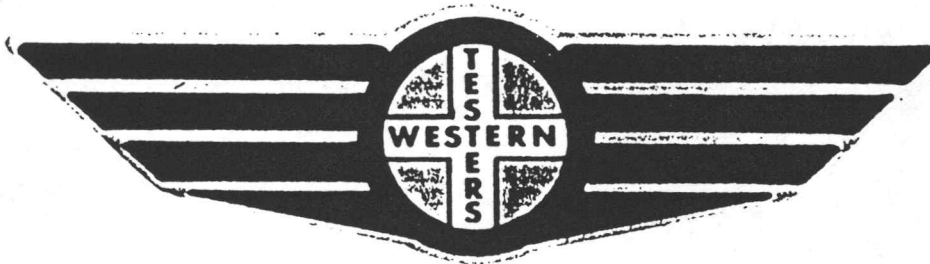


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY BEREXCO, INC.

LEASE & WELL NO. BIGGS #1-20

SEC. 20 TWP. 31S RGE. 40W TEST NO. 1 DATE 12-15-87

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	12-15-87	TICKET	:	13016	
CUSTOMER	:	BEREXCO INC.	LEASE	:	BIGGS	
WELL	:	#1-20 TEST: 1	GEOLOGIST	:	E. GRIEVES	
ELEVATION	:		FORMATION	:	MORROW	
SECTION	:	20	TOWNSHIP	:	31S	
RANGE	:	40W	COUNTY :	MORTON	STATE :	KANSAS
GAUGE SN#	:	13552	RANGE :	4050	CLOCK :	12

INTERVAL FROM	:	4980	TO	:	5070	TOTAL DEPTH	:	5070
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	4975	SIZE	:	6.63			
PACKER DEPTH	:	4980	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	BEREDCO	RIG	6				
MUD TYPE	:	CHEMICAL	VISCOSITY	:	46			
WEIGHT	:	9.3	WATER LOSS (CC)	:	5.2			
CHLORIDES (PPM)	:	800						
JARS-MAKE	:	WTC	SERIAL NUMBER	:	420			
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO			

DRILL COLLAR LENGTH	:	475	FT	I.D. inch	:	2.25		
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00		
DRILL PIPE LENGTH	:	4476	FT	I.D. inch	:	3.80		
TEST TOOL LENGTH	:	29	FT	TOOL SIZE	:	5.50		
ANCHOR LENGTH	:	90	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	FH	

BLOW COMMENT #1	:	INITIAL FLOW-WEAK BLOW INCREASED TO STRONG.
BLOW COMMENT #2	:	FINAL FLOW-STRONG BLOW THROUGHOUT.
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 30 FT OF: DRILLING MUD

Total Barrels Fluid = 0.15
Total Fluid Prod Rate = 2.36 BFPD
Indicated Wtr Rate = 0.24 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 3:40 PM

TIME STARTED OFF BOTTOM : 8:10 PM

WELL TEMPERATURE : 126

INITIAL HYDROSTATIC PRESSURE

(A) 2429

INITIAL FLOW PERIOD MIN: 30

(B) 58 PSI TO (C) : 58

INITIAL CLOSED IN PERIOD MIN: 54

(D) 123

FINAL FLOW PERIOD MIN: 60

(E) 64 PSI TO (F) : 64

FINAL CLOSED IN PERIOD MIN: 114

(G) 177

FINAL HYDROSTATIC PRESSURE

(H) 2417

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : BEREXCO INC.
RIG : MORTON-KANSAS
FIELD : BIGGS
WELL : #1-20
DATE : 12-15-87
GAUGE NO : 13552

OPERATIONAL COMMENTS

* COMPANY : BEREXCO, INC.

