

SUPPLEMENTAL DRILLING DATA

FOR

UNION OIL COMPANY OF CALIFORNIA

WELL NO.4 MADURO FEDERAL UNIT

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler	1255'	Strawn	12,075' ✓
Base Salt	2750'	Atoka	12,405' ✓
Yates	3055'	Atoka Lime	12,785'
Delaware	5275'	Morrow	12,945' ✓
Bone Springs ✓	7875'	Middle Morrow	13,140'
Wolfcamp ✓	10,845'	Lower Morrow	13,480'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Morrow

Gas

4. PROPOSED CASING AND CEMENTING PROGRAM:

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