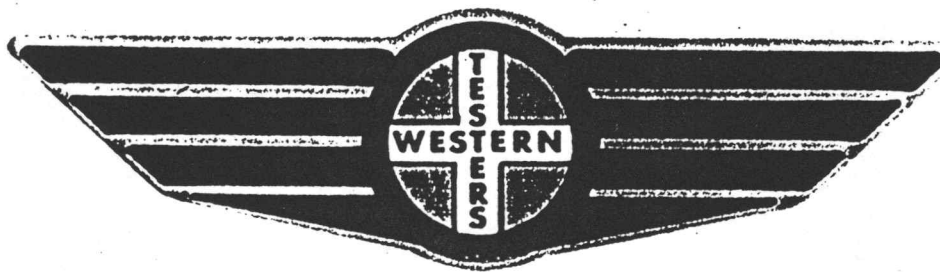


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY AINSWORTH OPERATING COMPANY LEASE & WELL NO. HOWARD #2 SEC. 29 TWP. 15S RGE. 25W TEST NO. 1 DATE 6/27/88

WESTERN TESTING CO. INC.-
SUBSURFACE PRESSURE SURVEY

DATE : 6-27-88
CUSTOMER : AINSWORTH OPERATING COMPANY
WELL : #2 TEST: 1
ELEVATION : 2524 GS est
SECTION : 29
RANGE : 25W COUNTY : TREGO
GAUGE SN# : 13547 RANGE : 4200
TICKET : 13769
LEASE : HOWARD
GEOLOGIST : T HIDY
FORMATION : LANSING K
TOWNSHIP : 15S
STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 4060 TO : 4081 TOTAL DEPTH : 4081
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4055 SIZE : 6.63
PACKER DEPTH : 4060 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 48
WEIGHT : 9.3 WATER LOSS (CC) : 16
CHLORIDES (PPM) : 10000
JARS-MAKE : - SERIAL NUMBER : -
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 540 FT I.D. inch : 2.75
DRILL PIPE LENGTH : 3500 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 21 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-DIED 5 MINUTES.
BLOW COMMENT #2 : FINAL FLOW-NO BLOW-FLUSHED TOOL-GOOD SURGE-NO BLOW.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED . : 3 FT OF: MUD

Total Barrels Fluid = 0.02
Total Fluid Prod Rate = 0.53 BFPD
Indicated Wtr Rate = 0.05 BWPD

REMARK 1 : FLUSHED TOOL FINAL FLOW.

REMARK 2 :

REMARK 3 :

REMARK 4 :

SET PACKER(S) : 7:30 PM

TIME STARTED OFF BOTTOM : 10:00 PM

WELL TEMPERATURE : 125

INITIAL HYDROSTATIC PRESSURE

(A) 1977

INITIAL FLOW PERIOD MIN: 30

(B) 33

PSI TO (C) : 33

INITIAL CLOSED IN PERIOD MIN: 48

(D) 608

FINAL FLOW PERIOD MIN: 30

(E) 82

PSI TO (F) : 39

FINAL CLOSED IN PERIOD MIN: 45

(G) 103

FINAL HYDROSTATIC PRESSURE

(H) 1959

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-27-88
GAUGE NO : 13547

OPERATIONAL COMMENTS

FLUSHED TOOL FINAL FLOW.

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 27/ 6/88

FIELD : HOWARD
JOB # : 13769
DEPTH : 4081
TEST : FLUSHED TOOL FINAL FLOW.

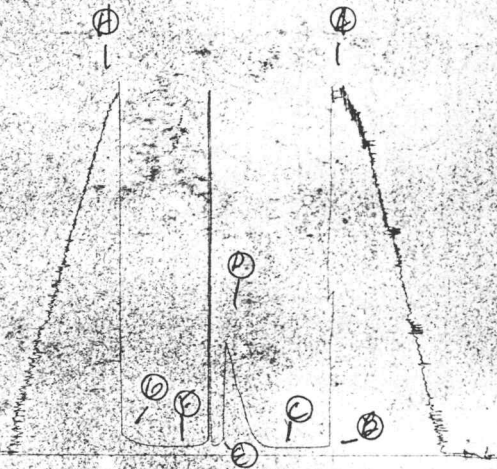
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	7:30: 0	0.000	33.000	125.00	0.000
2	7:34:59	0.083	33.000	125.00	0.000
3	7:40: 0	0.167	33.000	125.00	0.000
4	7:45: 0	0.250	33.000	125.00	0.000
5	7:49:59	0.333	33.000	125.00	0.000
6	7:55: 0	0.417	33.000	125.00	0.000
7	8: 0: 0	0.500	33.000	125.00	0.000
8	8: 3: 0	0.550	33.000	125.00	0.000
9	8: 6: 0	0.600	33.000	125.00	0.000
10	8: 9: 0	0.650	33.000	125.00	0.000
11	8:12: 0	0.700	33.000	125.00	0.000
12	8:15: 0	0.750	37.000	125.00	4.000
13	8:18: 0	0.800	46.000	125.00	9.000
14	8:21: 0	0.850	58.000	125.00	12.000
15	8:24: 0	0.900	78.000	125.00	20.000
16	8:27: 0	0.950	117.000	125.00	39.000
17	8:30: 0	1.000	175.000	125.00	58.000
18	8:33: 0	1.050	252.000	125.00	77.000
19	8:36: 0	1.100	322.000	125.00	70.000
20	8:39: 0	1.150	374.000	125.00	52.000
21	8:42: 0	1.200	482.000	125.00	108.000
22	8:45: 0	1.250	564.000	125.00	82.000
23	8:48: 0	1.300	608.000	125.00	44.000
24	8:49: 0	1.317	82.000	125.00	-526.000
25	8:52:59	1.383	43.000	125.00	-39.000
26	8:58: 0	1.467	79.000	125.00	36.000
27	9: 3: 0	1.550	51.000	125.00	-28.000
28	9: 7:59	1.633	42.000	125.00	-9.000
29	9:13: 0	1.717	40.000	125.00	-2.000
30	9:18: 0	1.800	39.000	125.00	-1.000
31	9:21: 0	1.850	39.000	125.00	0.000
32	9:24: 0	1.900	39.000	125.00	0.000
33	9:27: 0	1.950	39.000	125.00	0.000
34	9:30: 0	2.000	39.000	125.00	0.000
35	9:33: 0	2.050	39.000	125.00	0.000
36	9:36: 0	2.100	39.000	125.00	0.000
37	9:38:59	2.150	40.000	125.00	1.000
38	9:42: 0	2.200	42.000	125.00	2.000
39	9:45: 0	2.250	47.000	125.00	5.000
40	9:48: 0	2.300	51.000	125.00	4.000
41	9:51: 0	2.350	59.000	125.00	8.000
42	9:54: 0	2.400	69.000	125.00	10.000
43	9:56:59	2.450	76.000	125.00	7.000
44	10: 0: 0	2.500	94.000	125.00	18.000
45	10: 3: 0	2.550	103.000	125.00	9.000

WESTERN TESTING CO. INC.

2K # 13769

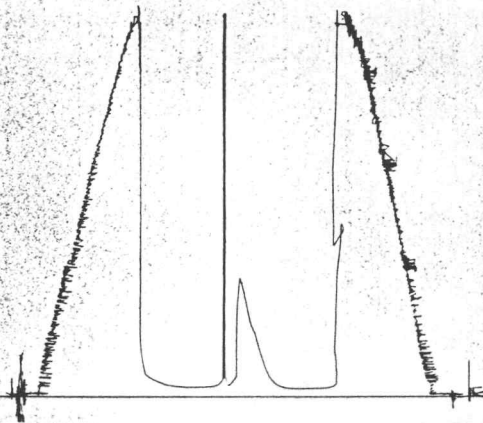
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13547x

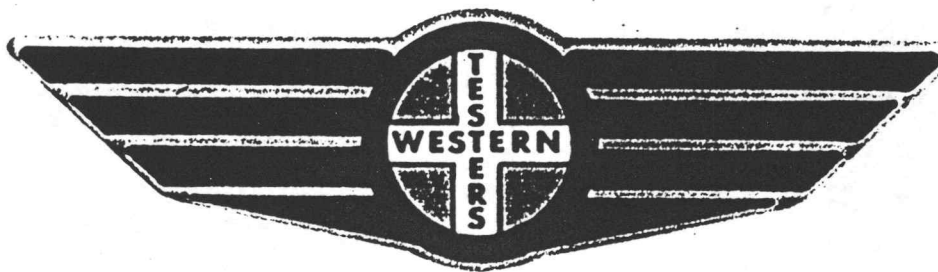


24 # 1376.9

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY AINSWORTH OPERATING COMPANY
LEASE & WELL NO. HOWARD #2
SEC. 29 TWP. 15S RGE. 25W TEST NO. 2
DATE 6/28/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	: 6-28-88	TICKET	: 13770
CUSTOMER	: AINSWORTH OPERATING COMPANY	LEASE	: HOWARD
WELL	: #2 TEST: 2	GEOLOGIST	: T HIDY
ELEVATION	: 2524 GS est	FORMATION	: MARMATON
SECTION	: 29	TOWNSHIP	: 15S
RANGE	: 25W	COUNTY	: TREGO
GAUGE SN#	: 13547	STATE	: KANSAS
		RANGE	: 4200
		CLOCK	: 12

