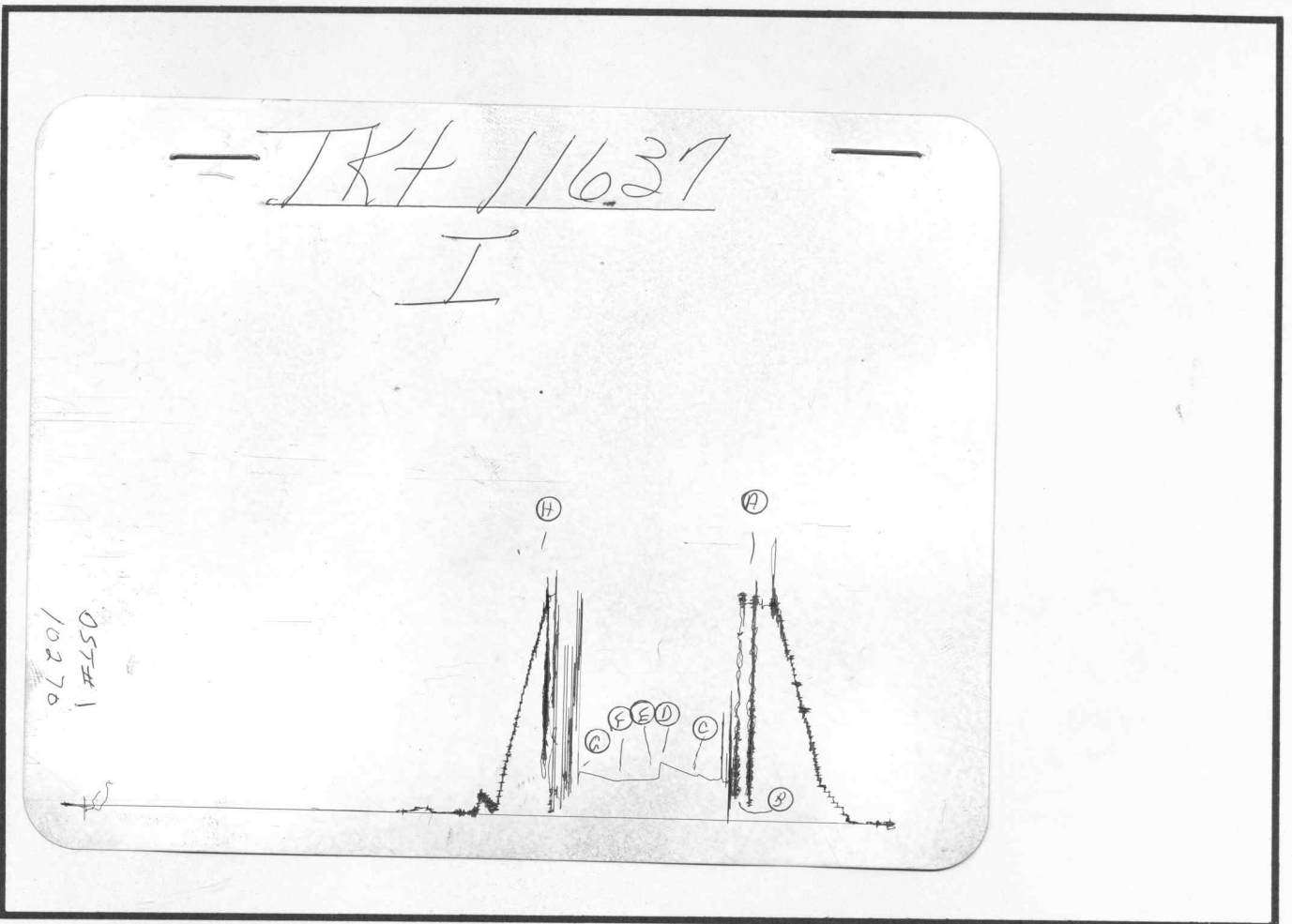
REMARK 1 :
REMARK 2 : SLID TOOL APPROX. 20 FEET TO BOTTOM AFTER TOOL WAS OPENED
REMARK 3 :
REMARK 4 :

