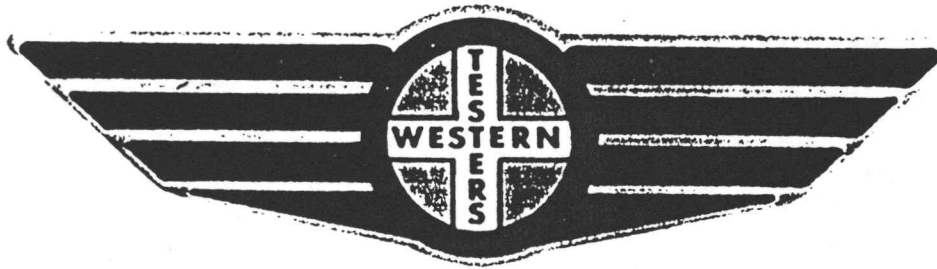


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY INC.

LEASE & WELL NO.

CHAPLIN #1

SEC. 22

TWP. 34S

RGE. 6E

TEST NO. 1

DATE

8/3/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	8-3-88	TICKET	:	14067
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	CHAPLIN
WELL	:	#1 TEST: 1	GEOLOGIST	:	R OLSEN
ELEVATION	:	1346 KB	FORMATION	:	HOOVER SD
SECTION	:	22	TOWNSHIP	:	34S
RANGE	:	6E	STATE	:	KANSAS
Gauge SN#	:	10979	CLOCK	:	12
		COUNTY :	COWLEY		
		RANGE :	4100		

INTERVAL FROM	:	1618	TO	:	1646	TOTAL DEPTH	:	1646
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	1613	SIZE	:	6.63			
PACKER DEPTH	:	1618	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	RANGE RIG 1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	42
WEIGHT	:	8.6	WATER LOSS (CC)	:	12.
CHLORIDES (PPM)	:	600			
JARS-MAKE	:	-	SERIAL NUMBER	:	-
DID WELL FLOW ?	:	GAS	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	240	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	1358	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	28	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 : STRONG BLOW THROUGHOUT TEST. GAS TO SURFACE IN
BLOW COMMENT #2 : 3 MINUTES. SEE ATTACHED FLOW CHART. SPRAY
BLOW COMMENT #3 : OF MUD AT 25 MINUTES AND REMAINDER OF TEST.
BLOW COMMENT #4 :

RECOVERED : 270 FT OF: SALT WATER
.22 RES. @ 94 DEG.F.
CHLORIDES: 80000 PPM

Total Barrels Fluid = 1.60
Total Fluid Prod Rate = 32.93 BFPD
Indicated Wtr Rate = 32.93 BWPD

