



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No. 8039

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

Elevation 1365 Formation KANSAS City Eff. Pay _____ Ft.

District Augusta Date 1-21-81 Customer Order No. _____

COMPANY NAME Cougar Petroleum

ADDRESS 1675 Broadway, Suite 1770 Denver Colo 80202

LEASE AND WELL NO. Hartman #2-29 COUNTY Sumner STATE Ka Sec 29 Twp 30S Rge 3W

Mail Invoice To 1675 Broadway Suite 1770 Denver No. Copies Requested 1

Mail Charts To _____ Address _____ No. Copies Requested 5

Formation Test No. 1 Interval Tested from 3390 ft. to 3407 ft. Total Depth 3407 ft.

Packer Depth 3390 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 3385 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3395 ft. Recorder Number 2605 Cap 4150

Bottom Recorder Depth (Outside) 3399 ft. Recorder Number 1560 Cap 4500

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

Drilling Contractor Chase #15 Drill Collar Length 360 I. D. _____ in.

Mud Type Starch Viscosity 52 Weight Pipe Length _____ I. D. _____ in.

Weight 92 Water Loss 31.4 cc. Drill Pipe Length 3005 I. D. _____ in.

Chlorides 12500 P.P.M. Test Tool Length 25 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 402 Anchor Length 17 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 x H in.

Blow: Weak building to fair first flow, weak throughout second flow
Initial period Final flow period

Recovered 120 ft. of gas in pipe

Recovered 60 ft. of very slightly Oil + Gas Cut Drilling mud

Recovered 300 ft. of Very slightly Oil + Gas Cut muddy salt water

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Remarks: _____

Time On Location _____ A.M. _____ P.M. Time Pick Up Tool _____ A.M. _____ P.M. Time Off Location _____ A.M. _____ P.M.

Time Set Packer(s) 8:00 A.M. _____ P.M. Time Started Off Bottom 11:00 A.M. _____ P.M. Maximum Temperature _____

Initial Hydrostatic Pressure _____ (A) 1535 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 63 P.S.I. to (C) 124 P.S.I.

Initial Closed In Period _____ Minutes 30 (D) 642 P.S.I.

Final Flow Period _____ Minutes 60 (E) 179 P.S.I. to (F) 222 P.S.I.

Final Closed In Period _____ Minutes 60 (G) 756 P.S.I.

Final Hydrostatic Pressure _____ (H) 1535 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 [Signature]
Signature of Customer or his authorized representative

Western Representative Kenny Kirkendall

FIELD INVOICE

Open Hole Test	\$ 625.00
Misrun	\$
Straddle Test	\$
Jars	\$ 300.00
Selective Zone	\$
Safety Joint	\$ 65.00
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
60 Mileage	\$ 45.00
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$
TOTAL	\$ 1035.00

WESTERN TESTING CO., INC.
Pressure Data

Date 1-21 Test Ticket No. 80.39
 Recorder No. 2605 Capacity 4150 Location 3395 Ft.
 Clock No. _____ Elevation 1365 Well Temperature _____ °F

