THT # 21228

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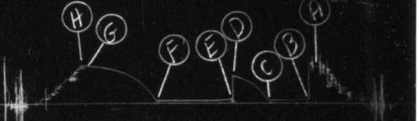


1559

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

Company Range Oil Co., Inc. Lease & Well No. Grose #1

Elevation 1162 Kelly Bush. Formation Sand Effective Pay - Ft. Ticket No. 21228

Date 5-22-75 Sec. 23 Twp. 33S Range 5E County Cowley State Kansas

Test Approved by Ray Goodin Western Representative Forrest Purnell

Formation Test No. 1 O.K. X Misrun - Interval Tested From 490' to 515' Total Depth 515'

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

Top Packer Depth 485 Ft. Size 6 3/4 Bottom Packer Depth 490 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 25 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 492 Ft. Clock No. 6800 Depth 495 Ft. Clock No. 6859

Top Make Kuster Cap. 4200 No. 1559 Inside Outside Bottom Make Kuster Cap. 3150 No. 3165 Inside Outside

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

Time Set Packer 12:28 A M

Tool Open I.F.P. From 12:30A M. to 1:00A M. - Hr. 30 Min. From (B) 23 P.S.I. To (C) 20 P.S.I.

Tool Closed I.C.I.P. From 1:00A M. to 1:30A M. - Hr. 30 Min (D) 153 P.S.I.

Tool Open F.F.P. From 1:30A M. to 2:30A M. - Hr. 60 Min. From (E) 23 P.S.I. To (F) 17 P.S.I.

Tool Closed F.C.I.P. From 2:30A M. to 3:30A M. - Hr. 60 Min. (G) 212 P.S.I.

Initial Hydrostatic Pressure (A) 212 P.S.I. Final Hydrostatic Pressure (H) 212 P.S.I. Maximum Temp. -

INFORMATION

BLOW Weak 1" blow increase strong blow.
Gas to surface in 15 minutes.

Did Well Flow Gas Yes - No Recovery Total Ft. 30' thin gassy drilling mud.

Reversed Out - Yes X No Mud Type Chemical Viscosity 34 Weight 9.1 Water Loss - cc. Chlorides -

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 White & Ellis Drilling Co Length Drill Pipe? 117 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½H-90

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 351 Ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4H-90 In. Length D.S.T. Tool 47 Ft.

Remarks: See attached sheet for gas measurements.

WESTERN TESTING CO., INC.
Pressure Data

Date 5-22-75 Test Ticket No. 21228

Recorder No. 1559 Capacity 4200 Location 492 Ft.

Clock No. 6800 Elevation 1162 Kelly Bushing Well Temperature - °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	212 P.S.I.	Open Tool	12:28 AM	
B First Initial Flow Pressure	23 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	20 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D Initial Closed-in Pressure	153 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	23 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	17 P.S.I.			
G Final Closed-in Pressure	212 P.S.I.			
H Final Hydrostatic Mud	212 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point Mins.	Press.
P 1 0	23
P 2 5	20
P 3 10	20
P 4 15	20
P 5 20	20
P 6 25	20
P 7 30	20
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 9 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	20
3	37
6	63
9	88
12	106
15	118
18	128
21	138
24	144
27	153

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

Point Minutes	Press.
0	23
5	21
~~10~~	~~18~~
15	18
20	17
~~25~~	~~17~~
30	17
35	17
~~40~~	~~17~~
45	17
50	17
~~55~~	~~17~~
60	17

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	17
3	33
~~6~~	~~63~~
9	88
12	109
~~15~~	~~126~~
18	141
21	154
~~24~~	~~163~~
27	171
30	179
~~33~~	~~186~~
36	190
39	197
~~42~~	~~200~~
45	203
48	205
~~51~~	~~208~~
54	210
57	211
~~60~~	~~212~~

Phone 316 262-5861
316 838-0601

WESTERN TESTERS

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

Date 5-22-75 Ticket 21228 Company Range Oil Co., Inc.