WELL : #1-20

GAUGE # : 13552

DATE : 15/12/87

FIELD : BIGGS

JOB # : 13016

DEPTH : 5070

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P $P_i - P(i-1)$
1	3:40: 0	0.000	58.000	126.00	0.000
2	3:44:59	0.083	58.000	126.00	0.000
3	3:50: 0	0.167	58.000	126.00	0.000
4	3:55: 0	0.250	58.000	126.00	0.000
5	3:59:59	0.333	58.000	126.00	0.000
6	4: 5: 0	0.417	58.000	126.00	0.000
7	4:10: 0	0.500	58.000	126.00	0.000
8	4:13: 0	0.550	63.000	126.00	5.000
9	4:16: 0	0.600	67.000	126.00	4.000
10	4:19: 0	0.650	71.000	126.00	4.000
11	4:22: 0	0.700	73.000	126.00	2.000
12	4:25: 0	0.750	77.000	126.00	4.000
13	4:28: 0	0.800	79.000	126.00	2.000
14	4:31: 0	0.850	85.000	126.00	6.000
15	4:34: 0	0.900	88.000	126.00	3.000
16	4:37: 0	0.950	91.000	126.00	3.000
17	4:40: 0	1.000	96.000	126.00	5.000
18	4:43: 0	1.050	100.000	126.00	4.000
19	4:46: 0	1.100	103.000	126.00	3.000
20	4:49: 0	1.150	106.000	126.00	3.000
21	4:52: 0	1.200	109.000	126.00	3.000
22	4:55: 0	1.250	112.000	126.00	3.000
23	4:58: 0	1.300	114.000	126.00	2.000
24	5: 1: 0	1.350	119.000	126.00	5.000
25	5: 4: 0	1.400	123.000	126.00	4.000
26	5: 5: 0	1.417	64.000	126.00	-59.000
27	5: 8:59	1.483	64.000	126.00	0.000
28	5:14: 0	1.567	64.000	126.00	0.000
29	5:19: 0	1.650	64.000	126.00	0.000
30	5:23:59	1.733	64.000	126.00	0.000
31	5:29: 0	1.817	64.000	126.00	0.000
32	5:34: 0	1.900	64.000	126.00	0.000
33	5:38:59	1.983	64.000	126.00	0.000
34	5:44: 0	2.067	64.000	126.00	0.000
35	5:49: 0	2.150	64.000	126.00	0.000
36	5:53:59	2.233	64.000	126.00	0.000
37	5:59: 0	2.317	64.000	126.00	0.000
38	6: 4: 0	2.400	64.000	126.00	0.000
39	6: 7: 0	2.450	65.000	126.00	1.000
40	6:10: 0	2.500	69.000	126.00	4.000
41	6:13: 0	2.550	72.000	126.00	3.000
42	6:16: 0	2.600	75.000	126.00	3.000
43	6:19: 0	2.650	79.000	126.00	4.000
44	6:22: 0	2.700	82.000	126.00	3.000
45	6:25: 0	2.750	87.000	126.00	5.000
46	6:28: 0	2.800	90.000	126.00	3.000
47	6:31: 0	2.850	94.000	126.00	4.000
48	6:34: 0	2.900	98.000	126.00	4.000
49	6:37: 0	2.950	101.000	126.00	3.000
50	6:40: 0	3.000	104.000	126.00	3.000
51	6:43: 0	3.050	107.000	126.00	3.000
52	6:46: 0	3.100	110.000	126.00	3.000

COMPANY : BEREXCO INC.
WELL : #1-20
GAUGE # : 13552
DATE : 15/12/87

FIELD : BIGGS
JOB # : 13016
DEPTH : 5070
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	6:49: 0	3.150	114.000	126.00	4.000
54	6:52: 0	3.200	116.000	126.00	2.000
55	6:55: 0	3.250	120.000	126.00	4.000
56	6:58: 0	3.300	123.000	126.00	3.000
57	7: 1: 0	3.350	127.000	126.00	4.000
58	7: 4: 0	3.400	129.000	126.00	2.000
59	7: 7: 0	3.450	131.000	126.00	2.000
60	7:10: 0	3.500	133.000	126.00	2.000
61	7:13: 0	3.550	136.000	126.00	3.000
62	7:16: 0	3.600	139.000	126.00	3.000
63	7:19: 0	3.650	142.000	126.00	3.000
64	7:22: 0	3.700	145.000	126.00	3.000
65	7:25: 0	3.750	148.000	126.00	3.000
66	7:28: 0	3.800	151.000	126.00	3.000
67	7:31: 0	3.850	154.000	126.00	3.000
68	7:34: 0	3.900	156.000	126.00	2.000
69	7:37: 0	3.950	158.000	126.00	2.000
70	7:40: 0	4.000	160.000	126.00	2.000
71	7:43: 0	4.050	163.000	126.00	3.000
72	7:46: 0	4.100	166.000	126.00	3.000
73	7:49: 0	4.150	169.000	126.00	3.000
74	7:52: 0	4.200	172.000	126.00	3.000
75	7:55: 0	4.250	175.000	126.00	3.000
76	7:58: 0	4.300	177.000	126.00	2.000

