

ORIGINAL TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Computer Inventoried

Drill-Stem Test Data

KCC

JUL 20

CONFIDENTIAL

Well Name L.L. BURR #2 Test No. 1 Date 4/22/92
 Company HERMAN LANG OIL & GAS Zone MORROW
 Address 70 N FARMLAND RD GARDEN CITY KS 67846 Elevation 2844 K.B.
 Co. Rep./Geo. KARL OSTERBUHR Cont. RED TIGER DRLG #10 Est. Ft. of Pay _____
 Location: Sec. 10 Twp. 31S Rge. 32W Co. SEWARD State KS

Interval Tested 5298-5400
 Anchor Length 102
 Top Packer Depth 5293
 Bottom Packer Depth 5298
 Total Depth 5400

Drill Pipe Size 4.5 XH
 Wt. Pipe I.D. - 2.7 Ft. Run 642
 Drill Collar - 2.25 Ft. Run 60
 Mud Wt. 8.9 lb/Gal.
 Viscosity 48 Filtrate 8.8

Tool Open @ 12:40 AM Initial Blow 1/2" BLOW-BUILT TO 4"
ISI: BLED OFF BLOW-NO BLOW BACK

RELEASED

Final Blow SURFACE BLOW-BUILT TO 3"
FSI: BLED OFF BLOW-NO BLOW BACK

AUG 02 1993

Recovery - Total Feet 40

Flush Tool? NO FROM: CONFIDENTIAL

Rec. 40 Feet of DRILLING MUD
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____

BHT 122 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 2762 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 102.3 PSI @ (depth) 5363 w / Clock No. 27594

(C) First Final Flow Pressure 102.3 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 155.4 PSI @ (depth) 5397 w / Clock No. 27501

(E) Second Initial Flow Pressure 102.3 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 102.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 199.6 PSI Initial Opening 30 Final Flow 45

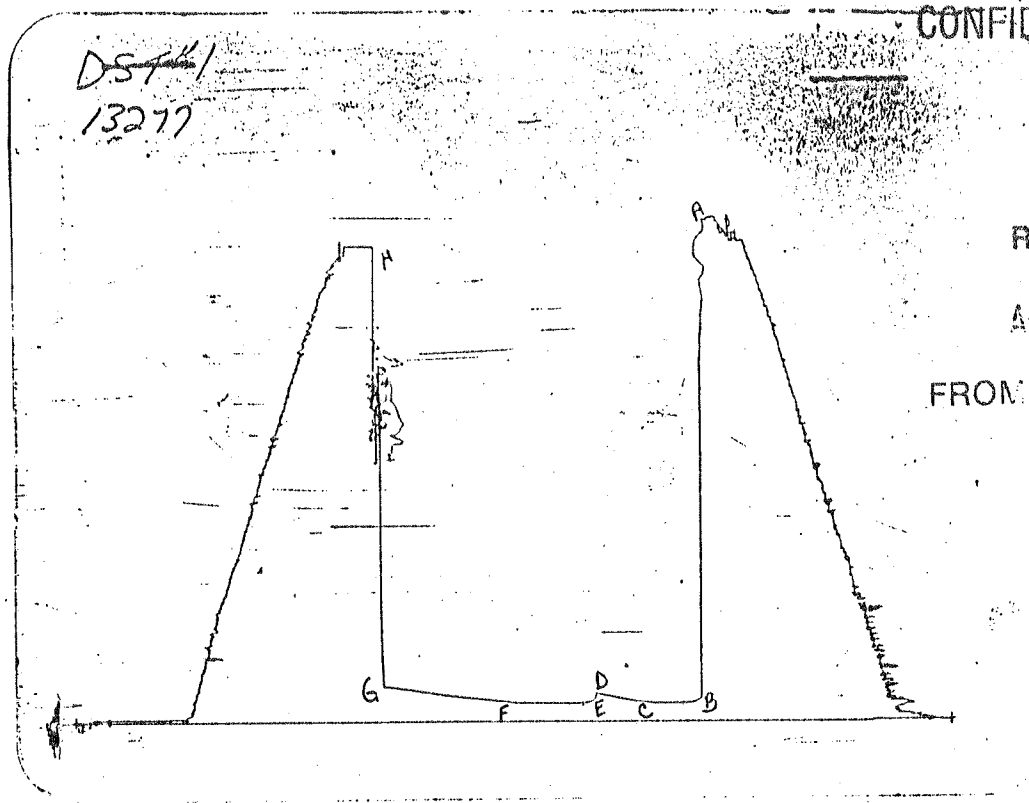
(H) Final Hydrostatic Mud 2630 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative TOM HORACEK

