

RAINBO SERVICE CO.

Wire Line Well Service

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

LIBERAL

MA 4-3598

P.O. Box 523

Electro Thermo Prod. Co. Location

File O.C. 3092

Well No. 1

Formation St. Louis

Leavenworth

State Kansas

Date of test Mar. 31, 1968

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
0	301	
500	303	.002
1000	305	.002
1200	308	.015
1400	387	.390
1470	414	.386

Well shut in _____ 19 _____ Hours shut in _____
Casing pressure 301 PSI Tubing pressure _____ PSI
Fluid levels: Gas to 1195 feet
Condensate to _____ feet
Oil to 1470 feet
Water, mud, spent acid to _____ feet
Bottom hole temperature 82 °F at 1470 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)

Datum stop _____ Datum _____

Remarks Test taken immediately after shut in.

Type Instrument Keltner No. 70

Run by Grant

RAINBO SERVICE COMPANY

FIELD DATA REPORT

POTENTIAL TESTS

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

COMPANY ELECTRO THERMO PETR. CO. LEASE COLLINS WELL NO. 1 LOCATION ST. LOUIS ELEV.

COUNTY LEAVENWORTH STATE KANSAS PROD. FORMATION

CASING-size 4 1/2" set PERFORATIONS-from 1460 to 1480

TUBING-size none set PACKER-make set P.H. CHOKE

~~HOOPER~~ TESTER - size 2" CONNECTION- Flg. or Pipe GRAVITY - 68.700 ESTIL 12 API

TIME	CHOKE ORIFICE	SIZE	TESTER	PRESS.	DIFF.	TEMP.	CASING	TUBING	PRESS.	FLUID PROD.	TANK NO.	FT.	REMARKS
3-31-68													
4-30PM													
4-1-68													
9:30AM	1.50		23			60	96		GAS VOL. = 245,295 MCF/DAY				Bomb on bottom
12:00PM	"		22 1/2			"	94		"	242,707	"	"	Spray oil & water
2:40PM	"		22			"	91		"	240,120	"	"	
4:50PM	"		22			"	91		"	"	"	"	
4-2-68													
10:20AM	"		22			"	79		"	"	"	"	Shut Well In
10:25AM							230						
11:30AM							292						
11:35AM							300						
11:40AM							297						
11:50AM							295						
12:05PM							283						
1:00PM							297						
							351		PULLED BOMB				GAS BUYER -

25-8-20E

25-8-20E

RAINBO SERVICE CO.*Wire Line Well Service*

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

OKLA. CITY
ME 4-2131
ME 4-0105LIBERAL
MA 4-3598
P.O. Box 523

Company Electro Thermo Petr. Co. Location O.C. 3103
 Lease Collins 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 TESTSummary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
B.H.P. FLOWING TEST		
1470	424	Shut In
	217	1 Hr. Flowing
	217	2 Hrs.
	181	3 "
	161	4 "
	152	6 "
	160	12 "
	165	18 "
	161	24 "
	149	30 "
	140	36 "
	145	42 "
B.H.P. SHUT IN TEST		
1470	344	1 Hr. SI
	355	2 Hrs. "
	362	3 " "
	368	4 " "
	385	6 " "
	395	12 " "
	412	18 " "
	418	22 3/4 "
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 1470 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)

Datum stop _____ Datum _____

Remarks _____

Type Instrument Keltner No. 70Run by Grant

OKLA. CITY
ME 4-2131
ME 4-0105

RAINBO SERVICE CO.

