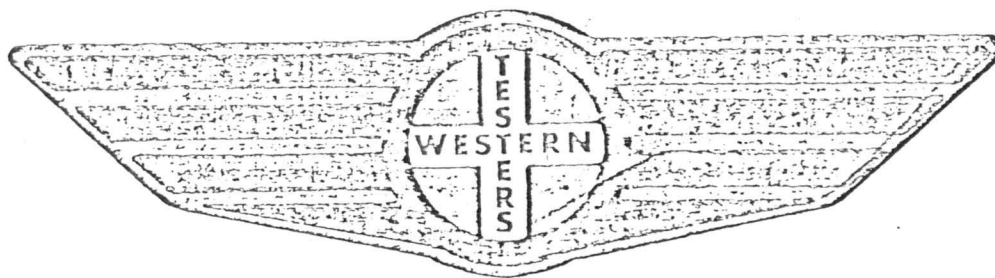


FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ F G HOLL _____
Lease and Well No. _____ #1-18 SMALLER _____
Sec. _____ 18 Twp. _____ 32S Rge. _____ 8W _____
Test No. _____ 1 Date 5/6/87

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 5/6/84 TICKET #4372
CUSTOMER: F.G.HOLL LEASE: SMALLEY
WELL: #1-18 TEST: 1 GEOLOGIST: BIDLEMAN
ELEVATION (KB): 1512 FORMATION: STALNAKER
SECTION: 18 TOWNSHIP: 32S
RANGE: 8W COUNTY: HARPER STATE: KANSAS
GAUGE SN #13552 RANGE: 4050 CLOCK: 12

INTERVAL TEST FROM: 3674 FT TO: 3711 FT TOTAL DEPTH: 3711 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3669 FT SIZE: 6 5/8 IN PAKER DEPTH: 3674 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING
MUD TYPE: CHEMDRPC VISCOSITY: 55
WEIGHT: 9.3 WATER LOSS (CC): 12.0
CHLORIDES (P.P.M.): 14000
JARS - MAKE: W.T.C. SERIAL NUMBER: 405
DID WELL FLOW? NO REVERSED OUT? YES
DRILL COLLAR LENGTH: 432 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3214 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 29 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 37 FT SIZE: 5 1/2 O.D. IN
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 FH IN

BLOW: STRONG BLOW THROUGHOUT FLOW PERIODS.

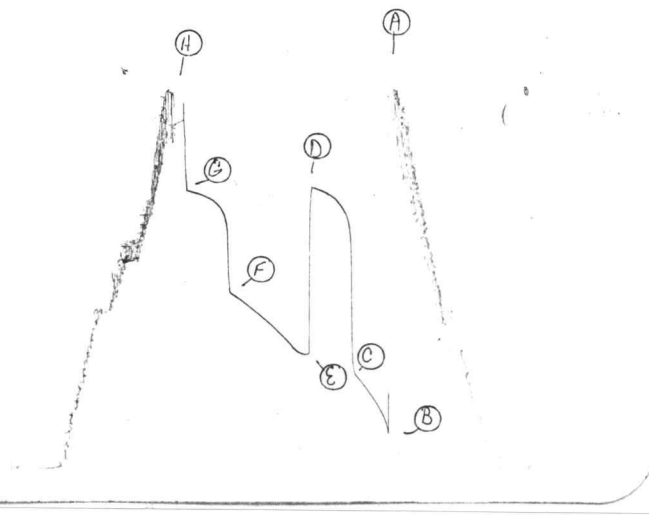
RECOVERED: 120 FT OF: DRLG MUD.
RECOVERED: 1715 FT OF: SALT WATER. CHLORIDES 123000 P.P.M.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ OUTSIDE CHART.

TIME SET PACKER(S): 9:30 A.M. TIME STARTED OFF BOTTOM: 12:00 P.M.
WELL TEMPERATURE: 116 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1963 PSI
INITIAL FLOW PERIOD MIN: 25 (B) 191 PSI TO (C) 502 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1465 PSI
FINAL FLOW PERIOD MIN: 60 (E) 602 PSI TO (F) 923 PSI
FINAL CLOSED IN PERIOD MIN: 33 (G) 1448 PSI
FINAL HYDROSTATIC PRESSURE (H) 1910 PSI

TKT # 4372

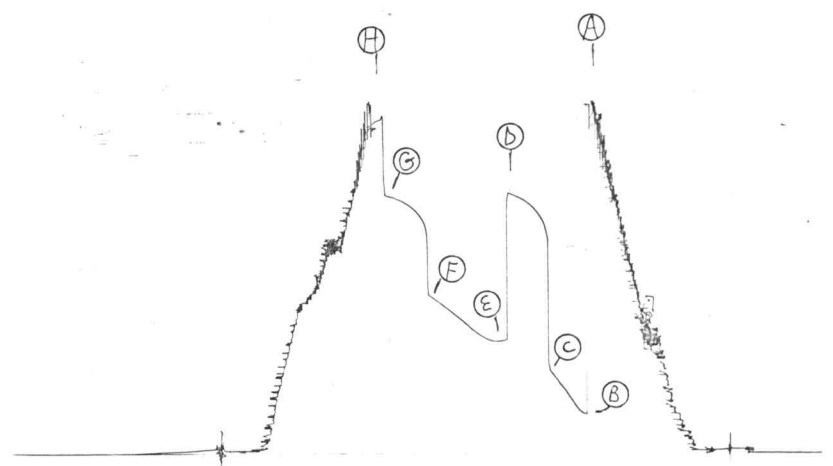
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TKT # 4372

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P
E





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 4372

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

Elevation 1512 K.B Formation Stalnaker Eff. Pay - Ft.

