Company Glacier Petroleum Company, Inc. Lease & Well No. #1 Kanady

Elevation 1532 Ground Level Formation Mississippi Effective Pay --- Ft. Ticket No. 13837

Date 1/ 14 /83 Sec. 1 Twp. 28S Range 7E County Butler State Kansas

Test Approved by Chuck M. Kuhl Western Representative Allen Edgington

Formation Test No. 1 Interval Tested from 2790 ft. to 2810 ft. Total Depth 2810 ft.

Packer Depth 2810 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2802 ft. Recorder Number 5666 Cap. 3950

Bottom Recorder Depth (Outside) 2805 ft. Recorder Number 11019 Cap. 4500

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Glacier Drilling Rig #1 Drill Collar Length 153 I. D. 2¼ in.

Mud Type chemical Viscosity 36 Weight Pipe Length - I. D. - in.

Weight 9.5 Water Loss 12.0 cc. Drill Pipe Length 2633 I. D. 2.7 in.

Chlorides 1,000 P.P.M. Test Tool Length 15 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 20 ft. Size 5½OD in.

Did Well Flow? Yes Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/78 in. Tool Joint Size 3½IF in.

Blow: Strong throughout. Gas to surface in ninety minutes -right at final shut-in.

Recovered 230 ft. of free oil 37 Spec. Gravity

Recovered 155 ft. of heavy oil cut mud 40% oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 9:30 ~~A.M.~~ P.M. Time Started Off Bottom 12:30 ~~A.M.~~ P.M. Maximum Temperature 114°

Initial Hydrostatic Pressure (A) 1420 P.S.I.

Initial Flow Period Minutes 25 (B) 39 P.S.I. to (C) 86 P.S.I.

Initial Closed In Period Minutes 30 (D) 673 P.S.I.

Final Flow Period Minutes 60 (E) 115 P.S.I. to (F) 173 P.S.I.

Final Closed In Period Minutes 60 (G) 688 P.S.I.

Final Hydrostatic Pressure (H) 1395 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 1/14/83 Test Ticket No. 13837

Recorder No. 5666 Capacity 3950 Location 2802 Ft.

Clock No. --- Elevation 1532 Ground Level Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1420 P.S.I.	Open Tool	9:30A M	
B First Initial Flow Pressure	39 P.S.I.	First Flow Pressure	30 Mins.	25 Mins.
C First Final Flow Pressure	86 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	673 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	115 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	173 P.S.I.			
G Final Closed-in Pressure	688 P.S.I.			
H Final Hydrostatic Mud	1395 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	39
P 2 5	49
P 3 10	65
P 4 15	71
P 5 20	82
P 6 25	86
P 7	
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	86
3	255
6	397
9	514
12	573
15	608
18	625
21	641
24	656
27	667
30	673

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

Point Minutes	Press.
0	115
5	115
10	118
15	122
20	128
25	135
30	141
35	145
40	152
45	159
50	165
55	171
60	173

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

Point Minutes	Press.
0	173
3	357
6	497
9	554
12	582
15	598
18	613
21	624
24	634
27	640
30	649
33	655
36	662
39	667
42	672
45	675
48	679
51	681
54	684
57	687
60	688

DST #1 TKT 13837 13

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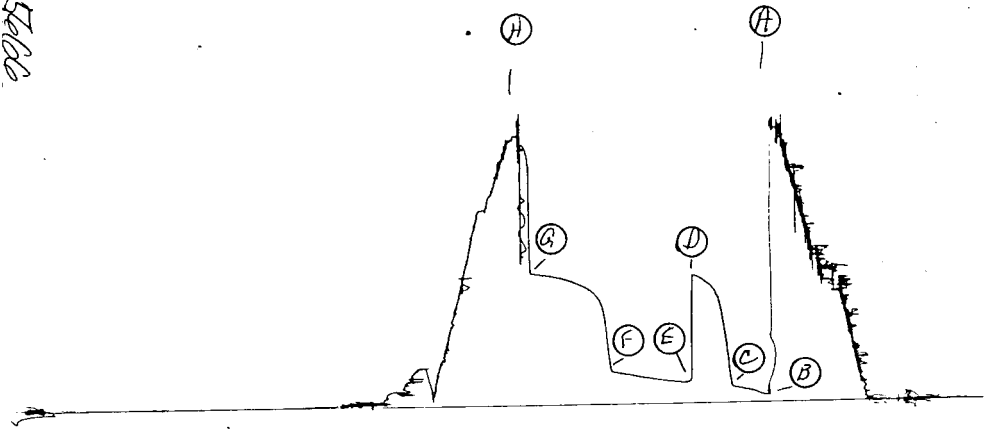

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 13837

Elevation 1532 GL Formation MISS Eff. Pay Ft.