Wire Line Well Service

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LIBERAL
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P.O. Box 523

Company Electro Thermo Petr. Co. Location O.C. 3103
Lease Collins Well No. 1 Field Easton Formation St. Louis
County Leavenworth State Kansas Date of test 4-3-68

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
0	352	
500	356	.008
1000	360	.008
1200	361	.010
1300	365	.040
1400	395	.300
1470	419	.343

Well shut in 4-3- 1968 Hours shut in 24
Casing pressure _____ PSI Tubing pressure _____ PSI
Fluid levels: Gas to 1340 feet
Condensate to _____ feet
Oil to 1470 feet
Water, mud, spent acid to _____ feet
Bottom hole temperature 82 °F at 1470 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 4 1/2"
perf. 1460 to 1480 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

Type Instrument Keltner No. 70
Run by Grant

25-8-20E

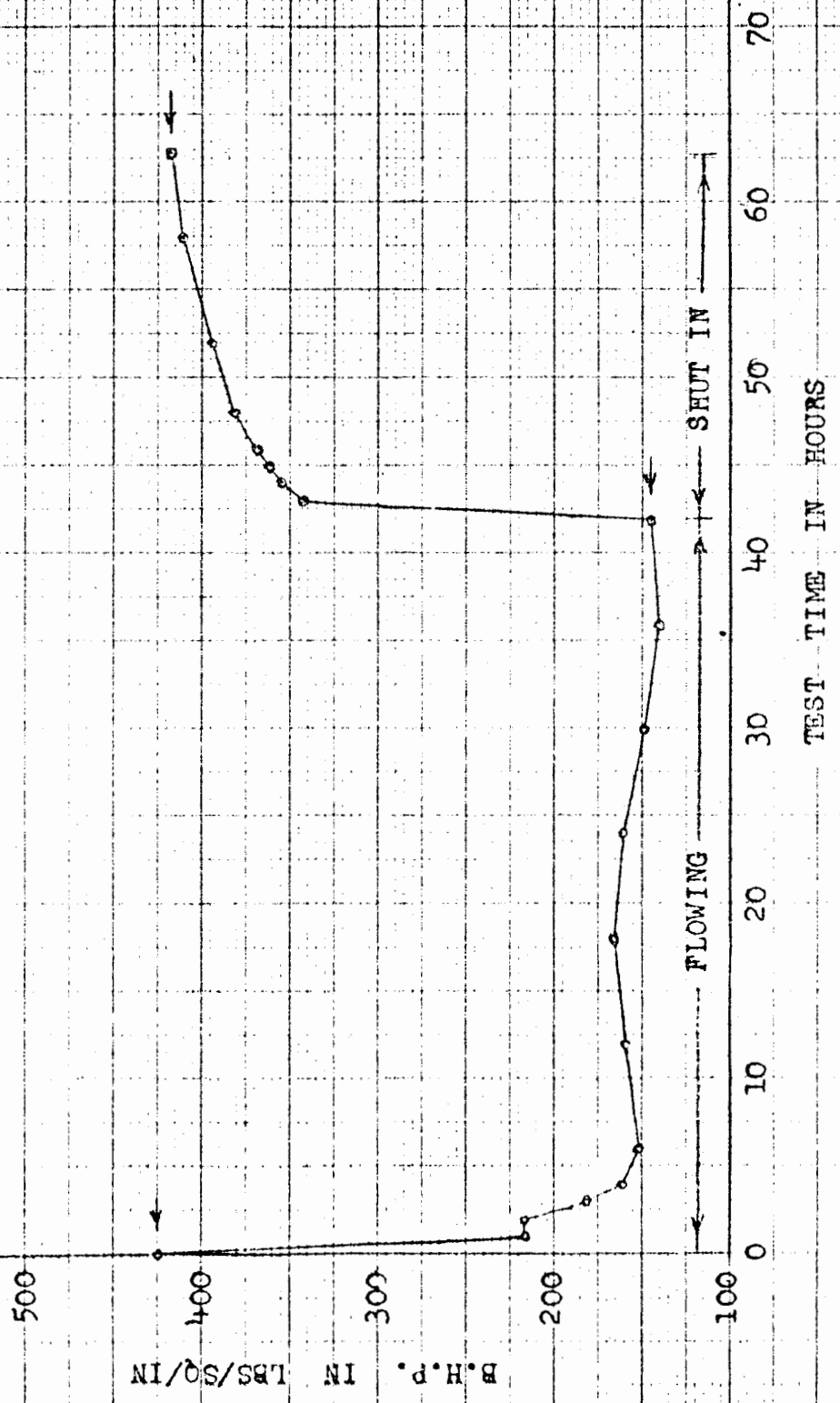
ELECTRO THERMO PETROLEUM CO.

