



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 6071

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

Elevation 1289 NO Formation Kansas City Sand Eff. Pay Ft.

District Augusta Date 8-17-80 Customer Order No.

COMPANY NAME RANGE OIL COMPANY ADDRESS 240 PAGE COURT, 220 WEST Douglas Wichita, KS 67202 LEASE AND WELL NO #1 KADAY A COUNTY Cowley STATE KS Sec 31 Twp 32S Rge 6E Mail Invoice To SAME Kadaw "A" #1 Co. Name Address No. Copies Requested 10E Mail Charts To SAME Address No. Copies Requested 5

Formation Test No 1 Interval Tested from 2445 ft to 2460 ft Total Depth 2460 ft Packer Depth 2445 ft Size 6 3/4 in. Packer Depth 2440 ft Size 6 3/4 in. Packer Depth - ft Size - in. Depth of Selective Zone Set

Top Recorder Depth (Inside) 2448 ft Recorder Number 3354 Cap 4200 Bottom Recorder Depth (Outside) 2455 ft Recorder Number 1560 Cap 4500 Below Straddle Recorder Depth - ft Recorder Number - Cap -

Drilling Contractor RANGE OIL CORP #2 Drill Collar Length 190 I. D. 2 1/4 in. Mud Type Chem Viscosity 43 Weight 9.7 Water Loss 12.8 cc. Drill Pipe Length 2294 I. D. 3.8 in. Chlorides 1600 P.P.M. Test Tool Length 35 ft Tool Size 6 3/4 in. Jars: Make - Serial Number - Anchor Length 15 ft Size 4 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 7/8 in. Tool Joint Size 5 1/2 IF in.

Blow: FAIR blow Throughout test.

Recovered 50 ft of Drilling mud Recovered 120 ft of Drilling mud with very slight show of oil Recovered - ft of Recovered - ft of Recovered - ft of

Remarks: ARRIVE 1:30 AM tool open 5:05 AM Pick tool up 3:00 AM

Table with 4 columns: Time Set, Packer(s), Time Started Off Bottom, Maximum Temperature. Includes data for Initial Hydrostatic Pressure, Initial Flow Period, Initial Closed In Period, Final Flow Period, Final Closed In Period, Final Hydrostatic Pressure.

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 Robert Olson Signature of Customer or his authorized representative

Western Representative Norman Allen Allen Edgerton

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test \$530.00, Mileage \$34.50, TOTAL \$584.50.

WESTERN TESTING CO., INC.

Pressure Data

Date 8-17-80 Test Ticket No. 6071
 Recorder No. 3354 Capacity 4200 Location 2448 Ft.
 Clock No. _____ Elevation 1289 KB Well Temperature 106 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1258</u>	P.S.I.	<u>5:05</u> A M	
B First Initial Flow Pressure	<u>105</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>105</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>340</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>116</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>117</u>	P.S.I.		
G Final Closed-in Pressure	<u>333</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1253</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

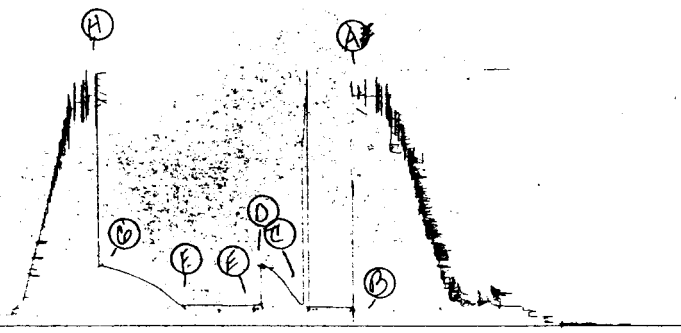
Initial Shut-In
 Breakdown: 10 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 12 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 20 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>105</u>	0	<u>Picked up tool to high</u>	0	<u>116</u>	0	<u>117</u>
P 2 5		3	<u>118</u>	5	<u>116</u>	3	<u>125</u>
P 3 10		6	<u>161</u>	10	<u>116</u>	6	<u>152</u>
P 4 15		9	<u>186</u>	15	<u>113</u>	9	<u>171</u>
P 5 20		12	<u>218</u>	20	<u>113</u>	12	<u>190</u>
P 6 25		15	<u>249</u>	25	<u>115</u>	15	<u>205</u>
P 7 30	<u>105</u>	18	<u>270</u>	30	<u>117</u>	18	<u>222</u>
P 8 35		21	<u>291</u>	35		21	<u>234</u>
P 9 40		24	<u>310</u>	40		24	<u>243</u>
P 10 45		27	<u>323</u>	45		27	<u>251</u>
P 11 50		30	<u>340</u>	50		30	<u>264</u>
P 12 55		33		55		33	<u>272</u>
P 13 60		36		60	<u>117</u>	36	<u>283</u>
P 14		39		65		39	<u>289</u>
P 15		42		70		42	<u>296</u>
P 16		45		75		45	<u>304</u>
P 17		48		80		48	<u>313</u>
P 18		51		85		51	<u>319</u>
P 19		54		90		54	<u>323</u>
P 20		57				57	<u>329</u>
		60				60	<u>333</u>

