

H<sub>2</sub>S Drilling Operations Plan

DEC 02 2015

- a. All personnel will be trained in H<sub>2</sub>S working conditions as required by Onshore Order 6 before drilling out of the surface casing.
- b. Two briefing areas will be established. Each briefing area will be  $\geq 150'$  from the wellhead, perpendicular from one another, and easily entered and exited. See H<sub>2</sub>S page 5 for more details.
- c. H<sub>2</sub>S Safety Equipment/Systems:
- i. Well Control Equipment
    - Flare line will be  $\geq 150'$  from the wellhead and ignited by a flare gun.
    - Beware of SO<sub>2</sub> created by flaring.
    - Choke manifold will include a remotely operated choke.
    - Mud gas separator
  - ii. Protective Equipment for Personnel
    - Every person on site will be required to wear a personal H<sub>2</sub>S and SO<sub>2</sub> monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
    - One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
    - Four work/escape packs will be on the rig floor. Each pack will have a long enough hose to allow unimpaired work activity.
    - Four emergency escape packs will be in the doghouse for emergency evacuation.
    - Hand signals will be used when wearing protective breathing apparatus.
    - Stokes litter or stretcher
    - Two full OSHA compliant body harnesses
    - A 100 foot long x 5/8 inch OSHA compliant rope
    - One 20 pound ABC fire extinguisher
  - iii. H<sub>2</sub>S Detection & Monitoring Equipment
    - Every person on site will be required to wear a personal H<sub>2</sub>S and SO<sub>2</sub> monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
    - A stationary detector with three sensors will be in the doghouse.

- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

iv. Visual Warning System

- Color-coded H<sub>2</sub>S condition sign will be set at the entrance to the pad.
- Color-coded condition flag will be installed to indicate current H<sub>2</sub>S conditions.
- Two wind socks will be installed that will be visible from all sides.

v. Mud Program

- A water based mud with a pH of  $\geq 10$  will be maintained to control corrosion, H<sub>2</sub>S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H<sub>2</sub>S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on location to scavenge and/or neutralize H<sub>2</sub>S where formation pressures are unknown.

vi. Metallurgy

- All equipment that has the potential to be exposed to H<sub>2</sub>S will be suitable for H<sub>2</sub>S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).

vii. Communication from well site

- Cell phones and/or two-way radios will be used to communicate from the well site.

d. A remote controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H<sub>2</sub>S.



### Company Personnel to be Notified

John Pool, Vice President

Office: (432) 685-1761

Free: (800) 344-1761

Mobile: (432) 559-2987

### Local & County Agencies

Monument Fire Department

911 or (575) 393-4339

Hobbs Fire Marshal

(575) 391-8185

Lea County Sheriff (Lovington)

911 (575) 396-3611

Lea County Emergency Management (Lovington)

(575) 396-8602

Lea Regional Medical Center Hospital (Hobbs)

(575) 492-5000

### State Agencies

NM State Police (Hobbs)

(575) 392-5588

NM Oil Conservation (Hobbs)

(575) 370-3186

NM Oil Conservation (Santa Fe)

(505) 476-3440

NM Dept. of Transportation (Roswell)

(575) 637-7201

### Federal Agencies

BLM Carlsbad Field Office

(575) 234-5972

BLM Hobbs Field Station

(575) 393-3612

National Response Center

(800) 424-8802

US EPA Region 6 (Dallas)

