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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

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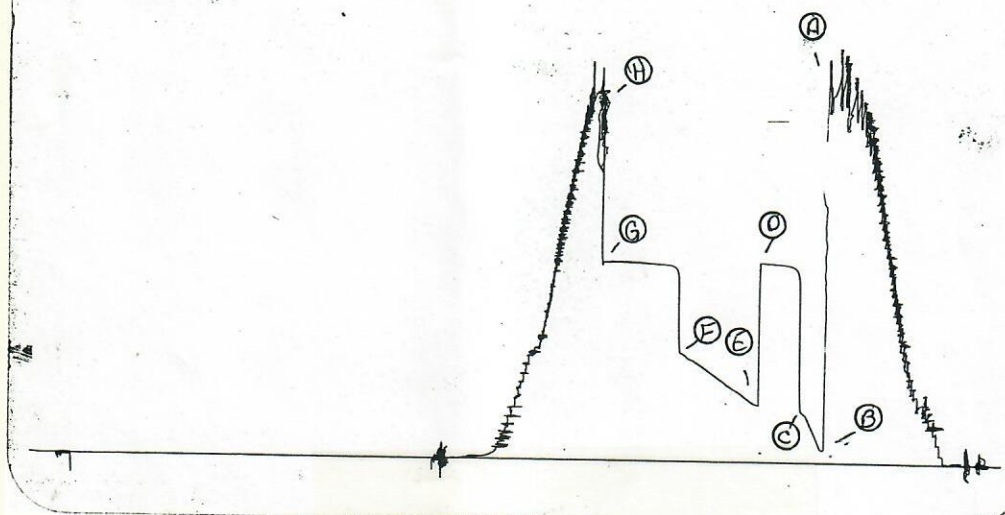
Inside Recorder

TKT 18412

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4376

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Inside Recorder

BEST IMAGE
AVAILABLE

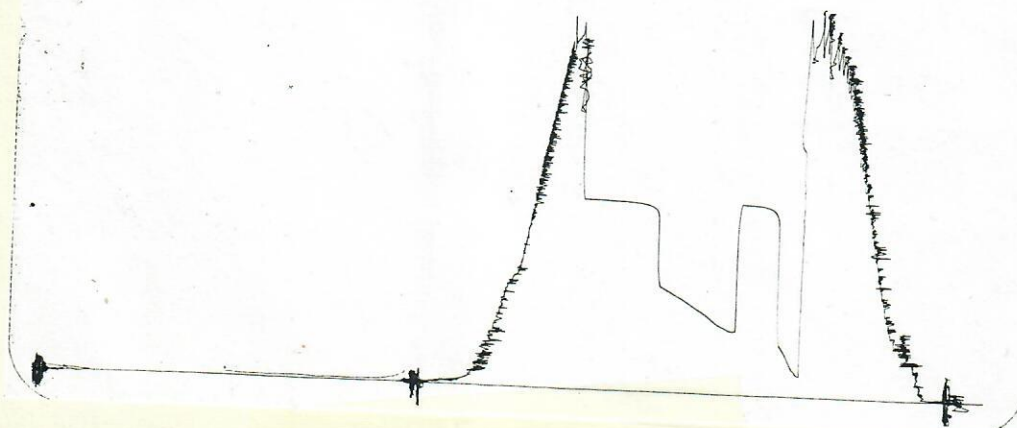
outside Recorder

TKT 18412

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1049

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Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

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SEP 16 1991

COLO. OIL & GAS CONS. COMM.

BEST IMAGE
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WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 9-5-91 TICKET : 18412
CUSTOMER : UNION PACIFIC RESOURCES CO. LEASE : HEART RANCH 12-12
WELL : 1 TEST: 1 GEOLOGIST : MARTIN
ELEVATION : 4237 GL FORMATION : LANSING
SECTION : 12 TOWNSHIP : 16S
RANGE : 48W COUNTY : CHEYENNE STATE : COLORADO
GAUGE SN# : 4376 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 4085 TO : 4120 TOTAL DEPTH : 4120
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4080 SIZE : 6.75
PACKER DEPTH : 4085 SIZE : 6.75
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : MURFIN RIG 14
MUD TYPE : CHEMICAL VISCOSITY : 48
WEIGHT : 9.0 WATER LOSS (CC) : 14.8
CHLORIDES (PPM) : 450
JARS-MAKE : W.T.C. SERIAL NUMBER : 406
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 532 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 3526 FT I.D. inch : 3.80
TEST TOOL LENGTH : 27 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 35 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 : I.F.P. WEAK SURFACE BLOW BLDG TO 5" IN 5 MINUTES
BLOW COMMENT #2 : 4 3/4" @ 10 MIN. - 4 1/2" @ 5 MINUTES.
BLOW COMMENT #3 : F.F.P. 1/4" BLOW BLDG TO 10" IN 10 MIN. - BOTTOM
BLOW COMMENT #4 : OF BUCKET IN 11 MIN.; 17" -20 MIN.; 18"-30 MIN.; 18"-40 MIN.

