

# RAINBOW SERVICE CO.

## Wire Line Well Service

629 S.E. 29th Oklahoma City, Okla.

25 85 20E

LIBERAL  
MA 4-3598  
P.O. Box 523

OKLA. CITY  
ME 4-2131  
ME 4-0105

Company Electro Thermo Prod. Co. Location \_\_\_\_\_ File O.C. 3091  
 Lease Gray Well No. 1 Field \_\_\_\_\_ Formation St. Louis  
 County Leavenworth State Kansas Date of test Mar. 31, 1968

### STATIC BOTTOM HOLE PRESSURE TEST

#### Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
0	295	
1000	310	.015
1200	313	.015
1400	352	.195
1464	373	.328

Well shut in \_\_\_\_\_ 19 \_\_\_\_\_ Hours shut in \_\_\_\_\_  
 Casing pressure 295 PSI Tubing pressure \_\_\_\_\_ PSI  
 Fluid levels: Gas to 1290 feet  
 Condensate to \_\_\_\_\_ feet  
 Oil to 1464 feet  
 Water, mud, spent acid to \_\_\_\_\_ feet  
 Bottom hole temperature 82 °F at 1464 feet  
 Bottom hole pressure 373 PSI at 1464 feet

#### Measurements

Customer Zero Point \_\_\_\_\_  
 Rainbo Zero Point (Instrument) \_\_\_\_\_  
 Distance from reference point to zero \_\_\_\_\_ plus ( ) minus ( )  
 Pressures are ( ) are not ( ) corrected to zero level  
 Elevation \_\_\_\_\_ Grd \_\_\_\_\_ DF \_\_\_\_\_ DB \_\_\_\_\_

#### Completion Details

Date completed \_\_\_\_\_ Casing set \_\_\_\_\_ feet Size \_\_\_\_\_  
 perf. \_\_\_\_\_ to \_\_\_\_\_ feet Liner \_\_\_\_\_  
 Tubing set \_\_\_\_\_ feet Size \_\_\_\_\_ inches  
 BH Ch. \_\_\_\_\_ Pin, plug \_\_\_\_\_  
 Type packer \_\_\_\_\_ @ \_\_\_\_\_ feet  
 Total depth \_\_\_\_\_ plug back depth \_\_\_\_\_  
 Dual completion ( ) Single completion ( )  
 Dual string tubing ( ) Single string tubing ( )

#### History

Last BH Press. \_\_\_\_\_ at \_\_\_\_\_ date \_\_\_\_\_  
 Last cumulative production \_\_\_\_\_ bbls on \_\_\_\_\_ 19 \_\_\_\_\_  
 Present cumulative production \_\_\_\_\_ bbls on \_\_\_\_\_ 19 \_\_\_\_\_  
 Barrels produced per PSI change in pressure \_\_\_\_\_

#### Reservoir Data

Name of zone \_\_\_\_\_ Depths \_\_\_\_\_ to \_\_\_\_\_ ft.  
 Gravity of fluid \_\_\_\_\_ °API; Gravity of gas \_\_\_\_\_ (AIR= 1.000)

Datum stop \_\_\_\_\_ Datum \_\_\_\_\_

Remarks Test taken immediately after shut in.

Type Instrument Amerada No. 14447 N

Run by Grant

RAINBO SERVICE COMPANY

FIELD DATA REPORT

POTENTIAL TESTS

DATE March 31st. to April 3rd., 1968

COMPANY ELECTRO THERMO PETR. CO. LEASE STATE KANSAS WELL NO. 1 LOCATION ST. LOUIS

COUNTY LEAVENWORTH STATE KANSAS PROD. FORMATION ST. LOUIS ELEV.

