

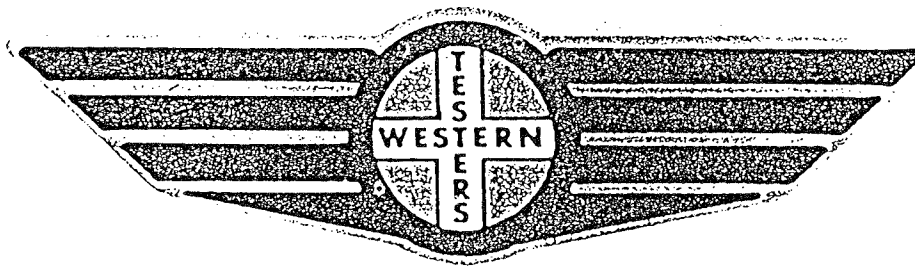
CONFIDENTIAL

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FEB 1

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY ZPC PETROLEUM INC. LEASE & WELL NO. DUBBS 3-32 SEC. 32 TWP. 16S RGE. 24W TEST NO. 1 DATE 10-22-90

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 10-22-90 TICKET : 16499
CUSTOMER : ZPC PETROLEUM INC. LEASE : DUBBS
WELL : 3-32 TEST: 1 GEOLOGIST : STEWART
ELEVATION : FORMATION : MISSISSIPPIAN
SECTION : 32 TOWNSHIP : 16S
RANGE : 24W COUNTY : NESS STATE : KANSAS
GAUGE SN# : 11018 RANGE : 4425 CLOCK : 12

INTERVAL FROM : 4447 TO : 4513 TOTAL DEPTH : 4513
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4442 SIZE : 6.75
PACKER DEPTH : 4447 SIZE : 6.75
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : DUKE RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 48
WEIGHT : 9.8 WATER LOSS (CC) : 10.4
CHLORIDES (PPM) : 4000
JARS-MAKE : SERIAL NUMBER :
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 150 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4277 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 66 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : WEAK-BUILDING TO FAIR 6 INCH BLOW
BLOW COMMENT #2 : IN BUCKET THROUGHOUT TEST.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

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RECOVERED : 100 FT OF: CLEAN OIL
RECOVERED : 210 FT OF: HEAVY OIL CUT MUD
RECOVERED : 0 FT OF: 70%MUD;25%OIL

Total Barrels Fluid = 2.95
Total Fluid Prod Rate = 56.63 BFPD
Indicated Oil Rate = 27.86 BOPD
Indicated Wtr Rate = 2.69 BWPD
Corrected Oil Rate = 50.33 BOPD
Corrected Wtr Rate = 4.85 BWPD

REMARK 1 :
REMARK 2 : 39 GRAVITY CORRECTED
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 7:00 P.M.

TIME STARTED OFF BOTTOM : 10:15 P.M.

WELL TEMPERATURE : 122

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

(A) 2255

INITIAL CLOSED IN PERIOD MIN: 66

(B) 67 PSI TO (C) : 120

FINAL FLOW PERIOD MIN: 45

(D) 1182

FINAL CLOSED IN PERIOD MIN: 60

(E) 145 PSI TO (F) : 166

FINAL HYDROSTATIC PRESSURE

(G) 1095

(H) 2197

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WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : ZPC PETROLEUM INC.
RIG : NESS-KANSAS
FIELD : DUBBS
WELL : 3-32
DATE : 10-22-90
GAUGE NO : 11018

OPERATIONAL COMMENTS

39 GRAVITY CORRECTED

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COMPANY : ZPC PETROLEUM INC.
 WELL : 3-32
 GAUGE # : 11018
 DATE : 22/10/90

FIELD : DUBBS
 JOB # : 16499
 DEPTH : 4513
 TEST :