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COLORADO OIL & GAS CON. COMM.

BEST IMAGE
AVAILABLE

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RECOVERED	:	40	FT	OF: WATERY MUD - 4%WTR;96%MUD
RECOVERED	:	747	FT	OF: MUDDY GASSY WATER-83%WTR;17%MUD;< 1%GAS
RECOVERED	:	540	FT	OF: WATER W/BLACK SEDIMENT-12%SED;88%WTR
RECOVERED	:	0	FT	OF: CHLORIDES TOP 14000 P.P.M.
RECOVERED	:	0	FT	OF: R.W. .381 @ 85 DEGREES
RECOVERED	:	0	FT	OF: CHLORIDES MIDDLE 16000 P.P.M.
RECOVERED	:	0	FT	OF: R.W. .4 @ 85 DEGREES
RECOVERED	:	0	FT	OF: CHLORIDES BOTTOM 17000 P.P.M.
RECOVERED	:	0	FT	OF: R.W. .379 @ 85 DEGREES

Total Barrels Fluid = 13.65
 Total Fluid Prod Rate = 245.74 BFPD
 Indicated Wtr Rate = 203.11 BWPD

REMARK 1 : AFE #09701
 REMARK 2 : F.F.P. 17" AT 50 MINUTES; 16" AT 60 MINUTES.
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) :	8:00 A.M.	TIME STARTED OFF BOTTOM :	10:45 A.M.
WELL TEMPERATURE :	117		
INITIAL HYDROSTATIC PRESSURE		(A)	1933
INITIAL FLOW PERIOD MIN:	20	(B)	73 PSI TO (C) : 273
INITIAL CLOSED IN PERIOD MIN:	30	(D)	1053
FINAL FLOW PERIOD MIN:	60	(E)	309 PSI TO (F) : 577
FINAL CLOSED IN PERIOD MIN:	60	(G)	1051
FINAL HYDROSTATIC PRESSURE		(H)	1888

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 : 9-5-91
GAUGE NO : 4376

OPERATIONAL COMMENTS

AFE #09701
F.F.P. 17" AT 50 MINUTES; 16" AT 60 MINUTES.

COMPANY : UNION PACIFIC RESOURCES CO.
WELL : 1
GAUGE # : 4376
DATE : 5/ 9/91

FIELD : HEART RANCH 12-12
JOB # : 18412
DEPTH : 4120
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	8: 0: 0	0.000	73.000	117.00	0.000
3	8: 4:59	0.083	106.000	117.00	33.000
4	8:10: 0	0.167	185.000	117.00	79.000
5	8:15: 0	0.250	255.000	117.00	70.000
6	8:19:59	0.333	273.000	117.00	18.000
INITIAL SHUT-IN PERIOD					
7	8:22:59	0.383	998.000	117.00	725.000
8	8:25:59	0.433	1026.000	117.00	28.000
9	8:28:59	0.483	1038.000	117.00	12.000
10	8:31:59	0.533	1042.000	117.00	4.000
11	8:34:59	0.583	1045.000	117.00	3.000
12	8:37:59	0.633	1047.000	117.00	2.000
13	8:40:59	0.683	1049.000	117.00	2.000
14	8:43:59	0.733	1051.000	117.00	2.000
15	8:46:59	0.783	1052.000	117.00	1.000
16	8:49:59	0.833	1053.000	117.00	1.000
FINAL FLOW PERIOD					
17	8:51: 0	0.850	309.000	117.00	-744.000
18	8:54:59	0.917	320.000	117.00	11.000
19	9: 0: 0	1.000	344.000	117.00	24.000
20	9: 4:59	1.083	369.000	117.00	25.000
21	9: 9:59	1.167	394.000	117.00	25.000
22	9:15: 0	1.250	415.000	117.00	21.000
23	9:19:59	1.333	445.000	117.00	30.000
24	9:24:59	1.417	469.000	117.00	24.000
25	9:30: 0	1.500	494.000	117.00	25.000
26	9:34:59	1.583	519.000	117.00	25.000
27	9:39:59	1.667	538.000	117.00	19.000
28	9:45: 0	1.750	560.000	117.00	22.000
29	9:49:59	1.833	577.000	117.00	17.000
FINAL SHUT-IN PERIOD					
30	9:52:59	1.883	998.000	117.00	421.000
31	9:55:59	1.933	1028.000	117.00	30.000
32	9:58:59	1.983	1036.000	117.00	8.000
33	10: 1:59	2.033	1040.000	117.00	4.000
34	10: 4:59	2.083	1041.000	117.00	1.000
35	10: 7:59	2.133	1042.000	117.00	1.000
36	10:10:59	2.183	1043.000	117.00	1.000
37	10:13:59	2.233	1044.000	117.00	1.000
38	10:16:59	2.283	1046.000	117.00	2.000
39	10:19:59	2.333	1048.000	117.00	2.000
40	10:22:59	2.383	1050.000	117.00	2.000
41	10:25:59	2.433	1051.000	117.00	1.000
42	10:28:59	2.483	1051.000	117.00	0.000
43	10:31:59	2.533	1051.000	117.00	0.000
44	10:34:59	2.583	1051.000	117.00	0.000
45	10:37:59	2.633	1051.000	117.00	0.000
46	10:40:59	2.683	1051.000	117.00	0.000
47	10:43:59	2.733	1051.000	117.00	0.000
48	10:46:59	2.783	1051.000	117.00	0.000