CASING-size 4 1/2" set  PERFORATIONS-from  to 1464 mid-perforations

TUBING-size  set  PACKER-make  set B.H. CHOKE

METER RUN or TESTER - size  CONNECTION- Flg. or Pipe GRAVITY - GAS .700 e<sub>HL</sub>

TIME	SIZE CHOKE ORIFICE	TESTER PRESS.	DIFF.	TEMP.	CASING TUBING	PRESS.	TANK NO.	FLUID PROD FT. IN.	REMARKS
3-31-68 6:00PM									On bottom with bomb
6:30PM	1.25								Open well
4-1-68 9:30AM	"	24		60	89	GAS VOL. =	130,406	MCF/DAY	Spraying Water
12:00PM	"	24		"	86	"	"	"	
12:45PM	"	23		"	84	"	127,010	MCF/DAY	
4:40PM 4-2-68 11:15AM	"	22		2	84	"	123,614	MCF/DAY	
11:20AM					79				Shut well in.
11:25AM					163				
11:30AM					188				
11:30AM					211				
11:40AM 4-3-68 10:50AM					239				Pulled bomb.
									GAS BUYER -

25 85 20 E

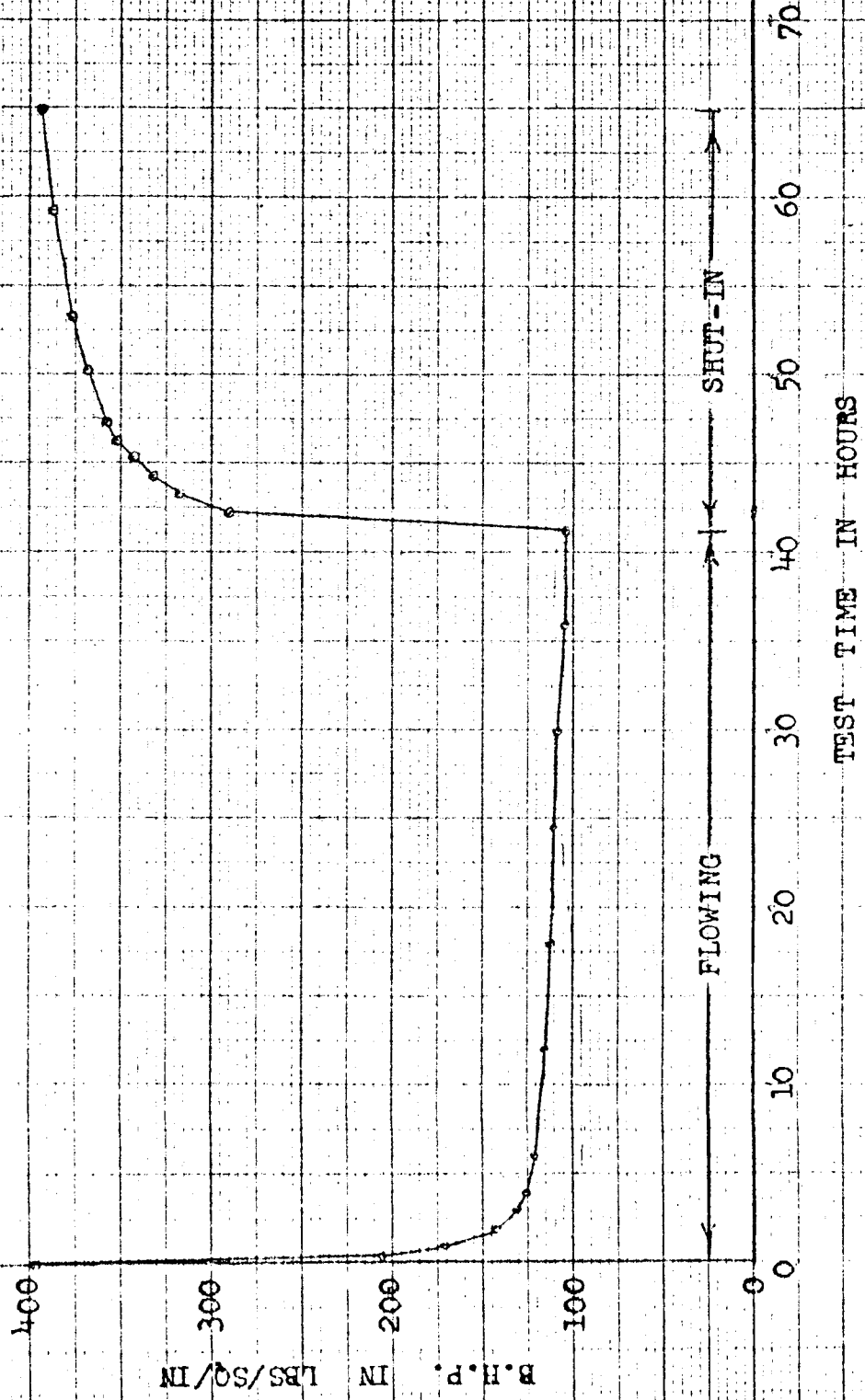
ELECTRO THERMO PETROLEUM CO.

