

Hydrogen Sulfide Drilling Operations Plan

Double X 25 Federal No. 9

Cimarex Energy Co.

Unit D, Section 25

T24S-R32E, Lea County, NM

30-025-41417

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

- A. Characteristics of H₂S
- 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 areas.
- E. Evacuation procedure, routes and first aid.
- F. Proper use of 30 minute pressure demand air pack.

HOBBS OCD

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2 H₂S Detection and Alarm Systems:

- A. H₂S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

3 Windsock and/or wind streamers:

- A. Windsock at mudpit area should be high enough to be visible.
- B. Windsock at briefing area 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 (H₂S present in dangerous concentration). Only emergency personnel admitted to location.

5 Well control equipment:

- A. See exhibit "E"

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 H₂S has on tubular goods and other mechanical equipment.

9 If H₂S 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 H₂S scavengers if necessary.

H₂S Contingency Plan
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Unit D, Section 25
T24S-R32E, Lea County, NM

Emergency Procedures

In the event of a release of gas containing H₂S, 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 (SO₂). 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 H₂S and SO₂

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

Contacting Authorities

Stata Production Company'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. Stata Production Company's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H,S Contingency Plan Emergency Contacts

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Unit D, Section 25

T24S-R32E, Lea County, NM

Company Office	Office	Mobile
Larry Seigrist, Drilling Manager	432-620-1934	580-243-8285
Scott Lucas		432-894-5572
Roy Shirley		432-634-2136
Sheriff's Departments		
Eddy County	575-887-1888	
Lea County	575-396-3611	
New Mexico State Police		
	575-392-5588	
Fire Departments		
	911	
Carlsbad	575-885-3125	
Eunice	575-394-2111	
Hobbs	575-397-9308	
Jal	575-395-2221	
Lovington	575-396-2359	
Hospitals		
	911	
Carlsbad Medical Emergency	575-887-4100	
Eunice Medical Emergency	575-394-2112	
Hobbs Medical Emergency	575-397-9308	
Jal Medical Emergency	575-395-2221	
Lovington Medical Emergency	575-396-2359	
Agent Notifications		
Bureau of Land Management	575-393-3612	
New Mexico Oil Conservation Division	575-393-6161	
Mosaic Potash - Carlsbad	575-887-2871	

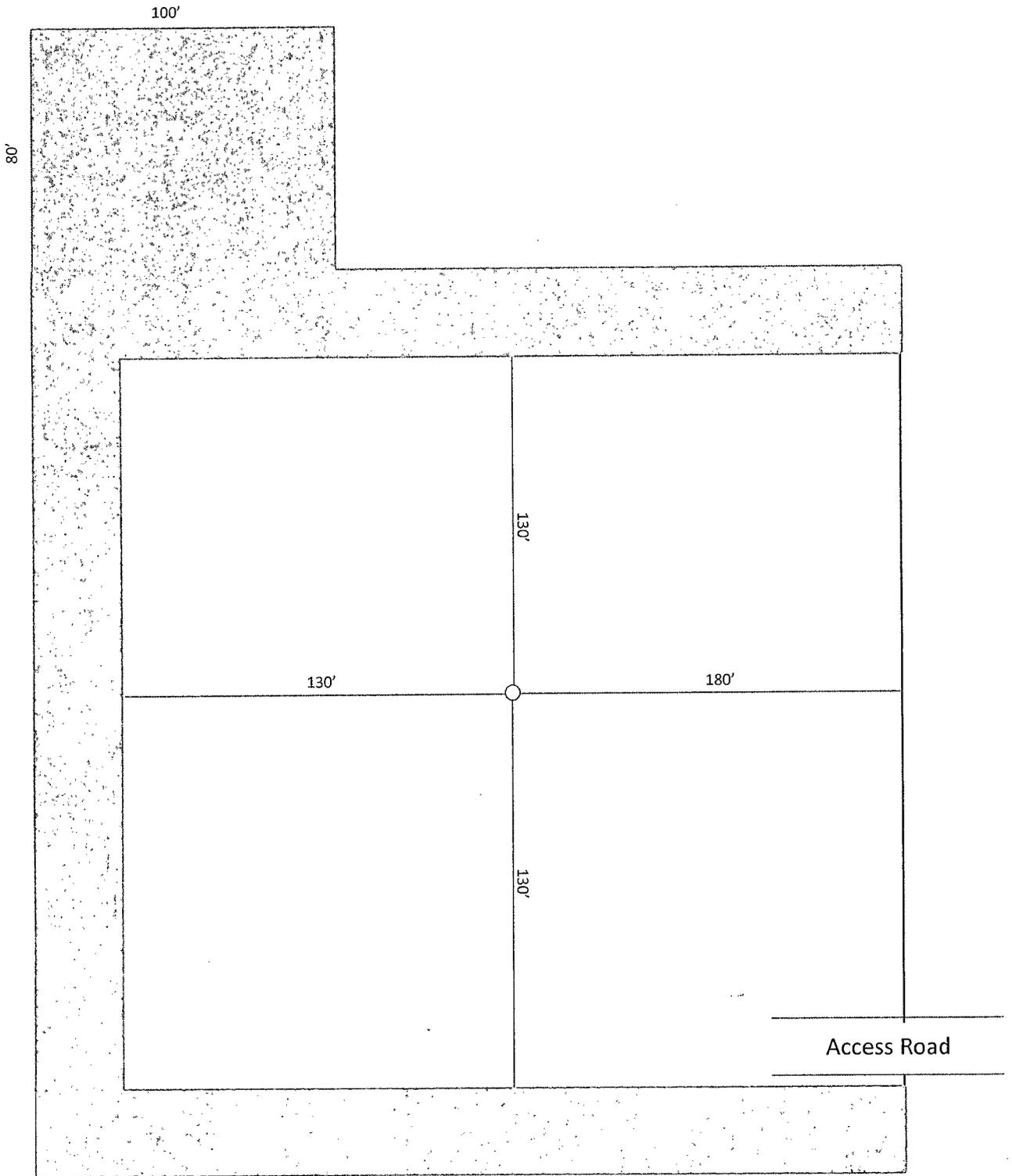
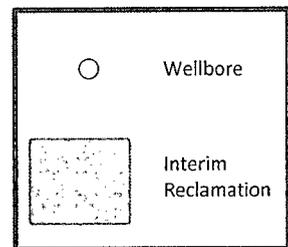