District Pratt Date 5/6/84 Customer Order No.

COMPANY NAME F.G. Hall

ADDRESS 6427 E. Kellogg Wichita, Ks 67207

LEASE AND WELL NO Smalley #1-18 COUNTY Harper STATE Ks Sec. 18 Twp. 32S Rge. 8W

Mail Invoice To Same #1-18 Smalley Co. Name Address No. Copies Requested 5

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 1 Interval Tested From 3674 ft. to 3711 ft. Total Depth 3711 ft.

Packer Depth 3669 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 3674 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3700 ft. Recorder Number 13547 Cap. 4225

Bottom Recorder Depth (Outside) 3703 ft. Recorder Number 13552 Cap. 4050

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

Drilling Contractor Sterling Rig #2 Drill Collar Length 432 I. D. 2 1/4 in.

Mud Type Chemical-Drispac Viscosity 55 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 12.0 cc. Drill Pipe Length 3217 I. D. 3.8 in.

Chlorides 14,000 P.P.M. Test Tool Length 29 ft. Tool Size 5/200 in.

Jars: Make WJC Serial Number 405 Anchor Length 37 (31) ft. Size 5/200 in.

Did Well Flow? No Reversed Out 1cs Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

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

Blow: Strong blow throughout flow periods

Recovered 120 ft. of Dots Mud

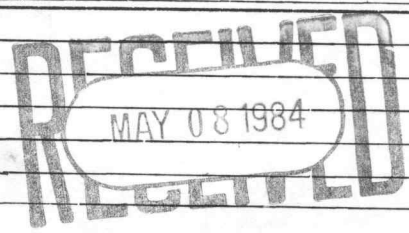
Recovered 1715 ft. of Salt Water

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Chlorides 123,000 P.P.M. Sample Jars used Remarks:



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 W. Bruce Billman Signature of Customer or his authorized representative

Western Representative Jim Wonda Thank You

FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler. Prices are handwritten.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-6 Test Ticket No. 4372
 Recorder No. 13552 Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1963</u> P.S.I.		
B First Initial Flow Pressure	<u>191</u> P.S.I.	<u>30</u> Mins.	<u>25</u> Mins.
C First Final Flow Pressure	<u>502</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1465</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>602</u> P.S.I.	<u>30</u> Mins.	<u>33</u> Mins.
F Second Final Flow Pressure	<u>923</u> P.S.I.		
G Final Closed-in Pressure	<u>1448</u> P.S.I.		
H Final Hydrostatic Mud	<u>1910</u> P.S.I.		

Read Outside Chart!

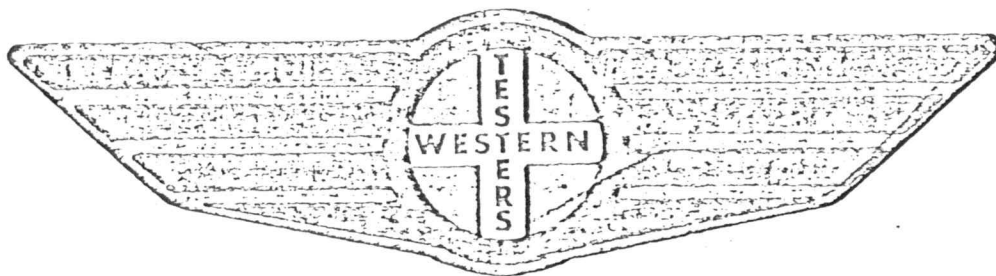
PRESSURE BREAKDOWN

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>12</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	<u>191</u>	0	<u>502</u>	0	<u>602</u>	0	<u>923</u>
P 2 5	<u>292</u>	3	<u>1200</u>	5	<u>602</u>	3	<u>1291</u>
P 3 10	<u>357</u>	6	<u>1327</u>	10	<u>621</u>	6	<u>1350</u>
P 4 15	<u>407</u>	9	<u>1360</u>	15	<u>661</u>	9	<u>1379</u>
P 5 20	<u>455</u>	12	<u>1390</u>	20	<u>699</u>	12	<u>1398</u>
P 6 25	<u>502</u>	15	<u>1413</u>	25	<u>732</u>	15	<u>1409</u>
P 7 30		18	<u>1427</u>	30	<u>766</u>	18	<u>1420</u>
P 8 35		21	<u>1437</u>	35	<u>793</u>	21	<u>1428</u>
P 9 40		24	<u>1447</u>	40	<u>824</u>	24	<u>1434</u>
P10 45		27	<u>1456</u>	45	<u>854</u>	27	<u>1439</u>
P11 50		30	<u>1465</u>	50	<u>881</u>	30	<u>1448</u>
P12 55		33		55	<u>905</u>	33	<u>1448</u>
P13 60		36		60	<u>923</u>	36	
P14		39		65		39	
P15		42		70		42	
P16		45		75		45	
P17		48		80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ F G HOLL _____ Lease and Well No. _____ #1-18 "A" SMALLEY Sec. _____ 18 Twp. _____ 32S Rge. _____ 8W Test No. _____ 2 Date 5/7/84

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 5/7/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 1512
SECTION: 18
RANGE: 8W
GAUGE SN #13402

TEST: 2
COUNTY: HARPER
RANGE: 4025

TICKET #4858
LEASE: "A" SMALLEY
GEOLOGIST: BIDLEMAN
FORMATION: HERTHA KANSAS CITY
TOWNSHIP: 32S
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4111 FT TO: 4143 FT TOTAL DEPTH: 4143 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4106 FT SIZE: 6 3/4 IN PACKER DEPTH: 4111 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING DRLG
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 9.3 WATER LOSS (CC): 10.4
CHLORIDES (P.P.M.): 16000
JARS - MAKE: WTC SERIAL NUMBER: 405
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 420 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3662 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 29 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 32 FT SIZE: 5 1/2 OD IN
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: INITIAL FLOW PERIOD FAIR BLOW
BUILDING TO A STRONG BLOW.
FINAL FLOW PERIOD STRONG BLOW.

