



Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company **Graves Drlg. Co.** Lease & Well No. **Redfinger # 1**
Elevation _____ Formation **Chase** Effective Pay _____ Ft. Ticket No. **10317**
Date **3-29-68** Sec. **7** Twp. **24s** Range **2w** County **Harvey** State **Kansas**
Test Approved by **J. Copeland Landes** Western Representative **Norman Allen**
Formation Test No. **1** O.K. ☒ Misrun _____ Interval Tested From **1368'** to **1476'** Total Depth **1476'**
Size Main Hole **7 7/8** Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No
Packer Depth **1363** Ft. Size **6 3/4** Packer Depth **1368** Ft. Size **6 3/4**
Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No
Packer Depth _____ Ft. Size _____
Tool Size **5 1/2" OD** Tool Jt. Size **4 1/2" FH** Anchor Length **108** Ft. Size **5 1/2" OD & DP**
RECORDERS Depth **1380** Ft. Clock No. **6861** Depth **1383** Ft. Clock No. **6899**
Top Make **Kuster** Cap. **3150** No. **1560** Inside _____ Outside _____ Bottom Make **Kuster** Cap. **3200** No. **1561** Inside _____ Outside _____
Below Straddle: Depth _____ Clock No. _____ Inside _____ Outside _____
Top Make _____ Cap. _____ No. _____ Inside _____ Outside _____
Bottom Make _____ Cap. _____ No. _____ Inside _____ Outside _____
Time Set Packer **3:27** M
Tool Open I.F.P. From **3:30** M. to **4:00** M. Hr. **30** Min. From (B) **144** P.S.I. To (C) **273** P.S.I.
Tool Closed I.C.I.P. From **4:00** M. to **4:20** M. Hr. **20** Min. (D) **587** P.S.I.
Tool Open F.F.P. From **4:20** M. to **5:20** M. **1** Hr. **--** Min. From (E) **160** P.S.I. To (F) **267** P.S.I.
Tool Closed F.C.I.P. From **5:20** M. to **5:50** M. Hr. **30** Min. (G) **579** P.S.I.
Initial Hydrostatic Pressure (A) **695** P.S.I. Final Hydrostatic Pressure (H) **681** P.S.I.
SURFACE Size Choke **3/4** In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION **Gas measurements were taken with a spring gauge through 2 inch line. They were taken constantly throughout the flow period and not at timed intervals. The well was making considerable amount of mud and/or M. salt water. Static shut in pressures at the well head was 170 lbs. at 30 seconds, and increased to 180 lbs. at 30 seconds at the end of flow period.**
BLOW **Strong throughout test. Gas to surface in 4 minutes - mud spray 15 min.** Bottom Choke Size **3/4** In.
Did Well Flow **Gas** Yes _____ No _____ Recovery Total Ft. **Fluid rec. 300 feet muddy salt water.**
Gas measured 1,630,000 Maximum; 1,020,000 CFPB Minimum
Reversed Out _____ Yes ☒ No _____ Mud Type **Chem.** Viscosity **38** Weight **9.2** Water Loss _____ cc. Maximum Temp. **92** °F
Type Circ. Sub. **ping** Did Tool Plug? **no** Jars: Size _____ Make _____ Ser. No. _____
EXTRA EQUIPMENT: Dual Packers **yes** Safety Joint **no** Did Packer Hold? **yes** Where? _____
Length Drill Pipe **568** ft. I.D. Drill Pipe **3.8** in. Length Weight Pipe **570** ft. I.D. Weight Pipe **2.7** in. Length Drill Collars **210** ft.
I. D. Drill Collars **2 1/4** in. Length D.S.T. Tool **128** ft.
Remarks **Due to mud and salt water spray, gas measurements were erratic, they varied 1,630,000 down to 1,020,000 CFPD. They would go up and come down steady throughout the test. Slid tool 10 feet to bottom.**

