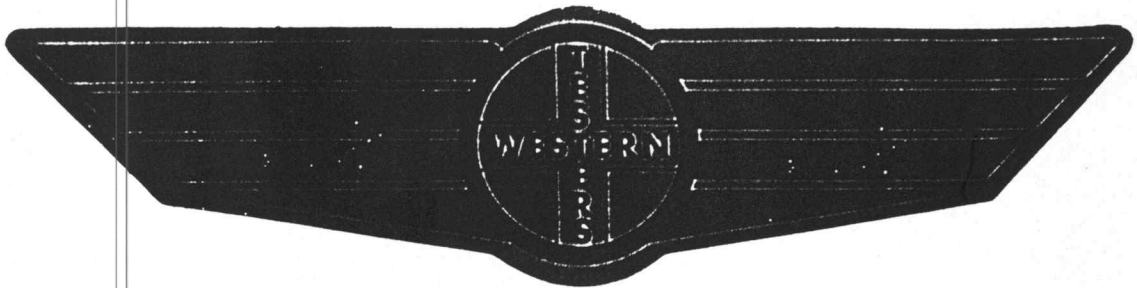


# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY PETROLEUM, INC. LEASE & WELL NO. #1 PATTERSON 'E' SEC. 5 TWP. 15S RGE. 19W TEST NO. 1 DATE 11/2/86

WESTERN TESTERS INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 11-2-86 TICKET : 11251  
CUSTOMER : PETROLEUM INC. LEASE : PATTERSON 'E'  
WELL : #1 TEST: 1 GEOLOGIST : B. DOUGLASS  
ELEVATION : 2053 GL FORMATION : KANSAS CITY  
SECTION : 5 TOWNSHIP : 15S  
RANGE : 19W COUNTY : ELLIS STATE : KANSAS  
GAUGE SN# : 13361 RANGE : 4250 CLOCK : 12

INTERVAL FROM : 3395 TO : 3460 TOTAL DEPTH : 3460  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3390 SIZE : 6.75  
PACKER DEPTH : 3395 SIZE : 6.75  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG #8  
MUD TYPE : STARCH VISCOSITY : 36  
WEIGHT : 9.8 WATER LOSS (CC) : 12  
CHLORIDES (PPM) : 82000  
JARS-MAKE : -- SERIAL NUMBER :  
DID WELL FLOW ? : NO REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00  
WEIGHT PIPE LENGTH : 604 FT I.D. inch : 2.75  
DRILL PIPE LENGTH : 2769 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 65 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-WEAK BLOW SLOWLY BUILDING TO 3  
BLOW COMMENT #2 : INCHES IN BUCKET.  
BLOW COMMENT #3 : FINAL FLOW-WEAK BLOW SLOWLY BUILDING TO 1  
BLOW COMMENT #4 : INCH IN BUCKET.

RECOVERED : 190 FT OF: MUD

Total Barrels Fluid = 1.40  
Total Fluid Prod Rate = 26.80 BFPD  
Indicated Wtr Rate = 24.12 BWPD

REMARK 1 :  
REMARK 2 : CHLORIDES: 82000 PPM  
REMARK 3 :  
REMARK 4 :

SET PACKER(S) :	1:05 PM	TIME STARTED OFF BOTTOM :	4:50 PM
WELL TEMPERATURE :	112		
INITIAL HYDROSTATIC PRESSURE		(A)	1775
INITIAL FLOW PERIOD MIN:	15	(B)	45 PSI TO (C) : 45
INITIAL CLOSED IN PERIOD MIN:	24	(D)	1033
FINAL FLOW PERIOD MIN:	60	(E)	77 PSI TO (F) : 133
FINAL CLOSED IN PERIOD MIN:	120	(G)	1044
FINAL HYDROSTATIC PRESSURE		(H)	1766

