



FORMATION RECEIVED

TEST

SEP 22 1991

COLO. OIL & GAS CONS. COMM.

REPORT

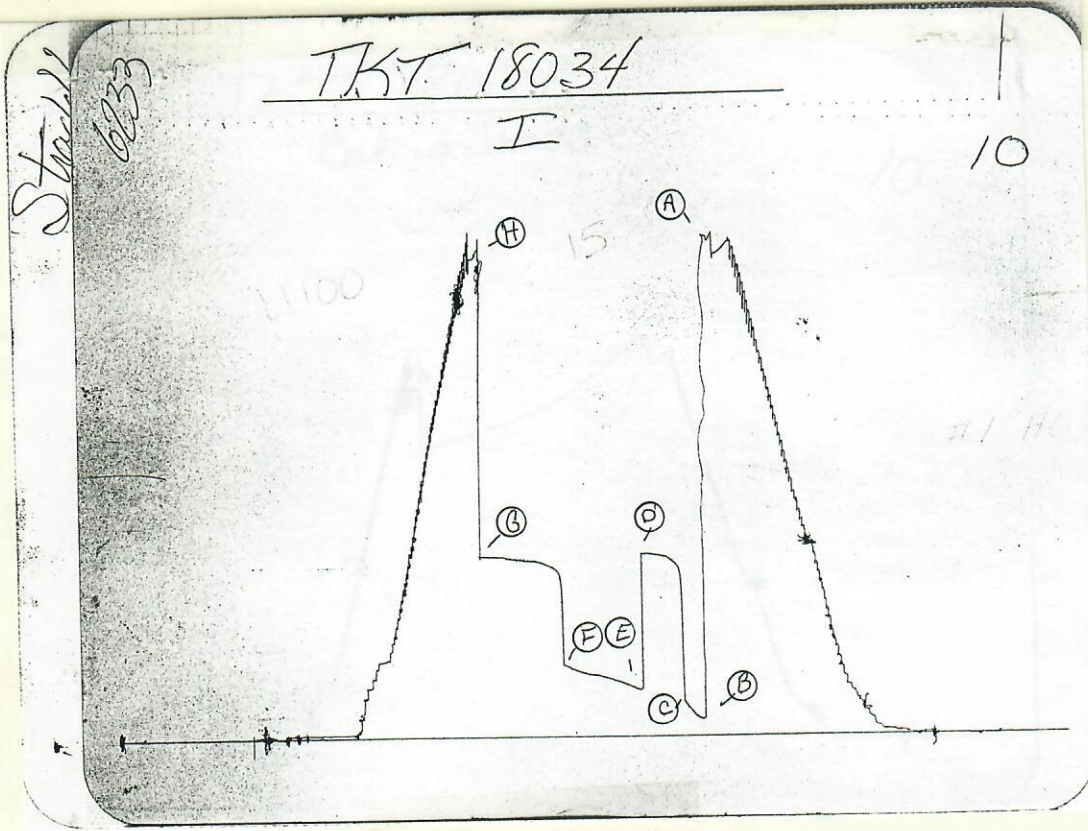


Home Office:

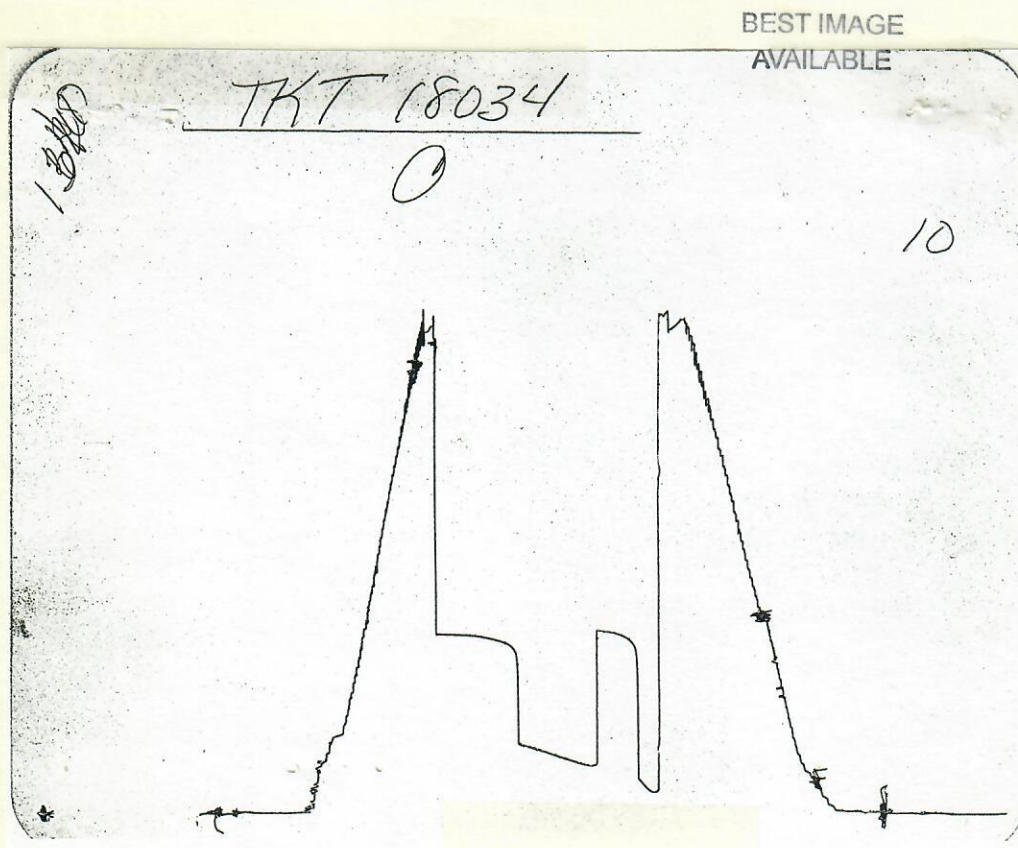
Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861



Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

BEST IMAGE
AVAILABLE

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WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 9-9-91 TICKET : 18034
CUSTOMER : UNION PACIFIC RESOURCES CO. LEASE : HEART RANCH 12-12

WELL : 1 TEST: 2 GEOLOGIST : MARTIN
ELEVATION : 4247 KB FORMATION : SPERGEN
SECTION : 12 TOWNSHIP : 16S
RANGE : 48W COUNTY : CHEYENNE STATE : COLORADO
GAUGE SN# : 6233 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 5123 TO : 5154 TOTAL DEPTH : 5208
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 5118 SIZE : 6.75
PACKER DEPTH : 5123 SIZE : 6.75
PACKER DEPTH : 5154 SIZE : 6.75
PACKER DEPTH : SIZE :

DRILLING CON. : MURFIN RIG 14
MUD TYPE : CHEMICAL VISCOSITY : 49
WEIGHT : 9.1 WATER LOSS (CC) : 10.4
CHLORIDES (PPM) : 400
JARS-MAKE : W.T.C. SERIAL NUMBER : 415
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 504 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4589 FT I.D. inch : 3.80
TEST TOOL LENGTH : 30 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 31 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 : IFP OPENED FAIR-2 1/2" AT 5 MIN.-7" AT 10 MIN.
BLOW COMMENT #2 : 9" AT 15 MINUTES.
BLOW COMMENT #3 : FFP 3" AT 10 MIN.-6" AT 20 MIN.-8" AT 30 MIN.
BLOW COMMENT #4 : 10" AT 40 MIN.-11" AT 50 MIN.-9" AT 60 MIN.

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RECOVERED : 10 FT OF: OIL - 39 GRAVITY AT 60 DEGREES
RECOVERED : 40 FT OF: MUD
RECOVERED : 700 FT OF: WATER W/FEW OIL SPOTS-OIL < 1%
RECOVERED : 0 FT OF: CHLORIDES 11000 P.P.M.
RECOVERED : 0 FT OF: R.W. 3.0 AT 80 DEGREES

Total Barrels Fluid = 5.82
Total Fluid Prod Rate = 111.74 BFPD
Indicated Oil Rate = 1.49 BOPD
Indicated Wtr Rate = 104.89 BWPD
Corrected Oil Rate = 120.24 BOPD
Corrected Wtr Rate = 8464.68 BWPD