GRAY NO. 1

LEAVENWORTH COUNTY, KANSAS

March 31st. to April 3rd., 1968

Flow & Build-up Test - St. Louis



B.H.P. IN LBS/50' IN

TEST TIME IN HOURS

FLOWING

SHUT-IN



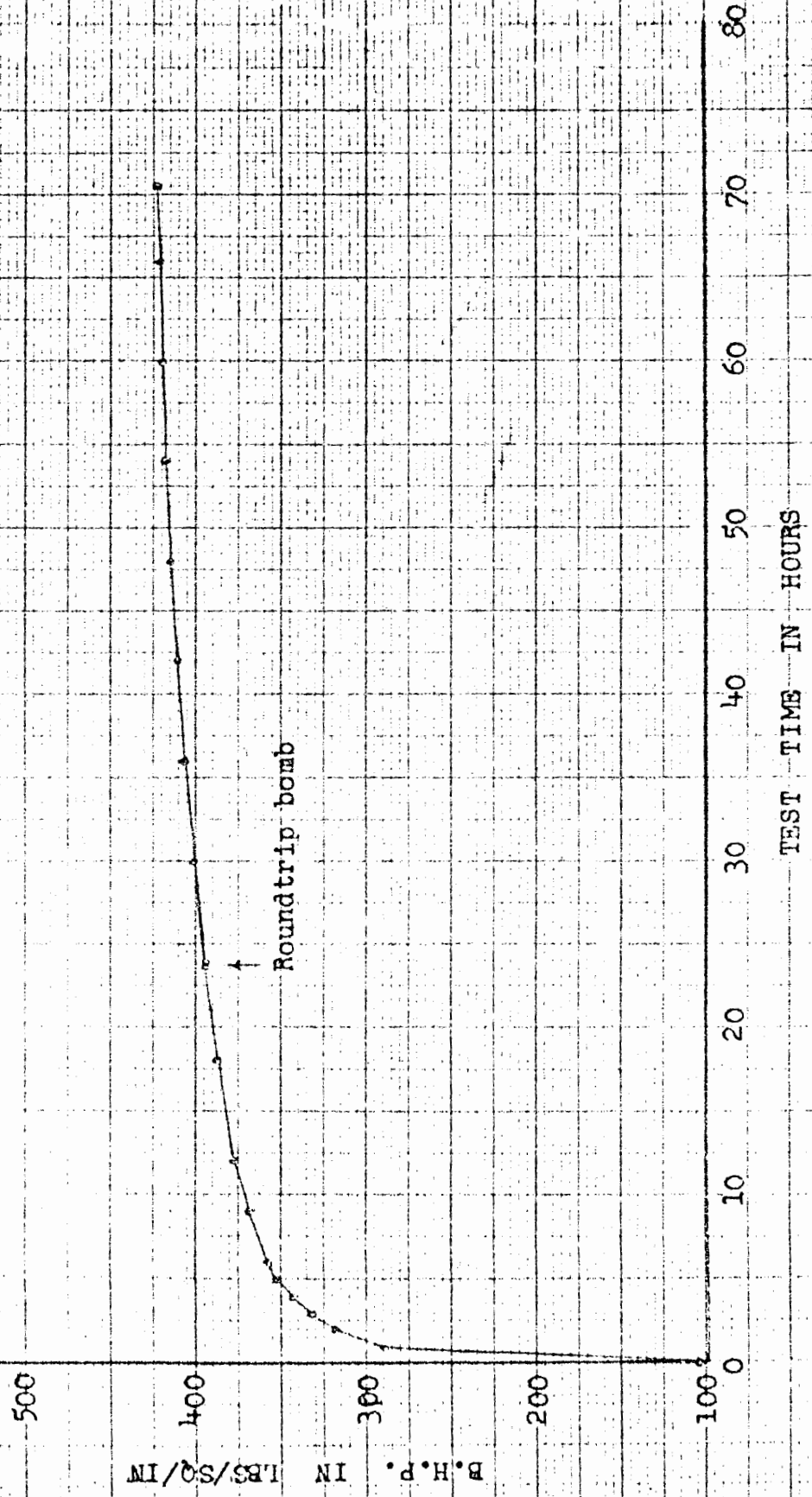
ELECTRO THERMIC PETROLEUM CO.

