



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

Company DNB Drilling, Inc. Lease & Well No. Cooper #1
 Elevation - Formation Johnston Effective Pay - Ft. Ticket No. 22245
 Date 3-9-77 Sec. 22 Twp. 11S Range 32W County Logan State Kansas
 Test Approved by Steve Powell Western Representative Keyen Strutt
 Formation Test No. 1 O.K. Misrun Interval Tested From 4568' to 4600' Total Depth 4600'
 Size Main Hole 7 7/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
 Top Packer Depth 4563 Ft. Size 6 3/4 Bottom Packer Depth 4468 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 32 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
 RECORDERS Depth 4590 Ft. Clock No. 6774 Depth 4593 Ft. Clock No. 6806
 Top Make Kuster Cap. 4300 No. 1566 Inside Outside Bottom Make Kuster Cap. 4150 No. 2607 Inside Outside
 Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside
 Time Set Packer 5:27P. M
 Tool Open I.F.P. From 5:30P. M. to 6:00P. M. - Hr. 30 Min. From (B) 45 P.S.I. To (C) 136 P.S.I.
 Tool Closed I.C.I.P. From 6:00P. M. to 6:45P. M. - Hr. 45 Min (D) 1158 P.S.I.
 Tool Open F.F.P. From 6:45P. M. to 8:15P. M. - Hr. 90 Min. From (E) 166 P.S.I. To (F) 428 P.S.I.
 Tool Closed F.C.I.P. From 8:15P. M. to 9:00P. M. - Hr. 45 Min. (G) 1135 P.S.I.
 Initial Hydrostatic Pressure (A) 2310 P.S.I. Final Hydrostatic Pressure (H) 2282 P.S.I. Maximum Temp. 129

INFORMATION

BLOW Good blow throughout test, off bottom of bucket in 17 minutes.

Did Well Flow Yes No Recovery Total Ft. 880' total recovery. 20' of gas in pipe, 20' of oil cut muddy water, 270' of slightly oil cut muddy water, 570' of salt water.

Reversed Out Yes No Mud Type Chem Viscosity 54 Weight 9.8 Water Loss 10.0 cc. Chlorides 8,000 PPM

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 DNB Drlg., Inc. Length Drill Pipe? 3326 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe 955 Ft. I.D. Weight Pipe 2.76 In. Tool Joint Size 4 1/2 FH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 51 Ft.

Remarks: Slid tool 4' to bottom.

WESTERN TESTING CO., INC.

Pressure Data

Date 3-9-77 Test Ticket No. 22245
 Recorder No. 1566 Capacity 4300 Location 4590 Ft.
 Clock No. 6774 Elevation - Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2310	P.S.I.	5:27 P.	M
B First Initial Flow Pressure	45	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	136	P.S.I.	45	Mins. 45 Mins.
D Initial Closed-in Pressure	1158	P.S.I.	90	Mins. 90 Mins.
E Second Initial Flow Pressure	166	P.S.I.	45	Mins. 45 Mins.
F Second Final Flow Pressure	428	P.S.I.		
G Final Closed-in Pressure	1135	P.S.I.		
H Final Hydrostatic Mud	2282	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	6		15		18		15	
	of 5 mins.	and a	of 3 mins.	and a	of 5 mins.	and a	of 3 mins.	and a
	final inc. of 0	Min.	final inc. of 0	Min.	final inc. of 0	Min.	final inc. of 0	Min.
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	45	0	136	0	166	0	428	
P 2 5	56	3	886	5	173	3	1043	
P 3 10	60	6	1092	10	190	6	1088	
P 4 15	76	9	1118	15	207	9	1097	
P 5 20	97	12	1126	20	225	12	1105	
P 6 25	117	15	1133	25	242	15	1109	
P 7 30	136	18	1139	30	257	18	1112	
P 8		21	1143	35	272	21	1117	
P 9		24	1146	40	287	24	1121	
P10		27	1149	45	303	27	1124	
P11		30	1151	50	320	30	1126	
P12		33	1152	55	335	33	1128	
P13		36	1154	60	348	36	1131	
P14		39	1156	65	363	39	1133	
P15		42	1157	70	376	42	1134	
P16		45	1158	75	392	45	1135	
P17				80	405			
P18				85	418			
P19				90	428			
P20								

