



PETROLEUM RESEARCH CORPORATION
P.O. Box 8377
Denver, Colorado

APT: 15-181-00025

Drill-Stem-Test Pressure Analysis Report

1	LOCATION: T8S-R39W 23 C SE NW	TIME OPEN: 60 MINUTES	FILE NUMBER: 0919-01-01
2	COUNTY AND STATE: KANSAS, SHERMAN	INITIAL SHUT-IN TIME: 20 MINUTES	I. D. NUMBER: OT 407
3	COMPANY: JOHN O. FARMER	FINAL SHUT-IN TIME: 20 MINUTES	DATE COMPUTED: 12/8/59
4	LEASE AND WELL NUMBER: TRACHSEL 1	TEST NUMBER: 1	DATE TESTED: 10/30/59
5	FORMATION TESTED: LANSING	INTERVAL TESTED: Feet 4404-4458	ELEVATION: Feet KB 3633

6	RECOVERY: 2520 FT SALT WATER
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HOLE, TOOL AND RECOVERY DATA

9	DRILL-PIPE CAPACITY (Barrels per foot) 0.01422	FEET OF MUD	MUD PERCENTAGE % 0.0
10	DRILL-COLLAR CAPACITY (Barrels per foot)	FEET OF WATER 2520	WATER PERCENTAGE % 100
11	DRILL-COLLAR FOOTAGE (Feet)	FEET OF OTHER	OTHER PERCENTAGE % 0.0
12	HOLE DIAMETER (Inches) 7.875	FEET OF OIL	OIL PERCENTAGE % 0.0
13	PIPE FOOTAGE EQUIVALENT TO ANNULUS (Feet) 229	FEET OF CUSHION	FORMATION RECOVERY PERCENTAGE % 90.92
14	INTERVAL THICKNESS (Feet) 54	TOTAL RECOVERY (Feet) 2520	AVERAGE PRODUCTION RATE (Barrels per day) 860.02
15	MUD WEIGHT (Pounds per gallon) 9.8	CAPACITY OF ANNULUS (Barrels) 3.3	
16	EFFECTIVE FLOWING TIME (Minutes) 60	GROSS RECOVERY VOLUME (Barrels) 35.83	RECOVERY LESS THAN ANNULAR VOLUME, (X) <input type="checkbox"/>

17	RECORDER NUMBER 1 TOP	FILE NUMBER 0919010110	GAUGE SUMMARY	RECORDER NUMBER 2	FILE NUMBER
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1st GAUGE	2nd GAUGE	1st GAUGE	2nd GAUGE	1st GAUGE	2nd GAUGE
INITIAL (t+θ)/θ CALCULATED FROM REPORTED DATA: 4		FINAL (t+θ)/θ CALCULATED FROM REPORTED DATA: 4		GAUGE DEPTH: 4452	feet
INITIAL (t+θ)/θ CALCULATED FROM MEASURED DATA: 3.9		FINAL (t+θ)/θ CALCULATED FROM MEASURED DATA: 4.01		GAUGE DATUM: - 819	feet
KEY POINT SUMMARY		NON-LINEARITY INDEX: - 9.4	x 10 ⁻⁶	RMS DEVIATION, σ 17.1	psig
INITIAL FLOWING PRESSURE: 310	psig	NUMBER OF CALIBRATION POINTS: 6		COEFFICIENT OF VARIATION, 100 σ / p̄ 1.14	%
FINAL FLOWING PRESSURE: 1210	psig	FLOWING PRESSURE DIFFERENCE: 900	psig	FLOWING PRESSURE COMPARISON: 111.9	%
INITIAL HYDROSTATIC MUD PRESSURE: 2420	psig	MUD PRESSURE DIFFERENCE: 20	psig	INITIAL MUD PRESSURE COMPARISON: 93.7	%
FINAL HYDROSTATIC MUD PRESSURE: 2400	psig			FINAL MUD PRESSURE COMPARISON: 94.5	%

EXTRAPOLATION SUMMARY			
INITIAL SHUT-IN PRESSURE: 1320	psig	SLOPE OF INITIAL BUILD-UP CURVE: 62.6	psi/cycle
NUMBER OF POINTS USED FOR INITIAL CURVE-FIT: 3		INITIAL EXTRAPOLATED PRESSURE: 1339.9	psig
FINAL SHUT-IN PRESSURE: 1300	psig	SLOPE OF FINAL BUILD-UP CURVE: 62.6	psi/cycle
NUMBER OF POINTS USED FOR FINAL CURVE-FIT: 5		FINAL EXTRAPOLATED PRESSURE: 1324.9	psig

SUMMARY OF RESULTS				
PRODUCTIVITY INDEX: 7.49	Barrels per day per psi	DAMAGE RATIO: 0.33	INITIAL POTENTIOMETRIC SURFACE: 2302.9	feet
EFFECTIVE TRANSMISSIBILITY, kh/μ: 2234.2	md ft per cp	INDICATED AVERAGE PERMEABILITY, k/μ: 41.4	FINAL POTENTIOMETRIC SURFACE: 2268	feet

☐ ABSENT OR DOES NOT APPLY.

FILE	T	P	PSIG
919010111 ISI		18.0	232.2
ISI	38.5	104.0	5.43 1339.8
ISI	48.5	104.0	4.52 1339.8
ISI	58.5	104.0	3.92 1339.8
I X	58.6	24.0	310.2
F XX	229.5	93.4	1204.5
FSI	233.5	97.2	43.72 1253.0
FSI	243.5	98.3	13.20 1267.1
FSI	254.5	98.6	7.83 1270.9
FSI	263.5	99.0	6.02 1276.0
FSI	269.5	99.3	5.27 1279.9
FSI	275.5	99.5	4.71 1282.4
FSI	281.5	99.7	4.28 1285.0
FSI	286.5	99.9	3.99 1287.5

FILE	T	P	PSIG
919010112 ISI		18.0	232.0
ISI	40.5	104.0	5.22 1337.1
ISI	50.5	104.0	4.39 1337.1
ISI	59.0	104.0	3.90 1337.1
I X	59.2	24.0	309.9
F XX	230.5	94.0	1209.8
FSI	242.5	98.2	15.27 1263.3
FSI	255.5	99.0	7.85 1273.5
FSI	270.5	99.5	5.28 1279.8
FSI	280.5	99.6	4.42 1281.1
FSI	287.5	99.9	4.00 1284.9



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DRILL-STEM-TEST PRESSURE ANALYSIS

PRESSURE VS. LOG (TOTAL TIME / SHUT-IN TIME)

