

Company Imperial Oil Company Lease & Well No. Winklepleck #2-12
Elevation 2086 Kelly Bushing Formation Cherokee Sand Effective Pay - Ft. Ticket No. 13783
Date 12/7/81 Sec. 12 Twp. 27S Range 16W County Kiowa State Kansas
Test Approved by Douglas V Davis, Jr. Western Representative Mike Rogers
Formation Test No. 2 Interval Tested from 4458 ft. to 4500 ft. Total Depth 4500 ft.
Packer Depth 4453 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Packer Depth 4458 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4461 ft. Recorder Number 1566 Cap. 4300
Bottom Recorder Depth (Outside) 4465 ft. Recorder Number 3086 Cap. 4500
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Red Tiger Rig #1 Drill Collar Length - I. D. - in.
Mud Type Chemical Viscosity 47 Weight Pipe Length 1082 I. D. 3.2 in.
Weight 9.2 Water Loss 16.4 cc. Drill Pipe Length 3346 I. D. 3.8 in.
Chlorides 22,000 P.P.M. Test Tool Length 30 ft. Tool Size 5 1/2 in.
Jars: Make WTC Serial Number 3660 Anchor Length 42 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 4 1/2 in.

Blow: Fair building to strong throughout test.

Recovered 30 ft. of oil specked drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Slid 10 to 15 ft. to bottom.

Time Set Packer(s) 5:00 A.M. Time Started Off Bottom 9:00 A.M. Maximum Temperature 124
Initial Hydrostatic Pressure 2192 P.S.I.
Initial Flow Period 60 Minutes (B) 80 P.S.I. to (C) 80 P.S.I.
Initial Closed In Period 60 Minutes (D) 113 P.S.I.
Final Flow Period 60 Minutes (E) 83 P.S.I. to (F) 83 P.S.I.
Final Closed In Period 63 Minutes (G) 450 P.S.I.
Final Hydrostatic Pressure 2192 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

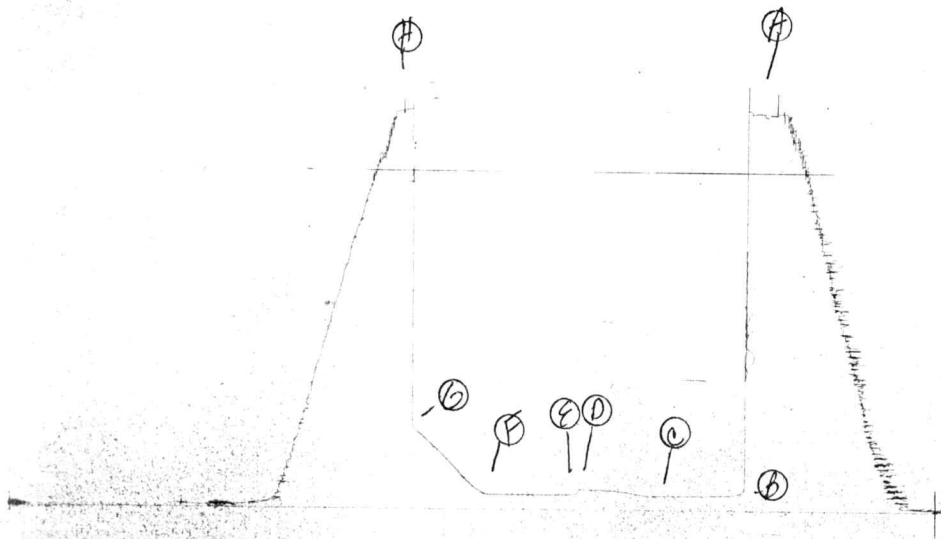
Date 12/7/81 Recorder No. 1566 Capacity 4300 Test Ticket No. 13783
 Clock No. - Elevation 2086 Kelly Bushing Location 4461 Ft. 124
 Well Temperature 124 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	2192 P.S.I.	5:00P	M
B First Initial Flow Pressure	80 P.S.I.	60 Mins.	60 Mins.
C First Final Flow Pressure	80 P.S.I.	60 Mins.	60 Mins.
D Initial Closed-in Pressure	113 P.S.I.	60 Mins.	60 Mins.
E Second Initial Flow Pressure	83 P.S.I.	60 Mins.	60 Mins.
F Second Final Flow Pressure	83 P.S.I.	60 Mins.	63 Mins.
G Final Closed-in Pressure	450 P.S.I.		
H Final Hydrostatic Mud	2192 P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>21</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	80	0	80	0	83	0	83
P 2 5	80	3	80	5	83	3	83
P 3 10	80	6	80	10	83	6	83
P 4 15	80	9	80	15	83	9	89
P 5 20	80	12	80	20	83	12	101
P 6 25	80	15	82	25	83	15	113
P 7 30	80	18	85	30	83	18	133
P 8 35	80	21	91	35	83	21	152
P 9 40	80	24	95	40	83	24	176
P10 45	80	27	98	45	83	27	198
P11 50	80	30	102	50	83	30	224
P12 55	80	33	104	55	83	33	248
P13 60	80	36	106	60	83	36	270
P14		39	108			39	292
P15		42	109			42	313
P16		45	110			45	336
P17		48	111			48	355
P18		51	112			51	377
P19		54	113			54	396
P20		57	113			57	418
		60	113			60	436
						63	450

