30-025-41410

COG Operating LLC

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)
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.
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.
3. The contents and requirements of the H2S Drilling Operations Plan and Public 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.**

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 reasonable expected to contain H2S.

1. **Well Control Equipment:**

   A. Flare line.

   B. Choke manifold.

   C. Closed Loop Blow Down Tank

   D. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

   E. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. **Protective equipment for essential personnel:**

   A. SCBA (Self contained breathing apparatus) 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. **H2S detection and monitoring equipment:**

   A. 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.

   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 2-way 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.

   B. There will be no drill stem testing.

EXHIBIT #7

WARNING

YOU ARE ENTERING AN H2S

AUTHORIZED PERSONNEL ONLY

1. **BEARDS OR CONTACT LENSES NOT ALLOWED**
2. **HARD HATS REQUIRED**
3. **SMOKING IN DESIGNATED AREAS ONLY**
4. **BE WIND CONSCIOUS AT ALL TIMES**
5. **CHECK WITH COG OPERATING FOREMAN AT**

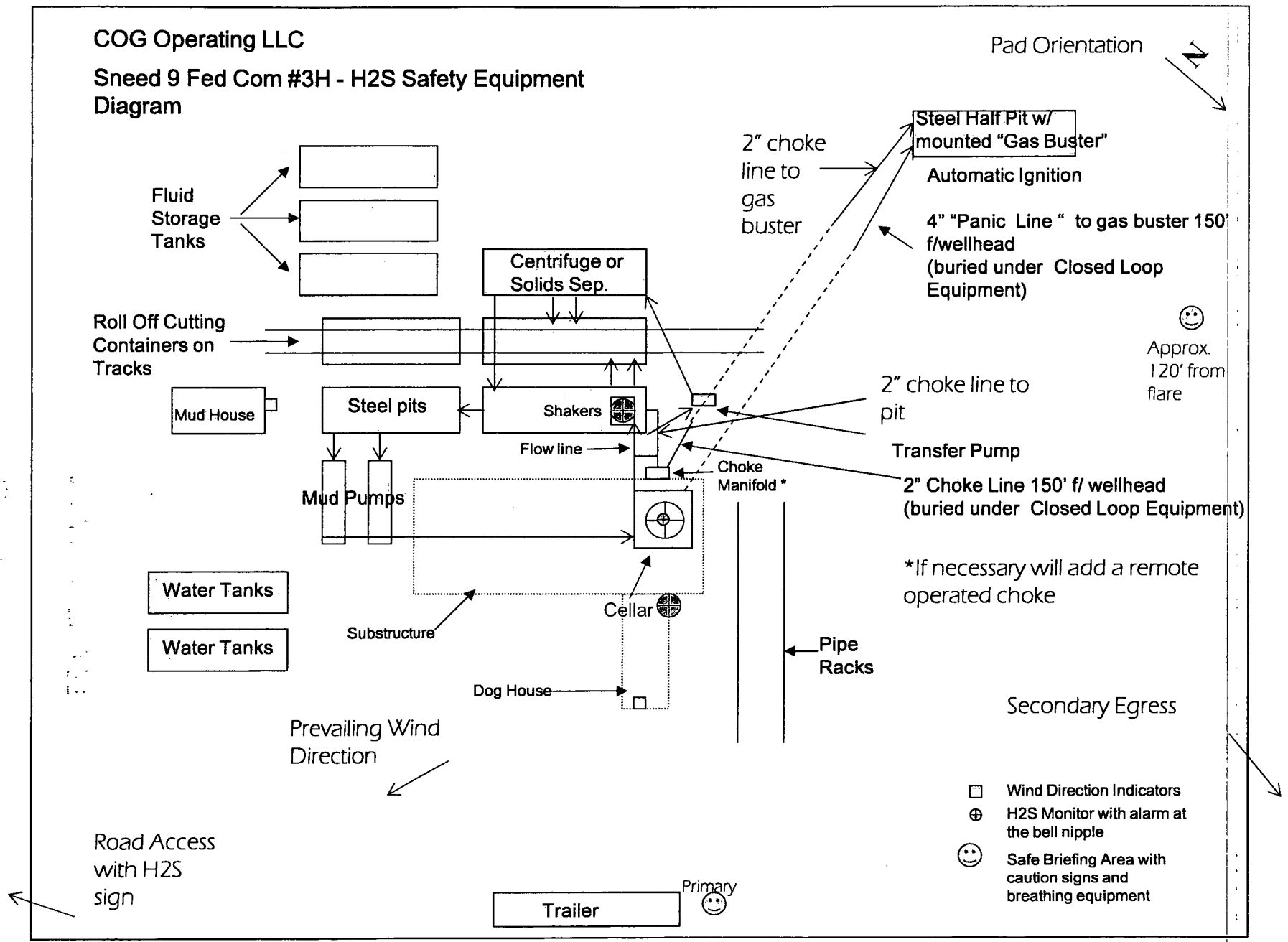
COG OPERATING LLC
1-432-683-7443
1-575-746-2010