FEB 1

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DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	7: 0: 0	0.000	67.000	122.00	0.000
3	7: 4:59	0.083	68.000	122.00	1.000
4	7:10: 0	0.167	80.000	122.00	12.000
5	7:15: 0	0.250	95.000	122.00	15.000
6	7:19:59	0.333	103.000	122.00	8.000
7	7:25: 0	0.417	111.000	122.00	8.000
8	7:30: 0	0.500	120.000	122.00	9.000
INITIAL SHUT-IN PERIOD					
9	7:33: 0	0.550	120.000	122.00	0.000
10	7:36: 0	0.600	674.000	122.00	554.000
11	7:39: 0	0.650	894.000	122.00	220.000
12	7:42: 0	0.700	977.000	122.00	83.000
13	7:45: 0	0.750	1024.000	122.00	47.000
14	7:48: 0	0.800	1051.000	122.00	27.000
15	7:51: 0	0.850	1077.000	122.00	26.000
16	7:54: 0	0.900	1092.000	122.00	15.000
17	7:57: 0	0.950	1107.000	122.00	15.000
18	8: 0: 0	1.000	1121.000	122.00	14.000
19	8: 2:59	1.050	1129.000	122.00	8.000
20	8: 6: 0	1.100	1137.000	122.00	8.000
21	8: 9: 0	1.150	1144.000	122.00	7.000
22	8:12: 0	1.200	1150.000	122.00	6.000
23	8:15: 0	1.250	1156.000	122.00	6.000
24	8:18: 0	1.300	1162.000	122.00	6.000
25	8:21: 0	1.350	1166.000	122.00	4.000
26	8:24: 0	1.400	1169.000	122.00	3.000
27	8:27: 0	1.450	1174.000	122.00	5.000
28	8:30: 0	1.500	1177.000	122.00	3.000
29	8:33: 0	1.550	1180.000	122.00	3.000
30	8:36: 0	1.600	1182.000	122.00	2.000
FINAL FLOW PERIOD					
31	8:37: 0	1.617	145.000	122.00	-1037.000
32	8:40:59	1.683	145.000	122.00	0.000
33	8:46: 0	1.767	145.000	122.00	0.000
34	8:51: 0	1.850	145.000	122.00	0.000
35	8:55:59	1.933	147.000	122.00	2.000
36	9: 1: 0	2.017	152.000	122.00	5.000
37	9: 5:59	2.100	156.000	122.00	4.000
38	9:10:59	2.183	160.000	122.00	4.000
39	9:16: 0	2.267	164.000	122.00	4.000
40	9:21: 0	2.350	166.000	122.00	2.000
FINAL SHUT-IN PERIOD					
41	9:23:59	2.400	766.000	122.00	600.000
42	9:26:59	2.450	861.000	122.00	95.000
43	9:30: 0	2.500	913.000	122.00	52.000
44	9:33: 0	2.550	947.000	122.00	34.000
45	9:36: 0	2.600	975.000	122.00	28.000
46	9:38:59	2.650	992.000	122.00	17.000
47	9:41:59	2.700	1007.000	122.00	15.000
48	9:45: 0	2.750	1019.000	122.00	12.000

COMPANY : ZPC PETROLEUM INC.
WELL : 3-32
GAUGE # : 11018
DATE : 22/10/90

FIELD : DUBBS
JOB # : 16499
DEPTH : 4513
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	9:48: 0	2.800	1028.000	122.00	9.000
50	9:51: 0	2.850	1038.000	122.00	10.000
51	9:53:59	2.900	1047.000	122.00	9.000
52	9:56:59	2.950	1056.000	122.00	9.000
53	10: 0: 0	3.000	1061.000	122.00	5.000
54	10: 3: 0	3.050	1066.000	122.00	5.000
55	10: 6: 0	3.100	1071.000	122.00	5.000
56	10: 8:59	3.150	1078.000	122.00	7.000
57	10:11:59	3.200	1084.000	122.00	6.000
58	10:15: 0	3.250	1089.000	122.00	5.000
59	10:18: 0	3.300	1095.000	122.00	6.000
60	10:21: 0	3.350	1095.000	122.00	0.000

