

30-025-42467

1-7555 OCD

Hydrogen Sulfide Drilling Operations Plan

MAR 09 2015

RECEIVED

Harvey E. Yates
Federal 30 - #4H
330' FNL & 2030' FEL
UL-B, Sec 30, T19S, R33E
Lea County New Mexico

1. Company and contract personnel admitted on location should be trained by a qualified H₂S safety instructor to the recognize and handle following:
 - A. Characteristics of H₂S gas
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems
 - D. Principle and operation of H₂S detectors, warning system and briefing knowledge
 - E. Evacuation procedure, routes and first aid support
 - F. Proper use of 30 minutes Pressure-on-Demand Air Pack
2. Supervisory personnel will be trained in the following areas:
 - A. Effects of H₂S on metal components.
 - B. Corrective action and shut in procedures, blowout prevention, and well control procedure.
 - C. Contents of Hydrogen Sulfide Drilling Operations Plan.
3. H₂S Detection and Alarm Systems will be in place before commencing any operations.
 - A. H₂S detectors and audio alarm system to be located at wellhead, shale shaker and mud pits. Will be installed and maintained by third party safety company.
 - B. Thirty minute self-contained work unit located in at briefing areas.
4. Visual warning systems
 - A. Windsock at mud pit area (high enough to be visible)
 - B. Windsock on dog house (high enough to be visible)
 - C. H₂S warning signs on lease access road into location
 - D. Flags displayed on sign at location entrance
 1. Green flag indicates "Normal Safe Conditions"
 2. Yellow Flag indicates "Potential Pressure and Danger"
 3. Red Flag indicates "Danger - H₂S Present in High Concentrations" *admit only emergency personnel*
5. Well Control Equipment
 - A. - Annular preventers*
 - Double ram with blind rams and pipe rams*
 - Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 3-inch minimum diameter, kill side shall be at least 2-inch diameter)*
 - Kill line (2 inch minimum)
 - A minimum of 2 choke line valves (3 inch minimum)*
 - 3 inch diameter choke line
 - 2 kill line valves, one of which shall be a check valve (2 inch minimum)*
 - 2 chokes (refer to diagram in Attachment 1)
 - Pressure gauge on choke manifold
 - Upper Kelly cock valve with handle available
 - Safety valve and subs to fit all drill string connections in use
 - All BOPE connections subjected to well pressure shall be flanged, welded, or clamped*
 - Fill-up line above the uppermost preventer.

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- B. -Choke manifold with a remotely operated choke
- C. -Mud / Gas separator
- D. - Flare line 150' from wellhead
- E. -Also see BOP and Choke exhibit.

6. Communication

- A. While working under masks chalkboards will be used for communication
- B. Hand signals will be used where chalk board is inappropriate
- C. Two -way radios or cell phones used to communicate off location or minimally in Drilling Foreman's trailer or living quarters

7. Drill Stem Testing (**not planned**)

- A. Exhausts watered
- B. Flare line equipped with electric Igniter/propane pilot light in case gas reaches surface
- C. If location near dwelling closed DST will be performed

9. Mud Program

The mud program has been designed to minimize the volume circulated to surface. The operator will have the necessary Mud products to minimize hazards while drilling in H₂S bearing zones.

10. If H₂S encountered, mud system shall be addressed to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers, if necessary. pH will be maintained at 10, to minimize H₂S in the system. Hydrogen sulfide scavengers will also be used to minimize hazards while drilling the well.

PUBLIC PROTECTION PLAN FOR EMERGENCY CONTACTS

HARVEY E. YATES COMPANY

575-623-6601

Company Personnel

Keith Cannon	575-626-1936 .c
Lanny Overby	575-317-5059 .c
Clay Stevens	575-626-1965 .c

ARTESIA N.M.

Ambulance	911
State Police	575-746-5000
City Police	575-746-5000
Sheriff's Office	575-746-9888
Fire Department	575-746-5050 or 575-746-5051
N.M.O.C.D	575-748-1283

CARLSBAD N.M.

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-885-3125 or 575-885-2111
Carlsbad BLM	575-887-6544

HOBBS N.M.

Ambulance	911
State Police	575-392-5588
City Police	575-397-9265
Sheriff's Office	575-396-3611
Fire Department	575-397-9308
N.M.O.C.D	575-393-6161
Hobbs BLM	575-393-3612

Flight for Life (Lubbock Tx)	806-743-9911
Aerocare (Lubbock Tx)	806-747-8923
Med flight air Ambulance (Albuq NM)	505-842-4433
SB air Med Services (Albuq NM)	505-842-4949

Wild Well Control	281-784-4700 (24 hour number)
Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd Pressure Control	915-699-0139 or 915-563-3356
BJ Services (Artesia NM)	575-746-3569
(Hobbs NM)	575-392-5556

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
24 Hour	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

Harvey E. Yates Company

Interim Reclamation Plat

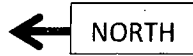
Federal 30 – 4H Location layout

UL-B, Sec 30, T19S, R33E

SHL: 330' FNL & 2030 FEL

BHL: 330' FNL & 1980' FEL

Lea Co. N.M



1. V-door to the Southeast,
2. Top soil on the Northwest side of location,
3. No tank Battery on Location will lay 3" Poly flow line to the 3H battery.
4. Elect line will be on xcel energy elect. Coming from Federal 30-#3H
5. Interim Reclamation northeast, northwest and southwest side of location. Down size to 200' x 200'

