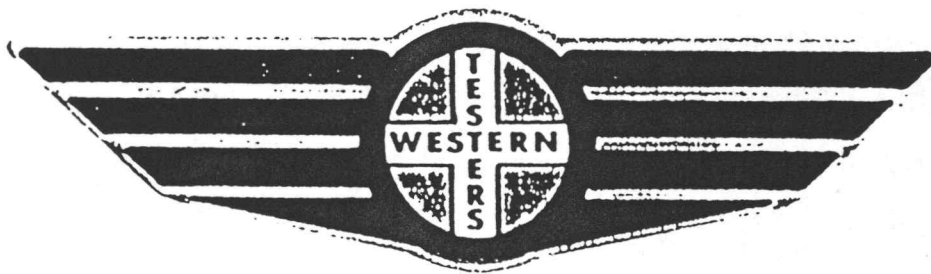


# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY BRUCE ANDERSON & AINSWORTH LEASE & WELL NO. MAXINE SCHMIDT TRUST 1 SEC. 16 TWP. 24S RGE. 2E TEST NO. 1 DATE 9/28/88  
OPERATING COMPANY

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 9-28-88 TICKET : 14601  
CUSTOMER : BRUCE ANDERSON &  
AINSWORTH OPERATING COMPANY LEASE : MAXINE SCHMIDT  
TRUST  
WELL : #1 TEST: 1 GEOLOGIST : G MUELLER  
ELEVATION : 1448 KB FORMATION : BURGESS SAND  
SECTION : 16 TOWNSHIP : 24S  
RANGE : 2E COUNTY : HARVEY STATE : KANSAS  
GAUGE SN# : 13552 RANGE : 4050 CLOCK : 12

INTERVAL FROM : 2846 TO : 2892 TOTAL DEPTH : 2892  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 2846 SIZE : 6.63  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : DUKE RIG 3  
MUD TYPE : CHEMCIAL VISCOSITY : 55  
WEIGHT : 9.5 WATER LOSS (CC) : 8.8  
CHLORIDES (PPM) : 2000  
JARS-MAKE : WTC SERIAL NUMBER : 407  
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 120 FT I.D. inch : 2.25  
WEIGHT PIPE LENGTH : 300 FT I.D. inch : 2.70  
DRILL PIPE LENGTH : 2402 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 24 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 46 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 FH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT BOTH FLOW PERIODS.  
BLOW COMMENT #2 :  
BLOW COMMENT #3 :  
BLOW COMMENT #4 :

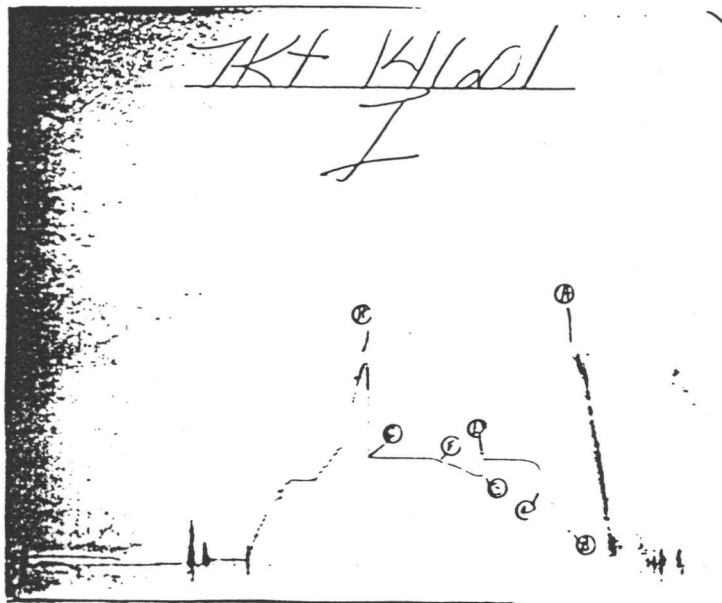
RECOVERED : 206 FT OF: VERY GASSY OIL CUT WATERY MUD  
 RECOVERED : 124 FT OF: GASSY VERY SLIGHTLY OIL CUT WATERY MUD  
 RECOVERED : 558 FT OF: GASSY VERY SLIGHTLY OIL CUT MUDDY WATER  
 RECOVERED : 558 FT OF: GASSY VERY SLIGHTLY MUDDY WATER  
 (RAINBOW SHOW OF OIL)  
 RECOVERED : 124 FT OF: HEAVY MUD (SHOW OF OIL)

CHLORIDES: 50000 PPM

Total Barrels Fluid = 3.85  
 Total Fluid Prod Rate = 73.83 BFPD  
 Indicated Oil Rate = 1.08 BOPD  
 Indicated Wtr Rate = 6.58 BWPD