RECOVERED: 90 FT OF: SLIGHTLY OIL CUT MUD.
RECOVERED: FT OF: 60% MUD; 20% WATER; 10% OIL; 10% GAS.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

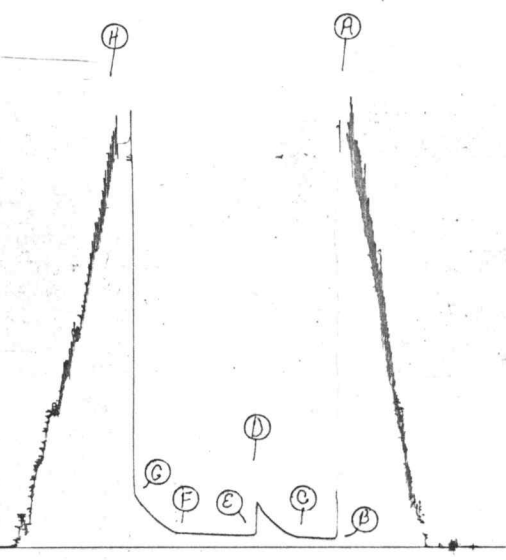
TIME SET PACKER(S): 9:55 PM TIME STARTED OFF BOTTOM: 12:25 AM
WELL TEMPERATURE: 116 'F
INITIAL HYDROSTATIC PRESSURE: (A) 2077 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 42 PSI TO (C) 50 PSI
INITIAL CLOSED IN PERIOD MIN: 33 (D) 223 PSI
FINAL FLOW PERIOD MIN: 60 (E) 59 PSI TO (F) 73 PSI
FINAL CLOSED IN PERIOD MIN: 33 (G) 269 PSI
FINAL HYDROSTATIC PRESSURE (H) 2077 PSI

13402

TKI # 4858

DST #2

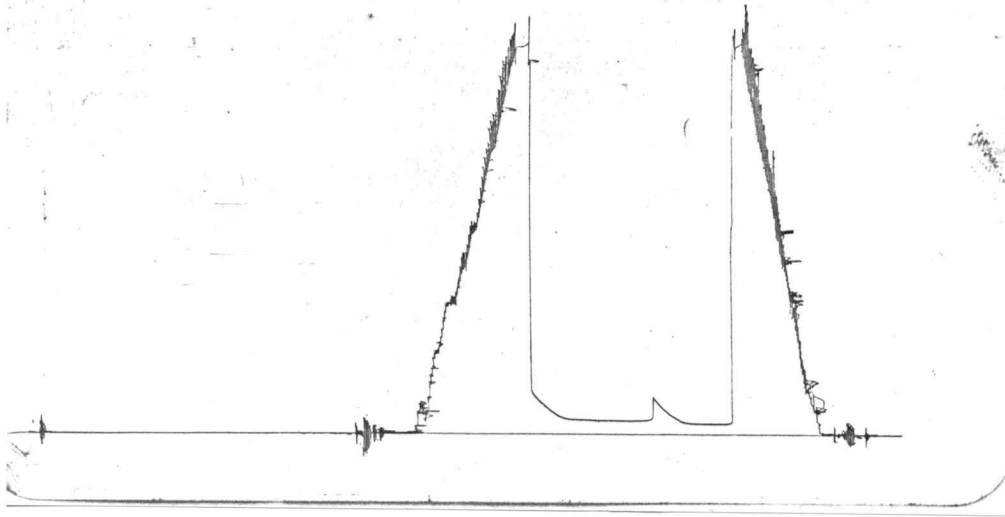
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1559
DS7 #2

TKT# 4858

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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No. 4858

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

Elevation 1512 KB Formation Hertha - KC. Eff. Pay Ft.

District Pratt Date 5-7-81 Customer Order No.

COMPANY NAME F.G. Hall

ADDRESS 6427 E. Kellogg Wichita KS 67207

LEASE AND WELL NO. Smalley "A" 1-18 COUNTY Harper STATE KS Sec. 18 Twp. 32s Rge. 8w

Mail Invoice To Same Co. Name #1-18"A" SMALLEY Address No. Copies Requested Reg

Mail Charts To Same #1-18"A" SMALLEY Address No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 4111 ft. to 4143 ft. Total Depth 4143 ft.

Packer Depth 4106 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4111 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4133 ft.

Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 4136 ft.

Recorder Number 1559 Cap. 4200

Below Saddle Recorder Depth ft.

Recorder Number Cap.

Drilling Contractor Sterling #2

Drill Collar Length 420 I. D. 2.2 in.

Mud Type Chem Viscosity 45

Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 10.4 cc.

Drill Pipe Length 3662 I. D. 3.8 in.

Chlorides 14,000 P.P.M.

Test Tool Length 29 ft. Tool Size 5/20D in.