Well Name and No. Grose #1 Dst No. 1 Interval Tested 490' - 515'

County Cowley State Kansas Sec. 23 Twp. 33S Rg. 5E

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						
12:50 AM	20 min.	2" of water		½" choke		2,370 C.F.P.D.
1:00 AM	10 min.	1" of water		½" choke		1,680 C.F.P.D.
Gas to surface in 15 minutes on pre-flow period.						
SECOND FLOW						
1:30 AM		7" of water		½" choke		4,450 C.F.P.D. (gas surge)
1:40 AM	10 min.	4" of water		½" choke		3,370 C.FP.D.
1:50 AM	10 min.	4" of water		½" choke		3,370 C.F.P.D.
2:00 AM	10 min.	4" of water		½" choke		3,370 C.F.P.D.
2:10 AM	10 min.	4" of water		½" choke		3,370 C.F.P.D.
2:20 AM	10 min.	4" of water		½" choke		3,370 C.F.P.D.
2:30 AM	10 min.	4" of water		½" choke		3,370 C.F.P.D.
All measurements were taken through a 2" orifice well tester with a ½" choke.						

GAS BOTTLE

Serial No. _____ Date Bottle Filled 5-22-75 Date to be Invoiced 5-22-75

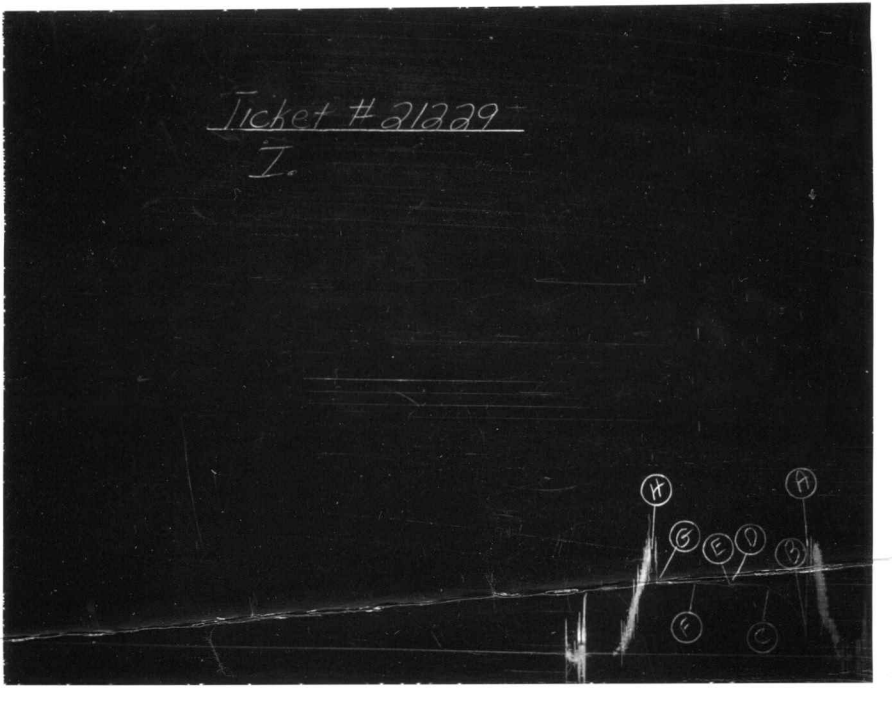
Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By 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 Range Oil Co., Inc.

Authorized by Ray Goodin

FORM WTC 6


Ticket # 21229
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Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Range Oil Co., Inc. Lease & Well No. Grose #1

Elevation 1162 Kelly Bush Formation Sand Effective Pay - Ft. Ticket No. 21229

Date 5-24-75 Sec. 23 Twp. 33S Range 5E County Cowley State Kansas

Test Approved by Ray Goodin Western Representative Forrest Purnell

Formation Test No. 2 O.K. X Misrun - Interval Tested From 1240' to 1285' Total Depth 1285'

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

Top Packer Depth 1235 Ft. Size 6 3/4 Bottom Packer Depth 1240 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 45 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 1248 Ft. Clock No. 6800 Depth 1251 Ft. Clock No. 6859

Top Make Kuster Cap. 4200 No. 1559 Inside Outside Bottom Make Kuster Cap. 3150 No. 1565 Inside Outside

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

Time Set Packer 7:10 A M

Tool Open I.F.P. From 7:15A M. to 7:45A M. - Hr. 30 Min. From (B) 106 P.S.I. To (C) 370 P.S.I.

