SUPPLEMENTAL DRILLING DATA

MANZANO OIL CORPORATION

WELL NO.1 HNG FEDERAL

1. SURFACE FORMATION: Quaternary

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2. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Rustler Anhydrite	1600'
Yates	3500'
Queen	4400 '
Delaware	4800'
Bone Springs Lime	7500'
1st Bone Springs Sand	8800'
2nd Bone Springs Sand	8930'
3rd Bone Springs Sand	9430'
Wolfcamp	10,400'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Bone Springs

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4. PROPOSED CASING AND CEMENTING PROGRAM:

	SETTING DE	PTH			
CASING SIZE	FROM	<u>T0</u>	WEIGHT	GRADE	JOINT
13-3/8"	0	350'	48#	H-40	STC
8-5/8" "	0 2300' 3000'	2300' 3000' 3700'	24# 24# 28#	K-55 S-80 S-80	STC STC STC
5-1/2"	0 2200' 8200'	2200' 8200' 10,500'	17# 17# 17#	K-55 K-55 N-80	BUTT STC LTC

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability.

13-3/8" casing will be cemented with approximately 350 sacks of Class

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