Jars: Make WTC Serial Number 405

Anchor Length 32 ft. Size 5/20D 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 1/2 x H in.

Blow: Fair Building to Strong IF. - Strong thru FF.

Recovered 90 ft. of Slightly Oil Cut Mud 60% Mud 20% Water 10% Oil 10% Gas

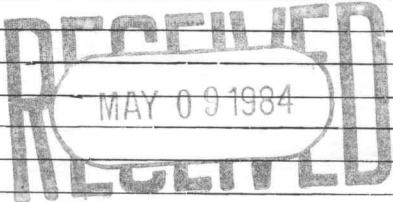
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks:



Time On Location 6:00 A.M. P.M. Time Pick Up Tool 7:30 A.M. P.M. Time Off Location 3:00 A.M. P.M.

Time Set Packer(s) 9:55 A.M. P.M. Time Started Off Bottom 12:25 A.M. P.M. Maximum Temperature 116°

Initial Hydrostatic Pressure (A) 2066 P.S.I.

Initial Flow Period Minutes 30 (B) 59 P.S.I. to (C) 68 P.S.I.

Initial Closed In Period Minutes 30 (D) 226 P.S.I.

Final Flow Period Minutes 60 (E) 68 P.S.I. to (F) 78 P.S.I.

Final Closed In Period Minutes 30 (G) 275 P.S.I.

Final Hydrostatic Pressure (H) 2066 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 W. Bruce Bidleman Signature of Customer or his authorized representative

Western Representative [Signature] 1625

FIELD INVOICE

- Open Hole Test \$ 595
Misrun \$
Straddle Test \$
Jars \$ 200
Selective Zone \$
Safety Joint \$ 65
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$

WESTERN TESTING CO., INC.

Pressure Data

Date 5-7-84

Test Ticket No. 4858

Recorder No. 13402 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2077</u> P.S.I.	Open Tool		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>50</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>223</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>59</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
F Second Final Flow Pressure	<u>73</u> P.S.I.			
G Final Closed-in Pressure	<u>269</u> P.S.I.			
H Final Hydrostatic Mud	<u>2077</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: 12 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.

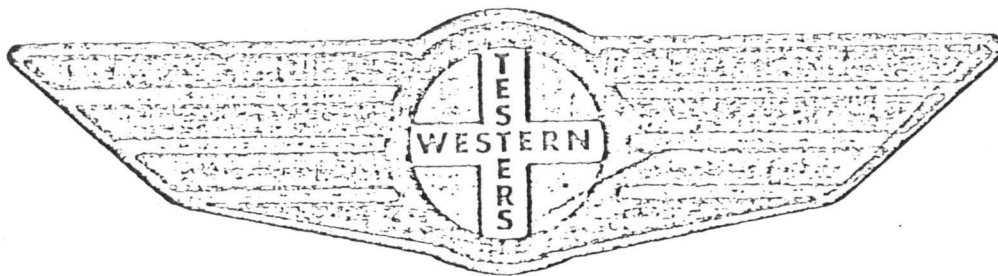
Final Shut-In
Breakdown: 12 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>42</u>	0	<u>50</u>	0	<u>59</u>	0	<u>73</u>
P 2 5	<u>43</u>	3	<u>50</u>	5	<u>59</u>	3	<u>78</u>
P 3 10	<u>44</u>	6	<u>55</u>	10	<u>60</u>	6	<u>90</u>
P 4 15	<u>45</u>	9	<u>63</u>	15	<u>60</u>	9	<u>102</u>
P 5 20	<u>46</u>	12	<u>73</u>	20	<u>61</u>	12	<u>117</u>
P 6 25	<u>48</u>	15	<u>87</u>	25	<u>63</u>	15	<u>136</u>
P 7 30	<u>50</u>	18	<u>104</u>	30	<u>65</u>	18	<u>152</u>
P 8 35		21	<u>121</u>	35	<u>66</u>	21	<u>172</u>
P 9 40		24	<u>142</u>	40	<u>67</u>	24	<u>192</u>
P 10 45		27	<u>163</u>	45	<u>68</u>	27	<u>217</u>
P 11 50		30	<u>189</u>	50	<u>69</u>	30	<u>244</u>
P 12 55		33	<u>223</u>	55	<u>71</u>	33	<u>269</u>
P 13 60		36		60	<u>73</u>	36	
P 14		39		65		39	
P 15		42		70		42	
P 16		45		75		45	
P 17		48		80		48	
P 18		51		85		51	
P 19		54		90		54	
P 20		57				57	
		60				60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company F G HOLL Lease and Well No. #1-18 "A" SMALLER Sec. 18 Twp. 32S Rge. 8W Test No. 3 Date 5/9/87

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 5/9/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 1512
SECTION: 18
RANGE: 8W
GAUGE SN #13402

TEST: 3
FORMATION:
TOWNSHIP: 32S
COUNTY: HARPER
RANGE: 4025

TICKET #4859
LEASE: "A" SMALLEY
GEOLOGIST: BIDLEMAN
MISSISSIPPI
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4421 FT TO: 4440 FT TOTAL DEPTH: 4440 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4416 FT SIZE: 6 3/4 IN PACKER DEPTH: 4421 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING DRLG
MUD TYPE: CHEMICAL VISCOSITY: 60
WEIGHT: 9.4 WATER LOSS (CC): 12.0
CHLORIDES (P.P.M.): 17000
JARS - MAKE: WTC SERIAL NUMBER: 405
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 420 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3972 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 29 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 19 FT SIZE: 5 1/2 OD IN
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 BLOW THROUGHOUT TEST.
GAS TO SURFACE IN 28 MINUTES.
SEE ATTACHED SHEET FOR GAS MEASUREMENTS.