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FROM CONFIDENTIAL

This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2759	2762.3
(B) FIRST INITIAL FLOW PRESSURE	97	102.3
(C) FIRST FINAL FLOW PRESSURE	97	102.3
(D) INITIAL CLOSED-IN PRESSURE	151	155.4
(E) SECOND INITIAL FLOW PRESSURE	97	102.3
(F) SECOND FINAL FLOW PRESSURE	97	102.3
(G) FINAL CLOSED-IN PRESSURE	194	199.6
(H) FINAL HYDROSTATIC MUD	2627	2630.4

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TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

JUL 20

Test Ticket

CONFIDENTIAL 931

Well Name & No. L.H. Burr #2 Test No. 1 Date 4-22-92
 Company Herman Lang Oil & Gas Zone Tested McCreary
 Address 70 N. Farmland Rd. Garden City, KS 67846 Elevation 2844 (KB)
 Co. Rep./Geo. Karl Osterbuhr Cont. Red Tiger Del. #10 Est. Ft. of Pay _____
 Location: Sec. 10 Twp. 31 S Rge. 32 W Co. Seward State KS
 No. of Copies _____ Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 5298-5400 Drill Pipe Size 4.5 x-Hole
 Anchor Length 102' Top Choke — 1" _____ Bottom Choke — 1/4" _____
 Top Packer Depth 5293 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 5298 Wt. Pipe I.D. — 2.7 Ft. Run 642'
 Total Depth 5400 Drill Collar — 2.25 Ft. Run 60'
 Mud Wt. 18.9 lb/gal. Viscosity 48 Filtrate 8.8

Tool Open @ 12:40 AM Initial Blow 1/2 blow - built to 4 in.
 ISI - bled off blow - NO blow back RELEASED
 Final Blow Surface blow - built to 3 in.
 FSI - bled off blow - NO blow back

Recovery — Total Feet 40' Feet of Gas in Pipe NONE FROM CONFIDENTIAL? NO

Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec. <u>40'</u>	Feet Of <u>Drill mud</u>	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT 122 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ °F Chlorides _____ ppm Recovery Chlorides 10,000 ppm System

(A) Initial Hydrostatic Mud 2759 PSI AK1 Recorder No. 13277 Range 4125
 (B) First Initial Flow Pressure 97 PSI @ (depth) 5363 W/Clock No. 27594
 (C) First Final Flow Pressure 97 PSI AK1 Recorder No. 11038 Range 5075
 (D) Initial Shut-In Pressure 151 PSI @ (depth) 5397 W/Clock No. 27501
 (E) Second Initial Flow Pressure 97 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 97 PSI @ (depth) _____ W/Clock No. _____
 (G) Final Shut-In Pressure 194 PSI Initial Opening 30 Test X
 (H) Final Hydrostatic Mud 2627 PSI Initial Shut-In 45 Jars X

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 45 Safety Joint X
 Final Shut-In 90 Straddle _____

Approved By Karl Osterbuhr
 Our Representative Tom Horacek
KARL DDT

Sampler RECEIVED
 Extra Packer CORPORATION COMMISSION
 Other JUL 21 1992
 TOTAL PRICE \$ _____

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JUL 20

Drill-Stem Test Data

CONFIDENTIAL

Well Name L.L. BURR #2 Test No. 2 Date 4/27/92
 Company HERMAN LANG OIL & GAS Zone ST LOUIS
 Address 70 N FARMLAND RD GARDEN CITY KS 67846 Elevation 2844 K.B.
 Co. Rep./Geo. KARL OSTERBUHR Cont. RED TIGER DRLG #10 Est. Ft. of Pay 12
 Location: Sec. 10 Twp. 31S Rge. 32W Co. SEWARD State KS