District AUGUSTA Date 1-14-83 Customer Order No.

COMPANY NAME GLACIER PETROLEUM CO., INC.

ADDRESS PO BOX 577 EMPORIA, KS 66801

LEASE AND WELL NO. KANADY #1 COUNTY BUTLER STATE KS Sec. 1 Twp. 28S Rge. 7E

Mail Invoice To SAME #1 KANADY No. Copies Requested 1

Mail Charts To SAME (EIGHT COPIES to CHUCK KUHL Co. Name 608 ONE MAIN PLACE Address WICHITA KS 67212) No. Copies Requested ~~5~~ B

Formation Test No. 1 Interval Tested from 2790 ft. to 2810 ft. Total Depth 2810 ft.

Packer Depth 2810 ft. Size 6 3/4 in. Packer Depth — ft. Size in.

Packer Depth — ft. Size in. Packer Depth — ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2802 ft. Recorder Number 5666 Cap. 3950

Bottom Recorder Depth (Outside) 2805 ft. Recorder Number 11019 Cap. 4500

Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor GLACIER #1 Drill Collar Length 153 I. D. 2 1/4 in.

Mud Type CHEM Viscosity 36 Weight Pipe Length — I. D. in.

Weight 9.5 Water Loss 12.0 cc. Drill Pipe Length 2633 I. D. 2.7 in.

Chlorides 1000 P.P.M. Test Tool Length 15 ft. Tool Size 5 1/2 in. OD.

Jars: Make — Serial Number Anchor Length 20 ft. Size 5 1/2 in. OD

Did Well Flow? YES Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 3 1/2 IF in.

Blow: STRONG THRU OUT
GAS TO SURFACE 90MIN - RIGHT AT FINAL SHUT IN.

Recovered 230 ft. of FREE OIL 37 SPEC. GRAV.

Recovered 155 ft. of HEAVY OIL CUT MUD 40% OIL

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: 385 total

Time On Location 5:45 A.M. Time Pick Up Tool 8:00 A.M. Time Off Location 3:00 P.M.

Time Set Packer(s) 9:30 A.M. Time Started Off Bottom 12:30 P.M. Maximum Temperature 114 °F

Initial Hydrostatic Pressure			(A) 1415	P.S.I.		
Initial Flow Period	Minutes 30	(B) 40	P.S.I. to	(C) 80	P.S.I.	
Initial Closed In Period	Minutes 30	(D) 670	P.S.I.			
Final Flow Period	Minutes 60	(E) 110	P.S.I. to	(F) 165	P.S.I.	
Final Closed In Period	Minutes 60	(G) 690	P.S.I.			
Final Hydrostatic Pressure		(H) 1395	P.S.I.			

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Chuck McKuhl
Signature of Customer or his authorized representative

Western Representative Allen Edgington

FIELD INVOICE

Open Hole Test	$ 600.00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Fluid Sampler	$
8 Extra Charts @ 5.00	$ 40.00
Insurance	$
TOTAL	$ 640.00

WESTERN TESTING CO., INC.

Pressure Data

Date 1-14-83 Test Ticket No. 12837

Recorder No. 5666 Capacity 3950 Location 2802 Ft.

Clock No. — — — — Elevation 1532 GL Well Temperature 114 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1420	P.S.I.
B	First Initial Flow Pressure	39	P.S.I.
C	First Final Flow Pressure	86	P.S.I.
D	Initial Closed-in Pressure	673	P.S.I.
E	Second Initial Flow Pressure	115	P.S.I.
F	Second Final Flow Pressure	173	P.S.I.
G	Final Closed-in Pressure	688	P.S.I.
H	Final Hydrostatic Mud	1395	P.S.I.

	Time Given	Time Computed
Open Tool	9:30A M	
First Flow Pressure	30 Mins.	25 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

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

Point	Mins.	Press.
P 1	0	39
P 2	5	49
P 3	10	65
P 4	15	71
P 5	20	82
P 6	25	86
P 7	30	
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
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	86
	3	255
	6	397
	9	514
	12	573
	15	608
	18	625
	21	641
	24	656
	27	667
	30	673
	33	
	36	
	39	
	42	
	45	
	48	
	51	
	54	
	57	
	60	

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

Point	Minutes	Press.
	0	115
	5	115
	10	118
	15	122
	20	128
	25	135
	30	141
	35	145
	40	152
	45	159
	50	165
	55	171
	60	173
	65	
	70	
	75	
	80	
	85	
	90	

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

Point	Minutes	Press.
	0	173
	3	257
	6	497
	9	554
	12	582
	15	598
	18	613
	21	624
	24	634
	27	640
	30	649
	33	655
	36	662
	39	667
	42	672
	45	675
	48	679
	51	681
	54	684
	57	687
	60	688

Company Glacier Petroleum Company, Inc. Lease & Well No. #1 Kanady

Elevation 1532 Ground Level Formation Mississippi Effective Pay --- Ft. Ticket No. 13838

Date 1/ 15/83 Sec. 1 Twp. 28S Range 7E County Butler State Kansas

Test Approved by Chuck M. Kuhl Western Representative Allen Edgington

Formation Test No. 2 Interval Tested from 2811 ft. to 2830 ft. Total Depth 2830 ft.