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

SET PACKER(S) : 1:55 PM                      TIME STARTED OFF BOTTOM : 5:25 PM  
 WELL TEMPERATURE : 101  
 INITIAL HYDROSTATIC PRESSURE                      (A) 1522  
 INITIAL FLOW PERIOD                      MIN: 30                      (B) 243                      PSI TO (C) : 535  
 INITIAL CLOSED IN PERIOD                      MIN: 60                      (D) 775  
 FINAL FLOW PERIOD                      MIN: 45                      (E) 655                      PSI TO (F) : 753  
 FINAL CLOSED IN PERIOD                      MIN: 75                      (G) 784  
 FINAL HYDROSTATIC PRESSURE                      (H) 1471



WESTERN TESTING CO. INC.  
WICHITA-KANSAS

Pressure Transient Report  
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COMPANY : BRUCE ANDERSON &  
          : AINSWORTH OPERATING COMPANY

RIG : HARVEY-KANSAS

FIELD : MAXINE SCHMIDT  
          : TRUST

WELL : #1

DATE : 9-28-88

GAUGE NO : 13552

OPERATIONAL COMMENTS

COMPANY : BRUCE ANDERSON &  
 AINSWORTH OPERATING COMPANY

FIELD : MAXINE SCHMIDT  
 TRUST

WELL : #1  
 GAUGE # : 13552  
 DATE : 28/ 9/88

JOB # : 14601  
 DEPTH : 2892  
 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	1:55: 0	0.000	243.000	101.00	0.000
3	1:59:59	0.083	262.000	101.00	19.000
4	2: 5: 0	0.167	328.000	101.00	66.000
5	2:10: 0	0.250	396.000	101.00	68.000
6	2:14:59	0.333	453.000	101.00	57.000
7	2:20: 0	0.417	506.000	101.00	53.000
8	2:25: 0	0.500	535.000	101.00	29.000
INITIAL SHUT-IN					
9	2:28: 0	0.550	724.000	101.00	189.000
10	2:31: 0	0.600	744.000	101.00	20.000
11	2:34: 0	0.650	753.000	101.00	9.000
12	2:37: 0	0.700	761.000	101.00	8.000
13	2:40: 0	0.750	766.000	101.00	5.000
14	2:43: 0	0.800	769.000	101.00	3.000
15	2:46: 0	0.850	772.000	101.00	3.000
16	2:49: 0	0.900	772.000	101.00	0.000
17	2:52: 0	0.950	772.000	101.00	0.000
18	2:55: 0	1.000	773.000	101.00	1.000
19	2:58: 0	1.050	773.000	101.00	0.000
20	3: 1: 0	1.100	774.000	101.00	1.000
21	3: 4: 0	1.150	774.000	101.00	0.000
22	3: 7: 0	1.200	775.000	101.00	1.000
23	3:10: 0	1.250	775.000	101.00	0.000
24	3:13: 0	1.300	775.000	101.00	0.000
25	3:16: 0	1.350	775.000	101.00	0.000
26	3:19: 0	1.400	775.000	101.00	0.000
27	3:22: 0	1.450	775.000	101.00	0.000
28	3:25: 0	1.500	775.000	101.00	0.000
FINAL FLOW					
29	3:26: 0	1.517	655.000	101.00	-120.000
30	3:29:59	1.583	655.000	101.00	0.000
31	3:35: 0	1.667	661.000	101.00	6.000
32	3:40: 0	1.750	680.000	101.00	19.000
33	3:44:59	1.833	698.000	101.00	18.000
34	3:50: 0	1.917	715.000	101.00	17.000
35	3:55: 0	2.000	728.000	101.00	13.000
36	3:59:59	2.083	740.000	101.00	12.000
37	4: 5: 0	2.167	750.000	101.00	10.000
38	4:10: 0	2.250	753.000	101.00	3.000
FINAL SHUT-IN					
39	4:13: 0	2.300	769.000	101.00	16.000
40	4:16: 0	2.350	774.000	101.00	5.000
41	4:19: 0	2.400	779.000	101.00	5.000
42	4:22: 0	2.450	781.000	101.00	2.000
43	4:25: 0	2.500	781.000	101.00	0.000
44	4:28: 0	2.550	781.000	101.00	0.000
45	4:31: 0	2.600	781.000	101.00	0.000
46	4:34: 0	2.650	781.000	101.00	0.000
47	4:37: 0	2.700	782.000	101.00	1.000
48	4:40: 0	2.750	782.000	101.00	0.000