WESTERN TESTING CO., INC.
Pressure Data

Date 3-29-68 Test Ticket No. 10317
 Recorder No. 1560 Capacity 3150 Location 1380 Ft.
 Clock No. 6861 Elevation _____ Well Temperature 92 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>695</u> P.S.I.	Opened Tool	<u>3:27</u> M.	
B First Initial Flow Pressure	<u>144</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>29</u> Mins.
C First Final Flow Pressure	<u>273</u> P.S.I.	Initial Closed-in Pressure	<u>20</u> Mins.	<u>20</u> Mins.
D Initial Closed-in Pressure	<u>587</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>160</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>267</u> P.S.I.			
G Final Closed-in Pressure	<u>579</u> P.S.I.			
H Final Hydrostatic Mud	<u>681</u> P.S.I.			

PRESSURE BREAKDOWN

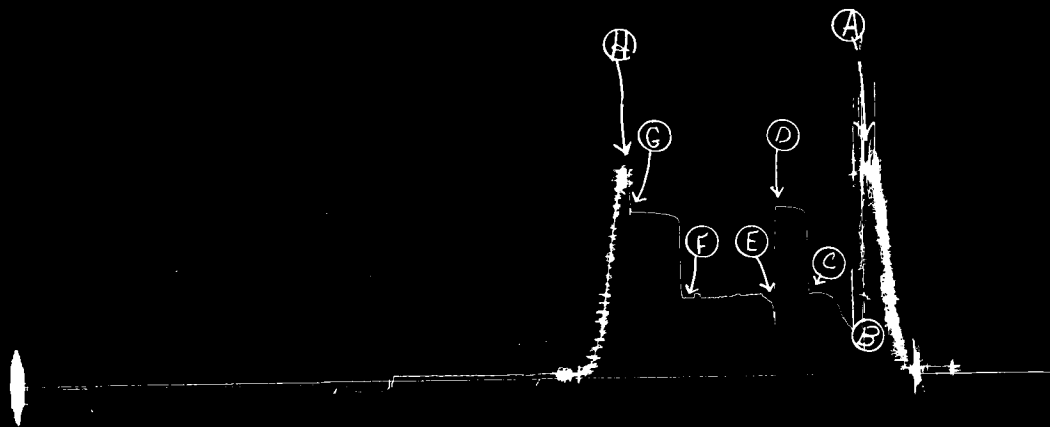
First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>5</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>4</u> Min.		final inc. of <u>2</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>--</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>144</u>	<u>0</u>	<u>273</u>	<u>0</u>	<u>160</u>	<u>0</u>	<u>267</u>
P 2 <u>5</u>	<u>172</u>	<u>3</u>	<u>570</u>	<u>5</u>	<u>255</u>	<u>3</u>	<u>557</u>
P 3 <u>10</u>	<u>236</u>	<u>6</u>	<u>579</u>	<u>10</u>	<u>275</u>	<u>6</u>	<u>565</u>
P 4 <u>15</u>	<u>266</u>	<u>9</u>	<u>582</u>	<u>15</u>	<u>274</u>	<u>9</u>	<u>568</u>
P 5 <u>20</u>	<u>274</u>	<u>12</u>	<u>584</u>	<u>20</u>	<u>274</u>	<u>12</u>	<u>570</u>
P 6 <u>25</u>	<u>274</u>	<u>15</u>	<u>585</u>	<u>25</u>	<u>278</u>	<u>15</u>	<u>573</u>
P 7 <u>29</u>	<u>273</u>	<u>18</u>	<u>587</u>	<u>30</u>	<u>269</u>	<u>18</u>	<u>574</u>
P 8 _____		<u>20</u>	<u>587</u>	<u>35</u>	<u>269</u>	<u>21</u>	<u>575</u>
P 9 _____				<u>40</u>	<u>266</u>	<u>25</u>	<u>576</u>
P 10 _____				<u>45</u>	<u>266</u>	<u>27</u>	<u>578</u>
P 11 _____				<u>50</u>	<u>280</u>	<u>30</u>	<u>579</u>
P 12 _____				<u>55</u>	<u>267</u>		
P 13 _____				<u>60</u>	<u>267</u>		
P 14 _____							
P 15 _____							
P 16 _____							
P 17 _____							
P 18 _____							
P 19 _____							
P 20 _____							

Graves Drlg Co.