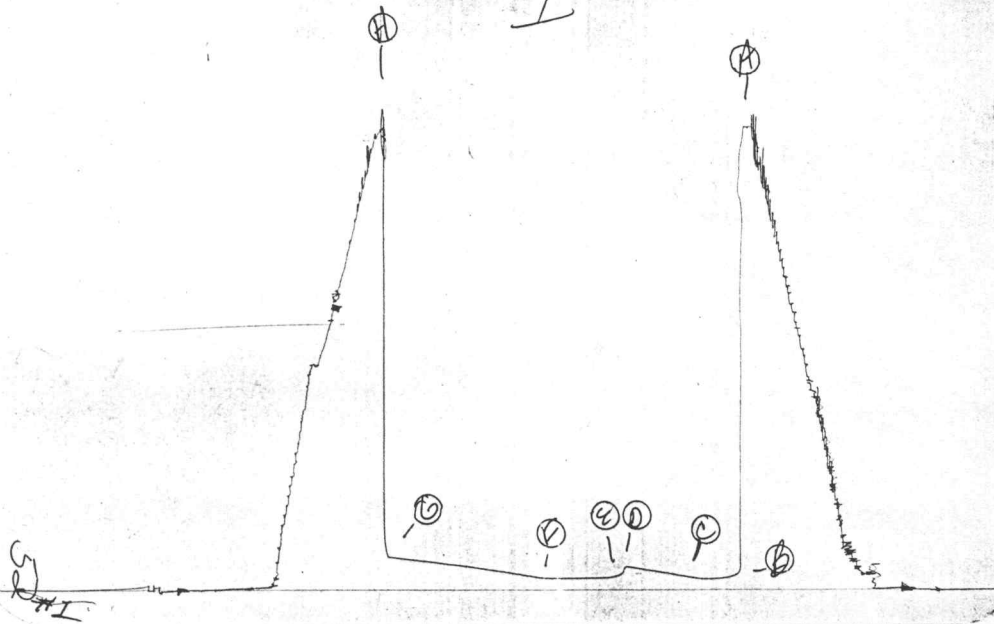
WESTERN TESTING CO. INC.

Test #1

DK # 13016

14

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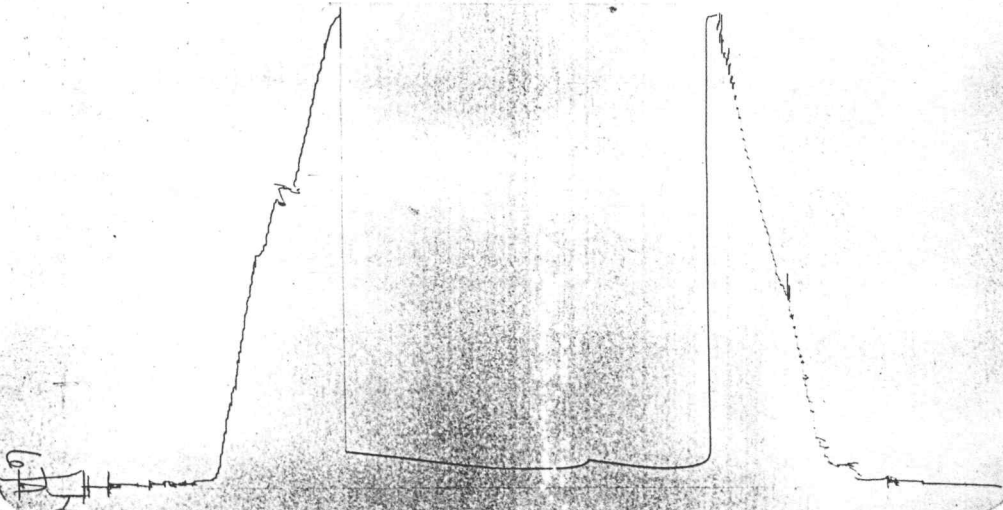


Test #1

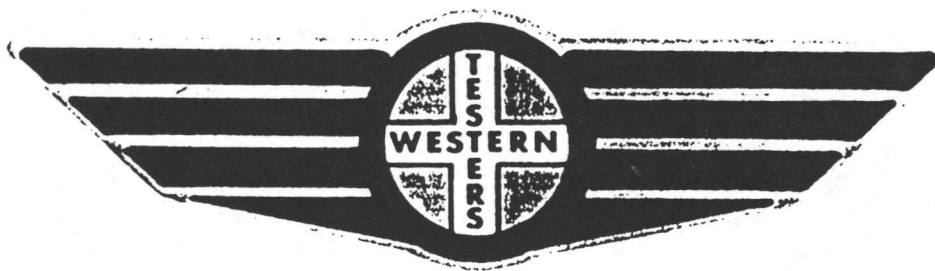
Kit # 13016

14

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	12-17-87	TICKET	:	13017	
CUSTOMER	:	BEREXCO INC.	LEASE	:	BIGGS	
WELL	:	#1-20 TEST: 2	GEOLOGIST	:	E. GRIEVES	
ELEVATION	:	-	FORMATION	:	MORROW	
SECTION	:	20	TOWNSHIP	:	31S	
RANGE	:	40W	COUNTY :	MORTON	STATE :	KANSAS
GAUGE SN#	:	13552	RANGE :	4050	CLOCK :	12