COMPANY : BRUCE ANDERSON &  
AINSWORTH OPERATING COMPANY

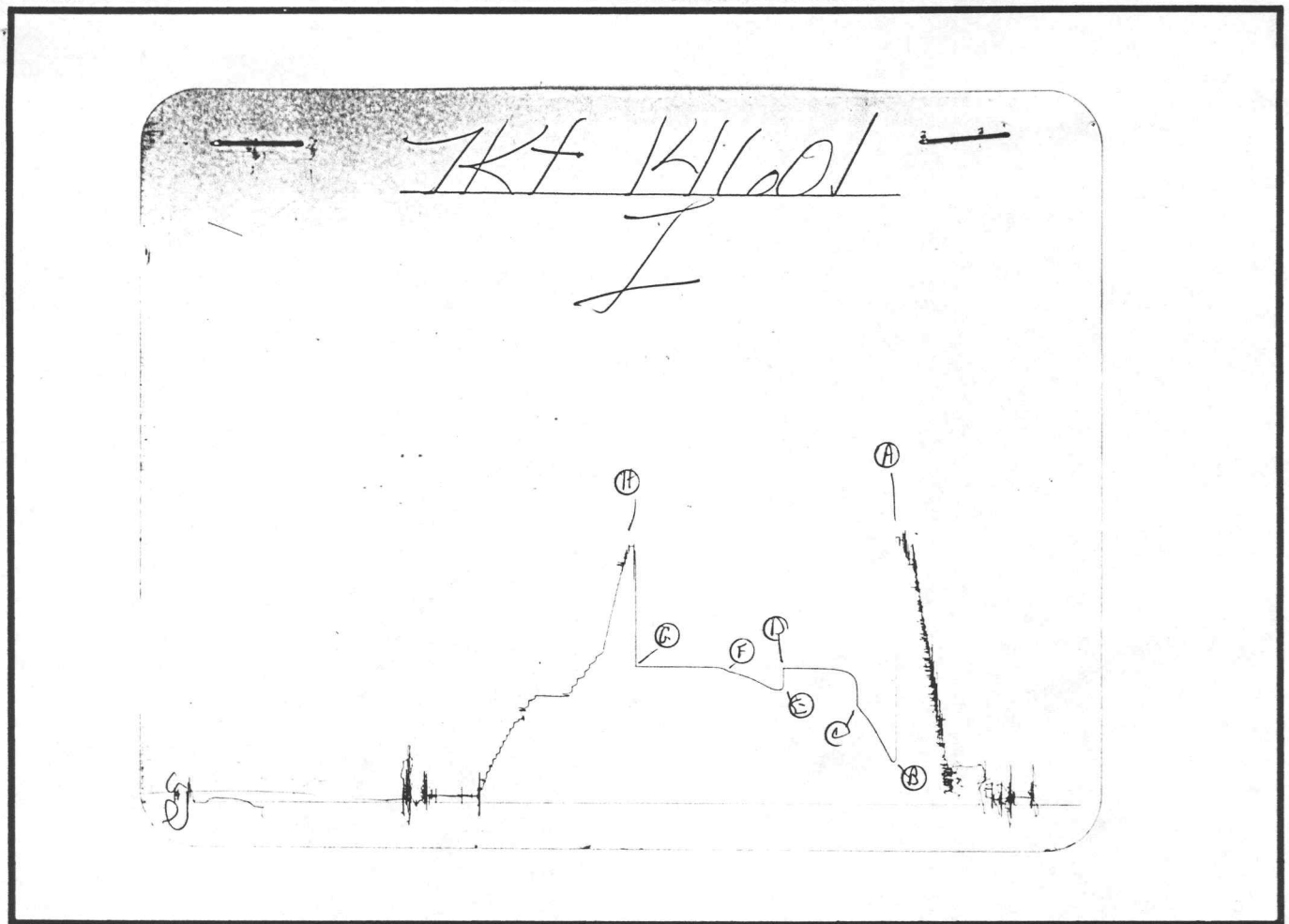
FIELD : MAXINE SCHMIDT  
TRUST

WELL : #1  
GAUGE # : 13552  
DATE : 28/ 9/88

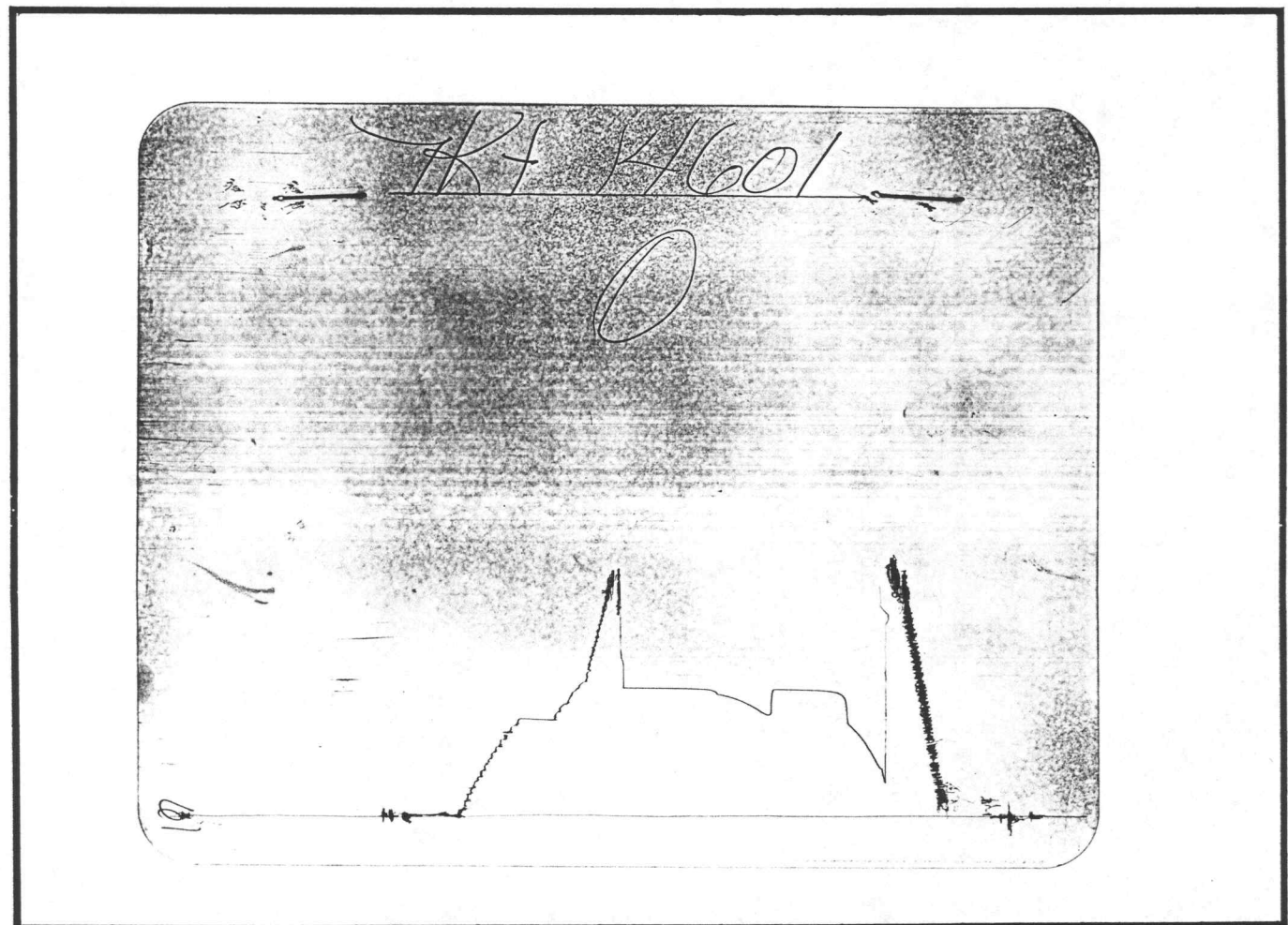
JOB # : 14601  
DEPTH : 2892  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	4:43: 0	2.800	782.000	101.00	0.000
50	4:46: 0	2.850	783.000	101.00	1.000
51	4:49: 0	2.900	783.000	101.00	0.000
52	4:52: 0	2.950	783.000	101.00	0.000
53	4:55: 0	3.000	783.000	101.00	0.000
54	4:58: 0	3.050	784.000	101.00	1.000
55	5: 1: 0	3.100	784.000	101.00	0.000
56	5: 4: 0	3.150	784.000	101.00	0.000
57	5: 7: 0	3.200	784.000	101.00	0.000
58	5:10: 0	3.250	784.000	101.00	0.000
59	5:13: 0	3.300	784.000	101.00	0.000
60	5:16: 0	3.350	784.000	101.00	0.000
61	5:19: 0	3.400	784.000	101.00	0.000
62	5:22: 0	3.450	784.000	101.00	0.000
