## SUPPLEMENTAL DRILLING DATA

## FOR

# UNION OIL COMPANY OF CALIFORNIA WELL NO.2 NORTH MADURO FEDERAL UNIT

## 1. SURFACE FORMATION: Quaternary.

#### 2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler	1265'	Strawn	12,140'
Base Salt	2770'	Atoka	12,455'
Yates	3080'	Atoka Lime	12,820'
Delaware	5288'	Morrow	13,005'
Bone Springs	7820'	Middle Morrow	13,215'
Wolfcamp	10,920	Lower Morrow	13,550'

### 3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Morrow Gas

#### 4. PROPOSED CASING AND CEMENTING PROGRAM:

SETTING DEPTH					
CASING SIZE	FROM	<u>T0</u>	WEIGHT	GRADE	JOINT
13-3/8"	0	450'	48#	H-40	STC
9-5/8" "	0 4000 '	4000 <b>'</b> 5250'	*36# 40#	S-80 S-80	STC STC
5-1/2"	0 3000' 8500'	3000' 8500' 13,750'	17# 17# 17#	N-80 N-80 S-95	BUTT LTC LTC

\*40#, K-55, ST&C casing may be substituted for this casing.

13-3/8" casing to be cemented with 400 sacks of "C" with 3% gel and 2% CaCl. Cement to circulate.

9-5/8" casing to be cemented in two stages with DV tool at about 3200 feet. First stage to be 600 sacks of Light with 3# salt followed by 200 sacks of "C". Second stage to be 1500 sacks of "C" with 3% gel followed by 100 sacks of "C" with 2% CaCl.