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

SET PACKER(S) : 1:45 PM

TIME STARTED OFF BOTTOM : 4:30 PM

WELL TEMPERATURE : 94

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 25

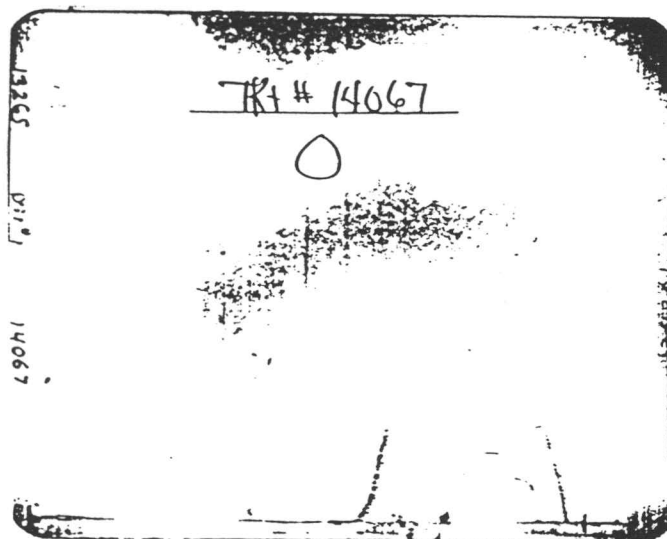
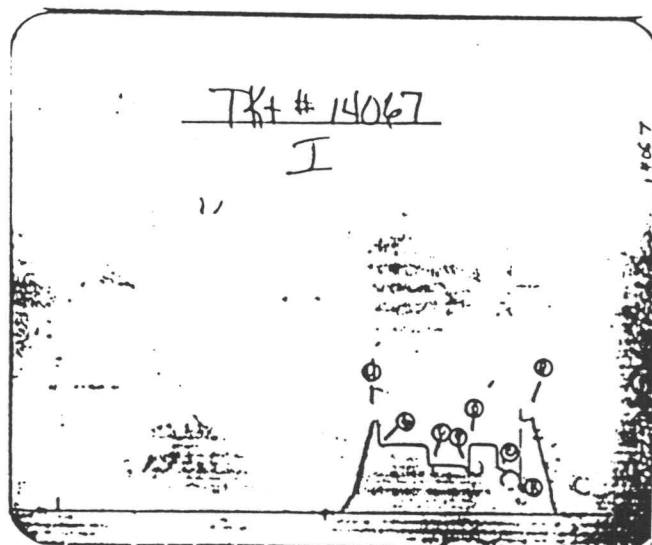
INITIAL CLOSED IN PERIOD MIN: 33

FINAL FLOW PERIOD MIN: 45

FINAL CLOSED IN PERIOD MIN: 60

FINAL HYDROSTATIC PRESSURE

(A) 778
(B) 244 PSI TO (C) : 371
(D) 567
(E) 360 PSI TO (F) : 395
(G) 559
(H) 759



GAS FLOW REPORT

Date : 8-3-88	Ticket # : 14067
Customer : RANGE OIL COMPANY INC.	Lease : CHAPLIN
Well : #1 Test : 1	Geologist : R OLSEN
Elevation (KB) : 1346 Formation : HOOVER SD	
Section : 22 Township : 34S	
Range : 6E County : COWLEY	State : KANSAS
Gauge SN # : 10979 Range : 4100	Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
PRE FLOW =====				
5	MERLA	1 1/4"	11	847000 CFPD
10			12	893000 CFPD
15			13	937000 CFPD
20			15	1023000 CFPD
25			17	1105000 CFPD
30			17	1105000 CFPD
SECOND FLOW =====				
35	MERLA	1 1/4"	18	1146000 CFPD SPRAY MUD
40			22	1316000 CFPD SPRAY MUD
50			20	1233000 CFPD SPRAY MUD
60			20	1233000 CFPD SPRAY MUD
70			20	1233000 CFPD SPRAY MUD
75			20	1233000 CFPD SPRAY MUD

LEFT SAMPLE WITH OPERATOR.

Gas Bottle SN # : 1 A
 Date Bottle Filled : 8-3-88
 Date to be Invoiced :

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : COWLEY-KANSAS
FIELD : CHAPLIN
WELL : #1
DATE : 8-3-88
GAUGE NO : 10979