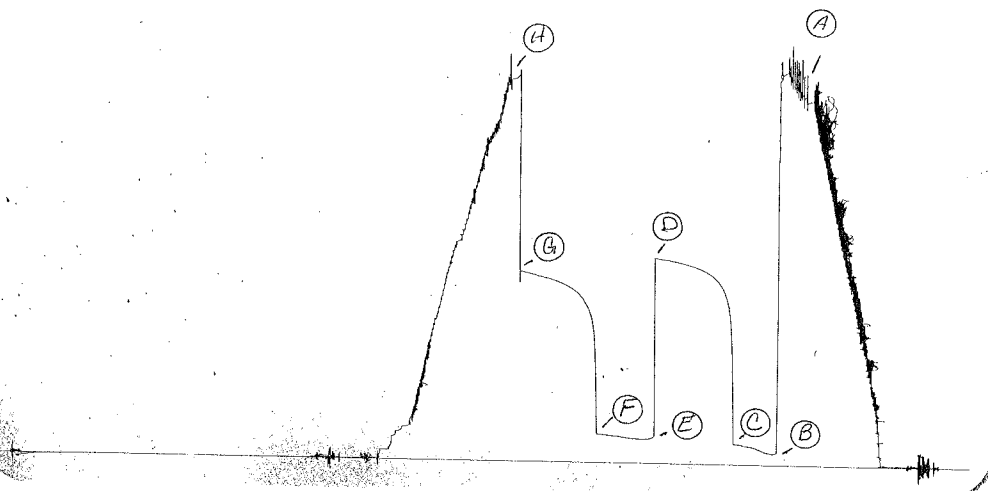
WESTERN TESTING CO. INC.

11018

TKT 16499

2pc
DST 1

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Inside Recorder

13022

TKT 16499

2pc
DST 1

O



Outside Recorder

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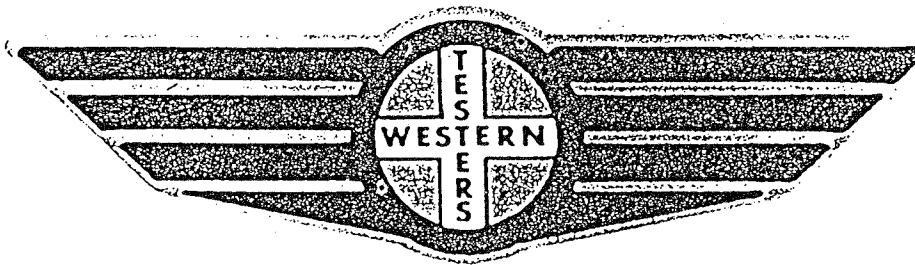
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COMPANY ZPC PETROLEUM, INC. LEASE & WELL NO. DUBBS #3-32 SEC. 32 TWP. 16S RGE. 24W TEST NO. 3 DATE 10/23/90

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 10-23-90	TICKET : 16926
CUSTOMER : ZPC PETROLEUM INC.	LEASE : DUBBS
WELL : 3-32 TEST: 3	GEOLOGIST : STEWART
ELEVATION :	FORMATION : MISSISSIPPIAN
SECTION : 32	TOWNSHIP : 16S
RANGE : 24W COUNTY : NESS	STATE : KANSAS
GAUGE SN# : 11018 RANGE : 4425	CLOCK : 12

INTERVAL FROM : 4447	TO : 4525	TOTAL DEPTH : 4525
DEPTH OF SELECTIVE ZONE :		
PACKER DEPTH : 4442	SIZE : 6.75	
PACKER DEPTH : 4447	SIZE : 6.75	
PACKER DEPTH :	SIZE :	
PACKER DEPTH :	SIZE :	

DRILLING CON. : DUKE RIG 4	
MUD TYPE : CHEMICAL	VISCOSITY : 42
WEIGHT : 9.4	WATER LOSS (CC) : 11.2
CHLORIDES (PPM) : 5000	
JARS-MAKE :	SERIAL NUMBER :
DID WELL FLOW ? : NO	REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 150 FT	I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT	I.D. inch : 0.00
DRILL PIPE LENGTH : 4277 FT	I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT	TOOL SIZE : 5.50
ANCHOR LENGTH : 78 FT	ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN	BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN	TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD. WEAK-BUILDING TO STRONG
BLOW COMMENT #2 : 8 INCH BLOW IN BUCKET.
BLOW COMMENT #3 : FINAL FLOW PERIOD. WEAK- BUILDING TO STRONG
BLOW COMMENT #4 : 8 INCH BLOW IN BUCKET.

