

Company Robert E Campbell Oil & Gas Operations Lease & Well No. Zerger #2
 Elevation 1555 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 10386
 Date 11/23/81 Sec. 8 Twp. 29S Range 6W County Kingman State Kansas
 Test Approved by Calvin Noah Western Representative Allen Edgington

Formation Test No. 1 Interval Tested from 4081 ft. to 4100 ft. Total Depth 4100 ft.
 Packer Depth 4076 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4081 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4092 ft. Recorder Number 5666 Cap. 3950
 Bottom Recorder Depth (Outside) 4095 ft. Recorder Number 3354 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Merckle Drilling Co Rig #1 Drill Collar Length - I. D. - in.
 Mud Type Monpac Viscosity 44 Weight Pipe Length 472 I. D. 2 1/4 in.
 Weight 9.0 Water Loss 11.2 cc. Drill Pipe Length 3601 I. D. 3.8 in.
 Chlorides 16,000 P.P.M. Test Tool Length 25 ft. Tool Size 4 1/2 in.
 Jars: Make - Serial Number - Anchor Length 19 ft. Size 4 1/2 in.
 Did Well Flow? Yes Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Strong. Gas to surface in 44 minutes. See attached sheet for gas measurements.

Recovered 60 ft. of drilling mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 8:45 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 11:45 ~~P.M.~~ ^{A.M.} Maximum Temperature 127
 Initial Hydrostatic Pressure (A) 1965 P.S.I.
 Initial Flow Period Minutes 30 (B) 52 P.S.I. to (C) 53 P.S.I.
 Initial Closed In Period Minutes 42 (D) 1477 P.S.I.
 Final Flow Period Minutes 45 (E) 49 P.S.I. to (F) 51 P.S.I.
 Final Closed In Period Minutes 57 (G) 1300 P.S.I.
 Final Hydrostatic Pressure (H) 1955 P.S.I.

GAS FLOW REPORT

Date 11/23/81 Ticket 10386 Company Robert E Campbell Oil & Gas Operations
 Well Name and No. Zerger #2 Dst No. 1 Interval Tested 4081-4100
 County Kingman State Kansas Sec. 8 Twp. 29S Rg. 6W

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						

SECOND FLOW						
	44 Min					Gas to surface
	50 Min	6" water	½" Orifice			15,400 C.F.P.D.
	60 Min	13" water	½" Orifice			22,800 C.F.P.D.
	65 Min	14" water	½" Orifice			23,700 C.F.P.D.
	70 Min	17" water	½" Orifice			25,800 C.F.P.D.

GAS BOTTLE

Serial No. - Date Bottle Filled - Date to be Invoiced 11/23/81

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 Robert E Campbell Oil & Gas Operations
 Authorized by Calvin Noah

WESTERN TESTING CO., INC.

Pressure Data

Date 11/23/81 Test Ticket No. 10386
 Recorder No. 5666 Capacity 3950 Location 4092 Ft.
 Clock No. - Elevation 1555 Kelly Bushing Well Temperature 127 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1965</u> P.S.I.	Open Tool	<u>8:45A</u> M	
B First Initial Flow Pressure	<u>52</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>53</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
D Initial Closed-in Pressure	<u>1477</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>49</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>57</u> Mins.
F Second Final Flow Pressure	<u>51</u> P.S.I.			
G Final Closed-in Pressure	<u>1300</u> P.S.I.			
H Final Hydrostatic Mud	<u>1955</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: 14 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

