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ENGINEERING OPERATIONS 9720-B CANDELARIA, NE ALBUQUERQUE, NM 87112 TELEPHONE: (505) 293-4044

REPLY TO: ALBUQUERQUE

## MULTI-POINT DRILLING PLAN

Petroleum Development Corporation

Manzano Grande Federal #1

660' FSL and 1980' FEL, Sec. 5, T24S, R26E

Lease: NM 28641

This supplemental plan is submitted with the Application to Drill the above-described well in compliance with NTL-6 of the United States Department of the Interior.

- 1. The surface is composed of limestone rocks and finely broken limestone.
- 2. Estimated top of primary geologic markers are:

Delaware Sand	1,840	(+1685)
Bone Spring	5,500	(-1975)
Canyon	10,125	(-6600)
Strawn	10,425	(-6900)
Atoka	10,625	(-7100)
Morrow	11,125	(-7600)
Estimated KB	Elevation: 3525	

3. The estimated depths at which anticipated water, oil or gas bearing formations are to be encountered are:

1840'	possible oi	Delaware San	d
10,425'	possible ga	Stawn Lime	
10,625'	possible ga	Atoka Lime	
11,125'	gas	Morrow Sand	

- 4. Proposed casing program: See Form 9-331C.
- 5. Pressure control equipment: See schematic, Exhibit "D". Before drilling the Wolfcamp formation, the BOP and related control equipment shall be pressuretested to rated working pressures by an independent service company. The district office shall be notified in time to witness the tests. Pipe rams and the annular-type preventer shall be actuated