WESTERN TESTERS INC.  
WICHITA - KANSAS

Pressure Transient Report  
-----

COMPANY : PETROLEUM INC.  
RIG : ELLIS-KANSAS  
FIELD : PATTERSON 'E'  
WELL : #1  
DATE : 11-2-86  
GAUGE NO : 13361

OPERATIONAL COMMENTS

CHLORIDES: 82000 PPM

COMPANY : PETROLEUM INC.  
 WELL : #1  
 GAUGE # : 13361  
 DATE : 2/11/86

FIELD : PATTERSON 'E'  
 JOB # : 11251  
 DEPTH : 3460  
 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	1: 5: 0	0.000	45.000	44.44	0.000
2	1: 9:60	0.083	45.000	44.44	0.000
3	1:15: 1	0.167	45.000	44.44	0.000
4	1:20: 0	0.250	45.000	44.44	0.000
5	1:23: 0	0.300	531.000	44.44	486.000
6	1:26: 0	0.350	930.000	44.44	399.000
7	1:29: 0	0.400	983.000	44.44	53.000
8	1:32: 0	0.450	1006.000	44.44	23.000
9	1:35: 0	0.500	1018.000	44.44	12.000
10	1:38: 0	0.550	1024.000	44.44	6.000
11	1:41: 0	0.600	1029.000	44.44	5.000
12	1:44: 0	0.650	1033.000	44.44	4.000
13	1:45: 1	0.667	77.000	44.44	-956.000
14	1:48:60	0.733	77.000	44.44	0.000
15	1:54: 1	0.817	77.000	44.44	0.000
16	1:59: 0	0.900	77.000	44.44	0.000
17	2: 3:60	0.983	80.000	44.44	3.000
18	2: 9: 1	1.067	85.000	44.44	5.000
19	2:14: 0	1.150	90.000	44.44	5.000
20	2:18:60	1.233	95.000	44.44	5.000
21	2:24: 1	1.317	107.000	44.44	12.000
22	2:29: 0	1.400	113.000	44.44	6.000
23	2:33:60	1.483	120.000	44.44	7.000
24	2:39: 1	1.567	127.000	44.44	7.000
25	2:44: 0	1.650	133.000	44.44	6.000
26	2:47: 0	1.700	529.000	44.44	396.000
27	2:50: 0	1.750	928.000	44.44	399.000
28	2:53: 0	1.800	974.000	44.44	46.000
29	2:56: 0	1.850	991.000	44.44	17.000
30	2:59: 0	1.900	1002.000	44.44	11.000
31	3: 2: 0	1.950	1009.000	44.44	7.000
32	3: 5: 0	2.000	1014.000	44.44	5.000
33	3: 8: 0	2.050	1019.000	44.44	5.000
34	3:11: 0	2.100	1023.000	44.44	4.000
35	3:14: 0	2.150	1025.000	44.44	2.000
36	3:17: 0	2.200	1027.000	44.44	2.000
37	3:20: 0	2.250	1029.000	44.44	2.000
38	3:23: 0	2.300	1031.000	44.44	2.000
39	3:26: 0	2.350	1033.000	44.44	2.000
40	3:29: 0	2.400	1034.000	44.44	1.000
41	3:32: 0	2.450	1035.000	44.44	1.000
42	3:35: 0	2.500	1036.000	44.44	1.000
43	3:38: 0	2.550	1037.000	44.44	1.000
44	3:41: 0	2.600	1038.000	44.44	1.000
45	3:44: 0	2.650	1039.000	44.44	1.000
46	3:47: 0	2.700	1039.000	44.44	0.000
47	3:50: 0	2.750	1040.000	44.44	1.000
48	3:53: 0	2.800	1040.000	44.44	0.000
49	3:56: 0	2.850	1041.000	44.44	1.000
50	3:59: 0	2.900	1041.000	44.44	0.000
51	4: 2: 0	2.950	1042.000	44.44	1.000
52	4: 5: 0	3.000	1042.000	44.44	0.000

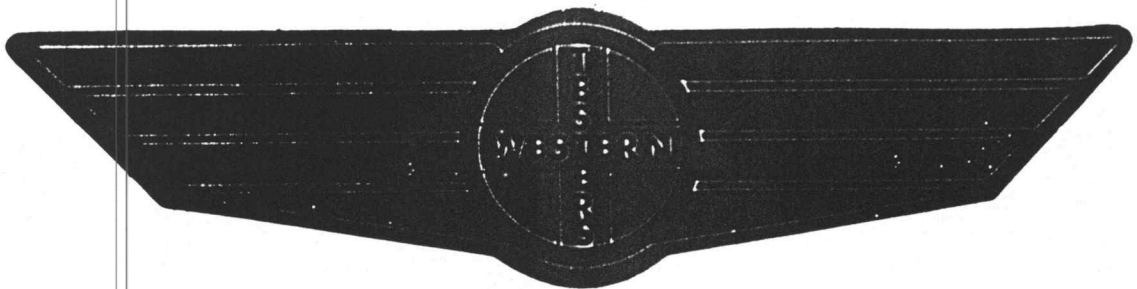
COMPANY : PETROLEUM INC.  
WELL : #1  
GAUGE # : 13361  
DATE : 2/11/86