PK # 13783
I



Company Imperial Oil Company Lease & Well No. Winklepleck #2-12
Elevation 2086 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 13784
Date 12/8/81 Sec. 12 Twp. 27S Range 16W County Kiowa State Kansas
Test Approved by Douglas V. Davis, Jr. Western Representative Mike Rogers

Formation Test No. 3 Interval Tested from 4456 ft. to 4525 ft. Total Depth 4525 ft.

Packer Depth 4451 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4456 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4460 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 4463 ft. Recorder Number 3086 Cap. 4500

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

Drilling Contractor Red Tiger Drlg. Rig #1 Drill Collar Length - I. D. - in.

Mud Type chemical Viscosity 47 Weight Pipe Length 1082 I. D. 3.2 in.

Weight 9.2 Water Loss 16.4 cc. Drill Pipe Length 3319 I. D. 3.8 in.

Chlorides 22,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 3660 Anchor Length 69 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 4 1/2 in.

Blow: Strong blow; gas to surface during initial shut-in period. See attached sheet for gas measurements.

Recovered 90 ft. of oil specked and slightly gas cut drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Tool slid five to eight feet to bottom

Time Set Packer(s) 11:30 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 5:30 ~~P.M.~~ ^{A.M.} Maximum Temperature 125°

Initial Hydrostatic Pressure 2194 (A) P.S.I.

Initial Flow Period 60 Minutes (B) 75 P.S.I. to (C) 43 P.S.I.

Initial Closed In Period 120 Minutes (D) 989 P.S.I.

Final Flow Period 60 Minutes (E) 67 P.S.I. to (F) 51 P.S.I.

Final Closed In Period 117 Minutes (G) 1148 P.S.I.

Final Hydrostatic Pressure 2194 (H) P.S.I.

GAS FLOW REPORT

Date 12/8/81 Ticket 13784 Company Imperial Oil Company
 Well Name and No. Winklepleck #2-12 Dst No. 3 Interval Tested 4456'-4525'
 County Kiowa State Kansas Sec. 12 Twp. 27S Rg. 16W

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						
						Gas to surface during initial Shut-in period.

SECOND FLOW						
	1 min.	8.0 PSIG	1/2" orifice			101,000 CFPD
	10 min.	6.0 PSIG	1/2" orifice			86,000 CFPD
	20 min.	1.0 PSIG	1/2" orifice			33,900 CFPD
	30 min.	12" of water	1/4" orifice			5,860 CFPD
	40 min.	13" of water	1/4" orifice			6,100 CFPD
	50 min.	13" of water	1/4" orifice			6,100 CFPD
	60 min.	13" of water	1/4" orifice			6,100 CFPD

GAS BOTTLE

Serial No. --- Date Bottle Filled ----- Date to be Invoiced 12/8/81

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 Imperial Oil Company
 Authorized by Douglas V. Davis, Jr.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/8/81

Recorder No. 1566

Capacity 4300

Test Ticket No. 13784

Clock No. - Elevation

2086 Kelly Bushing

Location 4460 Ft.

Well Temperature 125 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2194</u> P.S.I.	Open Tool	<u>11:30A</u> M	
B First Initial Flow Pressure	<u>75</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
C First Final Flow Pressure	<u>43</u> P.S.I.	Initial Closed-in Pressure	<u>120</u> Mins.	<u>120</u> Mins.
D Initial Closed-in Pressure	<u>989</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>67</u> P.S.I.	Final Closed-in Pressure	<u>120</u> Mins.	<u>117</u> Mins.
F Second Final Flow Pressure	<u>51</u> P.S.I.			
G Final Closed-in Pressure	<u>1148</u> P.S.I.			
H Final Hydrostatic Mud	<u>2194</u> P.S.I.			