TH #22245

H

A

G

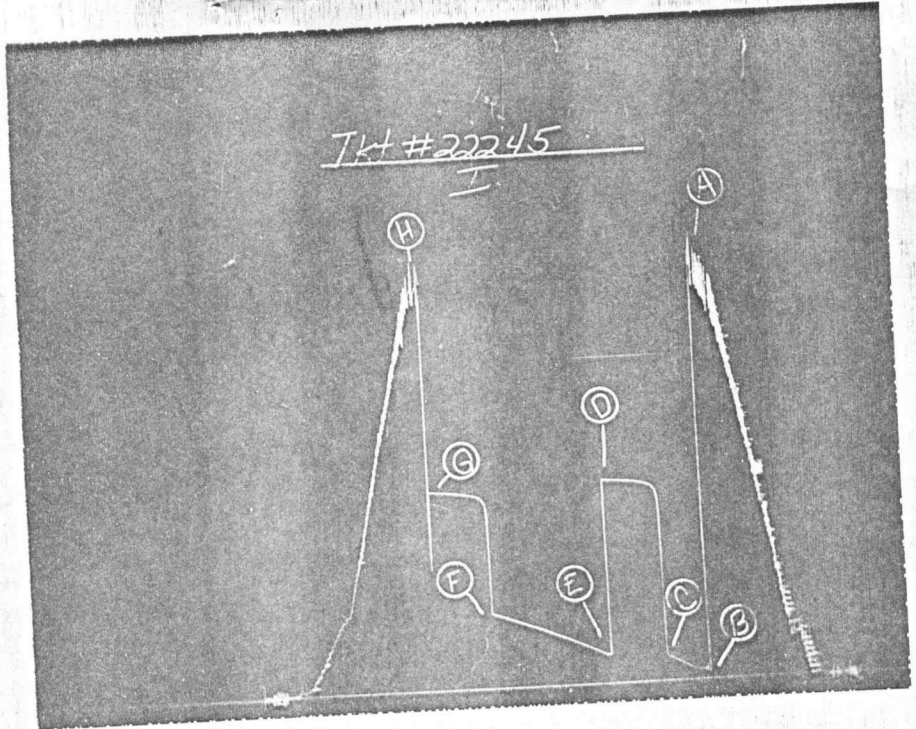
D

F

E

C

B





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Company DNB Drilling, Inc. Lease & Well No. Cooper #1
 Elevation - Formation Sand Effective Pay - Ft. Ticket No. 22246
 Date 3-10-77 Sec. 22 Twp. 11S Range 32W County Logan State Kansas
 Test Approved by Steve Powell Western Representative Keven Strutt
 Formation Test No. 2 O.K. - Misrun X Interval Tested From 4601' to 4615' Total Depth 4634'
 Size Main Hole 77/8 Rat Hole - Conv. - B.T. X Damaged - Yes X No Conv. - B.T. - Damaged - Yes - No
 Top Packer Depth 4601 Ft. Size 6 3/4 Bottom Packer Depth - Ft. Size -
 Straddle Yes Conv. X B.T. - Damaged - Yes X No Packer Depth 4615 Ft. Size 6 3/4
 Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 14 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
 RECORDERS Depth 4604 Ft. Clock No. 6774 Depth 4607 Ft. Clock No. 6806
 Top Make Kuster Cap. 4300 No. 1566 Inside Bottom Make Kuster Cap. 4150 No. 2607 Inside
 Below Straddle: Depth 4634 Rec. No. - Clock No. WTC Inside Depth - Ft. Rec. No. - Clock No. - Inside
 Time Set Packer 7:57 AM
 Tool Open I.F.P. From 8:00 AM. to 8:30 AM. - Hr. 30 Min. From (B) 81 P.S.I. To (C) 246 P.S.I.
 Tool Closed I.C.I.P. From 8:30 M. to 9:15 AM. - Hr. 45 Min (D) 1045 P.S.I.
 Tool Open F.F.P. From 9:15 AM. to 10:15 M. 1 Hr. - Min. From (E) 274 P.S.I. To (F) 498 P.S.I.
 Tool Closed F.C.I.P. From 10:15 M. to 11:00 M. - Hr. 45 Min. (G) 927 P.S.I.
 Initial Hydrostatic Pressure (A) 2308 P.S.I. Final Hydrostatic Pressure (H) 2299 P.S.I. Maximum Temp. -

INFORMATION

BLOW Good blow throughout test. Off bottom of bucket in 8 minutes.
 Did Well Flow - Yes X No Recovery Total Ft. 1040' muddy salt water.
 Reversed Out X Yes - No Mud Type chem Viscosity 54 Weight 9.8 Water Loss 10.0 cc. Chlorides 8,000 P.P.M.
 EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -
 Dual Packer - Did Packers Hold? No Did Tool Plug? No Where? -
 DRILLING CONTRACTOR DNB Drilling Co. Length Drill Pipe? 3357 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.
 Length Weight Pipe 955 Ft. I.D. Weight Pipe 2.76 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars - Ft. I.D. Drill Collars - In.
 Tool Joint Size - In. Length D.S.T. Tool 47 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 3-10-77 Test Ticket No. 22246
 Recorder No. 1566 Capacity 4300 Location 4604 Ft.
 Clock No. 6774 Elevation - Well Temperature - °F

