WESTERN TESTING CO., INC.
Pressure Data

Date August 8,1967 — Test Ticket No. 7104

Recorder No. 2606 — Capacity 4150 — Location 3883 Ft.

Clock No. 6892 — Elevation 2625 Kelly Bushings — Well Temperature 130 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	2064 P.S.I.	Opened Tool	10:32 A M	
B	First Initial Flow Pressure	58 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C	First Final Flow Pressure	118 P.S.I.	Initial Closed-in Pressure	30 Mins.	31 Mins.
D	Initial Closed-in Pressure	1305 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	156 P.S.I.	Final Closed-in Pressure	60 Mins.	61 Mins.
F	Second Final Flow Pressure	376 P.S.I.			
G	Final Closed-in Pressure	1299 P.S.I.			
H	Final Hydrostatic Mud	2054 P.S.I.			

PRESSURE BREAKDOWN

First Flow Press. Breakdown: 3 Inc. of 5 mins. and a final inc. of 0 Min.

Initial Shut-In Breakdown: 10 Inc. of 3 mins. and a final inc. of 1 Min.

Second Flow Pressure Breakdown: 12 Inc. of 5 mins. and a final inc. of 0 Min.

Final Shut-In Breakdown: 20 Inc. of 3 mins. and a final inc. of 1 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	58	0	118	0	156	0	376
P 2 5	70	3	873	5	164	3	1014
P 3 10	92	6	1130	10	183	6	1103
P 4 15	118	9	1186	15	204	9	1144
P 5		12	1226	20	228	12	1173
P 6		15	1248	25	249	15	1194
P 7		18	1264	30	270	18	1207
P 8		21	1279	35	289	21	1221
P 9		24	1289	40	309	24	1231
P10		27	1298	45	328	27	1244
P11		30	1302	50	343	30	1252
P12		31	1305	55	364	33	1259
P13				60	376	36	1267
P14						39	1273
P15						42	1278
P16						45	1283
P17						48	1287
P18						51	1290
P19						54	1292
P20						57	1295
						60	1298
						61	1299

SWift 2-4808

GORDON LAB, INC.

Railroad Avenue P. O. Box 605

GREAT BEND, KANSAS 67530

WATER ANALYSIS

DATE August 9, 1967

TO Slawson Drilling Company

408 120 Building

Wichita, Kansas

1. Mosier H # 1 2. Mud sample from pit

	1.	2.	3.	
Specific Gravity	1.074			
Chlorides	57,700	5,400		Milligrams per liter
Calcium	4,100			Milligrams per liter
Magnesium	1,520			Milligrams per liter
Sulfates	1,800			Milligrams per liter
Bicarbonates	220			Milligrams per liter
Iron	0			Milligrams per liter
Hydrogen Sulfide	0			Milligrams per liter
Barium	0			Milligrams per liter
pH	7.0			
Sulfate Reducing Bacteria				

This sample is predominately formation water.

RESPECTFULLY SUBMITTED

LABORATORY ANALYST

Gordon

BY T. J. Gordon

To convert to parts per million, divide by specific gravity.

WA FORM 1

Liquid Production

B.T. Gauge Numbers		2606	Ticket Number		7104
		PRESSURE	Elevation	KB	2625 ft.
Initial Hydrostatic		2064			
Final Hydrostatic		2054	Indicated Production	1st Flow	149 bbls. day
	Time			Total Flow	108 bbls. day
1st Flow Initial	————	58			
1st Flow Final	15	118	Drill Collar Length		1105 ft.
Initial Closed In Pressure	31	1305	Drill Collar I.D.		2.7 in.
2nd Flow Initial	————	156	Drill Pipe Factor		.0074 bbls. ft.
2nd Flow Final	60	376	Hole Size		7 7/8 in.
Final Closed In Pressure	61	1299	Footage Tested		33 ft.
Extrapolated Static Pressure Initial		1373	Mud Weight		10.4 lbs. gal.
Extrapolated Static Pressure Final		1373	Viscosity, Oil or Water		1 cp
Slope psi/cycle Initial		407	Oil API Gravity		—
Slope psi/cycle Final		248	Water Specific Gravity		1.074 —

