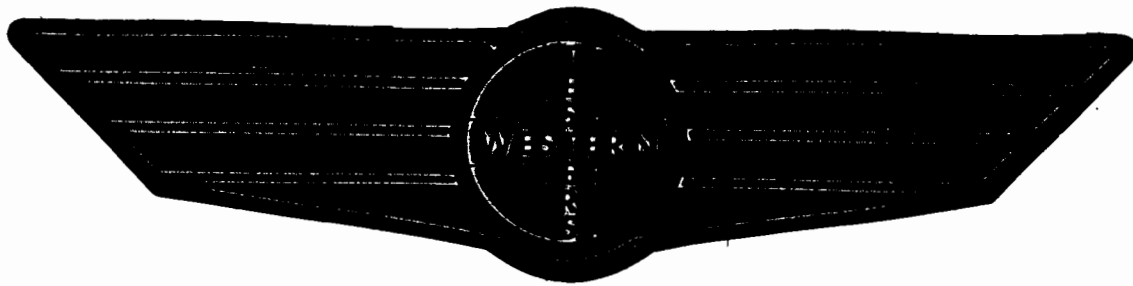


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800 - 688 - 7021**

COMPANY ALLEN DRILLING COMPANY

LEASE & WELL NO. HANSON #2-23

SEC. 23 TWP. 20S RGE. 16W TEST NO. 1 DATE

10/15/92

DST REPORT

GENERAL INFORMATION

DATE : 10/15/92 TICKET : 18627
CUSTOMER : ALLEN DRILLING COMPANY LEASE : HANSON
WELL : 2-23 TEST: 1 GEOLOGIST: ?
ELEVATION: 2065 KB FORMATION: ARBUCKLE
SECTION : 23 TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE STATE : KS
GAUGE SN#: 13266 RANGE : 4000 CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3715.00 ft TO: 3785.00 ft TVD: 3785.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 3776.0 ft 3779.0 ft
TEMPERATURE: 112.0

DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3695.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 70.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3710.0 ft SIZE: 6.630 in
PACKER DEPTH: 3715.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 52.00 cp
WEIGHT : 9.600 ppg WATER LOSS: 9.200 cc
CHLORIDES : 7000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG
BLOW, BOTTOM OF BUCKET IN 3 MINUTES. FINAL FLOW
PERIOD STRONG BLOW, BOTTOM OF BUCKET IMMEDIATELY

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

GAS TO SURFACE IN 5 MINUTES. SEE GAS FLOW SHEET.
 UNLOADED MUD AT 1739', PIPE LEFT IN HOLE, UNKNOWN
 TOTAL VOLUME OF MUD.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
80.0	2.0	8.0	0.0	90.0	OIL & GAS CUT MUD 1956' OF GAS ABOVE FLUID
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.0224 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	0.5041 SCF	AVERAGE OIL RATE:	24.7762 STB/D
MUD VOLUME:	1.0099 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	1.0323 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1899.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	758.00	758.00
INITIAL SHUT-IN	30.00		1007.00
FINAL FLOW	30.00	787.00	787.00
FINAL SHUT-IN	45.00		987.00

FINAL HYDROSTATIC PRESSURE: 1858.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1903.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	758.00	775.00
INITIAL SHUT-IN	30.00		1026.00
FINAL FLOW	30.00	790.00	790.00
FINAL SHUT-IN	45.00		999.00

FINAL HYDROSTATIC PRESSURE: 1856.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/15/92	TICKET : 18627
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : HANSON
WELL : 2-23 TEST: 1	GEOLOGIST: ?
ELEVATION: 2065 KB	FORMATION: ARBUCKLE
SECTION : 23	TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 13266 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	758.00	758.00
5.00	758.00	0.00
10.00	760.00	2.00
15.00	771.00	11.00
20.00	773.00	2.00
25.00	774.00	1.00
30.00	775.00	1.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	851.00	851.00	0.00
6.00	913.00	62.00	0.00
9.00	945.00	32.00	0.00
12.00	970.00	25.00	0.00
15.00	989.00	19.00	0.00
18.00	1001.00	12.00	0.00
21.00	1010.00	9.00	0.00
24.00	1016.00	6.00	0.00
27.00	1022.00	6.00	0.00
30.00	1026.00	4.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	790.00	790.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	790.00	0.00
10.00	790.00	0.00
15.00	790.00	0.00
20.00	790.00	0.00
25.00	790.00	0.00
30.00	790.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	844.00	844.00	0.00
6.00	878.00	34.00	0.00
9.00	906.00	28.00	0.00
12.00	927.00	21.00	0.00
15.00	942.00	15.00	0.00
18.00	953.00	11.00	0.00
21.00	963.00	10.00	0.00
24.00	970.00	7.00	0.00
27.00	978.00	8.00	0.00
30.00	983.00	5.00	0.00
33.00	985.00	2.00	0.00
36.00	990.00	5.00	0.00
39.00	995.00	5.00	0.00
42.00	997.00	2.00	0.00
45.00	999.00	2.00	0.00