TKT-10317

Redinger #1

Test #1



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	684	695	PSI
(B) First Initial Flow Pressure	141	144	PSI
(C) First Final Flow Pressure	267	273	PSI
(D) Initial Closed-in Pressure	582	587	PSI
(E) Second Initial Flow Pressure	172	160	PSI
(F) Second Final Flow Pressure	260	267	PSI
(G) Final Closed-in Pressure	582	579	PSI
(H) Final Hydrostatic Mud	684	681	PSI



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Company **Graves Drilg. Co. Inc.** Lease & Well No. **Radinger # 1**
Elevation **1425 Kelly Bushing** Formation **Kansas City** Effective Pay _____ Ft. Ticket No. **10318**
Date **4-1-68** Sec. **7** Twp. **24s** Range **2w** County **Harvey** State **Kansas**
Test Approved by **J. Copeland Landes** Western Representative **Norman Allen**
Formation Test No. **2** O.K. ☒ Misrun _____ Interval Tested From **2895'** to **2945'** Total Depth **2945'**
Size Main Hole **7 7/8** Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No
Packer Depth **2890** Ft. Size **6 3/4** Packer Depth **2895** Ft. Size **6 3/4**
Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No

Packer Depth _____ Ft. Size _____
Tool Size **54"00** Tool Jt. Size **44"FH** Anchor Length **50** Ft. Size **54"00 & DP**
RECORDERS Depth **2910** Ft. Clock No. **6861** Depth **2913** Ft. Clock No. **6899**
Top Make **Kuster** Cap. **3150** No. **1560** Inside **Outside** Bottom Make **Kuster** Cap. **3200** No. **1561** Inside **Outside**
Below Straddle: Depth _____ Clock No. _____ Inside _____ Outside _____
Top Make _____ Cap. _____ No. _____ Inside _____ Outside _____ Bottom Make _____ Cap. _____ No. _____ Inside _____ Outside _____

Time Set Packer **7:13** A. M
Tool Open I.F.P. From **7:15** M. to **7:30 A** M. Hr. **15** Min. From (B) **20** P.S.I. To (C) **62** P.S.I.
Tool Closed I.C.I.P. From **7:30** M. to **8:00 A** M. Hr. **30** Min. (D) **1236** P.S.I.
Tool Open F.F.P. From **8:00** M. to **9:00 A** M. Hr. **1** Min. From (E) **73** P.S.I. To (F) **221** P.S.I.
Tool Closed F.C.I.P. From **9:00** M. to **9:30 A** M. Hr. **30** Min. (G) **1224** P.S.I.
Initial Hydrostatic Pressure (A) **1423** P.S.I. Final Hydrostatic Pressure (H) **1415** P.S.I.

SURFACE Size Choke **3/4** In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____

BLOW **Gair throughout test.** Bottom Choke Size **3/4** In.
Did Well Flow _____ Yes ☒ No _____ Recovery Total Ft. **450 feet slightly muddy salt water with a few specks of oil throughout the fluid.**