(800) 887-6063

(214) 665-6444

#### Veterinarians

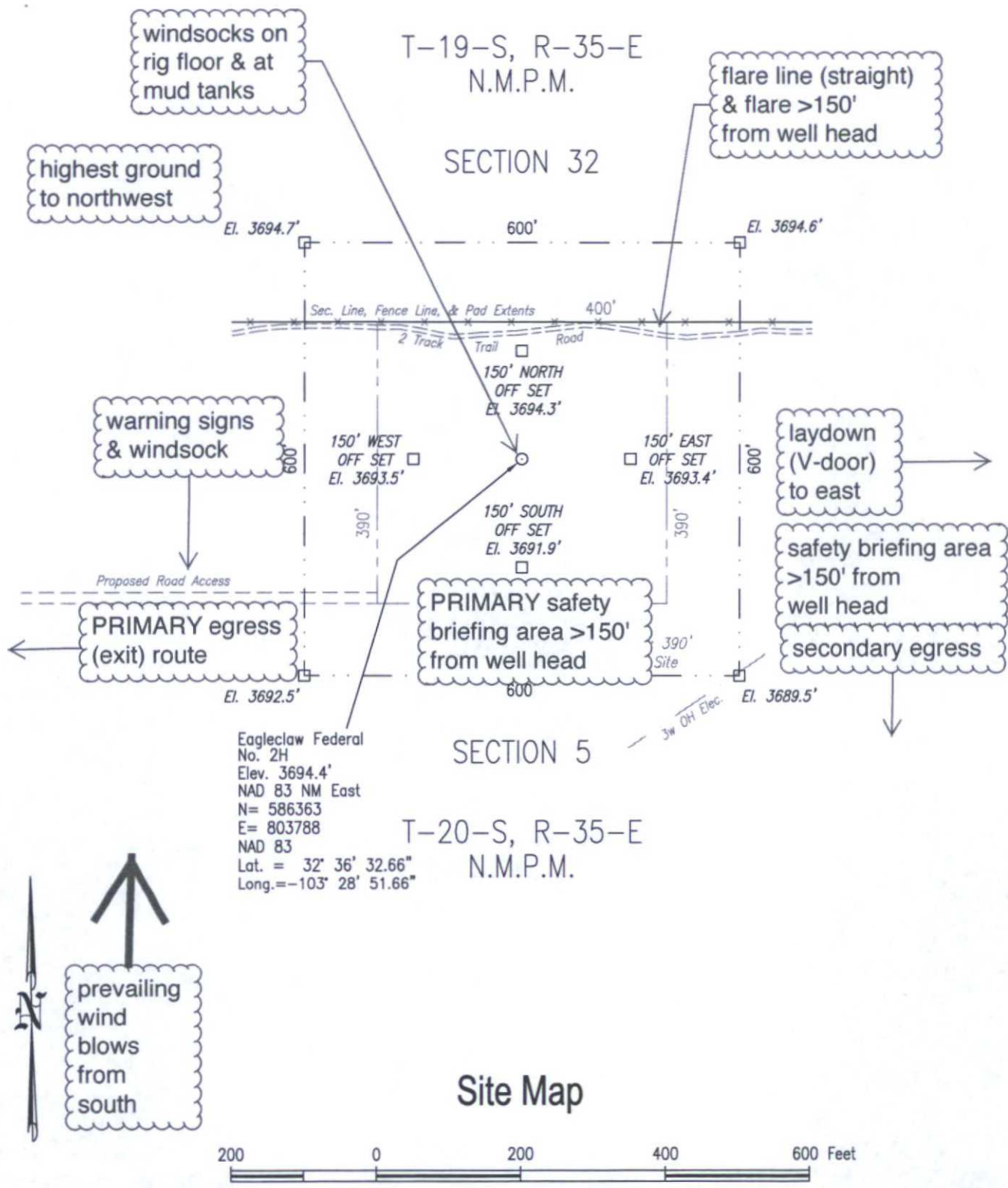
Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic & Hospital (Hobbs)	(575) 392-5513

#### Residents within 2 miles

There are no residents within 2 miles.

#### Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256



SDX Resources, Inc. Eagleclaw Federal No. 2H - 190' FNL & 2173' FWL Section 5, T-20-S, R-35-E, N.M.P.M., Lea County, New Mexico		STANFORD SURVEYING COMPANY P.O. BOX 8490 MIDLAND, TEXAS 79708-8490 TBPLS Firm No. 10128400 432-699-5708	
DRAWN BY Adam Welch	Rev. 2-16-2015 ABW DATE 9-10-2014	SCALE 1" = 200'	FILE NAME A-9641a_Rev