63	5:25: 0	3.500	784.000	101.00	0.000

WESTERN TESTING CO. INC.



Inside Recorder



Outside Recorder

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

BRUCE ANDERSON &  
COMPANY AINSWORTH OPERATING CO. LEASE & WELL NO. MAXINE SCHMIDT TRUST#1 SEC. 16 TWP. 24S RGE. 2E TEST NO. 2 DATE 9/30/88

RECOVERED : 30 FT OF: FREE OIL 29 GRAVITY CORRECTED  
RECOVERED : 20 FT OF: DRILLING MUD (LESS THAN 2% OIL)  
RECOVERED : 186 FT OF: HEAVY OIL CUT MUD  
RECOVERED : 0 FT OF: TOP SAMPLE - 15%OIL 85%MUD  
RECOVERED : 0 FT OF: MIDDLE SAMPLE 40%OIL 60%MUD  
RECOVERED : 0 FT OF: BOTTOM SAMPLE 20%OIL 80%MUD

Total Barrels Fluid = 1.41  
Total Fluid Prod Rate = 27.10 BFPD  
Indicated Oil Rate = 19.50 BOPD  
Indicated Wtr Rate = 1.83 BWPD  
Corrected Oil Rate = 11.43 BOPD  
Corrected Wtr Rate = 1.07 BWPD