FIELD : PATTERSON 'E'  
JOB # : 11251  
DEPTH : 3460  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	4: 8: 0	3.050	1043.000	44.44	1.000
54	4:11: 0	3.100	1043.000	44.44	0.000
55	4:14: 0	3.150	1044.000	44.44	1.000
56	4:17: 0	3.200	1044.000	44.44	0.000
57	4:20: 0	3.250	1044.000	44.44	0.000
58	4:23: 0	3.300	1044.000	44.44	0.000
59	4:26: 0	3.350	1044.000	44.44	0.000
60	4:29: 0	3.400	1044.000	44.44	0.000
61	4:32: 0	3.450	1044.000	44.44	0.000
62	4:35: 0	3.500	1044.000	44.44	0.000
63	4:38: 0	3.550	1044.000	44.44	0.000
64	4:41: 0	3.600	1044.000	44.44	0.000
65	4:44: 0	3.650	1044.000	44.44	0.000

WESTERN TESTERS INC.

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY

PETROLEUM, INC.

LEASE & WELL NO.

#1 PATTERSON 'E'

SEC. 5

TWP. 15S

RGE. 19W

TEST NO. 2

DATE

11/3/86

WESTERN TESTERS INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 11-3-86 TICKET : 11252  
CUSTOMER : PETROLEUM INC. LEASE : PATTERSON 'E'  
WELL : #1 TEST: 2 GEOLOGIST : B. DOUGLASS  
ELEVATION : 2053 GL FORMATION : KANSAS CITY  
SECTION : 5 TOWNSHIP : 15S  
RANGE : 19W COUNTY : ELLIS STATE : KANSAS  
GAUGE SN# : 13361 RANGE : 4250 CLOCK : 12

INTERVAL FROM : 3504 TO : 3560 TOTAL DEPTH : 3560  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3499 SIZE : 6.75  
PACKER DEPTH : 3504 SIZE : 6.75  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG #8  
MUD TYPE : STARCH VISCOSITY : 41  
WEIGHT : 9.9 WATER LOSS (CC) : 12.4  
CHLORIDES (PPM) : 51000  
JARS-MAKE : -- SERIAL NUMBER :  
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00  
WEIGHT PIPE LENGTH : 604 FT I.D. inch : 2.75  
DRILL PIPE LENGTH : 2878 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 56 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-WEAK SURFACE BLOW DIED IN 5 MINUTES.  
BLOW COMMENT #2 : FINAL FLOW-NO BLOW-FLUSHED TOOL-GOOD SURGE-NO  
BLOW COMMENT #3 : BLOW.  
BLOW COMMENT #4 :

RECOVERED : 10 FT OF: MUD

Total Barrels Fluid = 0.07  
Total Fluid Prod Rate = 2.35 BFPD  
Indicated Wtr Rate = 2.12 BWPD

REMARK 1 : FLUSHED TOOL FINAL FLOW  
REMARK 2 : CHLORIDES: 51000 PPM  
REMARK 3 :  
REMARK 4 :

SET PACKER(S) : 8:50 AM TIME STARTED OFF BOTTOM : 10:35 AM  
WELL TEMPERATURE : 112  
INITIAL HYDROSTATIC PRESSURE (A) 1851  
INITIAL FLOW PERIOD MIN: 15 (B) 21 PSI TO (C) : 21  
INITIAL CLOSED IN PERIOD MIN: 30 (D) 915  
FINAL FLOW PERIOD MIN: 30 (E) 26 PSI TO (F) : 26  
FINAL CLOSED IN PERIOD MIN: 30 (G) 723  
FINAL HYDROSTATIC PRESSURE (H) 1805

WESTERN TESTERS INC.  
WICHITA - KANSAS

Pressure Transient Report  
-----

COMPANY : PETROLEUM INC.  
RIG : ELLIS-KANSAS  
FIELD : PATTERSON 'E'  
WELL : #1  
DATE : 11-3-86  
GAUGE NO : 13361

OPERATIONAL COMMENTS

FLUSHED TOOL FINAL FLOW  
CHLORIDES: 51000 PPM

COMPANY : PETROLEUM INC.

FIELD : PATTERSON 'E'

