WESTERN TESTING CO., INC.
Pressure Data

Date 4-22-94 Test Ticket No. J2501

Recorder No. 1108 Capacity Location Ft.

Clock No. Elevation Well Temperature °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1931 P.S.I.	Open Tool	M	
B	First Initial Flow Pressure	P.S.I.	First Flow Pressure	Mins.	Mins.
C	First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	Mins.	Mins.
D	Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	Mins.	Mins.
E	Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	Mins.	Mins.
F	Second Final Flow Pressure	P.S.I.			
G	Final Closed-in Pressure	P.S.I.			
H	Final Hydrostatic Mud	1891 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	84
P 2	5	25
P 3	10	20
P 4	15	71
P 5	20	
P 6	25	
P 7	30	
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14	65	
P15	70	
P16	75	
P17	80	
P18	85	
P19	90	
P20	95	
	100	

Initial Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	
3	79
6	225
9	447
12	628
15	725
18	817
21	861
24	891
27	918
30	934
33	946
36	959
39	966
42	977
45	985
48	986
51	990
54	
57	
60	

Second Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	84
5	
10	
15	
20	
25	
30	84
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	
95	
100	

Final Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	84
3	179
6	248
9	291
12	532
15	626
18	692
21	745
24	791
27	819
30	847
33	867
36	881
39	892
42	902
45	911
48	920
51	929
54	936
57	940
60	945

WESTERN TESTING CO., INC.

Pressure Data

Date _____ Test Ticket No. 10501

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

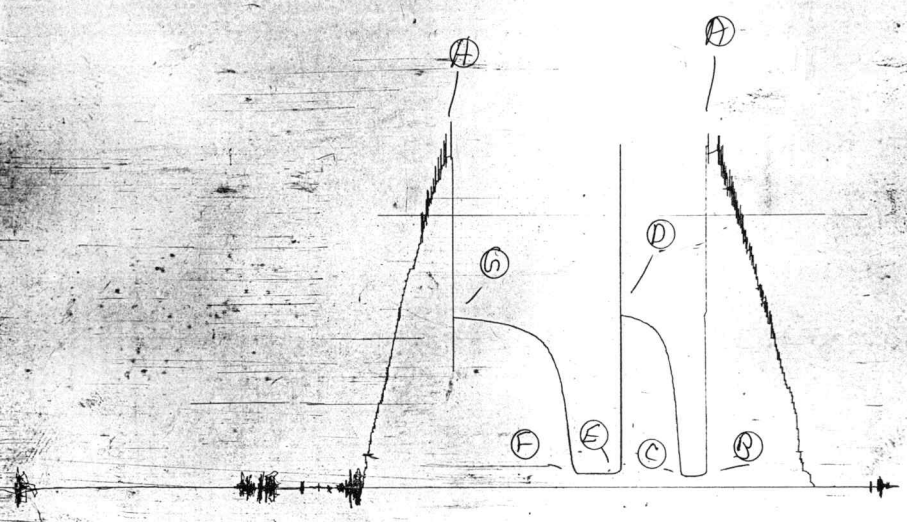
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	P.S.I.	Open Tool	M	
B First Initial Flow Pressure	P.S.I.	First Flow Pressure	Mins.	Mins.
C First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	Mins.	Mins.
D Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	Mins.	Mins.
E Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	Mins.	Mins.
F Second Final Flow Pressure	P.S.I.			
G Final Closed-in Pressure	P.S.I.			
H Final Hydrostatic Mud	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.		Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.		Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.		Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105		63		105		63	949
P 2 110		66		110		66	954
P 3 115		69		115		69	956
P 4 120		72		120		72	959
P 5 125		75		125		75	962
P 6 130		78		130		78	965
P 7 135		81		135		81	967
P 8 140		84		140		84	969
P 9 145		87		145		87	971
P10 150		90		150		90	973
P11 155		93		155		93	975
P12 160		96		160		96	977
P13 165		99		165		99	
P14 170		102		170		102	
P15 175		105		175		105	
P16 180		108		180		108	
P17 185		111		185		111	
P18 190		114		190		114	
P19 195		117		195		117	
P20 200		120		200		120	