COLLINS NO. 1

LEAVENWORTH COUNTY, KANSAS

March 31st. to April 3rd., 1968

Flow & Build-up Test - St. Louis



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 Thermic Petr. Location File O.C. 3103
Lease Collins Well No. 1 Field Easton Formation St. Louis
County Leavenworth State Kansas Date of test 4-5-68

STATIC BOTTOM HOLE PRESSURE TEST

Summary

Depth feet	Pressure PSI, ga.	Gradient PSI/ft
0	375	
500	380	.010
1000	385	.010
1200	388	.015
1300	390	.020
1400	412	.220
1470	443	.443

Well shut in 19 Hours shut in
Casing pressure 379 PSI Tubing pressure PSI
Fluid levels: Gas to 1351 feet
Condensate to feet
Oil to 1470 feet
Water, mud, spent acid to feet
Bottom hole temperature 82 °F at 1470 feet
Bottom hole pressure 443 PSI at 1470 feet

Measurements

Customer Zero Point C.H.G.
Rainbo Zero Point (Instrument) G.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
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
Type Instrument Keltner No. 70
Run by Grant

RAINBO SERVICE COMPANY

FIELD DATA REPORT

POTENTIAL TESTS

DATE April 3rd. to 8th., 1968

COMPANY ELECTRO THERMIC PROD. COLEASE COLLINS WELL NO. 1 LOCATION ST. LOUIS
COUNTY LEAVENWORTH STATE KANSAS PROD. FORMATION ST. LOUIS ELEV. 1480
CASING-size 4 1/2" set PERFORATIONS-from 1460 to 1480
TUBING-size none set PACKER-make set B.H. CHOKE
METER RUN or TESTER - size CONNECTION- Flg. or Pipe GRAVITY - GAS CIL

TIME	CHOKE ORIFICE	SIZE	TESTER	PRESS.	TEMP.	CASING TUBING	FLUID PROD. TANK NO.	FT. IN.	REMARKS
4-3-68									
10:30AM				352		BOMB BACK ON BOTTOM			Shut in 24 hrs.
6:00PM				361					" " 31 1/4 hrs.
4-4-68									
11:30AM				370					" " 49 "
2:15PM				373					" " 51 3/4 hrs.
4-5-68									
9:30AM				379					" " 71 hrs.
10:30AM				379		PULLED BOMB. CLOCK FAILED TO RUN. F.L. at 1350 FEET			" " 72 "
6:30PM				381					" " 79 "
4-6-68									
11:15AM				384					" " 95 3/4 hrs.
5:15PM				386					" " 101 3/4 "
4-7-68									
10:45AM				387					" " 119 1/4 hrs.
6:00PM				388					" " 126 1/4 "
4-8-68									
2:45AM				388					" " 143 1/4 "
									END TEST
									GAS BUYER -

25-8-20E

25-8-20E

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Company Electro Thermic Prod. Location File C.C. 3103
Lease Collins 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	388	
1000	396	.008
1200	398	.010
1300	400	.020
1400	409	.090
1470	452	.430

Well shut in 19 Hours shut in 144
Casing pressure 388 PSI Tubing pressure PSI
Fluid levels: Gas to 1370 feet
Condensate to feet
Oil to 1470 feet
Water, mud, spent acid to feet
Bottom hole temperature 82 °F at 1470 feet
Bottom hole pressure 452 PSI at 1470 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 CB

Completion Details

Date completed Casing set feet Size 4 1/2
perf. 1460 to 1480 feet liner
Tubing set none feet Size inches
BHI 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
Type Instrument Keltner No. 70
Run by Grant