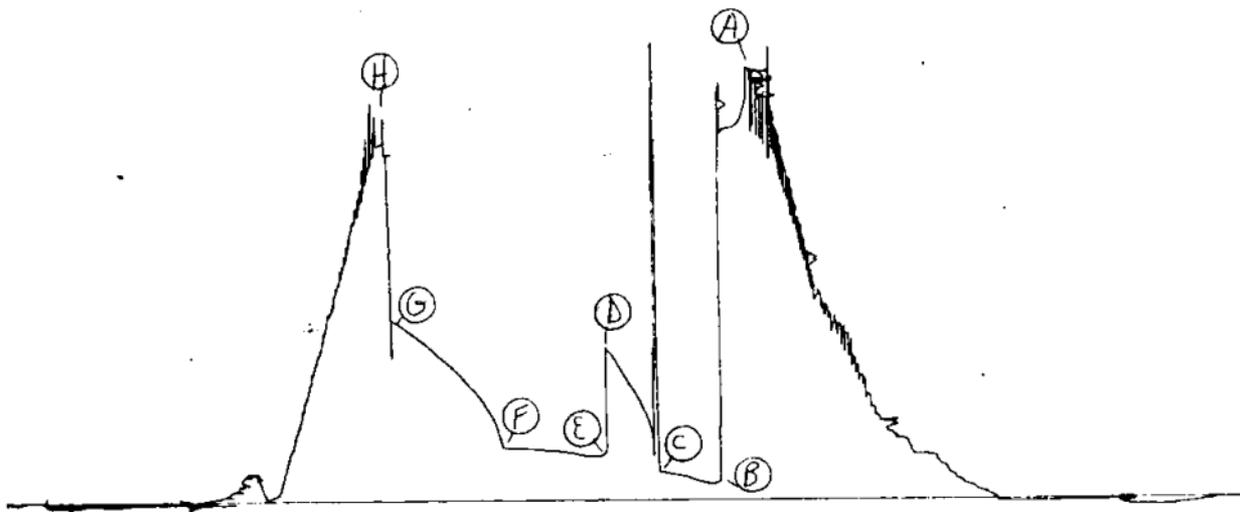
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1542</u> P.S.I.	Open Tool	<u>8:00 A</u> M	
B First Initial Flow Pressure	<u>78</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>35</u> Mins.
C First Final Flow Pressure	<u>125</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>645</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>199</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins	<u>63</u> Mins.
F Second Final Flow Pressure	<u>228</u> P.S.I.			
G Final Closed-in Pressure	<u>757</u> P.S.I.			
H Final Hydrostatic Mud	<u>1542</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>6</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 <u>0</u>	<u>78</u>	<u>0</u> <i>Picked up tool too high</i>	<u>0</u>	<u>0</u>	<u>199</u>	<u>0</u>	<u>228</u>
P 2 <u>5</u>	<u>76</u>	<u>3</u>	<u>343</u>	<u>5</u>	<u>193</u>	<u>3</u>	<u>307</u>
P 3 <u>10</u>	78	<u>6</u>	<u>388</u>	<u>10</u>	<u>193</u>	<u>6</u>	<u>358</u>
P 4 <u>15</u>	91	<u>9</u>	<u>434</u>	<u>15</u>	<u>197</u>	<u>9</u>	<u>392</u>
P 5 <u>20</u>	104	<u>12</u>	<u>466</u>	<u>20</u>	<u>205</u>	<u>12</u>	<u>428</u>
P 6 <u>25</u>	<u>112</u>	<u>15</u>	<u>502</u>	<u>25</u>	<u>212</u>	<u>15</u>	<u>455</u>
P 7 <u>30</u>	<u>118</u>	<u>18</u>	<u>537</u>	<u>30</u>	<u>215</u>	<u>18</u>	<u>479</u>
P 8 <u>35</u>	<u>125</u>	<u>21</u>	<u>572</u>	<u>35</u>	<u>217</u>	<u>21</u>	<u>504</u>
P 9 <u>40</u>		<u>24</u>	<u>610</u>	<u>40</u>	<u>220</u>	<u>24</u>	<u>529</u>
P10 <u>45</u>		<u>27</u>	<u>628</u>	<u>45</u>	<u>224</u>	<u>27</u>	<u>550</u>
P11 <u>50</u>		<u>30</u>	<u>645</u>	<u>50</u>	<u>227</u>	<u>30</u>	<u>570</u>
P12 <u>55</u>		<u>33</u>		<u>55</u>	<u>227</u>	<u>33</u>	<u>589</u>
P13 <u>60</u>		<u>36</u>		<u>60</u>	<u>228</u>	<u>36</u>	<u>606</u>
P14		<u>39</u>		<u>65</u>		<u>39</u>	<u>624</u>
P15		<u>42</u>		<u>70</u>		<u>42</u>	<u>647</u>
P16		<u>45</u>		<u>75</u>		<u>45</u>	<u>664</u>
P17		<u>48</u>		<u>80</u>		<u>48</u>	<u>680</u>
P18		<u>51</u>		<u>85</u>		<u>51</u>	<u>699</u>
P19		<u>54</u>		<u>90</u>		<u>54</u>	<u>711</u>
P20		<u>57</u>				<u>57</u>	<u>728</u>
		<u>60</u>				<u>60</u>	<u>742</u>
						<u>63</u>	<u>757</u>

TKT # 8039
I.

