

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

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 operators 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 this 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

Apache Corporation personnel must liaison 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. Apache's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

WELL CONTROL EMERGENCY RESPONSE PLAN

I. GENERAL PHILOSOPHY

Our objective is to ensure that during an emergency, a predetermined procedure is followed so that prompt decisions can be made based on accurate information.

The best way to handle an emergency is with an experienced organization set up for the sole purpose of solving the problem. The *Well Control Emergency Response Team* was organized to handle dangerous & expensive well control problems. The *Team* is structured such that each individual can contribute the most from his area of expertise. Key decision-makers are determined prior to an emergency to avoid confusion about who is in charge.

If the well is flowing uncontrolled at the surface or subsurface, *The Emergency Response Team* will be mobilized. The *Team* is customized for the people currently on the Apache staff. Staff changes may require a change in the plan.

II. EMERGENCY PROCEDURE ON DRILLING OR COMPLETION OPERATIONS

- A. In the event of an emergency the *Drilling Foreman* or *Tool-Pusher* will immediately contact only one of the following starting with the first name listed:

Name	Office	Mobile	Home
Danny Laman – Drlg Superintendent	432-818-1022	432-634-0288	432-520-3528
Bob Lange – Drilling Engineer	432-818-1114	432-661-6404	
Bobby Smith – Drilling Manager	432-818-1020	432-556-7701	
Brad Horton – Supervisor EH&S	432-818-1105	432-631-4077	432-638-9250

***This one phone call will free the Drilling Foreman to devote his full time to securing the safety of personnel & equipment. This call will initiate the process to mobilize the Well Control Emergency Response Team. Apache maintains an Emergency Telephone Conference Room in the Houston office. This room is available for us by the Permian Region. The room has 50 separate telephone lines.*

- B. The Apache employee contacted by the Drilling Foreman will begin contacting the rest of the *Team*. If **DANNY LAMAN** is out of contact, **BOB LANGE** will be notified.
- C. If a member of the *Emergency Response Team* is away from the job, he must be available for call back. Telephone numbers should be left with secretaries or a key decision-maker.
- D. Apache's reporting procedure for spills or releases of oil or hazardous materials will be implemented when spills or releases have occurred or are probable.

EMERGENCY RESPONSE NUMBERS:

SHERIFF DEPARTMENT	
Eddy County	575-887-7551
Lea County	575-396-3611
FIRE DEPARTMENT	
	911
Artesia	575-746-5050
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS	
	911
Artesia Medical Emergency	575-746-5050
Carlsbad Medical Emergency	575-885-2111
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

Surface Use Plan

(Additional data for form 3160-3)

Apache Corporation

Lee Federal #41

SHL: 1700' FNL & 460' FWL UL: E SEC: 20 T17S R31E

Eddy County, NM

Lease #: NMLC – 0029395B

1. EXISTING ROADS-
From the intersection of Sate Hwy #529 & State Hwy #83, go approx. 1.4 miles West on Hwy #83, turn Right & go Northeast approx. 0.25 miles, turn Left & go Northwest approx. 300', turn Right & go North approx. 300', turn Left & go West approx. 200', the location stake is approx 80' South. All roads will be maintained in a condition equal to or better than current conditions.
2. PLANNED ACCESS ROAD — No new lease/access road is planned to be constructed. The existing lease roads will be used to the extent possible. If a lease/access road needs to be constructed, all lease roads will be graded in compliance with BLM standards. All new & reconstructed roads will have a width & "crown design" (i.e. The max width of the driving surface will be 14'. The road will be crowned & 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 & compacted caliche.)
3. LOCATION OF EXISTING WELLS - Water wells, Disposal wells, Injection wells, Drilling wells, Producing Wells, Abandoned wells: *SEE EXHIBIT 1.*
4. LOCATION OF EXISTING OR PROPOSED FACILITIES - In the event this well is productive we will install a new 3" NUPI rated 300psi up to 140 deg surface flowline, approx. 1400' in length, to the existing Lee Federal Battery at the Lee Federal #2. *SEE EXHIBIT 2.*
5. LOCATION AND TYPE OF WATER SUPPLY - All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access road. No water source wells will be drilled, and no surface water will be utilized.
6. SOURCE OF CONSTRUCTION MATERIALS - Construction material (caliche) required for the access road and well site pad will be obtained on location, if available, or from an approved pit. No surface materials will be disturbed except those necessary for actual grading and construction of the drill site and access road.
7. METHODS FOR HANDLING WASTE DISPOSAL .
Closed Loop System. Waste Material will be stored then hauled to a state approved disposal facility. Drilling fluids will be contained in steel pits, fluids will be cleaned & reused. Water produced during testing will be contained in steel pits and disposal at a state approved facility. Any oil or condensate will be stored in test tanks until sold & hauled from site.
 - Receptacles for solid wastes (paper, plastic, etc) will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site. Salts remaining after completion will be picked up by supplier including broken sacks.
 - Any other waste generated by the drilling, completion, testing of this well will be through a closed loop system.
 - A Porta-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well, and cleaned out periodically.

8. **ANCILLARY FACILITIES** - Upon completion, and/or testing of this well rental tanks, facilities will be utilized until permanent storage is established. No camps or airstrips will be constructed.
9. **WELLSITE LAYOUT** - Enclosed, please see "Drilling Rig Layout" *SEE EXHIBIT 3*. Mud pits in the closed circulating system will be steel pits & the cuttings will be stored in steel containment pits. NMOCD for C-144 has been submitted to the OCD for approval. Cuttings will be stored in steel pits until they are hauled to a state approved disposal facility. *SEE EXHIBIT 5 & 6*.
10. **PLANS FOR SURFACE RESTORATION** - Rehabilitation of the location will start in a timely manner after all drilling operations cease. Type of reclamation will depend on whether the well is a producer or a dry hole. *EXHIBIT 4*.

Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be notified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped & contoured, topsoil from the soil pile will be loaded over the disturbed area to extent possible. The site will be restored as closely as possible to its pre-operation appearance including re-vegetation. Reclamation & re-vegetation of the surface location will be in accordance with the requirements set forth by the BLM. Due to the topography of the area no problems are anticipated in achieving this status and no erosion or other detrimental effects are expected as a result of this operation.

Dry hole well – Pad & road area will be re-contoured to match existing terrain. Topsoil will be spread to the extent possible. Re-vegetation will comply with BLM standards.

Producer well – The previously noted procedures will apply to those areas which are not required from production facilities.

The vegetation at the wellsite is grassland. The topsoil is very sandy in nature. Plants are sparse which may include prairie grass, some mesquite bushes & shinnery oak. No wildlife was observed but it is likely that deer, rabbits, coyotes & rodents traverse the area which are all typical of the semi-arid desert land. There are no ponds or streams in the proximity of the location. No dwelling within 1.5 miles of location.

Arc Survey and Notice of Staking have been submitted to Bureau of Land Management.

11. **OTHER INFORMATION** The surface ownership of the drill site & the access routes are under the ownership of the US Government, administered by the Bureau of Land Management, 620 E Greene St., Carlsbad, NM, 88220.

Drilling contractor: Pending.