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RECOVERED : 70 FT OF: CLEAN OIL
RECOVERED : 275 FT OF: HEAVY OIL CUT MUD
RECOVERED : 0 FT OF: 60%MUD;30%OIL

Total Barrels Fluid = 3.44
Total Fluid Prod Rate = 55.05 BFPD
Indicated Oil Rate = 24.33 BOPD
Indicated Wtr Rate = 2.63 BWPD
Corrected Oil Rate = 48.84 BOPD
Corrected Wtr Rate = 5.28 BWPD

REMARK 1 :
REMARK 2 : 39 GRAVITY CORRECTED
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 12:55 P.M. TIME STARTED OFF BOTTOM : 4:25 P.M.
WELL TEMPERATURE : 122
INITIAL HYDROSTATIC PRESSURE (A) 2252
INITIAL FLOW PERIOD MIN: 30 (B) 55 PSI TO (C) : 94
INITIAL CLOSED IN PERIOD MIN: 60 (D) 1146
FINAL FLOW PERIOD MIN: 60 (E) 132 PSI TO (F) : 165
FINAL CLOSED IN PERIOD MIN: 57 (G) 1031
FINAL HYDROSTATIC PRESSURE (H) 2211

CONFIDENTIAL

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : ZPC PETROLEUM INC.
RIG : NESS-KANSAS
FIELD : DUBBS
WELL : 3-32
DATE : 10-23-90
GAUGE NO : 11018

RECEIVED
OCT 24 1990

OPERATIONAL COMMENTS

39 GRAVITY CORRECTED

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COMPANY : ZPC PETROLEUM INC.
 WELL : 3-32
 GAUGE # : 11018
 DATE : 23/10/90

FIELD : DUBBS
 JOB # : 16926
 DEPTH : 4525
 TEST :

FEB 1

CONFIDENTIAL

DATA No.	REAL- TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	12:55: 0	0.000	55.000	122.00	0.000
3	12:59:59	0.083	55.000	122.00	0.000
4	13: 5: 0	0.167	61.000	122.00	6.000
5	13:10: 0	0.250	72.000	122.00	11.000
6	13:14:59	0.333	84.000	122.00	12.000
7	13:20: 0	0.417	88.000	122.00	4.000
8	13:25: 0	0.500	94.000	122.00	6.000
9	13:28: 0	0.550	529.000	122.00	435.000
INITIAL SHUT-IN PERIOD					
10	13:31: 0	0.600	874.000	122.00	345.000
11	13:34: 0	0.650	971.000	122.00	97.000
12	13:37: 0	0.700	1013.000	122.00	42.000
13	13:40: 0	0.750	1038.000	122.00	25.000
14	13:43: 0	0.800	1059.000	122.00	21.000
15	13:46: 0	0.850	1074.000	122.00	15.000
16	13:49: 0	0.900	1085.000	122.00	11.000
17	13:52: 0	0.950	1095.000	122.00	10.000
18	13:55: 0	1.000	1104.000	122.00	9.000
19	13:58: 0	1.050	1111.000	122.00	7.000
20	14: 1: 0	1.100	1115.000	122.00	4.000
21	14: 4: 0	1.150	1122.000	122.00	7.000
22	14: 7: 0	1.200	1128.000	122.00	6.000
23	14:10: 0	1.250	1132.000	122.00	4.000
24	14:13: 0	1.300	1135.000	122.00	3.000
25	14:16: 0	1.350	1138.000	122.00	3.000
26	14:19: 0	1.400	1141.000	122.00	3.000
27	14:22: 0	1.450	1144.000	122.00	3.000
28	14:25: 0	1.500	1146.000	122.00	2.000
FINAL FLOW PERIOD					
29	14:26: 0	1.517	132.000	122.00	-1014.000
30	14:29:59	1.583	132.000	122.00	0.000
31	14:35: 0	1.667	132.000	122.00	0.000
32	14:40: 0	1.750	132.000	122.00	0.000
33	14:44:59	1.833	134.000	122.00	2.000
34	14:50: 0	1.917	140.000	122.00	6.000
35	14:55: 0	2.000	144.000	122.00	4.000
36	14:59:59	2.083	146.000	122.00	2.000
37	15: 5: 0	2.167	152.000	122.00	6.000
38	15:10: 0	2.250	157.000	122.00	5.000
39	15:14:59	2.333	161.000	122.00	4.000
40	15:20: 0	2.417	163.000	122.00	2.000
41	15:25: 0	2.500	165.000	122.00	2.000
FINAL SHUT-IN PERIOD					
42	15:28: 0	2.550	522.000	122.00	357.000
43	15:31: 0	2.600	804.000	122.00	282.000
44	15:34: 0	2.650	852.000	122.00	48.000
45	15:37: 0	2.700	887.000	122.00	35.000
46	15:40: 0	2.750	907.000	122.00	20.000
47	15:43: 0	2.800	925.000	122.00	18.000
48	15:46: 0	2.850	940.000	122.00	15.000