Exhibit "D-1"
Interim Reclamation Plat
Double X 25 Federal 9
 Cimarex Energy Co.
 25-24S-32E
 SHL 330' FNL & 660' FWL
 BHL 330' FSL & 660' FWL
 Lea County, NM



Surface Use Plan
Double X 25 Federal No. 9
Cimarex Energy Co.
Unit A, Section 25
T24S-R32E, Lea County, NM

1. **Existing Roads:** Area maps, Exhibit "A" shows the proposed well site as staked. Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, and Exhibit "C-1" is a well site layout map, showing proposed road to location and existing road.

- A. The maximum width of the driving surface will be 15.' 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.
- B. From mile marker 25 of Hwy 128, go east 0.5 miles to lease road, on lease road go south 1.1 miles to proposed lease road.

2. **Planned Access Roads:** 1320.2' of new lease road is planned for construction, this road has been approved on the #1 application. This well will share a location pad with #1 & #2 wells.

Planned Electric Lines: Eline will connect to previously constructed line that follows lease road servicing #1 & #2 wells. No new Eline planned.

3. **Location of Existing Wells in a One-Mile Radius - Exhibit A**

- A. Water wells - None known
- B. Disposal wells - None known
- C. Drilling wells - None known
- D. Producing wells - As shown on Exhibit "A".
- E. Abandoned wells - As shown on Exhibit "A"

4. **Location of Proposed Production Facilities:**

If upon completion this well is a producer; approximately 1395' of flowline will be run. Line consists of 2, 4", buried high pressure flexpipes buried along the existing lease road to the Double X 25 Federal 4 tank battery in NENW. One, buried flowline, will be used to carry oil, gas and water to the battery; and the other will be buried and used for gas lift. The flex pipe has 1500 psi MAOP and will have 200-300 psi working pressure. Allocations will be based on well tests. Any Changes to the facilities or off-site facilities will be accompanied by a Sundry Notice.

5. **Location and Type of Water Supply:**

Water will be purchased locally from a commercial source and trucked over the access roads.

6. **Source of Construction Material:**

If possible, native caliche will be obtained from the excavation of drill site. The primary way of obtaining caliche will be by "turning over" the location. This means caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu yds is the max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- A. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- B. An approximate 120' x 120' area is used within the proposed well site to remove caliche.
- C. Subsoil is removed and piled alongside the 120' by 120' area within the pad site.
- D. When caliche is found, material will be stockpiled within the pad site to build the location and road.
- E. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- F. Once well is drilled, the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in Exhibit D – Rig Layout Diagram.

In the event that no caliche is found onsite, caliche will be hauled in from a BLM-approved caliche pit.