DST #1 REC'D 11018 INSIDE

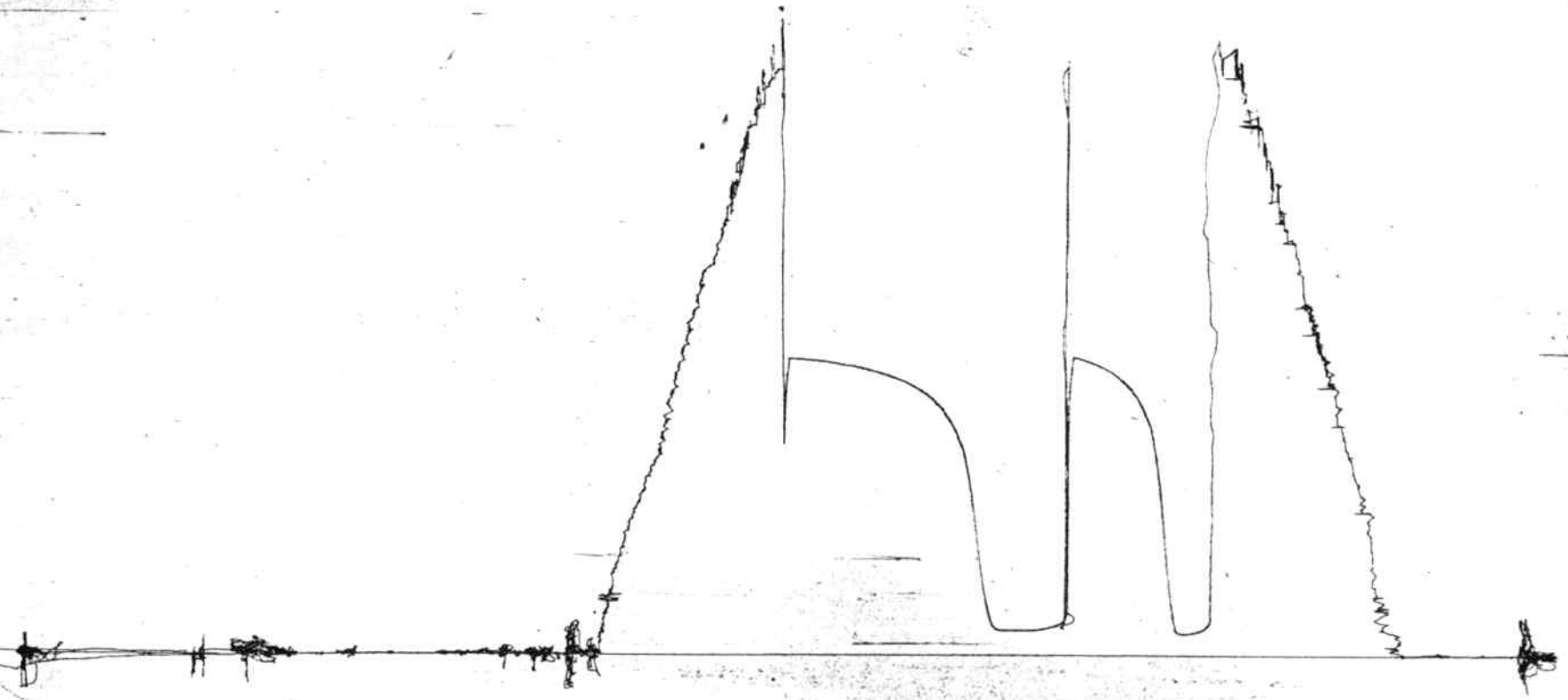
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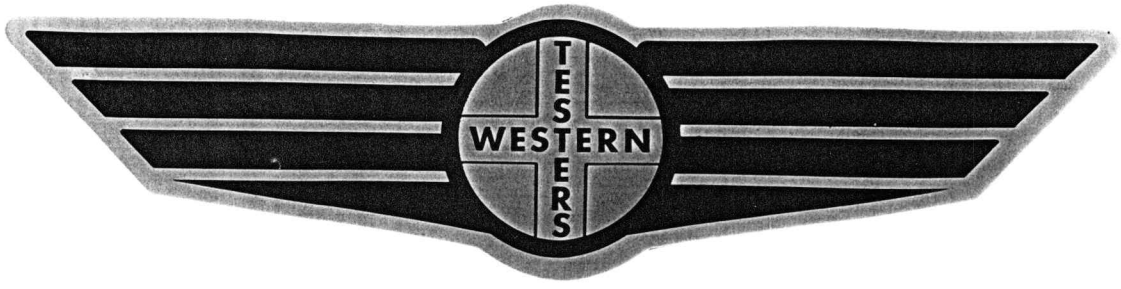
RST #1 RSC # 13629 OUTSIDE

K+ 9201

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FORMATION TEST REPORT



Home Office:
P.O. Box 1599

Wichita, Kansas 67201
Phone 1-800-688-7021

COMPANY CHARTER PRODUCTION COMPANY LEASE & WELL NO. #1 KANCO A SEC. 13 TWP. 31S RGE. 39W TEST NO. 1 DATE 4/22/94

DST REPORT

GENERAL INFORMATION

DATE	: 4-22-94	TICKET	: 20301
CUSTOMER	: CHARTER PRODUCTION CO.	LEASE	: KANCO A
WELL	: #1 TEST: 1	GEOLOGIST	: GARY WILKENS
ELEVATION	: 3204 G.L.	FORMATION	: L. KANSAS CITY
SECTION	: 13	TOWNSHIP	: 31S
RANGE	: 39W COUNTY: STEVENS	STATE	: KS
GAUGE SN#	: 11018 RANGE : 4425	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4040.00 ft TO: 4070.00 ft TVD: 4070.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4043.0 ft 4067.0 ft
TEMPERATURE: 114.0

DRILL COLLAR LENGTH:	520.0 ft	I.D.:	2.200 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	3494.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	26.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	30.0 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:	4035.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4040.0 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.	: ZENITH DRLG. #7		
MUD TYPE	: CHEMICAL	VISCOSITY :	40.00 cp
WEIGHT	: 9.000 ppg	WATER LOSS:	12.000 cc
CHLORIDES	: 1100 ppm		
JARS-MAKE	: WTC	SERIAL NUMBER:	12369
DID WELL FLOW?	: NO	REVERSED OUT?:	NO

COMMENTS

Comment

WEAK BLOW SLOWLY BUILDING TO 2" ON INITIAL FLOW PERIOD. VERY WEAK 1/4" BLOW ON FINAL FLOW PERIOD.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
100.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB		
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME:	45.0000 min.
MUD VOLUME:	0.4701 STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.4701 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1900.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	44.00	55.00
INITIAL SHUT-IN	45.00		970.00
FINAL FLOW	30.00	65.00	68.00
FINAL SHUT-IN	90.00		965.00