COMPANY : UNION PACIFIC RESOURCES CO.
WELL : 1
GAUGE # : 4376
DATE : 5/ 9/91

FIELD : HEART RANCH 12-12
JOB # : 18412
DEPTH : 4120
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)
49	10:49:59	2.833	1051.000	117.00	0.000

WESTERN TESTING CO. INC.

FLUID SAMPLE REPORT

Date : 9-5-91 Ticket No. : 18412
 Company : UNION PACIFIC RESOURCES CO.
 Well Name & No. : #1 HEART RANCH 12-12
 DST No. 1
 County : CHEYENNE State : COLORADO
 Sampler No. : 1 Test Interval : 4085-4120

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Pressure in Sampler 35 PSIG BHT 117 Deg F

Total Volume of Sampler : 3150 cc
 Total Volume of Sample : 2590 cc
 Oil: cc
 Water: 2140 cc
 Mud: BLACK POWDERY SEDIMENT 450 cc
 Gas: TRACEcu ft
 Other: cc

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RESITIVITY

Drilling Mud .381 @ 85 F Chloride Content 15000 ppm
 Mud Pit Sample 1.4 @ 76 F Chloride Content 450 ppm
 Gas/Oil Ratio Gravity API @ Deg F
 Where was sample drained RIG FLOOR

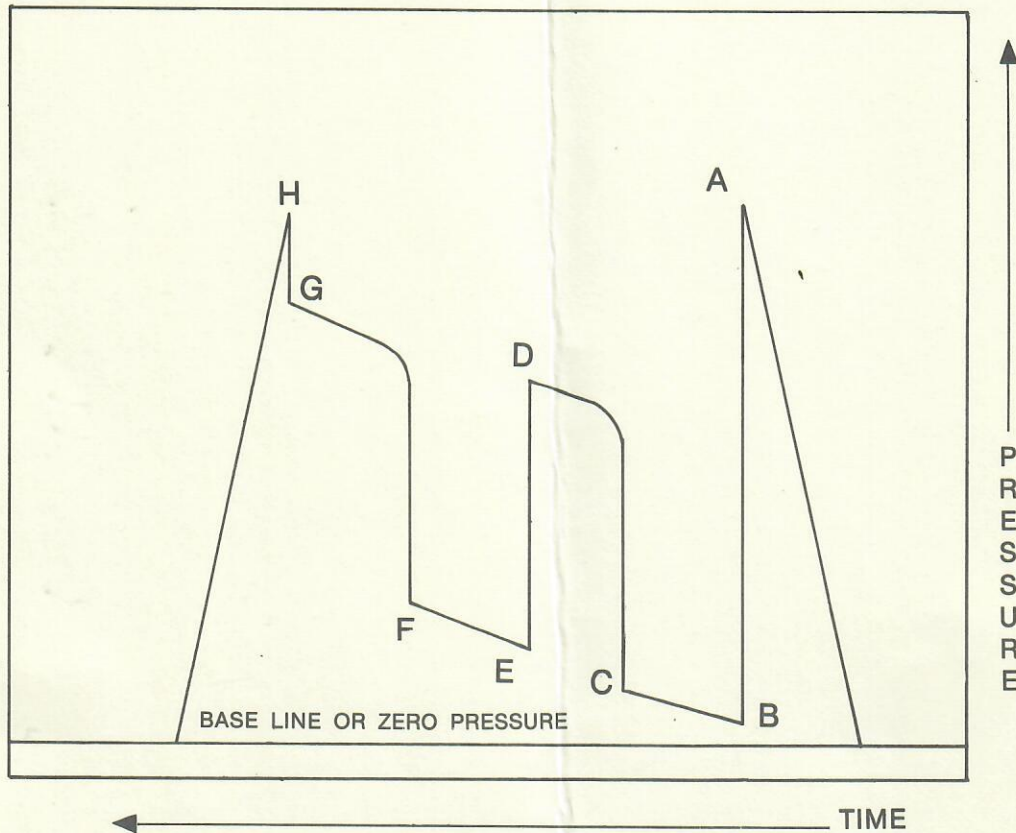
Remarks: AFE #09701

GAS HAS STRONG SULFER ODOR - WATER REACTS TO AMONIUM HYDROXIDE
 WITH SILVER NITRATE - TURNS BLACK AND PRECIPITATES.

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