SET PACKER(S) :	12:05 AM	TIME STARTED OFF BOTTOM :	2:05 AM
WELL TEMPERATURE :	100		
INITIAL HYDROSTATIC PRESSURE		(A)	1286
INITIAL FLOW PERIOD MIN:	30	(B)	118 PSI TO (C) : 248
INITIAL CLOSED IN PERIOD MIN:	30	(D)	322
FINAL FLOW PERIOD MIN:	30	(E)	212 PSI TO (F) : 212
FINAL CLOSED IN PERIOD MIN:	33	(G)	257
FINAL HYDROSTATIC PRESSURE		(H)	1265

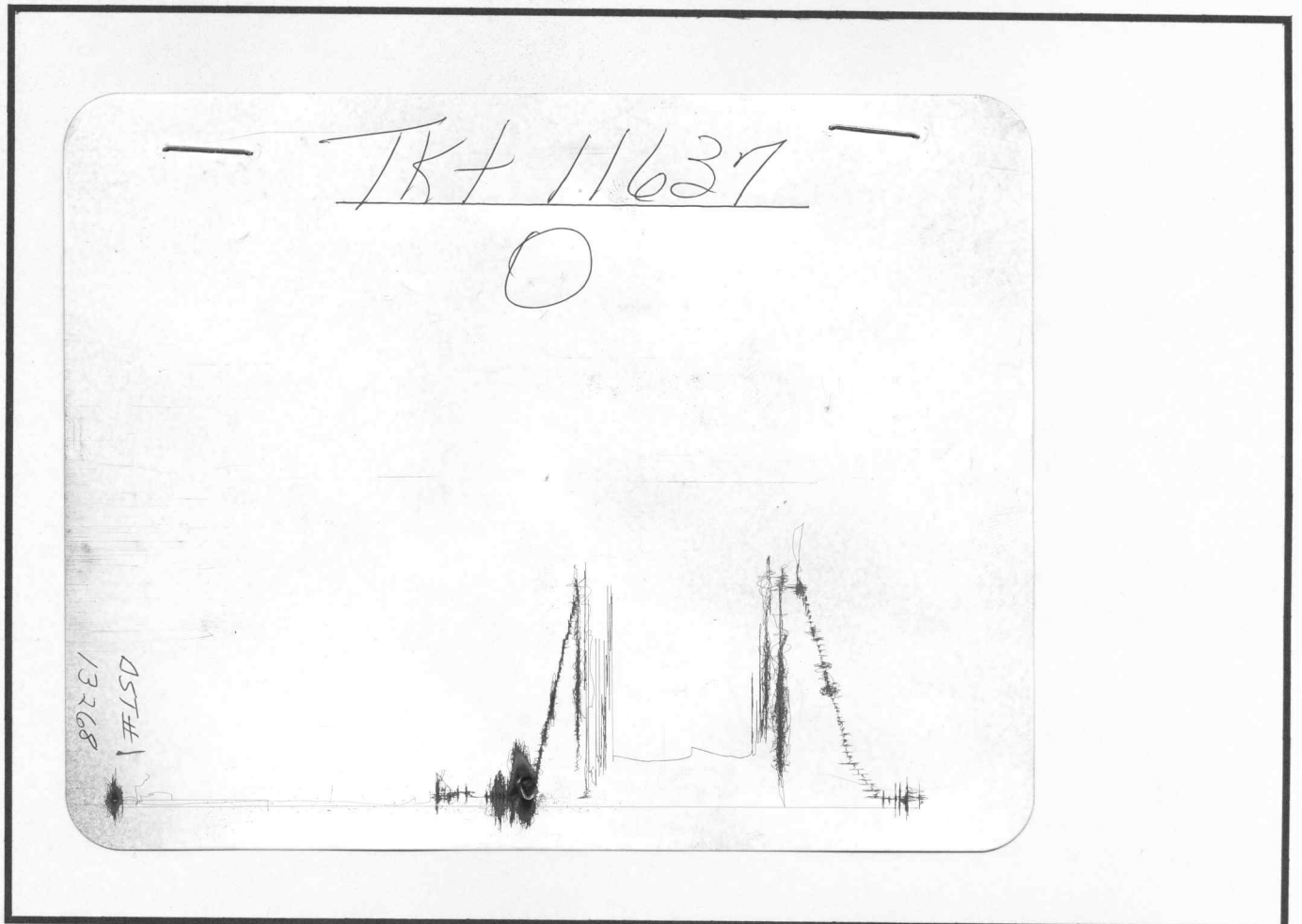
COMPANY : RITCHIE EXPLORATION INC. FIELD : SPENCER
 WELL : #1 JOB # : 11637
 GAUGE # : 10270 DEPTH : 2536
 DATE : 9/10/86 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P P1-P(1-1)
1	12: 5: 0	0.000	118.000	37.78	0.000
2	12:10: 0	0.083	150.000	37.78	32.000
3	12:15: 0	0.167	216.000	37.78	66.000
4	12:20: 0	0.250	231.000	37.78	15.000
5	12:25: 0	0.333	231.000	37.78	0.000
6	12:30: 0	0.417	239.000	37.78	8.000
7	12:35: 0	0.500	248.000	37.78	9.000
8	12:38: 0	0.550	252.000	37.78	4.000
9	12:41: 0	0.600	257.000	37.78	5.000
10	12:44: 0	0.650	264.000	37.78	7.000
11	12:47: 0	0.700	272.000	37.78	8.000
12	12:50: 0	0.750	279.000	37.78	7.000
13	12:53: 0	0.800	287.000	37.78	8.000
14	12:56: 0	0.850	295.000	37.78	8.000
15	12:59: 0	0.900	306.000	37.78	11.000
16	13: 2: 0	0.950	316.000	37.78	10.000
17	13: 5: 0	1.000	322.000	37.78	6.000
18	13: 6: 0	1.017	212.000	37.78	-110.000
19	13:10: 0	1.083	212.000	37.78	0.000
20	13:15: 0	1.167	212.000	37.78	0.000
21	13:20: 0	1.250	212.000	37.78	0.000
22	13:25: 0	1.333	212.000	37.78	0.000
23	13:30: 0	1.417	212.000	37.78	0.000
24	13:35: 0	1.500	212.000	37.78	0.000
25	13:38: 0	1.550	212.000	37.78	0.000
26	13:41: 0	1.600	212.000	37.78	0.000
27	13:44: 0	1.650	216.000	37.78	4.000
28	13:47: 0	1.700	220.000	37.78	4.000
29	13:50: 0	1.750	229.000	37.78	9.000
30	13:53: 0	1.800	236.000	37.78	7.000
31	13:56: 0	1.850	241.000	37.78	5.000
32	13:59: 0	1.900	244.000	37.78	3.000
33	14: 2: 0	1.950	250.000	37.78	6.000
34	14: 5: 0	2.000	253.000	37.78	3.000
35	12: 5: 0	0.000	257.000	37.78	4.000

