

30-025-42220

Hydrogen Sulfide Drilling Operations Plan

Colibri Federal 24H

Cimarex Energy Co.

UL: C, Sec. 10, 23S, 32E

Lea Co., NM

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- 1 All Company and Contract personnel admitted on location must be H2S trained and certified H2S safety instructor to the following:

- A. Characteristics of H<sub>2</sub>S
- B. Physical effects and hazards
- C. Principal and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
- D. Evacuation procedure, routes and first aid.
- E. Proper use of safety equipment & life support systems
- F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

- 2 H<sub>2</sub>S Detection and Alarm Systems:

- A. H<sub>2</sub>S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H<sub>2</sub>S detectors may be placed as deemed necessary.
- B. An audio alarm system will be installed on the derrick floor and in the top doghouse.

- 3 Windsock and/or wind streamers:

- A. Windsock at mudpit area should be high enough to be visible.
- B. Windsock on the rig floor and / or top doghouse should be high enough to be visible.

- 4 Condition Flags and Signs

- A. Warning sign on access road to location.
- B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H<sub>2</sub>S present in dangerous concentration). Only H<sub>2</sub>S trained and certified personnel admitted to location.

- 5 Well control equipment:

- A. See exhibit "E-1"

- 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 radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

- 7 Drillstem Testing:

No DSTs or cores are planned at this time.

- 8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
- 9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

NOV 04 2014

H<sub>2</sub>S Contingency Plan  
**Colibri Federal 24H**  
Cimarex Energy Co.  
UL: C, Sec. 10, 23S, 32E  
Lea Co., NM

**Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must:

- « Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- « Evacuate any public places encompassed by the 100 ppm ROE.
- « Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- « Use the "buddy system" to ensure no injuries occur during the response.
- « Take precautions to avoid personal injury during this operation.
- « Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- « Have received training in the:
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

**Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

**Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

Please see attached International Chemical Safety Cards.

**Contacting Authorities**

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H<sub>2</sub>S Contingency Plan Emergency Contacts

**Colibri Federal 24H**

Cimarex Energy Co.

UL: C, Sec. 10, 23S, 32E

Lea Co., NM

**Company Office**

Cimarex Energy Co. of Colorado 800-969-4789

Co. Office and After-Hours Menu

**Key Personnel**

Name	Title	Office	Mobile
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8485
Doug McQuitty	Drilling Superintendent	432-620-1933	806-640-2605
Scott Lucas	Drilling Superintendent	432-620-1989	432-894-5572
Roy Shirley	Construction Superintendent		432-634-2136

