WESTERN TESTERS

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

Company Graves Drilling Company Lease & Well No. Len Kner #1

Elevation 1753 Kelly Bushings Formation Mississippian Effective Pay Ft. Ticket No. 15342

Date 12-19-70 Sec. 30 Twp. 33S Range 14W County Barber State Kansas

Test Approved by John Graves Western Representative Guy Max Knipe

Formation Test No. 1 O.K. X Misrun Interval Tested From 4759' to 4826' Total Depth 4826'

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

Packer Depth 4759 Ft. Size 6 3/4" Packer Depth Ft. Size

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

Packer Depth Ft. Size

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" F.H. Anchor Length 67 Ft. Size 31'D.P.-36' Perf.

RECORDERS Depth 4813 Ft. Clock No. 6800 Depth 4816 Ft. Clock No. 9712

Top Make Kuster Cap. 4150 No. 2605 Inside ~~Outside~~ Bottom Make Kuster Cap. 4250 No. 1051 ~~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 7:27 A.M

Tool Open I.F.P. From 7:30 M. to 7:35A. M. Hr. 5 Min. From (B) 78 P.S.I. To (C) 69 P.S.I.

Tool Closed I.C.I.P. From 7:35 M. to 8:05A. M. Hr. 30 Min. (D) 949 P.S.I.

Tool Open F.F.P. From 8:05 M. to 11:05A M. 3 Hr. Min. From (E) 71 P.S.I. To (F) 103 P.S.I.

Tool Closed F.C.I.P. From 11:05 M. to 12:05P. M. 1 Hr. Min. (G) 962 P.S.I.

Initial Hydrostatic Pressure (A) 2618 P.S.I. Final Hydrostatic Pressure (H) 2603 P.S.I.

SURFACE INFORMATION	Size Choke 1 1/2 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
	See attached sheet		M.	
			M.	

BLOW Strong gas - surface in 40 min. gaged 600,000 in 3 hr. Bottom Choke Size 3/4 In.

Did Well Flow X Yes No Recovery Total Ft. 150 feet heavy gas cut mud

Reversed Out Yes X No Mud Type Starch Viscosity 46 Weight 9.8 Water Loss 6.8 cc. Maximum Temp. 131 °F

Type Circ. Sub. Pin Did Tool Plug? No Jars: Size 4½ O.D. Make WTC Ser. No. 407

EXTRA EQUIPMENT: Dual Packers 1 Safety Joint No Did Packer Hold? Yes Where?

Length Drill Pipe 4736 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ft. I.D. Weight Pipe in. Length Drill Collars ft.

I. D. Drill Collars in. Length D.S.T. Tool 90 ft.

Remarks

FORM WTC 2

WESTERN TESTERS

P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Graves Drilling Co. LEASE & WELL NO. LenKner #1

TEST NO. 1 INTERVAL TESTED FROM 4759' TO 4826'

TIME PRE-FLOW	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW

SECOND FLOW

10 Min.	11" water	231,000 C.F.
20 "	Spraying Mud	
25 "	"	Lite Oil
30 "	1 lb.	371,000 C.F.
40 "	" "	" "
50 "	" "	" "
1 hr.	2 "	527,000 MC
2 Hr.	2½ "	595,000 MC
3 Hr.	2 5/8	600,000 MC

SIZE CHOKE SURFACE 1 1/2 IN. BOTTOM IN. 3/4

REMARKS Gas surface in 40 min.

Gas gaged thru Orifice well tester with 1 1/2" Orifice

WESTERN TESTING CO., INC.
Pressure Data

Date 12-19-70 Test Ticket No. 15342

Recorder No. 2605 Capacity 4150 Location 4813 Ft.

Clock No. 6800 Elevation 1753 Kelly Bushings Well Temperature 131 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2618 P.S.I.	Open Tool	7:30A. M	
B First Initial Flow Pressure	78 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	69 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	949 P.S.I.	Second Flow Pressure	180 Mins.	177 Mins.
E Second Initial Flow Pressure	71 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	103 P.S.I.			
G Final Closed-in Pressure	962 P.S.I.			
H Final Hydrostatic Mud	2603 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 1 Inc. of 5 mins. and a final inc. of ____ Min.

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

Second Flow Pressure
Breakdown: 35 Inc. of 5 mins. and a final inc. of 2 Min.