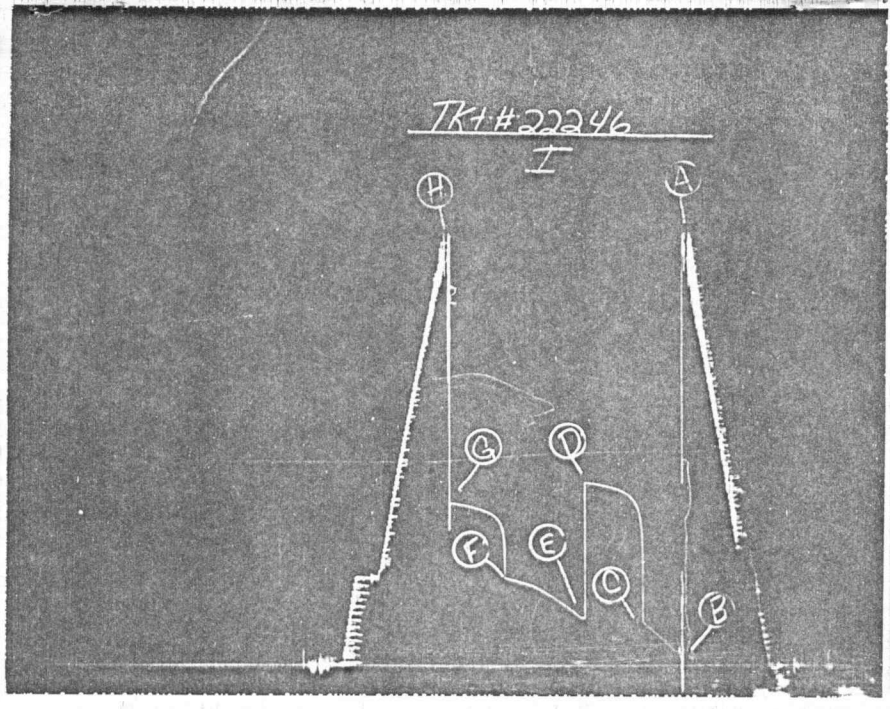
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2308</u> P.S.I.	Open Tool	<u>7:57</u> A.M.	
B First Initial Flow Pressure	<u>81</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>246</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1045</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>274</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
F Second Final Flow Pressure	<u>498</u> P.S.I.			
G Final Closed-in Pressure	<u>927</u> P.S.I.			
H Final Hydrostatic Mud	<u>2299</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>14</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes	Press.	Point Minutes
P 1 <u>0</u>	<u>81</u>	<u>0</u>	<u>246</u>	<u>0</u>
P 2 <u>5</u>	<u>97</u>	<u>3</u>	<u>712</u>	<u>3</u>
P 3 <u>10</u>	<u>134</u>	<u>6</u>	<u>871</u>	<u>6</u>
P 4 <u>15</u>	<u>168</u>	<u>9</u>	<u>929</u>	<u>9</u>
P 5 <u>20</u>	<u>199</u>	<u>12</u>	<u>959</u>	<u>12</u>
P 6 <u>25</u>	<u>229</u>	<u>15</u>	<u>981</u>	<u>15</u>
P 7 <u>30</u>	<u>246</u>	<u>18</u>	<u>994</u>	<u>18</u>
P 8 _____		<u>21</u>	<u>1004</u>	<u>21</u>
P 9 _____		<u>24</u>	<u>1011</u>	<u>24</u>
P10 _____		<u>27</u>	<u>1017</u>	<u>27</u>
P11 _____		<u>30</u>	<u>1024</u>	<u>30</u>
P12 _____		<u>33</u>	<u>1028</u>	<u>33</u>
P13 _____		<u>36</u>	<u>1034</u>	<u>36</u>
P14 _____		<u>39</u>	<u>1039</u>	<u>39</u>
P15 _____		<u>42</u>	<u>1042</u>	<u>42</u>
P16 _____		<u>45</u>	<u>1045</u>	
P17 _____				
P18 _____				
P19 _____				
P20 _____				

TK1#22246

I



TK1# 222416

Below Straddle