Packer Depth 2811 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2822 ft. Recorder Number 5666 Cap. 3950

Bottom Recorder Depth (Outside) 2825 ft. Recorder Number 11019 Cap. 4500

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Glacier Drilling Rig #1 Drill Collar Length 153 I. D. 2¼ in.

Mud Type chemical Viscosity 40 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 11.4 cc. Drill Pipe Length 2663 I. D. 2.7 in.

Chlorides 1,400 P.P.M. Test Tool Length 15 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 19 ft. Size 5½OD

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/78in. Tool Joint Size 3½IF in.

Blow: Strong throughout test.

Recovered 2100 ft. of gas in pipe

Recovered 240 ft. of free oil 38° spec. gravity

Recovered 155 ft. of heavy oil cut mud 40%

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 12:00 A.M. P.M. Time Started Off Bottom 3:00 A.M. P.M. Maximum Temperature 115°

Initial Hydrostatic Pressure			(A) 1448	P.S.I.		
Initial Flow Period	Minutes 30	(B) 58	P.S.I. to	(C) 94	P.S.I.	
Initial Closed In Period	Minutes 30	(D) 701	P.S.I.			
Final Flow Period	Minutes 60	(E) 116	P.S.I. to	(F) 163	P.S.I.	
Final Closed In Period	Minutes 60	(G) 711	P.S.I.			
Final Hydrostatic Pressure			(H) 1418	P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 1/15/83 Test Ticket No. 13838

Recorder No. 5666 Capacity 3950 Location 2822 Ft.

Clock No. -- Elevation 1532 Ground Level Well Temperature 115 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1448 P.S.I.	Open Tool	12:00A M	
B First Initial Flow Pressure	58 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	94 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	701 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	116 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	163 P.S.I.			
G Final Closed-in Pressure	711 P.S.I.			
H Final Hydrostatic Mud	1418 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	58
P 2 5	62
P 3 10	68
P 4 15	76
P 5 20	83
P 6 25	90
P 7 30	94
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	94
3	391
6	595
9	635
12	653
15	667
18	679
21	687
24	694
27	700
30	701

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

Point Minutes	Press.
0	116
5	116
10	118
15	120
20	126
25	129
30	134
35	142
40	148
45	152
50	156
55	161
60	163

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

Point Minutes	Press.
0	163
3	452
6	579
9	615
12	631
15	645
18	656
21	665
24	671
27	679
30	683
33	688
36	693
39	695
42	699
45	701
48	704
51	707
54	709
57	710
60	711

DST #2

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TKT 13838

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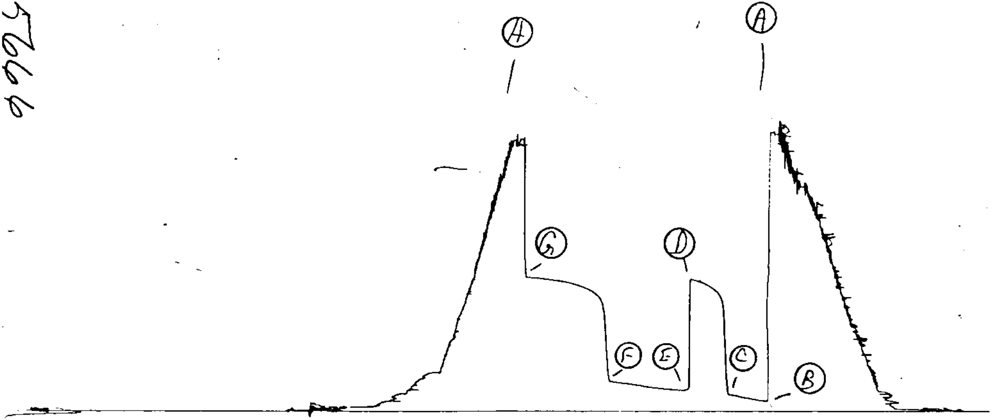

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET Nº 13838

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 1532 GL Formation MISS Eff. Pay Ft.

District Augusta Date 1-15-83 Customer Order No.

COMPANY NAME GLACIER PETROLEUM CO, Inc.