WESTERN TESTING CO INC.



Inside Recorder

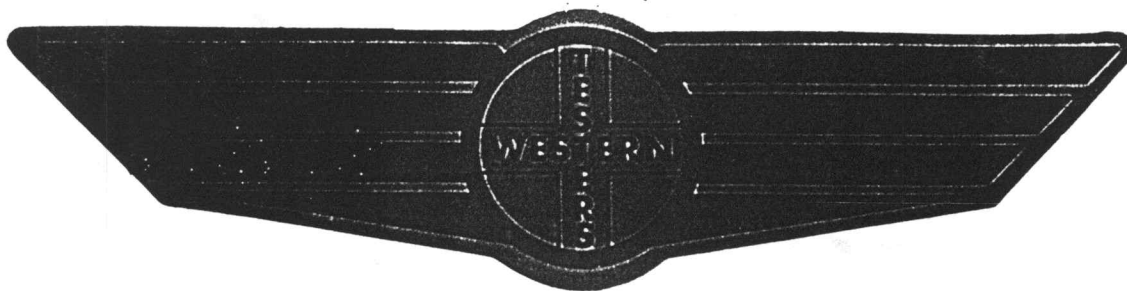


Outside Recorder

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RITCHIE EXPLORATION, INC. LEASE & WELL NO. #1 SPENCER SEC. 29 TWP. 25S RGE. 39W TEST NO. 2 DATE 10/10/86