GAS FLOW REPORT

GENERAL INFORMATION

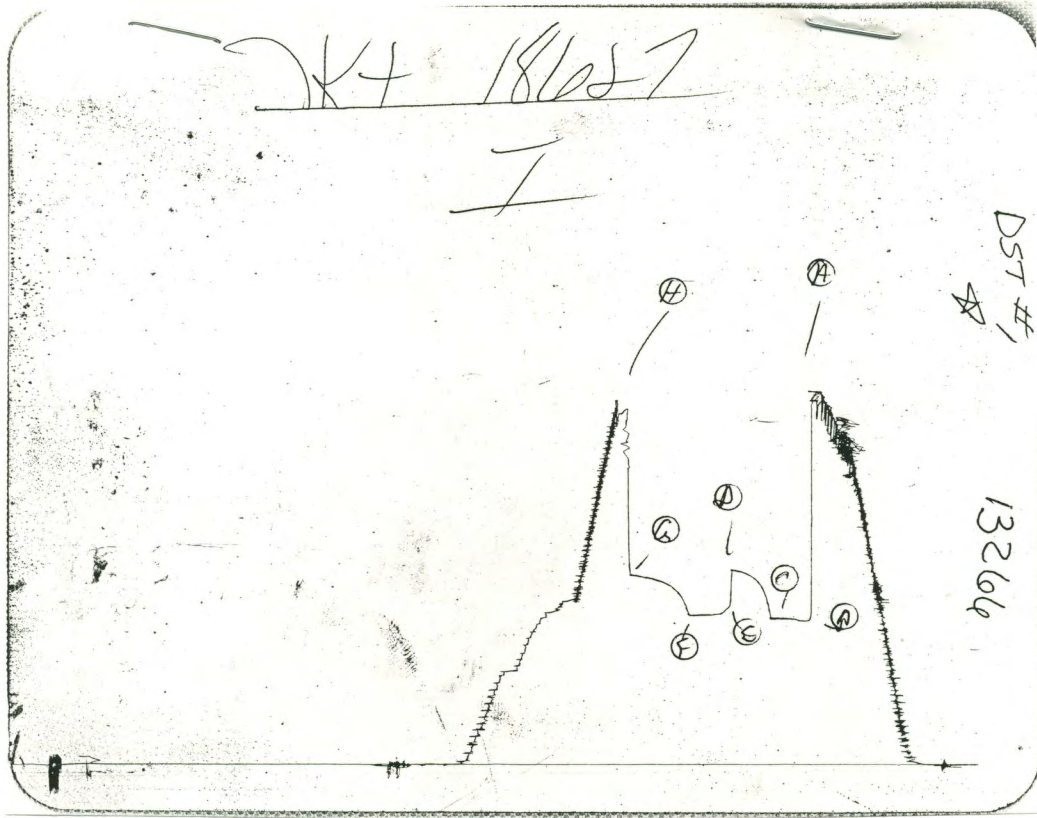
DATE : 10/15/92	TICKET : 18627
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : HANSON
WELL : 2-23 TEST: 1	GEOLOGIST: ?
ELEVATION: 2065 KB	FORMATION: ARBUCKLE
SECTION : 23	TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 13266 RANGE : 4000	CLOCK : 12

PRE FLOW

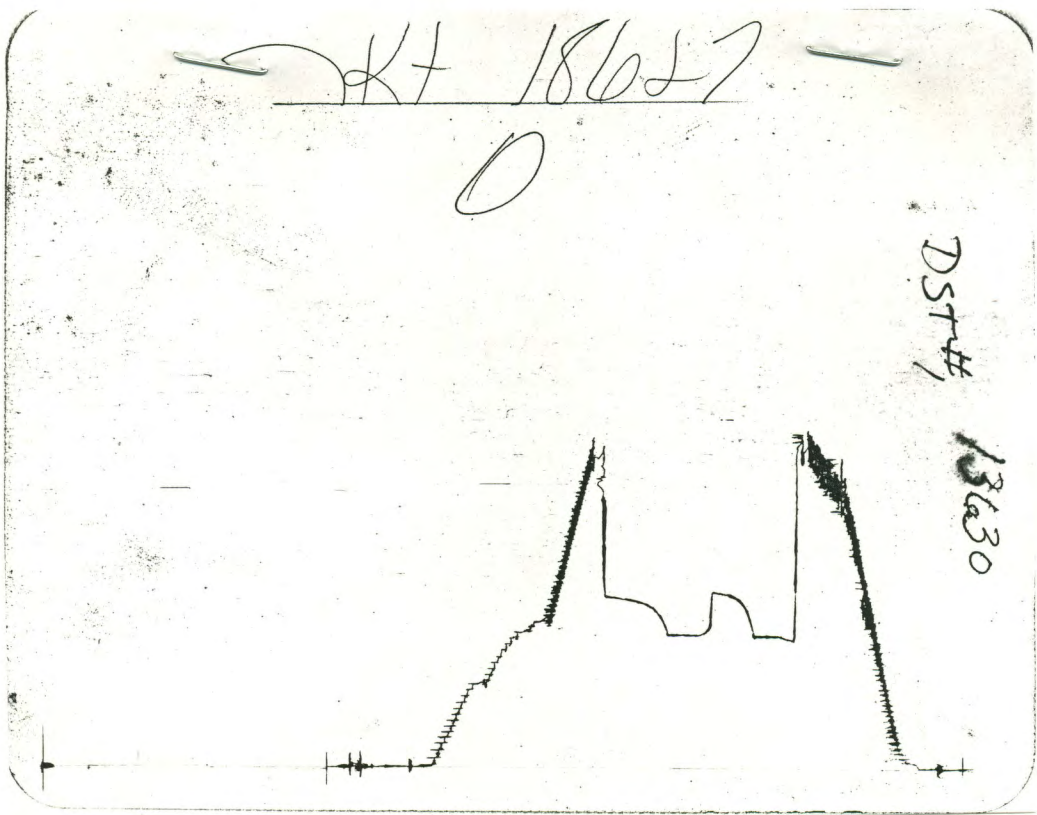
Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
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SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.250	55" WATER	12400 SCF/D
20 MIN.	MERLA	0.250	38" WATER	10400 SCF/D
30 MIN.	MERLA	0.250	15" WATER	6550 SCF/D