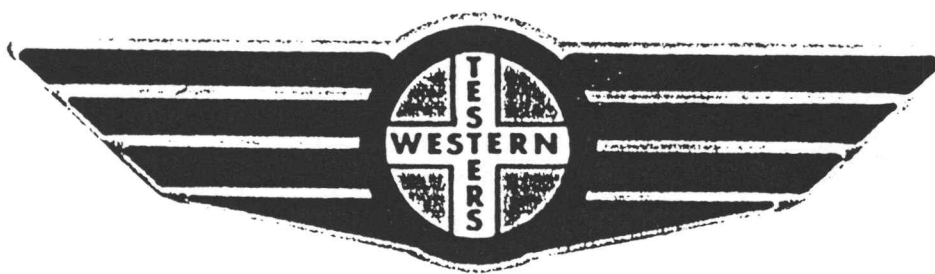
OPERATIONAL COMMENTS

COMPANY : RANGE OIL COMPANY INC.
WELL : #1
GAUGE # : 10979
DATE : 3/ 8/88

FIELD : CHAPLIN
JOB # : 14067
DEPTH : 1646
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	1:45: 0	0.000	244.000	94.00	0.000
3	1:49:59	0.083	328.000	94.00	84.000
4	1:55: 0	0.167	350.000	94.00	22.000
5	2: 0: 0	0.250	355.000	94.00	5.000
6	2: 4:59	0.333	357.000	94.00	2.000
7	2:10: 0	0.417	371.000	94.00	14.000
INITIAL SHUT-IN					
8	2:13: 0	0.467	550.000	94.00	179.000
9	2:16: 0	0.517	561.000	94.00	11.000
10	2:19: 0	0.567	565.000	94.00	4.000
11	2:22: 0	0.617	567.000	94.00	2.000
12	2:25: 0	0.667	567.000	94.00	0.000
13	2:28: 0	0.717	567.000	94.00	0.000
14	2:31: 0	0.767	567.000	94.00	0.000
15	2:34: 0	0.817	567.000	94.00	0.000
16	2:37: 0	0.867	567.000	94.00	0.000
17	2:40: 0	0.917	567.000	94.00	0.000
18	2:43: 0	0.967	567.000	94.00	0.000
FINAL FLOW					
19	2:44: 0	0.983	360.000	94.00	-207.000
20	2:48: 0	1.050	380.000	94.00	20.000
21	2:53: 0	1.133	389.000	94.00	9.000
22	2:58: 0	1.217	391.000	94.00	2.000
23	3: 3: 0	1.300	393.000	94.00	2.000
24	3: 8: 0	1.383	394.000	94.00	1.000
25	3:13: 0	1.467	395.000	94.00	1.000
26	3:18: 0	1.550	395.000	94.00	0.000
27	3:23: 0	1.633	395.000	94.00	0.000
28	3:28: 0	1.717	395.000	94.00	0.000
FINAL SHUT-IN					
29	3:31: 0	1.767	541.000	94.00	146.000
30	3:34: 0	1.817	551.000	94.00	10.000
31	3:37: 0	1.867	555.000	94.00	4.000
32	3:40: 0	1.917	558.000	94.00	3.000
33	3:43: 0	1.967	560.000	94.00	2.000
34	3:46: 0	2.017	561.000	94.00	1.000
35	3:49: 0	2.067	562.000	94.00	1.000
36	3:52: 0	2.117	562.000	94.00	0.000
37	3:55: 0	2.167	563.000	94.00	1.000
38	3:58: 0	2.217	563.000	94.00	0.000
39	4: 1: 0	2.267	563.000	94.00	0.000
40	4: 4: 0	2.317	562.000	94.00	-1.000
41	4: 7: 0	2.367	562.000	94.00	0.000
42	4:10: 0	2.417	562.000	94.00	0.000
43	4:13: 0	2.467	562.000	94.00	0.000
44	4:16: 0	2.517	561.000	94.00	-1.000
45	4:19: 0	2.567	560.000	94.00	-1.000
46	4:22: 0	2.617	560.000	94.00	0.000
47	4:25: 0	2.667	559.000	94.00	-1.000
48	4:28: 0	2.717	559.000	94.00	0.000

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY INC.

LEASE & WELL NO.