WELL : #1

JOB # : 11252

GAUGE # : 13361

DEPTH : 3560

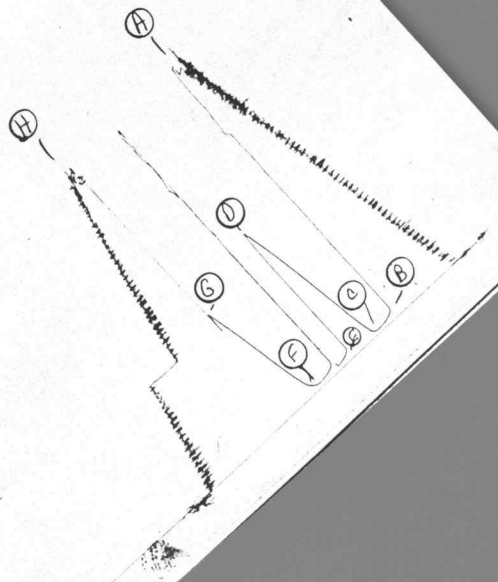
DATE : 3/11/86

TEST : FLUSHED TOOL FINAL FLOW

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	8:50:0	0.000	21.000	44.44	0.000
2	8:54:60	0.083	21.000	44.44	0.000
3	9:0:1	0.167	21.000	44.44	0.000
4	9:5:0	0.250	21.000	44.44	0.000
5	9:8:0	0.300	21.000	44.44	0.000
6	9:11:0	0.350	33.000	44.44	12.000
7	9:14:0	0.400	124.000	44.44	91.000
8	9:17:0	0.450	251.000	44.44	127.000
9	9:20:0	0.500	371.000	44.44	120.000
10	9:23:0	0.550	497.000	44.44	126.000
11	9:26:0	0.600	609.000	44.44	112.000
12	9:29:0	0.650	717.000	44.44	108.000
13	9:32:0	0.700	829.000	44.44	112.000
14	9:35:0	0.750	915.000	44.44	86.000
15	9:36:1	0.767	26.000	44.44	-889.000
16	9:39:60	0.833	26.000	44.44	0.000
17	9:45:1	0.917	26.000	44.44	0.000
18	9:50:0	1.000	26.000	44.44	0.000
19	9:54:60	1.083	40.000	44.44	14.000
20	10:0:1	1.167	30.000	44.44	-10.000
21	10:5:0	1.250	26.000	44.44	-4.000
22	10:8:0	1.300	27.000	44.44	1.000
23	10:11:0	1.350	36.000	44.44	9.000
24	10:14:0	1.400	57.000	44.44	21.000
25	10:17:0	1.450	113.000	44.44	56.000
26	10:20:0	1.500	223.000	44.44	110.000
27	10:23:0	1.550	317.000	44.44	94.000
28	10:26:0	1.600	418.000	44.44	101.000
29	10:29:0	1.650	525.000	44.44	107.000
30	10:32:0	1.700	624.000	44.44	99.000
31	10:35:0	1.750	723.000	44.44	99.000

WESTERN TESTERS INC.

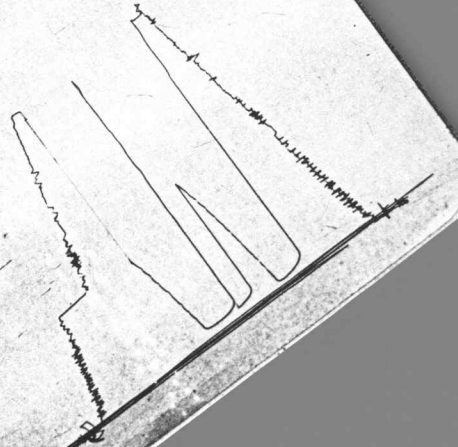
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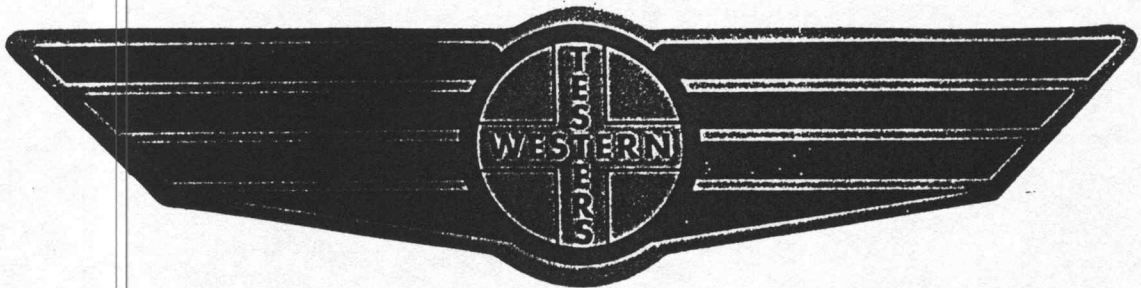
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13802

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY

PETROLEUM, INC.

LEASE & WELL NO.

#1 PATTERSON "E"

SEC. 5

TWP.

15S

RGE.

19W

TEST NO.