PRESSURE BREAKDOWN

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

Initial Shut-In
Breakdown: 40 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: 39 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 <u>0</u>	<u>75</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>67</u>	<u>0</u>	<u>51</u>
P 2 <u>5</u>	<u>75</u>	<u>3</u>	<u>114</u>	<u>5</u>	<u>67</u>	<u>3</u>	<u>97</u>
P 3 <u>10</u>	<u>54</u>	<u>6</u>	<u>207</u>	<u>10</u>	<u>58</u>	<u>6</u>	<u>171</u>
P 4 <u>15</u>	<u>47</u>	<u>9</u>	<u>283</u>	<u>15</u>	<u>57</u>	<u>9</u>	<u>231</u>
P 5 <u>20</u>	<u>44</u>	<u>12</u>	<u>350</u>	<u>20</u>	<u>54</u>	<u>12</u>	<u>292</u>
P 6 <u>25</u>	<u>43</u>	<u>15</u>	<u>411</u>	<u>25</u>	<u>53</u>	<u>15</u>	<u>355</u>
P 7 <u>30</u>	<u>43</u>	<u>18</u>	<u>459</u>	<u>30</u>	<u>51</u>	<u>18</u>	<u>407</u>
P 8 <u>35</u>	<u>43</u>	<u>21</u>	<u>506</u>	<u>35</u>	<u>51</u>	<u>21</u>	<u>459</u>
P 9 <u>40</u>	<u>43</u>	<u>24</u>	<u>556</u>	<u>40</u>	<u>51</u>	<u>24</u>	<u>511</u>
P10 <u>45</u>	<u>43</u>	<u>27</u>	<u>590</u>	<u>45</u>	<u>51</u>	<u>27</u>	<u>558</u>
P11 <u>50</u>	<u>43</u>	<u>30</u>	<u>624</u>	<u>50</u>	<u>51</u>	<u>30</u>	<u>596</u>
P12 <u>55</u>	<u>43</u>	<u>33</u>	<u>658</u>	<u>55</u>	<u>51</u>	<u>33</u>	<u>639</u>
P13 <u>60</u>	<u>43</u>	<u>36</u>	<u>684</u>	<u>60</u>	<u>51</u>	<u>36</u>	<u>678</u>
P14		<u>39</u>	<u>712</u>			<u>39</u>	<u>710</u>
P15		<u>42</u>	<u>736</u>			<u>42</u>	<u>742</u>
P16		<u>45</u>	<u>757</u>			<u>45</u>	<u>772</u>
P17		<u>48</u>	<u>779</u>			<u>48</u>	<u>801</u>
P18		<u>51</u>	<u>798</u>			<u>51</u>	<u>828</u>
P19		<u>54</u>	<u>817</u>			<u>54</u>	<u>854</u>
P20		<u>57</u>	<u>832</u>			<u>57</u>	<u>880</u>
		<u>60</u>	<u>847</u>			<u>60</u>	<u>905</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 12/8/81 Recorder No. 1566 Capacity 4300 Test Ticket No. 13784