**Artesia**

Ambulance 911

State Police 575-746-2703

City Police 575-746-2703

Sheriff's Office 575-746-9888

**Fire Department 575-746-2701**

Local Emergency Planning Committee 575-746-2122

New Mexico Oil Conservation Division 575-748-1283

**Carlsbad**

Ambulance 911

State Police 575-885-3137

City Police 575-885-2111

Sheriff's Office 575-887-7551

**Fire Department 575-887-3798**

Local Emergency Planning Committee 575-887-6544

US Bureau of Land Management 575-887-6544

**Santa Fe**

New Mexico Emergency Response Commission (Santa Fe) 505-476-9600

New Mexico Emergency Response Commission (Santa Fe) 24 Hrs 505-827-9126

New Mexico State Emergency Operations Center 505-476-9635

**National**

National Emergency Response Center (Washington, D.C.) 800-424-8802

**Medical**

Flight for Life - 4000 24th St.; Lubbock, TX 806-743-9911

Aerocare - R3, Box 49F; Lubbock, TX 806-747-8923

Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM 505-842-4433

SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM 505-842-4949

**Other**

Boots & Coots IWC 800-256-9688 or 281-931-8884

Cudd Pressure Control 432-699-0139 or 432-563-3356

Halliburton 575-746-2757

B.J. Services 575-746-3569

Access Road

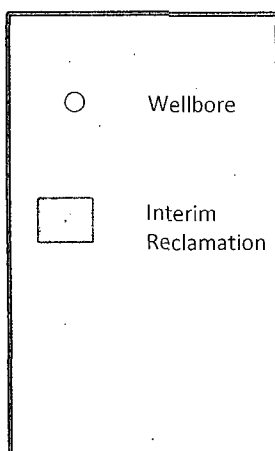
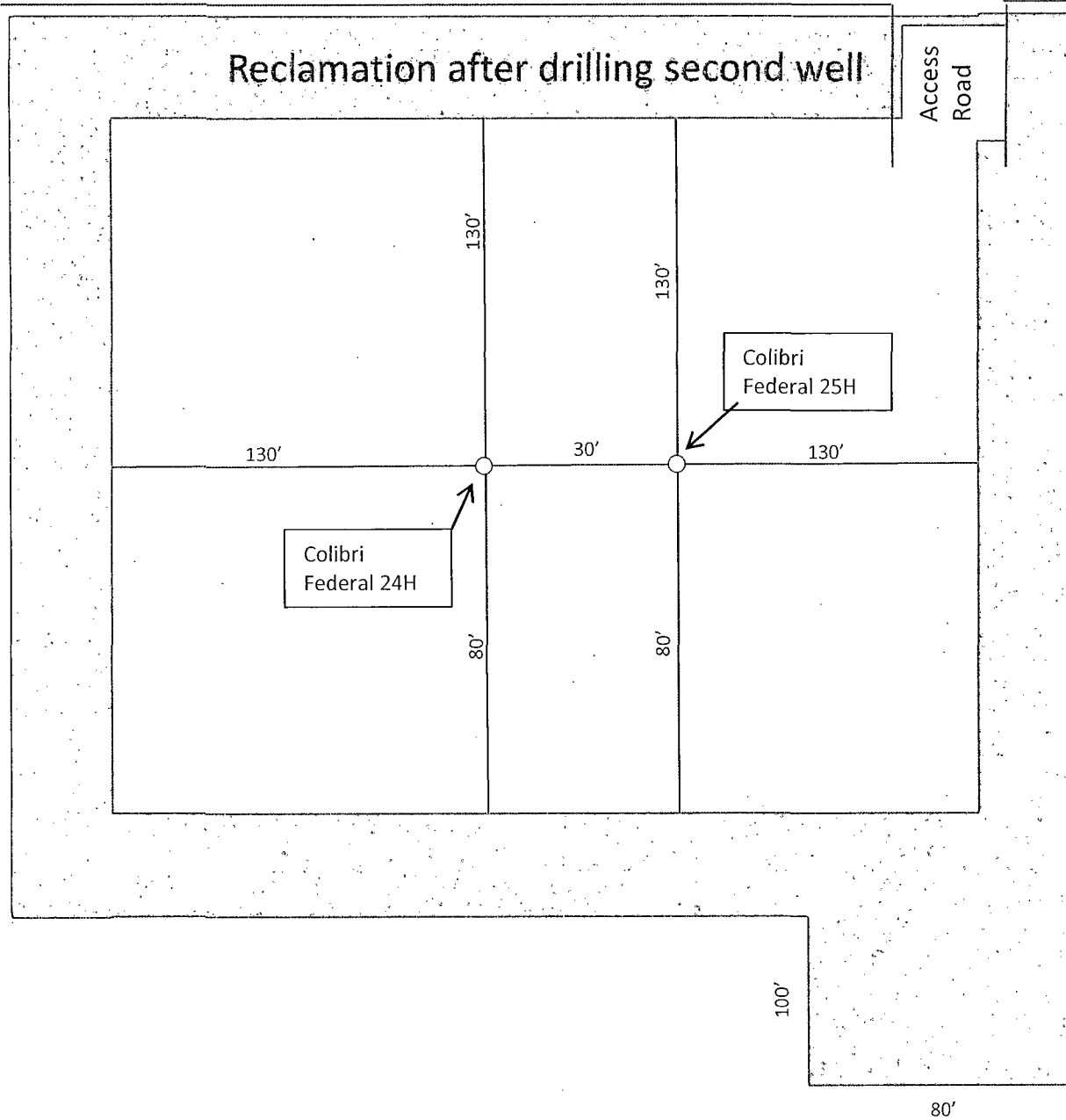


Exhibit D-1  
Interim Reclamation Diagram  
**Colibri Federal 24H**  
Cimarex Energy Co.  
10-23S-32E  
SHL 326 FNL & 1749 FWL  
BHL 330 FSL & 1330FWL  
Lea County, NM