



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Graves Ethal Lease & Well No. Frank #1
Elevation - Formation Mississippi Effective Pay - Ft. Ticker No. 21697
Date 12-3-77 Sec. 3 Twp. 32S Range 9W County Harper State Kansas
Test Approved by Fredrick W. Stump Western Representative Bill Hagar
Formation Test No. 1 O.K. X Misrun - Interval Tested From 4407' to 4423' Total Depth 4423'
Size Main Hole 7-7/8 Rat Hole - Conv. - B.T. X Damaged X Yes - No Conv. X B.T. - Damaged X Yes - No
Top Packer Depth 4402 Ft. Size 6-3/4 Bottom Packer Depth 4407 Ft. Size 6-3/4
Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 16 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 4410 Ft. Clock No. 6892 Depth 4413 Ft. Clock No. 6799
Top Make Kuster Cap. 4150 No. 2607 Inside Outside Bottom Make Kuster Cap. 4000 No. 3351 Inside Outside
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside
Time Set Packer 2:38 M
Tool Open I.F.P. From 2:40 M. to 2:55 M. - Hr. 15 Min. From (B) 72 P.S.I. To (C) 65 P.S.I.
Tool Closed I.C.I.P. From 2:55 M. to 3:40 M. - Hr. 45 Min (D) 1445 P.S.I.
Tool Open F.F.P. From 3:40 M. to 4:40 M. 1 Hr. - Min. From (E) 76 P.S.I. To (F) 91 P.S.I.
Tool Closed F.C.I.P. From 4:40 M. to 6:30 M. - Hr. 45 Min. (G) 1440 P.S.I.
Initial Hydrostatic Pressure (A) 2145 P.S.I. Final Hydrostatic Pressure (H) 2132 P.S.I. Maximum Temp. 124°

INFORMATION

BLOW Strong blow throughout test Gas to surface 5 minutes second opening
Did Well Flow - Yes X No Recovery Total Fr. 130' 10' slight oil & gas cut mud
60' very heavy oil & gas mud
60' oil & gas cut water
Reversed Out - Yes X No Mud Type Premix Viscosity 38 Weight 9.1 Water Loss 22.8 cc. Chlorides 16,000 P.P.M.
EXTRA EQUIPMENT: Type Circ. Sub. Pin - Safety Joint - Jars: Size - In. Make - Ser. No. -
Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -
DRILLING CONTRACTOR Graves Drlg. Length Drill Pipe? 4026 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.
Length Weight Pipe 270 Ft. I.D. Weight Pipe 2 1/4 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars 90 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 H90 In. Length D.S.T. Tool 37 Ft.

Remarks:



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Date 12-3-77 Ticket 21697 Company Graves Ethal
Well Name and No. Frank #1 Dst No. 1 Interval Tested 4407' - 4423'
County Harper State Kansas Sec. 3 Twp. 32 S Rg. 9 W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						

SECOND FLOW						
Tool Open 3:40						
Gas to surface 5 min. 2nd Opening						
3:50	10 Min.	5.5" of Water		1/2" Orifice		14,700 C.F.P.D.
4:00	20 "	6.5"	"	"		16,000 "
4:10	30 "	8.0"	"	"		17,200 "
4:20	40 "	8.0"	"	"		17,200 "
4:30	50 "	8.0"	"	"		17,200 "
4:40	60 "	8.0"	"	"		17,200 "

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% per month, equal to 12% 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 Graves Ethal

Authorized by Fredrick W. Stump

WESTERN TESTING CO., INC.

Pressure Data

Date 12-3-77 Test Ticket No. 21697
 Recorder No. 2607 Capacity 4150 Location 4410 Ft.
 Clock No. 6892 Elevation - Well Temperature 124 °F
 Time Given 2:38 Time Computed M

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	2145 P.S.I.		2:38	M
B First Initial Flow Pressure	72 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	65 P.S.I.	Initial Closed-in Pressure	45 Mins.	48 Mins.
D Initial Closed-in Pressure	1445 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	76 P.S.I.	Final Closed-in Pressure	45 Mins.	51 Mins.
F Second Final Flow Pressure	91 P.S.I.			
G Final Closed-in Pressure	1440 P.S.I.			
H Final Hydrostatic Mud	2132 P.S.I.			

PRESSURE BREAKDOWN

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

Initial Shut-In
 Breakdown: 16 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

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

Final Shut-In
 Breakdown: 17 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	72	0	65	0	76	0	91
P 2 5	65	3	293	5	67	3	494
P 3 10	65	6	498	10	67	6	725
P 4 15	65	9	687	15	67	9	916
P 5		12	845	20	70	12	1046
P 6		15	982	25	74	15	1140
P 7		18	1097	30	77	18	1213
P 8		21	1180	35	80	21	1264
P 9		24	1247	40	83	24	1301
P10		27	1299	45	85	27	1332
P11		30	1336	40	87	30	1356
P12		33	1366	55	91	33	1374
P13		36	1387	60	91	36	1391
P14		39	1408			39	1403
P15		42	1422			42	1417
P16		45	1435			45	1426
P17		48	1445			48	1435
P18						51	1440
P19							
P20							

2609

TK+[#] 21697

I.