REMARK 1 :  
REMARK 2 : SLID TOOL 3' TO BOTTOM  
REMARK 3 : CHLORIDES 8000 PPM  
REMARK 4 :

SET PACKER(S) : 2:45AM  
WELL TEMPERATURE : 116  
INITIAL HYDROSTATIC PRESSURE (A) 1637  
INITIAL FLOW PERIOD MIN: 30 (B) 92 PSI TO (C) : 95  
INITIAL CLOSED IN PERIOD MIN: 60 (D) 1205  
FINAL FLOW PERIOD MIN: 45 (E) 111 PSI TO (F) : 118  
FINAL CLOSED IN PERIOD MIN: 75 (G) 1203  
FINAL HYDROSTATIC PRESSURE (H) 1616  
TIME STARTED OFF BOTTOM : 6:15AM

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 09-30-88 TICKET : 14039  
CUSTOMER : BRUCE ANDERSON & AINSWORTH OPERATING CO.  
LEASE : MAXINE SCHMIDT TRUST  
WELL : #1 TEST: 2 GEOLOGIST : G. MUELLER  
ELEVATION : 1446 K. B. FORMATION : HUNTON  
SECTION : 16 TOWNSHIP : 24S  
RANGE : 2E COUNTY : HARVEY STATE : KANSAS  
GAUGE SN# : 13265 RANGE : 3975 CLOCK : 12

INTERVAL FROM : 3252 TO : 3262 TOTAL DEPTH : 3262  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3247 SIZE : 6.63  
PACKER DEPTH : 3252 SIZE : 6.63  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : DUKE DRLG. #3  
MUD TYPE : CHEMICAL VISCOSITY : 44  
WEIGHT : 9.7 WATER LOSS (CC) : 10.4  
CHLORIDES (PPM) : 4000  
JARS-MAKE : SERIAL NUMBER :  
DID WELL FLOW ? : REVERSED OUT ? :

DRILL COLLAR LENGTH : 120 FT I.D. inch : 2.25  
WEIGHT PIPE LENGTH : 310 FT I.D. inch : 2.70  
DRILL PIPE LENGTH : 2802 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 10 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 : FAIR DIMINISHING TO WEAK AT END OF TEST.  
BLOW COMMENT #2 :  
BLOW COMMENT #3 :  
BLOW COMMENT #4 :

WESTERN TESTING CO. INC.  
WICHITA-KANSAS

Pressure Transient Report  
-----

COMPANY : BRUCE ANDERSON & AINSWORTH OPERATING CO.  
RIG : HARVEY-KANSAS  
FIELD : MAXINE SCHMIDT TRUST  
WELL : #1  
DATE : 09-30-88  
GAUGE NO : 13265

OPERATIONAL COMMENTS

SLID TOOL 3' TO BOTTOM  
CHLORIDES 8000 PPM

COMPANY : BRUCE, ANDERSON & AINSWORTH OPERATING CO.

FIELD : MAXINE SCHMIDT TRUST

WELL : #1

JOB # : 14039

GAUGE # : 13265

DEPTH : 3262

DATE : 30/ 9/88

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	2:45: 0	0.000	92.000	116.00	0.000
3	2:49:59	0.083	92.000	116.00	0.000
4	2:55: 0	0.167	92.000	116.00	0.000
5	3: 0: 0	0.250	92.000	116.00	0.000
6	3: 4:59	0.333	93.000	116.00	1.000
7	3:10: 0	0.417	94.000	116.00	1.000
8	3:15: 0	0.500	95.000	116.00	1.000
INITIAL SHUT-IN					
9	3:18: 0	0.550	1041.000	116.00	946.000
10	3:21: 0	0.600	1160.000	116.00	119.000
11	3:24: 0	0.650	1180.000	116.00	20.000
12	3:27: 0	0.700	1188.000	116.00	8.000
13	3:30: 0	0.750	1194.000	116.00	6.000
14	3:33: 0	0.800	1198.000	116.00	4.000
15	3:36: 0	0.850	1200.000	116.00	2.000
16	3:39: 0	0.900	1202.000	116.00	2.000
17	3:42: 0	0.950	1203.000	116.00	1.000
18	3:45: 0	1.000	1204.000	116.00	1.000
19	3:48: 0	1.050	1205.000	116.00	1.000
20	3:51: 0	1.100	1205.000	116.00	0.000
21	3:54: 0	1.150	1205.000	116.00	0.000
22	3:57: 0	1.200	1205.000	116.00	0.000
23	4: 0: 0	1.250	1205.000	116.00	0.000
24	4: 3: 0	1.300	1205.000	116.00	0.000
25	4: 6: 0	1.350	1205.000	116.00	0.000
26	4: 9: 0	1.400	1205.000	116.00	0.000
27	4:12: 0	1.450	1205.000	116.00	0.000
28	4:15: 0	1.500	1205.000	116.00	0.000
FINAL FLOW					
29	4:16: 0	1.517	111.000	116.00	-1094.000
30	4:19:59	1.583	111.000	116.00	0.000
31	4:25: 0	1.667	111.000	116.00	0.000
32	4:30: 0	1.750	111.000	116.00	0.000
33	4:34:59	1.833	111.000	116.00	0.000
34	4:40: 0	1.917	111.000	116.00	0.000
35	4:45: 0	2.000	112.000	116.00	1.000
36	4:49:59	2.083	114.000	116.00	2.000
37	4:55: 0	2.167	116.000	116.00	2.000
38	5: 0: 0	2.250	118.000	116.00	2.000
FINAL SHUT-IN					
39	5: 3: 0	2.300	1075.000	116.00	957.000
40	5: 6: 0	2.350	1158.000	116.00	83.000
41	5: 9: 0	2.400	1177.000	116.00	19.000
42	5:12: 0	2.450	1184.000	116.00	7.000
43	5:15: 0	2.500	1191.000	116.00	7.000
44	5:18: 0	2.550	1194.000	116.00	3.000
45	5:21: 0	2.600	1196.000	116.00	2.000
46	5:24: 0	2.650	1198.000	116.00	2.000
47	5:27: 0	2.700	1199.000	116.00	1.000
48	5:30: 0	2.750	1200.000	116.00	1.000