REMARK 1 : AFE #09701
REMARK 2 : RECOVERED 180 FT. OF GAS ABOVE FLUID
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 6:05 A.M. TIME STARTED OFF BOTTOM : 8:50 A.M.
WELL TEMPERATURE : 146
INITIAL HYDROSTATIC PRESSURE (A) 2511
INITIAL FLOW PERIOD MIN: 15 (B) 93 PSI TO (C) : 181
INITIAL CLOSED IN PERIOD MIN: 33 (D) 960
FINAL FLOW PERIOD MIN: 60 (E) 252 PSI TO (F) : 383
FINAL CLOSED IN PERIOD MIN: 60 (G) 947
FINAL HYDROSTATIC PRESSURE (H) 2495

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : UNION PACIFIC RESOURCES CO.
RIG : CHEYENNE-COLORADO
FIELD : HEART RANCH 12-12
WELL : 1
DATE : 9-9-91
GAUGE NO : 6233

OPERATIONAL COMMENTS

AFE #09701
RECOVERED 180 FT. OF GAS ABOVE FLUID

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COMPANY : UNION PACIFIC RESOURCES CO.

FIELD : HEART RANCH 12-12

WELL : 1

JOB # : 18034

GAUGE # : 6233

DEPTH : 5208

DATE : 9/ 9/91

TEST : AFE #09701

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	6: 5: 0	0.000	93.000	146.00	0.000
3	6: 9:59	0.083	102.000	146.00	9.000
4	6:15: 0	0.167	137.000	146.00	35.000
5	6:20: 0	0.250	181.000	146.00	44.000
INITIAL SHUT-IN PERIOD					
6	6:23: 0	0.300	831.000	146.00	650.000
7	6:26: 0	0.350	900.000	146.00	69.000
8	6:29: 0	0.400	918.000	146.00	18.000
9	6:32: 0	0.450	934.000	146.00	16.000
10	6:35: 0	0.500	944.000	146.00	10.000
11	6:38: 0	0.550	950.000	146.00	6.000
12	6:41: 0	0.600	952.000	146.00	2.000
13	6:44: 0	0.650	957.000	146.00	5.000
14	6:47: 0	0.700	958.000	146.00	1.000
15	6:50: 0	0.750	959.000	146.00	1.000
16	6:53: 0	0.800	960.000	146.00	1.000
FINAL FLOW PERIOD					
17	6:54: 0	0.817	252.000	146.00	-708.000
18	6:57:59	0.883	256.000	146.00	4.000
19	7: 3: 0	0.967	272.000	146.00	16.000
20	7: 8: 0	1.050	287.000	146.00	15.000
21	7:12:59	1.133	298.000	146.00	11.000
22	7:18: 0	1.217	311.000	146.00	13.000
23	7:23: 0	1.300	323.000	146.00	12.000
24	7:27:59	1.383	330.000	146.00	7.000
25	7:33: 0	1.467	335.000	146.00	5.000
26	7:38: 0	1.550	344.000	146.00	9.000
27	7:42:59	1.633	356.000	146.00	12.000
28	7:48: 0	1.717	372.000	146.00	16.000
29	7:53: 0	1.800	383.000	146.00	11.000
FINAL SHUT-IN PERIOD					
30	7:55:59	1.850	863.000	146.00	480.000
31	7:59: 0	1.900	885.000	146.00	22.000
32	8: 1:59	1.950	897.000	146.00	12.000
33	8: 5: 0	2.000	905.000	146.00	8.000
34	8: 8: 0	2.050	914.000	146.00	9.000
35	8:11: 0	2.100	921.000	146.00	7.000
36	8:13:59	2.150	926.000	146.00	5.000
37	8:17: 0	2.200	927.000	146.00	1.000
38	8:20: 0	2.250	928.000	146.00	1.000
39	8:23: 0	2.300	930.000	146.00	2.000
40	8:26: 0	2.350	933.000	146.00	3.000
41	8:29: 0	2.400	935.000	146.00	2.000
42	8:31:59	2.450	937.000	146.00	2.000
43	8:35: 0	2.500	941.000	146.00	4.000
44	8:38: 0	2.550	945.000	146.00	4.000
45	8:41: 0	2.600	947.000	146.00	2.000
46	8:44: 0	2.650	947.000	146.00	0.000
47	8:46:59	2.700	947.000	146.00	0.000
48	8:50: 0	2.750	947.000	146.00	0.000

COMPANY : UNION PACIFIC RESOURCES CO.