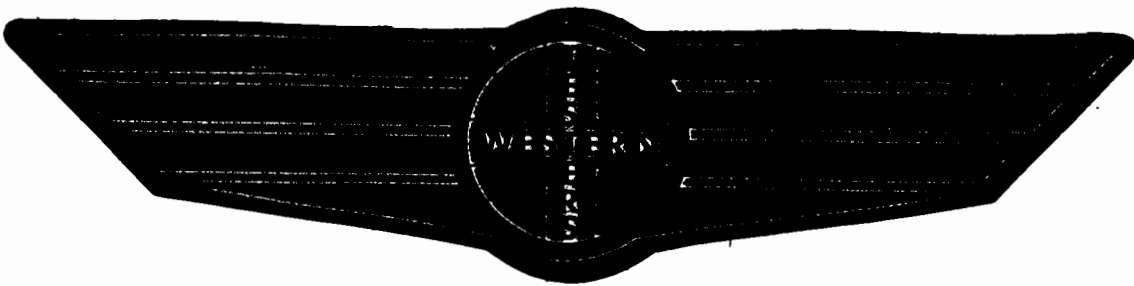


Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. HANSON #2-23 SEC. 23 TWP. 20S RGE. 16W TEST NO. 2 DATE 10/16/92

DST REPORT

GENERAL INFORMATION

DATE : 10/16/92
CUSTOMER : ALLEN DRILLING COMPANY
WELL : 2-23 TEST: 2
ELEVATION: 2065 KB
SECTION : 23
RANGE : 16W COUNTY: PAWNEE
GAUGE SN#: 13266 RANGE : 4000
TICKET : 18628
LEASE : HANSON
GEOLOGIST: ?
FORMATION: ARBUCKLE
TOWNSHIP : 20S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3780.00 ft TO: 3792.00 ft TVD: 3792.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 3783.0 ft 3786.0 ft
TEMPERATURE: 114.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3760.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 12.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3775.0 ft SIZE: 6.630 in
PACKER DEPTH: 3780.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.400 ppg
CHLORIDES : 7500 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 62.00 cp
WATER LOSS: 9.600 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD VERY STRONG BLOW OFF BOTTOM OF
BUCKET IMMEDIATELY, GAS TO SURFACE IN 3 MINUTES.
SEE GAS FLOW SHEET.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
471.0	100.0	0.0	0.0	0.0	FREE OIL
0.0	0.0	0.0	0.0	0.0	40 GRAVITY AT 60 DEGREES
60.0	25.0	50.0	0.0	25.0	GASSY OILY MUD
60.0	5.0	0.0	95.0	0.0	OILY SALT WATER
120.0	0.0	0.0	100.0	0.0	CLEAN SALT WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 30000 P.P.M.
0.0	0.0	0.0	0.0	0.0	3049' OF GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	6.8589	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	2.3627	SCF	AVERAGE OIL RATE:	169.6628	STB/D
MUD VOLUME:	0.2104	STB	AVERAGE WATER RATE:	59.5840	STB/D
WATER VOLUME:	2.4827	STB			
TOTAL FLUID :	9.5519	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1929.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	213.00	193.00
INITIAL SHUT-IN	30.00		887.00
FINAL FLOW	30.00	233.00	274.00
FINAL SHUT-IN	45.00		858.00

FINAL HYDROSTATIC PRESSURE: 1838.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1939.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	199.00	199.00
INITIAL SHUT-IN	33.00		895.00
FINAL FLOW	30.00	238.00	284.00
FINAL SHUT-IN	45.00		868.00

FINAL HYDROSTATIC PRESSURE: 1864.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/16/92	TICKET : 18628
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : HANSON
WELL : 2-23 TEST: 2	GEOLOGIST: ?
ELEVATION: 2065 KB	FORMATION: ARBUCKLE
SECTION : 23	TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 13266 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	199.00	199.00
5.00	199.00	0.00
10.00	199.00	0.00
15.00	199.00	0.00
20.00	199.00	0.00
25.00	199.00	0.00
30.00	199.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	505.00	505.00	0.00
6.00	677.00	172.00	0.00
9.00	751.00	74.00	0.00
12.00	787.00	36.00	0.00
15.00	816.00	29.00	0.00
18.00	842.00	26.00	0.00
21.00	863.00	21.00	0.00
24.00	873.00	10.00	0.00
27.00	882.00	9.00	0.00
30.00	891.00	9.00	0.00
33.00	895.00	4.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
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PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	238.00	238.00
5.00	238.00	0.00
10.00	244.00	6.00
15.00	246.00	2.00
20.00	260.00	14.00
25.00	274.00	14.00
30.00	284.00	10.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	538.00	538.00	0.00
6.00	644.00	106.00	0.00
9.00	697.00	53.00	0.00
12.00	735.00	38.00	0.00
15.00	763.00	28.00	0.00
18.00	781.00	18.00	0.00
21.00	797.00	16.00	0.00
24.00	811.00	14.00	0.00
27.00	822.00	11.00	0.00
30.00	833.00	11.00	0.00
33.00	844.00	11.00	0.00
36.00	849.00	5.00	0.00
39.00	857.00	8.00	0.00
42.00	863.00	6.00	0.00
45.00	868.00	5.00	0.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 10/16/92	TICKET : 18628
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : HANSON
WELL : 2-23 TEST: 2	GEOLOGIST: ?
ELEVATION: 2065 KB	FORMATION: ARBUCKLE
SECTION : 23	TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 13266 RANGE : 4000	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.750	10 PSIG	259000 SCF/D
20 MIN.	MERLA	0.750	10 PSIG	259000 SCF/D
30 MIN.	MERLA	0.750	6 PSIG	194000 SCF/D