CHAPLIN #1

SEC. 22

TWP. 34S

RGE. 6E

TEST NO. 2

DATE 8/4/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	8-4-88	TICKET	:	14068	
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	CHAPLIN	
WELL	:	#1	TEST:	:	2	
ELEVATION	:	1346 KB	GEOLOGIST	:	R OLSEN	
SECTION	:	22	FORMATION	:	STALNAKER	
RANGE	:	6E	TOWNSHIP	:	34S	
GAUGE SN#	:	10979	STATE	:	KANSAS	
		COUNTY :	COWLEY		CLOCK :	12
		RANGE :	4100			

INTERVAL FROM	:	1809	TO	:	1829	TOTAL DEPTH	:	1829
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	1804	SIZE	:	6.63			
PACKER DEPTH	:	1809	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	RANGE RIG 1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	42
WEIGHT	:	8.6	WATER LOSS (CC)	:	12
CHLORIDES (PPM)	:	600			
JARS-MAKE	:	-	SERIAL NUMBER	:	
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	240	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	1549	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	20	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 : FAIR BLOW DIMINISHING SLIGHTLY AT END OF TEST.
BLOW COMMENT #2 :
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 30 FT OF: MUD CUT SALT WATER / TRACE OF OIL
RECOVERED : 480 FT OF: SALT WATER
.26 RES. @ 80 DEG.F.
CHLORIDES: 123000 PPM

Total Barrels Fluid = 4.97
Total Fluid Prod Rate = 79.48 BFPD
Indicated Wtr Rate = 77.14 BWPD

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

SET PACKER(S) : 6:30 AM

TIME STARTED OFF BOTTOM : 9:30

WELL TEMPERATURE : 96

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

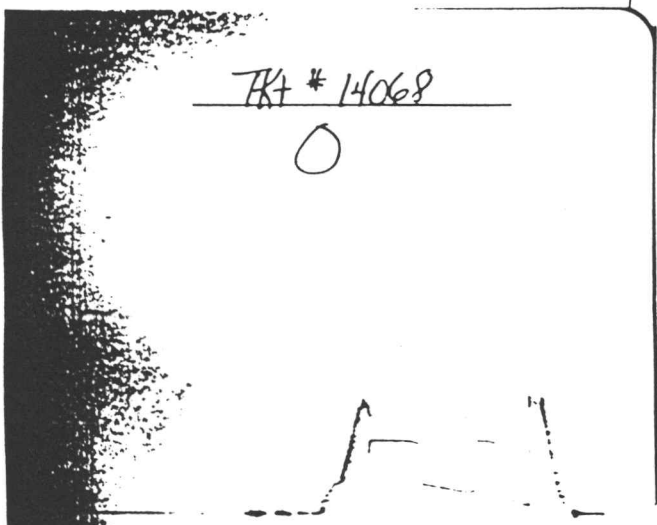
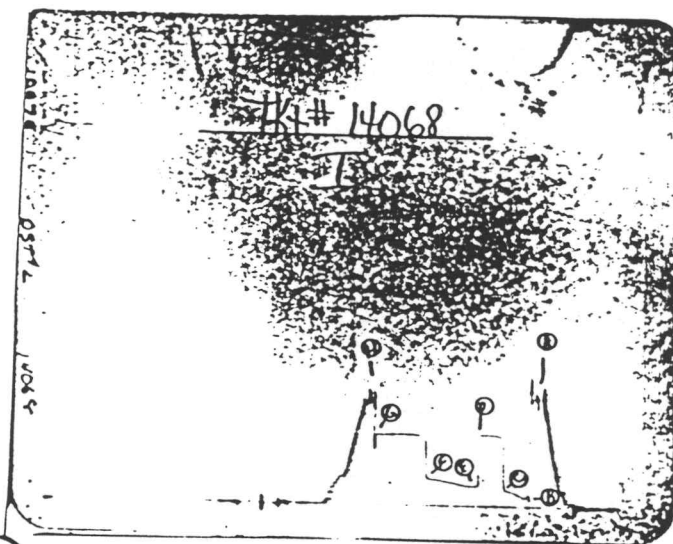
INITIAL CLOSED IN PERIOD MIN: 30

FINAL FLOW PERIOD MIN: 60

FINAL CLOSED IN PERIOD MIN: 60

FINAL HYDROSTATIC PRESSURE

(A)	892	
(B)	43	PSI TO (C) : 132
(D)	589	
(E)	163	PSI TO (F) : 221
(G)	585	
(H)	881	



WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : COWLEY-KANSAS
FIELD : CHAPLIN
WELL : #1
DATE : 8-4-88
GAUGE NO : 10979

OPERATIONAL COMMENTS

COMPANY : RANGE OIL COMPANY INC.