FINAL HYDROSTATIC PRESSURE: 1868.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1931.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	83.00	71.00
INITIAL SHUT-IN	51.00		990.00
FINAL FLOW	30.00	84.00	84.00
FINAL SHUT-IN	96.00		977.00

FINAL HYDROSTATIC PRESSURE: 1891.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4-22-94	TICKET	: 20301
CUSTOMER	: CHARTER PRODUCTION CO.	LEASE	: KANCO A
WELL	: #1 TEST: 1	GEOLOGIST	: GARY WILKENS
ELEVATION	: 3204 G.L.	FORMATION	: L. KANSAS CITY
SECTION	: 13	TOWNSHIP	: 31S
RANGE	: 39W COUNTY: STEVENS	STATE	: KS
GAUGE SN#	: 11018 RANGE : 4425	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	83.00	83.00
5.00	75.00	-8.00
10.00	70.00	-5.00
15.00	71.00	1.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	79.00	79.00	0.00
6.00	222.00	143.00	0.00
9.00	447.00	225.00	0.00
12.00	628.00	181.00	0.00
15.00	735.00	107.00	0.00
18.00	817.00	82.00	0.00
21.00	861.00	44.00	0.00
24.00	891.00	30.00	0.00
27.00	918.00	27.00	0.00
30.00	934.00	16.00	0.00
33.00	946.00	12.00	0.00
36.00	959.00	13.00	0.00
39.00	966.00	7.00	0.00
42.00	977.00	11.00	0.00
45.00	982.00	5.00	0.00
48.00	986.00	4.00	0.00
51.00	990.00	4.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	84.00	84.00
5.00	84.00	0.00
10.00	84.00	0.00
15.00	84.00	0.00
20.00	84.00	0.00
25.00	84.00	0.00
30.00	84.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	119.00	119.00	0.00
6.00	248.00	129.00	0.00
9.00	391.00	143.00	0.00
12.00	522.00	131.00	0.00
15.00	626.00	104.00	0.00
18.00	692.00	66.00	0.00
21.00	743.00	51.00	0.00
24.00	791.00	48.00	0.00
27.00	819.00	28.00	0.00
30.00	847.00	28.00	0.00
33.00	867.00	20.00	0.00
36.00	881.00	14.00	0.00
39.00	893.00	12.00	0.00
42.00	902.00	9.00	0.00
45.00	911.00	9.00	0.00
48.00	920.00	9.00	0.00
51.00	929.00	9.00	0.00
54.00	936.00	7.00	0.00
57.00	940.00	4.00	0.00
60.00	945.00	5.00	0.00
63.00	949.00	4.00	0.00
66.00	954.00	5.00	0.00
69.00	956.00	2.00	0.00
72.00	959.00	3.00	0.00
75.00	962.00	3.00	0.00
78.00	965.00	3.00	0.00
81.00	967.00	2.00	0.00
84.00	969.00	2.00	0.00
87.00	971.00	2.00	0.00
90.00	973.00	2.00	0.00
93.00	975.00	2.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
96.00	977.00	2.00	0.00

WESTERN TESTING CO., INC.
Pressure Data

Date _____ Test Ticket No. 20303

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2790 P.S.I.	Open Tool	10:20A M	
B First Initial Flow Pressure	69 P.S.I.	First Flow Pressure	20 Mins.	20 Mins.
C First Final Flow Pressure	60 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	256 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	82 P.S.I.	Final Closed-in Pressure	150 Mins.	153 Mins.
F Second Final Flow Pressure	69 P.S.I.			
G Final Closed-in Pressure	617 P.S.I.			
H Final Hydrostatic Mud	2777 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: _____ Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	69
P 2	5	63
P 3	10	61
P 4	15	62
P 5	20	60
P 6	25	
P 7	30	
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14	65	
P15	70	
P16	75	
P17	80	
P18	85	
P19	90	
P20	95	
	100	

Initial Shut-In

Breakdown: _____ Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	60
3	61
6	62
9	64
12	72
15	87
18	100
21	111
24	122
27	133
30	144
33	156
36	167
39	181
42	193
45	204
48	218
51	228
54	242
57	257
60	256

Second Flow Pressure

Breakdown: _____ Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	82
5	69
10	
15	
20	
25	
30	
35	
40	
45	
50	
55	
60	69
65	
70	
75	
80	
85	
90	
95	
100	