EDDY COUNTY EMERGENCY NUMBERS
ARTESIA FIRE DEPT. 575-746-5050
ARTESIA POLICE DEPT. 575-746-5000
EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS
HOBBS FIRE DEPT. 575-397-9308
HOBBS POLICE DEPT. 575-397-9285
LEA CO. SHERIFF DEPT. 575-396-1196

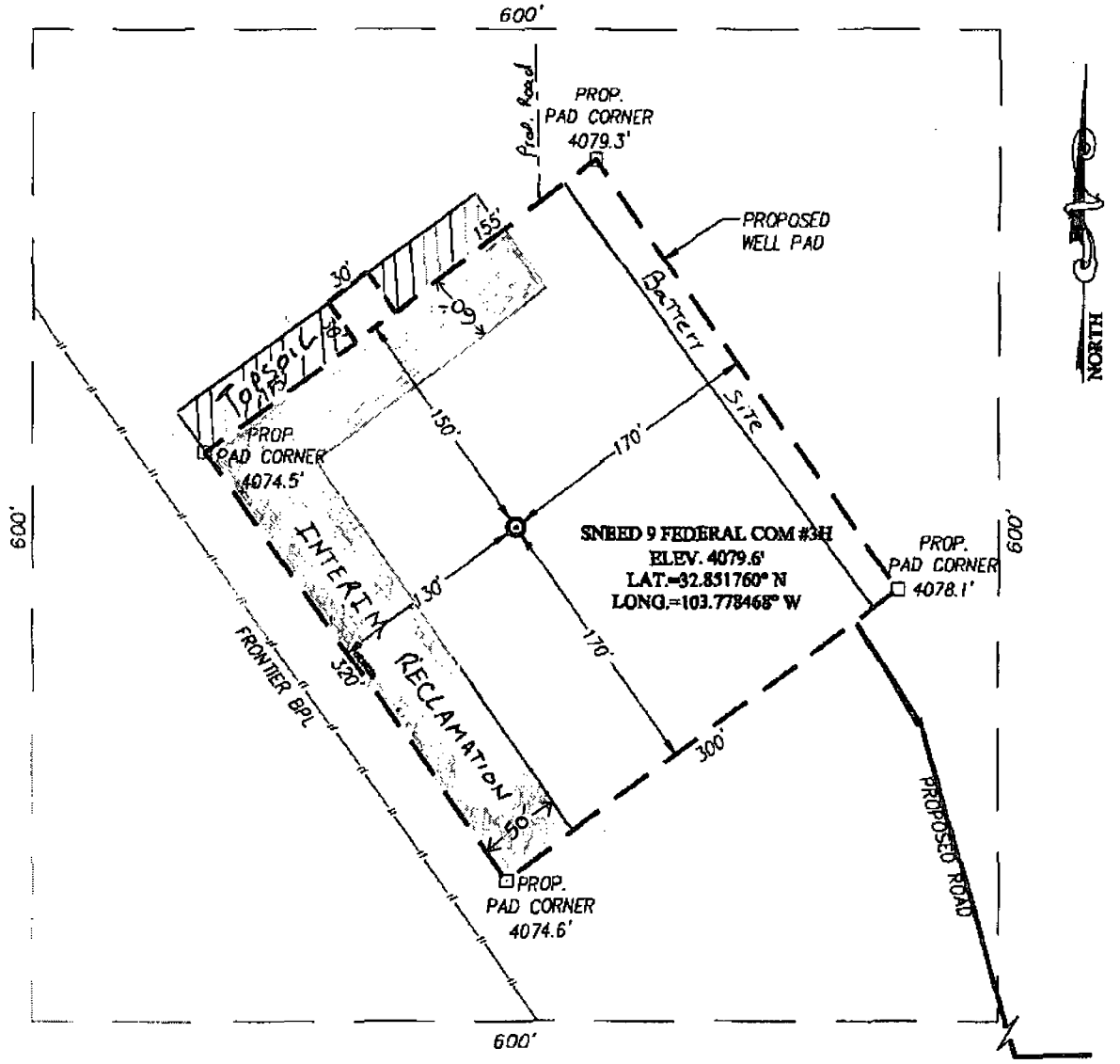
COG Operating LLC

Sneed 9 Fed Com #3H - H2S Safety Equipment Diagram



SECTION 9, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.