INTERVAL FROM	: 4150	TO	: 4214	TOTAL DEPTH	: 4214
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 4150	SIZE	: 6.63		
PACKER DEPTH	: 4145	SIZE	: 6.63		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: ABERCROMBIE	RIG 4		
MUD TYPE	: CHEMICAL	VISCOSITY	: 41	
WEIGHT	: 9.2	WATER LOSS (CC)	: 11.2	
CHLORIDES (PPM)	: 8000			
JARS-MAKE	: -	SERIAL NUMBER	: -	
DID WELL FLOW ?	: -	REVERSED OUT ?	: -	

DRILL COLLAR LENGTH	: 0	FT	I.D. inch	: 0.00
WEIGHT PIPE LENGTH	: 540	FT	I.D. inch	: 2.75
DRILL PIPE LENGTH	: 3590	FT	I.D. inch	: 3.80
TEST TOOL LENGTH	: 20	FT	TOOL SIZE	: 5.50
ANCHOR LENGTH	: 64	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-STRONG BLOW-BOTTOM OF BUCKET IN 32
MINUTES (VERY SLOW BUILD)

BLOW COMMENT #2 :

BLOW COMMENT #3 :

BLOW COMMENT #4 :

RECOVERED : 80 FT OF: FREE OIL (37 GRAVITY)
RECOVERED : 70 FT OF: OIL CUT MUD (85% MUD-15% OIL)

Total Barrels Fluid = 1.10
Total Fluid Prod Rate = 17.63 BFPD
Indicated Oil Rate = 10.64 BOPD
Indicated Wtr Rate = 0.71 BWPD
Corrected Oil Rate = 5.17 BOPD
Corrected Wtr Rate = 0.34 BWPD

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

SET PACKER(S) : 2:25 PM

TIME STARTED OFF BOTTOM : 5:55 PM

WELL TEMPERATURE : 128

INITIAL HYDROSTATIC PRESSURE

(A) 2152

INITIAL FLOW PERIOD MIN: 45

(B) 95 PSI TO (C) : 90

INITIAL CLOSED IN PERIOD MIN: 57

(D) 470

FINAL FLOW PERIOD MIN: 45

(E) 118 PSI TO (F) : 111

FINAL CLOSED IN PERIOD MIN: 60

(G) 369

FINAL HYDROSTATIC PRESSURE

(H) 2081

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-28-88
GAUGE NO : 13547

OPERATIONAL COMMENTS

COMPANY : AINSWORTH OPERATING COMPANY

WELL : #2

GAUGE # : 13547

DATE : 28/ 6/88

FIELD : HOWARD

JOB # : 13770

DEPTH : 4214

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	2:25: 0	0.000	95.000	128.00	0.000
2	2:29:59	0.083	95.000	128.00	0.000
3	2:35: 0	0.167	92.000	128.00	-3.000
4	2:40: 0	0.250	90.000	128.00	-2.000
5	2:44:59	0.333	90.000	128.00	0.000
6	2:50: 0	0.417	90.000	128.00	0.000
7	2:55: 0	0.500	90.000	128.00	0.000
8	2:59:59	0.583	90.000	128.00	0.000
9	3: 5: 0	0.667	90.000	128.00	0.000
10	3:10: 0	0.750	90.000	128.00	0.000
11	3:13: 0	0.800	116.000	128.00	26.000
12	3:16: 0	0.850	180.000	128.00	64.000
13	3:19: 0	0.900	286.000	128.00	106.000
14	3:22: 0	0.950	328.000	128.00	42.000
15	3:25: 0	1.000	356.000	128.00	28.000
16	3:28: 0	1.050	381.000	128.00	25.000
17	3:31: 0	1.100	397.000	128.00	16.000
18	3:34: 0	1.150	406.000	128.00	9.000
19	3:37: 0	1.200	413.000	128.00	7.000
20	3:40: 0	1.250	421.000	128.00	8.000
21	3:43: 0	1.300	431.000	128.00	10.000
22	3:46: 0	1.350	437.000	128.00	6.000
23	3:49: 0	1.400	442.000	128.00	5.000
24	3:52: 0	1.450	450.000	128.00	8.000
25	3:55: 0	1.500	455.000	128.00	5.000
26	3:58: 0	1.550	460.000	128.00	5.000
27	4: 1: 0	1.600	463.000	128.00	3.000
28	4: 4: 0	1.650	468.000	128.00	5.000
29	4: 7: 0	1.700	470.000	128.00	2.000
30	4: 8: 0	1.717	118.000	128.00	-352.000
31	4:11:59	1.783	118.000	128.00	0.000
32	4:17: 0	1.867	112.000	128.00	-6.000
33	4:22: 0	1.950	111.000	128.00	-1.000
34	4:26:59	2.033	111.000	128.00	0.000
35	4:32: 0	2.117	111.000	128.00	0.000
36	4:37: 0	2.200	111.000	128.00	0.000
37	4:41:59	2.283	111.000	128.00	0.000
38	4:47: 0	2.367	111.000	128.00	0.000
39	4:52: 0	2.450	111.000	128.00	0.000
40	4:55: 0	2.500	125.000	128.00	14.000
41	4:58: 0	2.550	206.000	128.00	81.000
42	5: 1: 0	2.600	257.000	128.00	51.000
43	5: 4: 0	2.650	282.000	128.00	25.000
44	5: 7: 0	2.700	296.000	128.00	14.000
45	5:10: 0	2.750	307.000	128.00	11.000
46	5:13: 0	2.800	315.000	128.00	8.000
47	5:16: 0	2.850	323.000	128.00	8.000
48	5:19: 0	2.900	328.000	128.00	5.000
49	5:22: 0	2.950	333.000	128.00	5.000
50	5:25: 0	3.000	338.000	128.00	5.000
51	5:28: 0	3.050	344.000	128.00	6.000
52	5:31: 0	3.100	349.000	128.00	5.000

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 28/ 6/88

FIELD : HOWARD
JOB # : 13770
DEPTH : 4214
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	5:34: 0	3.150	351.000	128.00	2.000
54	5:37: 0	3.200	354.000	128.00	3.000
55	5:40: 0	3.250	358.000	128.00	4.000
56	5:43: 0	3.300	360.000	128.00	2.000
57	5:46: 0	3.350	363.000	128.00	3.000
58	5:49: 0	3.400	366.000	128.00	3.000
59	5:52: 0	3.450	369.000	128.00	3.000

WESTERN TESTING CO. INC.

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-28-88
GAUGE NO : 13547
TEST : SHUT-IN 1

COMPANY : AINSWORTH OPERATING COMPANY
 WELL : #2
 GAUGE # : 13547
 DATE : 28/ 6/88
 Comment : SHUT-IN 1
 Horner T: .75 Hours

FIELD : HOWARD
 JOB # : 13770
 DEPTH : 4214
 TEST :

DATA No.	REAL TIME HR:MM:SS	EVENT TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	HORNER (T+dt)/dt	DELTA P PSIG
10	3:10: 0	0.000	90.000	128.00	0.0000	0.000
11	3:13: 0	0.050	116.000	128.00	16.0000	26.000
12	3:16: 0	0.100	180.000	128.00	8.5000	90.000
13	3:19: 0	0.150	286.000	128.00	6.0000	196.000
14	3:22: 0	0.200	328.000	128.00	4.7500	238.000
15	3:25: 0	0.250	356.000	128.00	4.0000	266.000
16	3:28: 0	0.300	381.000	128.00	3.5000	291.000
17	3:31: 0	0.350	397.000	128.00	3.1429	307.000
18	3:34: 0	0.400	406.000	128.00	2.8750	316.000
19	3:37: 0	0.450	413.000	128.00	2.6667	323.000
20	3:40: 0	0.500	421.000	128.00	2.5000	331.000
21	3:43: 0	0.550	431.000	128.00	2.3636	341.000
22	3:46: 0	0.600	437.000	128.00	2.2500	347.000
23	3:49: 0	0.650	442.000	128.00	2.1538	352.000
24	3:52: 0	0.700	450.000	128.00	2.0714	360.000
25	3:55: 0	0.750	455.000	128.00	2.0000	365.000
26	3:58: 0	0.800	460.000	128.00	1.9375	370.000
27	4: 1: 0	0.850	463.000	128.00	1.8824	373.000
28	4: 4: 0	0.900	468.000	128.00	1.8333	378.000
29	4: 7: 0	0.950	470.000	128.00	1.7895	380.000

WESTERN TESTING CO. INC.

