

KERR McGEE OIL & GAS ONSHORE LLC

H₂S DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well.

- 1) The hazards and characteristics of hydrogen sulfide (H₂S).
- 2) The proper use and maintenance of personal protective equipment and life support systems.
- 3) The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

In addition, supervisory personnel will be trained in the following areas:

- 1) The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- 2) Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.
- 3) The contents and requirements and the Public Protection Plan.

There will be an initial training session involving all permanently assigned supervisory personnel and each and all rig crews participating in drilling operations on the well. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This Plan shall be available at the wellsite. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

- 1) Well Control Equipment
 - (a) Flare line with electronic igniter or continuous pilot.
 - (b) Choke manifold with a minimum of one remote choke.
 - (c) Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - (d) Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.