Reversed Out _____ Yes ☒ No _____ Mud Type **Chem.** Viscosity **37** Weight **9.3** Water Loss **14** cc. Maximum Temp **110** °F
Type Circ. Sub. **pin** Did Tool Plug? **no** Jars: Size _____ Make _____ Ser. No. _____
EXTRA EQUIPMENT: Dual Packers **yes** Safety Joint **no** Did Packer Hold? **yes** Where? _____
Length Drill Pipe **2335** ft. I.D. Drill Pipe **3.8** in. Length Weight Pipe **540** ft. I.D. Weight Pipe **2.7** in. Length Drill Collars _____ ft.
I. D. Drill Collars _____ in. Length D.S.T. Tool **70** ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 4-1-68 Test Ticket No. 10318
 Recorder No. 1560 Capacity 3150 Location 2910 Ft.
 Clock No. 6861 Elevation 1425 Kelly Bushing Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1423</u> P.S.I.	Opened Tool	<u>7:13 A.</u> M	
B First Initial Flow Pressure	<u>20</u> P.S.I.	First Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>62</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>29</u> Mins.
D Initial Closed-in Pressure	<u>1236</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>73</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>29</u> Mins.
F Second Final Flow Pressure	<u>221</u> P.S.I.			
G Final Closed-in Pressure	<u>1224</u> P.S.I.			
H Final Hydrostatic Mud	<u>1415</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>9</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>--</u> Min.		final inc. of <u>2</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>2</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>20</u>	<u>0</u>	<u>62</u>	<u>0</u>	<u>73</u>	<u>0</u>	<u>221</u>
P 2 <u>5</u>	<u>36</u>	<u>3</u>	<u>1209</u>	<u>5</u>	<u>83</u>	<u>3</u>	<u>1193</u>
P 3 <u>10</u>	<u>53</u>	<u>6</u>	<u>1221</u>	<u>10</u>	<u>97</u>	<u>6</u>	<u>1204</u>
P 4 <u>15</u>	<u>62</u>	<u>9</u>	<u>1226</u>	<u>15</u>	<u>109</u>	<u>9</u>	<u>1209</u>
P 5		<u>12</u>	<u>1228</u>	<u>20</u>	<u>124</u>	<u>12</u>	<u>1212</u>
P 6		<u>15</u>	<u>1230</u>	<u>25</u>	<u>135</u>	<u>15</u>	<u>1215</u>
P 7		<u>18</u>	<u>1231</u>	<u>30</u>	<u>147</u>	<u>18</u>	<u>1218</u>
P 8		<u>21</u>	<u>1232</u>	<u>35</u>	<u>161</u>	<u>21</u>	<u>1220</u>
P 9		<u>24</u>	<u>1234</u>	<u>40</u>	<u>175</u>	<u>24</u>	<u>1222</u>
P10		<u>27</u>	<u>1236</u>	<u>45</u>	<u>188</u>	<u>27</u>	<u>1223</u>
P11		<u>29</u>	<u>1236</u>	<u>50</u>	<u>201</u>	<u>29</u>	<u>1224</u>
P12				<u>55</u>	<u>212</u>		
P13				<u>60</u>	<u>221</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Graves Dalg Co
Bedford #1

TKT-10318
Test #2



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1418	1423	PSI
(B) First Initial Flow Pressure	23	20	PSI
(C) First Final Flow Pressure	62	62	PSI
(D) Initial Closed-in Pressure	1228	1236	PSI
(E) Second Initial Flow Pressure	70	73	PSI
(F) Second Final Flow Pressure	220	221	PSI
(G) Final Closed-in Pressure	1220	1224	PSI
(H) Final Hydrostatic Mud	1418	1415	PSI