2605



Company Cougar Petroleum Lease & Well No. Hartman #2-29
 Elevation 1365 Kelly Bushing Kansas City Effective Pay. --- Ft. Ticket No. 8039
 Date 1/21/81 Sec. 29 Twp. 30S Range. 3W County Sumner State Kansas
 Test Approved by Douglas H. McGinness II Western Representative Kenny Kirkendall

Formation Test No. 1 Interval Tested from 3390 ft. to 3407 ft. Total Depth 3407 ft.
 Packer Depth 3390 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3385 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3395 ft. Recorder Number 2605 Cap. 4150
 Bottom Recorder Depth (Outside) 3399 ft. Recorder Number 1560 Cap. 4500
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Chase Drilling Rig #15 Drill Collar Length 360 I. D. - in.
 Mud Type starch Viscosity 52 Weight Pipe Length - I. D. - in.
 Weight 92 Water Loss 31.6 cc. Drill Pipe Length 3005 I. D. - in.
 Chlorides 12,500 P.P.M. Test Tool Length 25 ft. Tool Size 5 1/2 in.
 Jars: Make WTC Serial Number 402 Anchor Length 17 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 XH in.

Blow: Weak building to fair initial flow peirod; weak throughout final flow period.

Recovered 120 ft. of gas in pipe
 Recovered 60 ft. of very slightly oil and gas cut drilling mud
 Recovered 300 ft. of very slightly oil and gas cut muddy salt water
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: _____

Time Set Packer(s) 18:00 ^{A.M.}/_{P.M.} Time Started Off Bottom 11:00 ^{A.M.}/_{P.M.} Maximum Temperature ?
 Initial Hydrostatic Pressure (A) 1542 P.S.I.
 Initial Flow Period Minutes 35 (B) 78 P.S.I. to (C) 125 P.S.I.
 Initial Closed In Period Minutes 30 (D) 645 P.S.I.
 Final Flow Period Minutes 60 (E) 199 P.S.I. to (F) 228 P.S.I.
 Final Closed In Period Minutes 63 (G) 757 P.S.I.
 Final Hydrostatic Pressure (H) 1542 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 1/21/81 Test Ticket No. 8039
 Recorder No. 2605 Capacity 4150 Location 3395 Ft.
 Clock No. - Elevation 1365 Kelly Bushing Well Temperature - °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1542</u>	P.S.I.	<u>8:00A</u>	<u>M</u>
B First Initial Flow Pressure	<u>78</u>	P.S.I.	<u>30</u>	<u>35</u> Mins.
C First Final Flow Pressure	<u>125</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>645</u>	P.S.I.	<u>60</u>	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>199</u>	P.S.I.	<u>60</u>	<u>63</u> Mins.
F Second Final Flow Pressure	<u>228</u>	P.S.I.		
G Final Closed-in Pressure	<u>757</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1542</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: 7 Inc. of 5 mins. and a final inc. of 0 Min.
 Initial Shut-In Breakdown: 6 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: 21 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>78</u>	<u>0</u>	<u>PICKED UP TOOL TOO</u>	<u>0</u>	<u>199</u>	<u>0</u>	<u>228</u>
P 2 <u>5</u>	<u>76</u>	<u>3</u>	<u>343^{HIGH}</u>	<u>5</u>	<u>193</u>	<u>3</u>	<u>307</u>
P 3 <u>10</u>	<u>78</u>	<u>6</u>	<u>388</u>	<u>10</u>	<u>193</u>	<u>6</u>	<u>358</u>
P 4 <u>15</u>	<u>91</u>	<u>9</u>	<u>434</u>	<u>15</u>	<u>197</u>	<u>9</u>	<u>392</u>
P 5 <u>20</u>	<u>104</u>	<u>12</u>	<u>466</u>	<u>20</u>	<u>205</u>	<u>12</u>	<u>428</u>
P 6 <u>25</u>	<u>112</u>	<u>15</u>	<u>502</u>	<u>25</u>	<u>212</u>	<u>15</u>	<u>455</u>
P 7 <u>30</u>	<u>118</u>	<u>18</u>	<u>537</u>	<u>30</u>	<u>215</u>	<u>18</u>	<u>479</u>
P 8 <u>35</u>	<u>125</u>	<u>21</u>	<u>572</u>	<u>35</u>	<u>217</u>	<u>21</u>	<u>504</u>
P 9 _____	_____	<u>24</u>	<u>610</u>	<u>40</u>	<u>220</u>	<u>24</u>	<u>529</u>
P10 _____	_____	<u>27</u>	<u>628</u>	<u>45</u>	<u>224</u>	<u>27</u>	<u>550</u>
P11 _____	_____	<u>30</u>	<u>645</u>	<u>50</u>	<u>227</u>	<u>30</u>	<u>570</u>
P12 _____	_____	_____	_____	<u>55</u>	<u>227</u>	<u>33</u>	<u>589</u>
P13 _____	_____	_____	_____	<u>60</u>	<u>228</u>	<u>36</u>	<u>606</u>
P14 _____	_____	_____	_____	_____	_____	<u>39</u>	<u>624</u>
P15 _____	_____	_____	_____	_____	_____	<u>42</u>	<u>647</u>
P16 _____	_____	_____	_____	_____	_____	<u>45</u>	<u>664</u>
P17 _____	_____	_____	_____	_____	_____	<u>48</u>	<u>680</u>
P18 _____	_____	_____	_____	_____	_____	<u>51</u>	<u>699</u>
P19 _____	_____	_____	_____	_____	_____	<u>54</u>	<u>711</u>
P20 _____	_____	_____	_____	_____	_____	<u>57</u>	<u>728</u>
						<u>60</u>	<u>742</u>
						<u>63</u>	<u>757</u>