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

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	78	0	69	0	71	0	103
P 2 5	69	3	476	5	67	3	636
P 3		6	735	10	67	6	865
P 4		9	883	15	67	9	896
P 5		12	923	25	67	12	912
P 6		15	935	30	69	15	919
P 7		18	941	35	70	18	925
P 8		21	943	40	72	21	931
P 9		24	946	45	73	24	934
P10		27	948	50	75	27	937
P11		30	949	55	78	30	940
P12				60	80	33	942
P13				65	81	36	945
P14				70	83	39	949
P15				75	84	42	950
P16				80	86	45	952
P17				85	88	48	954
P18				90	91	51	956
P19				95	92	54	958
P20				100	94	57	960
				105	95	60	962

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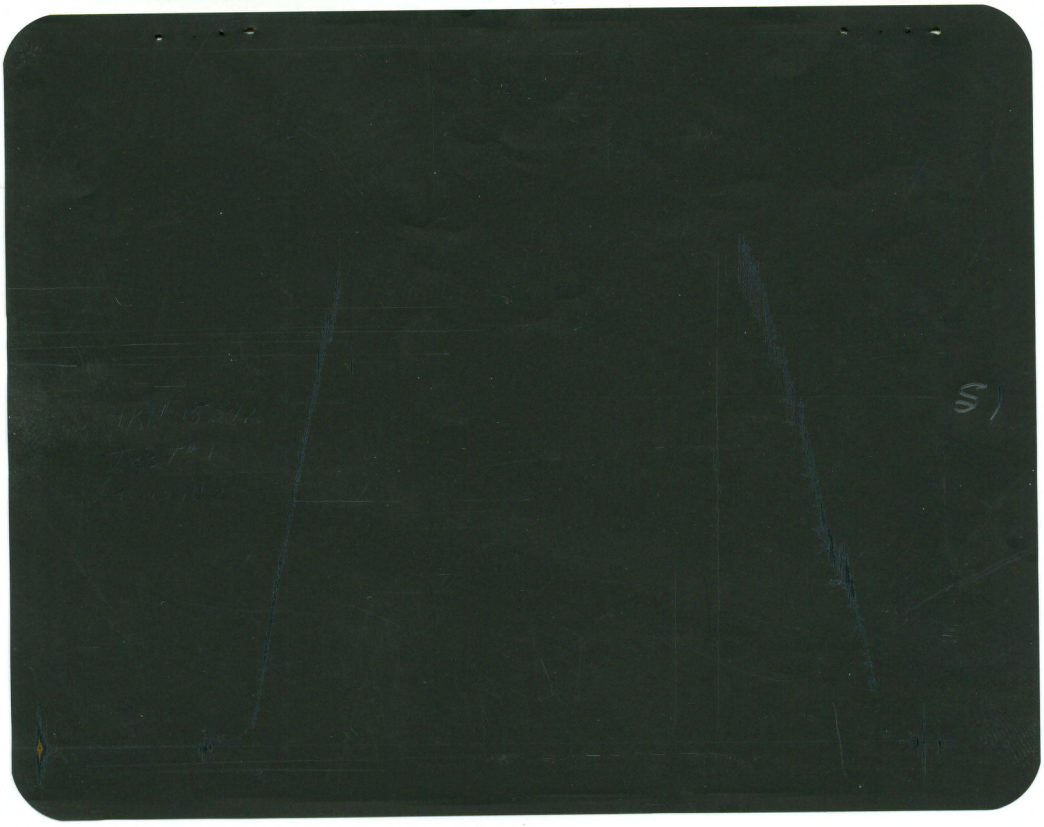
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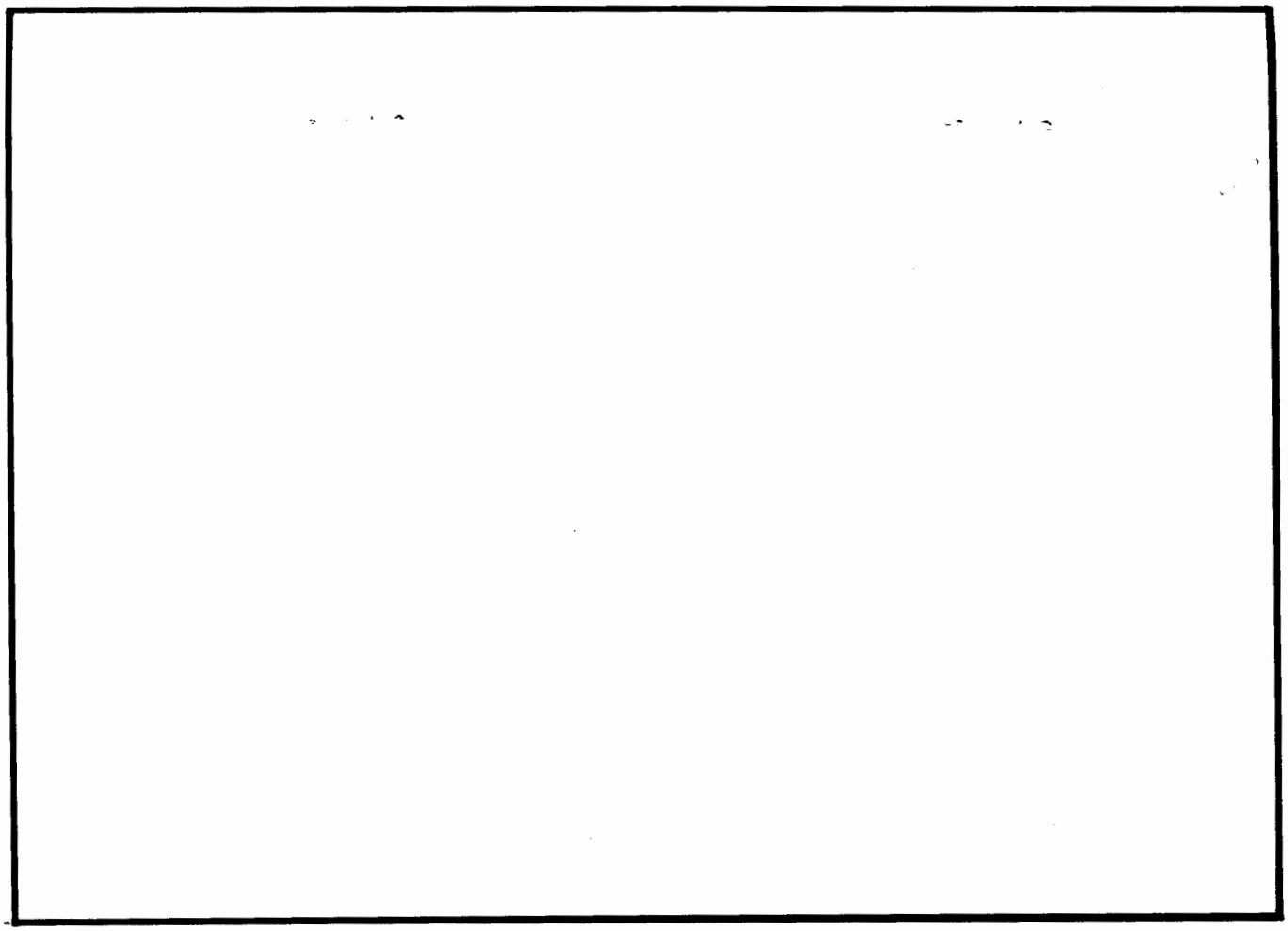
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	P.S.I.	Open Tool	M	
B First Initial Flow Pressure	P.S.I.	First Flow Pressure	Mins.	Mins.
C First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	Mins.	Mins.
D Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	Mins.	Mins.
E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

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: Inc.		Breakdown: Inc.		Breakdown: 35 Inc.		Breakdown: Inc.	
of mins. and a		of mins. and a		of 5 mins. and a		of mins. and a	
final inc. of Min.		final inc. of Min.		final inc. of 2 Min.		final inc. of Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				110	96		
P 2				115	96		
P 3				120	97		
P 4				125	97		
P 5				130	98		
P 6				135	98		
P 7				140	99		
P 8				145	99		
P 9				150	100		
P10				155	100		
P11				160	101		
P12				165	102		
P13				170	102		
P14				175	103		
P15				177	103		
P16							
P17							
P18							
P19							
P20							







This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2618	2618	PSI
(B)	First Initial Flow Pressure	84	78	PSI
(C)	First Final Flow Pressure	73	69	PSI
(D)	Initial Closed-in Pressure	954	949	PSI
(E)	Second Initial Flow Pressure	63	71	PSI
(F)	Second Final Flow Pressure	95	103	PSI
(G)	Final Closed-in Pressure	954	962	PSI
(H)	Final Hydrostatic Mud	2603	2603	PSI