Plot # 6071
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6071

Company Range Oil Company, Inc. Lease & Well No. Kadau "A" #1
 Elevation 1289 Kelly Bushing Formation Kansas City Sand Effective Pay - Ft. Ticket No. 6071
 Date 8/17/80 Sec. 31 Twp. 32S Range 6E County Cowley State Kansas
 Test Approved by Robert Olson Western Representative Norman Allen-Allen Edgington

Formation Test No. 1 Interval Tested from 2445 ft. to 2460 ft. Total Depth 2460' ft.
 Packer Depth 2445 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2440 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 2448 ft. Recorder Number 3354 Cap. 4200
 Bottom Recorder Depth (Outside) 2455 ft. Recorder Number 1560 Cap. 4500
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Rig #2 Drill Collar Length 190 I. D. 2 1/4 in.
 Mud Type chemical Viscosity 43 Weight Pipe Length - I. D. - in.
 Weight 9.7 Water Loss 12.8 cc. Drill Pipe Length 2294 I. D. 3.8 in.
 Chlorides 1,600 P.P.M. Test Tool Length 35 ft. Tool Size 6 3/4 in.
 Jars: Make - Serial Number - Anchor Length 15 ft. Size 4 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 IF in.

Blow: Fair blow throughout test.

Recovered 50 ft. of drilling mud
 Recovered 120 ft. of drilling mud with very slight show of oil
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 5:05 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 8:15 ~~P.M.~~ ^{A.M.} Maximum Temperature 106°
 Initial Hydrostatic Pressure 1258 (A) P.S.I.
 Initial Flow Period 30 Minutes (B) 105 P.S.I. to (C) 105 P.S.I.
 Initial Closed In Period 30 Minutes (D) 340 P.S.I.
 Final Flow Period 60 Minutes (E) 116 P.S.I. to (F) 117 P.S.I.
 Final Closed In Period 60 Minutes (G) 333 P.S.I.
 Final Hydrostatic Pressure 1253 (H) P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 8-17-80 Test Ticket No. 6071
 Recorder No. 3354 Capacity 4200 Location 2448 Ft.
 Clock No. ----- Elevation 1289 Kelly Bushing Well Temperature 106 °F

Point	Pressure			Time Given		Time Computed	
				A.	M.		
A Initial Hydrostatic Mud	1258	P.S.I.	Open Tool	5:05			
B First Initial Flow Pressure	105	P.S.I.	First Flow Pressure	30	Mins.	30	Mins.
C First Final Flow Pressure	105	P.S.I.	Initial Closed-in Pressure	30	Mins.	30	Mins.
D Initial Closed-in Pressure	340	P.S.I.	Second Flow Pressure	60	Mins.	60	Mins.
E Second Initial Flow Pressure	116	P.S.I.	Final Closed-in Pressure	60	Mins.	60	Mins.
F Second Final Flow Pressure	117	P.S.I.					
G Final Closed-in Pressure	333	P.S.I.					
H Final Hydrostatic Mud	1253	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.
	6		10		12		20	
	of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
	final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	105	0		0	116	0	117	
P 2 5	105	3	118	5	116	3	135	
P 3 10	105	6	161	10	116	6	152	
P 4 15	105	9	186	15	113	9	171	
P 5 20	105	12	218	20	113	12	190	
P 6 25	105	15	249	25	115	15	205	
P 7 30	105	18	270	30	117	18	222	
P 8		21	291	35	117	21	234	
P 9		24	310	40	117	24	243	
P10		27	323	40	117	27	251	
P11		30	340	50	117	30	264	
P12				55	117	33	272	
P13				60	117	36	283	
P14						39	289	
P15						42	296	
P16						45	304	
P17						48	313	
P18						51	319	
P19						54	323	
P20						57	329	
						60	333	