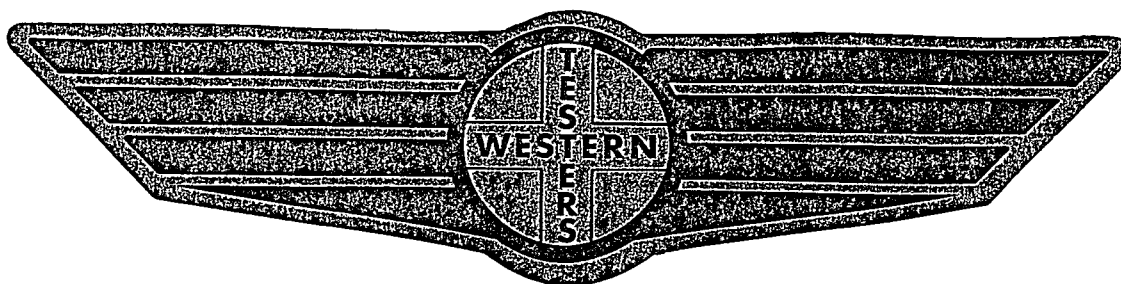


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

COMPANY THUNDERBIRD DRILLING, INC. LEASE & WELL NO. HODGES A #1 SEC. 2 TWP. 10S RGE. 33W TEST NO. 1 DATE 6/30/92

DST REPORT

GENERAL INFORMATION

DATE	: 6/30/92	TICKET	: 18431
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	TEST: 1	GEOLOGIST: AIKINS
ELEVATION	: 3142 GR	FORMATION	: L KANS CITY B
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	COUNTY: THOMAS	STATE : KS
GAUGE SN#	: 6233	RANGE : 4000	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	4107.00 ft	TO:	4135.00 ft	TVD:	4135.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	4110.0 ft		4113.0 ft		
TEMPERATURE:	123.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in		
WEIGHT PIPE LENGTH :	598.0 ft	I.D.:	3.200 in		
DRILL PIPE LENGTH :	3489.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	28.0 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:	4102.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	4107.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		

MUD INFORMATION

DRILLING CON. :	ABERCROMBIE RIG 4	VISCOSITY :	45.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.600 cc
WEIGHT :	9.000 ppq		
CHLORIDES :	2000 ppm	SERIAL NUMBER:	
JARS-MAKE :	NO	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD FAIR BLOW - 4 INCHES IN WATER.
FINAL FLOW PERIOD WEAK STEADY BLOW - 1 INCH IN
WATER. CHLORIDES 36000 PPM.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
250.0	0.0	0.0	100.0	0.0	WATER

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0000	STB	AVERAGE WATER RATE:	47.7440	STB/D
WATER VOLUME:	2.4867	STB			
TOTAL FLUID :	2.4867	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2047.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	60.00
INITIAL SHUT-IN	60.00		1283.00
FINAL FLOW	45.00	101.00	121.00
FINAL SHUT-IN	60.00		1244.00

FINAL HYDROSTATIC PRESSURE: 1998.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2066.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	58.00	83.00
INITIAL SHUT-IN	63.00		1241.00
FINAL FLOW	45.00	110.00	153.00
FINAL SHUT-IN	66.00		1215.00

FINAL HYDROSTATIC PRESSURE: 2018.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 6/30/92	TICKET	: 18431
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	GEOLOGIST	: AIKINS
ELEVATION	: 3142 GR	FORMATION	: L KANS CITY B
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	STATE	: KS
GAUGE SN#	: 6233	CLOCK	: 12
	COUNTY: THOMAS		
	RANGE : 4000		