COMPANY: AINSWORTH OPERATING COMPANY
FIELD: HOWARD

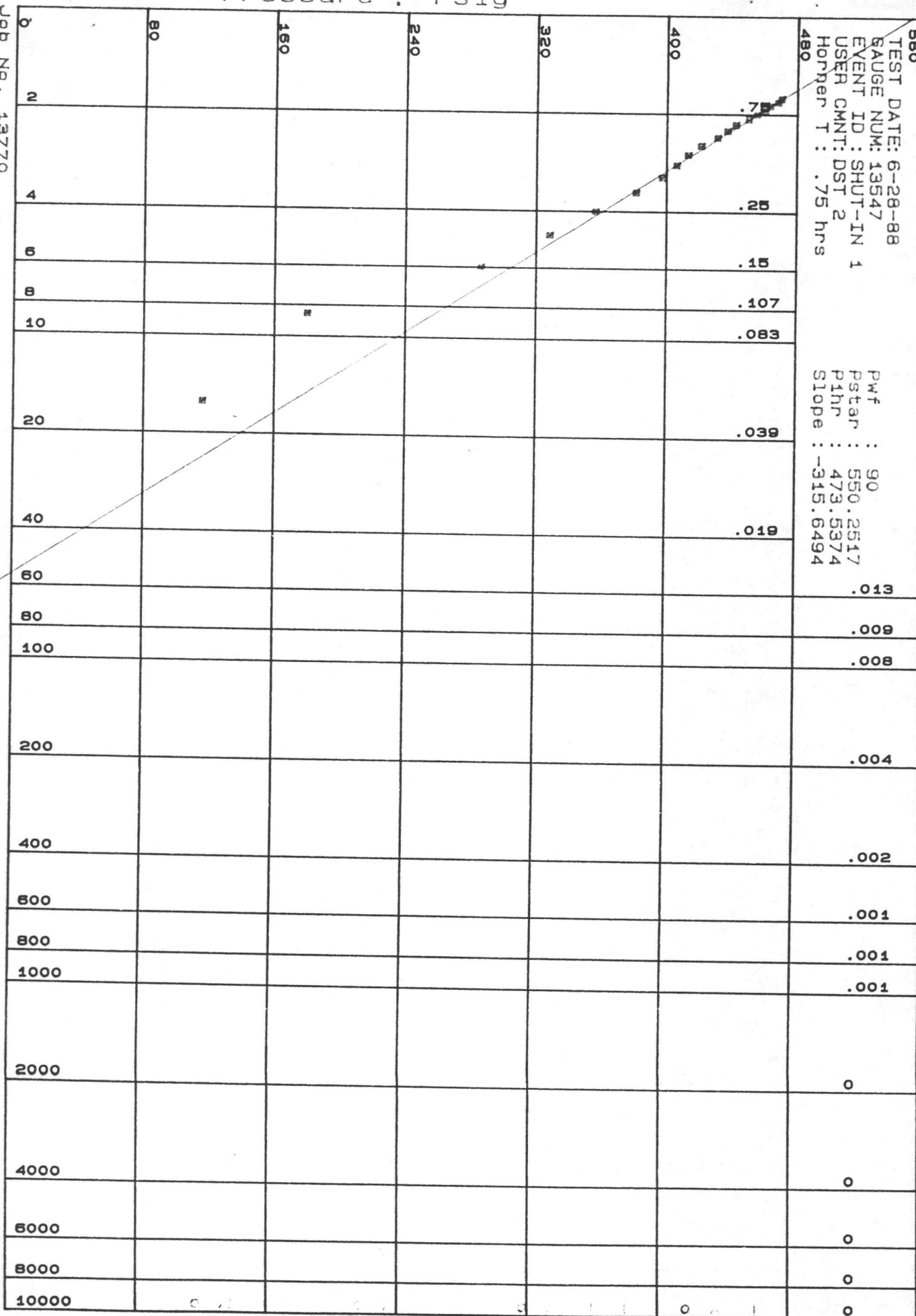
WELL: #2
LOCATION: TREGO-KANSAS

PROCESSED: 06-29-1988
ENGINEER: LARRY KING

TEST DATE: 6-28-88
GAUGE NUM: 13547
EVENT ID: SHUT-IN 1
USER CMNT: DST 2
Horner T: .75 hrs
480

Pwf : 90
Pstar : 550.2517
P1hr : 473.5374
Slope : -315.6494

Pressure, Psig



Job No. 13770
WESTERN TESTING CO. INC.

Horner Ratio, (T+dt)/dt

RES-TRAN

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-28-88
GAUGE NO : 13547
TEST : SHUT-IN 2

WESTERN TESTING CO. INC.
WICHITA-KANSAS

WELL TEST ANALYSIS REPORT
HORNER METHOD
SHUTIN No. 2

COMPANY. AINSWORTH OPERATING COMPANY
DATE 6-28-88
FIELD. HOWARD
WELL #2
AREA TREGO-KANSAS
JOB NUMBER 13770
GAUGE NUMBER . . . 13547
GAUGE DEPTH. . . . 4214
ZONE TESTED. . . . 4150-4214

PHASE : OIL FUNCTION : PRESSURE

=====I=N=P=U=T====D=A=T=A====S=U=M=M=A=R=Y=====

THICKNESS.	H	6.0000E+00	Feet
POROSITY	POR	1.1000E-01	Frac
VISCOSITY.	U	2.4000E+00	Cp
FORMATION VOLUME FACTOR.	B	1.0001E+00	Rb/stb
TOTAL COMPRESSIBILITY.	Ct	1.5000E-05	Psi ⁻¹
WELLBORE RADIUS.	Rw	7.8000E-01	Feet
DRAINAGE RADIUS.	Re	1.5000E+03	Feet
RESERVOIR TEMPERATURE.	T	1.2800E+02	Deg F
GRAVITY OF FLUID	G	3.7000E+01	
PVT EVALUATION PRESSURE.	P	0.0000E+00	Psig
PRESSURE AT SHUT-IN.	Pwf	1.1100E+02	Psig
FINAL RECORDED PRESSURE.	Ps	3.6900E+02	Psig
PRODUCTION RATE.	Q	1.7630E+01	Bbl/day
TOTAL FLOW TIME.	T	7.5000E-01	Hours

=====R=E=G=R=E=S=S=I=O=N====R=E=S=U=L=T=S=====

LEAST SQUARE RESULTS OVER THE INTERVAL :
FROM 2 TO 1

SLOPE OF THE LINE. 2.5102E+02 psi/cycle
FALSE PRESSURE, PSTAR. 4.2952E+02 psi
PRESSURE AT 1 HOUR 3.6852E+02 psi

=====A=N=A=L=Y=S=I=S====R=E=S=U=L=T=S=====

TRANSMISSIBILITY.	.Kh/u	1.1421E+01	md-ft/cp
FLOW CAPACITY.	.Kh	2.7410E+01	md-ft
PERMEABILITY to PHASE.	K	4.5683E+00	md
DAMAGE RATIO	.Dr	4.3427E-01	
RADIUS OF INVESTIGATION.	.Rinv	3.0210E+01	ft
SKIN FACTOR.	S	-1.9042E+00	
AVERAGE PRESSURE	.Pbar	4.2948E+02	psig
DIMENSIONLESS TIME	.Tda	3.2314E-05	
MATTHEWS-BRONS-HAZEBROEK	.PDmbh	4.0607E-04	

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 28/ 6/88
Comment : SHUT-IN 2
Horner T: .75 Hours

FIELD : HOWARD
JOB # : 13770
DEPTH : 4214
TEST :

DATA No.	REAL TIME HR:MM:SS	EVENT TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	HORNER (T+dt)/dt	DELTA P PSIG
39	4:52: 0	0.000	111.000	128.00	0.0000	0.000
40	4:55: 0	0.050	125.000	128.00	16.0000	14.000
41	4:58: 0	0.100	206.000	128.00	8.5000	95.000
42	5: 1: 0	0.150	257.000	128.00	6.0000	146.000
43	5: 4: 0	0.200	282.000	128.00	4.7500	171.000
44	5: 7: 0	0.250	296.000	128.00	4.0000	185.000
45	5:10: 0	0.300	307.000	128.00	3.5000	196.000
46	5:13: 0	0.350	315.000	128.00	3.1429	204.000
47	5:16: 0	0.400	323.000	128.00	2.8750	212.000
48	5:19: 0	0.450	328.000	128.00	2.6667	217.000
49	5:22: 0	0.500	333.000	128.00	2.5000	222.000
50	5:25: 0	0.550	338.000	128.00	2.3636	227.000
51	5:28: 0	0.600	344.000	128.00	2.2500	233.000
52	5:31: 0	0.650	349.000	128.00	2.1538	238.000
53	5:34: 0	0.700	351.000	128.00	2.0714	240.000
54	5:37: 0	0.750	354.000	128.00	2.0000	243.000
55	5:40: 0	0.800	358.000	128.00	1.9375	247.000
56	5:43: 0	0.850	360.000	128.00	1.8824	249.000
57	5:46: 0	0.900	363.000	128.00	1.8333	252.000
58	5:49: 0	0.950	366.000	128.00	1.7895	255.000
59	5:52: 0	1.000	369.000	128.00	1.7500	258.000