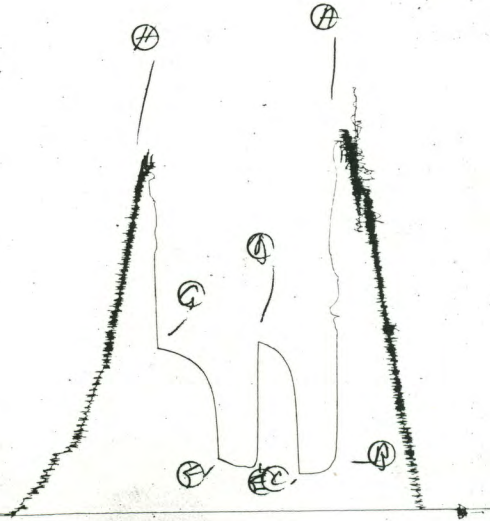
SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.250	34 PSIG	67500 SCF/D
20 MIN.	MERLA	0.250	20 PSIG	47100 SCF/D
30 MIN.	MERLA	0.250	25 PSIG	54700 SCF/D

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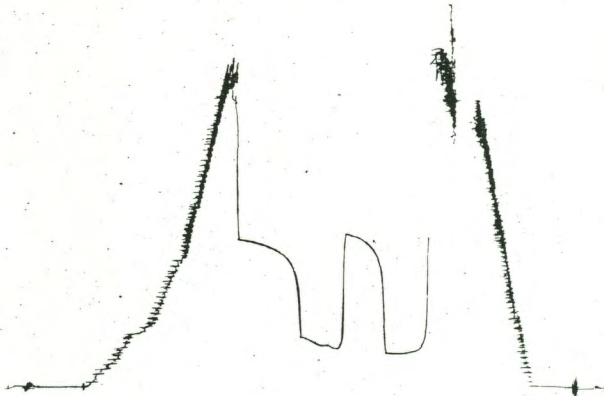
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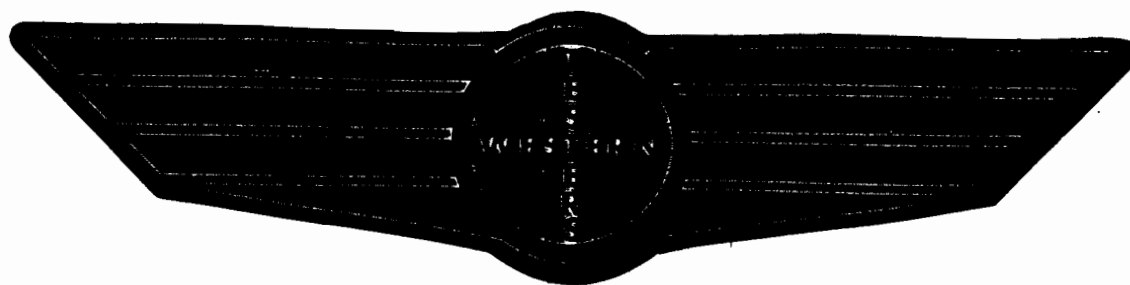
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13630
DST #2



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800 - 688 - 7021

DST REPORT

GENERAL INFORMATION

DATE : 10/17/92
CUSTOMER : ALLEN DRILLING COMPANY
WELL : 2-23 TEST: 3
ELEVATION: 2065 KB
SECTION : 23
RANGE : 16W COUNTY: PAWNEE
GAUGE SN#: 13266 RANGE : 4000
TICKET : 18629
LEASE : HANSON
GEOLOGIST: ?
FORMATION: ARBUCKLE
TOWNSHIP : 20S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3798.00 ft TO: 3806.00 ft TVD: 3806.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3788.0 ft 3806.0 ft
TEMPERATURE: 116.0

DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3773.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 25.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 8.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3793.0 ft SIZE: 6.630 in
PACKER DEPTH: 3798.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.300 ppg
CHLORIDES : 7000 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 53.00 cp
WATER LOSS: 10.000 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD BOTTOM OF BUCKET IMMEDIATELY,
AND THROUGHOUT. FINAL FLOW PERIOD BOTTOM OF BUCKET
IMMEDIATELY, GAS TO SURFACE IN 40 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
45.0	100.0	0.0	0.0	0.0	FREE OIL
0.0	0.0	0.0	0.0	0.0	40 GRAVITY AT 60 DEGREES
180.0	20.0	40.0	20.0	20.0	OIL, GAS, MUD, SALT WATER
180.0	0.0	0.0	100.0	0.0	SALT WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 43000 P.P.M.
0.0	0.0	0.0	0.0	0.0	3361' OF GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	1.1361 STB	TOTAL FLOW TIME:	75.0000 min.
GAS VOLUME:	5.6706 SCF	AVERAGE OIL RATE:	26.6613 STB/D
MUD VOLUME:	0.5049 STB	AVERAGE WATER RATE:	63.0176 STB/D
WATER VOLUME:	3.0297 STB		
TOTAL FLUID :	4.6708 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1949.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	60.00	81.00
INITIAL SHUT-IN	45.00		987.00
FINAL FLOW	45.00	111.00	142.00
FINAL SHUT-IN	60.00		978.00