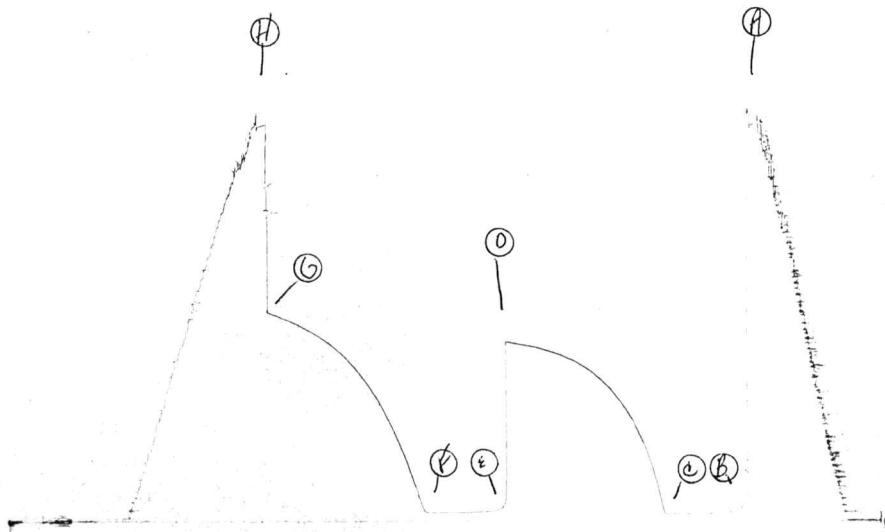
Clock No. - Elevation 2086 Kelly Bushing Location 4460 Ft. Well Temperature 125 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	2194 P.S.I.	11:30A	
B First Initial Flow Pressure	75 P.S.I.	60 Mins.	60 Mins.
C First Final Flow Pressure	43 P.S.I.	120 Mins.	120 Mins.
D Initial Closed-in Pressure	989 P.S.I.	60 Mins.	60 Mins.
E Second Initial Flow Pressure	67 P.S.I.	120 Mins.	117 Mins.
F Second Final Flow Pressure	51 P.S.I.		
G Final Closed-in Pressure	1148 P.S.I.		
H Final Hydrostatic Mud	2194 P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>12</u> Inc.		Breakdown: <u>40</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>39</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1		63	860			63	923
P 2		66	875			66	942
P 3		69	887			69	959
P 4		72	897			72	978
P 5		75	907			75	993
P 6		78	917			78	1010
P 7		81	925			81	1026
P 8		84	933			84	1036
P 9		87	939			87	1049
P10		90	945			90	1062
P11		93	952			93	1076
P12		96	959			96	1086
P13		99	966			99	1096
P14		102	968			102	1106
P15		105	972			105	1116
P16		108	976			108	1121
P17		111	980			111	1133
P18		114	984			114	1141
P19		117	988			117	1148
P20		120	989				

PK #13784
I



Company Imperial Oil Company Lease & Well No. Winklepleck #2-12
Elevation 2086 Kelly Bushing Formation Kinderhook Effective Pay - Ft. Ticket No. 13785
Date 12/9/81 Sec. 12 Twp. 27S Range 16W County Kiowa State Kansas
Test Approved by Douglas V. Davis, Jr. Western Representative Mike Rogers

Formation Test No. 4 Interval Tested from 4528 ft. to 4571 ft. Total Depth 4571 ft.

Packer Depth 4523 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4528 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4531 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 4535 ft. Recorder Number 3086 Cap. 4500

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

Drilling Contractor Red Tiger Drlg. Rig #1 Drill Collar Length - I. D. - in.

Mud Type chemical Viscosity 51 Weight Pipe Length 1082 I. D. 3.2 in.

Weight 9.3 Water Loss 8.8 cc. Drill Pipe Length 3416 I. D. 3.8 in.

Chlorides 19,000 P.P.M. Test Tool Length 30 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 3660 Anchor Length 43 ft. Size 5 1/2 in.

Did Well Flow? Yes Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Strong. Gas to surface thirty minutes into initial flow period. See attached sheet for gas measurements. Oil to surface thirty-five minutes into final flow period.

Recovered 2600 ft. of gassy oil

Recovered - ft. of -

Recovered - ft. of (Bottom 120' heavy gas and oil cut drilling mud 30% oil; 45% mud; 25% water

Recovered - ft. of Chlorides 22,000 ppm)

Recovered - ft. of -

Remarks: Motor down - started out of hole @ 5:15 PM oil 34 gravity with 61° Temp.

Time Set Packer(s) 10:00 A.M. Time Started Off Bottom 3:45 A.M. Maximum Temperature 132°

Initial Hydrostatic Pressure 2234 P.S.I.

Initial Flow Period 65 Minutes (B) 324 P.S.I. to (C) 705 P.S.I.

Initial Closed In Period 123 Minutes (D) 1526 P.S.I.

Final Flow Period 45 Minutes (E) 837 P.S.I. to (F) 987 P.S.I.

Final Closed In Period 129 Minutes (G) 1521 P.S.I.

Final Hydrostatic Pressure 2199 P.S.I.

