



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 16651

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2940 K.B. Formation Lansing B Eff. Pay. F

District 12 Pratt Date 11/3/90 Customer Order No.

COMPANY NAME Hugoton Energy Corp

ADDRESS 229 E William #500 (200)

LEASE AND WELL NO Ellsesser #1-23 COUNTY Haskell STATE Ks Sec. 23 Twp. 29 Rge. 33E

Mail Invoice To Same ELLSAESSER #1-23 No. Copies Requested 5

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 1 Interval Tested From 4232 ft. to 4242 ft. Total Depth 4242 ft.

Packer Depth 4227 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4232 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4233 ft. Recorder Number 13552 Cap. 4050

Bottom Recorder Depth (Outside) 4236 ft. Recorder Number 13361 Cap. 4250

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Rig #1 Drill Collar Length 330 I. D. 2 1/4 in.

Mud Type Low Solids Viscosity 3.5 Weight Pipe Length - I. D. - in.

Weight 8.P Water Loss 22.0 cc. Drill Pipe Length 3873 I. D. 3.8 in.

Chlorides 4,800 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.

Jars: Make WTC Serial Number 420 Anchor Length 10 ft. Size 5 1/2 OD in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong throughout flow periods

Recovered 180 ft. of Muddy Water

Recovered 1240 ft. of Gas Cut Salt Water

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Chlorides 90,000 P.P.M. Sample Jars used - Remarks: WTC 1330.00

Time On Location 4:30 A.M. Time Pick Up Tool 5:00 P.M. Time Off Location - A.M. P.M.

Time Set Packer(s) 8:00 A.M. P.M. Time Started Off Bottom 11:45 A.M. P.M. Maximum Temperature 119 deg

Initial Hydrostatic Pressure (A) 2054 P.S.I.

Initial Flow Period Minutes 30 (B) 762 P.S.I. to (C) 487 P.S.I.

Initial Closed In Period Minutes 60 (D) 761 P.S.I.

Final Flow Period Minutes 45 (E) 578 P.S.I. to (F) 700 P.S.I.

Final Closed In Period Minutes 90 (G) 771 P.S.I.

Final Hydrostatic Pressure (H) 2034 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Karl A. [Signature] Signature of Customer or his authorized representative

Western Representative Jim Wanda Thank You

2376

FIELD INVOICE

Table with 2 columns: Item and Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.

WESTERN TESTING CO., INC.
Pressure Data

Date 11-3-90 Test Ticket No. 16651
 Recorder No. 13552 Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation 2940 K.B. Well Temperature 119 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2054</u>	P.S.I.		M
B First Initial Flow Pressure	<u>183</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>508</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>778</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>588</u>	P.S.I.	<u>90</u> Mins.	<u>87</u> Mins.
F Second Final Flow Pressure	<u>735</u>	P.S.I.		
G Final Closed-in Pressure	<u>786</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2051</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>183</u>	0	<u>508</u>	0	<u>588</u>	0	<u>735</u>
P 2 5	<u>250</u>	3	<u>678</u>	5	<u>588</u>	3	<u>746</u>
P 3 10	<u>317</u>	6	<u>712</u>	10	<u>604</u>	6	<u>756</u>
P 4 15	<u>369</u>	9	<u>724</u>	15	<u>626</u>	9	<u>760</u>
P 5 20	<u>422</u>	12	<u>736</u>	20	<u>647</u>	12	<u>763</u>
P 6 25	<u>466</u>	15	<u>742</u>	25	<u>668</u>	15	<u>765</u>
P 7 30	<u>508</u>	18	<u>748</u>	30	<u>685</u>	18	<u>767</u>
P 8 35		21	<u>753</u>	35	<u>697</u>	21	<u>769</u>
P 9 40		24	<u>756</u>	40	<u>709</u>	24	<u>770</u>
P10 45		27	<u>760</u>	45	<u>735</u>	27	<u>771</u>
P11 50		30	<u>763</u>	50		30	<u>772</u>
P12 55		33	<u>765</u>	55		33	<u>773</u>
P13 60		36	<u>767</u>	60		36	<u>774</u>
P14 65		39	<u>768</u>	65		39	<u>776</u>
P15 70		42	<u>769</u>	70		42	<u>777</u>
P16 75		45	<u>770</u>	75		45	<u>778</u>
P17 80		48	<u>771</u>	80		48	<u>779</u>
P18 85		51	<u>773</u>	85		51	<u>779</u>
P19 90		54	<u>774</u>	90		54	<u>779</u>
P20 95		57	<u>775</u>	95		57	<u>780</u>
100		60	<u>776</u>	100		60	<u>781</u>

WESTERN TESTING CO., INC.

Pressure Data

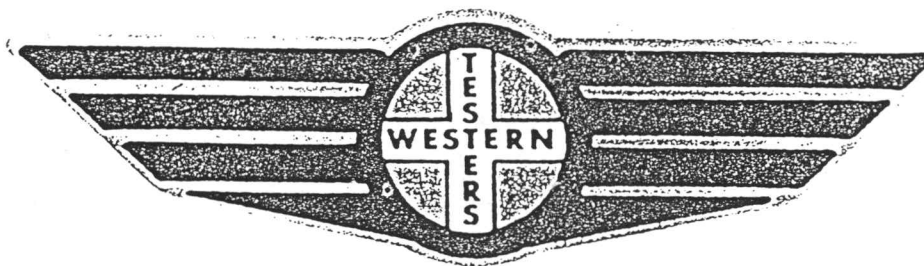
Date _____ Test Ticket No. 16651
 Recorder No. _____ Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

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

Point Mins.	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.
	Press.	Point Minutes	Point Minutes	Point Minutes
P 1 105		63	105	63 <u>781</u>
P 2 110		66	110	66 <u>782</u>
P 3 115		69	115	69 <u>782</u>
P 4 120		72	120	72 <u>783</u>
P 5 125		75	125	75 <u>784</u>
P 6 130		78	130	78 <u>784</u>
P 7 135		81	135	81 <u>785</u>
P 8 140		84	140	84 <u>785</u>
P 9 145		87	145	87 <u>786</u>
P10 150		90	150	90
P11 155		93	155	93
P12 160		96	160	96
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

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-03-90 TICKET : 16651
CUSTOMER : HUGOTON ENERGY CORP. LEASE : ELLSAESSER
WELL : #1-23 TEST: 1 GEOLOGIST : K.
ELEVATION : 2940 K.B. FORMATION : LANSING B
SECTION : 23 TOWNSHIP : 29S
RANGE : 33W COUNTY : HASKELL STATE : KS
GAUGE SN# : 13552 RANGE : 4050 CLOCK : 12