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO. *Office Copy* 9186

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

Elevation _____ Formation Simpson Eff. Pay _____ Ft.

District PRATT Date 1-25-81 Customer Order No. _____

COMPANY NAME COUGAR Petroleum Corp.

ADDRESS 1675 Broadway Suite 1700 DENVER, Colo. 80202

LEASE AND WELL NO. HARTMAN #2-29 COUNTY Sumner STATE Kc. Sec. 29 Twp 30S Rge 3E

Mail Invoice To Same Co. Name _____ Address _____ No. Copies Requested 4

Mail Charts To Same Address _____ No. Copies Requested 4

Formation Test No. 2 Interval Tested from 4215 ft. to 4305 ft. Total Depth 4305 ft.

Packer Depth 4210 ft. Size 6.74 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4215 ft. Size 6.74 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4229 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 4235 ft. Recorder Number 6246 Cap. 5200

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

Drilling Contractor Chase Drilling #15 Drill Collar Length 360 I. D. 2.2 in.

Mud Type DRISPA Viscosity 58 Weight Pipe Length _____ I. D. _____ in.

Weight 9.1 Water Loss 9.2 cc. Drill Pipe Length 3826 I. D. 3.8 in.

Chlorides 11,500 P.P.M. Test Tool Length 29 ft. Tool Size 5.00 in.

Jars: Make W.T.C. Serial Number 408 Anchor Length 6100 ft. Size 5.00 in.

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

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

Blow: Weak - dead 20 min. Initial flow period - No Blow Final Flow

Recovered 350 ft. of Drilling mud

Recovered _____ ft. of _____

Remarks: Left pink copy with co-man - Blow w/ Geo.

Time On Location 1:00 A.M. Time Pick Up Tool 7:00 A.M. Time Off Location 6:00 A.M.

Time Set Packer(s) 9:40 A.M. Time Started Off Bottom 12:40 P.M. Maximum Temperature 136

Initial Hydrostatic Pressure (A) 2031 P.S.I.

Initial Flow Period Minutes 30 (B) 127 P.S.I. to (C) 117 P.S.I.