Final Shut-In

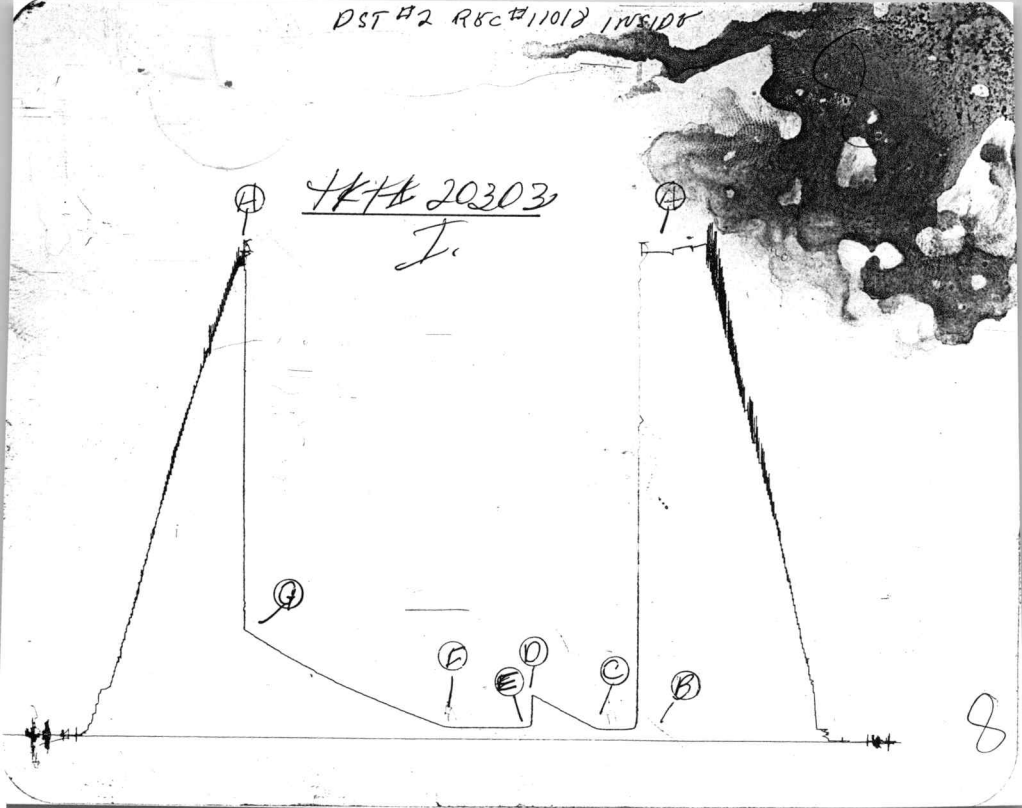
Breakdown: _____ Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	69
3	76
6	84
9	93
12	101
15	111
18	120
21	127
24	138
27	147
30	156
33	164
36	173
39	182
42	191
45	200
48	209
51	216
54	227
57	238
60	247

DST #2 RBC #11012 INSIDE

HH 20303

I.

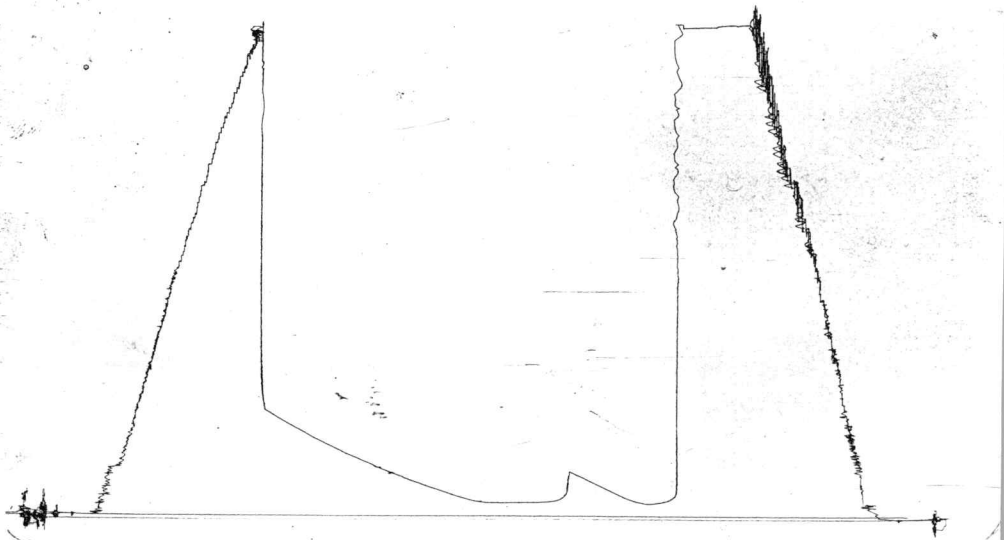


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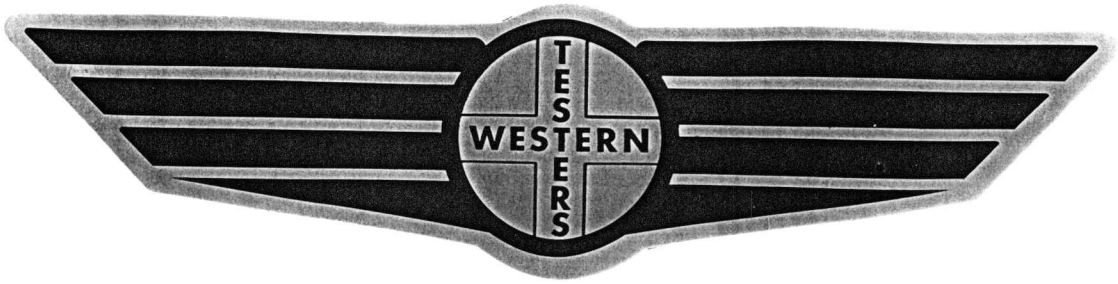
DST #2 RBC #13629 GUESTIMATE

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JK# 20303



FORMATION TEST REPORT



Home Office:

P.O. Box 1599

Wichita, Kansas 67201

Phone 1-800-688-7021

COMPANY CHARTER PRODUCTION COMPANY LEASE & WELL NO. #1 KANCO A SEC. 13 TWP. 31S RGE. 39W TEST NO. 2 DATE 4/27/94

DST REPORT

GENERAL INFORMATION

DATE : 4/27/94
CUSTOMER : CHARTER PRODUCTION CO.
WELL : #1 TEST: 2
ELEVATION: 3204 G.L.
SECTION : 13
RANGE : 39W COUNTY: STEVENS
GAUGE SN#: 11018 RANGE : 4425

TICKET : 20303
LEASE : KANCO A
GEOLOGIST: GARY WILKENS
FORMATION: MORROW
TOWNSHIP : 31S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 5678.00 ft TO: 5745.00 ft TVD: 5745.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 5681.0 ft 5700.0 ft
TEMPERATURE: 146.0

DRILL COLLAR LENGTH:	490.0 ft	I.D.:	2.200 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	5162.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	26.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	67.0 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:	5673.0 ft	SIZE:	6.630 in
PACKER DEPTH:	5678.0 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. : ZENITH DRLG. #7
MUD TYPE : CHEMICAL
WEIGHT : 9.100 ppg
CHLORIDES : 900 ppm
JARS-MAKE : WTC
DID WELL FLOW?: NO

VISCOSITY : 56.00 cp
WATER LOSS: 7.200 cc

SERIAL NUMBER: 12369
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD FAIR 4 INCH BLOW. FINAL FLOW PERIOD STRONG BLOW - BOTTOM OF BUCKET IN 23 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
70.0	0.0	0.0	0.0	100.0	DRILLING MUD
0.0	0.0	0.0	0.0	0.0	(GRINDOUT 100% MUD)
0.0	0.0	0.0	0.0	0.0	CHLORIDES 1000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000 STB		
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME:	80.0000 min.
MUD VOLUME:	0.3291 STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.3291 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2770.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	60.00	62.00
INITIAL SHUT-IN	60.00		245.00
FINAL FLOW	60.00	67.00	67.00
FINAL SHUT-IN	150.00		605.00

FINAL HYDROSTATIC PRESSURE: 2756.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2790.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	69.00	60.00
INITIAL SHUT-IN	60.00		256.00
FINAL FLOW	60.00	82.00	69.00
FINAL SHUT-IN	153.00		617.00

FINAL HYDROSTATIC PRESSURE: 2777.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4/27/94	TICKET	: 20303
CUSTOMER	: CHARTER PRODUCTION CO.	LEASE	: KANCO A
WELL	: #1 TEST: 2	GEOLOGIST	: GARY WILKENS
ELEVATION	: 3204 G.L.	FORMATION	: MORROW
SECTION	: 13	TOWNSHIP	: 31S
RANGE	: 39W COUNTY: STEVENS	STATE	: KS
GAUGE SN#	: 11018 RANGE : 4425	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	69.00	69.00
5.00	63.00	-6.00
10.00	61.00	-2.00
15.00	62.00	1.00
20.00	60.00	-2.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	61.00	61.00	0.00
6.00	62.00	1.00	0.00
9.00	64.00	2.00	0.00
12.00	72.00	8.00	0.00
15.00	87.00	15.00	0.00
18.00	100.00	13.00	0.00
21.00	111.00	11.00	0.00
24.00	122.00	11.00	0.00
27.00	133.00	11.00	0.00
30.00	144.00	11.00	0.00
33.00	156.00	12.00	0.00
36.00	167.00	11.00	0.00
39.00	181.00	14.00	0.00
42.00	193.00	12.00	0.00
45.00	204.00	11.00	0.00
48.00	218.00	14.00	0.00
51.00	228.00	10.00	0.00
54.00	242.00	14.00	0.00
57.00	251.00	9.00	0.00
60.00	256.00	5.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	82.00	82.00
5.00	69.00	-13.00
10.00	69.00	0.00
15.00	69.00	0.00
20.00	69.00	0.00
25.00	69.00	0.00
30.00	69.00	0.00
35.00	69.00	0.00
40.00	69.00	0.00
45.00	69.00	0.00
50.00	69.00	0.00
55.00	69.00	0.00
60.00	69.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	76.00	76.00	0.00
6.00	84.00	8.00	0.00
9.00	93.00	9.00	0.00
12.00	101.00	8.00	0.00
15.00	111.00	10.00	0.00
18.00	120.00	9.00	0.00
21.00	127.00	7.00	0.00
24.00	138.00	11.00	0.00
27.00	147.00	9.00	0.00
30.00	156.00	9.00	0.00
33.00	164.00	8.00	0.00
36.00	173.00	9.00	0.00
39.00	182.00	9.00	0.00
42.00	191.00	9.00	0.00
45.00	200.00	9.00	0.00
48.00	207.00	7.00	0.00
51.00	216.00	9.00	0.00
54.00	227.00	11.00	0.00
57.00	238.00	11.00	0.00
60.00	247.00	9.00	0.00
63.00	258.00	11.00	0.00
66.00	269.00	11.00	0.00
69.00	279.00	10.00	0.00
72.00	289.00	10.00	0.00
75.00	296.00	7.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
78.00	307.00	11.00	0.00
81.00	318.00	11.00	0.00
84.00	327.00	9.00	0.00
87.00	342.00	15.00	0.00
90.00	353.00	11.00	0.00
93.00	362.00	9.00	0.00
96.00	373.00	11.00	0.00
99.00	382.00	9.00	0.00
102.00	400.00	18.00	0.00
105.00	411.00	11.00	0.00
108.00	422.00	11.00	0.00
111.00	433.00	11.00	0.00
114.00	447.00	14.00	0.00
117.00	458.00	11.00	0.00
120.00	471.00	13.00	0.00
123.00	484.00	13.00	0.00
126.00	498.00	14.00	0.00
129.00	511.00	13.00	0.00
132.00	534.00	23.00	0.00
135.00	538.00	4.00	0.00
138.00	551.00	13.00	0.00
141.00	564.00	13.00	0.00
144.00	577.00	13.00	0.00
147.00	593.00	16.00	0.00
150.00	606.00	13.00	0.00
153.00	617.00	11.00	0.00