INTERVAL FROM : 4232 TO : 4242 TOTAL DEPTH : 4242
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4227 SIZE : 6.63
PACKER DEPTH : 4232 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : H-30 RIG #1
MUD TYPE : LOW SOLIDS VISCOSITY : 35
WEIGHT : 8.8 WATER LOSS (CC) : 22.0
CHLORIDES (PPM) : 4800
JARS-MAKE : WTC SERIAL NUMBER : 420
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 330 FT I.D. inch : 2.25
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 3872 FT I.D. inch : 3.80
TEST TOOL LENGTH : 29 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 10 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5FH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST.
BLOW COMMENT #2 :
BLOW COMMENT #3 :
BLOW COMMENT #4 :

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HUGOTON ENERGY CORP.
RIG : HASKELL-KS
FIELD : ELLSAESSER
WELL : #1-23
DATE : 11-03-90
GAUGE NO : 13552

OPERATIONAL COMMENTS

CHLORIDES 90000 PPM

COMPANY : HUGOTON ENERGY CORP.
 WELL : #1-23
 GAUGE # : 13552
 DATE : 3/11/90

FIELD : ELLSAESSER
 JOB # : 16651
 DEPTH : 4242
 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	8: 0: 0	0.000	183.000	119.00	0.000
3	8: 4:59	0.083	250.000	119.00	67.000
4	8:10: 0	0.167	317.000	119.00	67.000
5	8:15: 0	0.250	369.000	119.00	52.000
6	8:19:59	0.333	422.000	119.00	53.000
7	8:25: 0	0.417	466.000	119.00	44.000
8	8:30: 0	0.500	508.000	119.00	42.000
INITIAL SHUT IN PERIOD					
9	8:33: 0	0.550	678.000	119.00	170.000
10	8:36: 0	0.600	712.000	119.00	34.000
11	8:39: 0	0.650	726.000	119.00	14.000
12	8:42: 0	0.700	736.000	119.00	10.000
13	8:45: 0	0.750	742.000	119.00	6.000
14	8:48: 0	0.800	748.000	119.00	6.000
15	8:51: 0	0.850	753.000	119.00	5.000
16	8:54: 0	0.900	756.000	119.00	3.000
17	8:57: 0	0.950	760.000	119.00	4.000
18	9: 0: 0	1.000	763.000	119.00	3.000
19	9: 2:59	1.050	765.000	119.00	2.000
20	9: 6: 0	1.100	767.000	119.00	2.000
21	9: 9: 0	1.150	768.000	119.00	1.000
22	9:12: 0	1.200	769.000	119.00	1.000
23	9:15: 0	1.250	770.000	119.00	1.000
24	9:18: 0	1.300	771.000	119.00	1.000
25	9:21: 0	1.350	773.000	119.00	2.000
26	9:24: 0	1.400	774.000	119.00	1.000
27	9:27: 0	1.450	775.000	119.00	1.000
28	9:30: 0	1.500	776.000	119.00	1.000
FINAL FLOW PERIOD					
29	9:31: 0	1.517	588.000	119.00	-188.000
30	9:34:59	1.583	588.000	119.00	0.000
31	9:40: 0	1.667	604.000	119.00	16.000
32	9:45: 0	1.750	626.000	119.00	22.000
33	9:49:59	1.833	647.000	119.00	21.000
34	9:55: 0	1.917	668.000	119.00	21.000
35	10: 0: 0	2.000	685.000	119.00	17.000
36	10: 4:59	2.083	697.000	119.00	12.000
37	10:10: 0	2.167	709.000	119.00	12.000
38	10:15: 0	2.250	735.000	119.00	26.000
FINAL SHUT IN PERIOD					
39	10:18: 0	2.300	746.000	119.00	11.000
40	10:21: 0	2.350	756.000	119.00	10.000
41	10:24: 0	2.400	760.000	119.00	4.000
42	10:27: 0	2.450	763.000	119.00	3.000
43	10:30: 0	2.500	765.000	119.00	2.000
44	10:33: 0	2.550	767.000	119.00	2.000
45	10:36: 0	2.600	769.000	119.00	2.000
46	10:39: 0	2.650	770.000	119.00	1.000
47	10:42: 0	2.700	771.000	119.00	1.000
48	10:45: 0	2.750	772.000	119.00	1.000

COMPANY : HUGOTON ENERGY CORP.
WELL : #1-23
GAUGE # : 13552
DATE : 3/11/90

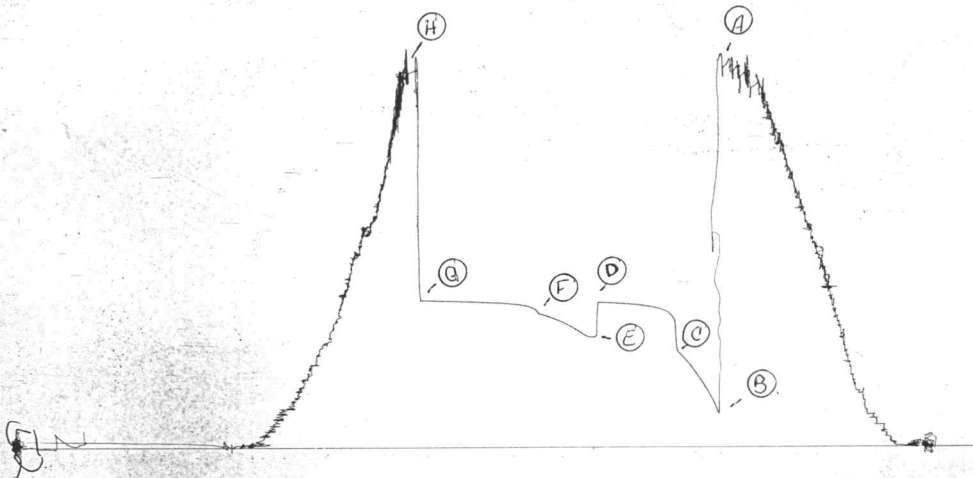
FIELD : ELLSAESSER
JOB # : 16651
DEPTH : 4242
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	10:48: 0	2.800	773.000	119.00	1.000
50	10:51: 0	2.850	774.000	119.00	1.000
51	10:54: 0	2.900	776.000	119.00	2.000
52	10:57: 0	2.950	777.000	119.00	1.000
53	11: 0: 0	3.000	778.000	119.00	1.000
54	11: 3: 0	3.050	779.000	119.00	1.000
55	11: 6: 0	3.100	779.000	119.00	0.000
56	11: 9: 0	3.150	779.000	119.00	0.000
57	11:12: 0	3.200	780.000	119.00	1.000
58	11:15: 0	3.250	781.000	119.00	1.000
59	11:18: 0	3.300	781.000	119.00	0.000
60	11:21: 0	3.350	782.000	119.00	1.000
61	11:24: 0	3.400	782.000	119.00	0.000
62	11:27: 0	3.450	783.000	119.00	1.000
63	11:30: 0	3.500	784.000	119.00	1.000
64	11:33: 0	3.550	784.000	119.00	0.000
65	11:36: 0	3.600	785.000	119.00	1.000
66	11:39: 0	3.650	785.000	119.00	0.000
67	11:42: 0	3.700	786.000	119.00	1.000

WESTERN TESTING CO. INC.