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	58.00	58.00
5.00	58.00	0.00
10.00	58.00	0.00
15.00	63.00	5.00
20.00	69.00	6.00
25.00	73.00	4.00
30.00	83.00	10.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	635.00	635.00	0.00
6.00	1070.00	435.00	0.00
9.00	1114.00	44.00	0.00
12.00	1138.00	24.00	0.00
15.00	1147.00	9.00	0.00
18.00	1155.00	8.00	0.00
21.00	1168.00	13.00	0.00
24.00	1174.00	6.00	0.00
27.00	1182.00	8.00	0.00
30.00	1188.00	6.00	0.00
33.00	1194.00	6.00	0.00
36.00	1198.00	4.00	0.00
39.00	1202.00	4.00	0.00
42.00	1210.00	8.00	0.00
45.00	1215.00	5.00	0.00
48.00	1220.00	5.00	0.00
51.00	1226.00	6.00	0.00
54.00	1232.00	6.00	0.00
57.00	1236.00	4.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
60.00	1239.00	3.00	0.00
63.00	1241.00	2.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	110.00	110.00
5.00	110.00	0.00
10.00	110.00	0.00
15.00	112.00	2.00
20.00	119.00	7.00
25.00	126.00	7.00
30.00	131.00	5.00
35.00	139.00	8.00
40.00	147.00	8.00
45.00	153.00	6.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	689.00	689.00	0.00
6.00	1024.00	335.00	0.00
9.00	1067.00	43.00	0.00
12.00	1091.00	24.00	0.00
15.00	1105.00	14.00	0.00
18.00	1120.00	15.00	0.00
21.00	1125.00	5.00	0.00
24.00	1135.00	10.00	0.00
27.00	1143.00	8.00	0.00
30.00	1152.00	9.00	0.00
33.00	1158.00	6.00	0.00
36.00	1170.00	12.00	0.00
39.00	1176.00	6.00	0.00
42.00	1186.00	10.00	0.00
45.00	1193.00	7.00	0.00
48.00	1198.00	5.00	0.00
51.00	1202.00	4.00	0.00
54.00	1205.00	3.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

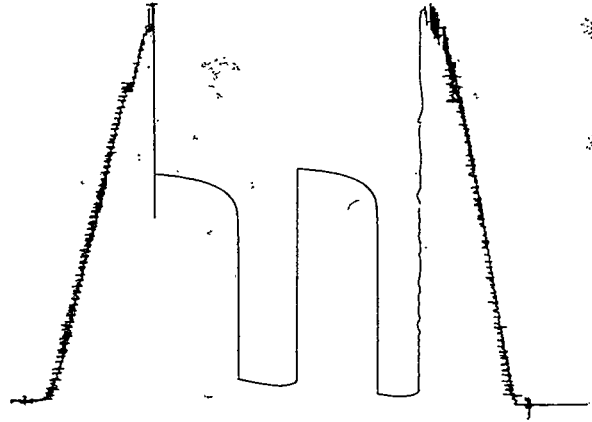
FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
57.00	1208.00	3.00	0.00
60.00	1210.00	2.00	0.00
63.00	1213.00	3.00	0.00
66.00	1215.00	2.00	0.00