FINAL HYDROSTATIC PRESSURE: 1878.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1950.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	68.00	85.00
INITIAL SHUT-IN	45.00		1002.00
FINAL FLOW	45.00	125.00	156.00
FINAL SHUT-IN	60.00		988.00

FINAL HYDROSTATIC PRESSURE: 1888.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/17/92	TICKET : 18629
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : HANSON
WELL : 2-23 TEST: 3	GEOLOGIST: ?
ELEVATION: 2065 KB	FORMATION: ARBUCKLE
SECTION : 23	TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 13266 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	68.00	68.00
5.00	68.00	0.00
10.00	68.00	0.00
15.00	70.00	2.00
20.00	74.00	4.00
25.00	80.00	6.00
30.00	85.00	5.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	597.00	597.00	0.00
6.00	762.00	165.00	0.00
9.00	830.00	68.00	0.00
12.00	864.00	34.00	0.00
15.00	888.00	24.00	0.00
18.00	912.00	24.00	0.00
21.00	925.00	13.00	0.00
24.00	942.00	17.00	0.00
27.00	959.00	17.00	0.00
30.00	969.00	10.00	0.00
33.00	980.00	11.00	0.00
36.00	987.00	7.00	0.00
39.00	990.00	3.00	0.00
42.00	1000.00	10.00	0.00
45.00	1002.00	2.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	125.00	125.00
5.00	125.00	0.00
10.00	126.00	1.00
15.00	129.00	3.00
20.00	131.00	2.00
25.00	136.00	5.00
30.00	141.00	5.00
35.00	146.00	5.00
40.00	153.00	7.00
45.00	156.00	3.00

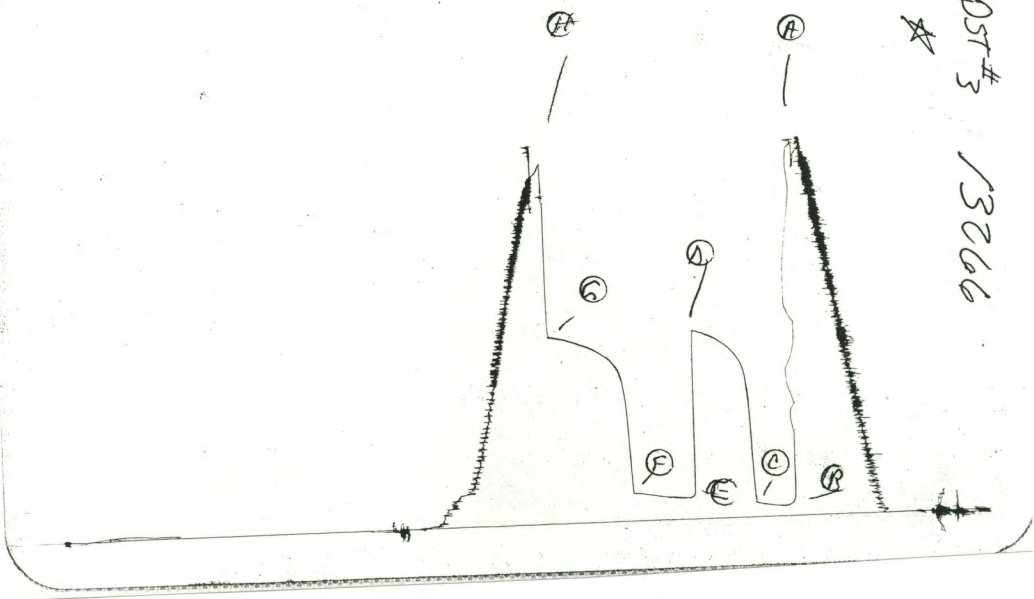
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	528.00	528.00	0.00
6.00	715.00	187.00	0.00
9.00	800.00	85.00	0.00
12.00	832.00	32.00	0.00
15.00	856.00	24.00	0.00
18.00	876.00	20.00	0.00
21.00	892.00	16.00	0.00
24.00	907.00	15.00	0.00
27.00	918.00	11.00	0.00
30.00	929.00	11.00	0.00
33.00	936.00	7.00	0.00
36.00	946.00	10.00	0.00
39.00	953.00	7.00	0.00
42.00	961.00	8.00	0.00
45.00	966.00	5.00	0.00
48.00	973.00	7.00	0.00
51.00	979.00	6.00	0.00
54.00	984.00	5.00	0.00
57.00	986.00	2.00	0.00
60.00	988.00	2.00	0.00

