



P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Company Mid Continent Energy Corporation Lease & Well No. Circle #1
Elevation 1601 Kelly Bushing Formation Marmington Effective Pay ----- Ft. Ticket No. 766
Date 4/27/78 Sec. k7 Twp 33s Range 10w County Barber State Kansas
Test Approved by Gary Halstin Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 4570' ft. to 4603' ft. Total Depth 4603' ft.
Packer Depth 4565 ft. Size 6 3/4 in. Packer Depth 4570' ft. Size 6 3/4 in.
Packer Depth --- ft. Size --- in. Packer Depth --- ft. Size -- in.
Depth of Selective Zone Set --

Top Recorder Depth (Inside) 4606 ft. Recorder Number 2604 Cap. 4150
Bottom Recorder Depth (Outside) 4609 ft. Recorder Number 2606 Cap. 4150
Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. --

Drilling Contractor Search Drilling Company Drill Collar Length 183 I. D. 2 1/4 in.
Mud Type drispac Viscosity 41 Weight Pipe Length -- I. D. -- in.
Weight 9.1 Water Loss 10.4 cc. Drill Pipe Length 4359 I. D. 3.8 in.
Chlorides 9,500 P.P.M. Test Tool Size 5 1/2 OD in. Tool Joint Size 4 1/2 FH in.
Jars: Make WTC Serial Number 408 Anchor Length 30 ft. Size 5 1/2 OD 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.

Blow: Weak blow on initial flow period. Strong blow on final flow period. No gas to surface.

Recovered 30 ft. of drilling mud

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Remarks: Vented final flow through 2" flow line depleted blow built back to strong blow 30 minutes.

Time Set Packer(s) 1:00 ~~P.M.~~ A.M. Time Started Off Bottom 4:45 ~~P.M.~~ A.M. Maximum Temperature 118

Initial Hydrostatic Pressure (A) 2243 P.S.I.

Initial Flow Period Minutes 30 (B) 89 P.S.I. to (C) 36 P.S.I.

Initial Closed In Period Minutes 60 (D) 389 P.S.I.

Final Flow Period Minutes 45 (E) 79 P.S.I. to (F) 34 P.S.I.

Final Closed In Period Minutes 90 (G) 655 P.S.I.

Final Hydrostatic Pressure (H) 2243 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/27/78

Test Ticket No. 766

Recorder No. 2604 Capacity 4150 Location 4606 Ft.

Clock No. ----- Elevation 1601 Kelly Bushing Well Temperature 118 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2243 P.S.I.	Open Tool	1:00A M	
B First Initial Flow Pressure	89 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	36 P.S.I.	Initial Closed-in Pressure	60 Mins.	57 Mins.
D Initial Closed-in Pressure	389 P.S.I.	Second Flow Pressure	45 Mins.	45 Mins.
E Second Initial Flow Pressure	79 P.S.I.	Final Closed-in Pressure	90 Mins.	96 Mins.
F Second Final Flow Pressure	34 P.S.I.			
G Final Closed-in Pressure	655 P.S.I.			
H Final Hydrostatic Mud	2243 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 6 Inc.

of 5 mins. and a

final inc. of 0 Min.

Initial Shut-In

Breakdown: 19 Inc.

of 3 mins. and a

final inc. of 0 Min.

Second Flow Pressure

Breakdown: 9 Inc.

of 5 mins. and a

final inc. of 0 Min.

Final Shut-In

Breakdown: 32 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	89	0	36	0	79	0	34
P 2 5	60	3	40	5	51	3	38
P 3 10	49	6	49	10	40	6	55
P 4 15	43	9	62	15	36	9	75
P 5 20	40	12	81	20	34	12	100
P 6 25	36	15	102	25	34	15	126
P 7 30	36	18	126	30	34	18	151
P 8		21	149	35	34	21	173
P 9		24	170	40	34	24	196
P10		27	192	45	34	27	218
P11		30	215			30	239
P12		33	237			33	260
P13		36	256			36	284
P14		39	277			39	307
P15		42	299			42	329
P16		45	320			45	348
P17		48	342			48	369
P18		51	359			51	391
P19		54	380			54	410
P20		57	389			57	432
						60	451

WESTERN TESTING CO., INC.