Interval Tested 5645-5730 Drill Pipe Size 4.5 XH
 Anchor Length 85 Wt. Pipe I.D. - 2.7 Ft. Run 642
 Top Packer Depth 5640 Drill Collar - 2.25 Ft. Run 60
 Bottom Packer Depth 5645 Mud Wt. 9.1 lb/Gal.
 Total Depth 5730 Viscosity 55 Filtrate 8.0

Tool Open @ 9:45AM Initial Blow STRONG BLOW BUILT TO BOTTOM OF BUCKET IN 2 MINUTES
GAS TO SURFACE IN 25 MINUTES
 Final Blow STRONG BLOW BOTTOM OF BUCKET SOON AS TOOL OPENED
GAUGED AT 120.3 MCF

Recovery - Total Feet 80Flush Tool? NO

RELEASED

Rec. 80 Feet of GASSY DRILLING MUD
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____

BHT 130 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 18000 ppm System

(A) Initial Hydrostatic Mud 2882 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 88.6 PSI @ (depth) 5712 w / Clock No. 27594

(C) First Final Flow Pressure 131.9 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 1732 PSI @ (depth) 5727 w / Clock No. 27501

(E) Second Initial Flow Pressure 112.3 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 171.6 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1721 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2832 PSI Initial Shut-in 45 Final Shut-in JUL 20 1992

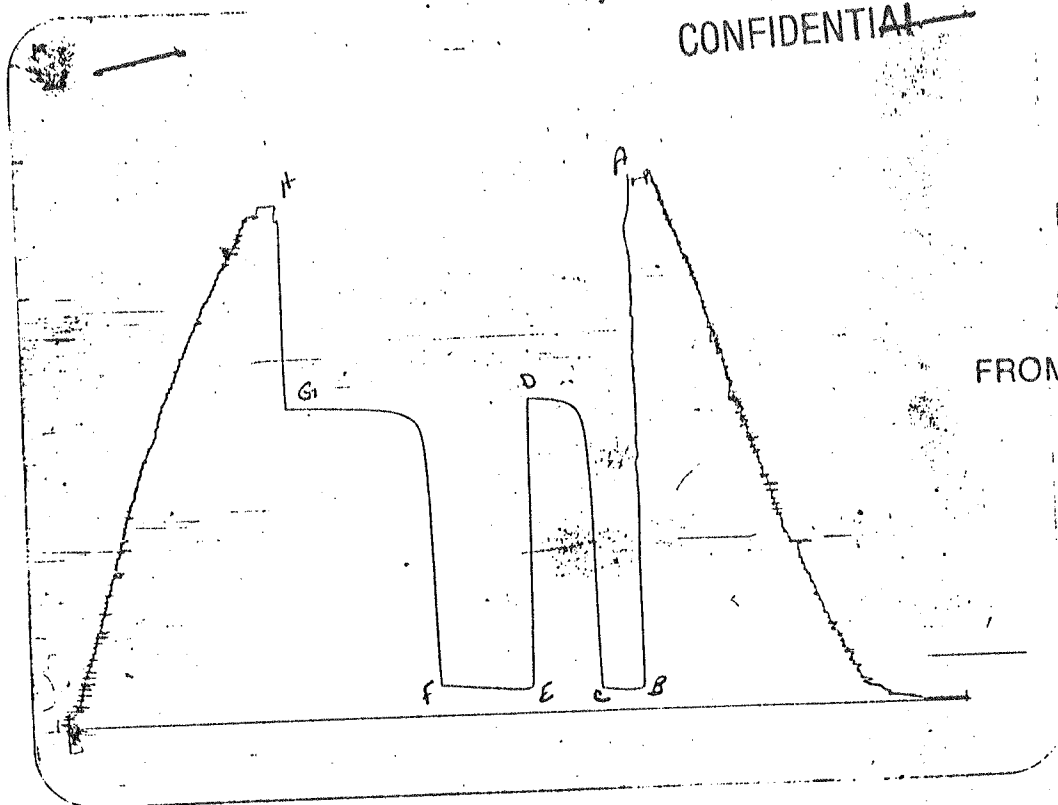
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CHART PAGE