WESTERN TESTING CO INC.
SUBSURFACE PRESSURE SURVEY

DATE : 10-10-86
CUSTOMER : RITCHIE EXPLORATION INC.
WELL : #1 TEST: 2
ELEVATION : 3392
SECTION : 29
RANGE : 39W COUNTY : HAMILTON
GAUGE SN# : 10270 RANGE : 4150
TICKET : 11638
LEASE : SPENCER
GEOLOGIST : J. CHRISTIAN
FORMATION : NA
TOWNSHIP : 25S
STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 2628 TO : 2690 TOTAL DEPTH : 2690
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 2623 SIZE : 6.63
PACKER DEPTH : 2628 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : MURFIN RIG #24
MUD TYPE : CHEMICAL VISCOSITY : 30
WEIGHT : 9.1 WATER LOSS (CC) : 13.3
CHLORIDES (PPM) : 65000
JARS-MAKE : -- SERIAL NUMBER :
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 360 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 350 FT I.D. inch : 2.70
DRILL PIPE LENGTH : 1898 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 62 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 : INITIAL FLOW- WEAK 1/2 INCH BLOW BUILDING TO A
BLOW COMMENT #2 : FAIR 4 INCH BLOW.
BLOW COMMENT #3 : FINAL FLOW-FAIR 5 INCH BLOW THROUGHOUT.
BLOW COMMENT #4 :

WESTERN TESTING CO INC.
WICHITA KANSAS

Pressure Transient Report

COMPANY : RITCHIE EXPLORATION INC.
RIG : HAMILTON-KANSAS
FIELD : SPENCER
WELL : #1
DATE : 10-10-86
GAUGE NO : 10270

OPERATIONAL COMMENTS

RECOVERED 50 FEET OF GAS ABOVE FLUID.

RECOVERED : 10 FT OF: DRILLING MUD

Total Barrels Fluid = 0.05
Total Fluid Prod Rate = 0.75 BFPD
Indicated Wtr Rate = 0.68 BWPD

REMARK 1 :

REMARK 2 : RECOVERED 50 FEET OF GAS ABOVE FLUID.

REMARK 3 :

REMARK 4 :