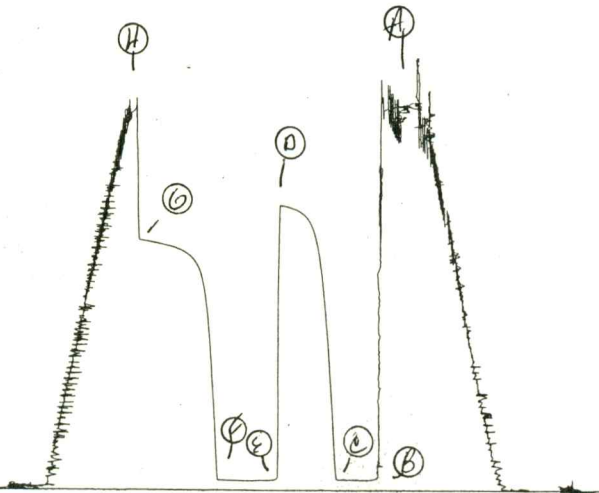
Second Flow Pressure
 Breakdown: 9 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 19 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>52</u>	<u>0</u>	<u>53</u>	<u>0</u>	<u>49</u>	<u>0</u>	<u>51</u>
P 2 <u>5</u>	<u>52</u>	<u>3</u>	<u>369</u>	<u>5</u>	<u>49</u>	<u>3</u>	<u>566</u>
P 3 <u>10</u>	<u>52</u>	<u>6</u>	<u>771</u>	<u>10</u>	<u>49</u>	<u>6</u>	<u>839</u>
P 4 <u>15</u>	<u>52</u>	<u>9</u>	<u>1030</u>	<u>15</u>	<u>49</u>	<u>9</u>	<u>1030</u>
P 5 <u>20</u>	<u>52</u>	<u>12</u>	<u>1189</u>	<u>20</u>	<u>49</u>	<u>12</u>	<u>1125</u>
P 6 <u>25</u>	<u>52</u>	<u>15</u>	<u>1297</u>	<u>25</u>	<u>49</u>	<u>15</u>	<u>1171</u>
P 7 <u>30</u>	<u>53</u>	<u>18</u>	<u>1361</u>	<u>30</u>	<u>49</u>	<u>18</u>	<u>1201</u>
P 8 _____		<u>21</u>	<u>1400</u>	<u>35</u>	<u>49</u>	<u>21</u>	<u>1221</u>
P 9 _____		<u>24</u>	<u>1426</u>	<u>40</u>	<u>50</u>	<u>24</u>	<u>1235</u>
P10 _____		<u>27</u>	<u>1444</u>	<u>45</u>	<u>51</u>	<u>27</u>	<u>1247</u>
P11 _____		<u>30</u>	<u>1456</u>			<u>30</u>	<u>1257</u>
P12 _____		<u>33</u>	<u>1464</u>			<u>33</u>	<u>1265</u>
P13 _____		<u>36</u>	<u>1470</u>			<u>36</u>	<u>1270</u>
P14 _____		<u>39</u>	<u>1476</u>			<u>39</u>	<u>1275</u>
P15 _____		<u>42</u>	<u>1477</u>			<u>42</u>	<u>1280</u>
P16 _____						<u>45</u>	<u>1285</u>
P17 _____						<u>48</u>	<u>1289</u>
P18 _____						<u>51</u>	<u>1293</u>
P19 _____						<u>54</u>	<u>1297</u>
P20 _____						<u>57</u>	<u>1300</u>

PKT # 10386
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Company Robert E. Campbell Oil & Gas Operations Lease & Well No. Zerger #2
 Elevation 1547 Ground Level Formation Misner Effective Pay - Ft. Ticket No. 14325
 Date 11/25/81 Sec. 8 Twp 29S Range 6W County Kingman State Kansas
 Test Approved by Calvin Noah Western Representative L. Spencer

Formation Test No. 2 Interval Tested from 4449 ft. to 4468 ft. Total Depth 4468 ft.
 Packer Depth 4444 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4449 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4459 ft. Recorder Number 11019 Cap. 4500
 Bottom Recorder Depth (Outside) 4462 ft. Recorder Number 1560 Cap. 4500
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Merkle Drilling Drill Collar Length - I. D. - in.
 Mud Type premix-Monpac Viscosity 54 Weight Pipe Length 472 I. D. 3 in.
 Weight 9.2 Water Loss 18.4 cc. Drill Pipe Length 3957 I. D. 3.8 in.
 Chlorides 17,000 P.P.M. Test Tool Length 20 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 in.

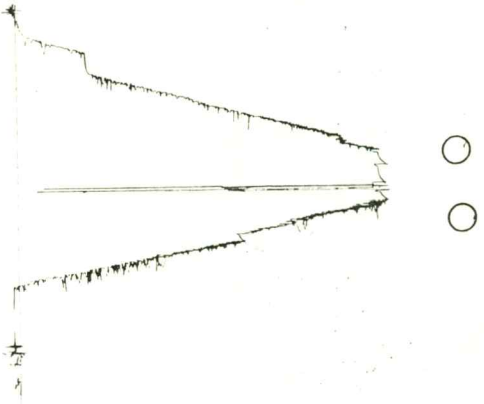
Blow: MISRUN

Recovered 120 ft. of mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

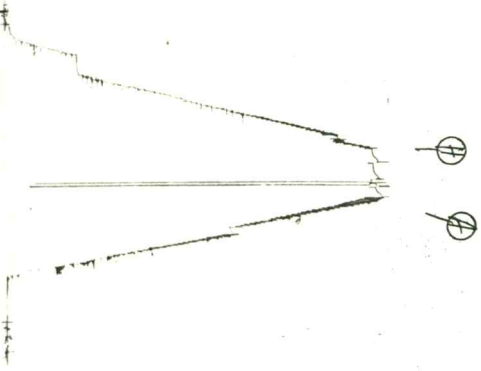
Remarks: PACKER FAILURE MISRUN

Time Set Packer(s) _____ A.M. _____ P.M. Time Started Off Bottom _____ A.M. _____ P.M. Maximum Temperature _____
 Initial Hydrostatic Pressure _____ (A) 2125 _____ 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) 2108 _____ P.S.I.

