

Drill-Stem-Test Pressure Analysis Report (Liquid Recovery)

LOCATION: T16S-R32E, SE NE Section 3	TIME OPEN: Initial: 20 mins. Final: 90 mins.	FILE NUMBER: Special
COUNTY AND STATE: NEW MEXICO, LEA	INITIAL SHUT-IN TIME: 60 minutes	I. D. NUMBER: Lynes-40944
COMPANY: Martindale Petroleum	FINAL SHUT-IN TIME: 630 minutes	DATE COMPUTED: 1/5/83
LEASE AND WELL NUMBER: Webber #2	TEST NUMBER: 1	DATE TESTED: 12/30/82
FORMATION TESTED: Wolfcamp	INTERVAL TESTED: 9834-9920	ELEVATION: KB 4329

RECOVERY: 1550 ft. total fluid: 1430 ft. of heavily oil and gas-cut drilling mud,
120 ft. of water.
Gas to surface in 7 minutes of the Final Flow period; maximum flow rate: 400.8 MCFPD,
decreasing to 156.6 MCFPD at end of test.

HOLE, TOOL AND RECOVERY DATA

DRILL-PIPE CAPACITY (Barrels per foot)	0.0142	FEET OF MUD o&gc	1430.	MUD PERCENTAGE %	96.5
DRILL-COLLAR CAPACITY (Barrels per foot)	0.0049	FEET OF WATER	120.	WATER PERCENTAGE %	3.5
DRILL-COLLAR FOOTAGE (Feet)	529.	FEET OF OTHER		OTHER PERCENTAGE %	
HOLE DIAMETER (Inches)	7.875	FEET OF OIL		OIL PERCENTAGE %	
PIPE FOOTAGE EQUIVALENT TO ANNULUS (Feet)	---	FEET OF CUSHION		FORMATION RECOVERY PERCENTAGE %	
INTERVAL THICKNESS (Feet)	86.	TOTAL RECOVERY (Feet)	1530.	AVERAGE PRODUCTION RATE (Barrels per day)	220.
MUD WEIGHT (Pounds per gallon)	9.1	CAPACITY OF ANNULUS (Barrels)	5.2	BHT = 180 °F.	
EFFECTIVE FLOWING TIME (Minutes)	110.	GROSS RECOVERY VOLUME (Barrels)	16.8	RECOVERY LESS THAN ANNULAR VOLUME, (X)	

GAUGE SUMMARY

RECORDER NUMBER	DEPTH:	DATUM:
12072	9920'	-5591'

KEY POINT SUMMARY

First Flow	
INITIAL FLOWING PRESSURE: psig	
303.	
FINAL FLOWING PRESSURE: psig	
303.	
Second Flow	
INITIAL FLOWING PRESSURE: psig	
287.	
FINAL FLOWING PRESSURE: psig	
484.	
INITIAL SHUT-IN PRESSURE: psig	
3574.	
INITIAL HYDROSTATIC MUD PRESSURE: psig	
4792.	
FINAL HYDROSTATIC MUD PRESSURE: psig	
4792.	

Porosity Zone "A"	Porosity Zone "B"
EXTRAPOLATION SUMMARY	
INITIAL (1+0)/0 CALCULATED FROM MEASURED DATA:	
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NUMBER OF POINTS USED FOR INITIAL CURVE-FIT:	
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SLOPE OF INITIAL BUILD-UP CURVE: psi/cycle	
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INITIAL EXTRAPOLATED PRESSURE: psig	
Indeterminate - Insufficient Shut-in Time	
FINAL (1+0)/0 CALCULATED FROM MEASURED DATA:	
1.40	1.17
NUMBER OF POINTS USED FOR FINAL CURVE-FIT:	
5.	3.
SLOPE OF FINAL BUILD-UP CURVE: psi/cycle	
178.	---
FINAL EXTRAPOLATED PRESSURE: psig	
3613.	*3609.
*Static pressure recorded mechanically.	

SUMMARY OF RESULTS

EFFECTIVE TRANSMISSIBILITY, khg: md ft per cp	201.
INDICATED AVERAGE PERMEABILITY, k _p : md/cp	13.4 (for 15' effect. φ)
PRODUCTIVITY INDEX: Barrels per day per psi	0.070
DAMAGE RATIO:	3.2
FLOWING PRESSURE COMPARISON: %	---
INITIAL POTENTIOMETRIC SURFACE: feet	
Zone "A"	Zone "B"
2827.	2818.
INITIAL MUD PRESSURE COMPARISON: %	98.0
FINAL MUD PRESSURE COMPARISON: %	98.0