Pressure Data

Date 4/27/78 Test Ticket No. 766

Recorder No. 2604 Capacity 4150 Location 4606 Ft.

Clock No. ----- Elevation 1601 Kelly Bushing Well Temperature 118 °F

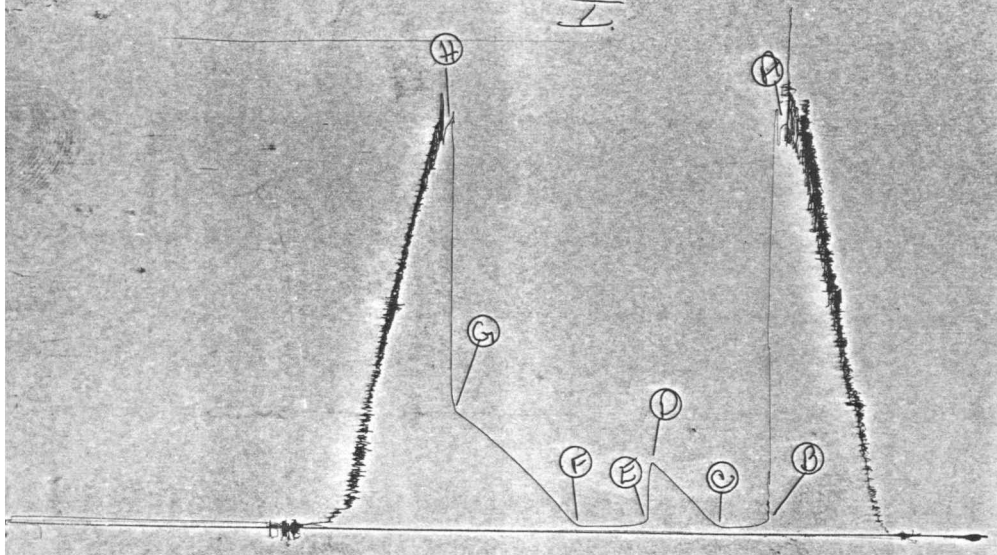
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2243</u> P.S.I.	Open Tool	<u>1:00A</u> M	
B First Initial Flow Pressure	<u>89</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>36</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>57</u> Mins.
D Initial Closed-in Pressure	<u>389</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>79</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>96</u> Mins.
F Second Final Flow Pressure	<u>34</u> P.S.I.			
G Final Closed-in Pressure	<u>655</u> P.S.I.			
H Final Hydrostatic Mud	<u>2243</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>19</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>32</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	470
P 2						66	487
P 3						69	506
P 4						72	525
P 5						75	542
P 6						78	559
P 7						81	575
P 8						84	594
P 9						87	611
P10						90	625
P11						93	640
P12						96	655
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

2604

TK4 # 766
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P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Company Mid Continent Energy Corporation Lease & Well No. Circle #1
Elevation 1601 Kelly Bushing Formation Mississippi Effective Pay ----- Ft. Ticket No. 767
Date 4/28/78 Sec. 18 Twp. 33S Range 10W County Barber State Kansas
Test Approved by Gary Holstin Western Representative Rod Tritt

Formation Test No. 2 Interval Tested from 4639' ft. to 4653' ft. Total Depth 4653' ft.

Packer Depth 4634 ft. Size 6 3/4 in. Packer Depth 4639 ft. Size 6 3/4 in.

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

Depth of Selective Zone Set -----

Top Recorder Depth (Inside) 4642 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 4645 ft. Recorder Number 2606 Cap. 4150

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

Drilling Contractor Search Drilling Company Drill Collar Length ----- I. D. ----- in.