Tool Closed I.C.I.P. From 7:45A M. to 8:15A M. - Hr. 30 Min (D) 397 P.S.I.

Tool Open F.F.P. From 8:15A M. to 8:45A M. - Hr. 30 Min. From (E) 387 P.S.I. To (F) 403 P.S.I.

Tool Closed F.C.I.P. From 8:45A M. to 9:15A M. - Hr. 30 Min. (G) 406 P.S.I.

Initial Hydrostatic Pressure (A) 565 P.S.I. Final Hydrostatic Pressure (H) 561 P.S.I. Maximum Temp. 90

INFORMATION

BLOW Strong 15" blow decreasing to fair 9" blow throughout test.

Did Well Flow - Yes X No Recovery Total Ft. 817' muddy water.

Reversed Out - Yes X No Mud Type Chemical Viscosity 36 Weight 9.2 Water Loss - cc. Chlorides 1000 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 White & Ellis Drilling Inc. Length Drill Pipe? 867 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½H-90 In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 351 Ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4H-90 In. Length D.S.T. Tool 67 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 5-24-75 Test Ticket No. 21229

Recorder No. 1559 Capacity 4200 Location 1248 Ft.

Clock No. 6800 Elevation 1162 Kelly Bushing Well Temperature 90 °F

Point		Pressure	
A	Initial Hydrostatic Mud	565	P.S.I.
B	First Initial Flow Pressure	106	P.S.I.
C	First Final Flow Pressure	370	P.S.I.
D	Initial Closed-in Pressure	397	P.S.I.
E	Second Initial Flow Pressure	387	P.S.I.
F	Second Final Flow Pressure	403	P.S.I.
G	Final Closed-in Pressure	406	P.S.I.
H	Final Hydrostatic Mud	561	P.S.I.

	Time Given	Time Computed
Open Tool	7:10A M	
First Flow Pressure	30 Mins.	28 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	30 Mins.	28 Mins.
Final Closed-in Pressure	30 Mins.	30 Mins.

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	106
P 2 5	219
P 3 10	278
P 4 15	321
P 5 20	346
P 6 25	363
P 7 28	370
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

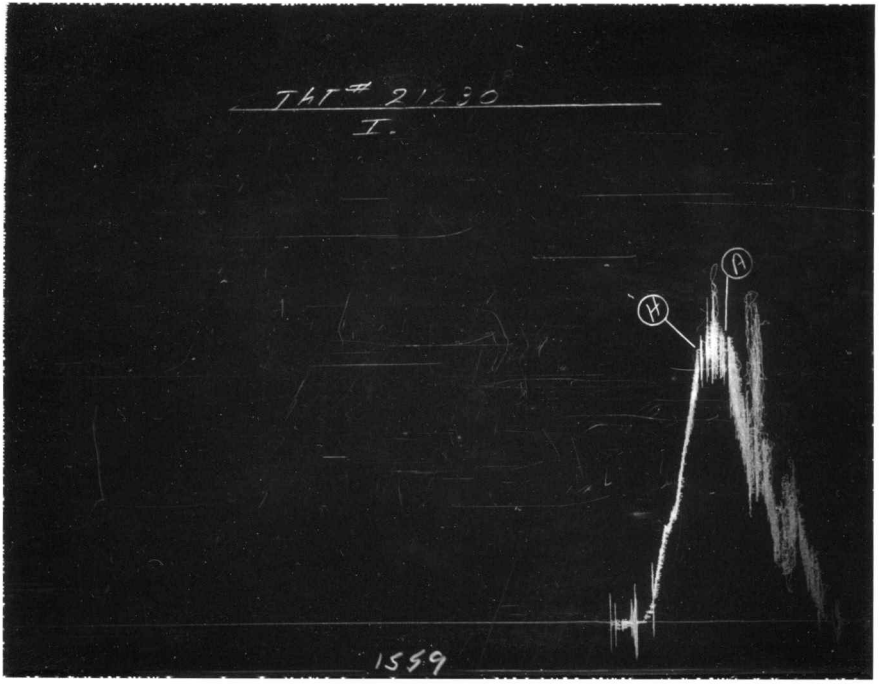
Point Minutes	Press.
0	370
3	389
6	391
9	394
12	395
15	395
18	396
21	396
24	396
27	397
30	397