GRAY NO. 1

LEAVENWORTH COUNTY, KANSAS

April 2nd. to 5th., 1968

B.H.P. Build-up Test - St. Louis



25 85 200

RAINBO SERVICE COMPANY

FIELD DATA REPORT

POTENTIAL TESTS

DATE April 3rd. to 8th., 1968

COMPANY ELECTRO THERMIC PROD. LEASE GRAY WELL NO. 1 LOCATION ST. LOUIS ELEV. \_\_\_\_\_  
 COUNTY LEAVENWORTH STATE KANSAS PROD. FORMATION ST. LOUIS ELEV. \_\_\_\_\_

CASING-size 4 1/2" set \_\_\_\_\_ PERFORATIONS-from \_\_\_\_\_ to \_\_\_\_\_

TUBING-size none set \_\_\_\_\_ PACKER-make \_\_\_\_\_ set \_\_\_\_\_ B.H. CHOKE \_\_\_\_\_

METER RUN or TESTER - size \_\_\_\_\_ CONNECTION- Flg. or Pipe \_\_\_\_\_ GRAVITY - GAS \_\_\_\_\_ OIL \_\_\_\_\_

TIME	SIZE	CHUCKER	DIFF.	PRESS.	TEMP.	CASING	TUBING	PRESS.	FLUID PROD	TANK NO	FT.	IN.	REMARKS
4-3-68 11:15AM						378							Bomb on bottom
6:10PM						385							
4-4-68 11:30AM						394							
2:15PM						396							
4-5-68 9:45AM						405							Pull Bomb
10:15AM						405							Bomb back on bottom
6:30PM						407							
4-6-68 11:00AM						412							
4:50PM						414							
4-7-68 10:35PM						417							
5:50PM						418							
4-8-68 10:00AM						422							Pull bomb.
													GAS BUYER -

25 85 20E

END TEST

25 85 20E

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 ME 4-2131  
 ME 4-0105

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 MA 4-3598  
 P.O. Box 523

Company Electro Thermic Prod. Location \_\_\_\_\_ File O.C. 3102  
 Lease Gray Well No. 1 Field Easton Formation St. Louis  
 County Leavenworth State Kansas Date of test 4-2 to 3, 1968

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Well shut in \_\_\_\_\_ 19 \_\_\_\_\_ Hours shut in \_\_\_\_\_  
 Casing pressure \_\_\_\_\_ PSI Tubing pressure \_\_\_\_\_ PSI  
 Fluid levels: Gas to \_\_\_\_\_ feet  
                   Condensate to \_\_\_\_\_ feet  
                   Oil to \_\_\_\_\_ feet  
                   Water, mud, spent acid to \_\_\_\_\_ feet  
 Bottom hole temperature \_\_\_\_\_ °F at \_\_\_\_\_ feet  
 Bottom hole pressure \_\_\_\_\_ PSI at \_\_\_\_\_ feet

Measurements

Customer Zero Point \_\_\_\_\_  
 Rainbo Zero Point (Instrument) \_\_\_\_\_  
 Distance from reference point to zero \_\_\_\_\_ plus ( ) minus ( )  
 Pressures are ( ) are not ( ) corrected to zero level  
 Elevation \_\_\_\_\_ Grd. \_\_\_\_\_ DF \_\_\_\_\_ DB \_\_\_\_\_