RECOVERED: 126 FT OF: OIL CUT MUD.
RECOVERED: 274 FT OF: GASSY OIL.
RECOVERED: 152 FT OF: WATER. CHLORIDES 80000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 1:15 PM TIME STARTED OFF BOTTOM: 3:45 PM
WELL TEMPERATURE: 120 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2262 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 99 PSI TO (C) 147 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1434 PSI
FINAL FLOW PERIOD MIN: 60 (E) 122 PSI TO (F) 194 PSI
FINAL CLOSED IN PERIOD MIN: 33 (G) 1368 PSI
FINAL HYDROSTATIC PRESSURE (H) 2262 PSI

WESTERN TESTING CO. INC.
GAS FLOW REPORT

DATE: 5/9/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 1512
SECTION: 18
RANGE: 8W
GAUGE SN #13402

TEST: 3
FORMATION: MISSISSIPPI
TOWNSHIP: 32S
COUNTY: HARPER
RANGE: 4025

TICKET #4859
LEASE: "A" SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

TIME GAUGE (MIN)	TESTER TYPE	ORIFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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PRE FLOW

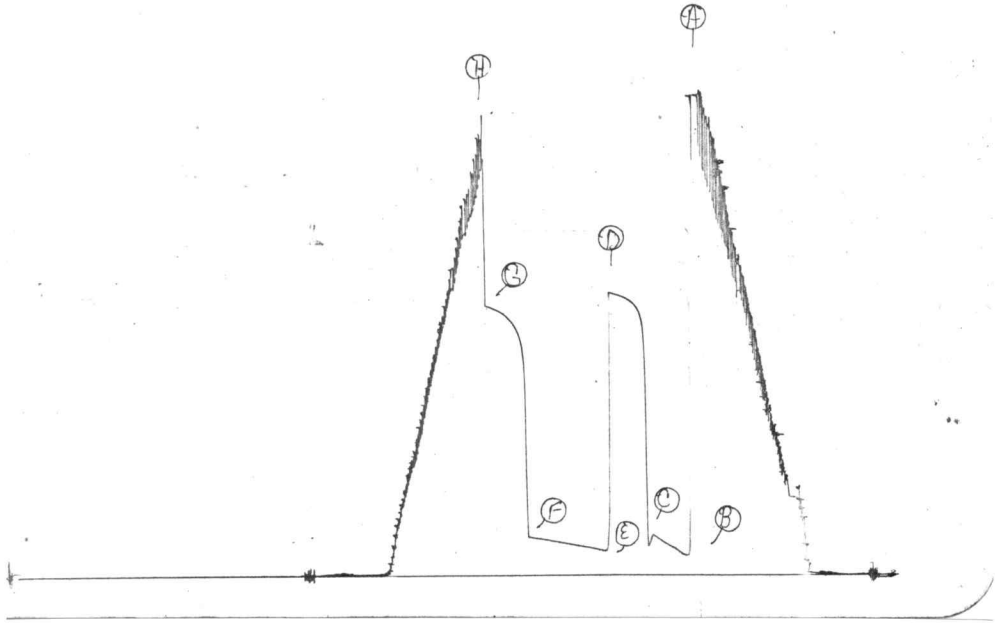
SECOND FLOW

10	MERLA	3/4	3.0 PSIG	133000 CFPD
20			2.5	121000
30			2.5	121000
40			2.0	108000
50			2.0	108000
60			2.0	108000

GAS BOTTLE SN #:
DATE BOTTLE FILLED:
DATE TO BE INVOICED:

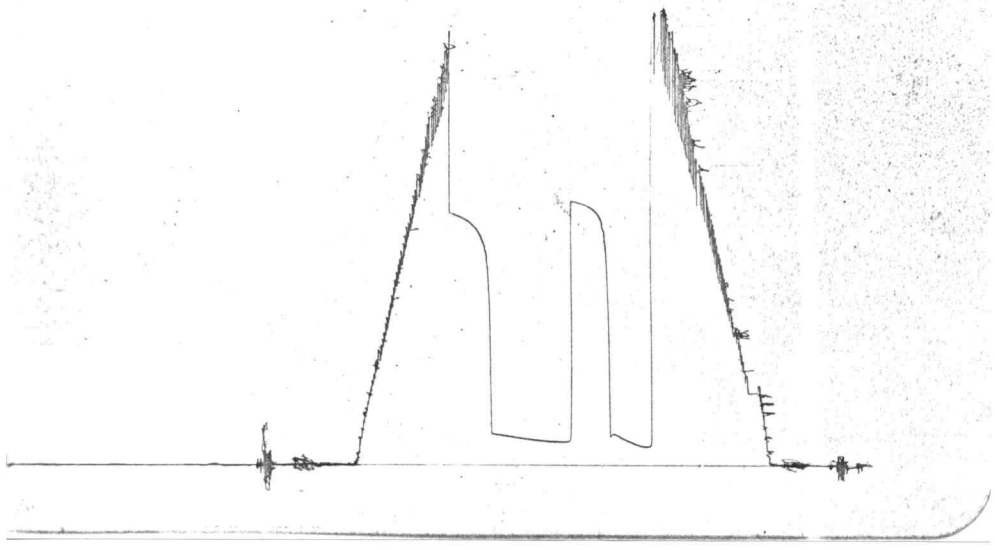
13402
DST# 3 TKT# 4854

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ISS# 1559
DST# 3 TKT# 4859

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WESTERN TESTING CO., INC.
FORMATION TESTING

No. 40
4859
OW

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

Elevation 1512 KB Formation Miss. Eff. Pay Ft.