KT 18629

7

DST# 13266

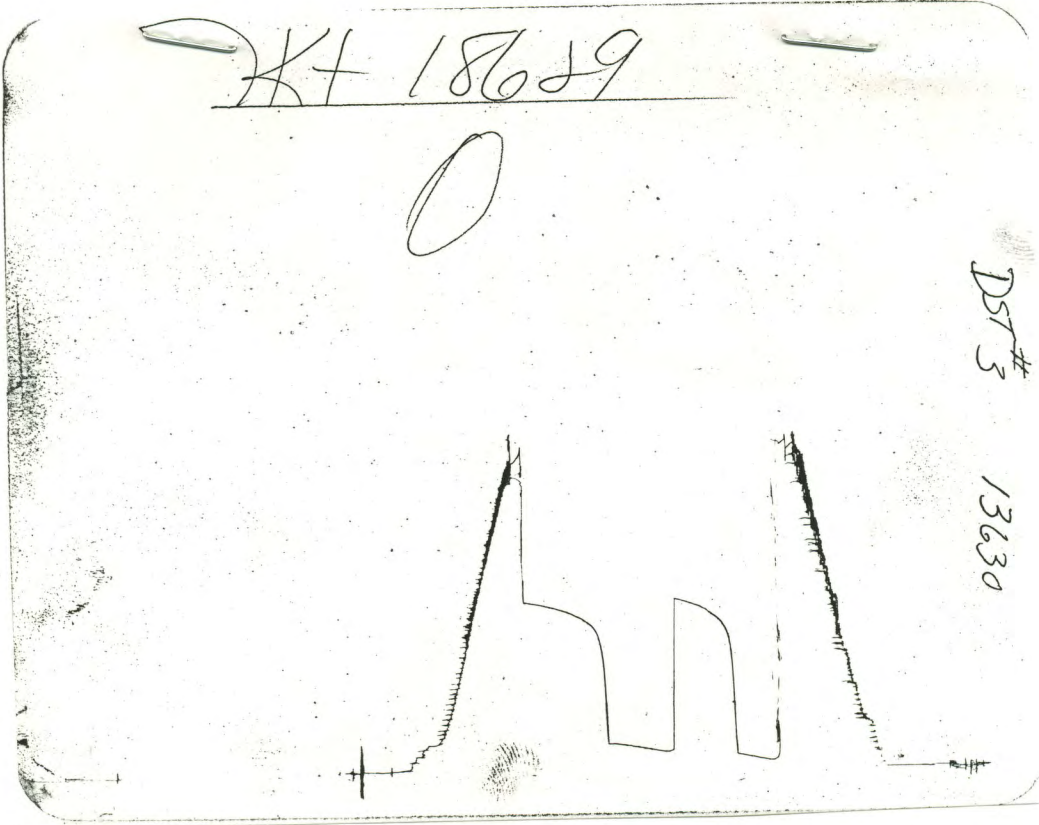


Inside Recorder

KT 18629

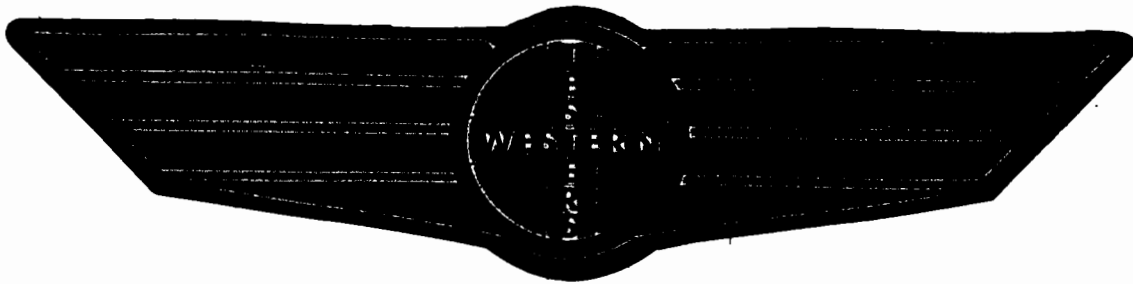
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DST# 13630



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 10/17/92
CUSTOMER : ALLEN DRILLING COMPANY
WELL : 2-23 TEST: 4
ELEVATION: 2065 KB
SECTION : 23
RANGE : 16W COUNTY: PAWNEE
GAUGE SN#: 13266 RANGE : 4000
TICKET : 18630
LEASE : HANSON
GEOLOGIST: ?
FORMATION: ARBUCKLE
TOWNSHIP : 20S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3810.00 ft TO: 3820.00 ft TVD: 3820.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3800.0 ft 3813.0 ft
TEMPERATURE: 114.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3785.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 25.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 10.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3805.0 ft SIZE: 6.630 in
PACKER DEPTH: 3810.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.300 ppg
CHLORIDES : 7800 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 66.00 cp
WATER LOSS: 9.600 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW, BOTTOM OF BUCKET
IN 2 MINUTES. FINAL FLOW PERIOD WEAK BLOW BUILDING
TO A STRONG BLOW, BOTTOM OF BUCKET IN 6 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
40.0	12.0	0.0	0.0	88.0	MUDDY OIL
110.0	0.0	0.0	100.0	0.0	SALT WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 44000 P.P.M.