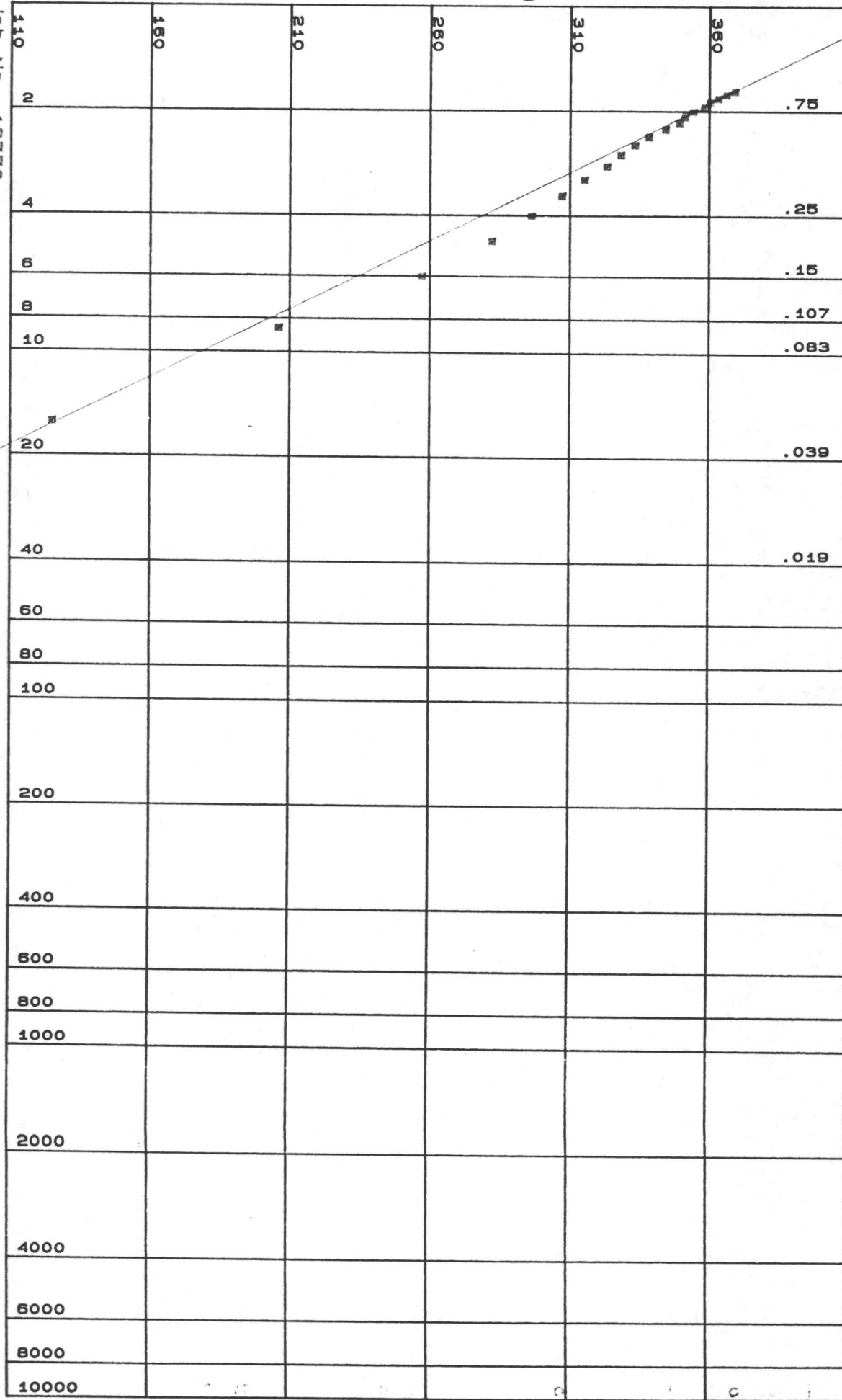
WESTERN TESTING CO. INC.

COMPANY: AINSWORTH OPERATING COMPANY
FIELD: HOWARD

WELL # : #2
LOCATION: TREGO-KANSAS

PROCESSED: 06-29-1988
ENGINEER: LARRY KING

480 TEST DATE: 6-28-88
GAUGE NUM: 13547
EVENT ID: SHUT-IN 2
USER CMNT: DST 2
Horner T: .75 hrs
PMF : 111
Pstar : 429.523
P1hr : 368.5172
Slope : -251.0151



Job No. 13770
WESTERN TESTING CO. INC.

Horner Ratio, (T+dt)/dt

RES-TRAN

WESTERN TESTING CO. INC.
WICHITA-KANSAS

WELL TEST ANALYSIS REPORT
HORNER METHOD
SHUTIN No. 2

COMPANY. AINSWORTH OPERATING COMPANY
DATE 6-28-88
FIELD. HOWARD
WELL #2
AREA TREGO-KANSAS
JOB NUMBER . . . 13770
GAUGE NUMBER . . 13547
GAUGE DEPTH. . . 4214
ZONE TESTED. . . 4150-4214

PHASE : OIL FUNCTION : PRESSURE

=====I=N=P=U=T====D=A=T=A====S=U=M=M=A=R=Y=====

THICKNESS.	H	6.0000E+00	Feet
POROSITY	POR	1.1000E-01	Frac
VISCOSITY.	U	2.4000E+00	Cp
FORMATION VOLUME FACTOR.	B	1.0001E+00	Rb/stb
TOTAL COMPRESSIBILITY.	Ct	1.5000E-05	Psi ⁻¹
WELLBORE RADIUS.	Rw	7.8000E-01	Feet
DRAINAGE RADIUS.	Re	1.5000E+03	Feet
RESERVOIR TEMPERATURE.	T	1.2800E+02	Deg F
GRAVITY OF FLUID	G	3.7000E+01	
PVT EVALUATION PRESSURE.	P	0.0000E+00	Psig
PRESSURE AT SHUT-IN.	Pwf	1.1100E+02	Psig
FINAL RECORDED PRESSURE.	Ps	3.6900E+02	Psig
PRODUCTION RATE.	Q	1.7630E+01	Bbl/day
TOTAL FLOW TIME.	T	7.5000E-01	Hours

=====R=E=G=R=E=S=S=I=O=N====R=E=S=U=L=T=S=====

LEAST SQUARE RESULTS OVER THE INTERVAL :
FROM 2 TO 1

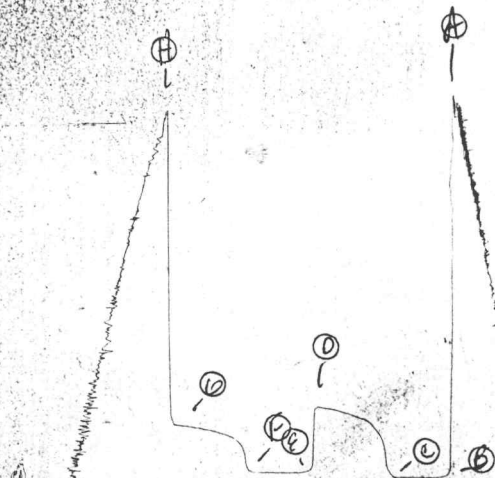
SLOPE OF THE LINE.	2.5102E+02	psi/cycle
FALSE PRESSURE, PSTAR.	4.2952E+02	psi
PRESSURE AT 1 HOUR	3.6852E+02	psi

=====A=N=A=L=Y=S=I=S====R=E=S=U=L=T=S=====

TRANSMISSIBILITY.	Kh/u	1.1421E+01	md-ft/cp
FLOW CAPACITY.	Kh	2.7410E+01	md-ft
PERMEABILITY to PHASE.	K	4.5683E+00	md
DAMAGE RATIO	Dr	4.3427E-01	
RADIUS OF INVESTIGATION.	Rinv	3.0210E+01	ft
SKIN FACTOR.	S	-1.9042E+00	
AVERAGE PRESSURE	Pbar	4.2948E+02	psig
DIMENSIONLESS TIME	Tda	3.2314E-05	
MATTHEWS-BRONS-HAZEBROEK	PDmbh	4.0607E-04	

Kt # 13770

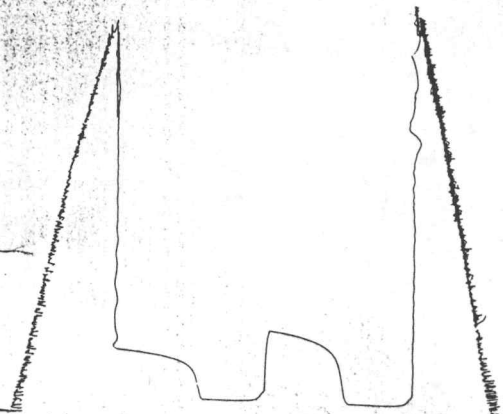
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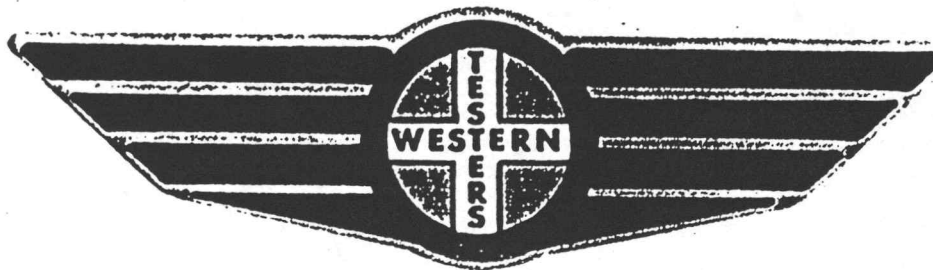
13547x

SK # 13770.