GAS FLOW REPORT

Date 12/9/81 Ticket 13785 Company Imperial Oil Company
 Well Name and No. Winklepleck #2-12 Dst No. 4 Interval Tested 4528'-4571'
 County Kiowa State Kansas Sec. 12 Twp. 27S Rg. 16W

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						
	30 min.	25.0 PSIG		3/4" orifice		461,000 CFPD
	35 min.	3.0 PSIG		1/4" orifice		15,700 CFPD
	40 min.	2.5 PSIG		1/4" orifice		14,300 CFPD
	50 min.	3.0 PSIG		1/4" orifice		15,700 CFPD
	60 min.	2.0 PSIG		1/4" orifice		12,700 CFPD

SECOND FLOW						
	10 min.	50" of water		1/4" orifice		11,900 CFPD
	20 min.	15" of water		1/2" orifice		24,500 CFPD
	30 min.	05" of water		1/2" orifice		14,100 CFPD
	35 min.	50" of water		1/2" orifice		44,300 CFPD
		34 gravity with 61°	Temperature			
						Oil to surface 35 minutes into
						Final Flow period.

GAS BOTTLE

Serial No. --- Date Bottle Filled ----- Date to be Invoiced 12/9/81

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 Imperial Oil Company

Authorized by Douglas V. Davis, Jr.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/9/81 Recorder No. 1566 Capacity 4300 Test Ticket No. 13785
 Clock No. - Elevation 2086 Kelly Bushing Location 4531 Ft.
 Well Temperature 132 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2234</u>	P.S.I.	<u>10:00A</u>	<u>M</u>
B First Initial Flow Pressure	<u>324</u>	P.S.I.	<u>60</u> Mins.	<u>65</u> Mins.
C First Final Flow Pressure	<u>705</u>	P.S.I.	<u>120</u> Mins.	<u>123</u> Mins.
D Initial Closed-in Pressure	<u>1526</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>837</u>	P.S.I.	<u>120</u> Mins.	<u>129</u> Mins.
F Second Final Flow Pressure	<u>987</u>	P.S.I.		
G Final Closed-in Pressure	<u>1521</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2199</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>13</u> Inc.		Breakdown: <u>41</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>43</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>324</u>	<u>0</u>	<u>705</u>	<u>0</u>	<u>837</u>	<u>0</u>	<u>987</u>
P 2 <u>5</u>	<u>324</u>	<u>3</u>	<u>1332</u>	<u>5</u>	<u>837</u>	<u>3</u>	<u>1403</u>
P 3 <u>10</u>	<u>326</u>	<u>6</u>	<u>1432</u>	<u>10</u>	<u>842</u>	<u>6</u>	<u>1440</u>
P 4 <u>15</u>	<u>343</u>	<u>9</u>	<u>1453</u>	<u>15</u>	<u>860</u>	<u>9</u>	<u>1459</u>
P 5 <u>20</u>	<u>378</u>	<u>12</u>	<u>1463</u>	<u>20</u>	<u>882</u>	<u>12</u>	<u>1475</u>
P 6 <u>25</u>	<u>423</u>	<u>15</u>	<u>1473</u>	<u>25</u>	<u>910</u>	<u>15</u>	<u>1483</u>
P 7 <u>30</u>	<u>469</u>	<u>18</u>	<u>1481</u>	<u>30</u>	<u>938</u>	<u>18</u>	<u>1490</u>
P 8 <u>35</u>	<u>496</u>	<u>21</u>	<u>1488</u>	<u>35</u>	<u>966</u>	<u>21</u>	<u>1496</u>
P 9 <u>40</u>	<u>514</u>	<u>24</u>	<u>1494</u>	<u>40</u>	<u>985</u>	<u>24</u>	<u>1499</u>
P10 <u>45</u>	<u>558</u>	<u>27</u>	<u>1498</u>	<u>45</u>	<u>987</u>	<u>27</u>	<u>1501</u>
P11 <u>50</u>	<u>602</u>	<u>30</u>	<u>1500</u>			<u>30</u>	<u>1503</u>
P12 <u>55</u>	<u>642</u>	<u>33</u>	<u>1502</u>			<u>33</u>	<u>1505</u>
P13 <u>60</u>	<u>684</u>	<u>36</u>	<u>1504</u>			<u>36</u>	<u>1507</u>
P14 <u>65</u>	<u>705</u>	<u>39</u>	<u>1506</u>			<u>39</u>	<u>1509</u>
P15		<u>42</u>	<u>1508</u>			<u>42</u>	<u>1510</u>
P16		<u>45</u>	<u>1510</u>			<u>45</u>	<u>1511</u>
P17		<u>48</u>	<u>1511</u>			<u>48</u>	<u>1512</u>
P18		<u>51</u>	<u>1512</u>			<u>51</u>	<u>1513</u>
P19		<u>54</u>	<u>1513</u>			<u>54</u>	<u>1514</u>
P20		<u>57</u>	<u>1514</u>			<u>57</u>	<u>1515</u>
		<u>60</u>	<u>1515</u>			<u>60</u>	<u>1515</u>

WTC - 4

continued

continued next page

WESTERN TESTING CO., INC.