3

DATE

11/4/86

WESTERN TESTERS INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 11-4-86 TICKET : 11253  
CUSTOMER : PETROLEUM INC. LEASE : PATTERSON 'E'  
WELL : #1 TEST: 3 GEOLOGIST : B. DOUGLASS  
ELEVATION : 2053 GL FORMATION : -  
SECTION : 5 TOWNSHIP : 15S  
RANGE : 19W COUNTY : ELLIS STATE : KANSAS  
GAUGE SN# : 13361 RANGE : 4250 CLOCK : 12

INTERVAL FROM : 3681 TO : 3700 TOTAL DEPTH : 3700  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3676 SIZE : 6.25  
PACKER DEPTH : 3681 SIZE : 6.25  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG #8  
MUD TYPE : STARCH VISCOSITY : 41  
WEIGHT : 9.9 WATER LOSS (CC) : 12.4  
CHLORIDES (PPM) : 51000  
JARS-MAKE : - SERIAL NUMBER : -  
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00  
WEIGHT PIPE LENGTH : 604 FT I.D. inch : 2.75  
DRILL PIPE LENGTH : 3055 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 19 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-WEAK SURFACE BLOW-DIED IN 12 MINUTES.  
BLOW COMMENT #2 : FINAL FLOW-NO BLOW-FLUSHED TOOL & GOOD SURGE- NO  
BLOW COMMENT #3 : BLOW.  
BLOW COMMENT #4 :

RECOVERED : 15 FT OF: MUD

Total Barrels Fluid = 0.11  
Total Fluid Prod Rate = 3.53 BFPD  
Indicated Wtr Rate = 3.17 BWPD

REMARK 1 : FLUSHED TOOL FINAL FLOW.  
REMARK 2 : CHLORIDES: 51000 PPM  
REMARK 3 :  
REMARK 4 :

SET PACKER(S) :	5:05 AM	TIME STARTED OFF BOTTOM :	6:50 AM
WELL TEMPERATURE :	114		
INITIAL HYDROSTATIC PRESSURE		(A)	1940
INITIAL FLOW PERIOD MIN:	15	(B)	27 PSI TO (C) : 27
INITIAL CLOSED IN PERIOD MIN:	30	(D)	114
FINAL FLOW PERIOD MIN:	30	(E)	28 PSI TO (F) : 28
FINAL CLOSED IN PERIOD MIN:	30	(G)	46
FINAL HYDROSTATIC PRESSURE		(H)	1866

WESTERN TESTERS INC.  
WICHITA - KANSAS

Pressure Transient Report  
-----

COMPANY : PETROLEUM INC.  
RIG : ELLIS-KANSAS  
FIELD : PATTERSON 'E'  
WELL : #1  
DATE : 11-4-86  
GAUGE NO : 13361

OPERATIONAL COMMENTS

FLUSHED TOOL FINAL FLOW.  
CHLORIDES: 51000 PPM

COMPANY : PETROLEUM INC.

FIELD : PATTERSON 'E'

WELL : #1

JOB # : 11253

GAUGE # : 13361

DEPTH : 3700

DATE : 4/11/86

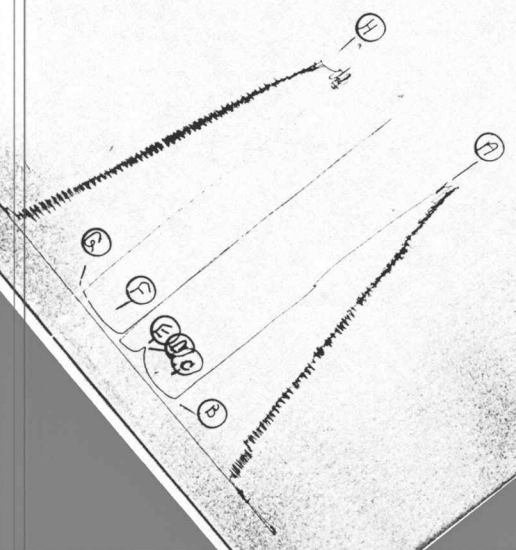
TEST : FLUSHED TOOL FINAL FLOW.