1340

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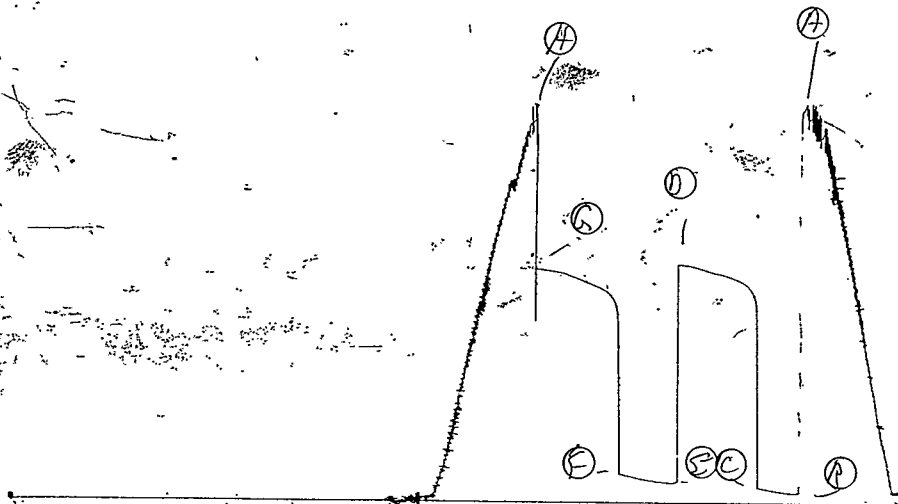
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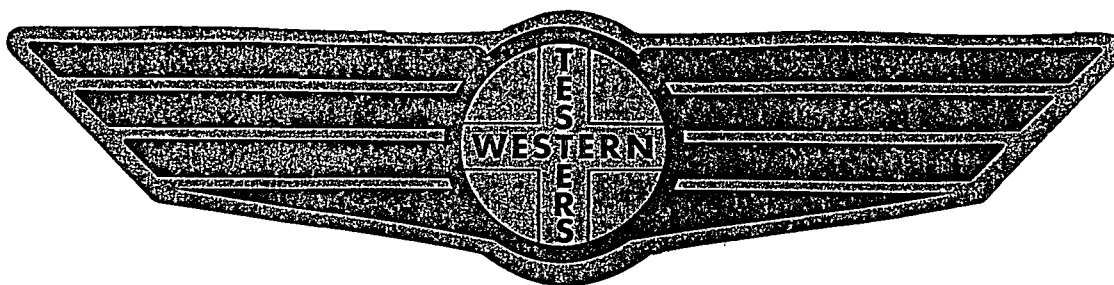
6233

DK 18431

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

COMPANY THUNDERBIRD DRILLING, INC. LEASE & WELL NO. HODGES A #1 SEC. 2 TWP. 10S RGE. 33W TEST NO. 2 DATE 6/30/92

DST REPORT

GENERAL INFORMATION

DATE	: 6/30/92	TICKET	: 18432
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	GEOLOGIST	: AIKINS
ELEVATION	: 3142 GR	FORMATION	: L KANS CITY E & F
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	STATE	: KS
GAUGE SN#	: 6233	CLOCK	: 12
	COUNTY: THOMAS		
	RANGE : 4000		

WELL INFORMATION

PERFORATION INTERVAL FROM:	4169.00 ft	TO:	4195.00 ft	TVD:	4195.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	4172.0 ft	4175.0 ft			
TEMPERATURE:	124.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in		
WEIGHT PIPE LENGTH :	598.0 ft	I.D.:	3.200 in		
DRILL PIPE LENGTH :	3551.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	26.0 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:	4164.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	4169.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		

MUD INFORMATION

DRILLING CON. :	ABERCROMBIE RIG 4	VISCOSITY :	45.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.600 cc
WEIGHT :	9.000 ppg		
CHLORIDES :	2000 ppm	SERIAL NUMBER:	
JARS-MAKE :	NO	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW-2 INCHES IN WATER.
FINAL FLOW PERIOD WEAK BLOW - 1 INCH IN WATER.
CHLORIDES 34000 PPM

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	100.0	0.0	0.0	0.0	OIL
60.0	10.0	0.0	0.0	90.0	OIL CUT MUD
120.0	2.0	0.0	98.0	0.0	SLIGHTLY OIL CUT WATER

RATE INFORMATION

OIL VOLUME:	0.1830	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	13.8267	STB/D
MUD VOLUME:	0.5371	STB	AVERAGE WATER RATE:	22.4588	STB/D
WATER VOLUME:	1.1697	STB			
TOTAL FLUID :	1.8899	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2047.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	60.00
INITIAL SHUT-IN	60.00		1283.00
FINAL FLOW	45.00	101.00	121.00
FINAL SHUT-IN	60.00		1244.00

FINAL HYDROSTATIC PRESSURE: 1998.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2066.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	64.00	67.00
INITIAL SHUT-IN	63.00		1282.00
FINAL FLOW	45.00	105.00	120.00
FINAL SHUT-IN	63.00		1255.00