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FROM: CONFIDENTIAL

This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2876	2882.4
(B) FIRST INITIAL FLOW PRESSURE	82	88.6
(C) FIRST FINAL FLOW PRESSURE	122	131.9
(D) INITIAL CLOSED-IN PRESSURE	1725	1731.8
(E) SECOND INITIAL FLOW PRESSURE	109	112.3
(F) SECOND FINAL FLOW PRESSURE	163	171.6
(G) FINAL CLOSED-IN PRESSURE	1713	1721.3
(H) FINAL HYDROSTATIC MUD	2825	2831.9

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GAS VOLUME REPORT

KCC

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HERMAN LANG OIL & GAS

FROM CONFIDENTIAL

L.L. BURR #2

DST # 2

MIN	PSIG	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
25	34	0.25	67.5	10	34	0.25	67.5
30	36	0.25	70.3	20	42	0.25	78.6
				30	55	0.25	96.7
				40	62	0.25	106.4
				50	68	0.25	114.8
				60	72	0.25	120.3

Remarks:

GAS TO SURFACE IN 25 MINUTES / GAS WILL BURN

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Wichita, Kansas

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TRILOBITE TESTING L.L.C.
P.O. Box 362 • Hays, Kansas 67601

Test Ticket

JUL 20

CONFIDENTIAL

4932

Well Name & No. L. H. Burr #2 Test No. 42 Date 4-27-92
Company Herman Lang Oil & Gas Zone Tested St. Louis
Address 70 N. Fairland Rd. Garden City, Mo 67846 Elevation 2844 (K.S.)
Co. Rep./Geo. Karl Osterbuhr cont. Red Tiger D. & W. Est. Ft. of Pay 12'
Location: Sec. 10 Twp. 31 S Rge. 32 W Co. Seward State Ks.
No. of Copies _____ Distribution Sheet _____ Yes X No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 5645-5730 Drill Pipe Size 4.5 x-Hole
Anchor Length 85' Top Choke — 1" Bottom Choke — 1/4"
Top Packer Depth 5640 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Bottom Packer Depth 5645 Wt. Pipe I.D. — 2.7 Ft. Run 642'
Total Depth 5730 Drill Collar — 2.25 Ft. Run 60'
Mud Wt. 9.1 lb/gal. Viscosity 55 Filtrate 8.0
Tool Open @ 9:45 AM Initial Blow Strong blow - built to bottom of bucket 2 min.
Final Blow Strong blow - bottom of bucket seen as tool opened. (Gauged @ 70.3 mcr)
(Gauged @ 120.3 mcr)

Recovery — Total Feet 80' Feet of Gas In Pipe _____
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. 80' Feet Of Gassy Ddk mud %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
BHT 130 °F Gravity _____ °gas %oil %water %mud
RW _____ @ _____ °F Chlorides _____ °API @ _____ °F Corrected Gravity _____ °API

(A) Initial Hydrostatic Mud 2876 ppm Recovery Chlorides 18,000 ppm System
(B) First Initial Flow Pressure 82 PSI AK1 Recorder No. 13077 Range 4/25
(C) First Final Flow Pressure 122 PSI @ (depth) 5712 W/Clock No. 27574
(D) Initial Shut-In Pressure 1725 PSI AK1 Recorder No. 11038 Range 5075
(E) Second Initial Flow Pressure 109 PSI @ (depth) 5727 W/Clock No. 27501
(F) Second Final Flow Pressure 163 PSI AK1 Recorder No. _____ Range _____
(G) Final Shut-In Pressure 1713 PSI @ (depth) _____ W/Clock No. _____
(H) Final Hydrostatic Mud 2825 PSI Initial Opening 30 Test X
PSI Initial Shut-In 45 Jars X

Final Flow 60 Safety Joint X
Final Shut-In 90 Straddle _____
Circ. Sub _____

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FROM CONFIDENTIAL

TOTAL PRICE \$

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Wichita, Kansas

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KIND OF 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, OR ITS STATEMENTS
OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR
DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR
WHOM THE TEST IS MADE.