Pressure Data

Date 12/9/81 Recorder No. 1566 Capacity 4300 Test Ticket No. 13785
 Clock No. - Elevation 2086 Kelly Bushing Location 4531 Ft. -
 Well Temperature 132 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	2234 P.S.I.	10:00A	M
B First Initial Flow Pressure	324 P.S.I.	60 Mins.	65 Mins.
C First Final Flow Pressure	705 P.S.I.	120 Mins.	123 Mins.
D Initial Closed-in Pressure	1526 P.S.I.	45 Mins.	45 Mins.
E Second Initial Flow Pressure	837 P.S.I.	120 Mins.	129 Mins.
F Second Final Flow Pressure	987 P.S.I.		
G Final Closed-in Pressure	1521 P.S.I.		
H Final Hydrostatic Mud	2199 P.S.I.		

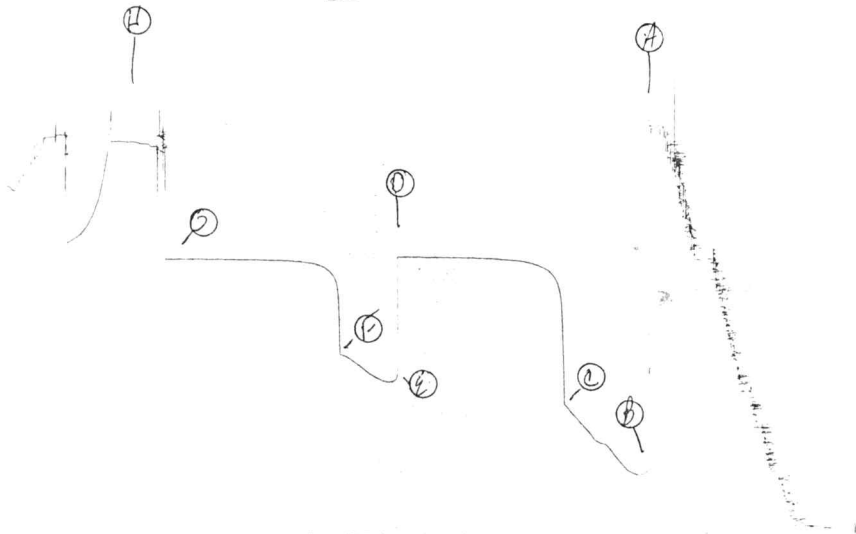
PRESSURE BREAKDOWN

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1		63	1516			63	1515
P 2		66	1517			66	1516
P 3		69	1518			69	1516
P 4		72	1519			72	1516
P 5		75	1519			75	1516
P 6		78	1520			78	1517
P 7		81	1521			81	1517
P 8		84	1522			84	1517
P 9		87	1523			87	1517
P10		90	1523			90	1517
P11		93	1523			93	1518
P12		96	1524			96	1519
P13		99	1524			99	1520
P14		102	1524			102	1521
P15		105	1525			105	1521
P16		108	1525			108	1521
P17		111	1525			111	1521
P18		114	1526			114	1521
P19		117	1526			117	1521
P20		120	1526			120	1521
		123	1526			123	1521
						126	1521
						129	1521

1.566

FB # 13985

I



Company Imperial Oil Company Lease & Well No. Winklepleck #2-12
Elevation 2086 Kelly Bushing Formation Marmaton Effective Pay - Ft. Ticket No. 13782
Date 12/6/81 Sec. 12 Twp. 27S Range 16W County Kiowa State Kansas
Test Approved by Douglas V Davis, Jr. Western Representative Mike Rogers
Formation Test No. 1 Interval Tested from 4380 ft. to 4430 ft. Total Depth 4430 ft.
Packer Depth 4375 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Packer Depth 4380 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4420 ft. Recorder Number 1566 Cap. 4300
Bottom Recorder Depth (Outside) 4424 ft. Recorder Number 3086 Cap. 4500
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Red Tiger Rig #1 Drill Collar Length - I. D. - in.
Mud Type Chemical Viscosity 48 Weight Pipe Length 1082 I. D. 3.2 in.
Weight 9.3 Water Loss 13.6 cc. Drill Pipe Length 3268 I. D. 3.8 in.
Chlorides 20,000 P.P.M. Test Tool Length 30 ft. Tool Size 5 1/2 in.
Jars: Make WTC Serial Number 3660 Anchor Length 50 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 4 1/2 in.