District Pratt Date 5-9-84 Customer Order No.

COMPANY NAME H140 F.G. Hall

ADDRESS 6427 E Kellogg, Wichita KS 67207

LEASE AND WELL NO. Smalley A-1-18 COUNTY Harper STATE KS Sec. 18 Twp. 33 Rge. 800

Mail Invoice To Same Co. Name #1-18 "A" SMALLEY Address No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 3 Interval Tested From 4421 ft. to 4440 ft. Total Depth 4440 ft.
Packer Depth 4436 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 4421 ft. Size 6 3/4 in. Packer Depth ft. Size in.

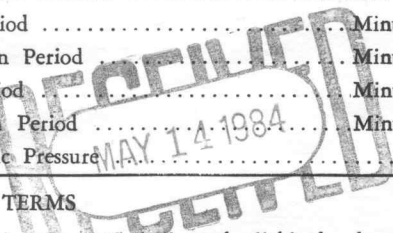
Depth of Selective Zone Set
Top Recorder Depth (Inside) 4430 ft. Recorder Number 13402 Cap. 4025
Bottom Recorder Depth (Outside) 4433 ft. Recorder Number 1559 Cap. 4200
Below Scaddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Stealing #2 Drill Collar Length 420 I. D. 2.2 in.
Mud Type Chem Viscosity 60 Weight Pipe Length I. D. in.
Weight 9.4 Water Loss 12.0 cc. Drill Pipe Length 3972 I. D. 3.8 in.
Chlorides 17000 P.P.M. Test Tool Length 27 ft. Tool Size 5 1/2 OD in.
Jars: Make WTC Serial Number 405 Anchor Length 19 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 x 11 in.

Blow: Strong GTS 28 min - see GCS Flow Report.

Recovered 126 ft. of Oil Cut Mud
Recovered 274 ft. of Gassy Oil
Recovered 152 ft. of Water Chlorides 80,000 ppm
Recovered ft. of
Recovered ft. of
Chlorides P.P.M. Sample Jars used 6 Remarks:

Time On Location 7:00 A.M. Time Pick Up Tool 11:00 A.M. Time Off Location 6:30 P.M.
Time Set Packer(s) 1:15 P.M. Time Started Off Bottom 3:45 A.M. Maximum Temperature 120°
Initial Hydrostatic Pressure (A) 2248 P.S.I.
Initial Flow Period 30 Minutes (B) 108 P.S.I. to (C) 147 P.S.I.
Initial Closed In Period 30 Minutes (D) 1434 P.S.I.
Final Flow Period 60 Minutes (E) 127 P.S.I. to (F) 187 P.S.I.
Final Closed In Period 30 Minutes (G) 1364 P.S.I.
Final Hydrostatic Pressure (H) 2248 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 W. Byron Bidleman
Signature of Customer or his authorized representative
M. R. P. 1625

FIELD INVOICE
Open Hole Test \$ 595 -
Misrun \$
Straddle Test \$
Jars \$ 200 -
Selective Zone \$
Safety Joint \$ 165 -
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$

WESTERN TESTING CO., INC.

Pressure Data

Date: 5-9-84 Test Ticket No. 4859
 Recorder No. 13402 Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2262</u> P.S.I.		M
B First Initial Flow Pressure	<u>99</u> P.S.I.	<u>30</u> Mins.	
C First Final Flow Pressure	<u>147</u> P.S.I.	<u>30</u> Mins.	
D Initial Closed-in Pressure	<u>1434</u> P.S.I.	<u>60</u> Mins.	
E Second Initial Flow Pressure	<u>122</u> P.S.I.	<u>30</u> Mins.	
F Second Final Flow Pressure	<u>194</u> P.S.I.		
G Final Closed-in Pressure	<u>1368</u> P.S.I.		
H Final Hydrostatic Mud	<u>2262</u> P.S.I.		