COMPANY : BRUCE ANDERSON & AINSWORTH OPERATING CO.

FIELD : MAXINE SCHMIDT TRUST

WELL : #1

JOB # : 14039

GAUGE # : 13265

DEPTH : 3262

DATE : 30/ 9/88

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	5:33: 0	2.800	1200.000	116.00	0.000
50	5:36: 0	2.850	1200.000	116.00	0.000
51	5:39: 0	2.900	1200.000	116.00	0.000
52	5:42: 0	2.950	1200.000	116.00	0.000
53	5:45: 0	3.000	1200.000	116.00	0.000
54	5:48: 0	3.050	1201.000	116.00	1.000
55	5:51: 0	3.100	1201.000	116.00	0.000
56	5:54: 0	3.150	1202.000	116.00	1.000
57	5:57: 0	3.200	1202.000	116.00	0.000
58	6: 0: 0	3.250	1203.000	116.00	1.000
59	6: 3: 0	3.300	1203.000	116.00	0.000
60	6: 6: 0	3.350	1203.000	116.00	0.000
61	6: 9: 0	3.400	1203.000	116.00	0.000
62	6:12: 0	3.450	1203.000	116.00	0.000
63	6:15: 0	3.500	1203.000	116.00	0.000

WESTERN TESTING CO. INC.

WESTERN TESTING CO. INC.  
WICHITA-KANSAS

WELL TEST ANALYSIS REPORT  
HORNER METHOD  
SHUTIN No. 2

COMPANY . . . . . BRUCE ANDERSON & AINSWORTH OPERATING CO.  
DATE . . . . . 09-30-88  
FIELD . . . . . MAXINE SCHMIDT TRUST  
WELL . . . . . #1  
AREA . . . . . HARVEY-KANSAS  
JOB NUMBER . . . . . 14039  
GAUGE NUMBER . . . . . 13265  
GAUGE DEPTH . . . . . 3262  
ZONE TESTED . . . . . 3252-3263

PHASE : OIL FUNCTION : PRESSURE

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

THICKNESS . . . . .	H	4.0000E+00	Feet
POROSITY . . . . .	POR	1.8000E-01	Frac
VISCOSITY . . . . .	U	2.4000E+00	Cp
FORMATION VOLUME FACTOR . . . . .	B	1.0005E+00	Rb/stb
TOTAL COMPRESSIBILITY . . . . .	Ct	1.8000E-05	Psi <sup>-1</sup>
WELLBORE RADIUS . . . . .	Rw	5.2000E-01	Feet
DRAINAGE RADIUS . . . . .	Re	8.0000E+02	Feet
RESERVOIR TEMPERATURE . . . . .	T	1.1600E+02	Deg F
GRAVITY OF FLUID . . . . .	G	2.9000E+01	
PVT EVALUATION PRESSURE . . . . .	P	0.0000E+00	Psig
PRESSURE AT SHUT-IN . . . . .	Pwf	1.1800E+02	Psig
FINAL RECORDED PRESSURE . . . . .	Ps	1.2030E+03	Psig
PRODUCTION RATE . . . . .	Q	2.7100E+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 10 TO 2