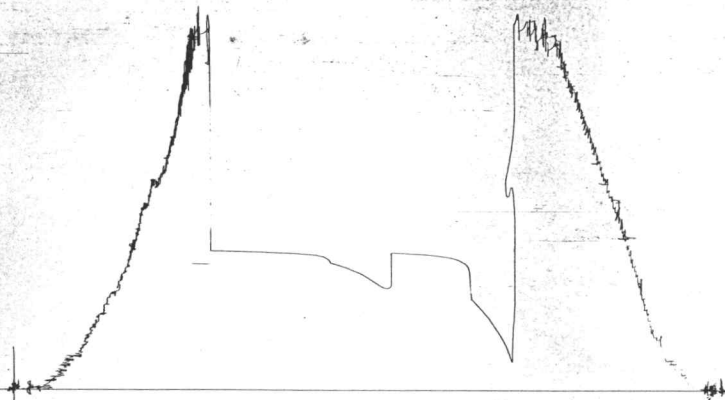
TKT 16651

I



TKT 16651

0





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 16652

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2940 K.B Formation K.C Eff. Pay

District 12 Craft Date 11/5/90 Customer Order No.
COMPANY NAME Hugoton Energy Corp

ADDRESS
LEASE AND WELL NO. Ellsaesser #1-23 COUNTY Haskell STATE Ks Sec. 23 Twp. 29 Rge. 33a

Mail Invoice To Same ELLSAESSER #1-23 Co. Name Address No. Copies Requested 5

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 2 Interval Tested From 4661 ft. to 4695 ft. Total Depth 4695 ft.
Packer Depth 4656 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Packer Depth 4661 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 4685 ft. Recorder Number 13552 Cap. 4050
Bottom Recorder Depth (Outside) 4688 ft. Recorder Number 13361 Cap. 4250
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Rig #1 Drill Collar Length 330 I. D. 2 1/4 in.
Mud Type Low Solids Viscosity 44 Weight Pipe Length - I. D. - in.
Weight 8.9 Water Loss 10.2 cc. Drill Pipe Length 4302 I. D. 3.8 in.
Chlorides 3,800 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 00 in.
Jars: Make WTC Serial Number 420 Anchor Length 34 ft. Size 5 1/2 00 in.
Did Well Flow? Yes Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong throughout, flow periods
Gas to surface in 3 min on preflow
Recovered 270 ft. of Clean Gassy Oil (38 Gravity)
Recovered 120 ft. of Gas & Water Cut Muddy Oil (100% oil) (20% Gas) (10% water)
Recovered 60 ft. of Heavy Gas & Water Cut Muddy Oil (20% oil) (100% Gas) (10% water)
Recovered - ft. of
Recovered - ft. of
Chlorides - P.P.M. Sample Jars used - Remarks: oil 35% water 18%

Time On Location 4:30 A.M. Time Pick Up Tool 5:30 P.M. Time Off Location - A.M.
Time Set Packer(s) 7:30 A.M. Time Started Off Bottom 11:15 P.M. Maximum Temperature 122 deg
Initial Hydrostatic Pressure (A) 2358 P.S.I.
Initial Flow Period Minutes 30 (B) 152 P.S.I. to (C) 121 P.S.I.
Initial Closed In Period Minutes 60 (D) 1074 P.S.I.
Final Flow Period Minutes 45 (E) 142 P.S.I. to (F) 152 P.S.I.
Final Closed In Period Minutes 90 (G) 1044 P.S.I.
Final Hydrostatic Pressure (H) 2338 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made. All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative Jim Wondra Thank You 2374

FIELD INVOICE

Open Hole Test \$ 550
Misrun \$
Straddle Test \$
Jars \$ 225
Selective Zone \$
Safety Joint \$ 25
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$



No 5024

GAS FLOW REPORT

Date 11/5/90 Ticket 16652 Company Hugoton Energy Corp
 Well Name and No. Ellsaeson #1-23 Dst No. 2 Interval Tested 4661-4695
 County Haskell State Ks Sec. 23 Twp. 29 Rg. 33

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
					<u>Gas to surface in 3 min</u>
<u>5</u>	<u>10 H₂O</u>	<u>1 1/2"</u>			<u>220,000 C.F.P.O</u>
<u>10</u>	<u>11"</u>	<u>11"</u>			<u>220,000 "</u>
<u>20</u>	<u>7"</u>	<u>11"</u>			<u>184,000 "</u>
<u>30</u>	<u>6"</u>	<u>11"</u>			<u>170,000 "</u>

SECOND FLOW					
<u>5</u>	<u>19 H₂O</u>	<u>1 1/2"</u>			<u>295,000 C.F.P.O</u>
<u>15</u>	<u>7"</u>	<u>11"</u>			<u>184,000 "</u>
<u>25</u>	<u>3"</u>	<u>11"</u>			<u>121,000 "</u>
<u>35</u>	<u>2"</u>	<u>11"</u>			<u>98,500 "</u>
<u>45</u>	<u>1"</u>	<u>11"</u>			<u>69,600 "</u>

