#### Hydrogen Sulfide Drilling Operations Plan

#### Dos Equis 13 Federal Com #4H

Cimarex Energy Co. UL:D , Sec. 13, 24S, 32E Lea Co., NM 30-025-41478 HOBBS OCD ECG/0-31-20/3 OCT 29 2013

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

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- A. Characteristics of H<sub>2</sub>S
- B. Physical effects and hazards
- C. Principal and operation of H2S 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. H2S 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 H2S detectors may play 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 H2S 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 <u>Drillstem Testing</u>:

No DSTs r cores are planned at this time.

- 8 Drilling contractor supervisor will be required to be familiar with the effects H₂S 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 seperator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

# H<sub>2</sub>S Contingency Plan

## Dos Equis 13 Federal Com #4H

Cimarex Energy Co. UL:D , Sec. 13, 24S, 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 H₂S 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 H₂S, 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 ( $SO_2$ ). 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>

Common	Chemical	Specific	Threshold	Hazardous	Lethal
Name	Formula	Gravity	Limit	Limit	Concentration
Hydrogen Sulfide	H₂S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air=1	2 ppm	N/A	1000 ppm

### **Contacting Authorities**

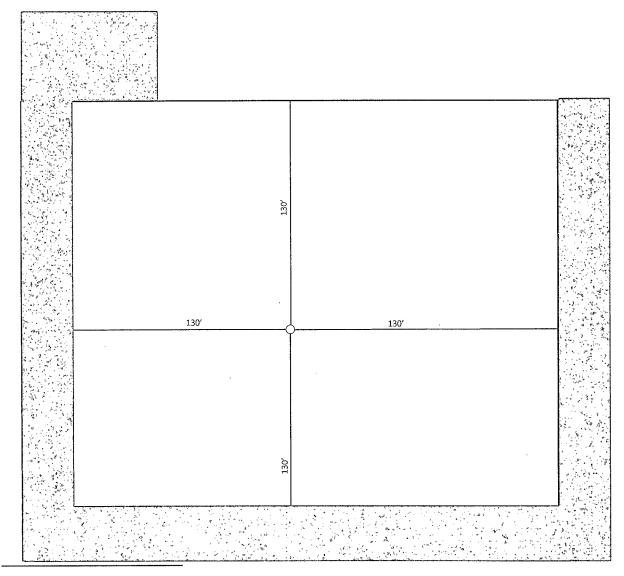
Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, 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

# Dos Equis 13 Federal Com #4H

Cimarex Energy Co. UL:D , Sec. 13, 24S, 32E Lea Co., NM

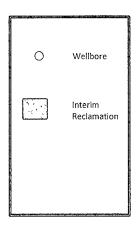
Cimarex Energy Co. of Colora	800-969-4789				
Co. Office and After-Hours N	Menu				
Vov Doroomnol					
Key Personnel	Tielo	Office	Mobile	•	
Name	Title				
Larry Seigrist	Drilling Manager	432-620-1934		13-8485	
Doug McQuitty	Drilling Superintendent	432-620-1933		10-2605	
Scott Lucas	Drilling Superintendent	432-620-1989		94-5572	
Conner Cromeens	Construction Foreman			70-0313	
Roy Shirley	Construction Superintendent		432-63	34-2136	
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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 Conservat	575-748-1283				
<u>Carlsbad</u> 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	575-887-6544				
US Bureau of Land Manag	575-887-6544				
Santa Fe	·				
New Mexico Emergency R	505-476-9600	<del></del>			
New Mexico Emergency R	505-827-9126				
New Mexico State Emerge	505-476-9635				
National Second	Contact (Markington C.C.)	800 434 6003			
National Emergency Respo	onse Center (Washington, D.C.)	800-424-8802			
Medical					
Flight for Life - 4000 24th	806-743-9911				
Aerocare - R3, Box 49F; Lu	806-747-8923				
Med Flight Air Amb - 2301	505-842-4433				
SB Air Med Service - 2505	505-842-4949				
SD / III IVICA SELVICE - 2303	Clair Cart Loop Ster, Albuquer que, 1919	303 072 7373			
Other		•			
Boots & Coots IWC	800-256-9688	or 281-93	31-8884		
Cudd Pressure Control	432-699-0139	or 432-56	53-3356		
oddd i i doddi e ddiiei di					
Halliburton		575-746-2757			



Access Road

80,

100′



N

Exhibit D-1
Interim Reclamation Diagram
Dos Equis 13 Federal Com #4H
Cimarex Energy Co.
13-24S-32E
SHL 330 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Lea County, NM

# Surface Use Plan Dos Equis 13 Federal Com #4

Cimarex Energy Co. UL: D, Sec. 13, 24s, 32e Lea Co., NM

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what is submitted in this surface use plan without approval. If any other disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be submitted for approval prior to any new surface disturbance.

#### 1.Existing Roads:

Area maps: Exhibit "B" - reproduction of Eddy Co. General Highway Map. Exhibit "C" - reproduction of a USGS Topographic Map. Exhibit "C-1" - well site layout map. Exhibits "C," C-1" - existing roads map.

The maximum width of the driving surface will be 14.' The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

Existing access road route to the proposed project is depicted on the public access point map if applicable. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwiswe noted in the New or Reconstructed Access Roads section of the surface use plan.

From mile marker 27 of Hwy 128, go NW 2.3 miles turning west 0.3 miles turning south 1.2 miles to proposed lease road.

If existing roads are used, the operator will improve or maintain existing roads in a condition the same as or better than before the operations began. The operator will repair pot holes, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deterioated beyond practical use.

The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

#### 2. New or Reconstructed Access Roads:

A new road will be constructed for this project.

Cimarex Energy plans to construct 1320' of new on-lease access road to service the well. The planned access road does not cross lease boundaries, a right of way grant will not be acquired from the BLM.

The maximum width of the driving surface will be 14'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

New access road route to the proposed project is depicted on the public access point map and Exhibit C-1. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done without prior approval from the BLM.

The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

#### 3. Planned Electric Line:

Cimarex Energy plans to construct a new on lease electric line to service the well on a private/state surface.

#### 4. Location of Existing Well in a One-Mile Radius -Exhibit A:

- Water Wells None known
- Disposal Wells None known
- Drilling Wells None known
- Producing Wells As shown on Exhibit A
- Abandoned Wells As shownd on Exhibit A