#### **Mack Energy Corporation** HOBBS OCD **Onshore Order #6** AUG 0 5 2014 Hydrogen Sulfide Drilling Operation 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 an characteristics of hydrogen sulfide (H2S)
- The proper use and maintenance of personal protective equipment and life support 2. systems.
- 3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

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

- 1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well 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.
- The contents and requirements of the H2S Drilling Operations Plan and Public 3. Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.

#### **H2S SAFETY EQUIPMENT AND SYSTEMS** П.

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 reasonable expected to contain H2S.

#### 1. Well Control Equipment:

- A. Flare line.
- Choke manifold. Remote operated choke will be used. B. –
- Blind rams and pipe rams to accommodate all pipe sizes with properly sized С. closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.
- E. Mud/gas Aparater Protective equipment for essential personnel: 2.

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A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

# 3. H2S detection and monitoring equipment:

A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

# 4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

## 5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

## 6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

## 7. Communication:

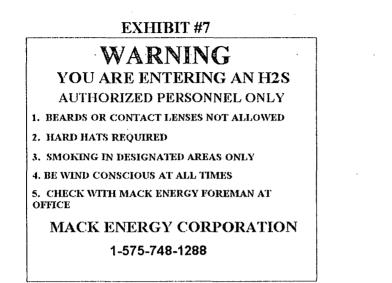
- A. Radio communications in company vehicles including cellular telephone and 2way radio.
- B. Land line (telephone) communication at Office.

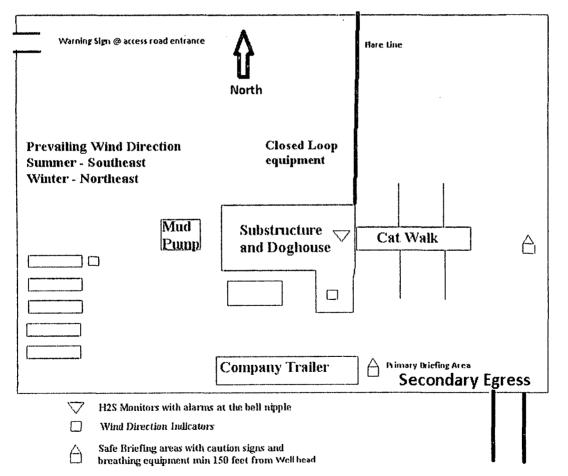
# 8. Well testing:

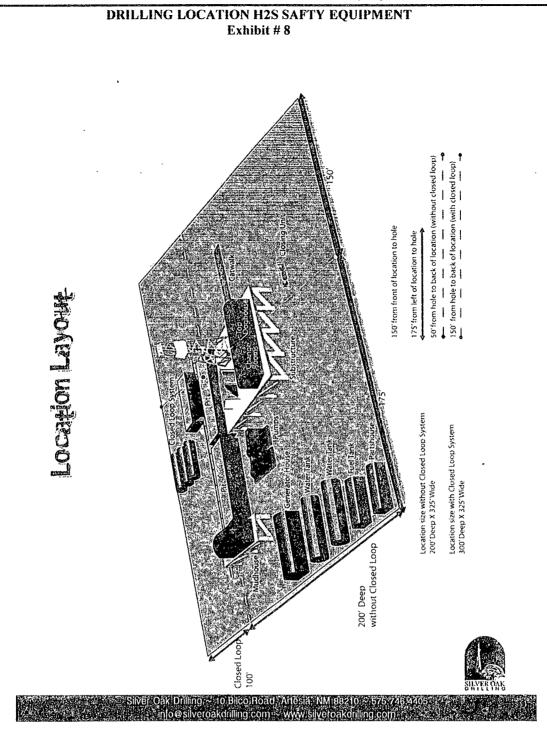
A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.

Attached to Form 3160-3 Mack Energy Corporation Wolf Federal #1 2310 FNL & 1650 FWL, SE/NW, Sec. 3 T18S R32E Lea County, NM

# B. There will be no drill stem testing.







Hydrogen Sulfide Drilling Operations Plan

# Mack Energy Corporation Call List, Eddy, Chaves & Lea County

Artesia (575)	Cellular	Office	
Jim Krogman		748-1288	
Donald Archer	748-7875	748-1288	
Emilio Martinez		748-1288	

# Agency Call List (575)

## Regional

State Police	22-7200
Eddy County Regional Dispatch61	6-7155
Chaves County Regional Dispatch62	4-7590
Lea County Regional Dispatch	6-3611
LEPC (Local Emergency Planning Committee62	24-6770
NMOCDHobbs 393-6161Artesia 74	8-1283
BLMCarlsbad 234-5972Roswell 62	7-0272

# **Emergency Services**

Boots & Coots IWC	.1-800-256-9688 or (281)931-8884
Cudd pressure Control	(915)699-0139 or (915)563-3356
Halliburton	
Par Five	
Flight For Life-Lubbock, TX	(806)743-9911
Aerocare-Lubbock, TX	(806)747-8923
Med Flight Air Amb-Albuquerque,	NM(505)842-4433

Lifeguard Air Med Svc. Albuquerque, NM.....(505)272-3115