Initial Closed In Period Minutes 30 (D) 1223 P.S.I.

Final Flow Period Minutes 60 (E) 149 P.S.I. to (F) 149 P.S.I.

Final Closed In Period Minutes 60 (G) 1213 P.S.I.

Final Hydrostatic Pressure (H) 2031 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 R.E. Whetstone
Signature of Customer or his authorized representative

Western Representative David Hoover

Thank you!

FIELD INVOICE

Open Hole Test	\$ <u>700.00</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ <u>300.00</u>
Selective Zone	\$ _____
Safety Joint	\$ <u>65.00</u>
Standby 4 hrs.	\$ _____
Evaluation <u>XC</u>	\$ _____
Extra Packer <u>gr.</u>	\$ _____
Circ. Sub.	\$ _____
Mileage <u>85</u>	\$ <u>63.75</u>
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ _____
TOTAL	\$ <u>1128.75</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 1-285 Recorder No. ~~2604~~ 2604 Capacity 4150 Test Ticket No. 9186
 Clock No. _____ Elevation ~~2700~~ Well Temperature 136 °F
 Location ~~4229~~

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2046</u> P.S.I.	<u>9.40</u>	<u>AM</u>	
B First Initial Flow Pressure	<u>132</u> P.S.I.		<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>126</u> P.S.I.		<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>1231</u> P.S.I.		<u>60</u> Mins.	<u>65</u> Mins.
E Second Initial Flow Pressure	<u>175</u> P.S.I.		<u>60</u> Mins.	<u>114</u> Mins.
F Second Final Flow Pressure	<u>167</u> P.S.I.			
G Final Closed-in Pressure	<u>1234</u> P.S.I.			
H Final Hydrostatic Mud	<u>2032</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>11</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>38</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>132</u>	0	<u>126</u>	0	<u>175</u>	0	<u>167</u>
P 2	<u>128</u>	3	<u>331</u>	5	<u>168</u>	3	<u>183</u>
P 3	<u>127</u>	6	<u>533</u>	10	<u>167</u>	6	<u>213</u>
P 4	<u>126</u>	9	<u>705</u>	15		9	<u>247</u>
P 5	<u>126</u>	12	<u>841</u>	20		12	<u>295</u>
P 6	<u>126</u>	15	<u>950</u>	25		15	<u>344</u>
P 7	<u>126</u>	18	<u>1027</u>	30		18	<u>412</u>
P 8		21	<u>1086</u>	35		21	<u>470</u>
P 9		24	<u>1138</u>	40		24	<u>538</u>
P 10		27	<u>1171</u>	45		27	<u>605</u>
P 11		30	<u>1201</u>	50		30	<u>663</u>
P 12		33	<u>1231</u>	55		33	<u>724</u>
P 13		36		60		36	<u>784</u>
P 14		39		65	<u>1167</u>	39	<u>826</u>
P 15		42		70		42	<u>870</u>
P 16		45		75		45	<u>912</u>
P 17		48		80		48	<u>948</u>
P 18		51		85		51	<u>979</u>
P 19		54		90		54	<u>1010</u>
P 20		57				57	<u>1033</u>
		60				60	<u>1063</u>

WESTERN TESTING CO., INC.
Pressure Data

Date _____

Test Ticket No. 9186

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

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

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes	Point Minutes	Point Minutes
P 1	_____	63	_____	63
P 2	_____	66	_____	66
P 3	_____	69	_____	69
P 4	_____	72	_____	72
P 5	_____	75	_____	75
P 6	_____	78	_____	78
P 7	_____	81	_____	81
P 8	_____	84	_____	84
P 9	_____	87	_____	87
P10	_____	90	_____	90
P11	_____	93	_____	93
P12	_____	96	_____	96
P13	_____	99	_____	99
P14	_____	102	_____	102
P15	_____	105	_____	105
P16	_____	108	_____	108
P17	_____	111	_____	111
P18	_____	114	_____	114
P19	_____	117	_____	117
P20	_____	120	_____	120