INTERVAL FROM	:	5291	TO	:	5360	TOTAL DEPTH	:	5360
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	5286	SIZE	:	6.63			
PACKER DEPTH	:	5291	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	BEREDCO	RIG	6			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	44		
WEIGHT	:	9.2	WATER LOSS (CC)	:	6.4		
CHLORIDES (PPM)	:	1800					
JARS-MAKE	:	WTC	SERIAL NUMBER	:	420		
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO		

DRILL COLLAR LENGTH	:	505	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	4757	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	29	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	69	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 FH

BLOW COMMENT #1	:	WEAK BLOW THROUGHOUT TEST.
BLOW COMMENT #2	:	
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 10 FT OF: DRILLING MUD

Total Barrels Fluid = 0.05
Total Fluid Prod Rate = 0.79 BFPD
Indicated Wtr Rate = 0.08 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 5:00 AM

TIME STARTED OFF BOTTOM : 9:30 AM

WELL TEMPERATURE : 138

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 60

FINAL FLOW PERIOD MIN: 60

FINAL CLOSED IN PERIOD MIN: 111

FINAL HYDROSTATIC PRESSURE

(A) 2579

(B) 52 PSI TO (C) : 52

(D) 102

(E) 57 PSI TO (F) : 57

(G) 108

(H) 2533

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : BEREXCO INC.
RIG : MORTON-KANSAS
FIELD : BIGGS
WELL : #1-20
DATE : 12-17-87
GAUGE NO : 13552

OPERATIONAL COMMENTS

COMPANY : BEREXCO INC.
WELL : #1-20
GAUGE # : 13552
DATE : 17/12/87

FIELD : BIGGS
JOB # : 13017
DEPTH : 5360
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	5: 0: 0	0.000	52.000	138.00	0.000
2	5: 4: 59	0.083	52.000	138.00	0.000
3	5:10: 0	0.167	52.000	138.00	0.000
4	5:15: 0	0.250	52.000	138.00	0.000
5	5:19:59	0.333	52.000	138.00	0.000
6	5:25: 0	0.417	52.000	138.00	0.000
7	5:30: 0	0.500	52.000	138.00	0.000
8	5:33: 0	0.550	52.000	138.00	0.000
9	5:36: 0	0.600	55.000	138.00	3.000
10	5:39: 0	0.650	57.000	138.00	2.000
11	5:42: 0	0.700	59.000	138.00	2.000
12	5:45: 0	0.750	61.000	138.00	2.000
13	5:48: 0	0.800	65.000	138.00	4.000
14	5:51: 0	0.850	67.000	138.00	2.000
15	5:54: 0	0.900	69.000	138.00	2.000
16	5:57: 0	0.950	71.000	138.00	2.000
17	6: 0: 0	1.000	74.000	138.00	3.000
18	6: 2: 59	1.050	77.000	138.00	3.000
19	6: 6: 0	1.100	79.000	138.00	2.000
20	6: 9: 0	1.150	81.000	138.00	2.000
21	6:12: 0	1.200	84.000	138.00	3.000
22	6:15: 0	1.250	86.000	138.00	2.000
23	6:18: 0	1.300	89.000	138.00	3.000
24	6:21: 0	1.350	92.000	138.00	3.000
25	6:24: 0	1.400	95.000	138.00	3.000
26	6:27: 0	1.450	98.000	138.00	3.000
27	6:30: 0	1.500	102.000	138.00	4.000
28	6:31: 0	1.517	57.000	138.00	-45.000
29	6:34: 59	1.583	57.000	138.00	0.000
30	6:40: 0	1.667	57.000	138.00	0.000
31	6:45: 0	1.750	57.000	138.00	0.000
32	6:49: 59	1.833	57.000	138.00	0.000
33	6:55: 0	1.917	57.000	138.00	0.000
34	7: 0: 0	2.000	57.000	138.00	0.000
35	7: 4: 59	2.083	57.000	138.00	0.000
36	7:10: 0	2.167	57.000	138.00	0.000
37	7:15: 0	2.250	57.000	138.00	0.000
38	7:19: 59	2.333	57.000	138.00	0.000
39	7:25: 0	2.417	57.000	138.00	0.000
40	7:30: 0	2.500	57.000	138.00	0.000
41	7:33: 0	2.550	58.000	138.00	1.000
42	7:36: 0	2.600	59.000	138.00	1.000
43	7:39: 0	2.650	60.000	138.00	1.000
44	7:42: 0	2.700	61.000	138.00	1.000
45	7:45: 0	2.750	62.000	138.00	1.000
46	7:48: 0	2.800	63.000	138.00	1.000
47	7:51: 0	2.850	64.000	138.00	1.000
48	7:54: 0	2.900	65.000	138.00	1.000
49	7:57: 0	2.950	67.000	138.00	2.000
50	8: 0: 0	3.000	69.000	138.00	2.000
51	8: 3: 0	3.050	71.000	138.00	2.000
52	8: 6: 0	3.100	73.000	138.00	2.000