RF # 14325
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RF # 14325
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WESTERN TESTING CO., INC.
Pressure Data

Date 11/25/81 Test Ticket No. 11876
 Recorder No. 11019 Capacity 4500 Location 4358 Ft.
 Clock No. - Elevation 1547 Ground Level Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2080</u> P.S.I.	Open Tool	<u>4:35P</u>	<u>M</u>
B. First Initial Flow Pressure	<u>197</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>448</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
D. Initial Closed-in Pressure	<u>1527</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E. Second Initial Flow Pressure	<u>549</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>90</u> Mins.
F. Second Final Flow Pressure	<u>921</u> P.S.I.			
G. Final Closed-in Pressure	<u>1527</u> P.S.I.			
H. Final Hydrostatic Mud	<u>2066</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: 16 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: 30 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>197</u>	<u>0</u>	<u>448</u>	<u>0</u>	<u>549</u>	<u>0</u>	<u>921</u>
P 2 <u>5</u>	<u>217</u>	<u>3</u>	<u>1477</u>	<u>5</u>	<u>550</u>	<u>3</u>	<u>1484</u>
P 3 <u>10</u>	<u>267</u>	<u>6</u>	<u>1493</u>	<u>10</u>	<u>571</u>	<u>6</u>	<u>1495</u>
P 4 <u>15</u>	<u>317</u>	<u>9</u>	<u>1506</u>	<u>15</u>	<u>599</u>	<u>9</u>	<u>1505</u>
P 5 <u>20</u>	<u>369</u>	<u>12</u>	<u>1511</u>	<u>20</u>	<u>633</u>	<u>12</u>	<u>1513</u>
P 6 <u>25</u>	<u>412</u>	<u>15</u>	<u>1516</u>	<u>25</u>	<u>678</u>	<u>15</u>	<u>1517</u>
P 7 <u>30</u>	<u>448</u>	<u>18</u>	<u>1519</u>	<u>30</u>	<u>718</u>	<u>18</u>	<u>1519</u>
P 8 _____		<u>21</u>	<u>1521</u>	<u>35</u>	<u>766</u>	<u>21</u>	<u>1521</u>
P 9 _____		<u>24</u>	<u>1523</u>	<u>40</u>	<u>805</u>	<u>24</u>	<u>1522</u>
P10 _____		<u>27</u>	<u>1525</u>	<u>45</u>	<u>838</u>	<u>27</u>	<u>1523</u>
P11 _____		<u>30</u>	<u>1526</u>	<u>50</u>	<u>867</u>	<u>30</u>	<u>1524</u>
P12 _____		<u>33</u>	<u>1527</u>	<u>55</u>	<u>896</u>	<u>33</u>	<u>1525</u>
P13 _____		<u>36</u>	<u>1527</u>	<u>60</u>	<u>921</u>	<u>36</u>	<u>1526</u>
P14 _____		<u>39</u>	<u>1527</u>			<u>39</u>	<u>1527</u>
P15 _____		<u>42</u>	<u>1527</u>			<u>42</u>	<u>1527</u>
P16 _____		<u>45</u>	<u>1527</u>			<u>45</u>	<u>1527</u>
P17 _____		<u>48</u>	<u>1527</u>			<u>48</u>	<u>1527</u>
P18 _____						<u>51</u>	<u>1527</u>
P19 _____						<u>54</u>	<u>1527</u>
P20 _____						<u>57</u>	<u>1527</u>
						<u>60</u>	<u>1527</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 11/25/81 Test Ticket No. 11876
 Recorder No. 11019 Capacity 4500 Location 4358 Ft.
 Clock No. - Elevation 1547 Ground Level Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2080</u> P.S.I.	Open Tool	<u>4:35P</u>	<u>M</u>
B. First Initial Flow Pressure	<u>197</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>448</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
D. Initial Closed-in Pressure	<u>1527</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E. Second Initial Flow Pressure	<u>549</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>90</u> Mins.
F. Second Final Flow Pressure	<u>921</u> P.S.I.			
G. Final Closed-in Pressure	<u>1527</u> P.S.I.			
H. Final Hydrostatic Mud	<u>2066</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: 16 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: 30 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>1527</u>
P 2						<u>66</u>	<u>1527</u>
P 3						<u>69</u>	<u>1527</u>
P 4						<u>72</u>	<u>1527</u>
P 5						<u>75</u>	<u>1527</u>
P 6						<u>78</u>	<u>1527</u>
P 7						<u>81</u>	<u>1527</u>
P 8						<u>84</u>	<u>1527</u>
P 9						<u>87</u>	<u>1527</u>
P10						<u>90</u>	<u>1527</u>
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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