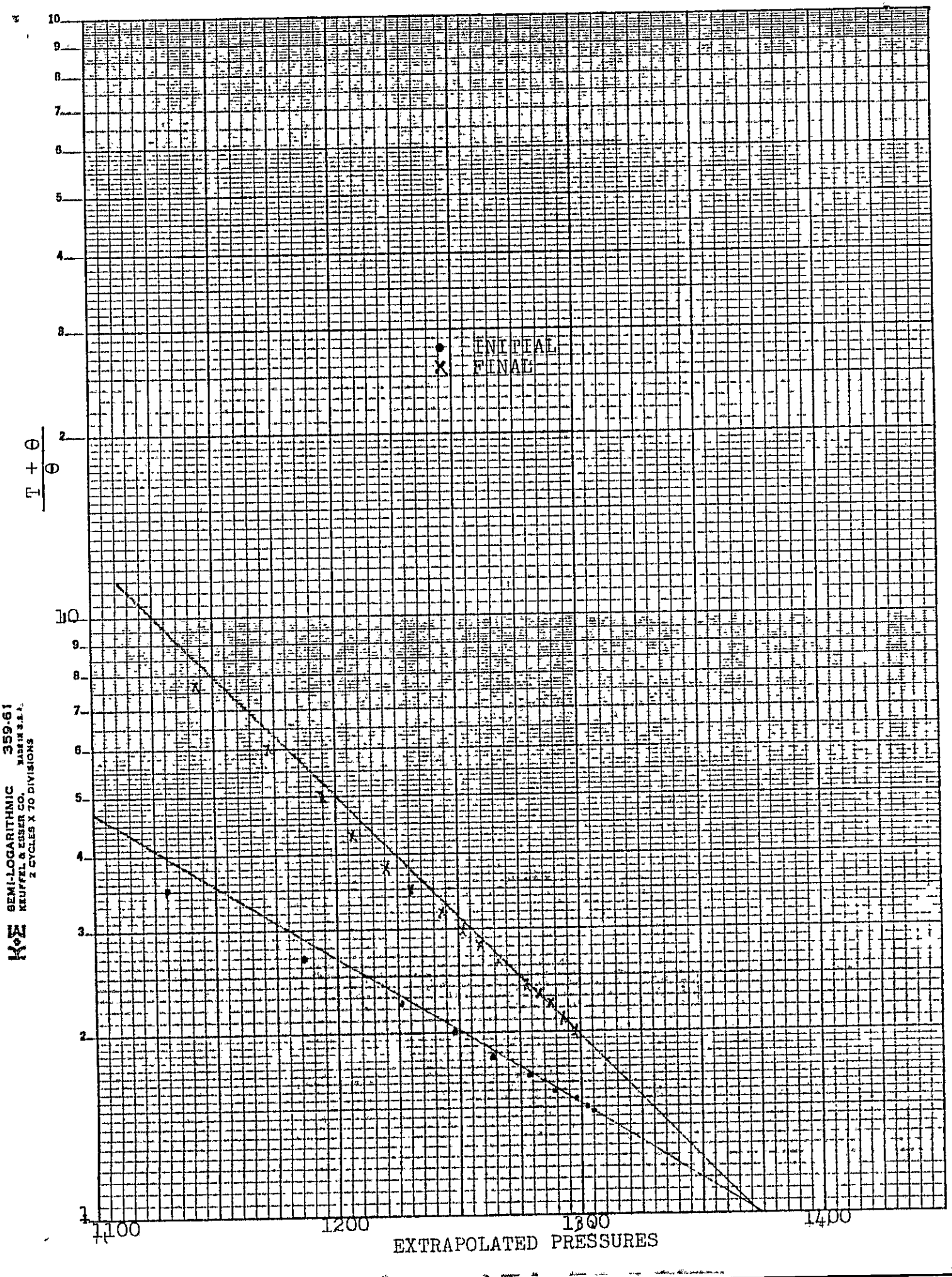
Remarks: Production figures include water

SUMMARY

Gauge No. / Depth

Product	Equation	INITIAL	FINAL	Units
Production	$Q = \frac{1440\ R}{t}$	149	98	bbls., day,
Transmissability	$\frac{Kh}{\mu} = \frac{162.6\ Q}{m}$	59.5	64.2	md. ft. / cp
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$	59.5	64.2	md. ft
Average Effective Permeability	$K = \frac{Kh}{h}$	1.8	1.9	md.
	$K_1 = \frac{Kh}{h_1}$			md.
Damage Ratio	$DR = .183\ \frac{Ps - Pf}{m}$	0.6	0.7	—
Theoretical Potential w/Damage Removed	$Q_1 = Q\ DR$	149	98	bbls. day
Approx. Radius of Investigation	$b \leq \sqrt{Kt}$ or $\sqrt{Kt_0}$	5.2	10.7	ft.
	$b_1 \leq \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$			ft.
Potentiometric Surface * KB	$Pot. = El - GD + 2.319\ Ps$	1926	1926	ft.