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date 11-5-90 Test Ticket No. 16652
 Recorder No. 13552 Capacity 4050 Location _____ Ft.
 Clock No. _____ Elevation 2940 K.B. Well Temperature 122 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2376</u> P.S.I.	_____ M		
B First Initial Flow Pressure	<u>184</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>128</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>57</u> Mins.
D Initial Closed-in Pressure	<u>1085</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>40</u> Mins.
E Second Initial Flow Pressure	<u>140</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>96</u> Mins.
F Second Final Flow Pressure	<u>153</u> P.S.I.			
G Final Closed-in Pressure	<u>1057</u> P.S.I.			
H Final Hydrostatic Mud	<u>2360</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In			
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.			
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>184</u>	<u>0</u>	<u>128</u>	<u>0</u>	<u>140</u>	<u>0</u>	<u>153</u>
P 2	<u>165</u>	<u>3</u>	<u>868</u>	<u>5</u>	<u>140</u>	<u>3</u>	<u>239</u>
P 3	<u>146</u>	<u>6</u>	<u>947</u>	<u>10</u>	<u>140</u>	<u>6</u>	<u>708</u>
P 4	<u>137</u>	<u>9</u>	<u>978</u>	<u>15</u>	<u>140</u>	<u>9</u>	<u>818</u>
P 5	<u>133</u>	<u>12</u>	<u>998</u>	<u>20</u>	<u>140</u>	<u>12</u>	<u>867</u>
P 6	<u>130</u>	<u>15</u>	<u>1015</u>	<u>25</u>	<u>142</u>	<u>15</u>	<u>899</u>
P 7	<u>128</u>	<u>18</u>	<u>1025</u>	<u>30</u>	<u>145</u>	<u>18</u>	<u>924</u>
P 8		<u>21</u>	<u>1036</u>	<u>35</u>	<u>149</u>	<u>21</u>	<u>939</u>
P 9		<u>24</u>	<u>1044</u>	<u>40</u>	<u>153</u>	<u>24</u>	<u>953</u>
P10		<u>27</u>	<u>1051</u>	<u>45</u>		<u>27</u>	<u>969</u>
P11		<u>30</u>	<u>1056</u>	<u>50</u>		<u>30</u>	<u>974</u>
P12		<u>33</u>	<u>1062</u>	<u>55</u>		<u>33</u>	<u>982</u>
P13		<u>36</u>	<u>1066</u>	<u>60</u>		<u>36</u>	<u>991</u>
P14		<u>39</u>	<u>1070</u>	<u>65</u>		<u>39</u>	<u>998</u>
P15		<u>42</u>	<u>1073</u>	<u>70</u>		<u>42</u>	<u>1004</u>
P16		<u>45</u>	<u>1076</u>	<u>75</u>		<u>45</u>	<u>1009</u>
P17		<u>48</u>	<u>1080</u>	<u>80</u>		<u>48</u>	<u>1014</u>
P18		<u>51</u>	<u>1083</u>	<u>85</u>		<u>51</u>	<u>1019</u>
P19		<u>54</u>	<u>1084</u>	<u>90</u>		<u>54</u>	<u>1022</u>
P20		<u>57</u>	<u>1085</u>	<u>95</u>		<u>57</u>	<u>1027</u>
		<u>60</u>		<u>100</u>		<u>60</u>	<u>1030</u>

WESTERN TESTING CO., INC.

Pressure Data

Date: _____

Test Ticket No. 106652

Recorder No. _____ Capacity _____ Location _____ Ft.

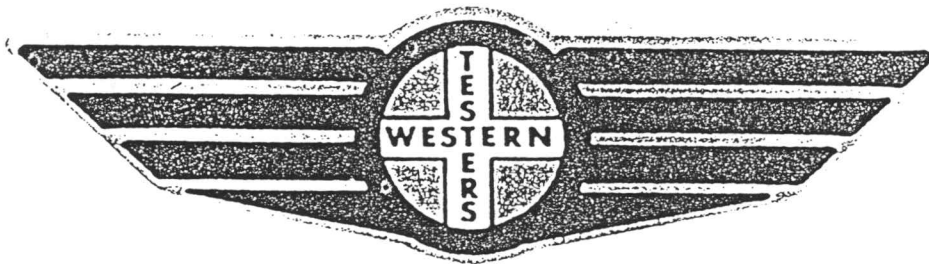
Clock No. _____ Elevation _____ Well Temperature _____ °F

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

Point Mins.	First Flow Pressure	Point Minutes	Initial Shut-In	Point Minutes	Second Flow Pressure	Point Minutes	Final Shut-In
	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.		Press.		Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.		Press.
P 1 105		63		105		63	1034
P 2 110		66		110		66	1036
P 3 115		69		115		69	1039
P 4 120		72		120		72	1040
P 5 125		75		125		75	1043
P 6 130		78		130		78	1045
P 7 135		81		135		81	1048
P 8 140		84		140		84	1050
P 9 145		87		145		87	1053
P10 150		90		150		90	1055
P11 155		93		155		93	1056
P12 160		96		160		96	1057
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	

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY HUGOTON ENERGY CORP. LEASE & WELL NO. ELLISAESSER #1-23 SEC. 23 TWP. 29S RGE. 33W TEST NO. 2 DATE 11/5/90

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-05-90 TICKET : 16652
CUSTOMER : HUGOTON ENERGY CORP. LEASE : ELLSAESSER
WELL : #1-23 TEST: 2 GEOLOGIST : K.
ELEVATION : 2940 K.B. FORMATION : KANSAS CITY
SECTION : 23 TOWNSHIP : 29S
RANGE : 33W COUNTY : HASKELL STATE : KS
GAUGE SN# : 13552 RANGE : 4050 CLOCK : 12

INTERVAL FROM : 4661 TO : 4695 TOTAL DEPTH : 4695
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4656 SIZE : 6.63
PACKER DEPTH : 4661 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : H-30 DRLG. #1
MUD TYPE : LOW SOLIDS VISCOSITY : 44
WEIGHT : 8.9 WATER LOSS (CC) : 10.2
CHLORIDES (PPM) : 3800
JARS-MAKE : WTC SERIAL NUMBER : 420
DID WELL FLOW ? : YES REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 330 FT I.D. inch : 2.25
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4302 FT I.D. inch : 3.80
TEST TOOL LENGTH : 29 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 34 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5FH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST.
BLOW COMMENT #2 : GAS TO SURFACE IN 3 MIN. OF PREFLOW.
BLOW COMMENT #3 : SEE ATTACHED SHEET FOR GAS MEASUREMENTS.
BLOW COMMENT #4 :

RECOVERED : 270 FT OF: CLEAN GASSY OIL 38 DEGREES GRAVITY
RECOVERED : 120 FT OF: GAS & WATER CUT MUDDY OIL
RECOVERED : 0 FT OF: 60%OIL 20%GAS 10%WATER
RECOVERED : 60 FT OF: HEAVY GAS & WATER C/MUDDY OIL
RECOVERED : 0 FT OF: 20%OIL 60%GAS 10%WATER