PRESSURE BREAKDOWN

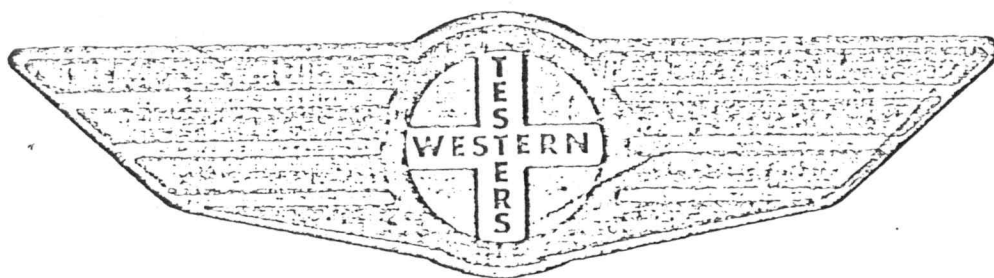
<p>First Flow Pressure Breakdown: <u>7</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Initial Shut-In Breakdown: <u>11</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Second Flow Pressure Breakdown: <u>13</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Final Shut-In Breakdown: <u>13</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.</p>
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Point	Mins.	Press.	Point	Minutes	Press.	Point	Minutes	Press.
P 1	0	<u>99</u>	P 1	0	<u>147</u>	P 1	0	<u>194</u>
P 2	5	<u>104</u>	P 2	3	<u>1001</u>	P 2	3	<u>1050</u>
P 3	10	<u>129</u>	P 3	6	<u>1294</u>	P 3	6	<u>1196</u>
P 4	15	<u>148</u>	P 4	9	<u>1352</u>	P 4	9	<u>1248</u>
P 5	20	<u>169</u>	P 5	12	<u>1376</u>	P 5	12	<u>1281</u>
P 6	25	<u>191</u>	P 6	15	<u>1394</u>	P 6	15	<u>1305</u>
P 7	30	<u>147 OK</u>	P 7	18	<u>1408</u>	P 7	18	<u>1325</u>
P 8	35		P 8	21	<u>1416</u>	P 8	21	<u>1338</u>
P 9	40		P 9	24	<u>1424</u>	P 9	24	<u>1348</u>
P 10	45		P 10	27	<u>1430</u>	P 10	27	<u>1357</u>
P 11	50		P 11	30	<u>1434</u>	P 11	30	<u>1365</u>
P 12	55		P 12	33		P 12	33	<u>1368</u>
P 13	60		P 13	36		P 13	36	
P 14			P 14	39		P 14	39	
P 15			P 15	42		P 15	42	
P 16			P 16	45		P 16	45	
P 17			P 17	48		P 17	48	
P 18			P 18	51		P 18	51	
P 19			P 19	54		P 19	54	
P 20			P 20	57		P 20	57	
				60			60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company F G HOLL Lease and Well No. #1-18 "A" SMALLER Sec. 18 Twp. 32S Rge. 8W Test No. 4 Date 5/10/1

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 5/10/84 TICKET #4860
CUSTOMER: F.G. HOLL LEASE: "A" SMALLEY
WELL: 1-18 TEST: 4 GEOLOGIST: BIDLEMAN
ELEVATION (KB): 1512 FORMATION: VIOLA
SECTION: 18 TOWNSHIP: 32S
RANGE: 8W COUNTY: HARPER STATE: KANSAS
GAUGE SN #13402 RANGE: 4025 CLOCK: 12

INTERVAL TEST FROM: 4764 FT TO: 4780 FT TOTAL DEPTH: 4780 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4759 FT SIZE: 6 3/4 IN PACKER DEPTH: 4764 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING DRLG
MUD TYPE: CHEMICAL VISCOSITY: 57
WEIGHT: 9.2 WATER LOSS (CC): 24.0
CHLORIDES (P.P.M.): 23000
JARS - MAKE: WTC SERIAL NUMBER: 406
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 420 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4315 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 29 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 16 FT SIZE: 5 1/2 OD IN
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: INITIAL FLOW PERIOD WEAK BLOW
BUILDING TO A STRONG BLOW.
FINAL FLOW PERIOD STRONG BLOW.

RECOVERED: 120 FT OF: GAS ABOVE FLUID.
RECOVERED: 120 FT OF: SLIGHTLY OIL CUT GASSY MUD.
RECOVERED: 60 FT OF: SLIGHTLY OIL CUT WATERY MUD.
RECOVERED: FT OF: 40% GAS; 10% OIL; 5% WATER; 45% MUD.
RECOVERED: 120 FT OF: WATER. CHLORIDES 88000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

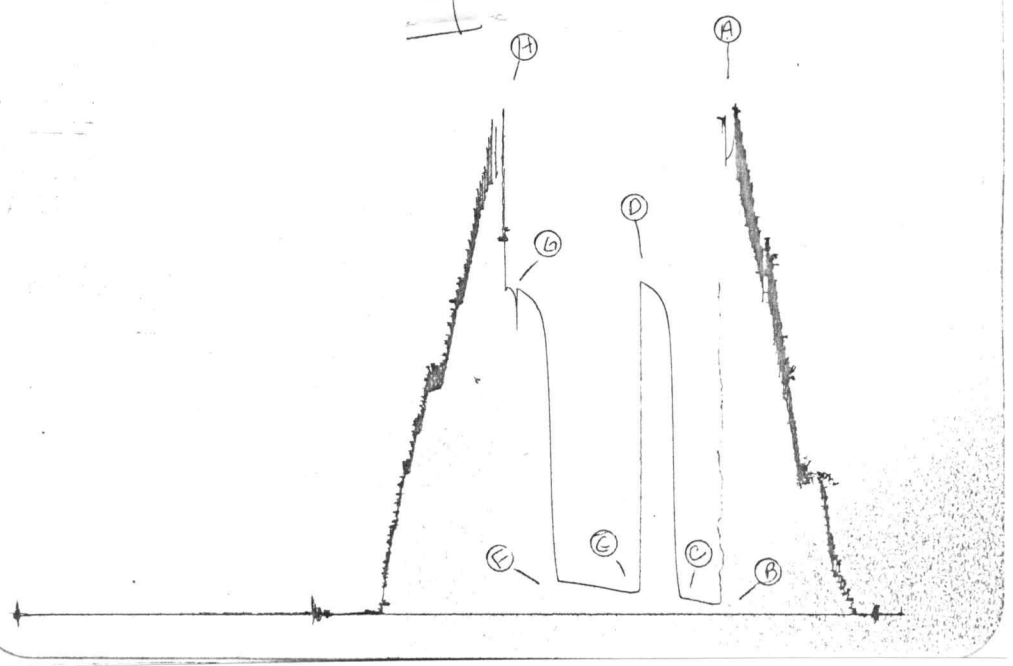
REMARKS:

TIME SET PACKER(S): 11:22 PM TIME STARTED OFF BOTTOM: 1:52 AM
WELL TEMPERATURE: 124 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2343 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 51 PSI TO (C) 79 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1702 PSI
FINAL FLOW PERIOD MIN: 60 (E) 108 PSI TO (F) 165 PSI
FINAL CLOSED IN PERIOD MIN: 30 (G) 1666 PSI
FINAL HYDROSTATIC PRESSURE (H) 2334 PSI

13402
DST#4

4CE# 4860

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1559
DST #4

TK# 4860

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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No. 4860

P. O. BOX 1599 WICHITA, KANSAS 67201

Elevation 1512 KB Formation Viola Eff. Pay Ft.