RATE INFORMATION

OIL VOLUME:	0.0673 STB	TOTAL FLOW TIME:	45.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	17.9537 STB/D
MUD VOLUME:	0.4937 STB	AVERAGE WATER RATE:	49.3728 STB/D
WATER VOLUME:	1.5429 STB		
TOTAL FLUID :	2.1040 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1919.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	60.00	40.00
INITIAL SHUT-IN	30.00		987.00
FINAL FLOW	30.00	71.00	71.00
FINAL SHUT-IN	45.00		1000.00

FINAL HYDROSTATIC PRESSURE: 1919.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1924.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	50.00	43.00
INITIAL SHUT-IN	30.00		1004.00
FINAL FLOW	30.00	65.00	71.00
FINAL SHUT-IN	45.00		1022.00

FINAL HYDROSTATIC PRESSURE: 1896.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/17/92	TICKET : 18630
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : HANSON
WELL : 2-23 TEST: 4	GEOLOGIST: ?
ELEVATION: 2065 KB	FORMATION: ARBUCKLE
SECTION : 23	TOWNSHIP : 20S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 13266 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	50.00	50.00
5.00	50.00	0.00
10.00	44.00	-6.00
15.00	43.00	-1.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	231.00	231.00	0.00
6.00	372.00	141.00	0.00
9.00	497.00	125.00	0.00
12.00	636.00	139.00	0.00
15.00	759.00	123.00	0.00
18.00	852.00	93.00	0.00
21.00	921.00	69.00	0.00
24.00	964.00	43.00	0.00
27.00	991.00	27.00	0.00
30.00	1004.00	13.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	65.00	65.00
5.00	65.00	0.00
10.00	65.00	0.00
15.00	65.00	0.00

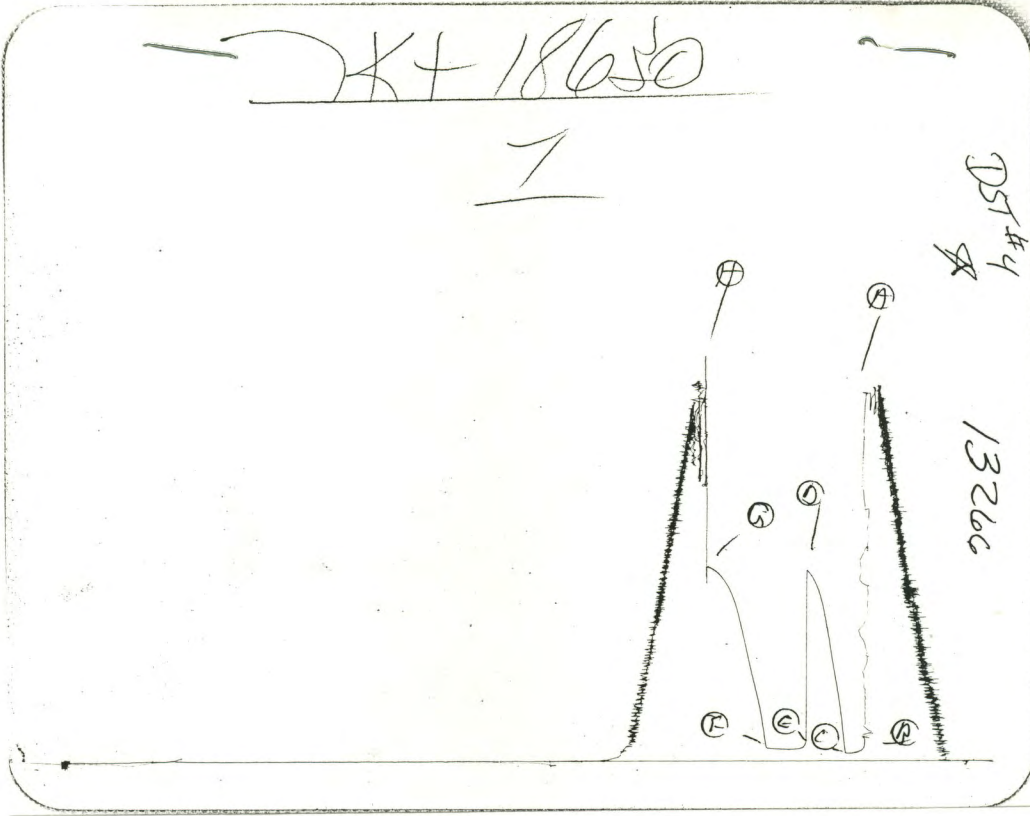
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