Total Barrels Fluid = 3.31
Total Fluid Prod Rate = 68.01 BFPD
Indicated Oil Rate = 53.50 BOPD
Indicated Wtr Rate = 2.72 BWPD
Corrected Oil Rate = 12.96 BOPD
Corrected Wtr Rate = 0.66 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 7:30 AM TIME STARTED OFF BOTTOM : 11:15 AM
WELL TEMPERATURE : 122
INITIAL HYDROSTATIC PRESSURE (A) 2376
INITIAL FLOW PERIOD MIN: 30 (B) 184 PSI TO (C) : 128
INITIAL CLOSED IN PERIOD MIN: 57 (D) 1085
FINAL FLOW PERIOD MIN: 40 (E) 140 PSI TO (F) : 153
FINAL CLOSED IN PERIOD MIN: 96 (G) 1057
FINAL HYDROSTATIC PRESSURE (H) 2360

GAS FLOW REPORT

Date : 11-05-90	Ticket # : 16652
Customer : HUGOTON ENERGY CORP.	Lease : ELLSAESSER
Well : #1-23 Test : 2	Geologist : K.
Elevation (KB) : 2940 K.B. Formation : KANSAS CITY	
Section : 23 Township : 29S	
Range : 33W County : HASKELL	State : KANSAS
Gauge SN # : 13552 Range : 4050	Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
PRE FLOW =====				
5 MIN.	MERLA	1.5	10"WTR	220000 C.F.P.D.
10 MIN.	MERLA	1.5	10"WTR	220000 C.F.P.D.
20 MIN.	MERLA	1.5	7"WTR	184000 C.F.P.D.
30 MIN.	MERLA	1.5	6"WTR	170000 C.F.P.D.

GAS TO SURFACE IN 3 MIN. ON PREFLOW

SECOND FLOW =====				
5 MIN.	MERLA	1.5	19"WTR	303000 C.F.P.D.
15 MIN.	MERLA	1.5	7"WTR	184000 C.F.P.D.
25 MIN.	MERLA	1.5	3"WTR	121000 C.F.P.D.
35 MIN.	MERLA	1.5	2"WTR	98500 C.F.P.D.
45 MIN.	MERLA	1.5	1"WTR	69600 C.F.P.D.

Gas Bottle SN # :
 Date Bottle Filled : 11-05-90
 Date to be Invoiced : 11-05-90

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HUGOTON ENERGY CORP.
RIG : HASKELL-KS
FIELD : ELLSAESSER
WELL : #1-23
DATE : 11-05-90
GAUGE NO : 13552

OPERATIONAL COMMENTS

COMPANY : HUGOTON ENERGY CORP.
WELL : #1-23
GAUGE # : 13552
DATE : 5/11/90

FIELD : ELLSAESSER
JOB # : 16652
DEPTH : 4695
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	7:30:0	0.000	184.000	122.00	0.000
3	7:34:59	0.083	165.000	122.00	-19.000
4	7:40:0	0.167	146.000	122.00	-19.000
5	7:45:0	0.250	137.000	122.00	-9.000
6	7:49:59	0.333	133.000	122.00	-4.000
7	7:55:0	0.417	130.000	122.00	-3.000
8	8:0:0	0.500	128.000	122.00	-2.000
INITIAL SHUT IN PERIOD					
9	8:3:0	0.550	868.000	122.00	740.000
10	8:6:0	0.600	947.000	122.00	79.000
11	8:9:0	0.650	978.000	122.00	31.000
12	8:12:0	0.700	998.000	122.00	20.000
13	8:15:0	0.750	1015.000	122.00	17.000
14	8:18:0	0.800	1025.000	122.00	10.000
15	8:21:0	0.850	1036.000	122.00	11.000
16	8:24:0	0.900	1044.000	122.00	8.000
17	8:27:0	0.950	1051.000	122.00	7.000
18	8:30:0	1.000	1056.000	122.00	5.000
19	8:33:0	1.050	1062.000	122.00	6.000
20	8:36:0	1.100	1066.000	122.00	4.000
21	8:39:0	1.150	1070.000	122.00	4.000
22	8:42:0	1.200	1073.000	122.00	3.000
23	8:45:0	1.250	1076.000	122.00	3.000
24	8:48:0	1.300	1080.000	122.00	4.000
25	8:51:0	1.350	1083.000	122.00	3.000
26	8:54:0	1.400	1084.000	122.00	1.000
27	8:57:0	1.450	1085.000	122.00	1.000
FINAL FLOW PERIOD					
28	8:58:0	1.467	140.000	122.00	-945.000
29	9:1:59	1.533	140.000	122.00	0.000
30	9:7:0	1.617	140.000	122.00	0.000
31	9:12:0	1.700	140.000	122.00	0.000
32	9:16:59	1.783	140.000	122.00	0.000
33	9:22:0	1.867	142.000	122.00	2.000
34	9:27:0	1.950	145.000	122.00	3.000
35	9:31:59	2.033	149.000	122.00	4.000
36	9:37:0	2.117	153.000	122.00	4.000
FINAL SHUT IN PERIOD					
37	9:40:0	2.167	239.000	122.00	86.000
38	9:43:0	2.217	708.000	122.00	469.000
39	9:46:0	2.267	818.000	122.00	110.000
40	9:49:0	2.317	867.000	122.00	49.000
41	9:52:0	2.367	899.000	122.00	32.000
42	9:55:0	2.417	924.000	122.00	25.000
43	9:58:0	2.467	939.000	122.00	15.000
44	10:1:0	2.517	953.000	122.00	14.000
45	10:4:0	2.567	969.000	122.00	16.000
46	10:7:0	2.617	974.000	122.00	5.000
47	10:10:0	2.667	982.000	122.00	8.000
48	10:13:0	2.717	991.000	122.00	9.000