SET PACKER(S) : 6:55 PM

TIME STARTED OFF BOTTOM : 9:55 PM

WELL TEMPERATURE : 88

INITIAL HYDROSTATIC PRESSURE (A) 1298

INITIAL FLOW PERIOD MIN: 45 (B) 37 PSI TO (C) : 37

INITIAL CLOSED IN PERIOD MIN: 45 (D) 195

FINAL FLOW PERIOD MIN: 45 (E) 44 PSI TO (F) : 44

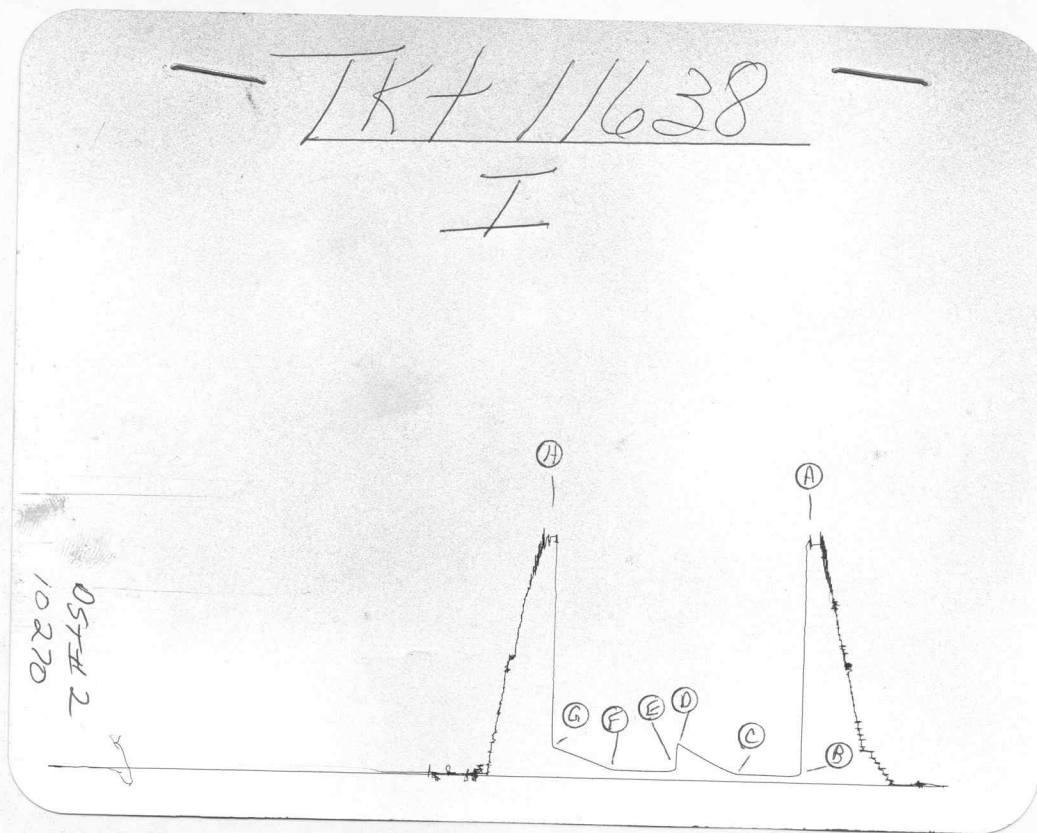
FINAL CLOSED IN PERIOD MIN: 45 (G) 159

FINAL HYDROSTATIC PRESSURE (H) 1298

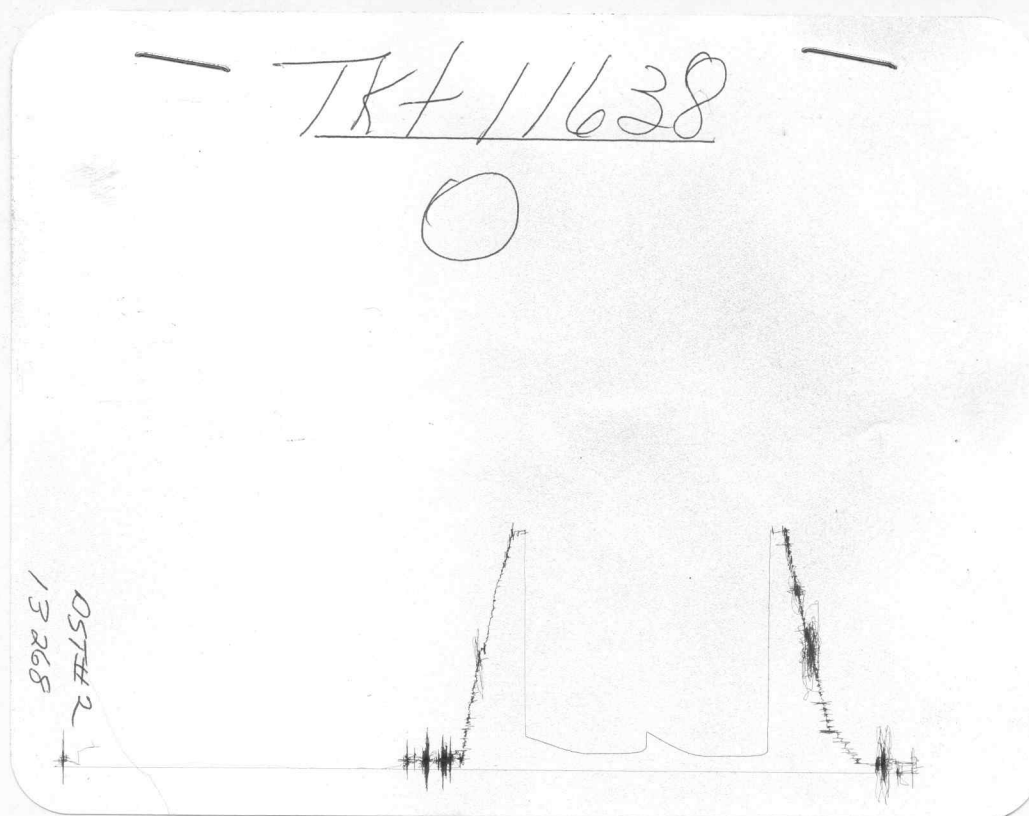
COMPANY : RITCHIE EXPLORATION INC. FIELD : SPENCER
WELL : #1 JOB # : 11638
GAUGE # : 10270 DEPTH : 2690
DATE : 10/10/86 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	6:55: 0	0.000	37.000	31.11	0.000
2	7: 0: 0	0.083	37.000	31.11	0.000
3	8: 5: 0	0.167	37.000	31.11	0.000
4	8:10: 0	0.250	37.000	31.11	0.000
5	8:15: 0	0.333	37.000	31.11	0.000
6	8:20: 0	0.417	37.000	31.11	0.000
7	8:25: 0	0.500	37.000	31.11	0.000
8	8:30: 0	0.583	37.000	31.11	0.000
9	8:35: 0	0.667	37.000	31.11	0.000
10	8:40: 0	0.750	37.000	31.11	0.000
11	8:43: 0	0.800	41.000	31.11	4.000
12	8:46: 0	0.850	47.000	31.11	6.000
13	8:49: 0	0.900	56.000	31.11	9.000
14	8:52: 0	0.950	65.000	31.11	9.000
15	8:55: 0	1.000	75.000	31.11	10.000
16	8:58: 0	1.050	87.000	31.11	12.000
17	9: 1: 0	1.100	97.000	31.11	10.000
18	9: 4: 0	1.150	108.000	31.11	11.000