FINAL HYDROSTATIC PRESSURE: 2018.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 6/30/92	TICKET	: 18432
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	GEOLOGIST	: AIKINS
ELEVATION	: 3142 GR	FORMATION	: L KANS CITY E & F
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	STATE	: KS
GAUGE SN#	: 6233	CLOCK	: 12
	COUNTY: THOMAS		
	RANGE : 4000		

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	64.00	64.00
5.00	64.00	0.00
10.00	64.00	0.00
15.00	64.00	0.00
20.00	64.00	0.00
25.00	65.00	1.00
30.00	67.00	2.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	586.00	586.00	0.00
6.00	948.00	362.00	0.00
9.00	1102.00	154.00	0.00
12.00	1170.00	68.00	0.00
15.00	1199.00	29.00	0.00
18.00	1220.00	21.00	0.00
21.00	1234.00	14.00	0.00
24.00	1245.00	11.00	0.00
27.00	1252.00	7.00	0.00
30.00	1258.00	6.00	0.00
33.00	1262.00	4.00	0.00
36.00	1266.00	4.00	0.00
39.00	1270.00	4.00	0.00
42.00	1273.00	3.00	0.00
45.00	1276.00	3.00	0.00
48.00	1278.00	2.00	0.00
51.00	1280.00	2.00	0.00
54.00	1281.00	1.00	0.00
57.00	1282.00	1.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1282.00	0.00	0.00
63.00	1282.00	0.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	105.00	105.00
5.00	105.00	0.00
10.00	105.00	0.00
15.00	105.00	0.00
20.00	105.00	0.00
25.00	106.00	1.00
30.00	109.00	3.00
35.00	112.00	3.00
40.00	116.00	4.00
45.00	120.00	4.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	648.00	648.00	0.00
6.00	911.00	263.00	0.00
9.00	1064.00	153.00	0.00
12.00	1119.00	55.00	0.00
15.00	1152.00	33.00	0.00
18.00	1176.00	24.00	0.00
21.00	1191.00	15.00	0.00
24.00	1203.00	12.00	0.00
27.00	1212.00	9.00	0.00
30.00	1218.00	6.00	0.00
33.00	1225.00	7.00	0.00
36.00	1230.00	5.00	0.00
39.00	1235.00	5.00	0.00
42.00	1241.00	6.00	0.00
45.00	1244.00	3.00	0.00
48.00	1247.00	3.00	0.00
51.00	1249.00	2.00	0.00
54.00	1251.00	2.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

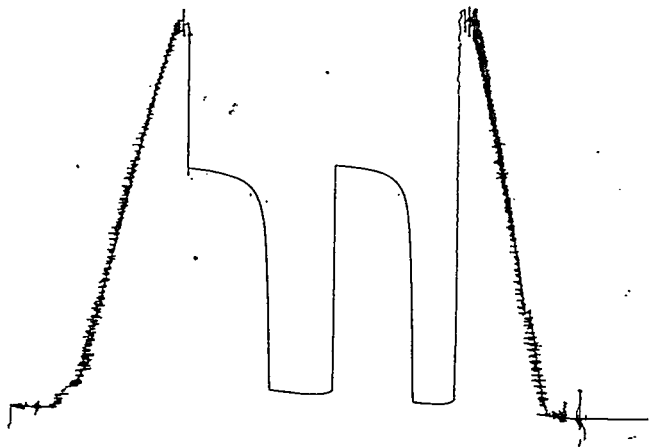
FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
57.00	1253.00	2.00	0.00
60.00	1254.00	1.00	0.00
63.00	1255.00	1.00	0.00