Approved By Karl Osterbuhr
Herman Lang
Printcraft Printers - Hays, KS

ORIGINAL

JUL 2 STATE OF KANSAS - CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM CG-1

TYPE TEST: 4-pt ☒ Initial ☐ Annual ☐ Special **TEST DATE:** 06/15/92

COMPANY: Herman Lang **LEAS:** Bump **WELL NO.:** 2

COUNTY: Seward **LOCATION:** St. Louis **SECTION:** 10 **TWP:** 31 **RNG:** 32 **ACRES:**

FIELD: Unnamed **RESERVOIR:** St. Louis **PIPELINE CONNECTION:**

COMPLETION DATE: 06/08/92 **PLUG BACK TOTAL DEPTH:** 5730 **PACKER SET AT:** None

CASING SIZE: 5.5 **WT.:** 15.5 **ID:** 4.092 **SET AT:** 5730 **PERF. TO:** 5656 5668

TUBING SIZE: 2.375 **WT.:** 4.7 **ID:** 1.995 **SET AT:** 5700 **PERF. TO:**

TYPE COMPLETION (Describe): Single gas **TYPE FLUID PRODUCTION:**

PRODUCING THRU: Tubing **RESERVOIR TEMPERATURE P :** 131 @ 5662 **RELEASED** **BAR PRESS - P_a :** 14.4 Psia

GAS GRAVITY - G_g : .650 **% CARBON DIOXIDE:** **% NITROGEN:** **API GRAVITY OF LIQUID:**

VERTICAL DEPTH (H): 5662 **TYPE METER CONN.:** **METER NO. (PROVER) SIZE:** 2"

REMARKS: FROM CONFIDENTIAL

OBSERVED DATA

DURATION OF SHUT-IN _____ HR.

RATE NO.	ORIFICE SIZE In.	METER (PROVER) PRESSURE psig	DIFF. (h _w) (hd)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _i)(P _c) psia	psig	(P _w)(P _i)(P _c) psia		
SHUT IN						1260	1274.4	1262	1276.4	72	
1	.0625	1126		76		1205	1219.4	1126	1140.4	1	
2	.1250	1000		76		1093	1107.4	1000	1014.4	1	
3	.15625	825		76		940	954.4	825	839.4	1	
4	.1875	585		76		765	779.4	585	599.4	1	
5											

RATE OF FLOW CALCULATIONS

RATE NO.	COEFFICIENT (F _D)(F _P) Mc/d	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW Q Mc/d	GOR	Q _m
1	.06569	1140.4		1.240	.9849	1.109	101		
2	.2716	1014.4		1.240	.9849	1.096	369		
3	.4088	839.4		1.240	.9849	1.080	453		
4	.6237	599.4		1.240	.9849	1.057	482		
5									

PRESSURE CALCULATIONS

RATE NO.	P _i psia	P _c psia	P _w psia	(P _c) ² THOUSANDS	(P _w) ² THOUSANDS	PLOTING POINTS		100 $\left[\frac{P_w - P_a}{P_c - P_a} \right]$
						(P _c) ² - (P _w) ² THOUSANDS	Q Mc/d	
1	1140.4	1276.4	1219.4	1624	1487	137	101	.956
2	1014.4	1276.4	1107.4	1624	1226	398	369	.868
3	839.4	1276.4	954.4	1624	911	713	453	.748
4	599.4	1276.4	779.4	1624	607	1017	482	.611
5								

INDICATED WELLHEAD OPEN FLOW

495

Mc/d @ 14.65 psia

"n" =

.850

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the _____ day of _____, 19____.