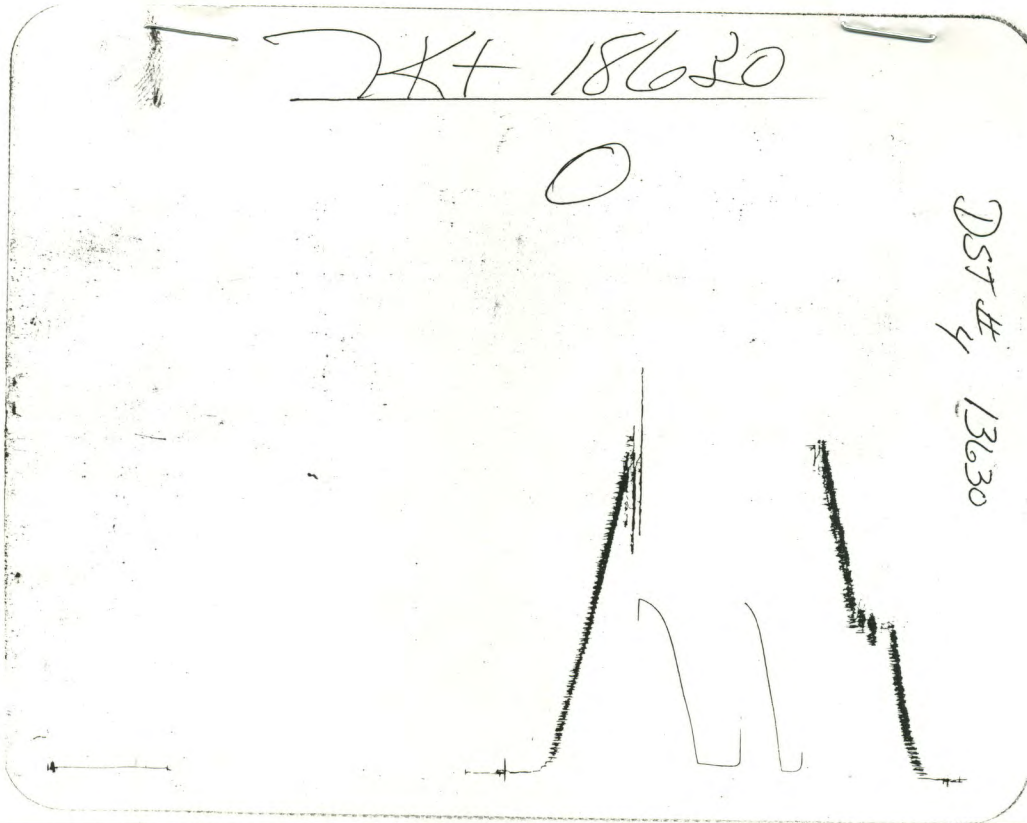
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
20.00	66.00	1.00
25.00	69.00	3.00
30.00	71.00	2.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	228.00	228.00	0.00
6.00	331.00	103.00	0.00
9.00	420.00	89.00	0.00
12.00	507.00	87.00	0.00
15.00	607.00	100.00	0.00
18.00	702.00	95.00	0.00
21.00	782.00	80.00	0.00
24.00	851.00	69.00	0.00
27.00	901.00	50.00	0.00
30.00	935.00	34.00	0.00
33.00	968.00	33.00	0.00
36.00	986.00	18.00	0.00
39.00	1005.00	19.00	0.00
42.00	1017.00	12.00	0.00
45.00	1022.00	5.00	0.00



Inside Recorder

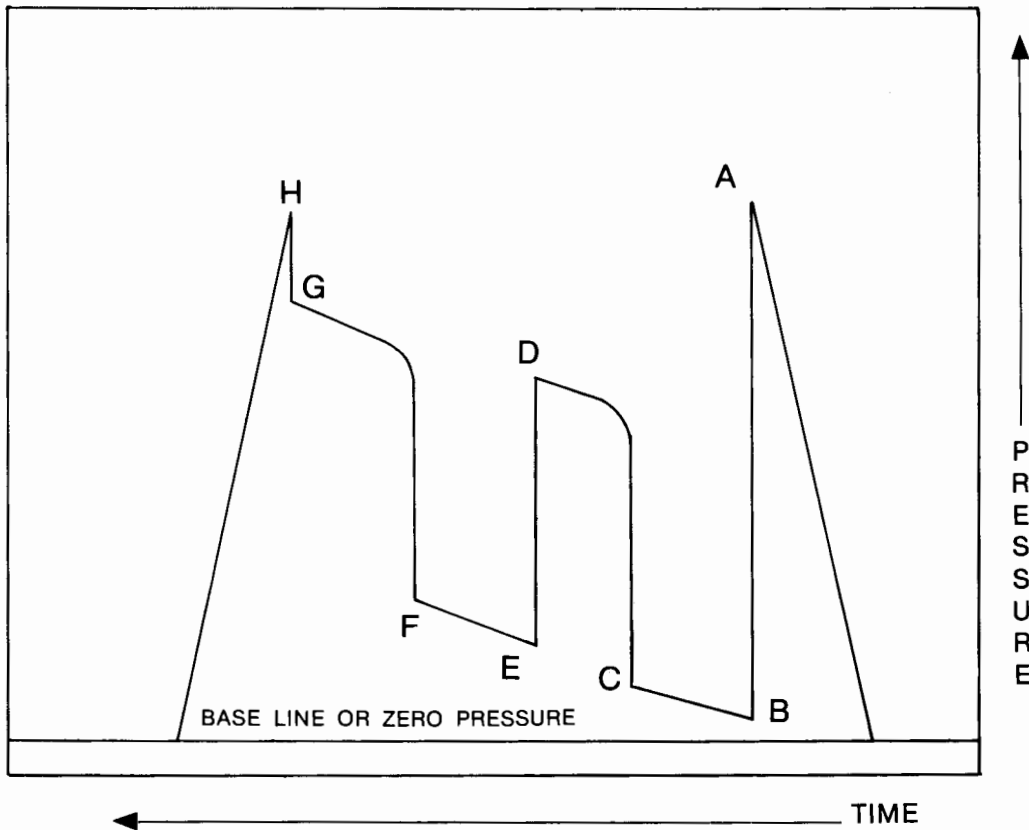


Outside Recorder

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

AK-1 Recorders



- A - Initial Hydrostatic
- B - First Initial Flow
- C - First Final Flow
- D - Initial Shut-In

- E - Second Initial Flow
- F - Second Final Flow
- G - Final Shut-In
- H - Final Hydrostatic