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316)-262-5861

COMPANY AINSWORTH OPERATING CO. LEASE & WELL NO. HOWARD #2

SEC. 29 TWP. 15S RGE. 25W TEST NO. 3 DATE 6/29/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	: 6-29-88	TICKET	: 13771
CUSTOMER	: AINSWORTH OPERATING COMPANY	LEASE	: HOWARD
WELL	: #2 TEST: 3	GEOLOGIST	: T HIDY
ELEVATION	: 2524 GS est	FORMATION	: MISSISSIPPI
SECTION	: 29	TOWNSHIP	: 15S
RANGE	: 25W	COUNTY	: TREGO
GAUGE SN#	: 13547	RANGE	: 4200
		STATE	: KANSAS
		CLOCK	: 12

INTERVAL FROM	: 4402	TO	: 4430	TOTAL DEPTH	: 4430
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 4397	SIZE	: 6.63		
PACKER DEPTH	: 4402	SIZE	: 6.63		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: ABERCROMBIE	RIG 4		
MUD TYPE	: CHEMICAL	VISCOSITY	: 46	
WEIGHT	: 9.3	WATER LOSS (CC)	: 12	
CHLORIDES (PPM)	: 8000			
JARS-MAKE	: -	SERIAL NUMBER	: -	
DID WELL FLOW ?	: -	REVERSED OUT ?	: -	

DRILL COLLAR LENGTH	: 0	FT	I.D. inch	: 0.00
WEIGHT PIPE LENGTH	: 540	FT	I.D. inch	: 2.75
DRILL PIPE LENGTH	: 3842	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 : INITIAL FLOW-WEAK BLOW-DIED IN 12 MINUTES.
BLOW COMMENT #2 : FINAL FLOW-NO BLOW.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 20 FT OF: OIL
RECOVERED : 20 FT OF: MUD / WITH OIL SPOTS

Total Barrels Fluid = 0.29
Total Fluid Prod Rate = 7.05 BFPD
Indicated Oil Rate = 3.53 BOPD
Indicated Wtr Rate = 0.35 BWPD

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

SET PACKER(S) : 8:15 PM

TIME STARTED OFF BOTTOM : 10:45 PM

WELL TEMPERATURE : 134

INITIAL HYDROSTATIC PRESSURE

(A) 2233

INITIAL FLOW PERIOD MIN: 30

(B) 61 PSI TO (C) : 61

INITIAL CLOSED IN PERIOD MIN: 45

(D) 939

FINAL FLOW PERIOD MIN: 30

(E) 61 PSI TO (F) : 61

FINAL CLOSED IN PERIOD MIN: 42

(G) 678

FINAL HYDROSTATIC PRESSURE

(H) 2196

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-29-88
GAUGE NO : 13547

OPERATIONAL COMMENTS

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 29/ 6/88

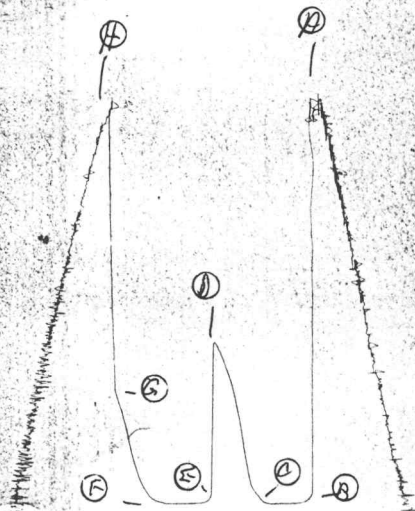
FIELD : HOWARD
JOB # : 13771
DEPTH : 4430
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	8:15: 0	0.000	61.000	134.00	0.000
2	8:19:59	0.083	61.000	134.00	0.000
3	8:25: 0	0.167	61.000	134.00	0.000
4	8:30: 0	0.250	61.000	134.00	0.000
5	8:34:59	0.333	61.000	134.00	0.000
6	8:40: 0	0.417	61.000	134.00	0.000
7	8:45: 0	0.500	61.000	134.00	0.000
8	8:48: 0	0.550	61.000	134.00	0.000
9	8:51: 0	0.600	71.000	134.00	10.000
10	8:54: 0	0.650	97.000	134.00	26.000
11	8:57: 0	0.700	123.000	134.00	26.000
12	9: 0: 0	0.750	158.000	134.00	35.000
13	9: 3: 0	0.800	240.000	134.00	82.000
14	9: 6: 0	0.850	339.000	134.00	99.000
15	9: 9: 0	0.900	457.000	134.00	118.000
16	9:12: 0	0.950	570.000	134.00	113.000
17	9:15: 0	1.000	669.000	134.00	99.000
18	9:18: 0	1.050	748.000	134.00	79.000
19	9:21: 0	1.100	811.000	134.00	63.000
20	9:24: 0	1.150	870.000	134.00	59.000
21	9:27: 0	1.200	917.000	134.00	47.000
22	9:30: 0	1.250	939.000	134.00	22.000
23	9:31: 0	1.267	61.000	134.00	-878.000
24	9:34:59	1.333	61.000	134.00	0.000
25	9:40: 0	1.417	61.000	134.00	0.000
26	9:45: 0	1.500	61.000	134.00	0.000
27	9:49:59	1.583	61.000	134.00	0.000
28	9:55: 0	1.667	61.000	134.00	0.000
29	10: 0: 0	1.750	61.000	134.00	0.000
30	10: 3: 0	1.800	61.000	134.00	0.000
31	10: 6: 0	1.850	68.000	134.00	7.000
32	10: 9: 0	1.900	72.000	134.00	4.000
33	10:12: 0	1.950	83.000	134.00	11.000
34	10:15: 0	2.000	101.000	134.00	18.000
35	10:18: 0	2.050	132.000	134.00	31.000
36	10:21: 0	2.100	166.000	134.00	34.000
37	10:24: 0	2.150	216.000	134.00	50.000
38	10:27: 0	2.200	276.000	134.00	60.000
39	10:30: 0	2.250	350.000	134.00	74.000
40	10:33: 0	2.300	438.000	134.00	88.000
41	10:36: 0	2.350	542.000	134.00	104.000
42	10:39: 0	2.400	621.000	134.00	79.000
43	10:42: 0	2.450	678.000	134.00	57.000

WESTERN TESTING CO. INC.

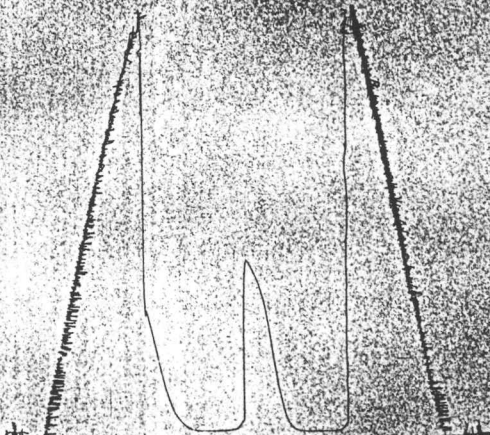
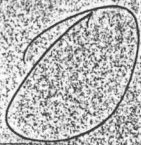
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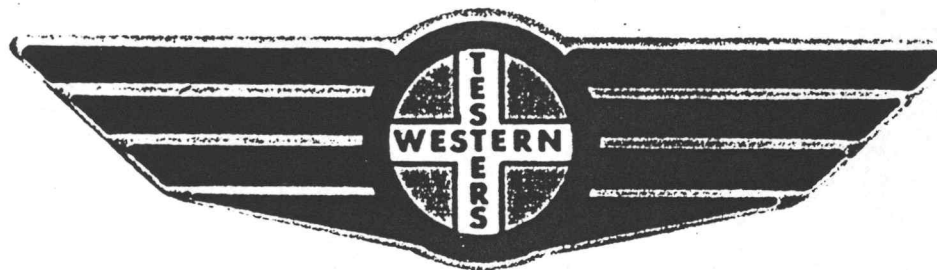