COMPANY : HUGOTON ENERGY CORP.
WELL : #1-23
GAUGE # : 13552
DATE : 5/11/90

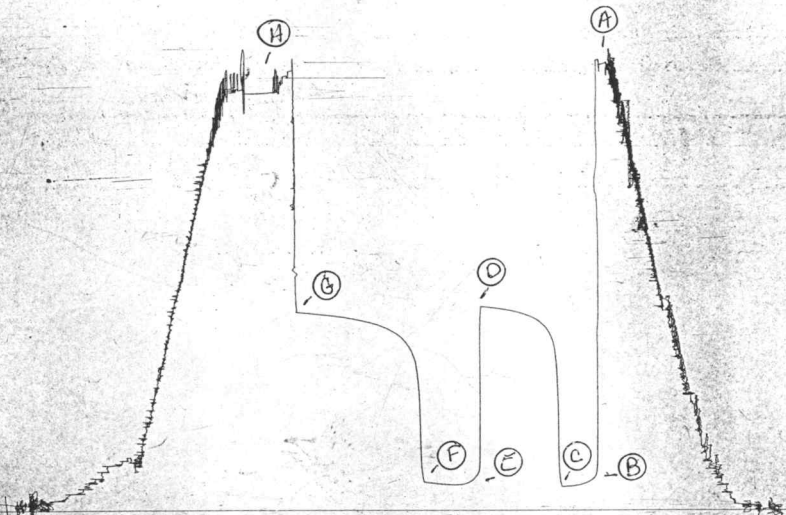
FIELD : ELLSAESSER
JOB # : 16652
DEPTH : 4695
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	10:16: 0	2.767	998.000	122.00	7.000
50	10:19: 0	2.817	1004.000	122.00	6.000
51	10:22: 0	2.867	1009.000	122.00	5.000
52	10:25: 0	2.917	1014.000	122.00	5.000
53	10:28: 0	2.967	1019.000	122.00	5.000
54	10:31: 0	3.017	1022.000	122.00	3.000
55	10:34: 0	3.067	1027.000	122.00	5.000
56	10:37: 0	3.117	1030.000	122.00	3.000
57	10:40: 0	3.167	1034.000	122.00	4.000
58	10:43: 0	3.217	1036.000	122.00	2.000
59	10:46: 0	3.267	1039.000	122.00	3.000
60	10:49: 0	3.317	1040.000	122.00	1.000
61	10:52: 0	3.367	1043.000	122.00	3.000
62	10:55: 0	3.417	1045.000	122.00	2.000
63	10:58: 0	3.467	1048.000	122.00	3.000
64	11: 1: 0	3.517	1050.000	122.00	2.000
65	11: 4: 0	3.567	1053.000	122.00	3.000
66	11: 7: 0	3.617	1055.000	122.00	2.000
67	11:10: 0	3.667	1056.000	122.00	1.000
68	11:13: 0	3.717	1057.000	122.00	1.000

WESTERN TESTING CO. INC.

TKT 16652

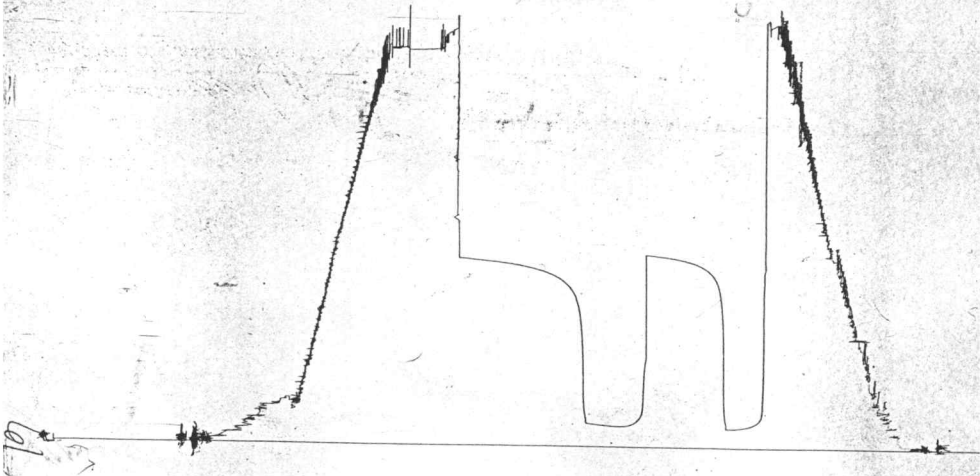
I



ES

TKT 16652

0





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 16653

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2940 K.B Formation Morrow Bff. Pay

District 12 Pratt Date 11/7/90 Customer Order No.

COMPANY NAME Hugoton Energy Corp

ADDRESS

LEASE AND WELL NO. Ellsaesser #1-23 COUNTY Haskell STATE Kc Sec. 23 Twp. 29 Rge. 33W

Mail Invoice To Same ELLSAESSER #1-23 Co. Name Address No. Copies Requested 5

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 3 Interval Tested From 5210 ft. to 5326 ft. Total Depth 5326 ft.

Packer Depth 5205 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 5210 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5222 ft. Recorder Number 13552 Cap. 4050

Bottom Recorder Depth (Outside) 5225 ft. Recorder Number 13361 Cap. 4250

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Rig #1 Drill Collar Length 330 I. D. 2 1/4 in.

Mud Type Low Solids Viscosity 40 Weight Pipe Length - I. D. - in.

Weight 9.1 Water Loss 10.0 cc. Drill Pipe Length 4851 I. D. 3.8 in.

Chlorides 2,100 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 00 in.

Jars: Make WTC Serial Number 420 Anchor Length 116 ft. Size 5 1/2 00 in.

Did Well Flow? Yes Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strng throughout flow periods Gas to surface in 25 min on pre flow

Recovered 330 ft. of Gas Cut Mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 8:00 A.M. Time Pick Up Tool 9:00 A.M. Time Off Location A.M.

Time Set Packer(s) 11:45 P.M. Time Started Off Bottom 3:30 A.M. Maximum Temperature 128° P.M.

Initial Hydrostatic Pressure (A) 2550 P.S.I.

Initial Flow Period Minutes 30 (B) 101 P.S.I. to (C) 111 P.S.I.

Initial Closed In Period Minutes 60 (D) 1510 P.S.I.

Final Flow Period Minutes 45 (E) 121 P.S.I. to (F) 121 P.S.I.

Final Closed In Period Minutes 90 (G) 1570 P.S.I.

Final Hydrostatic Pressure (H) 2530 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made. All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Signature of Customer or his authorized representative

Western Representative Jim Woods Thank You

FIELD INVOICE

Table with 2 columns: Item Name and Amount. Items include Open Hole Test (\$650), Misrun, Straddle Test, Jars (\$225), Selective Zone, Safety Joint (\$25), Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.