WELL : #1

GAUGE # : 10979

DATE : 4/ 8/88

FIELD : CHAPLIN

JOB # : 14068

DEPTH : 1829

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	6:30: 0	0.000	43.000	96.00	0.000
3	6:34:59	0.083	72.000	96.00	29.000
4	6:40: 0	0.167	79.000	96.00	7.000
5	6:45: 0	0.250	98.000	96.00	19.000
6	6:49:59	0.333	115.000	96.00	17.000
7	6:55: 0	0.417	125.000	96.00	10.000
8	7: 0: 0	0.500	132.000	96.00	7.000
INITIAL SHUT-IN					
9	7: 3: 0	0.550	562.000	96.00	430.000
10	7: 6: 0	0.600	578.000	96.00	16.000
11	7: 9: 0	0.650	584.000	96.00	6.000
12	7:12: 0	0.700	586.000	96.00	2.000
13	7:15: 0	0.750	587.000	96.00	1.000
14	7:18: 0	0.800	588.000	96.00	1.000
15	7:21: 0	0.850	589.000	96.00	1.000
16	7:24: 0	0.900	589.000	96.00	0.000
17	7:27: 0	0.950	589.000	96.00	0.000
18	7:30: 0	1.000	589.000	96.00	0.000
FINAL FLOW					
19	7:31: 0	1.017	163.000	96.00	-426.000
20	7:34:59	1.083	163.000	96.00	0.000
21	7:40: 0	1.167	163.000	96.00	0.000
22	7:45: 0	1.250	167.000	96.00	4.000
23	7:49:59	1.333	175.000	96.00	8.000
24	7:55: 0	1.417	184.000	96.00	9.000
25	8: 0: 0	1.500	190.000	96.00	6.000
26	8: 4:59	1.583	197.000	96.00	7.000
27	8:10: 0	1.667	205.000	96.00	8.000
28	8:15: 0	1.750	211.000	96.00	6.000
29	8:19:59	1.833	214.000	96.00	3.000
30	8:25: 0	1.917	218.000	96.00	4.000
31	8:30: 0	2.000	221.000	96.00	3.000
FINAL SHUT-IN					
32	8:33: 0	2.050	558.000	96.00	337.000
33	8:36: 0	2.100	572.000	96.00	14.000
34	8:39: 0	2.150	578.000	96.00	6.000
35	8:42: 0	2.200	582.000	96.00	4.000
36	8:45: 0	2.250	585.000	96.00	3.000
37	8:48: 0	2.300	586.000	96.00	1.000
38	8:51: 0	2.350	587.000	96.00	1.000
39	8:54: 0	2.400	588.000	96.00	1.000
40	8:57: 0	2.450	588.000	96.00	0.000
41	9: 0: 0	2.500	588.000	96.00	0.000
42	9: 3: 0	2.550	588.000	96.00	0.000
43	9: 6: 0	2.600	588.000	96.00	0.000
44	9: 9: 0	2.650	587.000	96.00	-1.000
45	9:12: 0	2.700	586.000	96.00	-1.000
46	9:15: 0	2.750	585.000	96.00	-1.000
47	9:18: 0	2.800	584.000	96.00	-1.000
48	9:21: 0	2.850	582.000	96.00	-2.000

COMPANY : RANGE OIL COMPANY INC.
WELL : #1
GAUGE # : 10979
DATE : 4/ 8/88

FIELD : CHAPLIN
JOB # : 14068
DEPTH : 1829
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	9:24: 0	2.900	583.000	96.00	1.000
50	9:27: 0	2.950	584.000	96.00	1.000
51	9:30: 0	3.000	585.000	96.00	1.000

WESTERN TESTING CO. INC.