13547x

TK4 B771



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316)-262-5861

COMPANY AINSWORTH OPERATING CO. LEASE & WELL NO. HOWARD #2

SEC. 29 TWP. 15S RGE. 25W TEST NO. 4 DATE 6/30/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	6-30-88	TICKET	:	13772
CUSTOMER	:	AINSWORTH OPERATING COMPANY	LEASE	:	HOWARD
WELL	:	#2 TEST: 4	GEOLOGIST	:	T HIDY
ELEVATION	:	2524 GS est	FORMATION	:	MISSISSIPPI
SECTION	:	29	TOWNSHIP	:	15S
RANGE	:	25W	COUNTY	:	TREGO
Gauge SN#	:	13547	RANGE	:	4200
			STATE	:	KANSAS
			CLOCK	:	12

INTERVAL FROM : 4428 TO : 4445 TOTAL DEPTH : 4445

DEPTH OF SELECTIVE ZONE :

PACKER DEPTH : 4423 SIZE : 6.63

PACKER DEPTH : 4428 SIZE : 6.63

PACKER DEPTH : SIZE :

PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG 4

MUD TYPE : CHEMICAL VISCOSITY : 46

WEIGHT : 9.3 WATER LOSS (CC) : 12

CHLORIDES (PPM) : 8000

JARS-MAKE : - SERIAL NUMBER : -

DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00

WEIGHT PIPE LENGTH : 540 FT I.D. inch : 2.75

DRILL PIPE LENGTH : 3868 FT I.D. inch : 3.80

TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50

ANCHOR LENGTH : 17 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-SLOW BUILD TO A FAIR BLOW-12" IN BUCKET

BLOW COMMENT #2 : FINAL FLOW-SLOW BUILD TO A FAIR BLOW-10" IN BUCKET

BLOW COMMENT #3 :

BLOW COMMENT #4 :

RECOVERED : 165 FT OF: CLEAN GASSY OIL 40 GRAVITY
RECOVERED : 195 FT OF: GAS & MUD CUT OIL
55% OIL-40% MUD-5% GAS
RECOVERED : 120 FT OF: HEAVY OIL % GAS CUT MUD
40% OIL-40% MUD-20% GAS

Total Barrels Fluid = 3.53
Total Fluid Prod Rate = 67.70 BFPD
Indicated Oil Rate = 45.13 BOPD
Indicated Wtr Rate = 1.78 BWPD
Corrected Oil Rate = 39.87 BOPD
Corrected Wtr Rate = 1.57 BWPD

REMARK 1 :
REMARK 2 : RECOVERED 120 FEET OF GAS ABOVE FLUID.
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 9:10 AM TIME STARTED OFF BOTTOM : 12:10 PM
WELL TEMPERATURE : 139
INITIAL HYDROSTATIC PRESSURE (A) 2242
INITIAL FLOW PERIOD MIN: 30 (B) 96 PSI TO (C) : 112
INITIAL CLOSED IN PERIOD MIN: 48 (D) 1242
FINAL FLOW PERIOD MIN: 45 (E) 159 PSI TO (F) : 197
FINAL CLOSED IN PERIOD MIN: 60 (G) 1224
FINAL HYDROSTATIC PRESSURE (H) 2166

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-30-88
GAUGE NO : 13547

OPERATIONAL COMMENTS

RECOVERED 120 FEET OF GAS ABOVE FLUID.

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 30/ 6/88

FIELD : HOWARD
JOB # : 13772
DEPTH : 4445
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	9:10: 0	0.000	96.000	139.00	0.000
2	9:14:59	0.083	96.000	139.00	0.000
3	9:20: 0	0.167	96.000	139.00	0.000
4	9:25: 0	0.250	96.000	139.00	0.000
5	9:29:59	0.333	100.000	139.00	4.000
6	9:35: 0	0.417	108.000	139.00	8.000
7	9:40: 0	0.500	112.000	139.00	4.000
8	9:43: 0	0.550	390.000	139.00	278.000
9	9:46: 0	0.600	941.000	139.00	551.000
10	9:49: 0	0.650	1090.000	139.00	149.000
11	9:52: 0	0.700	1146.000	139.00	56.000
12	9:55: 0	0.750	1169.000	139.00	23.000
13	9:58: 0	0.800	1186.000	139.00	17.000
14	10: 1: 0	0.850	1201.000	139.00	15.000
15	10: 4: 0	0.900	1211.000	139.00	10.000
16	10: 7: 0	0.950	1218.000	139.00	7.000
17	10:10: 0	1.000	1223.000	139.00	5.000
18	10:13: 0	1.050	1226.000	139.00	3.000
19	10:16: 0	1.100	1231.000	139.00	5.000
20	10:19: 0	1.150	1233.000	139.00	2.000
21	10:22: 0	1.200	1236.000	139.00	3.000
22	10:25: 0	1.250	1240.000	139.00	4.000
23	10:28: 0	1.300	1242.000	139.00	2.000
24	10:29: 0	1.317	159.000	139.00	-1083.000
25	10:32:59	1.383	159.000	139.00	0.000
26	10:38: 0	1.467	159.000	139.00	0.000
27	10:43: 0	1.550	159.000	139.00	0.000
28	10:47:59	1.633	162.000	139.00	3.000
29	10:53: 0	1.717	173.000	139.00	11.000
30	10:58: 0	1.800	180.000	139.00	7.000
31	11: 2:59	1.883	188.000	139.00	8.000
32	11: 8: 0	1.967	195.000	139.00	7.000
33	11:13: 0	2.050	197.000	139.00	2.000
34	11:16: 0	2.100	878.000	139.00	681.000
35	11:18:59	2.150	1062.000	139.00	184.000
36	11:22: 0	2.200	1101.000	139.00	39.000
37	11:25: 0	2.250	1136.000	139.00	35.000
38	11:28: 0	2.300	1153.000	139.00	17.000
39	11:31: 0	2.350	1165.000	139.00	12.000
40	11:33:59	2.400	1174.000	139.00	9.000
41	11:37: 0	2.450	1182.000	139.00	8.000
42	11:40: 0	2.500	1190.000	139.00	8.000
43	11:43: 0	2.550	1196.000	139.00	6.000
44	11:46: 0	2.600	1200.000	139.00	4.000
45	11:49: 0	2.650	1203.000	139.00	3.000
46	11:51:59	2.700	1206.000	139.00	3.000
47	11:55: 0	2.750	1208.000	139.00	2.000
48	11:58: 0	2.800	1212.000	139.00	4.000
49	12: 1: 0	2.850	1215.000	139.00	3.000
50	12: 4: 0	2.900	1218.000	139.00	3.000
51	12: 6:59	2.950	1220.000	139.00	2.000
52	12:10: 0	3.000	1222.000	139.00	2.000

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : -13547
DATE : 30/ 6/88

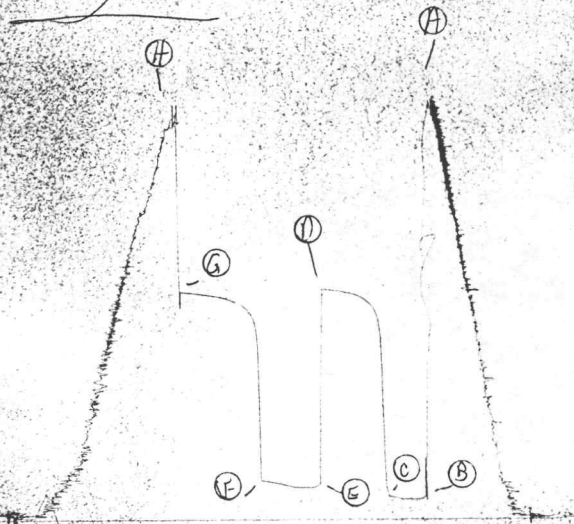
FIELD : HOWARD
JOB # : 13772
DEPTH : 4445
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P P _i -P _(i-1)
53	12:13: 0	3.050	1224.000	139.00	2.000

WESTERN TESTING CO. INC.