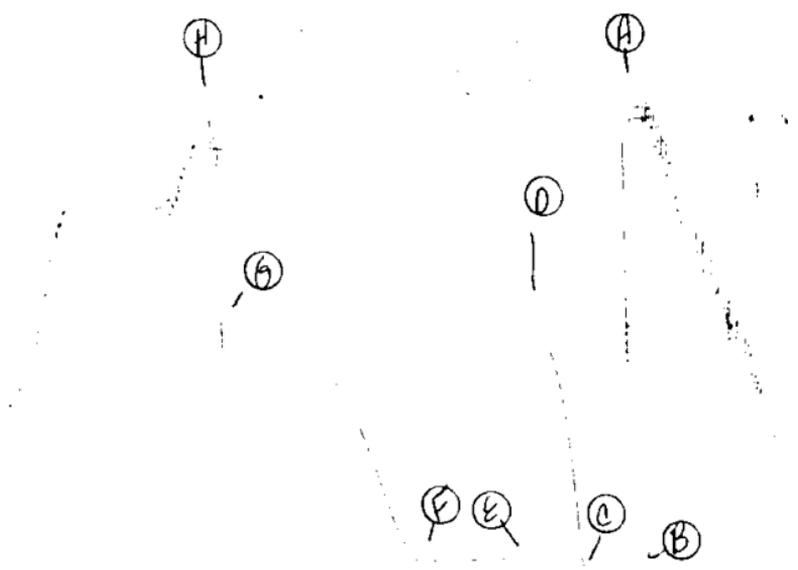
2004

14A-7max

JK# 9186

DSTY

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Company Cougar Petroleum Corporation Lease & Well No. Hartman #2-29
 Elevation - Formation Simpson Effective Pay - Ft. Ticket No. 9186
 Date 1/25/81 Sec 29 Twp 30S Range 3W County Sumner State Kansas
 Test Approved by R E Whetstine Western Representative Dave Sloan

Formation Test No. 2 Interval Tested from 4215 ft. to 4305 ft. Total Depth 4305 ft.
 Packer Depth 4210 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4215 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4229 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 4235 ft. Recorder Number 6246 Cap. 5200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Chase Drilling Rig #15 Drill Collar Length 360 I. D. 2.2 in.
 Mud Type Drispac Viscosity 58 Weight Pipe Length - I. D. - in.
 Weight 9.1 Water Loss 9.2 cc. Drill Pipe Length 3826 I. D. 3.8 in.
 Chlorides 11,500 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 408 Anchor Length 61 DC 29 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. Tool Joint Size 4 1/2 XH in.

Blow: Weak - dead in 20 minutes initial flow period. No blow final flow period.

