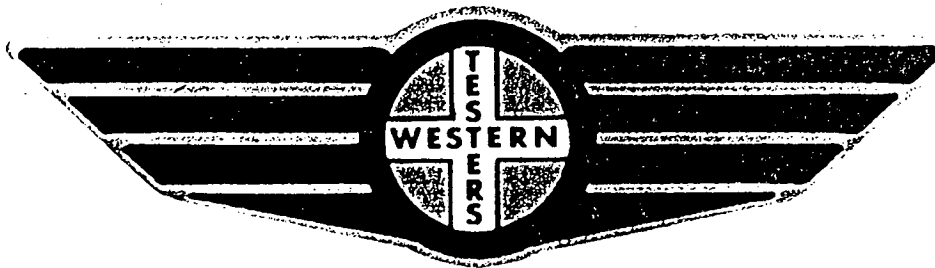


15-005-22569-00-00

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY IMPERIAL OIL PROPERTIES, INC LEASE & WELL NO. SANGER #1 SEC. 7 TWP. 8S RGE. 24W TEST NO. 2 DATE 5/28/90

15-065-22569-00-00

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 5-28-90 TICKET : 15779
CUSTOMER : IMPERIAL OIL PROPERTIES INC. LEASE : SANGER
WELL : #1 TEST: 2 GEOLOGIST : CAULK
ELEVATION : 2358 K.B. FORMATION : LOWER K.C.
SECTION : 7 TOWNSHIP : 8S
RANGE : 24W COUNTY : GRAHAM STATE : KANSAS
GAUGE SN# : 6233 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 3790 TO : 3828 TOTAL DEPTH : 3828
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 3785 SIZE : 6.75
PACKER DEPTH : 3790 SIZE : 6.75
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG #4
MUD TYPE : MONPAC VISCOSITY : 42
WEIGHT : 9.5 WATER LOSS (CC) : 10.4
CHLORIDES (PPM) : 2000
JARS-MAKE : NO SERIAL NUMBER :
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 498 FT I.D. inch : 3.20
DRILL PIPE LENGTH : 3272 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 38 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 : INITIAL FLOW PERIOD WEAK BLOW.
BLOW COMMENT #2 : DIED IN 10 MINUTES.
BLOW COMMENT #3 : FINAL FLOW PERIOD NO BLOW.
BLOW COMMENT #4 :

13-065-22569-06-00

RECOVERED : 10 FT OF: MUD W/ FEW SPOTS OIL
RECOVERED : 0 FT OF: ON TOP OF TOOL

Total Barrels Fluid = 0.10
Total Fluid Prod Rate = 1.91 BFPD
Indicated Wtr Rate = 0.19 BWPD

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

SET PACKER(S) : 3:30 P.M. TIME STARTED OFF BOTTOM : 6:15 P.M.
WELL TEMPERATURE : 0
INITIAL HYDROSTATIC PRESSURE (A) 1978
INITIAL FLOW PERIOD MIN: 30 (B) 25 PSI TO (C) : 25
INITIAL CLOSED IN PERIOD MIN: 33 (D) 1108
FINAL FLOW PERIOD MIN: 45 (E) 30 PSI TO (F) : 30
FINAL CLOSED IN PERIOD MIN: 60 (G) 1132
FINAL HYDROSTATIC PRESSURE (H) 1948

15-065-22569-00-00

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : IMPERIAL OIL PROPERTIES INC.
RIG : GRAHAM-KANSAS
FIELD : SANGER
WELL : #1
DATE : 5-28-90
GAUGE NO : 6233

OPERATIONAL COMMENTS

15-065-22569-06-06

COMPANY : IMPERIAL OIL PROPERTIES INC. FIELD : SANGER
 WELL : #1 JOB # : 15779
 GAUGE # : 6233 DEPTH : 3828
 DATE : 28/ 5/90 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P P1-P(i-1)
INITIAL FLOW PERIOD					
2	3:30: 0	0.000	25.000	0.00	0.000
3	3:34:59	0.083	25.000	0.00	0.000
4	3:40: 0	0.167	25.000	0.00	0.000
5	3:45: 0	0.250	25.000	0.00	0.000
6	3:49:59	0.333	25.000	0.00	0.000
7	3:55: 0	0.417	25.000	0.00	0.000
8	4: 0: 0	0.500	25.000	0.00	0.000
INITIAL SHUT-IN PERIOD					
9	4: 3: 0	0.550	91.000	0.00	66.000
10	4: 6: 0	0.600	335.000	0.00	244.000
11	4: 9: 0	0.650	534.000	0.00	199.000
12	4:12: 0	0.700	686.000	0.00	152.000
13	4:15: 0	0.750	799.000	0.00	113.000
14	4:18: 0	0.800	889.000	0.00	90.000
15	4:21: 0	0.850	952.000	0.00	63.000
16	4:24: 0	0.900	1008.000	0.00	56.000
17	4:27: 0	0.950	1050.000	0.00	42.000
18	4:30: 0	1.000	1081.000	0.00	31.000
19	4:33: 0	1.050	1108.000	0.00	27.000
FINAL FLOW PERIOD					
20	4:34: 0	1.067	30.000	0.00	-1078.000
21	4:37:59	1.133	30.000	0.00	0.000
22	4:43: 0	1.217	30.000	0.00	0.000
23	4:48: 0	1.300	30.000	0.00	0.000
24	4:52:59	1.383	30.000	0.00	0.000
25	4:58: 0	1.467	30.000	0.00	0.000
26	5: 3: 0	1.550	30.000	0.00	0.000
27	5: 7:59	1.633	30.000	0.00	0.000
28	5:13: 0	1.717	30.000	0.00	0.000
29	5:18: 0	1.800	30.000	0.00	0.000
FINAL SHUT-IN PERIOD					
30	5:21: 0	1.850	42.000	0.00	12.000
31	5:24: 0	1.900	156.000	0.00	114.000
32	5:27: 0	1.950	309.000	0.00	153.000
33	5:30: 0	2.000	479.000	0.00	170.000
34	5:33: 0	2.050	592.000	0.00	113.000
35	5:36: 0	2.100	700.000	0.00	108.000
36	5:38:59	2.150	775.000	0.00	75.000
37	5:42: 0	2.200	838.000	0.00	63.000
38	5:45: 0	2.250	891.000	0.00	53.000
39	5:48: 0	2.300	932.000	0.00	41.000
40	5:51: 0	2.350	968.000	0.00	36.000
41	5:54: 0	2.400	996.000	0.00	28.000
42	5:56:59	2.450	1023.000	0.00	27.000
43	6: 0: 0	2.500	1043.000	0.00	20.000
44	6: 3: 0	2.550	1060.000	0.00	17.000
45	6: 6: 0	2.600	1078.000	0.00	18.000
46	6: 9: 0	2.650	1095.000	0.00	17.000
47	6:11:59	2.700	1108.000	0.00	13.000
48	6:15: 0	2.750	1120.000	0.00	12.000

15-005-22569-00-00

COMPANY : IMPERIAL OIL PROPERTIES INC.
WELL : #1
GAUGE # : 6233
DATE : 28/ 5/90

FIELD : SANGER
JOB # : 15779
DEPTH : 3828
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	6:18:0	2.800	1132.000	0.00	12.000

WESTERN TESTING CO. INC.