COMPANY : ZPC PETROLEUM INC.
WELL : 3-32
GAUGE # : 11018
DATE : 23/10/90

FIELD : DUBBS
JOB # : 16926
DEPTH : 4525
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	15:49: 0	2.900	953.000	122.00	13.000
50	15:52: 0	2.950	964.000	122.00	11.000
51	15:55: 0	3.000	975.000	122.00	11.000
52	15:58: 0	3.050	984.000	122.00	9.000
53	16: 1: 0	3.100	991.000	122.00	7.000
54	16: 4: 0	3.150	997.000	122.00	6.000
55	16: 7: 0	3.200	1004.000	122.00	7.000
56	16:10: 0	3.250	1011.000	122.00	7.000
57	16:13: 0	3.300	1015.000	122.00	4.000
58	16:16: 0	3.350	1020.000	122.00	5.000
59	16:19: 0	3.400	1027.000	122.00	7.000
60	16:22: 0	3.450	1031.000	122.00	4.000

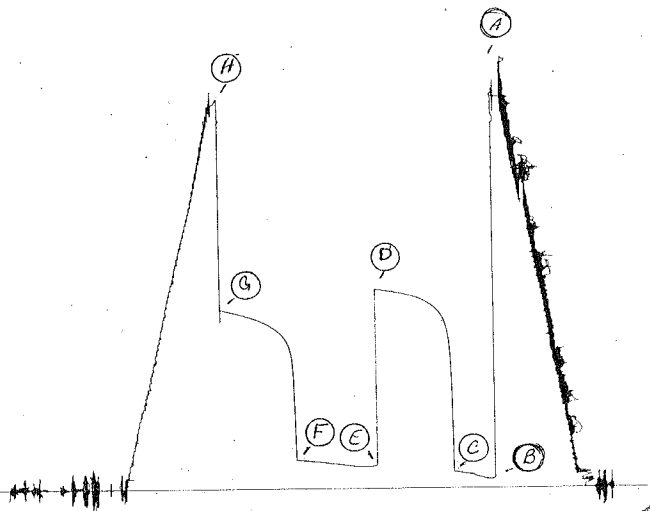
WESTERN TESTING CO. INC.