Mud Type drispac Viscosity 52 Weight Pipe Length 183 I. D. 2 1/4 in.

Weight 9.0 Water Loss 8.8 cc. Drill Pipe Length 4427 I. D. 3.8 in.

Chlorides 10,000 P.P.M. Test Tool Size 5 1/2 OD in. Tool Joint Size 4 1/2 FH in.

Jars: Make WTC Serial Number 408 Anchor Length 14 ft. Size 5 1/2 OD 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.

Blow: Weak blow decreasing to no blow on initial flow period. Very weak blow decreasing to no blow on final flow period.

Recovered 15' ft. of drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Hit bridge going into hole

Time Set Packer(s) 6:15 ~~A.M.~~ P.M. Time Started Off Bottom 8:15 ~~A.M.~~ P.M. Maximum Temperature 122

Initial Hydrostatic Pressure (A) 2270 P.S.I.

Initial Flow Period Minutes 30 (B) 15 P.S.I. to (C) 15 P.S.I.

Initial Closed In Period Minutes 30 (D) 15 P.S.I.

Final Flow Period Minutes 30 (E) 15 P.S.I. to (F) 15 P.S.I.

Final Closed In Period Minutes 30 (G) 15 P.S.I.

Final Hydrostatic Pressure (H) 2213 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/28/78 Test Ticket No. 767
 Recorder No. 2604 Capacity 1601 Kelly Bushing Location 4642 Ft.
 Clock No. ----- Elevation 1601 Kelly Bushing Well Temperature 122 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2270 P.S.I.	Open Tool	6:15P M	
B First Initial Flow Pressure	15 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	15 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	15 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	15 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	15 P.S.I.			
G Final Closed-in Pressure	15 P.S.I.			
H Final Hydrostatic Mud	2213 P.S.I.			

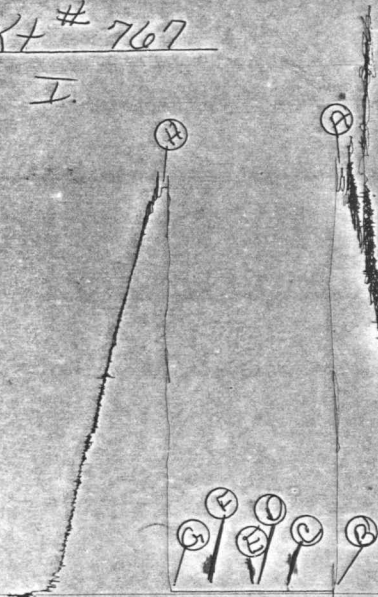
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a 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>15</u>	<u>0</u>	<u>15</u>	<u>0</u>	<u>15</u>	<u>0</u>	<u>15</u>
P 2 <u>5</u>	<u>15</u>	<u>3</u>	<u>15</u>	<u>5</u>	<u>15</u>	<u>3</u>	<u>15</u>
P 3 <u>10</u>	<u>15</u>	<u>6</u>	<u>15</u>	<u>10</u>	<u>15</u>	<u>6</u>	<u>15</u>
P 4 <u>15</u>	<u>15</u>	<u>9</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>9</u>	<u>15</u>
P 5 <u>20</u>	<u>15</u>	<u>12</u>	<u>15</u>	<u>20</u>	<u>15</u>	<u>12</u>	<u>15</u>
P 6 <u>25</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>25</u>	<u>15</u>	<u>15</u>	<u>15</u>
P 7 <u>30</u>	<u>15</u>	<u>18</u>	<u>15</u>	<u>30</u>	<u>15</u>	<u>18</u>	<u>15</u>
P 8		<u>21</u>	<u>15</u>			<u>21</u>	<u>15</u>
P 9		<u>24</u>	<u>15</u>			<u>24</u>	<u>15</u>
P10		<u>27</u>	<u>15</u>			<u>27</u>	<u>15</u>
P11		<u>30</u>	<u>15</u>			<u>30</u>	<u>15</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

2604

TKT # 767

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Home Office: Wichita, Kansas 67201

P. O. Box 1599

(316) 838-0601

Company Mid Continent Energy Corproation Lease & Well No. Circle #1

Elevation 1601 Kelly Bushing Formation Indian Cave Effective Pay ----- Ft. Ticket No. 768

Date 4/29/78 Sec. 18 Twp. 33S Range 10W County Barber State Kansas

Test Approved by Gary Halston Western Representative Rod Tritt

Formation Test No. 3 Interval Tested from 2734' ft. to 2793' ft. Total Depth 4720' ft.