1348

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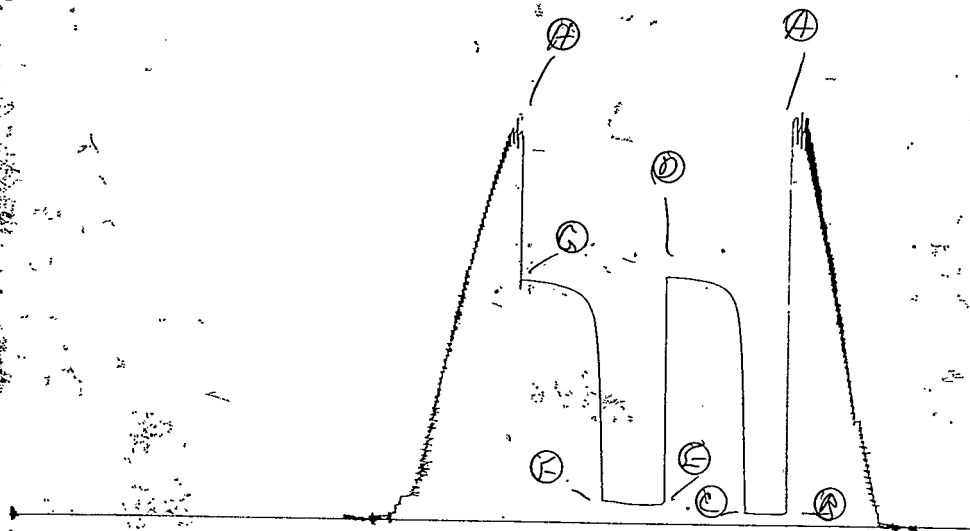
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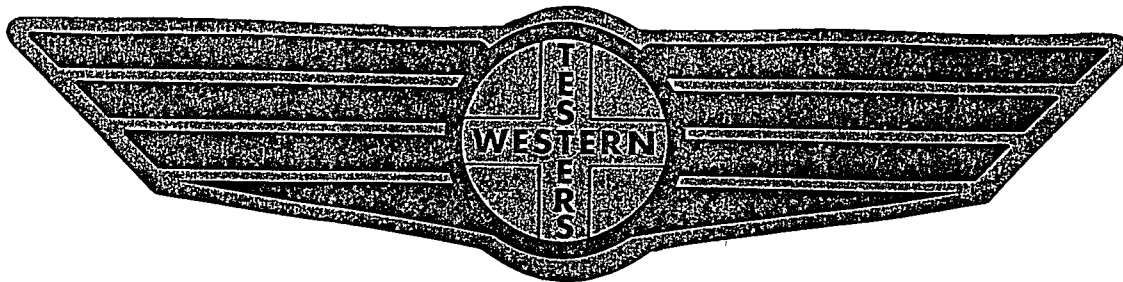
6233

OK 4-18432

2



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

COMPANY THUNDERBIRD DRILLING, INC. LEASE & WELL NO. HODGES A #1 SEC. 2 TWP. 10S RGE. 33W TEST NO. 3 DATE 7/1/92

DST REPORT

GENERAL INFORMATION

DATE	: 7/1/92	TICKET	: 18433
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	TEST: 3	GEOLOGIST: AIKINS
ELEVATION:	3142 GR	FORMATION:	L KANS CITY G & H
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	COUNTY: THOMAS	STATE : KS.
GAUGE SN#:	6233	RANGE : 4000	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	4216.00 ft	TO:	4255.00 ft	TVD:	4255.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	4219.0 ft	4223.0 ft			
TEMPERATURE:	124.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in		
WEIGHT PIPE LENGTH :	590.0 ft	I.D.:	3.200 in		
DRILL PIPE LENGTH :	3606.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	39.0 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:	4211.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	4216.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		

MUD INFORMATION

DRILLING CON. :	ABERCROMBIE RIG 4	VISCOSITY :	52.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.400 cc
WEIGHT :	9.000 ppq		
CHLORIDES :	2500 ppm	SERIAL NUMBER:	
JARS-MAKE :	NO	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW - 11 INCHES IN
WATER. FINAL FLOW PERIOD STRONG BLOW - 8 INCHES
IN WATER. CHLORIDES 50000 PPM

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
720.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	R.W. .3 @ 72 DEGREES