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

Point Minutes	Press.
0	387
5	388
10	393
15	396
20	399
25	399
28	403

Final Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	403
3	402
6	406
9	406
12	406
15	406
18	406
21	406
24	406
27	406
30	406


TAT # 21,230
I.
H
A
1559

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

Company Range Oil Co., Inc. Lease & Well No. Grose #1

Elevation 1162 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 21230

Date 5-26-75 Sec. 23 Twp. 33S Range 5E County Cowley State Kansas

Test Approved by Ray Goodin Western Representative Forrest Purnell

Formation Test No. 3 O.K. - Misrun X Interval Tested From 3016' to 3025' Total Depth 3025'

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

Top Packer Depth 3011 Ft. Size 6 3/4 Bottom Packer Depth 3016 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 9 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3019 Ft. Clock No. 6800 Depth 3022 Ft. Clock No. 6859

Top Make Kuster Cap. 4200 No. 1559 Inside ~~Outside~~ Bottom Make Kuster Cap. 3150 No. 1565 ~~Inside~~ Outside

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

Time Set Packer - M

Tool Open I.F.P. From - M. to - M. - Hr. - Min. From (B) - P.S.I. To (C) - P.S.I.

Tool Closed I.C.I.P. From - M. to - M. - Hr. - Min (D) - P.S.I.

Tool Open F.F.P. From - M. to - M. - Hr. - Min. From (E) - P.S.I. To (F) - P.S.I.

Tool Closed F.C.I.P. From ~~-~~ ~~M.~~ to - ~~M.~~ - Hr. - Min. (G) - P.S.I.

Initial Hydrostatic Pressure (A) 1523 P.S.I. Final Hydrostatic Pressure (H) 1502 P.S.I. Maximum Temp. -

INFORMATION

BLOW ~~Tool lacked 12' of going to bottom.~~

Did Well Flow - Yes - No Recovery Total Ft. -

Reversed Out - Yes - No Mud Type Chemical Viscosity 44 Weight 9.9 Water Loss 13.6 cc. Chlorides 1600 PPM

EXTRA EQUIPMENT: Type Circ. Sub. pin Safety Joint - Jars: Size - In. Make - Ser. No. -

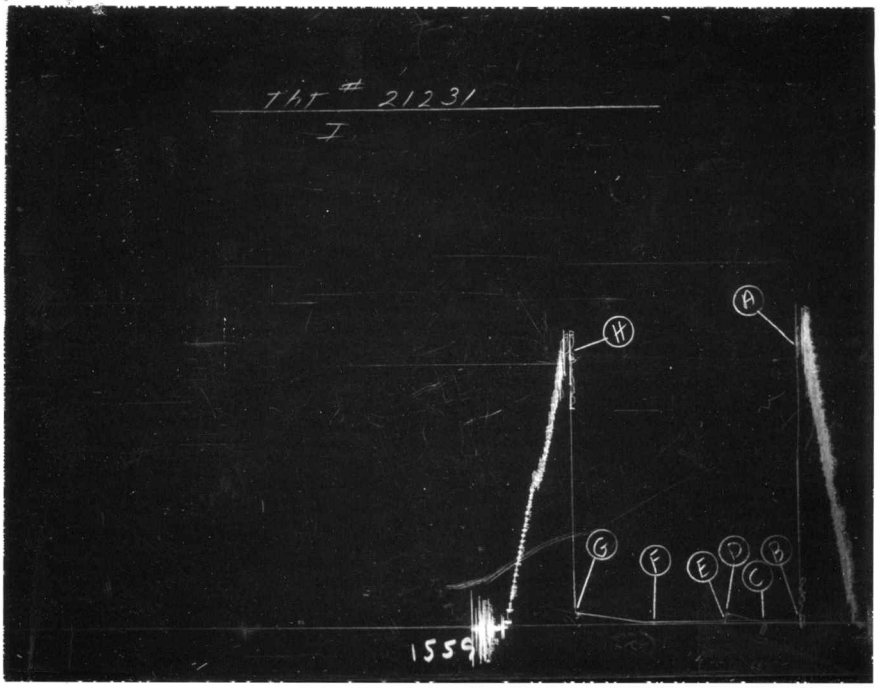
Dual Packer Yes Did Packers Hold? - Did Tool Plug? - Where? -

DRILLING CONTRACTOR White & Ellis Drilling Length Drill Pipe? 2821 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½H-90 In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 173 Ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4"H-90 In. Length D.S.T. Tool 31 Ft.