INTERPRETATIONS AND CALCULATIONS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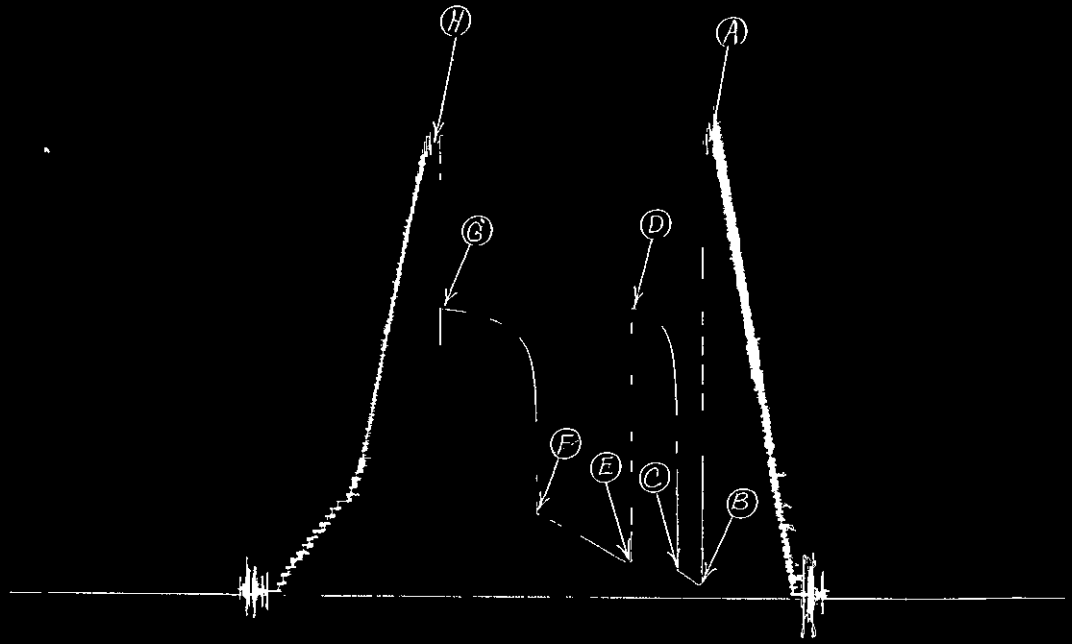
EXTRAPOLATED PRESSURES
K&E 359-61
SEMI-LOGARITHMIC
KEUFFEL & ESSER CO.
2 CYCLES X 70 DIVISIONS

Slawson Drlg Co
Mosier "4" #1

TKT "7101
Test" 6



Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Slawson Drilling Company Lease & Well No. Mosier #4-1

Elevation 2625 Kelly Bushings Formation Kansas City Effective Pay ---------- Ft. Ticket No. 7104

Date Aug.8,1967 Sec. 4 Twp. 9 Range 27W County Sheridan State Kansas

Test Approved by J. Theodore Sandberg Western Representative Dean Blagrave

Formation Test No. 6 O.K. X Misrun Interval Tested From 3859' to 3892' Total Depth 3892'

Size Main Hole 7 7/8 Rat Hole Conv. B.T. X Damaged Yes X No Conv. B.T. Damaged Yes No

Packer Depth 3859 Ft. Size 6 3/4 Packer Depth Ft. Size

Straddle Yes X No Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5½ OD Tool Jt. Size 4½ FH Anchor Length 33 Ft. Size 5½ OD

RECORDERS Depth 3883 Ft. Clock No. 6892 Depth 3886 Ft. Clock No. 6774

Top Make Amerada Cap. 4150 No. 2606 Inside ~~Outside~~ Bottom Make Amerada Cap. 4300 No. 1567 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 10:32 A M

Tool Open I.F.P. From 10:35 M. to 10:50 M. Hr. 15 Min. From (B) 58 P.S.I. To (C) 118 P.S.I.

Tool Closed I.C.I.P. From 10:50A M. to 11:20 M. Hr. 30 Min. (D) 1305 P.S.I.

Tool Open F.F.P. From 11:20A M. to 12:20 M. 1 Hr. Min. From (E) 156 P.S.I. To (F) 376 P.S.I.

Tool Closed F.C.I.P. From 12:20P M. to 1:20 M. 1 Hr. Min. (G) 1299 P.S.I.

Initial Hydrostatic Pressure (A) 2064 P.S.I. Final Hydrostatic Pressure (H) 2054 P.S.I.

SURFACE INFORMATION — Size Choke 1/4 In. | Max. Press. P.S.I. | Time | Description of Flow

M.

M.

M.

BLOW Weak building to good. Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 490' gas in pipe; 760' fluid as follows: 67' heavy oil cut mud-muddy oil,126' heavy oil cut mud;63' heavy oil cut-oil cut mud;189' heavy oil cut-oil cut thin watery mud;63' oil cut muddy water;252' slightly oil cut muddy water.

Reversed Out Yes X No Mud Type chem. Viscosity 40 Weight 10.4 Water Loss ----- cc. Maximum Temp. 131 °F

EXTRA EQUIPMENT: Dual Packers no Safety Joint no Jars: Size no Make Ser. No.

Type Circ. Sub plug Did Tool Plug? no Where? Did Packer Hold? yes

Length Drill Pipe ft. I.D. Drill Pipe in. Length Weight Pipe 1105 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars none ft.

I. D. Drill Collars in. Length D.S.T. Tool 46 ft.

Remarks