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0000	STB	AVERAGE WATER RATE:	147.6856	STB/D
WATER VOLUME:	7.6920	STB			
TOTAL FLUID :	7.6920	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2047.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	60.00
INITIAL SHUT-IN	60.00		1283.00
FINAL FLOW	45.00	101.00	121.00
FINAL SHUT-IN	60.00		1244.00

FINAL HYDROSTATIC PRESSURE: 1998.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2066.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	65.00	163.00
INITIAL SHUT-IN	66.00		1327.00
FINAL FLOW	45.00	227.00	342.00
FINAL SHUT-IN	63.00		1317.00

FINAL HYDROSTATIC PRESSURE: 2018.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 7/1/92	TICKET	: 18433
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	GEOLOGIST	: AIKINS
ELEVATION	: 3142 GR	FORMATION	: L KANS CITY G & H
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	STATE	: KS
GAUGE SN#	: 6233	CLOCK	: 12
	COUNTY: THOMAS		
	RANGE : 4000		

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	65.00	65.00
5.00	65.00	0.00
10.00	72.00	7.00
15.00	91.00	19.00
20.00	112.00	21.00
25.00	137.00	25.00
30.00	163.00	26.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1139.00	1139.00	0.00
6.00	1210.00	71.00	0.00
9.00	1239.00	29.00	0.00
12.00	1255.00	16.00	0.00
15.00	1266.00	11.00	0.00
18.00	1276.00	10.00	0.00
21.00	1283.00	7.00	0.00
24.00	1287.00	4.00	0.00
27.00	1292.00	5.00	0.00
30.00	1300.00	8.00	0.00
33.00	1302.00	2.00	0.00
36.00	1304.00	2.00	0.00
39.00	1306.00	2.00	0.00
42.00	1308.00	2.00	0.00
45.00	1311.00	3.00	0.00
48.00	1315.00	4.00	0.00
51.00	1319.00	4.00	0.00
54.00	1323.00	4.00	0.00
57.00	1327.00	4.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1327.00	0.00	0.00
63.00	1327.00	0.00	0.00
66.00	1327.00	0.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	227.00	227.00
5.00	227.00	0.00
10.00	236.00	9.00
15.00	255.00	19.00
20.00	272.00	17.00
25.00	287.00	15.00
30.00	304.00	17.00
35.00	317.00	13.00
40.00	332.00	15.00
45.00	342.00	10.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1113.00	1113.00	0.00
6.00	1209.00	96.00	0.00
9.00	1235.00	26.00	0.00
12.00	1252.00	17.00	0.00
15.00	1264.00	12.00	0.00
18.00	1271.00	7.00	0.00
21.00	1277.00	6.00	0.00
24.00	1280.00	3.00	0.00
27.00	1285.00	5.00	0.00
30.00	1289.00	4.00	0.00
33.00	1294.00	5.00	0.00
36.00	1298.00	4.00	0.00
39.00	1305.00	7.00	0.00
42.00	1312.00	7.00	0.00
45.00	1317.00	5.00	0.00
48.00	1317.00	0.00	0.00
51.00	1317.00	0.00	0.00

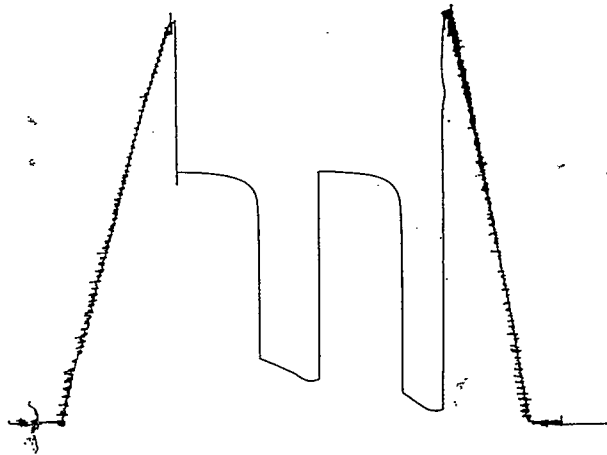
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
54.00	1317.00	0.00	0.00
57.00	1317.00	0.00	0.00
60.00	1317.00	0.00	0.00
63.00	1317.00	0.00	0.00