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Company **Graves Drlg. Co. Inc.** Lease & Well No. **Redfinger # 1**
Elevation **1427 Kelly Bushing** Formation **Hunton** Effective Pay _____ Ft. Ticket No. **10319**
Date **4-4-68** Sec. **7** Twp. **24** Range **2w** County **Harvey** State **Kansas**
Test Approved by **J. Copeland Landes** Western Representative **Norman Allen**
Formation Test No. **3** O.K. ☒ Misrun _____ Interval Tested From **3760'** to **3779'** Total Depth **3779'**
Size Main Hole **7 7/8** Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No
Packer Depth **3755** Ft. Size **6 3/4** Packer Depth **3760** Ft. Size **6 3/4**
Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No
Packer Depth _____ Ft. Size _____
Tool Size **5 1/2" OD** Tool Jt. Size **4 1/2" FH** Anchor Length **19** Ft. Size **5 1/2" OD**
RECORDERS Depth **3771** Ft. Clock No. **6861** Depth **3774** Ft. Clock No. **6899**
Top Make **Kuster** Cap. **3150** No. **1560** Inside ~~Outside~~ Bottom Make **Kuster** Cap. **3200** No. **1561** ~~Inside~~ Outside
Below Straddle: Depth _____ Clock No. _____ Inside _____ Outside _____
Top Make _____ Cap. _____ No. _____ Inside _____ Outside _____
Bottom Make _____ Cap. _____ No. _____ Inside _____ Outside _____
Time Set Packer **12:48** **A.** M
Tool Open I.F.P. From **12:50** M. to **1:00 A.M.** Hr. **10** Min. From (B) **37** P.S.I. To (C) **100** P.S.I.
Tool Closed I.C.I.P. From **1:00** M. to **1:30 A.M.** Hr. **30** Min. (D) **1370** P.S.I.
Tool Open F.F.P. From **1:30** M. to **2:30 A.M.** **1** Hr. **--** Min. From (E) **116** P.S.I. To (F) **400** P.S.I.
Tool Closed F.C.I.P. From **2:30** M. to **3:00 A.M.** Hr. **30** Min. (G) **1369** P.S.I.
Initial Hydrostatic Pressure (A) **1837** P.S.I. Final Hydrostatic Pressure (H) **1802** P.S.I.
SURFACE Size Choke **3/4** In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____
BLOW **Strong throughout test.** Bottom Choke Size **3/4** In.
Did Well Flow _____ Yes ☒ No _____ Recovery Total Ft. **825 feet salt water - sulphur and slightly oil cut;**
(30 feet gas on top test)
Reversed Out _____ Yes ☒ No _____ Mud Type **Chem.** Viscosity **37** Weight **9.6** Water Loss **12.2** cc. Maximum Temp. **120** °F
Type Circ. Sub. **pin** Did Tool Plug? **no** Jars: Size _____ Make _____ Ser. No. _____
EXTRA EQUIPMENT: Dual Packers **yes** Safety Joint **no** Did Packer Hold? **yes** Where? _____
Length Drill Pipe **3050** ft. I.D. Drill Pipe **3.8** in. Length Weight Pipe **600** ft. I.D. Weight Pipe **2.7** in. Length Drill Collars **90** ft.
I. D. Drill Collars **2 1/4** in. Length D.S.T. Tool **39** ft.
Remarks **First attempt at Drill stem test # 3 was a missrun tool would not go to bottom.**
Attempted to slide tool to bottom, plugged same. Recovered 80 feet drilling mud.

WESTERN TESTING CO., INC.

Pressure Data

Date 4-4-68 Test Ticket No. 10319
 Recorder No. 1560 Capacity 3150 Location 3771 Ft.
 Clock No. 6861 Elevation 1427 Kelly Bushing Well Temperature 120 °F