WESTERN TESTING CO., INC.
Pressure Data

Date _____ Test Ticket No. 20304

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point		Pressure	
A	Initial Hydrostatic Mud	2814	P.S.I.
B	First Initial Flow Pressure	198	P.S.I.
C	First Final Flow Pressure	233	P.S.I.
D	Initial Closed-in Pressure	291	P.S.I.
E	Second Initial Flow Pressure	309	P.S.I.
F	Second Final Flow Pressure	296	P.S.I.
G	Final Closed-in Pressure	983	P.S.I.
H	Final Hydrostatic Mud	2794	P.S.I.

	Time Given	Time Computed
Open Tool	1:40 PM	
First Flow Pressure	20 Mins.	20 Mins.
Initial Closed-in Pressure	60 Mins.	60 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	120 Mins.	129 Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: _____ Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	198
P 2	5	199
P 3	10	209
P 4	15	227
P 5	20	233
P 6	25	
P 7	30	
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14	65	
P15	70	
P16	75	
P17	80	
P18	85	
P19	90	
P20	95	
	100	

Initial Shut-In

Breakdown: _____ Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	233
3	708
6	1317
9	1573
12	1720
15	1808
18	1883
21	1934
24	1987
27	2012
30	2044
33	2062
36	2104
39	2120
42	2138
45	2151
48	2151 2160
51	2169
54	2177
57	2182
60	2191

Second Flow Pressure

Breakdown: _____ Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	309
5	296
10	294
15	294
20	294
25	294
30	295
35	295
40	295
45	296
50	296
55	296
60	296
65	
70	
75	
80	
85	
90	
95	
100	

Final Shut-In

Breakdown: _____ Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	296
3	504
6	703
9	923
12	1079
15	1196
18	1291
21	1381
24	1454
27	1504
30	1551
33	1595
36	1626
39	1658 1668
42	1689
45	1709
48	1731
51	1751
54	1771
57	1784
60	1802

WESTERN TESTING CO., INC.
Pressure Data

Date _____ Test Ticket No. _____

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure
A Initial Hydrostatic Mud	_____ P.S.I.
B First Initial Flow Pressure	_____ P.S.I.
C First Final Flow Pressure	_____ P.S.I.
D Initial Closed-in Pressure	_____ P.S.I.
E Second Initial Flow Pressure	_____ P.S.I.
F Second Final Flow Pressure	_____ P.S.I.
G Final Closed-in Pressure	_____ P.S.I.
H Final Hydrostatic Mud	_____ P.S.I.

	Time Given	Time Computed
Open Tool	_____ M	_____
First Flow Pressure	_____ Mins.	_____ Mins.
Initial Closed-in Pressure	_____ Mins.	_____ Mins.
Second Flow Pressure	_____ Mins.	_____ Mins.
Final Closed-in Pressure	_____ Mins.	_____ Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: _____ Inc.

of _____ mins. and a

final inc. of _____ Min.

Point Mins.	Press.
P 1 105	
P 2 110	
P 3 115	
P 4 120	
P 5 125	
P 6 130	
P 7 135	
P 8 140	
P 9 145	
P10 150	
P11 155	
P12 160	
P13 165	
P14 170	
P15 175	
P16 180	
P17 185	
P18 190	
P19 195	
P20 200	

Initial Shut-In

Breakdown: _____ Inc.

of _____ mins. and a

final inc. of _____ Min.

Point Minutes	Press.
63	
66	
69	
72	
75	
78	
81	
84	
87	
90	
93	
96	
99	
102	
105	
108	
111	
114	
117	
120	

Second Flow Pressure

Breakdown: _____ Inc.

of _____ mins. and a

final inc. of _____ Min.

Point Minutes	Press.
105	
110	
115	
120	
125	
130	
135	
140	
145	
150	
155	
160	
165	
170	
175	
180	
185	
190	
195	
200	

Final Shut-In

Breakdown: _____ Inc.

of _____ mins. and a

final inc. of _____ Min.

Point Minutes	Press.
63	1817
66	1830
69	1844
72	1852
75	1866
78	1876
81	1883
84	1894
87	1901
90	1910
93	1917
96	1923
99	1932
102	1938
105	1945
108	1949
111	1954
114	1963
117	1967
120	1971
123	1975
126	1980
129	1983