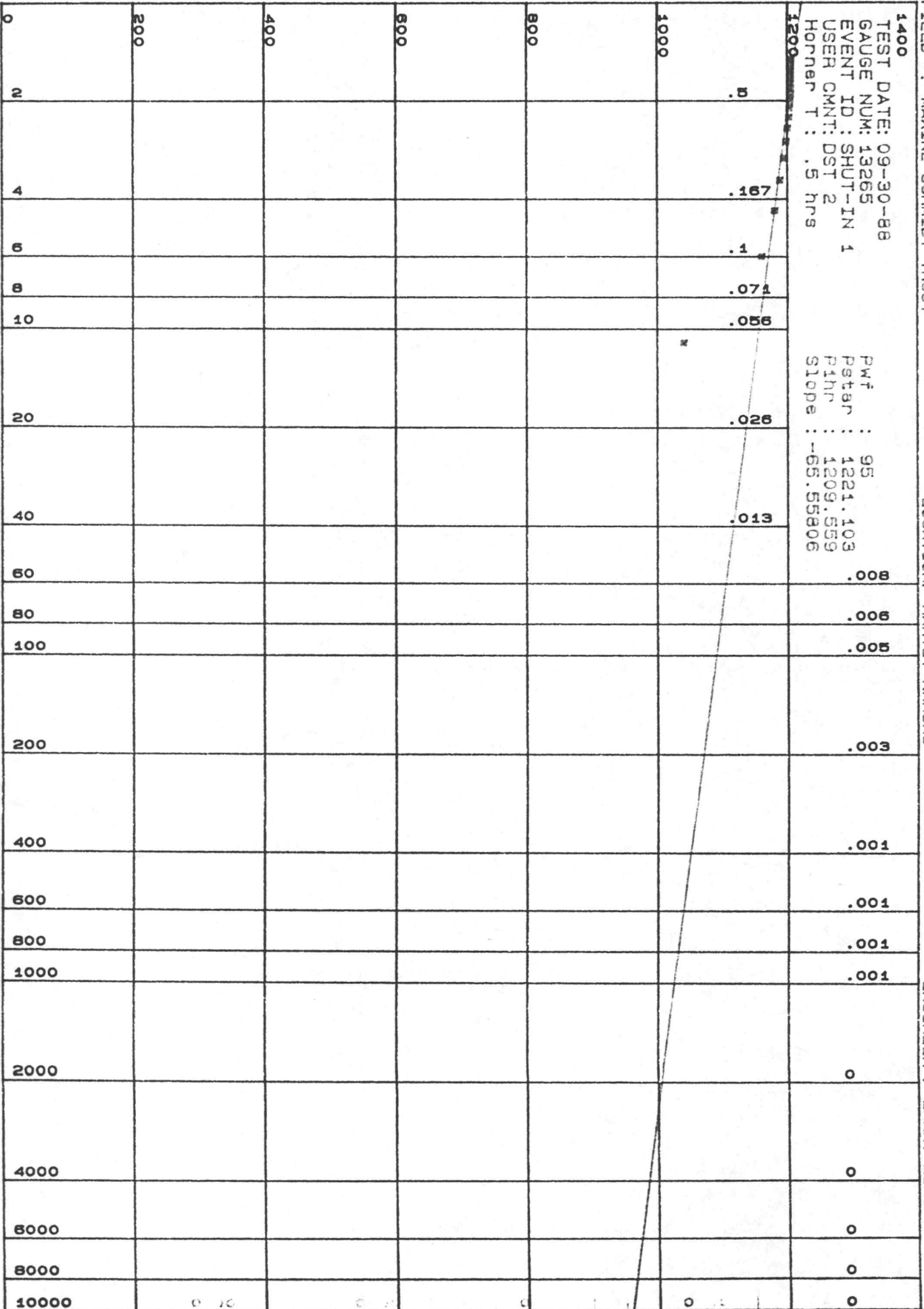
SLOPE OF THE LINE . . . . .	6.1425E+01	psi/cycle
FALSE PRESSURE, PSTAR . . . . .	1.2233E+03	psi
PRESSURE AT 1 HOUR . . . . .	1.2084E+03	psi

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

TRANSMISSIBILITY . . . . .	Kh/u	7.1775E+01	md-ft/cp
FLOW CAPACITY . . . . .	Kh	1.7226E+02	md-ft
PERMEABILITY to PHASE . . . . .	K	4.3065E+01	md
DAMAGE RATIO . . . . .	Dr	4.5400E+00	
RADIUS OF INVESTIGATION . . . . .	Rinv	6.6193E+01	ft
SKIN FACTOR . . . . .	S	1.6162E+01	
AVERAGE PRESSURE . . . . .	Pbar	1.2231E+03	psig
DIMENSIONLESS TIME . . . . .	Tda	5.4538E-04	
MATTHEWS-BRONS-HAZEBROEK . . . . .	PDmbh	6.8535E-03	



Pressure , Psig



COMPANY: BRUCE ANDERSON & AINSWORTH OPERATING  
 FIELD: MAXINE SCHAFFOT TRUST  
 LOCATION: #1 HARVEY-KANSAS

PROCESSED: 09-30-1988  
 ENGINEER: LARRY KING

TEST DATE: 09-30-88  
 GAUGE NUM: 13265  
 EVENT ID: SHUT-IN 1  
 USER CMNT: DST 2  
 Horner T: .5 hrs

Pwf : 95  
 Pstar : 1221.103  
 P1hr : 1209.559  
 Slope : -65.55806

Job No. 14039  
 WESTERN TESTING CO. INC.