2376



No 5025

GAS FLOW REPORT

Date 11/7/90 Ticket 16653 Company Hugoton Energy
 Well Name and No. Ellsaesser #1-23 Dst No. 3 Interval Tested 5210-5326
 County Haskell State Ks Sec. 23 Twp. 29 Rg. 33

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
30	24H ²⁰	1/2"			Gas to surface in 25 min 30,700 C.F.P.D

SECOND FLOW					
5	30H ²⁰	3/4"			77,800 C.F.P.D
15	12"	}			49,300 "
25	"				" "
35	"				" "
45	"				" "

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.
Pressure Data

Date 11-7-90 Test Ticket No. 16653
 Recorder No. 13552 Capacity 4050 Location _____ Ft.
 Clock No. _____ Elevation 2940 KB Well Temperature 128 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2580</u> P.S.I.			M
B First Initial Flow Pressure	<u>116</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>30</u> Mins
C First Final Flow Pressure	<u>119</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins
D Initial Closed-in Pressure	<u>1524</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins	<u>40</u> Mins
E Second Initial Flow Pressure	<u>133</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins	<u>96</u> Mins
F Second Final Flow Pressure	<u>133</u> P.S.I.			
G Final Closed-in Pressure	<u>1585</u> P.S.I.			
H Final Hydrostatic Mud	<u>2557</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>116</u>	0	<u>119</u>	0	<u>133</u>	0	<u>133</u>
P 2 5	<u>116</u>	3	<u>254</u>	5		3	<u>269</u>
P 3 10	<u>117</u>	6	<u>429</u>	10		6	<u>475</u>
P 4 15	<u>118</u>	9	<u>597</u>	15		9	<u>641</u>
P 5 20	<u>119</u>	12	<u>773</u>	20		12	<u>786</u>
P 6 25	<u>119</u>	15	<u>911</u>	25		15	<u>920</u>
P 7 30	<u>119</u>	18	<u>1014</u>	30		18	<u>1029</u>
P 8 35		21	<u>1111</u>	35		21	<u>1118</u>
P 9 40		24	<u>1188</u>	40		24	<u>1186</u>
P10 45		27	<u>1249</u>	45		27	<u>1253</u>
P11 50		30	<u>1293</u>	50		30	<u>1300</u>
P12 55		33	<u>1337</u>	55	33	<u>1346</u>	
P13 60		36	<u>1372</u>	60	36	<u>1381</u>	
P14 65		39	<u>1406</u>	65	39	<u>1412</u>	
P15 70		42	<u>1431</u>	70	42	<u>1438</u>	
P16 75		45	<u>1454</u>	75	45	<u>1460</u>	
P17 80		48	<u>1473</u>	80	48	<u>1479</u>	
P18 85		51	<u>1491</u>	85	51	<u>1494</u>	
P19 90		54	<u>1507</u>	90	54	<u>1509</u>	
P20 95		57	<u>1516</u>	95	57	<u>1522</u>	
100		60	<u>1524</u>	100	60	<u>1533</u>	

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 16653

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

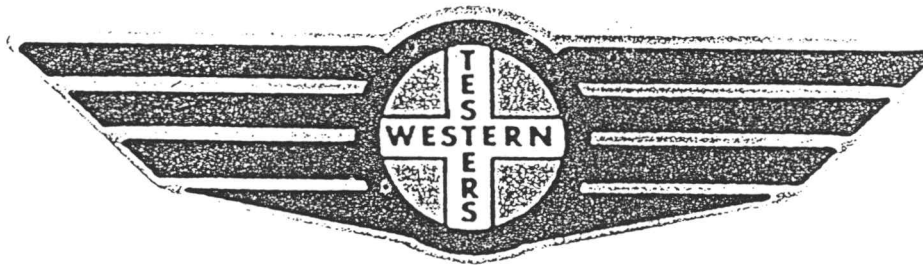
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____ P.S.I.		Open Tool		M _____
B First Initial Flow Pressure _____ P.S.I.		First Flow Pressure	_____ Mins.	_____ Mins.
C First Final Flow Pressure _____ P.S.I.		Initial Closed-in Pressure	_____ Mins.	_____ Mins.
D Initial Closed-in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

Point Mins.	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.
	Press.	Point Minutes	Point Minutes	Point Minutes
P 1	105	63	105	63
P 2	110	66	110	66
P 3	115	69	115	69
P 4	120	72	120	72
P 5	125	75	125	75
P 6	130	78	130	78
P 7	135	81	135	81
P 8	140	84	140	84
P 9	145	87	145	87
P10	150	90	150	90
P11	155	93	155	93
P12	160	96	160	96
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

1542
1550
1557
1563
1567
1570
1574
1578
1580
1582
1584
1585

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-07-90 TICKET : 16653
CUSTOMER : HUGOTON ENERGY CORP. LEASE : ELLSAESSER
WELL : #1-23 TEST: 3 GEOLOGIST : K.
ELEVATION : 2940 K.B. FORMATION : MORROW
SECTION : 23 TOWNSHIP : 29S
RANGE : 33W COUNTY : HASKELL STATE : KANSAS
GAUGE SN# : 13552 RANGE : 4050 CLOCK : 12

INTERVAL FROM : 5210 TO : 5326 TOTAL DEPTH : 5326
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 5205 SIZE : 6.63
PACKER DEPTH : 5210 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : H-30 DRLG.
MUD TYPE : LOW SOLIDS VISCOSITY : 40
WEIGHT : 9.1 WATER LOSS (CC) : 10.0
CHLORIDES (PPM) : 2100
JARS-MAKE : WTC SERIAL NUMBER : 420
DID WELL FLOW ? : YES REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 330 FT I.D. inch : 2.25
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4851 FT I.D. inch : 3.80
TEST TOOL LENGTH : 29 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 116 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5FH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST.
BLOW COMMENT #2 : GAS TO SURFACE IN 25 MIN. ON PREFLOW.
BLOW COMMENT #3 : SEE ATTACHED SHEET FOR GAS MEASUREMENTS.
BLOW COMMENT #4 :

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HUGOTON ENERGY CORP.
RIG : HASKELL-KANSAS
FIELD : ELLSAESSER
WELL : #1-23
DATE : 11-07-90
GAUGE NO : 13552