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	5: 5: 0	0.000	27.000	45.56	0.000
2	5: 9: 60	0.083	27.000	45.56	0.000
3	5: 15: 1	0.167	27.000	45.56	0.000
4	5: 20: 0	0.250	27.000	45.56	0.000
5	5: 23: 0	0.300	27.000	45.56	0.000
6	5: 26: 0	0.350	27.000	45.56	0.000
7	5: 29: 0	0.400	30.000	45.56	3.000
8	5: 32: 0	0.450	34.000	45.56	4.000
9	5: 35: 0	0.500	39.000	45.56	5.000
10	5: 38: 0	0.550	47.000	45.56	8.000
11	5: 41: 0	0.600	59.000	45.56	12.000
12	5: 44: 0	0.650	77.000	45.56	18.000
13	5: 47: 0	0.700	98.000	45.56	21.000
14	5: 50: 0	0.750	114.000	45.56	16.000
15	5: 51: 1	0.767	28.000	45.56	-86.000
16	5: 54: 60	0.833	28.000	45.56	0.000
17	6: 0: 1	0.917	28.000	45.56	0.000
18	6: 5: 0	1.000	28.000	45.56	0.000
19	6: 9: 60	1.083	49.000	45.56	21.000
20	6: 15: 1	1.167	38.000	45.56	-11.000
21	6: 20: 0	1.250	28.000	45.56	-10.000
22	6: 23: 0	1.300	28.000	45.56	0.000
23	6: 26: 0	1.350	28.000	45.56	0.000
24	6: 29: 0	1.400	28.000	45.56	0.000
25	6: 32: 0	1.450	29.000	45.56	1.000
26	6: 35: 0	1.500	30.000	45.56	1.000
27	6: 38: 0	1.550	33.000	45.56	3.000
28	6: 41: 0	1.600	36.000	45.56	3.000
29	6: 44: 0	1.650	39.000	45.56	3.000
30	6: 47: 0	1.700	42.000	45.56	3.000
31	6: 50: 0	1.750	46.000	45.56	4.000

WESTERN TESTERS INC.

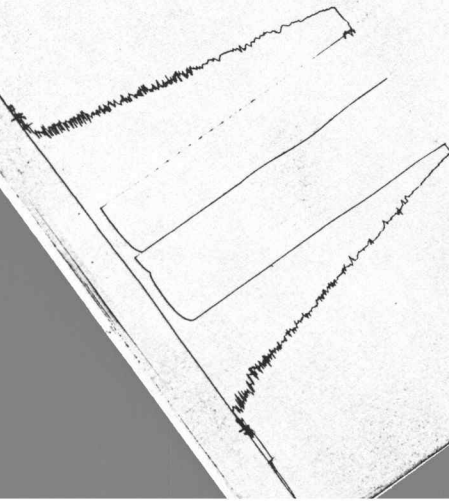
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TKF 11253

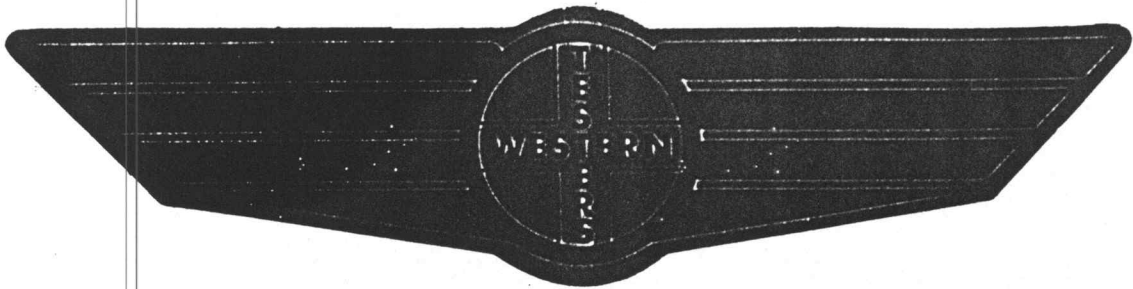


13362

TKF 11253  
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# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN PETROLEUM, INC.

LEASE & WELL NO. #1 PATTERSON 'E' SEC. 5 TWP. 15S RGE. 19W TEST NO. 4 DATE 11/4/86

WESTERN TESTERS INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 11-4-86 TICKET : 11254  
CUSTOMER : PETROLEUM INC. LEASE : PATTERSON 'E'  
WELL : #1 TEST: 4 GEOLOGIST : B. DOUGLASS  
ELEVATION : 2053 GL FORMATION : ARBUCKLE  
SECTION : 5 TOWNSHIP : 15S  
RANGE : 19W COUNTY : ELLIS STATE : KANSAS  
GAUGE SN# : 13361 RANGE : 4250 CLOCK : 12

INTERVAL FROM : 3684 TO : 3720 TOTAL DEPTH : 3720  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3679 SIZE : 6.75  
PACKER DEPTH : 3684 SIZE : 6.75  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG #8  
MUD TYPE : STARCH VISCOSITY : 40  
WEIGHT : 9.8 WATER LOSS (CC) : 12.8  
CHLORIDES (PPM) : 40000  
JARS-MAKE : - SERIAL NUMBER : -  
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00  
WEIGHT PIPE LENGTH : 604 FT I.D. inch : 2.75  
DRILL PIPE LENGTH : 3058 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 36 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-FAIR BLOW-5 INCHES IN BUCKET.  
BLOW COMMENT #2 : FINAL FLOW-WEAK BLOW-2 INCHES IN BUCKET.  
BLOW COMMENT #3 :  
BLOW COMMENT #4 :