# SDX Resources, LLC

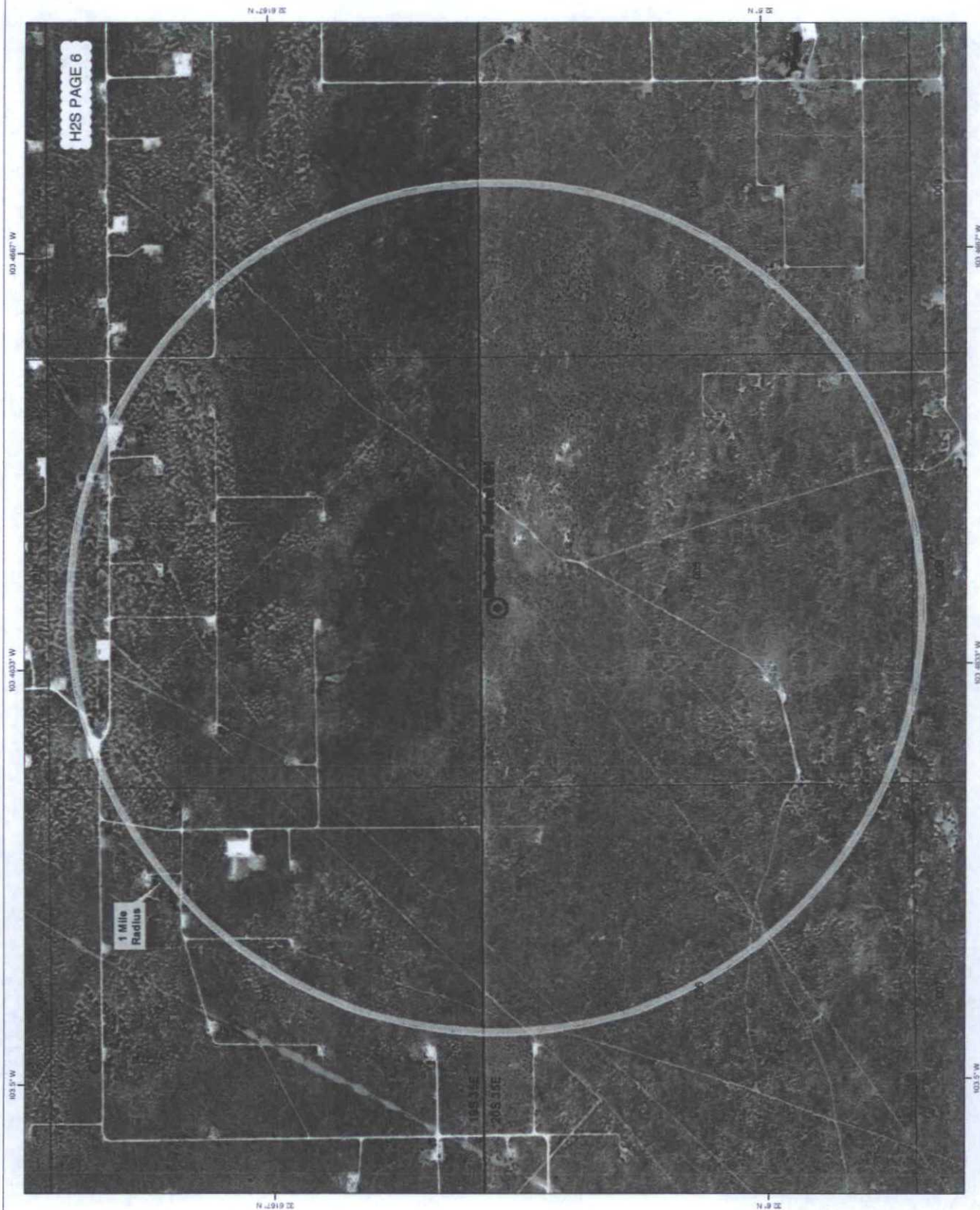
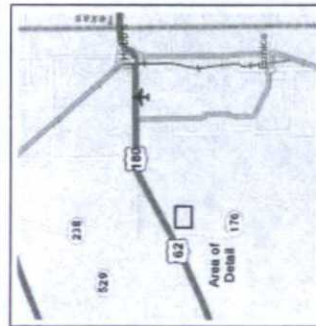
Eagleclaw Federal #2H  
H2S Contingency Plan:  
1 Mile Radius Map  
Section 5, Township 20S, Range 35E  
Lea County, New Mexico



NAD 1983 New Mexico State Plane East  
FP/S 3001 Feet



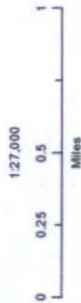
Prepared by Permits West, Inc., December 4, 2014  
for SDX Resources, LLC





# SDX Resources, LLC

Eagleclaw Federal #2H  
H<sub>2</sub>S Contingency Plan:  
2 Mile Radius Map  
Section 5, Township 20S, Range 35E  
Lea County, New Mexico



NAD 1983 New Mexico State Plane East  
FPS 3001 Feet



Prepared by Permits West, Inc., December 4, 2014  
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