Completion Details

Date completed \_\_\_\_\_ Casing set \_\_\_\_\_ feet Size \_\_\_\_\_  
 perf. \_\_\_\_\_ to \_\_\_\_\_ feet Liner \_\_\_\_\_  
 Tubing set \_\_\_\_\_ feet Size \_\_\_\_\_ inches  
 BH Ch. \_\_\_\_\_ Pin, plug \_\_\_\_\_  
 Type packer \_\_\_\_\_ @ \_\_\_\_\_ feet  
 Total depth \_\_\_\_\_ plug back depth \_\_\_\_\_  
 Dual completion ( ) Single completion ( )  
 Dual string tubing ( ) Single string tubing ( )

History

Last BH Press. \_\_\_\_\_ at \_\_\_\_\_ date \_\_\_\_\_  
 Last cumulative production \_\_\_\_\_ bbls on \_\_\_\_\_ 19 \_\_\_\_\_  
 Present cumulative production \_\_\_\_\_ bbls on \_\_\_\_\_ 19 \_\_\_\_\_  
 Barrels produced per PSI change in pressure \_\_\_\_\_

Reservoir Data

Name of zone \_\_\_\_\_ Depths \_\_\_\_\_ to \_\_\_\_\_ ft.  
 Gravity of fluid \_\_\_\_\_ °API; Gravity of gas \_\_\_\_\_ (AIR = 1.000)

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
<b>B.H.P. BUILD-UP TEST</b>		
1464	425	71 hrs. SI
	428	83 " "
	431	95 " "
	433	107 " "
	435	119 " "
	437	131 " "
	438	142 3/4 "
<b>COMPLETE TEST</b>		

Datum stop \_\_\_\_\_ Datum \_\_\_\_\_

Remarks \_\_\_\_\_  
 Type Instrument Amerada No. 14447 N  
 Run by Grant

O.C. 3102

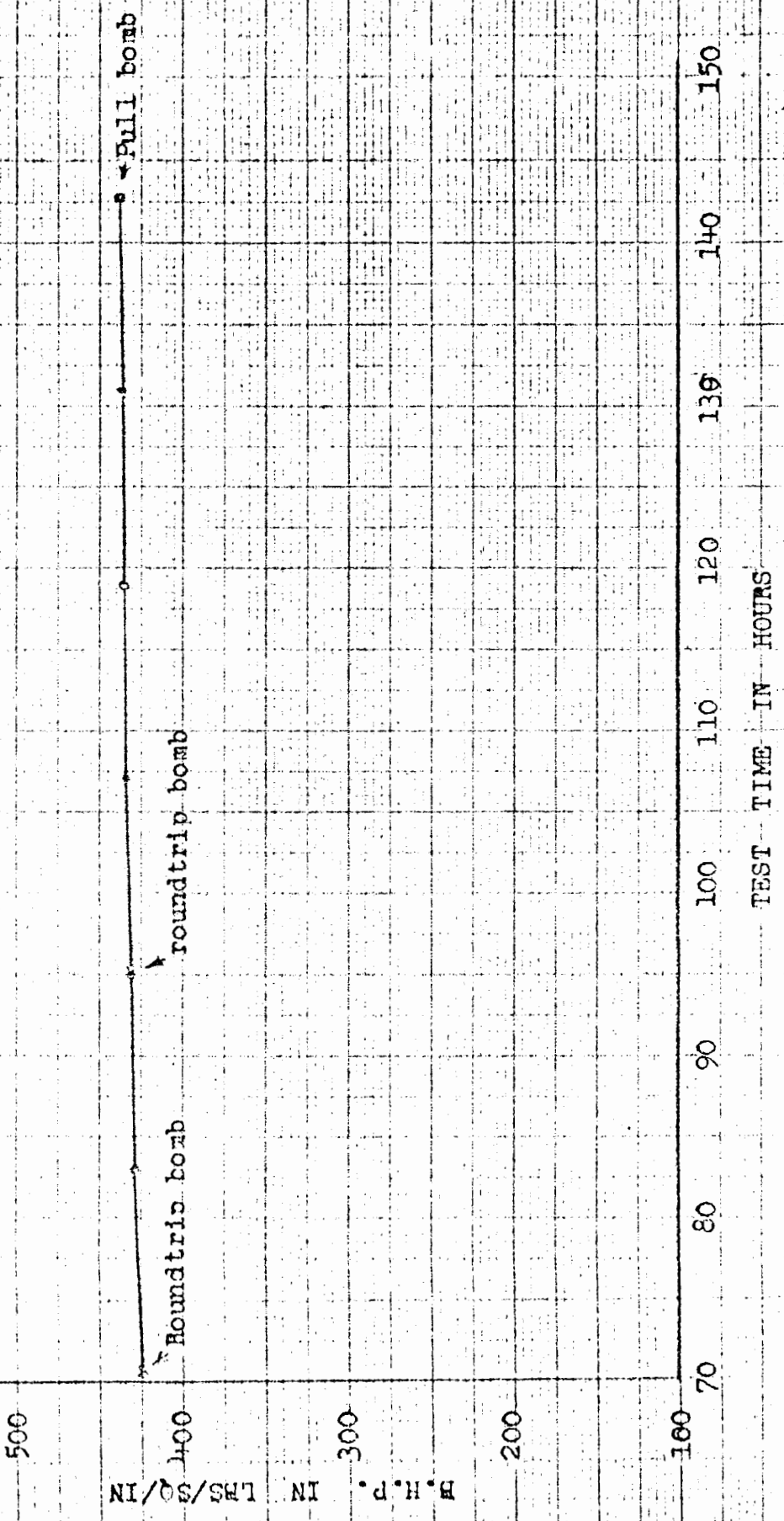
ELECTRO THERMIC PRODUCTION CO.