RECOVERED : 135 FT OF: VERY SLIGHTLY OIL CUT MUD  
RECOVERED : 0 FT OF: 90% MUD-10% OIL  
RECOVERED : 180 FT OF: MUDDY WATER/WITH SCUM OF OIL  
RECOVERED : 0 FT OF: 60% WATER-40%MUD(LESS THAN 1%OIL)  
RECOVERED : 600 FT OF: SALT WATER  
RECOVERED : 2 FT OF: FREE OIL ON TOP OF TOOL

Total Barrels Fluid = 8.83  
Total Fluid Prod Rate = 169.48 BFPD  
Indicated Oil Rate = 3.05 BOPD  
Indicated Wtr Rate = 163.01 BWPD  
Corrected Oil Rate = 176.84 BOPD  
Corrected Wtr Rate = 9453.04 BWPD

REMARK 1 :  
REMARK 2 : CHLORIDES: 38000 PPM  
REMARK 3 :  
REMARK 4 :

SET PACKER(S) : 4:30 PM TIME STARTED OFF BOTTOM : 8:15 PM  
WELL TEMPERATURE : 120  
INITIAL HYDROSTATIC PRESSURE (A) 1923  
INITIAL FLOW PERIOD MIN: 15 (B) 46 PSI TO (C) : 107  
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1183  
FINAL FLOW PERIOD MIN: 60 (E) 182 PSI TO (F) : 409  
FINAL CLOSED IN PERIOD MIN: 123 (G) 1188  
FINAL HYDROSTATIC PRESSURE (H) 1906

WESTERN TESTERS INC.  
WICHITA - KANSAS

Pressure Transient Report  
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COMPANY : PETROLEUM INC.  
RIG : ELLIS-KANSAS  
FIELD : PATTERSON 'E'  
WELL : #1  
DATE : 11-4-86  
GAUGE NO : 13361

OPERATIONAL COMMENTS

CHLORIDES: 38000 PPM

COMPANY : PETROLEUM INC.  
 WELL : #1  
 GAUGE # : 13361  
 DATE : 4/11/86

FIELD : PATTERSON 'E'  
 JOB # : 11254  
 DEPTH : 3720  
 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	4:30:0	0.000	46.000	48.89	0.000
2	4:34:60	0.083	47.000	48.89	1.000
3	4:40:1	0.167	72.000	48.89	25.000
4	4:45:0	0.250	107.000	48.89	35.000
5	4:48:0	0.300	761.000	48.89	654.000
6	4:51:0	0.350	1143.000	48.89	382.000
7	4:54:0	0.400	1164.000	48.89	21.000
8	4:57:0	0.450	1173.000	48.89	9.000
9	5:0:0	0.500	1177.000	48.89	4.000
10	5:3:0	0.550	1181.000	48.89	4.000
11	5:6:0	0.600	1183.000	48.89	2.000
12	5:9:0	0.650	1183.000	48.89	0.000
13	5:12:0	0.700	1183.000	48.89	0.000
14	5:15:0	0.750	1183.000	48.89	0.000
15	5:16:1	0.767	182.000	48.89	-1001.000
16	5:19:60	0.833	188.000	48.89	6.000
17	5:25:1	0.917	209.000	48.89	21.000
18	5:30:0	1.000	242.000	48.89	33.000
19	5:34:60	1.083	276.000	48.89	34.000
20	5:40:1	1.167	298.000	48.89	22.000
21	5:45:0	1.250	317.000	48.89	19.000
22	5:49:60	1.333	336.000	48.89	19.000
23	5:55:1	1.417	355.000	48.89	19.000
24	6:0:0	1.500	371.000	48.89	16.000
25	6:4:60	1.583	384.000	48.89	13.000
26	6:10:1	1.667	401.000	48.89	17.000
27	6:15:0	1.750	409.000	48.89	8.000
28	6:18:0	1.800	609.000	48.89	200.000
29	6:21:0	1.850	1115.000	48.89	506.000
30	6:24:0	1.900	1156.000	48.89	41.000
31	6:27:0	1.950	1166.000	48.89	10.000
32	6:30:0	2.000	1173.000	48.89	7.000
33	6:33:0	2.050	1177.000	48.89	4.000
34	6:36:0	2.100	1180.000	48.89	3.000
35	6:39:0	2.150	1182.000	48.89	2.000
36	6:42:0	2.200	1183.000	48.89	1.000
37	6:45:0	2.250	1184.000	48.89	1.000
38	6:48:0	2.300	1184.000	48.89	0.000
39	6:51:0	2.350	1184.000	48.89	0.000
40	6:54:0	2.400	1184.000	48.89	0.000
41	6:57:0	2.450	1184.000	48.89	0.000
42	7:0:0	2.500	1185.000	48.89	1.000
43	7:3:0	2.550	1186.000	48.89	1.000
44	7:6:0	2.600	1187.000	48.89	1.000
45	7:9:0	2.650	1188.000	48.89	1.000
46	7:12:0	2.700	1188.000	48.89	0.000
47	7:15:0	2.750	1188.000	48.89	0.000
48	7:18:0	2.800	1188.000	48.89	0.000
49	7:21:0	2.850	1188.000	48.89	0.000
50	7:24:0	2.900	1188.000	48.89	0.000
51	7:27:0	2.950	1188.000	48.89	0.000
52	7:30:0	3.000	1188.000	48.89	0.000