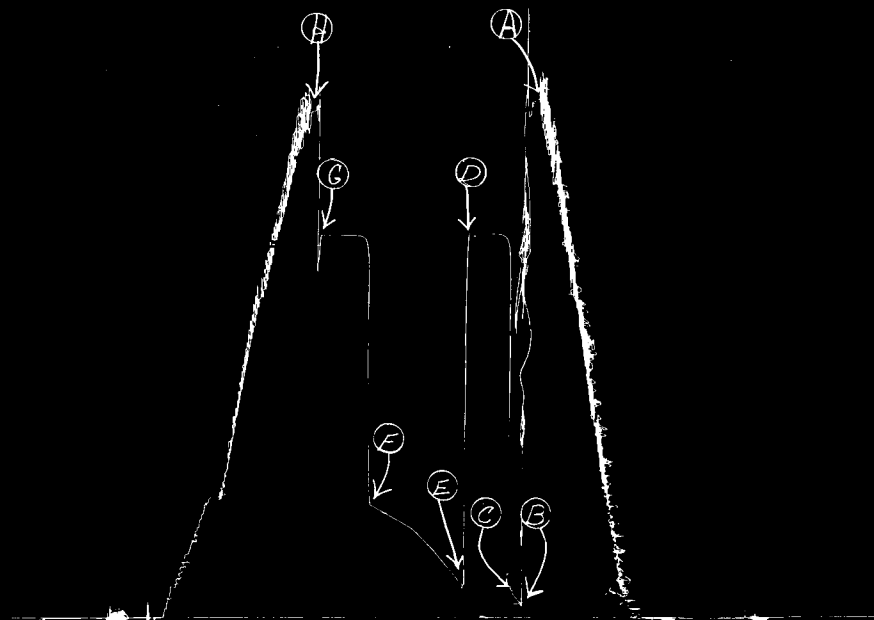
Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1837</u> P.S.I.	<u>12:48 A.</u> M	
B First Initial Flow Pressure	<u>37</u> P.S.I.	<u>10</u> Mins.	<u>9</u> Mins.
C First Final Flow Pressure	<u>100</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1370</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>116</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>400</u> P.S.I.		
G Final Closed-in Pressure	<u>1369</u> P.S.I.		
H Final Hydrostatic Mud	<u>1802</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>1</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>10</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>4</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>--</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>37</u>	<u>0</u>	<u>100</u>	<u>0</u>	<u>116</u>	<u>0</u>	<u>400</u>
P 2 <u>5</u>	<u>81</u>	<u>3</u>	<u>1360</u>	<u>5</u>	<u>138</u>	<u>3</u>	<u>1356</u>
P 3 <u>9</u>	<u>100</u>	<u>6</u>	<u>1368</u>	<u>10</u>	<u>174</u>	<u>6</u>	<u>1364</u>
P 4		<u>9</u>	<u>1369</u>	<u>15</u>	<u>207</u>	<u>9</u>	<u>1366</u>
P 5		<u>12</u>	<u>1369</u>	<u>20</u>	<u>242</u>	<u>12</u>	<u>1368</u>
P 6		<u>15</u>	<u>1370</u>	<u>25</u>	<u>270</u>	<u>15</u>	<u>1369</u>
P 7		<u>18</u>	<u>1370</u>	<u>30</u>	<u>302</u>	<u>18</u>	<u>1369</u>
P 8		<u>21</u>	<u>1370</u>	<u>35</u>	<u>323</u>	<u>21</u>	<u>1369</u>
P 9		<u>24</u>	<u>1370</u>	<u>40</u>	<u>338</u>	<u>24</u>	<u>1369</u>
P10		<u>27</u>	<u>1370</u>	<u>45</u>	<u>354</u>	<u>27</u>	<u>1369</u>
P11		<u>30</u>	<u>1370</u>	<u>50</u>	<u>372</u>	<u>30</u>	<u>1369</u>
P12				<u>55</u>	<u>387</u>		
P13				<u>60</u>	<u>400</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Graves Drlg Co.
Redinger #1

TKT-10319
Test #3



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1835	1837	PSI
(B) First Initial Flow Pressure	47	37	PSI
(C) First Final Flow Pressure	94	100	PSI
(D) Initial Closed-in Pressure	1363	1370	PSI
(E) Second Initial Flow Pressure	109	116	PSI
(F) Second Final Flow Pressure	394	400	PSI
(G) Final Closed-in Pressure	1363	1369	PSI
(H) Final Hydrostatic Mud	1811	1802	PSI



Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company **Graves Drlg. Co. Inc.** Lease & Well No. **Redinger # 1**
Elevation **1427 Kelly Bushing** Formation **Simpson** Effective Pay _____ Ft. Ticket No. **10320**
Date **4-4-68** Sec. **7** Twp. **24s** Range **2w** County **Harvey** State **Kansas**
Test Approved by **P. T. Landes Jr.** Western Representative **Norman Allen**
Formation Test No. **4** O.K. ☒ Misrun _____ Interval Tested From **3876'** to **3887'** Total Depth **3887'**
Size Main Hole **7 7/8** Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. _____ B.T. _____ Damaged _____ Yes _____ No
Packer Depth **3876** Ft. Size **6 3/4** Packer Depth _____ Ft. Size _____
Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No
Packer Depth _____ Ft. Size _____
Tool Size **5 1/2" OD** Tool Jt. Size **4 1/2" FH** Anchor Length **11** Ft. Size **5 1/2" OD**
RECORDERS Depth **3880** Ft. Clock No. **6861** Depth **3883** Ft. Clock No. **6899**
Top Make **Kuster** Cap. **3150** No. **1560** Inside ~~Outside~~ Bottom Make **Kuster** Cap. **3200** No. **1561** Inside ~~Outside~~
Below Straddle: Depth _____ Clock No. _____ Inside _____ Outside _____
Top Make _____ Cap. _____ No. _____ Inside _____ Outside _____
Bottom Make _____ Cap. _____ No. _____ Inside _____ Outside _____
Time Set Packer **7:13** M
Tool Open I.F.P. From **7:15** M. to **7:30** M. Hr. **15** Min. From (B) **82** P.S.I. To (C) **42** P.S.I.
Tool Closed I.C.I.P. From **7:30** M. to **8:00** M. Hr. **30** Min. (D) **1381** P.S.I.
Tool Open F.F.P. From **8:00** M. to **9:00** M. Hr. **1** Min. From (E) **54** P.S.I. To (F) **83** P.S.I.
Tool Closed F.C.I.P. From **9:00** M. to **9:30** M. Hr. **30** Min. (G) **1267** P.S.I.
Initial Hydrostatic Pressure (A) **1935** P.S.I. Final Hydrostatic Pressure (H) **1921** P.S.I.
SURFACE Size Choke **3/4** In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____
BLOW **Weak to very weak 45 minutes, flushed two times** Bottom Choke Size **3/4** In.
Did Well Flow _____ Yes ☒ No _____ Recovery Total Ft. **30 feet oil cut mud;**
75 feet mud with few specks oil
Reversed Out _____ Yes ☒ No _____ Mud Type **Chem.** Viscosity **55** Weight **9.7** Water Loss **9.8** cc. Maximum Temp **121** °F
Type Circ. Sub. **pin** Did Tool Plug? _____ Jars: Size _____ Make _____ Ser. No. _____
EXTRA EQUIPMENT: Dual Packers **no** Safety Joint **no** Did Packer Hold? **yes** Where? _____
Length Drill Pipe **3051** ft. I.D. Drill Pipe **3.8** in. Length Weight Pipe **600** ft. I.D. Weight Pipe **2.7** in. Length Drill Collars **210** ft.
I. D. Drill Collars **2 1/4** in. Length D.S.T. Tool **26** ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 4-4-68 Test Ticket No. 10320
 Recorder No. 1561 Capacity 3200 Location 3883 Ft.
 Clock No. 6899 Elevation 1427 Kelly Bushing Well Temperature 121 °F