K4 B77

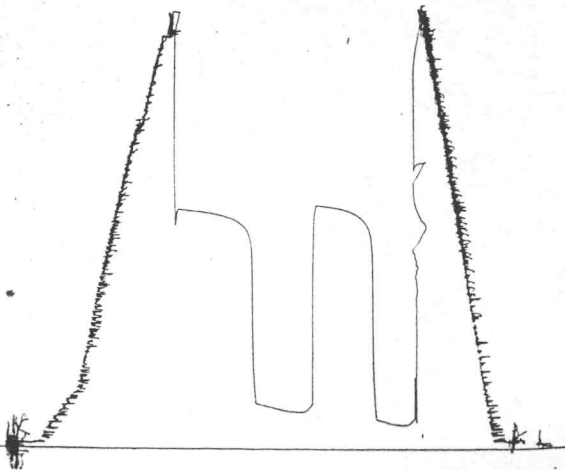
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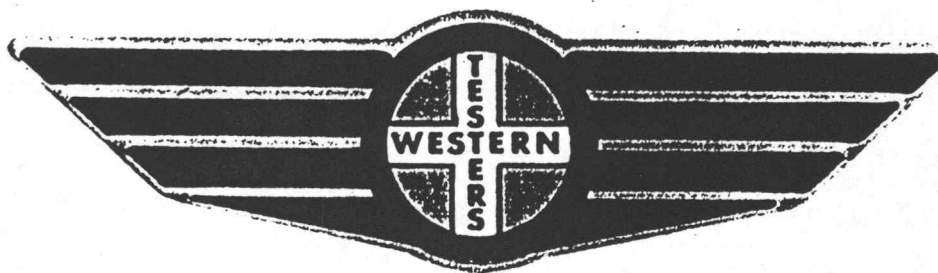
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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY AINSWORTH OPERATING COMPANY LEASE & WELL NO. HOWARD #2 SEC. 29 TWP. 15S RGE. 25W TEST NO. 5 DATE 6/30/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	6-30-88	TICKET	:	13773
CUSTOMER	:	AINSWORTH OPERATING COMPANY	LEASE	:	HOWARD
WELL	:	#2	TEST:	:	5
ELEVATION	:	2524 GS est	GEOLOGIST	:	T HIDY
SECTION	:	29	FORMATION	:	MISSISSIPPI
RANGE	:	25W	COUNTY	:	TREGO
Gauge SN#	:	13547	RANGE	:	4200
			STATE	:	KANSAS
			CLOCK	:	12

INTERVAL FROM	:	4445	TO	:	4460	TOTAL DEPTH	:	4460
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	4440	SIZE	:	6.63			
PACKER DEPTH	:	4445	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	ABERCROMBIE	RIG 4		
MUD TYPE	:	CHEMICAL	VISCOSITY	:	45
WEIGHT	:	9.4	WATER LOSS (CC)	:	12.0
CHLORIDES (PPM)	:	8000			
JARS-MAKE	:	-	SERIAL NUMBER	:	-
DID WELL FLOW ?	:	-	REVERSED OUT ?	:	-

DRILL COLLAR LENGTH	:	0	FT	I.D. inch	:	0.00
WEIGHT PIPE LENGTH	:	540	FT	I.D. inch	:	2.75
DRILL PIPE LENGTH	:	3885	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	15	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-STRONG BLOW-BOTTOM OF BUCKET 11 MINUTES
BLOW COMMENT #2	:	FINAL FLOW-STRONG BLOW-BOTTOM OF BUCKET 17 MINUTES
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED .: 765 FT OF: CLEAN GASSY OIL (40 GRAVITY)
RECOVERED : 165 FT OF: MUDDY WATER/ WITH OIL SCUM
75% WATER-25% MUD

CHLORIDES: 14000 PPM

Total Barrels Fluid = 9.44
Total Fluid Prod Rate = 194.13 BFPD
Indicated Oil Rate = 159.69 BOPD
Indicated Wtr Rate = 26.09 BWPD
Corrected Oil Rate = 147.24 BOPD
Corrected Wtr Rate = 24.06 BWPD

REMARK 1 :
REMARK 2 : RECOVERED 180 FEET OF GAS ABOVE FLUID.
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 11:35 PM
WELL TEMPERATURE : 134
INITIAL HYDROSTATIC PRESSURE (A) 2292
INITIAL FLOW PERIOD MIN: 25 (B) 108 PSI TO (C) : 218
INITIAL CLOSED IN PERIOD MIN: 48 (D) 1181
FINAL FLOW PERIOD MIN: 45 (E) 279 PSI TO (F) : 360
FINAL CLOSED IN PERIOD MIN: 60 (G) 1142
FINAL HYDROSTATIC PRESSURE (H) 2256

TIME STARTED OFF BOTTOM : 2:35 AM

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 6-30-88
GAUGE NO : 13547

OPERATIONAL COMMENTS

RECOVERED 180 FEET OF GAS ABOVE FLUID.

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 30/ 6/88

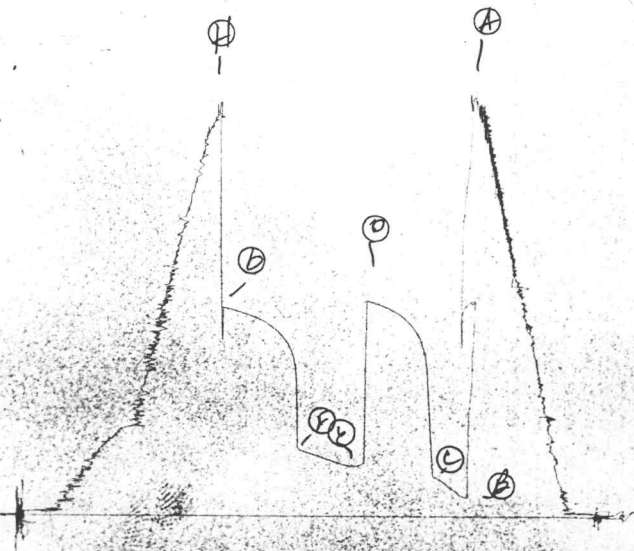
FIELD : HOWARD
JOB # : 13773
DEPTH : 4460
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	11:35: 0	0.000	108.000	134.00	0.000
2	11:39:59	0.083	113.000	134.00	5.000
3	11:45: 0	0.167	145.000	134.00	32.000
4	11:50: 0	0.250	167.000	134.00	22.000
5	11:54:59	0.333	197.000	134.00	30.000
6	12: 0: 0	0.417	218.000	134.00	21.000
7	12: 3: 0	0.467	540.000	134.00	322.000
8	12: 6: 0	0.517	854.000	134.00	314.000
9	12: 9: 0	0.567	957.000	134.00	103.000
10	12:12: 0	0.617	1004.000	134.00	47.000
11	12:15: 0	0.667	1033.000	134.00	29.000
12	12:18: 0	0.717	1061.000	134.00	28.000
13	12:21: 0	0.767	1083.000	134.00	22.000
14	12:24: 0	0.817	1104.000	134.00	21.000
15	12:27: 0	0.867	1116.000	134.00	12.000
16	12:30: 0	0.917	1129.000	134.00	13.000
17	12:33: 0	0.967	1140.000	134.00	11.000
18	12:36: 0	1.017	1151.000	134.00	11.000
19	12:39: 0	1.067	1159.000	134.00	8.000
20	12:42: 0	1.117	1168.000	134.00	9.000
21	12:45: 0	1.167	1176.000	134.00	8.000
22	12:48: 0	1.217	1181.000	134.00	5.000
23	12:49: 0	1.233	279.000	134.00	-902.000
24	12:53: 0	1.300	279.000	134.00	0.000
25	12:58: 0	1.383	279.000	134.00	0.000
26	13: 3: 0	1.467	284.000	134.00	5.000
27	13: 8: 0	1.550	297.000	134.00	13.000
28	13:13: 0	1.633	310.000	134.00	13.000
29	13:18: 0	1.717	322.000	134.00	12.000
30	13:23: 0	1.800	335.000	134.00	13.000
31	13:28: 0	1.883	345.000	134.00	10.000
32	13:33: 0	1.967	360.000	134.00	15.000
33	13:36: 0	2.017	770.000	134.00	410.000
34	13:39: 0	2.067	891.000	134.00	121.000
35	13:42: 0	2.117	941.000	134.00	50.000
36	13:45: 0	2.167	973.000	134.00	32.000
37	13:48: 0	2.217	998.000	134.00	25.000
38	13:51: 0	2.267	1019.000	134.00	21.000
39	13:54: 0	2.317	1037.000	134.00	18.000
40	13:57: 0	2.367	1051.000	134.00	14.000
41	14: 0: 0	2.417	1066.000	134.00	15.000
42	14: 3: 0	2.467	1078.000	134.00	12.000
43	14: 6: 0	2.517	1088.000	134.00	10.000
44	14: 9: 0	2.567	1097.000	134.00	9.000
45	14:12: 0	2.617	1105.000	134.00	8.000
46	14:15: 0	2.667	1112.000	134.00	7.000
47	14:18: 0	2.717	1119.000	134.00	7.000
48	14:21: 0	2.767	1127.000	134.00	8.000
49	14:24: 0	2.817	1132.000	134.00	5.000
50	14:27: 0	2.867	1137.000	134.00	5.000
51	14:30: 0	2.917	1141.000	134.00	4.000
52	14:33: 0	2.967	1142.000	134.00	1.000