COMPANY : PETROLEUM INC.  
WELL : #1  
GAUGE # : 13361  
DATE : 4/11/86

FIELD : PATTERSON 'E'  
JOB # : 11254  
DEPTH : 3720  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	7:33:0	3.050	1188.000	48.89	0.000
54	7:36:0	3.100	1188.000	48.89	0.000
55	7:39:0	3.150	1188.000	48.89	0.000
56	7:42:0	3.200	1188.000	48.89	0.000
57	7:45:0	3.250	1188.000	48.89	0.000
58	7:48:0	3.300	1188.000	48.89	0.000
59	7:51:0	3.350	1188.000	48.89	0.000
60	7:54:0	3.400	1188.000	48.89	0.000
61	7:57:0	3.450	1188.000	48.89	0.000
62	8:0:0	3.500	1188.000	48.89	0.000
63	8:3:0	3.550	1188.000	48.89	0.000
64	8:6:0	3.600	1188.000	48.89	0.000
65	8:9:0	3.650	1188.000	48.89	0.000
66	8:12:0	3.700	1188.000	48.89	0.000
67	8:15:0	3.750	1188.000	48.89	0.000
68	8:18:0	3.800	1188.000	48.89	0.000

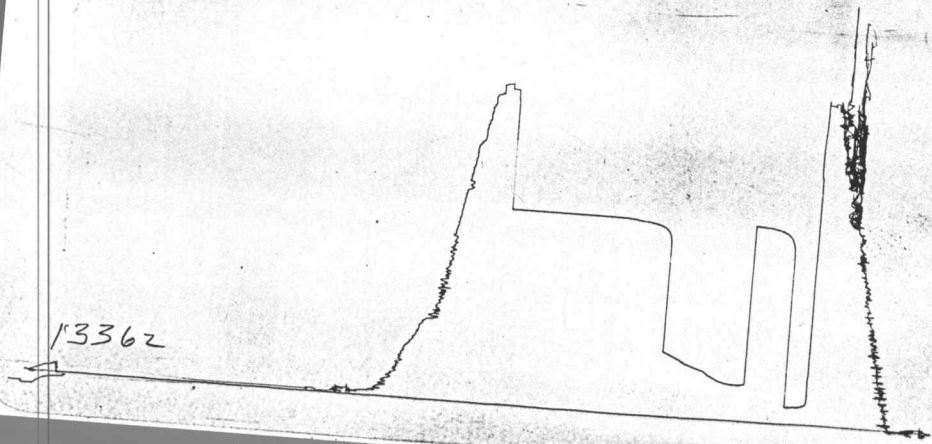
WESTERN TESTERS INC.

TKT 11254

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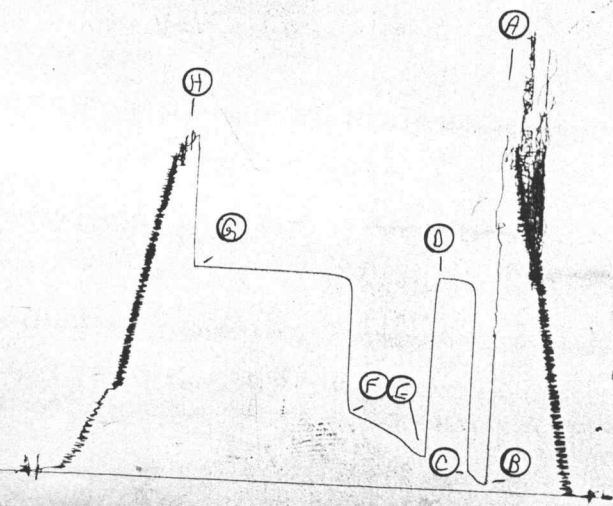
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