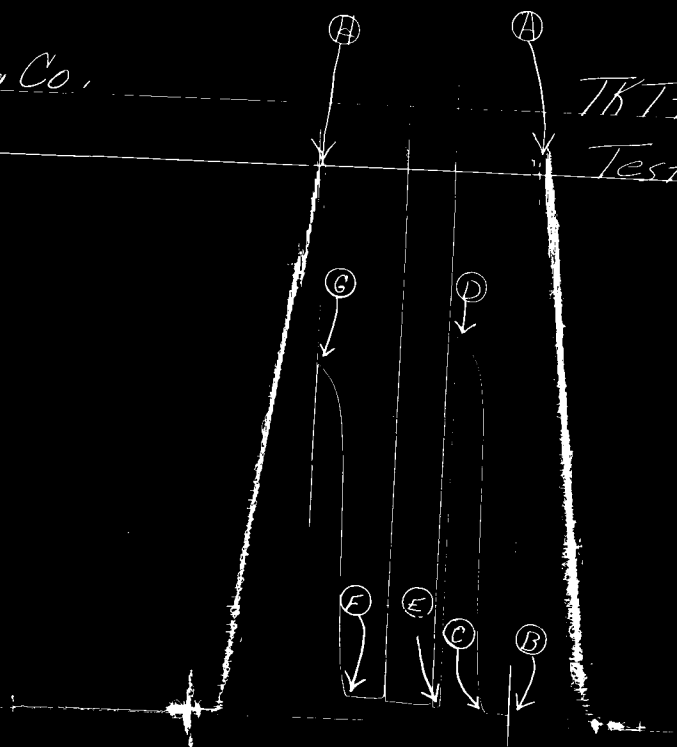
Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1935</u> P.S.I.	<u>7:13</u> M	
B First Initial Flow Pressure	<u>32</u> P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>42</u> P.S.I.	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>1381</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>54</u> P.S.I.	<u>30</u> Mins.	<u>27</u> Mins.
F Second Final Flow Pressure	<u>83</u> P.S.I.		
G Final Closed-in Pressure	<u>1267</u> P.S.I.		
H Final Hydrostatic Mud	<u>1921</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>9</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>--</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>--</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>32</u>	<u>0</u>	<u>42</u>	<u>0</u>	<u>54</u>	<u>0</u>	<u>83</u>
P 2 <u>5</u>	<u>37</u>	<u>3</u>	<u>75</u>	<u>5</u>	<u>54</u>	<u>3</u>	<u>153</u>
P 3 <u>10</u>	<u>40</u>	<u>6</u>	<u>106</u>	<u>10</u>	<u>62</u>	<u>6</u>	<u>392</u>
P 4 <u>15</u>	<u>42</u>	<u>9</u>	<u>998</u>	<u>15</u>	<u>63</u>	<u>9</u>	<u>1003</u>
P 5		<u>12</u>	<u>1260</u>	<u>20</u>	<u>65</u>	<u>12</u>	<u>1138</u>
P 6		<u>15</u>	<u>1303</u>	<u>25</u>	<u>67</u>	<u>15</u>	<u>1186</u>
P 7		<u>18</u>	<u>1332</u>	<u>30</u>	<u>69</u>	<u>18</u>	<u>1217</u>
P 8		<u>21</u>	<u>1356</u>	<u>35</u>	<u>69</u>	<u>21</u>	<u>1240</u>
P 9		<u>24</u>	<u>1372</u>	<u>40</u>	<u>78</u>	<u>24</u>	<u>1259</u>
P10		<u>27</u>	<u>1381</u>	<u>45</u>	<u>79</u>	<u>27</u>	<u>1267</u>
P11				<u>50</u>	<u>80</u>		
P12				<u>55</u>	<u>82</u>		
P13				<u>60</u>	<u>83</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Graves Drlg Co.
Redinger #1

TKT-10320
Test #4



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1932	1935	PSI
(B) First Initial Flow Pressure	23	32	PSI
(C) First Final Flow Pressure	31	42	PSI
(D) Initial Closed-in Pressure	1363	1381	PSI
(E) Second Initial Flow Pressure	39	54	PSI
(F) Second Final Flow Pressure	62	83	PSI
(G) Final Closed-in Pressure	1251	1267	PSI
(H) Final Hydrostatic Mud	1916	1921	PSI