

SUPPLEMENTAL DRILLING DATA

MUSSELMAN, OWEN & KING OPERATING, INC.
WELL #2 SMITH FEDERAL
NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 1-22S-23E
EDDY COUNTY, NEW MEXICO

1. SURFACE FORMATION: Queen formation of Permian Age (Elev. 3910')

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

San Andres	630'	Wolfcamp	6510'
Glorieta	2140'	Cisco	7360'
Bone Spring	3920'		

3. ANTICIPATED POROSITY ZONES:

Water: Queen-Grayburg & Upper San Andres.
Gas: Cisco-Canyon.

4. CASING DESIGN:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
13 3/8"	0 - 350'	48.0#	H-40	STC
8 5/8"	0 - 2400'	24.0#	K-55	STC
5 1/2"	0 - 5100'	14.0#	K-55	STC
	5100 - 7500'	15.5#	K-55	STC

5. PRESSURE CONTROL EQUIPMENT: Two ram-type preventers.
BOP Sketch is attached.

6. CIRCULATING MEDIUM:

0 - 350'	Fresh spud mud.
350 - 6800'	Fresh water with mud additives, as needed.
6800 - 7500'	Water based drilling fluid conditioned as necessary for control of viscosity, pH, and water-loss.

7. AUXILLIARY EQUIPMENT: Drill string stabbing valves will be maintained on the rig floor in the "open" position while drilling operations are in progress.