WELL : 1

GAUGE # : 6233

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49	8:53: 0	2.800	947.000	146.00	0.000

WESTERN TESTING CO. INC.

BEST IMAGE
AVAILABLE

FLUID SAMPLE REPORT

Date : 9-9-91 Ticket No. : 18034
 Company : UNION PACIFIC RESOURCES CO.
 Well Name & No. : #1 HEART RANCH 12-12
 DST No. 2
 County : CHEYENNE State : COLORADO
 Sampler No. : 2 Test Interval : 5123-5154

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Pressure in Sampler	100 PSIG	BHT	146	Deg F
Total Volume of Sampler	: 3150	cc		
Total Volume of Sample	: 2700	cc		
Oil:	220	cc		
Water:	2345	cc		
Mud:	135	cc		
Gas:	.5	cu ft		
Other:		cc		

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RESITIVITY

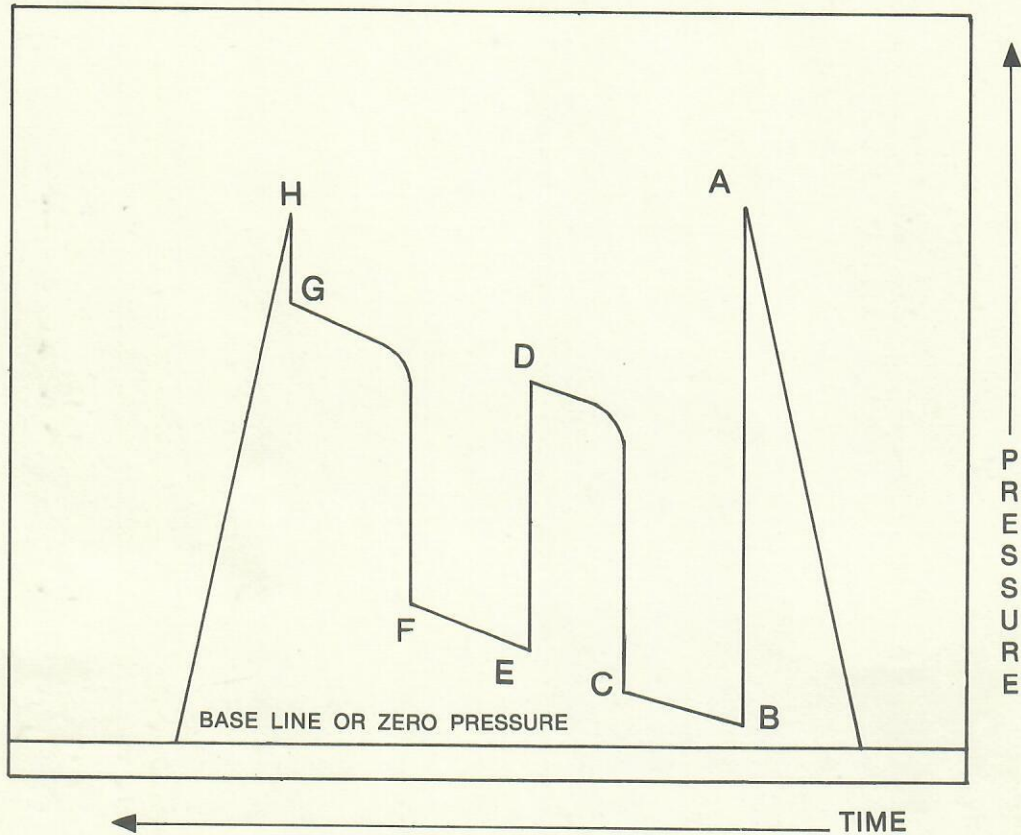
Drilling Mud	3.0	@	80 F	Chloride Content	11000 ppm
Mud Pit Sample	4.0	@	80 F	Chloride Content	400 ppm
Gas/Oil Ratio			Gravity	API @	Deg F
Where was sample drained			RIG		

Remarks: AFE # 09701

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