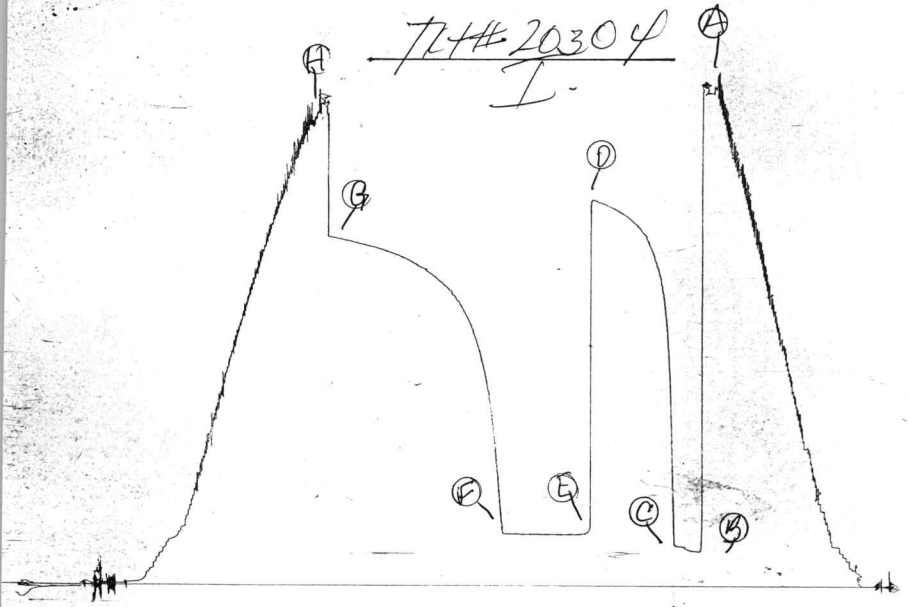
WTC - 4

DST #3 RGC #11018 INSIDE

8

TH# 20304

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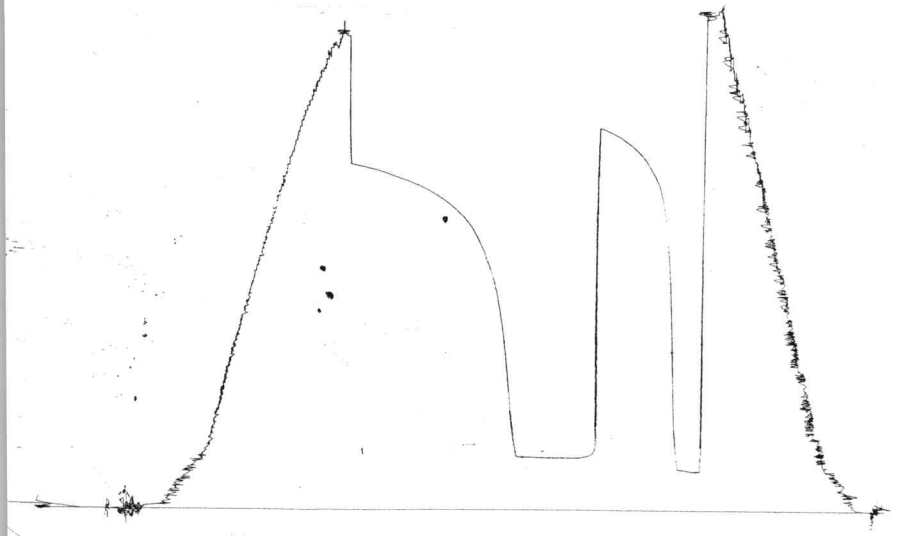


DST #3 REC #13629 OUTSIDE

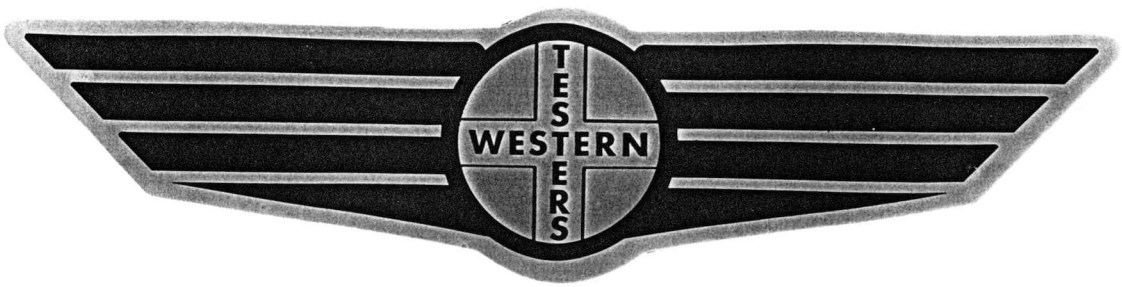
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TL# 20304

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FORMATION TEST REPORT



Home Office:

P.O. Box 1599

Wichita, Kansas 67201

Phone 1-800-688-7021

COMPANY CHARTER PRODUCTION COMPANY LEASE & WELL NO. #1 KANCO A SEC. 13 TWP. 31S RGE. 39W TEST NO. 3 DATE 4/28/94

DST REPORT

GENERAL INFORMATION

DATE	: 4/28/94	TICKET	: 20304
CUSTOMER	: CHARTER PRODUCTION CO.	LEASE	: KANCO A
WELL	: #1 TEST: 3	GEOLOGIST	: GARY WILKENS
ELEVATION	: 3204 G.L.	FORMATION	: MORROW
SECTION	: 13	TOWNSHIP	: 31S
RANGE	: 39W COUNTY: STEVENS	STATE	: KS
GAUGE SN#	: 11018 RANGE : 4425	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 5738.00 ft TO: 5808.00 ft TVD: 5808.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 5751.0 ft 5805.0 ft
TEMPERATURE: 151.0