District Pratt Date 5-10-84 Customer Order No.

COMPANY NAME F. G. Hall

ADDRESS 6427 E. Kellogg Wichita KS

LEASE AND WELL NO. Smalley A 1-18 COUNTY Harper STATE KS Sec. 18 Twp. 32s Rge. 8w

Mail Invoice To Same No. Copies Requested Reg

Co. Name #1-18 A SMALLEY Address

Mail Charts To Same No. Copies Requested Reg

Formation Test No. 4 Interval Tested From 4764 ft. to 4780 ft. Total Depth 4780 ft.

Packer Depth 4759 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4764 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4770 ft. Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 4773 ft. Recorder Number 1559 Cap. 4200

Below Saddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Sterling #2 Drill Collar Length 420 I. D. 2.2 in.

Mud Type Chem. Viscosity 57 Weight Pipe Length I. D. in.

Weight 9.2 Water Loss 24.0 cc. Drill Pipe Length 4315 I. D. 3.8 in.

Chlorides 23,000 P.P.M. Test Tool Length 29 ft. Tool Size 5/20 D in.

Jars: Make WTC Serial Number 406 Anchor Length 16 ft. Size 5/20 D in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 7/8 in. Bottom Choke Size 7/8 in.

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

Blow: Weak Building to Strong J.F. Strong thru F.F.

Recovered 120 ft. of Gss In Pipe

Recovered 120 ft. of Slightly Oil Cut Gassy Mud

Recovered 60 ft. of Slightly Oil Cut Watery Mud 40% G. 10% O. 5% W 45% M

Recovered 120 ft. of Water Chlorides 88,000 ppm

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 7:00 A.M. P.M. Time Pick Up Tool 10:00 A.M. P.M. Time Off Location 5:00 A.M. P.M.

Time Set Packer(s) 11:22 A.M. P.M. Time Started Off Bottom 1:52 A.M. P.M. Maximum Temperature 124°

Initial Hydrostatic Pressure (A) 2350 P.S.I.

Initial Flow Period Minutes 30 (B) 49 P.S.I. to (C) 78 P.S.I.

Initial Closed In Period Minutes 30 (D) 1709 P.S.I.

Final Flow Period Minutes 60 (E) 118 P.S.I. to (F) 167 P.S.I.

Final Closed In Period Minutes 30 (G) 1664 P.S.I.

Final Hydrostatic Pressure (H) 2350 P.S.I.

COMPANY TERMS

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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 W. Bruce Bidleman Signature of Customer or his authorized representative

Western Representative

FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test (\$595), Misrun, Straddle Test, Jars (\$300), Selective Zone, Safety Joint (\$65), Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, and Form Charts.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-10-84

Test Ticket No. 4860

Recorder No. 13402 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2343</u> P.S.I.			M
B First Initial Flow Pressure	<u>51</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	_____ Mins.
C First Final Flow Pressure	<u>79</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	_____ Mins.
D Initial Closed-in Pressure	<u>1702</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	_____ Mins.
E Second Initial Flow Pressure	<u>108</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	_____ Mins.
F Second Final Flow Pressure	<u>165</u> P.S.I.			
G Final Closed-in Pressure	<u>1666</u> P.S.I.			
H Final Hydrostatic Mud	<u>2334</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of <u>7</u> mins. and a		of <u>11</u> mins. and a		of <u>13</u> mins. and a		of <u>11</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	<u>51</u>	0	<u>79</u>	0	<u>108</u>	0	<u>165</u>	
P 2 5	<u>51</u>	3	<u>192</u>	5	<u>108</u>	3	<u>275</u>	
P 3 10	<u>56</u>	6	<u>608</u>	10	<u>110</u>	6	<u>626</u>	
P 4 15	<u>64</u>	9	<u>1358</u>	15	<u>115</u>	9	<u>1173</u>	
P 5 20	<u>71</u>	12	<u>1518</u>	20	<u>122</u>	12	<u>1459</u>	
P 6 25	<u>77</u>	15	<u>1597</u>	25	<u>130</u>	15	<u>1544</u>	
P 7 30	<u>79</u>	18	<u>1633</u>	30	<u>136</u>	18	<u>1589</u>	
P 8 35		21	<u>1657</u>	35	<u>142</u>	21	<u>1613</u>	
P 9 40		24	<u>1673</u>	40	<u>147</u>	24	<u>1636</u>	
P 10 45		27	<u>1688</u>	45	<u>152</u>	27	<u>1651</u>	
P 11 50		30	<u>1702</u>	50	<u>157</u>	30	<u>1666</u>	
P 12 55		33		55	<u>161</u>	33		
P 13 60		36		60	<u>165</u>	36		
P 14		39		65		39		
P 15		42		70		42		
P 16		45		75		45		
P 17		48		80		48		
P 18		51		85		51		
P 19		54		90		54		
P 20		57				57		
		60				60		