13400

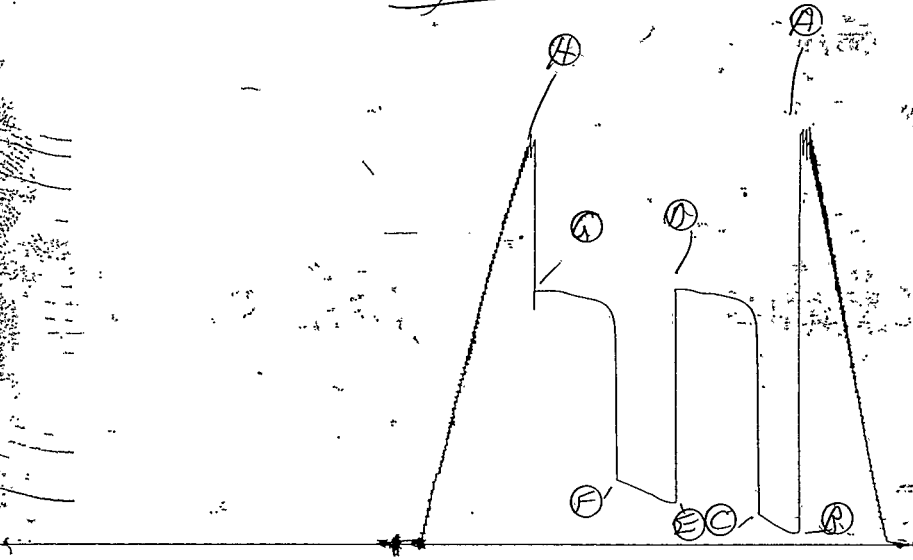
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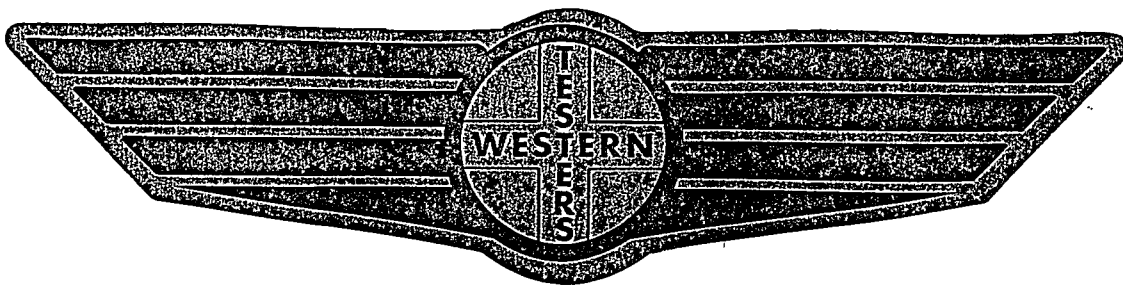
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FORMATION TEST REPORT



Home Office:

P.O. Box 1599

Wichita, Kansas 67201

Phone 1 - 800-688-7021

COMPANY THUNDERBIRD DRILLING, INC. LEASE & WELL NO. HODGES A #1 SEC. 2 TWP. 10S RGE. 33W TEST NO. 4 DATE 7/2/92

DST REPORT

GENERAL INFORMATION

DATE	: 7/2/92	TICKET	: 18434
CUSTOMER	: THUNDERBIRD DRILLING INC.	LEASE	: HODGES A
WELL	: 1	TEST: 4	GEOLOGIST: TODD AIKINS
ELEVATION	: 3142 GR	FORMATION	: JOHNSON
SECTION	: 2	TOWNSHIP	: 10S
RANGE	: 33W	STATE	: KS
GAUGE SN#	: 6233	RANGE	: 4000
		CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	4575.00 ft	TO:	4670.00 ft	TVD:	4670.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	4578.0 ft		4581.0 ft		
TEMPERATURE:	129.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:		0.000 in	
WEIGHT PIPE LENGTH :	526.0 ft	I.D.:		3.200 in	
DRILL PIPE LENGTH :	4029.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	95.0 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:	4570.0 ft	SIZE:		6.750 in	
PACKER DEPTH:	4575.0 ft	SIZE:		6.750 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	