Packer Depth 2734 ft. Size 6 3/4 in. Packer Depth 2793 ft. Size 6 3/4 in.

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

Depth of Selective Zone Set ----

Top Recorder Depth (Inside) 2738 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 2741 ft. Recorder Number 2606 Cap. 4150

Below Straddle Recorder Depth 2842 ft. Recorder Number WTC Cap. --

Drilling Contractor Search Drilling Drill Collar Length 91 I. D. 2 1/4 in.

Mud Type drispac Viscosity 47.2 Weight Pipe Length -- I. D. -- in.

Weight 9.1 Water Loss 10.5 cc. Drill Pipe Length 2649 I. D. 3.8 in.

Chlorides 10,000 P.P.M. Test Tool Size 5 1/2 OD in. Tool Joint Size 4 1/2 FH in.

Jars: Make ----- Serial Number ----- Anchor Length 59 ft. Size 5 1/2 OD 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.

Blow: No blow. MISRUN. Hit bridge at 2400 ft. and had to pull tool.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) A.M. P.M. Time Started Off Bottom A.M. P.M. Maximum Temperature

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

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

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

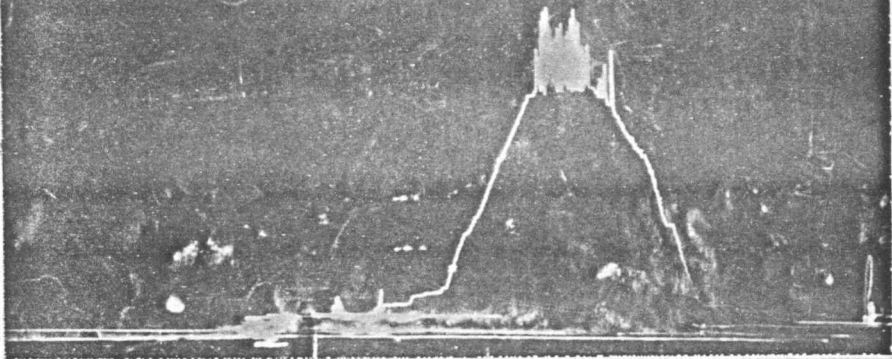
Final Flow Period Minutes (E) P.S.I. to (F) P.S.I.

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

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

TKt #768

Below Straddle



TKT # 768
I.



P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Company Mid Continent Energy Corporation Lease & Well No. Circle #1
Elevation 1601 Kelly Bushing Formation Indian Cave Effective Pay ----- Ft. Ticket No. 769
Date 4/29/78 Sec. 18 Twp. 33s Range 10w County Barber State Kansas
Test Approved by Gary Holstin Western Representative Rod Tritt

Formation Test No. 4 Interval Tested from 2737' ft. to 2793' ft. Total Depth 4720' ft.

Packer Depth 2734 ft. Size 6 3/4 in. Packer Depth ----- ft. Size --- in.

Packer Depth 2793 ft. Size 6 3/4 in. Packer Depth ----- ft. Size --- in.

Depth of Selective Zone Set ---

Top Recorder Depth (Inside) 2738 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 2741 ft. Recorder Number 2606 Cap. 4150

Below Straddle Recorder Depth 2842 ft. Recorder Number WTC Cap. -----

Drilling Contractor Search Drilling Company Drill Collar Length 154 I. D. 2 1/4 in.