COMPANY : BEREXCO INC.

WELL : #1-20

GAUGE # : 13552

DATE : 17/12/87

FIELD : BIGGS

JOB # : 13017

DEPTH : 5360

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	8: 9: 0	3.150	75.000	138.00	2.000
54	8:12: 0	3.200	77.000	138.00	2.000
55	8:15: 0	3.250	79.000	138.00	2.000
56	8:18: 0	3.300	80.000	138.00	1.000
57	8:21: 0	3.350	81.000	138.00	1.000
58	8:24: 0	3.400	82.000	138.00	1.000
59	8:27: 0	3.450	83.000	138.00	1.000
60	8:30: 0	3.500	84.000	138.00	1.000
61	8:33: 0	3.550	85.000	138.00	1.000
62	8:36: 0	3.600	87.000	138.00	2.000
63	8:39: 0	3.650	89.000	138.00	2.000
64	8:42: 0	3.700	91.000	138.00	2.000
65	8:45: 0	3.750	93.000	138.00	2.000
66	8:48: 0	3.800	95.000	138.00	2.000
67	8:51: 0	3.850	96.000	138.00	1.000
68	8:54: 0	3.900	97.000	138.00	1.000
69	8:57: 0	3.950	98.000	138.00	1.000
70	9: 0: 0	4.000	99.000	138.00	1.000
71	9: 3: 0	4.050	100.000	138.00	1.000
72	9: 6: 0	4.100	102.000	138.00	2.000
73	9: 9: 0	4.150	104.000	138.00	2.000
74	9:11:59	4.200	105.000	138.00	1.000
75	9:15: 0	4.250	106.000	138.00	1.000
76	9:18: 0	4.300	107.000	138.00	1.000
77	9:21: 0	4.350	108.000	138.00	1.000

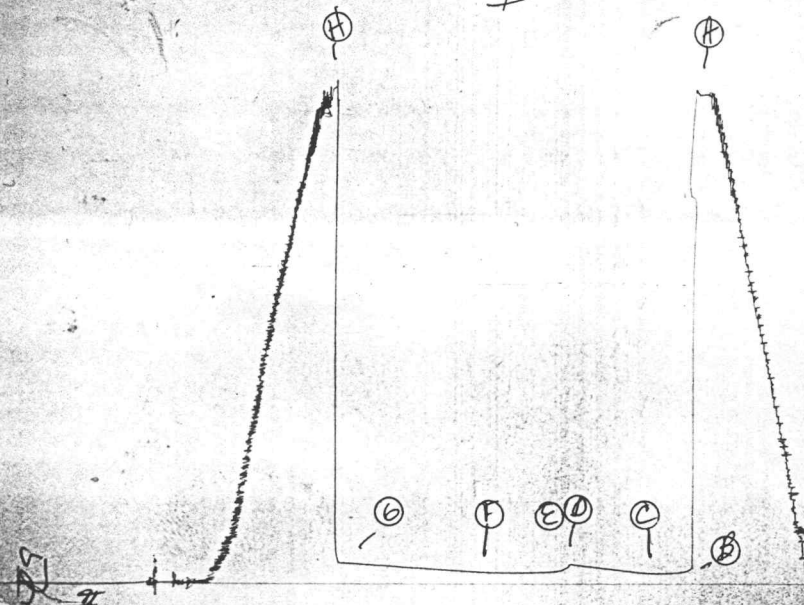
WESTERN TESTING CO. INC.

Test #2

JK # 13017

14

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Test #2

JK # 13017

14

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