Horner Ratio, (T+dt) / dt

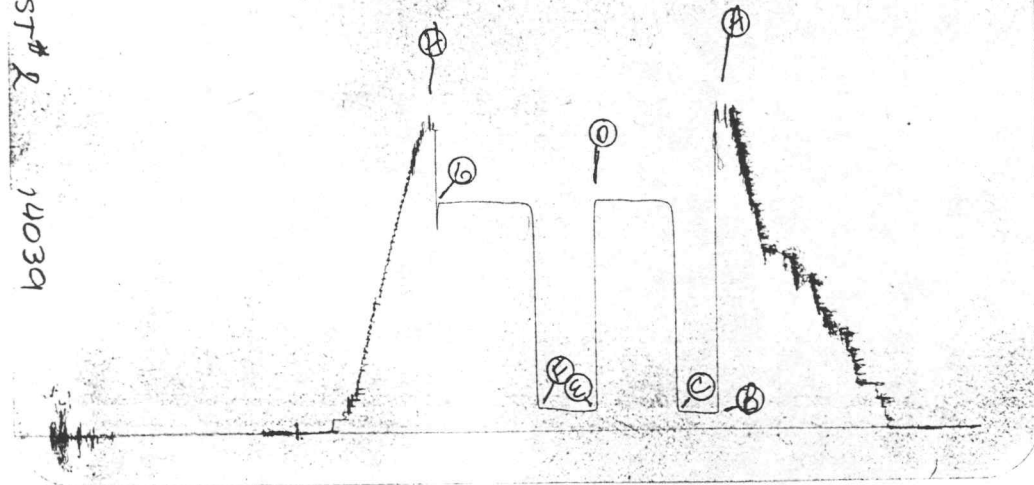
RES-TRAN

10979

TKT # 14039

I

DST # 2  
14039



Inside Recorder

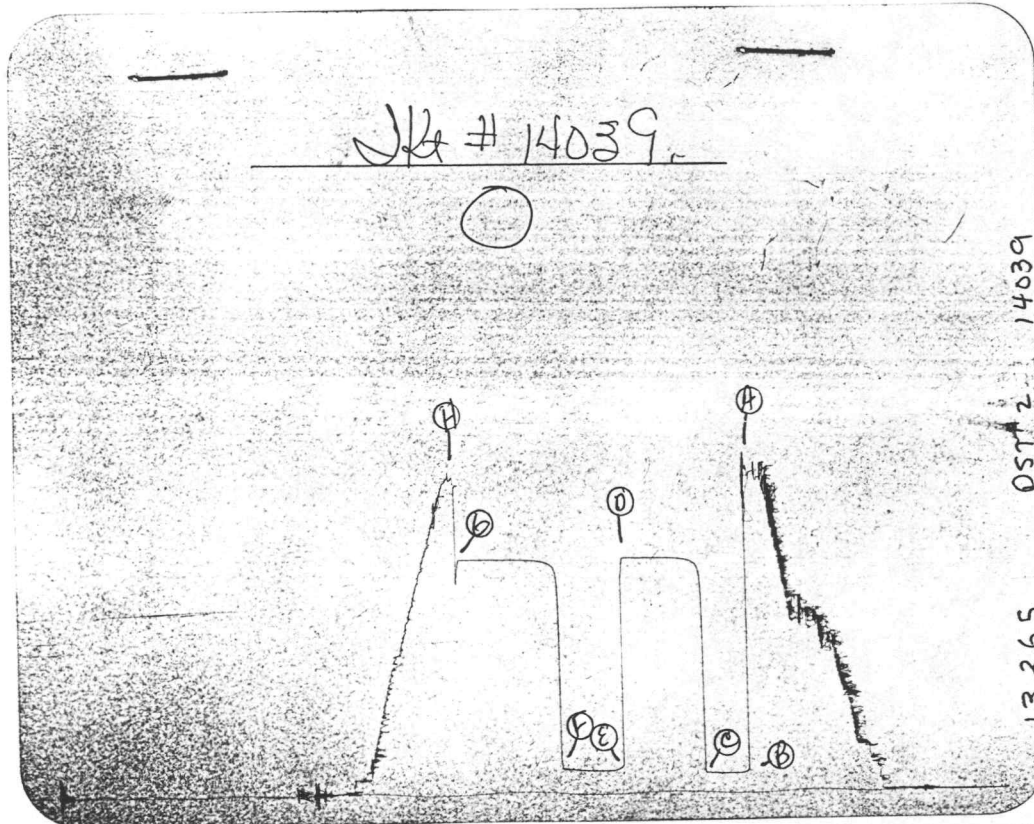
TKT # 14039

○

14039

DST # 2

13265



Outside Recorder