Witness (if any)

For Commission

For Company

JUL 2 1 1992

Checked by

CONSERVATION DIVISION
Wichita, KansasRECEIVED
STATE CORPORATION COMMISSION

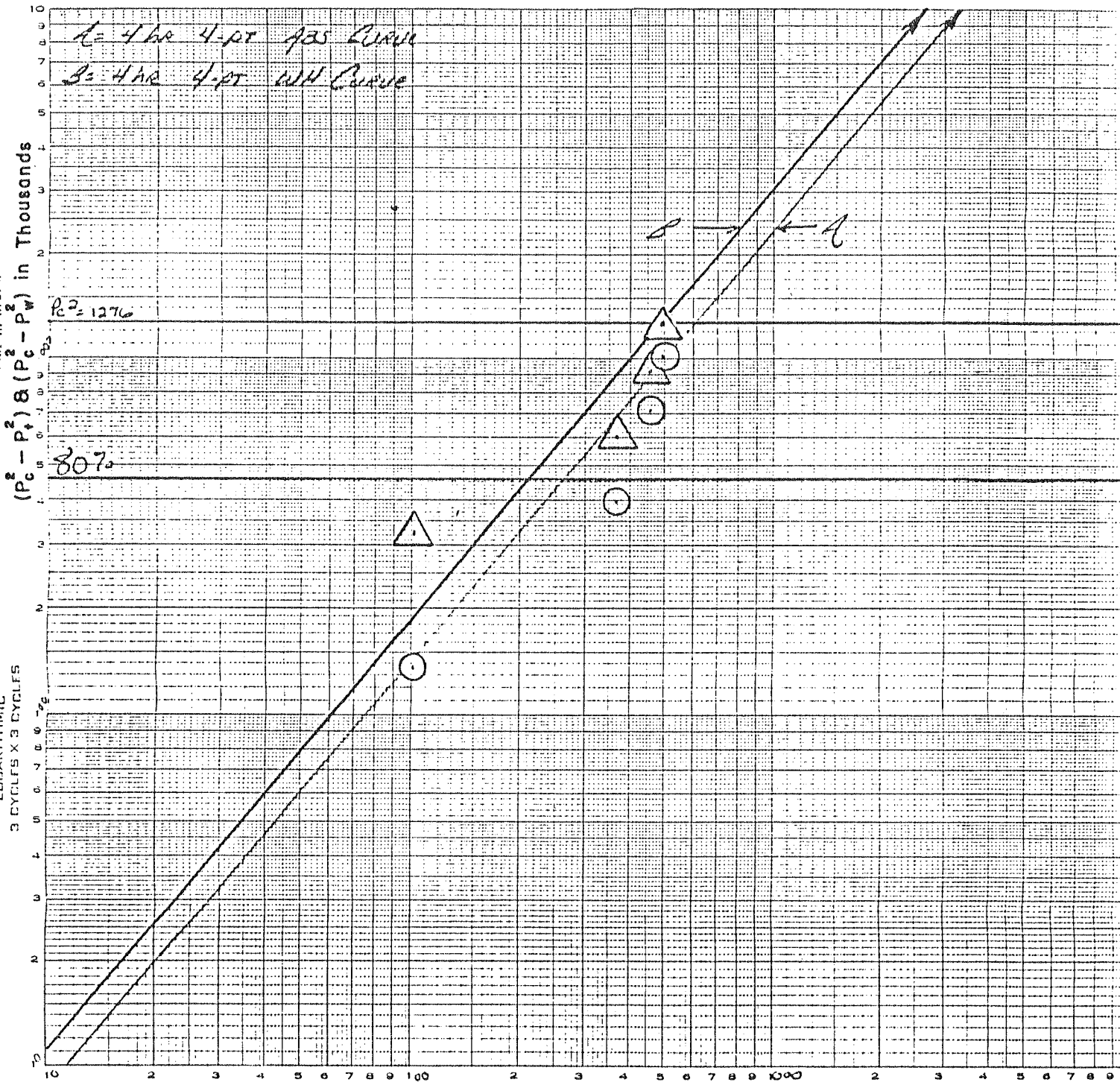
BACK PRESSURE CURVE JUL 20

ORIGINAL

Operator Herman Lang Lease BUR Well No. 2
 County Seward Field Location 10-31-32
 Date of Test 6-15-92 Slope "n" .850 W.H. .850 Abs.
 Calc. W.H. Potential 495 MCF/D Calc. Abs. Potential 610 MCF/D

DIETZGEN CORPORATION
MADE IN U.S.A.

NO. 341-L33 DIETZGEN GRAPH PAPER
LOGARITHMIC
3 CYCLES X 3 CYCLES



△ - Tubing

○ - Casing

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