OPERATIONAL COMMENTS

COMPANY : HUGOTON ENERGY CORP.
WELL : #1-23
GAUGE # : 13552
DATE : 7/11/90

FIELD : ELLSAESSER
JOB # : 16653
DEPTH : 5326
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	11:45: 0	0.000	116.000	128.00	0.000
3	11:49:59	0.083	116.000	128.00	0.000
4	11:55: 0	0.167	117.000	128.00	1.000
5	12: 0: 0	0.250	118.000	128.00	1.000
6	12: 4:59	0.333	119.000	128.00	1.000
7	12:10: 0	0.417	119.000	128.00	0.000
8	12:15: 0	0.500	119.000	128.00	0.000
INITIAL SHUT IN PERIOD					
9	12:18: 0	0.550	254.000	128.00	135.000
10	12:21: 0	0.600	429.000	128.00	175.000
11	12:24: 0	0.650	597.000	128.00	168.000
12	12:27: 0	0.700	773.000	128.00	176.000
13	12:30: 0	0.750	911.000	128.00	138.000
14	12:33: 0	0.800	1014.000	128.00	103.000
15	12:36: 0	0.850	1111.000	128.00	97.000
16	12:39: 0	0.900	1188.000	128.00	77.000
17	12:42: 0	0.950	1249.000	128.00	61.000
18	12:45: 0	1.000	1293.000	128.00	44.000
19	12:48: 0	1.050	1337.000	128.00	44.000
20	12:51: 0	1.100	1372.000	128.00	35.000
21	12:54: 0	1.150	1406.000	128.00	34.000
22	12:57: 0	1.200	1431.000	128.00	25.000
23	13: 0: 0	1.250	1454.000	128.00	23.000
24	13: 3: 0	1.300	1473.000	128.00	19.000
25	13: 6: 0	1.350	1491.000	128.00	18.000
26	13: 9: 0	1.400	1507.000	128.00	16.000
27	13:12: 0	1.450	1516.000	128.00	9.000
28	13:15: 0	1.500	1524.000	128.00	8.000
FINAL FLOW PERIOD					
29	13:16: 0	1.517	133.000	128.00	-1391.000
30	13:19:59	1.583	133.000	128.00	0.000
31	13:25: 0	1.667	133.000	128.00	0.000
32	13:30: 0	1.750	133.000	128.00	0.000
33	13:34:59	1.833	133.000	128.00	0.000
34	13:40: 0	1.917	133.000	128.00	0.000
35	13:45: 0	2.000	133.000	128.00	0.000
36	13:49:59	2.083	133.000	128.00	0.000
37	13:55: 0	2.167	133.000	128.00	0.000
FINAL SHUT IN PERIOD					
38	13:58: 0	2.217	269.000	128.00	136.000
39	14: 1: 0	2.267	475.000	128.00	206.000
40	14: 4: 0	2.317	641.000	128.00	166.000
41	14: 7: 0	2.367	786.000	128.00	145.000
42	14:10: 0	2.417	920.000	128.00	134.000
43	14:13: 0	2.467	1029.000	128.00	109.000
44	14:16: 0	2.517	1118.000	128.00	89.000
45	14:19: 0	2.567	1186.000	128.00	68.000
46	14:22: 0	2.617	1253.000	128.00	67.000
47	14:25: 0	2.667	1300.000	128.00	47.000
48	14:28: 0	2.717	1346.000	128.00	46.000

COMPANY : HUGOTON ENERGY CORP.
WELL : #1-23
GAUGE # : 13552
DATE : 7/11/90

FIELD : ELLSAESSER
JOB # : 16653
DEPTH : 5326
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	14:31: 0	2.767	1381.000	128.00	35.000
50	14:34: 0	2.817	1412.000	128.00	31.000
51	14:37: 0	2.867	1438.000	128.00	26.000
52	14:40: 0	2.917	1460.000	128.00	22.000
53	14:43: 0	2.967	1479.000	128.00	19.000
54	14:46: 0	3.017	1494.000	128.00	15.000
55	14:49: 0	3.067	1509.000	128.00	15.000
56	14:52: 0	3.117	1522.000	128.00	13.000
57	14:55: 0	3.167	1533.000	128.00	11.000
58	14:58: 0	3.217	1542.000	128.00	9.000
59	15: 1: 0	3.267	1550.000	128.00	8.000
60	15: 4: 0	3.317	1557.000	128.00	7.000
61	15: 7: 0	3.367	1563.000	128.00	6.000
62	15:10: 0	3.417	1567.000	128.00	4.000
63	15:13: 0	3.467	1570.000	128.00	3.000
64	15:16: 0	3.517	1574.000	128.00	4.000
65	15:19: 0	3.567	1578.000	128.00	4.000
66	15:22: 0	3.617	1580.000	128.00	2.000
67	15:25: 0	3.667	1582.000	128.00	2.000
68	15:28: 0	3.717	1584.000	128.00	2.000
69	15:31: 0	3.767	1585.000	128.00	1.000

WESTERN TESTING CO. INC.

GAS FLOW REPORT

Date : 11-07-90	Ticket # : 16653
Customer : HUGOTON ENERGY CORP.	Lease : ELLSAESSER
Well : #1-23 Test : 3	Geologist : K.
Elevation (KB) : 2940 K.B.	Formation : MORROW
Section : 23 Township : 29S	
Range : 33W County : HASKELL	State : KANSAS
Gauge SN # : 13552 Range : 4050	Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
---------------------	-------------	----------------	-------------------	------------------

PRE FLOW

=====

30 MIN.	MERLA	.5	24"WTR	30700 C.F.P.D.
---------	-------	----	--------	----------------

GAS TO SURFACE IN 25 MIN. ON PREFLOW

SECOND FLOW

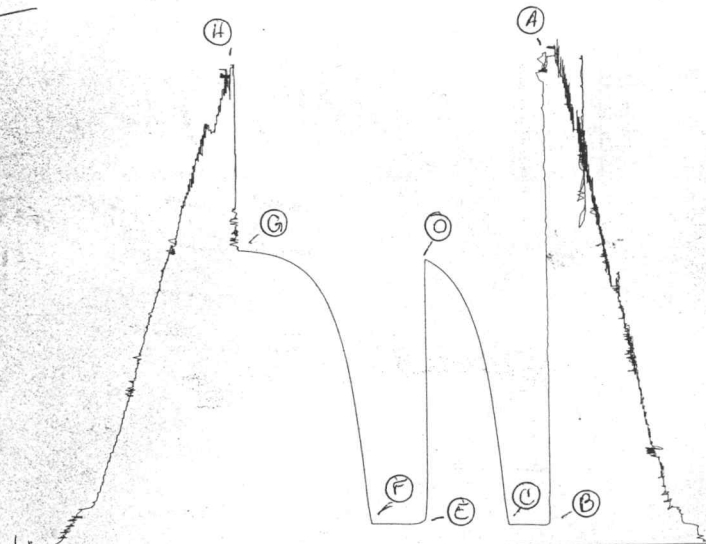
=====

5 MIN.	MERLA	.75	30"WATER	77800 C.F.P.D.
15 MIN.	MERLA	.75	12"WTR	49300 C.F.P.D.
25 MIN.	MERLA	.75	12"WTR	49300 C.F.P.D.
35 MIN.	MERLA	.75	12"WTR	49300 C.F.P.D.
45 MIN.	MERLA	.75	12"WTR	49300 C.F.P.D.

Gas Bottle SN #	:	402
Date Bottle Filled	:	11-07-90
Date to be Invoiced	:	11-07-90

TKT 16653

I



TKT

16653

0