ADDRESS PO BOX 577 EMPORIA, KS 66801

LEASE AND WELL NO. KANADY #1 COUNTY Butler STATE KS Sec. 1 Twp 28S Rge 7E

Mail Invoice To SAME #1 KANADY No. Copies Requested 1

Mail Charts To SAME (EIGHT Copys to CHUCK Kuhl 608 ONE MAIN PLACE) No. Copies Requested 5 B

Co. Name Address

Address

Formation Test No. 2 Interval Tested from 2811 ft. to 2830 ft. Total Depth 2830 ft.

Packer Depth 2811 ft. Size 6 3/4 in. Packer Depth — ft. Size in.

Packer Depth — ft. Size in. Packer Depth — ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2822 ft. Recorder Number 5666 Cap. 3950

Bottom Recorder Depth (Outside) 2825 ft. Recorder Number 11019 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor GLACIER #1 Drill Collar Length 153 I. D. 2 1/4 in.

Mud Type CHEM Viscosity 40 Weight Pipe Length I. D. in.

Weight 9.7 Water Loss 11.4 cc. Drill Pipe Length 2663 I. D. 2.7 in.

Chlorides 1400 P.P.M. Test Tool Length 15 ft. Tool Size 5 1/2 in.

Jars: Make — Serial Number Anchor Length 19 ft. Size 5 1/2 in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 3 1/2 IF in.

Blow: STRONG thru out

Recovered 2100 ft. of GAS IN PIPE

Recovered 240 ft. of FREE OIL 37° SP. GRV.

Recovered 155 ft. of HEAVY OIL CUT MUD 40 20

Recovered ft. of

Recovered ft. of

Remarks:

6 Sample Jars

Time On Location 9:30 A.M. P.M. Time Pick Up Tool 10:00 A.M. P.M. Time Off Location 6:15 A.M. P.M.

Time Set Packer(s) 12:00 A.M. P.M. Time Started Off Bottom 3:00 A.M. P.M. Maximum Temperature 115 °F

Initial Hydrostatic Pressure		(A)	1435	P.S.I.		
Initial Flow Period	Minutes 30	(B)	50	P.S.I. to (C)	80	P.S.I.
Initial Closed In Period	Minutes 30	(D)	700	P.S.I.		
Final Flow Period	Minutes 60	(E)	110	P.S.I. to (F)	155	P.S.I.
Final Closed In Period	Minutes 60	(G)	700	P.S.I.		
Final Hydrostatic Pressure		(H)	1415	P.S.I.		

#5666

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Charles M. Kuhl
Signature of Customer or his authorized representative

Western Representative Allen Edgington

FIELD INVOICE

Open Hole Test	$ 600.00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Fluid Sampler	$
8 Extra Charts @ 5.00	$ 40.00
Insurance	$
TOTAL	$ 640.00

WESTERN TESTING CO., INC.
Pressure Data

Date 1-15-83 Test Ticket No. 12838

Recorder No. 51666 Capacity 3950 Location 2822 Ft.

Clock No. — — — — Elevation 1532 GL Well Temperature 115 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1448	P.S.I.
B	First Initial Flow Pressure	58	P.S.I.
C	First Final Flow Pressure	94	P.S.I.
D	Initial Closed-in Pressure	701	P.S.I.
E	Second Initial Flow Pressure	116	P.S.I.
F	Second Final Flow Pressure	163	P.S.I.
G	Final Closed-in Pressure	711	P.S.I.
H	Final Hydrostatic Mud	1418	P.S.I.

	Time Given		Time Computed	
Open Tool	10:00 A	M		
First Flow Pressure	30	Mins.	30	Mins.
Initial Closed-in Pressure	30	Mins.	30	Mins.
Second Flow Pressure	60	Mins.	60	Mins.
Final Closed-in Pressure	60	Mins.	60	Mins.

PRESSURE BREAKDOWN

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

Point	Mins.	Press.
P 1	0	58
P 2	5	62
P 3	10	68
P 4	15	76
P 5	20	83
P 6	25	90
P 7	30	94
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
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	94
	3	391
	6	595
	9	635
	12	653
	15	667
	18	679
	21	687
	24	694
	27	700
	30	701
	33	
	36	
	39	
	42	
	45	
	48	
	51	
	54	
	57	
	60	

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

Point	Minutes	Press.
	0	116
	5	116
	10	118
	15	120
	20	126
	25	129
	30	134
	35	142
	40	148
	45	152
	50	156
	55	161
	60	163
	65	
	70	
	75	
	80	
	85	
	90	

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

Point	Minutes	Press.
	0	163
	3	452
	6	579
	9	615
	12	631
	15	645
	18	656
	21	665
	24	671
	27	679
	30	683
	33	688
	36	693
	39	695
	42	699
	45	201
	48	704
	51	707
	54	709
	57	710
	60	711