LEA COUNTY NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND L-126 (MALJAMAR RD.) GO SOUTH ON L-126 APPROX. 0.6 MILES. TURN RIGHT AND GO SOUTHWEST APPROX. 0.7 MILES. TURN RIGHT AND GO NORTH APPROX. 0.6 MILES TO THE PROPOSED ROAD. FOLLOW ROAD SURVEY APPROX 0.2 MILES WEST TO THE STAKED LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

COG OPERATING, LLC

SNEED 9 FEDERAL COM #3H WELL
LOCATED 1650 FEET FROM THE NORTH LINE
AND 330 FEET FROM THE WEST LINE OF SECTION 9,
TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

Survey Date: 9/4/12	CAD Date: 9/7/12	Drawn By: BKL
W.O. No.: 12111521	Rev: .	Rel. W.O.: 12111246	Sheet 1 of 1

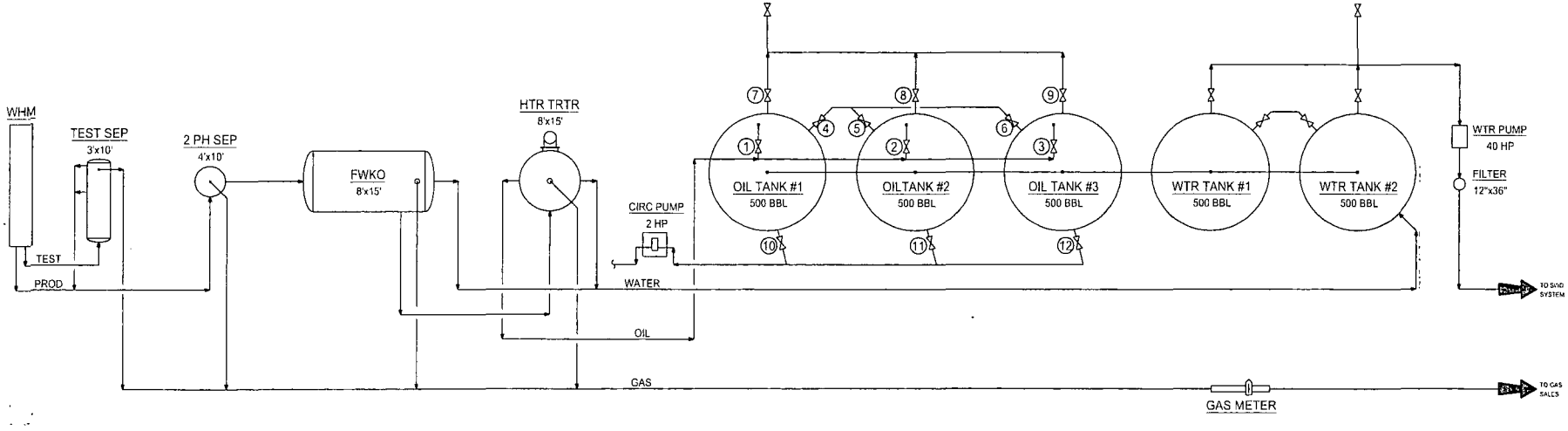
PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz

Sneed Fed Com #3H Battery Site
330' FNL & 150 FWL, Section 9
Township 17 South, Range 32 East
Lea County, New Mexico

North

Production Phase - Oil Tank #1
- Valve 1 open
- Valves 2 and 3 closed
- Valves 4, 5, and 6 open
- Valves 7, 8, and 9 closed
- Valves 10, 11, and 12 closed

Sales Phase - Oil Tank #1
- Valve 1 closed
- Valves 2 or 3 open
- Valve 4 closed
- Valves 5 and 6 open
- Valve 7 open
- Valves 8 and 9 closed
- Valves 10, 11, and 12 closed



NOTES:

REFERENCE DRAWINGS

NO.	TITLE

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK.	APP.
A	06/01/12	ISSUE FOR SITE PERMITTING	CRB		

ENGINEERING RECORD

	BY	DATE
DRN:	CRB	06/01/12
DES:	CRB	06/01/12
CHK:		
APP:		
AFE NO:		
FACIL ENGR:	C. BLEDSOE	
OPER ENGR:	VARIES	
SCALE:	NONE	

COG OPERATING LLC
550 W. TEXAS AVE, SUITE 100
MIDLAND, TEXAS 79701

CONCHO

NEW MEXICO SHELF ASSET
PRODUCTION FACILITIES
SITE FACILITY DIAGRAM
STANDARD TANK BATTERY

EDDY COUNTY — NEW MEXICO
TWNSHIP/RANGE: MULTIPLE
DWG NO.: D-1700-81-005
REV: A