11018

TKT 16926

ZPC
OST 3

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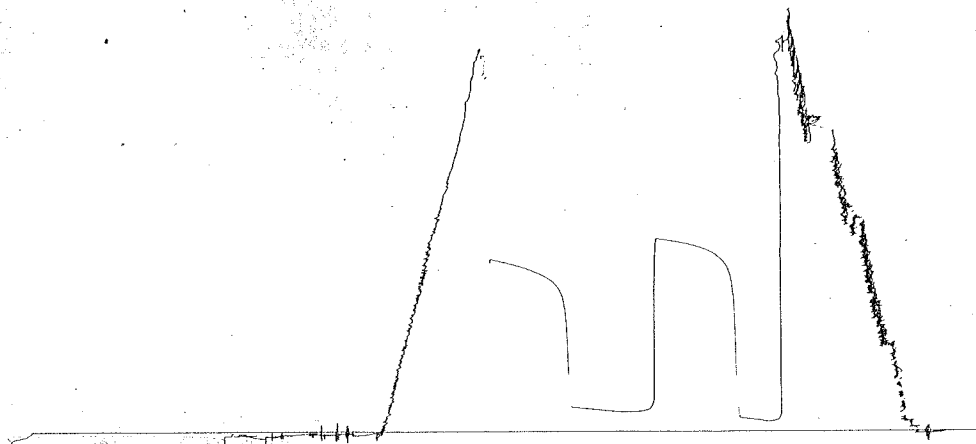
Inside Recorder

13629

TKT 16926

ZPC
PST 3

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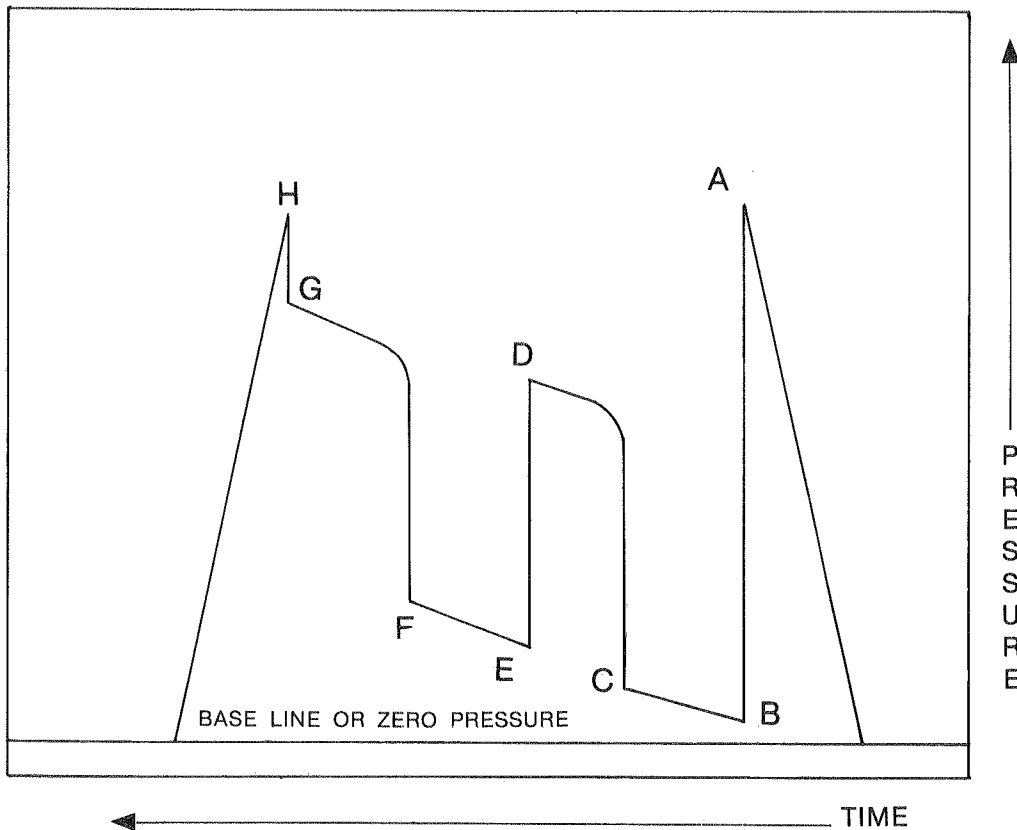


Outside Recorder

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.

AK-1 Recorders



A - Initial Hydrostatic

B - First Initial Flow

C - First Final Flow

D - Initial Shut-In

E - Second Initial Flow

F - Second Final Flow

G - Final Shut-In

H - Final Hydrostatic