Mud Type drispac Viscosity 47.2 Weight Pipe Length --- I. D. --- in.

Weight 9.1 Water Loss 10.5 cc. Drill Pipe Length 2680 I. D. 3.8 in.

Chlorides 10,000 P.P.M. Test Tool Size 5 1/2 OD in. Tool Joint Size 4 1/2 FH in.

Jars: Make no Serial Number no Anchor Length 59 ft. Size 5 1/2 OD 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.

Blow: Light blow building to fair blow (8" into bucket) on initial flow. Fair blow building to strong blow on final flow period.

Recovered 135' ft. of slightly water cut drilling mud

Recovered ----- ft. of -----

Recovered ----- ft. of -----

Recovered ----- ft. of -----

Recovered ----- ft. of -----

Remarks: Vented final blow through 2" and declined the flow to a fair blow. Never did build back to strong blow.

Time Set Packer(s) 9:20 ~~A.M.~~ P.M. Time Started Off Bottom 12:35 ~~P.M.~~ A.M. Maximum Temperature 98

Initial Hydrostatic Pressure (A) 1345 P.S.I.

Initial Flow Period Minutes 30 (B) 87 P.S.I. to (C) 53 P.S.I.

Initial Closed In Period Minutes 60 (D) 1073 P.S.I.

Final Flow Period Minutes 45 (E) 119 P.S.I. to (F) 78 P.S.I.

Final Closed In Period Minutes 60 (G) 1017 P.S.I.

Final Hydrostatic Pressure (H) 1334 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/29/78 Test Ticket No. 769

Recorder No. 2604 Capacity 4150 Location 2738 Ft.

Clock No. ----- Elevation 1601 Kelly Bushing Well Temperature 98 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	1345 P.S.I.	9:20P	M
B First Initial Flow Pressure	87 P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	53 P.S.I.	60 Mins.	60 Mins.
D Initial Closed-in Pressure	1073 P.S.I.	45 Mins.	45 Mins.
E Second Initial Flow Pressure	119 P.S.I.	60 Mins.	57 Mins.
F Second Final Flow Pressure	78 P.S.I.		
G Final Closed-in Pressure	1017 P.S.I.		
H Final Hydrostatic Mud	1334 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>9</u> Inc.		Breakdown: <u>19</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>	87	<u>0</u>	53	<u>0</u>	119	<u>0</u>	78
P 2 <u>5</u>	60	<u>3</u>	143	<u>5</u>	85	<u>3</u>	145
P 3 <u>10</u>	49	<u>6</u>	417	<u>10</u>	77	<u>6</u>	419
P 4 <u>15</u>	49	<u>9</u>	623	<u>15</u>	72	<u>9</u>	648
P 5 <u>20</u>	49	<u>12</u>	763	<u>20</u>	71	<u>12</u>	753
P 6 <u>25</u>	51	<u>15</u>	834	<u>25</u>	71	<u>15</u>	809
P 7 <u>30</u>	53	<u>18</u>	889	<u>30</u>	75	<u>18</u>	853
P 8		<u>21</u>	922	<u>35</u>	76	<u>21</u>	885
P 9		<u>24</u>	947	<u>40</u>	77	<u>24</u>	908
P10		<u>27</u>	973	<u>45</u>	78	<u>27</u>	924
P11		<u>30</u>	990			<u>30</u>	941
P12		<u>33</u>	1004			<u>33</u>	954
P13		<u>36</u>	1017			<u>36</u>	966
P14		<u>39</u>	1027			<u>39</u>	977
P15		<u>42</u>	1038			<u>42</u>	985
P16		<u>45</u>	1048			<u>45</u>	994
P17		<u>48</u>	1054			<u>48</u>	1000
P18		<u>51</u>	1061			<u>51</u>	1004
P19		<u>54</u>	1067			<u>54</u>	1013
P20		<u>57</u>	1071			<u>57</u>	1017
		<u>60</u>	1073				

TKT # 769
Below Strodle



2604

TK# 769
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