

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY INC.

LEASE & WELL NO.

HARDER #F-1

SEC. 13 TWP. 24S RGE. 4E

TEST NO. 1

DATE 10/22/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	10-22-88	TICKET	:	14432
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	HARDER
WELL	:	#F-1	TEST:	:	1
ELEVATION	:	1437 KB	GEOLOGIST	:	OLSEN
SECTION	:	13	FORMATION	:	MISS-CHERT
RANGE	:	4E	COUNTY	:	BUTLER
GAUGE SN#	:	4332	RANGE	:	4200
			STATE	:	KANSAS
			CLOCK	:	12

INTERVAL FROM	:	2430	TO	:	2455	TOTAL DEPTH	:	2455
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	2425	SIZE	:	6.63			
PACKER DEPTH	:	2430	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	RANGE RIG 1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	49
WEIGHT	:	9.5	WATER LOSS (CC)	:	15.2
CHLORIDES (PPM)	:	1200			
JARS-MAKE	:	NO	SERIAL NUMBER	:	
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	232	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	2178	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	25	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-VERY WEAK BLOW FOR 8 MINUTES & DIED.
BLOW COMMENT #2 : FINAL FLOW-FEW BUBBLES & DIED.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 5 FT OF: DRILLING MUD

Total Barrels Fluid = 0.02
Total Fluid Prod Rate = 0.59 BFPD
Indicated Wtr Rate = 0.06 BWPD

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

SET PACKER(S) : 4:45 AM

TIME STARTED OFF BOTTOM : 6:45 AM

WELL TEMPERATURE : 100

INITIAL HYDROSTATIC PRESSURE

(A) 1248

INITIAL FLOW PERIOD MIN: 30

(B) 56 PSI TO (C) : 56

INITIAL CLOSED IN PERIOD MIN: 36

(D) 62

FINAL FLOW PERIOD MIN: 30

(E) 52 PSI TO (F) : 52

FINAL CLOSED IN PERIOD MIN: 27

(G) 80

FINAL HYDROSTATIC PRESSURE

(H) 1234

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : BUTLER-KANSAS
FIELD : HARDER
WELL : #F-1
DATE : 10-22-88
GAUGE NO : 4332

OPERATIONAL COMMENTS

COMPANY : RANGE OIL COMPANY INC.
WELL : #F-1
GAUGE # : 4332
DATE : 22/10/88

FIELD : HARDER
JOB # : 14432
DEPTH : 2455
TEST :

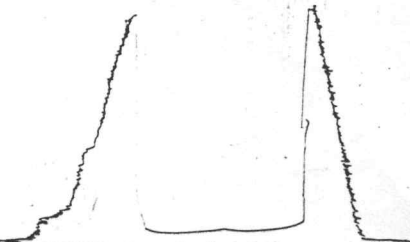
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW					
2	4:45: 0	0.000	56.000	100.00	0.000
3	4:49:59	0.083	56.000	100.00	0.000
4	4:55: 0	0.167	56.000	100.00	0.000
5	5: 0: 0	0.250	56.000	100.00	0.000
6	5: 4:59	0.333	56.000	100.00	0.000
7	5:10: 0	0.417	56.000	100.00	0.000
8	5:15: 0	0.500	56.000	100.00	0.000
INITIAL SHUT-IN					
9	5:18: 0	0.550	56.000	100.00	0.000
10	5:21: 0	0.600	56.000	100.00	0.000
11	5:24: 0	0.650	56.000	100.00	0.000
12	5:27: 0	0.700	56.000	100.00	0.000
13	5:30: 0	0.750	56.000	100.00	0.000
14	5:33: 0	0.800	56.000	100.00	0.000
15	5:36: 0	0.850	56.000	100.00	0.000
16	5:39: 0	0.900	56.000	100.00	0.000
17	5:42: 0	0.950	56.000	100.00	0.000
18	5:45: 0	1.000	56.000	100.00	0.000
19	5:48: 0	1.050	57.000	100.00	1.000
20	5:51: 0	1.100	62.000	100.00	5.000
FINAL FLOW					
21	5:52: 0	1.117	52.000	100.00	-10.000
22	5:55:59	1.183	52.000	100.00	0.000
23	6: 1: 0	1.267	52.000	100.00	0.000
24	6: 6: 0	1.350	52.000	100.00	0.000
25	6:10:59	1.433	52.000	100.00	0.000
26	6:16: 0	1.517	52.000	100.00	0.000
27	6:21: 0	1.600	52.000	100.00	0.000
FINAL SHUT-IN					
28	6:24: 0	1.650	52.000	100.00	0.000
29	6:27: 0	1.700	52.000	100.00	0.000
30	6:30: 0	1.750	52.000	100.00	0.000
31	6:33: 0	1.800	52.000	100.00	0.000
32	6:36: 0	1.850	52.000	100.00	0.000
33	6:39: 0	1.900	53.000	100.00	1.000
34	6:42: 0	1.950	55.000	100.00	2.000
35	6:45: 0	2.000	67.000	100.00	12.000
36	6:48: 0	2.050	80.000	100.00	13.000

WESTERN TESTING CO. INC.

13520 DST #1

Kt # 14432

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4332 DST #1

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JK # 14432

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