

25 85 20E

RAINBO SERVICE CO.

Wire Line Well Service

629 S.E. 29th Oklahoma City, Okla

OKLA. CITY
ML 4-2131
ME 4-0105

LIBERAL
MA 4-3598
P.O. Box 523

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. 29, 1968

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
0	479	
1000	493	.014
1200	495	.010
1400	498	.015
1464	519	
1582	557	.324

Well shut in _____ 19 _____ Hours shut in _____
 Casing pressure 479 PSI Tubing pressure _____ PSI
 Fluid levels: Gas to 1400 feet
 Condensate to _____ feet
 Oil to 1582 feet
 Water, mud, spent acid to _____ feet
 Bottom hole temperature 82 °F at 1582 feet
 Bottom hole pressure 557 PSI at 1582 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. 1464 to mid-perf feet Liner _____
 Tubing set none 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 *Extrapolated on .324 gradient.
 Type Instrument Amerada No. 14447 N
 Run by Grant

File - O.C. 3091

25 85 20E

ELECTRO THERMO PRODUCING COMPANY

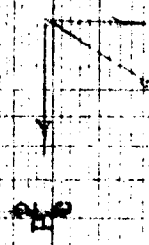
GRAY NO. 1

LEAVENWORTH COUNTY, KANSAS

March 29th. to 31st., 1968

Potential Test - St. Louis

1000



Open Flow 1,325 MCF per Day

Slope = .618

100

1000

10000

GAS VOLUME IN MCF per DAY

25
85
20E

FIELD DATA REPORT

POTENTIAL TESTS

DATE March 29th. to 31st., 1968

COMPANY ELECTRO THERMO PROD. CO LEASE WELL NO. 1 LOCATION _____ ELEV. _____

COUNTY LEAVENWORTH STATE KANSAS PROD. FORMATION ST. LOUIS

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

TUBING-size none set _____ PACKER-make _____ set _____ B.H. CHOKE _____

~~XXXXXXXXXX~~ TESTER - size 2" CONNECTION- Flg. or Pipe _____ GRAVITY - GAS .700 estL 19 est.

TIME	SIZE		TESTER		PRESS.		FLUID PROD.		REMARKS	
	CHOKE	ORIFICE	PRESS.	DIFF.	TEMP.	CASING	TURING	TANK NO		FT. IN.
3-29-68 6:00 AM										Well Shut In
8:45 AM		1.00	25			479				
9:30 AM		"	25			328				
11:30 AM		"	25			325				
12:30 PM		"	25			320				
3-30-68 3:30 AM		"	24			318				Changed rates
4:30 AM		"	30			310				Changed rates
6:00 AM		"	29			275				
3-31-68 8:30 AM		"	25			254				Changed rates
12:00 PM		"	35			231				
3:30 PM		"	35			155				
5:00 PM		"	34			151				
						148				End test.
										GAS BUYER -

25 BS 20E

25 85 20E

RAINBOW SERVICE CO.

Wire Line Well Service

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

OKLA. CITY
ME 4-2131
ME 4-0105

LIBERA.
MA 4-359E
P.O. Box 523

Company Electro Thermo Petr. Co. Location _____ File O.C. 3102
 Lease Gray Well No. 1 Field Easton Formation St. Louis
 County Leavenworth State Kansas Date of test 3-31 to 4-3
 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 82 °F at 1464 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
<u>B.H.P. FLOWING TEST</u>		
1464	397	on bot. SI
	205	30 min. flow
	172	1 Hr. "
	143	2 Hrs. "
	131	3 " "
	126	4 " "
	122	6 " "
	116	12 " "
	113	18 " "
	111	24 " "
	108	30 " "
	103	36 " "
	103	41 1/4 " "
<u>B.H.P. SHUT IN TEST</u>		
1464	290	1 Hr. SI
	318	2 Hrs. "
	332	3 " "
	343	4 " "
	352	5 " "
	357	6 " "
	369	9 " "
	377	12 " "
	387	18 " "
	394	23 3/4 "
PULLED BOMB		

Datum stop _____ Datum _____

Remarks _____
 Type Instrument Amerada No. 14447 N
 Run by Grant

25 85 20E

RAINBO SERVICE CO.

Wire Line Well Service

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

OKLA. CITY
ME 4-2131
ME 4-0105

LIBERAL
MA 4-3598
P.O. Box 523

Company Electro Thermo Prod. Co. Location O.C. 3091
 Lease Gray Well No. _____ Field _____ Formation St. Louis
 County Leavenworth State Kansas Date of test March 29 to 31 1968

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
B.H.P. DRAW-DOWN TEST		
1582	557	Bomb on Bottom
	506	30 min. 1st. rate
	472	1 Hr.
	455	2 Hrs.
	446	3 "
	440	4 "
	436	5 "
	432	6 "
	428	8 "
	425	10 "
	423	12 "
	420	14 "
	419	16 "
	418	18 "
	415	20 "
	415	21 1/2 "
	385	1 Hr. 2nd. rate
	382	2 Hrs.
	381	3 "
	380	4 "
	379	6 "
	378	8 "
	377	10 "
	376	12 "
	375	15 "

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 82 °F at 1582 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 _____
 Packercap _____ @ _____ 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 _____
 Type Instrument Amerada No. 14117 N
 Run by Grant

OKLA. CITY
ME 4-2131
ME 4-0105

Wire Line Well Service
629 S.E. 29th Oklahoma City, Okla.