Recovered 350 ft. of drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 9:40 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 12:40 ^{A.M.} ~~P.M.~~ Maximum Temperature 136
 Initial Hydrostatic Pressure (A) 2046 P.S.I.
 Initial Flow Period Minutes 30 (B) 132 P.S.I. to (C) 126 P.S.I.
 Initial Closed In Period Minutes 33 (D) 1231 P.S.I.
 Final Flow Period Minutes 65 (E) 175 P.S.I. to (F) 167 P.S.I.
 Final Closed In Period Minutes 114 (G) 1234 P.S.I.
 Final Hydrostatic Pressure (H) 2032 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 1/25/81 Test Ticket No. 9186
 Recorder No. 2604 Capacity 4150 Location 4229 Ft.
 Clock No. - Elevation - Well Temperature 136 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2046</u> P.S.I.	Open Tool	<u>9:40 P</u> M	
B First Initial Flow Pressure	<u>132</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>126</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>1231</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>65</u> Mins.
E Second Initial Flow Pressure	<u>175</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>114</u> Mins.
F Second Final Flow Pressure	<u>167</u> P.S.I.			
G Final Closed-in Pressure	<u>1234</u> P.S.I.			
H Final Hydrostatic Mud	<u>2032</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure Breakdown:		Initial Shut-In Breakdown:		Second Flow Pressure Breakdown:		Final Shut-In Breakdown:	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	<u>132</u>	<u>0</u>	<u>126</u>	<u>0</u>	<u>175</u>	<u>0</u>	<u>167</u>	<u>0</u>
P 2	<u>128</u>	<u>3</u>	<u>331</u>	<u>3</u>	<u>168</u>	<u>5</u>	<u>183</u>	<u>3</u>
P 3	<u>127</u>	<u>6</u>	<u>533</u>	<u>6</u>	<u>167</u>	<u>10</u>	<u>213</u>	<u>6</u>
P 4	<u>126</u>	<u>9</u>	<u>705</u>	<u>9</u>	<u>167</u>	<u>15</u>	<u>247</u>	<u>9</u>
P 5	<u>126</u>	<u>12</u>	<u>841</u>	<u>12</u>	<u>167</u>	<u>20</u>	<u>295</u>	<u>12</u>
P 6	<u>126</u>	<u>15</u>	<u>950</u>	<u>15</u>	<u>167</u>	<u>25</u>	<u>344</u>	<u>15</u>
P 7	<u>126</u>	<u>18</u>	<u>1027</u>	<u>18</u>	<u>167</u>	<u>30</u>	<u>412</u>	<u>18</u>
P 8		<u>21</u>	<u>1086</u>	<u>21</u>	<u>167</u>	<u>35</u>	<u>470</u>	<u>21</u>
P 9		<u>24</u>	<u>1138</u>	<u>24</u>	<u>167</u>	<u>40</u>	<u>538</u>	<u>24</u>
P10		<u>27</u>	<u>1171</u>	<u>27</u>	<u>167</u>	<u>45</u>	<u>605</u>	<u>27</u>
P11		<u>30</u>	<u>1201</u>	<u>30</u>	<u>167</u>	<u>50</u>	<u>663</u>	<u>30</u>
P12		<u>33</u>	<u>1231</u>	<u>33</u>	<u>167</u>	<u>55</u>	<u>724</u>	<u>33</u>
P13					<u>167</u>	<u>60</u>	<u>784</u>	<u>36</u>
P14					<u>167</u>	<u>65</u>	<u>826</u>	<u>39</u>
P15							<u>870</u>	<u>42</u>
P16							<u>912</u>	<u>45</u>
P17							<u>948</u>	<u>48</u>
P18							<u>979</u>	<u>51</u>
P19							<u>1010</u>	<u>54</u>
P20							<u>1033</u>	<u>57</u>
							<u>1063</u>	<u>60</u>

WESTERN TESTING CO., INC.
Pressure Data

Date 1/25/81 Test Ticket No. 9186
 Recorder No. 2604 Capacity 4150 Location 4229 Ft.
 Clock No. - Elevation - Well Temperature 136 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2046</u> P.S.I.	Open Tool	<u>9:40 P</u> M	
B First Initial Flow Pressure	<u>132</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>126</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>1231</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>65</u> Mins.
E Second Initial Flow Pressure	<u>175</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>114</u> Mins.
F Second Final Flow Pressure	<u>167</u> P.S.I.			
G Final Closed-in Pressure	<u>1234</u> P.S.I.			
H Final Hydrostatic Mud	<u>2032</u> 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: 11 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 13 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 38 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>63</u>	<u>1071</u>
P 2						<u>66</u>	<u>1084</u>
P 3						<u>69</u>	<u>1102</u>
P 4						<u>72</u>	<u>1119</u>
P 5						<u>75</u>	<u>1134</u>
P 6						<u>78</u>	<u>1146</u>
P 7						<u>81</u>	<u>1161</u>
P 8						<u>84</u>	<u>1171</u>
P 9						<u>87</u>	<u>1182</u>
P10						<u>90</u>	<u>1190</u>
P11						<u>93</u>	<u>1196</u>
P12						<u>96</u>	<u>1203</u>
P13						<u>99</u>	<u>1208</u>
P14						<u>102</u>	<u>1215</u>
P15						<u>105</u>	<u>1218</u>
P16						<u>108</u>	<u>1224</u>
P17						<u>111</u>	<u>1230</u>
P18						<u>114</u>	<u>1234</u>
P19							
P20							