Blow: Very weak (1/2 inch) depleting blow initial flow period. Very weak (1/4 inch) final flow period.

Recovered 15 ft. of oil specked drilling mud
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks:

Time Set Packer(s) 8:00 A.M. Time Started Off Bottom 11:00 A.M. Maximum Temperature 124
Initial Hydrostatic Pressure 2146 P.S.I.
Initial Flow Period 30 Minutes (B) 42 P.S.I. to (C) 42 P.S.I.
Initial Closed In Period 60 Minutes (D) 59 P.S.I.
Final Flow Period 30 Minutes (E) 45 P.S.I. to (F) 45 P.S.I.
Final Closed In Period 66 Minutes (G) 72 P.S.I.
Final Hydrostatic Pressure 2137 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/6/81

Test Ticket No. 13782

Recorder No. 1566 Capacity 4300 Location 4420 Ft.

Clock No. - Elevation 2086 Kelly Bushing Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2146</u> P.S.I.	Open Tool	<u>8:00P</u> M	
B First Initial Flow Pressure	<u>42</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>42</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>59</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>45</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>66</u> Mins.
F Second Final Flow Pressure	<u>45</u> P.S.I.			
G Final Closed-in Pressure	<u>72</u> P.S.I.			
H Final Hydrostatic Mud	<u>2137</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>22</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>42</u>	<u>0</u>	<u>42</u>	<u>0</u>	<u>45</u>	<u>0</u>	<u>45</u>
P 2 <u>5</u>	<u>42</u>	<u>3</u>	<u>42</u>	<u>5</u>	<u>45</u>	<u>3</u>	<u>45</u>
P 3 <u>10</u>	<u>42</u>	<u>6</u>	<u>42</u>	<u>10</u>	<u>45</u>	<u>6</u>	<u>45</u>
P 4 <u>15</u>	<u>42</u>	<u>9</u>	<u>43</u>	<u>15</u>	<u>45</u>	<u>9</u>	<u>45</u>
P 5 <u>20</u>	<u>42</u>	<u>11</u>	<u>43</u>	<u>20</u>	<u>45</u>	<u>12</u>	<u>46</u>
P 6 <u>25</u>	<u>42</u>	<u>15</u>	<u>44</u>	<u>25</u>	<u>45</u>	<u>15</u>	<u>47</u>
P 7 <u>30</u>	<u>42</u>	<u>18</u>	<u>45</u>	<u>30</u>	<u>45</u>	<u>18</u>	<u>49</u>
P 8 <u>3</u>		<u>21</u>	<u>46</u>			<u>21</u>	<u>51</u>
P 9		<u>24</u>	<u>47</u>			<u>24</u>	<u>53</u>
P10		<u>27</u>	<u>48</u>			<u>27</u>	<u>55</u>
P11		<u>30</u>	<u>49</u>			<u>30</u>	<u>57</u>
P12		<u>33</u>	<u>50</u>			<u>33</u>	<u>59</u>
P13		<u>36</u>	<u>51</u>			<u>36</u>	<u>61</u>
P14		<u>39</u>	<u>52</u>			<u>39</u>	<u>63</u>
P15		<u>42</u>	<u>53</u>			<u>42</u>	<u>66</u>
P16		<u>45</u>	<u>54</u>			<u>45</u>	<u>69</u>
P17		<u>48</u>	<u>55</u>			<u>48</u>	<u>70</u>
P18		<u>51</u>	<u>56</u>			<u>51</u>	<u>71</u>
P19		<u>54</u>	<u>57</u>			<u>54</u>	<u>72</u>
P20		<u>57</u>	<u>58</u>			<u>57</u>	<u>72</u>
		<u>60</u>	<u>59</u>			<u>60</u>	<u>72</u>
						<u>63</u>	<u>72</u>
						<u>66</u>	<u>72</u>

1566

TRF # 13782
I