25 85 20 E LIBERAL
MA 4-3598
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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 3-29 to 31 1968

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
1582	321	1 Hr. 3rd. rate
	319	2 Hrs. "
	318	3 " "
	318	6 " "
	284	1 Hr. 4th. rate
	281	1 1/2 " "
PULLED BOMB		

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 82 °F at 1582 feet
Bottom hole pressure _____ PSI at _____ feet

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Remarks _____
Type Instrument Amerada No. 14447 N
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File - C.C. 3091

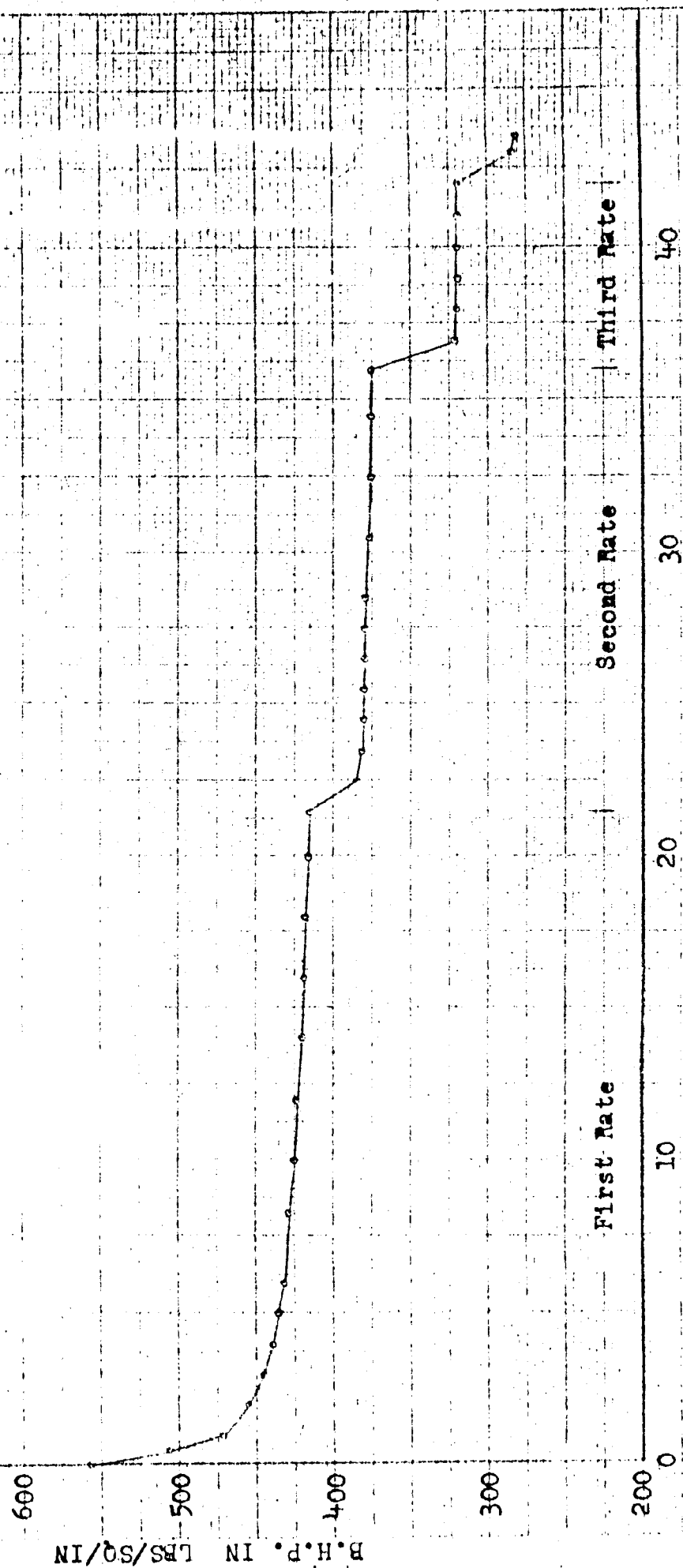
ELECTRO THERMO PRODUCING COMPANY

GRAY NO. 1

LEAVENWORTH COUNTY, KANSAS

March 29th. to 31st., 1968

Draw-down Test - St. Louis



TEST TIME IN HOURS

B.H.P. IN LBS/SQ/IN