DRILL COLLAR LENGTH:	490.0 ft	I.D.:	2.200 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	5222.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	26.0 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:	5733.0 ft	SIZE:	6.630 in
PACKER DEPTH:	5738.0 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.	: ZENITH DRLG. #7		
MUD TYPE	: CHEMICAL	VISCOSITY :	58.00 cp
WEIGHT	: 9.100 ppg	WATER LOSS:	8.400 cc
CHLORIDES	: 600 ppm		
JARS-MAKE	: WTC	SERIAL NUMBER:	12369
DID WELL FLOW?	: NO	REVERSED OUT?:	NO

COMMENTS

Comment

INITIAL FLOW PERIOD GOOD 7 INCH BLOW. FINAL FLOW PERIOD 5 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
340.0	0.0	5.0	0.0	95.0	SL GAS CUT DRILLING MUD
180.0	0.0	10.0	55.0	35.0	MUD CUT GASSY WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 15000 PPM

RATE INFORMATION

OIL VOLUME: 0.0000 STB
GAS VOLUME: 1.0025 SCF
MUD VOLUME: 2.0805 STB
WATER VOLUME: 0.4654 STB
TOTAL FLUID : 2.5459 STB

TOTAL FLOW TIME: 80.0000 min.
AVERAGE OIL RATE: 0.0000 STB/D
AVERAGE WATER RATE: 13.7091 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2820.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	178.00	222.00
INITIAL SHUT-IN	60.00		2190.00
FINAL FLOW	60.00	278.00	290.00
FINAL SHUT-IN	120.00		1956.00

FINAL HYDROSTATIC PRESSURE: 2775.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2814.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	198.00	233.00
INITIAL SHUT-IN	60.00		2191.00
FINAL FLOW	60.00	309.00	296.00
FINAL SHUT-IN	129.00		1983.00

FINAL HYDROSTATIC PRESSURE: 2794.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4/28/94	TICKET	: 20304
CUSTOMER	: CHARTER PRODUCTION CO.	LEASE	: KANCO A
WELL	: #1 TEST: 3	GEOLOGIST	: GARY WILKENS
ELEVATION	: 3204 G.L.	FORMATION	: MORROW
SECTION	: 13	TOWNSHIP	: 31S
RANGE	: 39W COUNTY: STEVENS	STATE	: KS
GAUGE SN#	: 11018 RANGE : 4425	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	198.00	198.00
5.00	199.00	1.00
10.00	209.00	10.00
15.00	227.00	18.00
20.00	233.00	6.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	708.00	708.00	0.00
6.00	1317.00	609.00	0.00
9.00	1573.00	256.00	0.00
12.00	1720.00	147.00	0.00
15.00	1808.00	88.00	0.00
18.00	1883.00	75.00	0.00
21.00	1934.00	51.00	0.00
24.00	1989.00	55.00	0.00
27.00	2012.00	23.00	0.00
30.00	2044.00	32.00	0.00
33.00	2062.00	18.00	0.00
36.00	2104.00	42.00	0.00
39.00	2120.00	16.00	0.00
42.00	2138.00	18.00	0.00
45.00	2151.00	13.00	0.00
48.00	2157.00	6.00	0.00
51.00	2169.00	12.00	0.00
54.00	2177.00	8.00	0.00
57.00	2182.00	5.00	0.00
60.00	2191.00	9.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	309.00	309.00
5.00	296.00	-13.00
10.00	294.00	-2.00
15.00	294.00	0.00
20.00	294.00	0.00
25.00	294.00	0.00
30.00	295.00	1.00
35.00	295.00	0.00
40.00	295.00	0.00
45.00	296.00	1.00
50.00	296.00	0.00
55.00	296.00	0.00
60.00	296.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	504.00	504.00	0.00
6.00	703.00	199.00	0.00
9.00	923.00	220.00	0.00
12.00	1079.00	156.00	0.00
15.00	1196.00	117.00	0.00
18.00	1291.00	95.00	0.00
21.00	1381.00	90.00	0.00
24.00	1454.00	73.00	0.00
27.00	1504.00	50.00	0.00
30.00	1551.00	47.00	0.00
33.00	1595.00	44.00	0.00
36.00	1626.00	31.00	0.00
39.00	1658.00	32.00	0.00
42.00	1689.00	31.00	0.00
45.00	1709.00	20.00	0.00
48.00	1731.00	22.00	0.00
51.00	1751.00	20.00	0.00
54.00	1771.00	20.00	0.00
57.00	1784.00	13.00	0.00
60.00	1802.00	18.00	0.00
63.00	1817.00	15.00	0.00
66.00	1830.00	13.00	0.00
69.00	1844.00	14.00	0.00
72.00	1852.00	8.00	0.00
75.00	1866.00	14.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
78.00	1876.00	10.00	0.00
81.00	1883.00	7.00	0.00
84.00	1894.00	11.00	0.00
87.00	1901.00	7.00	0.00
90.00	1910.00	9.00	0.00
93.00	1917.00	7.00	0.00
96.00	1923.00	6.00	0.00
99.00	1932.00	9.00	0.00
102.00	1938.00	6.00	0.00
105.00	1945.00	7.00	0.00
108.00	1949.00	4.00	0.00
111.00	1954.00	5.00	0.00
114.00	1963.00	9.00	0.00
117.00	1967.00	4.00	0.00
120.00	1971.00	4.00	0.00
123.00	1975.00	4.00	0.00
126.00	1980.00	5.00	0.00
129.00	1983.00	3.00	0.00