MUD INFORMATION

DRILLING CON. :	ABERCROMBIE RIG 4	VISCOSITY :	45.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	11.200 cc
WEIGHT :	9.400 ppg		
CHLORIDES :	3000 ppm	SERIAL NUMBER:	
JARS-MAKE :		REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW, 1/2 INCH IN WATER.
FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
20.0	5.0	0.0	0.0	95.0	OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0099	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	4.7744	STB/D
MUD VOLUME:	0.1890	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.1989	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2326.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	50.00
INITIAL SHUT-IN	30.00		477.00
FINAL FLOW	30.00	50.00	50.00
FINAL SHUT-IN	30.00		152.00

FINAL HYDROSTATIC PRESSURE: 2316.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2414.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	51.00	51.00
INITIAL SHUT-IN	30.00		470.00
FINAL FLOW	30.00	58.00	58.00
FINAL SHUT-IN	30.00		150.00

FINAL HYDROSTATIC PRESSURE: 2346.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 7/2/92	TICKET : 18434
CUSTOMER : THUNDERBIRD DRILLING INC.	LEASE : HODGES A
WELL : 1	GEOLOGIST: TODD AIKINS
ELEVATION: 3142 GR	FORMATION: JOHNSON
SECTION : 2	TOWNSHIP : 10S
RANGE : 33W	STATE : KS
GAUGE SN#: 6233	CLOCK : 12
COUNTY: THOMAS	
RANGE : 4000	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	51.00	51.00
5.00	51.00	0.00
10.00	51.00	0.00
15.00	51.00	0.00
20.00	51.00	0.00
25.00	51.00	0.00
30.00	51.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	51.00	51.00	0.00
6.00	52.00	1.00	0.00
9.00	55.00	3.00	0.00
12.00	71.00	16.00	0.00
15.00	90.00	19.00	0.00
18.00	130.00	40.00	0.00
21.00	188.00	58.00	0.00
24.00	263.00	75.00	0.00
27.00	356.00	93.00	0.00
30.00	470.00	114.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	58.00	58.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
5.00	58.00	0.00
10.00	58.00	0.00
15.00	58.00	0.00
20.00	58.00	0.00
25.00	58.00	0.00
30.00	58.00	0.00

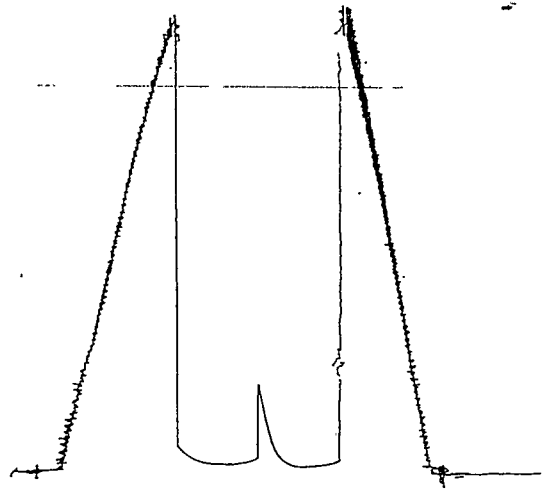
FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	58.00	58.00	0.00
6.00	60.00	2.00	0.00
9.00	63.00	3.00	0.00
12.00	68.00	5.00	0.00
15.00	74.00	6.00	0.00
18.00	83.00	9.00	0.00
21.00	95.00	12.00	0.00
24.00	114.00	19.00	0.00
27.00	132.00	18.00	0.00
30.00	150.00	18.00	0.00

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