JK # 13773

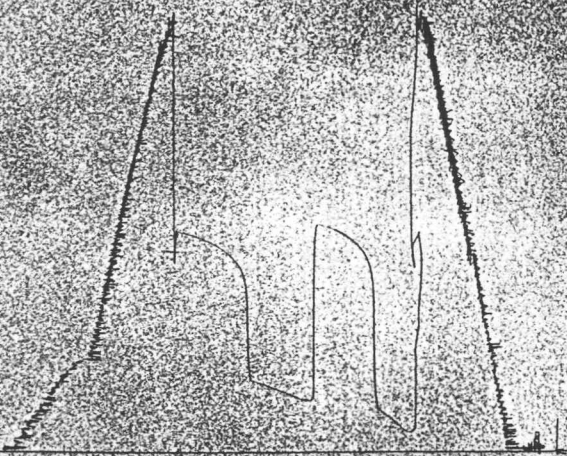
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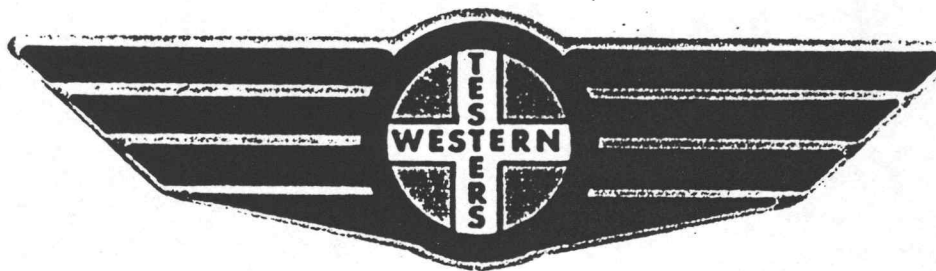


Sp. # 13773

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY AINSWORTH OPERATING COMPANY LEASE & WELL NO. HOWARD #2 SEC. 29 TWP. 15S RGE. 25W TEST NO. 6 DATE 7/1/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	: 7-1-88	TICKET	: 13774
CUSTOMER	: AINSWORTH OPERATING COMPANY	LEASE	: HOWARD
WELL	: #2 TEST: 6	GEOLOGIST	: T HIDY
ELEVATION	: 2524 GS est	FORMATION	: MISSISSIPPI
SECTION	: 29	TOWNSHIP	: 15S
RANGE	: 25W COUNTY : TREGO	STATE	: KANSAS
GAUGE SN#	: 13547 RANGE : 4200	CLOCK	: 12

INTERVAL FROM	: 4461	TO	: 4470	TOTAL DEPTH	: 4470
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 4456	SIZE	: 6.63		
PACKER DEPTH	: 4461	SIZE	: 6.63		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: ABERCROMBIE	RIG 4	
MUD TYPE	: CHEMICAL	VISCOSITY	: 48
WEIGHT	: 9.5	WATER LOSS (CC)	: 12.4
CHLORIDES (PPM)	: 8000		
JARS-MAKE	: -	SERIAL NUMBER	: -
DID WELL FLOW ?	: -	REVERSED OUT ?	: -

DRILL COLLAR LENGTH	: 0	FT	I.D. inch	: 0.00
WEIGHT PIPE LENGTH	: 540	FT	I.D. inch	: 2.75
DRILL PIPE LENGTH	: 3893	FT	I.D. inch	: 3.80
TEST TOOL LENGTH	: 28	FT	TOOL SIZE	: 5.50
ANCHOR LENGTH	: 9	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-SLOW BUILD TO 8" IN BUCKET.
BLOW COMMENT #2 : FINAL FLOW-FAIR BLOW-SLOW BUILD TO 6" IN BUCKET.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 390 FT OF: MUDDY WATER

Total Barrels Fluid = 2.86
Total Fluid Prod Rate = 55.01 BFPD
Indicated Wtr Rate = 27.50 BWPD

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

SET PACKER(S) : 12:25 PM

TIME STARTED OFF BOTTOM : 3:25 PM

WELL TEMPERATURE : 135

INITIAL HYDROSTATIC PRESSURE

(A) 2323

INITIAL FLOW PERIOD MIN: 30

(B) 56 PSI TO (C) : 83

INITIAL CLOSED IN PERIOD MIN: 48

(D) 1158

FINAL FLOW PERIOD MIN: 45

(E) 141 PSI TO (F) : 178

FINAL CLOSED IN PERIOD MIN: 60

(G) 1104

FINAL HYDROSTATIC PRESSURE

(H) 2252

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : AINSWORTH OPERATING COMPANY
RIG : TREGO-KANSAS
FIELD : HOWARD
WELL : #2
DATE : 7-1-88
GAUGE NO : 13547

OPERATIONAL COMMENTS

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 1/ 7/88

FIELD : HOWARD
JOB # : 13774
DEPTH : 4470
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	12:25: 0	0.000	56.000	135.00	0.000
2	12:29:59	0.083	56.000	135.00	0.000
3	12:35: 0	0.167	56.000	135.00	0.000
4	12:40: 0	0.250	60.000	135.00	4.000
5	12:44:59	0.333	67.000	135.00	7.000
6	12:50: 0	0.417	75.000	135.00	8.000
7	12:55: 0	0.500	83.000	135.00	8.000
8	12:58: 0	0.550	585.000	135.00	502.000
9	13: 1: 0	0.600	850.000	135.00	265.000
10	13: 4: 0	0.650	941.000	135.00	91.000
11	13: 7: 0	0.700	993.000	135.00	52.000
12	13:10: 0	0.750	1024.000	135.00	31.000
13	13:13: 0	0.800	1049.000	135.00	25.000
14	13:16: 0	0.850	1071.000	135.00	22.000
15	13:19: 0	0.900	1092.000	135.00	21.000
16	13:22: 0	0.950	1103.000	135.00	11.000
17	13:25: 0	1.000	1117.000	135.00	14.000
18	13:28: 0	1.050	1129.000	135.00	12.000
19	13:31: 0	1.100	1136.000	135.00	7.000
20	13:34: 0	1.150	1142.000	135.00	6.000
21	13:37: 0	1.200	1147.000	135.00	5.000
22	13:40: 0	1.250	1152.000	135.00	5.000
23	13:43: 0	1.300	1158.000	135.00	6.000
24	13:44: 0	1.317	141.000	135.00	-1017.000
25	13:47:59	1.383	141.000	135.00	0.000
26	13:53: 0	1.467	141.000	135.00	0.000
27	13:58: 0	1.550	141.000	135.00	0.000
28	14: 2:59	1.633	143.000	135.00	2.000
29	14: 8: 0	1.717	148.000	135.00	5.000
30	14:13: 0	1.800	156.000	135.00	8.000
31	14:17:59	1.883	166.000	135.00	10.000
32	14:23: 0	1.967	175.000	135.00	9.000
33	14:28: 0	2.050	178.000	135.00	3.000
34	14:31: 0	2.100	720.000	135.00	542.000
35	14:33:59	2.150	832.000	135.00	112.000
36	14:37: 0	2.200	890.000	135.00	58.000
37	14:40: 0	2.250	930.000	135.00	40.000
38	14:43: 0	2.300	960.000	135.00	30.000
39	14:46: 0	2.350	985.000	135.00	25.000
40	14:48:59	2.400	1001.000	135.00	16.000
41	14:52: 0	2.450	1015.000	135.00	14.000
42	14:55: 0	2.500	1026.000	135.00	11.000
43	14:58: 0	2.550	1038.000	135.00	12.000
44	15: 1: 0	2.600	1049.000	135.00	11.000
45	15: 4: 0	2.650	1058.000	135.00	9.000
46	15: 6:59	2.700	1066.000	135.00	8.000
47	15:10: 0	2.750	1071.000	135.00	5.000
48	15:13: 0	2.800	1077.000	135.00	6.000
49	15:16: 0	2.850	1086.000	135.00	9.000
50	15:19: 0	2.900	1091.000	135.00	5.000
51	15:21:59	2.950	1095.000	135.00	4.000
52	15:25: 0	3.000	1098.000	135.00	3.000

COMPANY : AINSWORTH OPERATING COMPANY
WELL : #2
GAUGE # : 13547
DATE : 1/ 7/88

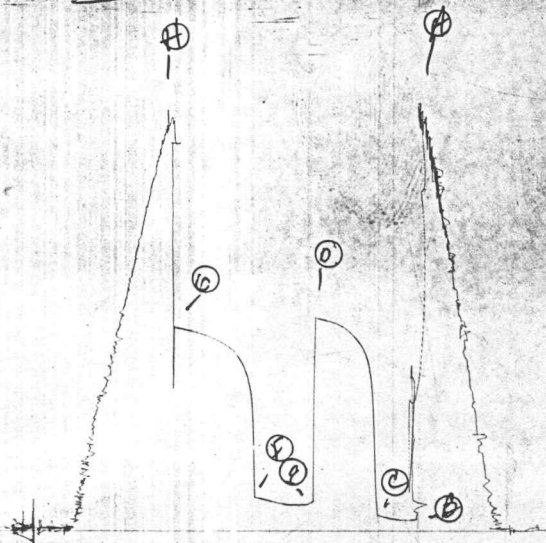
FIELD : HOWARD
JOB # : 13774
DEPTH : 4470
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	15:28: 0	3.050	1104.000	135.00	6.000

WESTERN TESTING CO. INC.

JK # 13774

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13547p

JK4 # 13774

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