19	9: 7: 0	1.200	122.000	31.11	14.000
20	9:10: 0	1.250	133.000	31.11	11.000
21	9:13: 0	1.300	145.000	31.11	12.000
22	9:16: 0	1.350	158.000	31.11	13.000
23	9:19: 0	1.400	170.000	31.11	12.000
24	9:22: 0	1.450	183.000	31.11	13.000
25	9:25: 0	1.500	195.000	31.11	12.000
26	9:26: 0	1.517	44.000	31.11	-151.000
27	9:30: 0	1.583	44.000	31.11	0.000
28	9:35: 0	1.667	44.000	31.11	0.000
29	9:40: 0	1.750	44.000	31.11	0.000
30	9:45: 0	1.833	44.000	31.11	0.000
31	9:50: 0	1.917	44.000	31.11	0.000
32	9:55: 0	2.000	44.000	31.11	0.000
33	10: 0: 0	2.083	44.000	31.11	0.000
34	11: 5: 0	2.167	44.000	31.11	0.000
35	11:10: 0	2.250	44.000	31.11	0.000
36	11:13: 0	2.300	47.000	31.11	3.000
37	11:16: 0	2.350	54.000	31.11	7.000
38	11:19: 0	2.400	62.000	31.11	8.000
39	11:22: 0	2.450	70.000	31.11	8.000
40	11:25: 0	2.500	79.000	31.11	9.000
41	11:28: 0	2.550	87.000	31.11	8.000
42	11:31: 0	2.600	94.000	31.11	7.000
43	11:34: 0	2.650	104.000	31.11	10.000
44	11:37: 0	2.700	113.000	31.11	9.000
45	11:40: 0	2.750	120.000	31.11	7.000
46	11:43: 0	2.800	129.000	31.11	9.000
47	11:46: 0	2.850	134.000	31.11	5.000
48	11:49: 0	2.900	142.000	31.11	8.000
49	11:52: 0	2.950	152.000	31.11	10.000
50	11:55: 0	3.000	159.000	31.11	7.000

WESTERN TESTING CO INC.



Inside Recorder



Outside Recorder