Remarks: Tool lacked 12' of going to bottom.


Tht # 21231
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1559

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

Company Range Oil Company, Inc. Lease & Well No. Grose #1

Elevation 1162 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 21231

Date 5-26-75 Sec. 23 Twp. 33S Range 5E County Cowley State Kansas

Test Approved by Ray Goodin Western Representative Forrest Purnell

Formation Test No. 4 O.K. X Misrun - Interval Tested From 3016' to 3025' Total Depth 3025'

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

Top Packer Depth 3011 Ft. Size 6 3/4 Bottom Packer Depth 3016 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 9 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3019 Ft. Clock No. 6800 Depth 3022 Ft. Clock No. 6859

Top Make Kuster Cap. 4200 No. 1559 Inside ~~Outside~~ - Bottom Make Kuster Cap. 3150 No. 1565 Inside - Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside ~~Outside~~ Depth - Ft. Rec. No. - Clock No. - Inside ~~Outside~~

Time Set Packer 5:42 P M

Tool Open I.F.P. From 5:45P M. to 6:15P M. - Hr. 30 Min. From (B) 6 P.S.I. To (C) 6 P.S.I.

Tool Closed I.C.I.P. From 6:15P M. to 6:45P M. - Hr. 30 Min (D) 56 P.S.I.

Tool Open F.F.P. From 6:45P M. to 7:45P M. - Hr. 60 Min. From (E) 18 P.S.I. To (F) 13 P.S.I.

Tool Closed F.C.I.P. From 7:45P M. to 8:45P M. - Hr. 60 Min. (G) 68 P.S.I.

Initial Hydrostatic Pressure (A) 1543 P.S.I. Final Hydrostatic Pressure (H) 1533 P.S.I. Maximum Temp. 115

INFORMATION

BLOW Weak blow of ½", increasing to a weak 2" blow throughout initial flow period, weak 1" blow throughout final flow period.

Did Well Flow - Yes X No Recovery Total Ft. 30' very slightly oil cut mud, 120' gas.

Reversed Out - Yes X No Mud Type Chemical Viscosity 40 Weight 9.7 Water Loss 11.2 cc. Chlorides 2400 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 White & Ellis Drilling Co Length Drill Pipe? 2821 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½H-90 In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 173 Ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4"H-90 In. Length D.S.T. Tool 31 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 5-26-75 Test Ticket No. 21231

Recorder No. 1559 Capacity 4200 Location 3019 Ft.

Clock No. 6800 Elevation 1162 Kelly Bushing Well Temperature 115 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1543 P.S.I.	Open Tool	5:42 P M	
B First Initial Flow Pressure	6 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	6 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D Initial Closed-in Pressure	56 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	18 P.S.I.	Final Closed-in Pressure	60 Mins.	57 Mins.
F Second Final Flow Pressure	13 P.S.I.			
G Final Closed-in Pressure	68 P.S.I.			
H Final Hydrostatic Mud	1533 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	6
P 2 5	6
P 3 10	6
P 4 15	6
P 5 20	6
P 6 25	6
P 7 30	6
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	6
3	10
6	15
9	22
12	28
15	33
18	40
21	46
24	52
27	56

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

Point Minutes	Press.
0	18
5	15
10	13
15	13
20	13
25	13
30	13
35	13
40	13
45	13
50	13
55	13
60	13

Final Shut-In
Breakdown: 19 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	13
3	13
6	15
9	18
12	22
15	25
18	28
21	31
24	36
27	39
30	42
33	45
36	48
39	52
42	54
45	57
48	61
51	64
54	66
57	68