GRAY NO. 1

LEAVENWORTH COUNTY, KANSAS

April 3rd. to 8th., 1968

B.H.P. Build-up Test - St. Louis



25 85 20E

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ME 4-0105

LIBERAL  
MA 4-3598  
P.O. Box 523

Company Electro Thermic Prod. Location O.C. 3102  
 Lease Gray Well No. 1 Field Easton Formation St. Louis  
 County Leavenworth State Kansas Date of test 4-8-68

### STATIC BOTTOM HOLE PRESSURE TEST

#### Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
0	422	
1000	433	.011
1200	436	.015
1300	437	.010
1400	438	.010
1464	439	.015

Well shut in 19 Hours shut in 143  
 Casing pressure 422 PSI Tubing pressure \_\_\_\_\_ PSI  
 Fluid levels: Gas to 1464 feet  
 Condensate to \_\_\_\_\_ feet  
 Oil to \_\_\_\_\_ feet  
 Water, mud, spent acid to \_\_\_\_\_ feet  
 Bottom hole temperature 82 °F at 1464 feet  
 Bottom hole pressure 439 PSI at 1464 feet

#### Measurements

Customer Zero Point C.H.G.  
 Rainbo Zero Point (Instrument) C.H.G.  
 Distance from reference point to zero 0 plus ( ) minus ( )  
 Pressures are ( ) are not ( ) corrected to zero level  
 Elevation \_\_\_\_\_ Grd. \_\_\_\_\_ DF \_\_\_\_\_ DB \_\_\_\_\_

#### Completion Details

Date completed \_\_\_\_\_ Casing set \_\_\_\_\_ feet Size 4 1/2"  
 perf. \_\_\_\_\_ to \_\_\_\_\_ feet Liner \_\_\_\_\_  
 Tubing set none feet Size \_\_\_\_\_ inches  
 BH Ch. \_\_\_\_\_ Pin, plug \_\_\_\_\_  
 Type packer \_\_\_\_\_ @ \_\_\_\_\_ feet  
 Total depth \_\_\_\_\_ plug back depth \_\_\_\_\_  
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 Last cumulative production \_\_\_\_\_ bbls on \_\_\_\_\_ 19 \_\_\_\_\_  
 Present cumulative production \_\_\_\_\_ bbls on \_\_\_\_\_ 19 \_\_\_\_\_  
 Barrels produced per PSI change in pressure \_\_\_\_\_

#### Reservoir Data

Name of zone \_\_\_\_\_ Depths \_\_\_\_\_ to \_\_\_\_\_ ft.  
 Gravity of fluid \_\_\_\_\_ °API; Gravity of gas \_\_\_\_\_ (AIR = 1.000)

Datum stop \_\_\_\_\_ Datum \_\_\_\_\_

Remarks \_\_\_\_\_

Type Instrument Amerada No. 11117 N

Run by Grant