



MEWBOURNE

OIL COMPANY

Hydrogen Sulfide (H₂S) Contingency Plan

North Wilson Deep Unit 5H

API# 30-025-52087
Sec-E17 T-21S R-35E
2176' FNL & 1013' FWL
LAT. = 32.4803032' N (NAD 83)
LONG. = 103.394956' W
Lea County, NM

Mewbourne Oil Company
P.O. Box 5270
Hobbs, New Mexico 88240

Location Site Diagram



● H2S Warning Signs

● Wind Socks

● H2S Permanent Automated Sensor

● Air Pack & Rescue Equipment

Location Escape Routes



Escape

Person(s) will escape upwind and crosswind of potential gas exposure in the event of an uncontrolled release of gas. Escape can be facilitated from the location entrance road indicated above. Once outside the ROE, Person(s) should enforce a blockade to discourage anyone from entering into the ROE. **Affected Roads include – NM 176**

ROE Determination here (1,016' @ 100ppm & 464' @ 500ppm)

100 PPM ROE



ROE Determination here 1,016' @ 100ppm
Affected Public Areas – None
Affected Roads – NM 176

500 PPM ROE



ROE Determination here 464' @ 500ppm

Affected Public Areas – None

Affected Roads – NM 176



Immediate Action Plan

****100 ppm H2S concentration shall trigger activation of this plan.****

In the event 100 ppm H2S is released at this location, immediate activation of this plan will commence. The most probable scenario in which 100 ppm or greater concentration of H2S is released from this location would be due to equipment failure. In this scenario, equipment components such as nipples, flanges, or line pipe located on the Wellhead, or sand separators and flowlines on location, would fail to contain the Well Stream components. The sudden failure of the equipment and associated pressure and temperature drop of the Well Stream could rapidly release H2S entrapped in the Well Stream into the atmosphere. Immediate detection of such a failure would be captured by the permanent H2S sensors on location. These sensors would trigger an immediate facility ESD (Emergency Shut Down) and associated Well Head ESD for each Well entering the facility. These ESD's would limit the volume of H2S being released to the maximum extent possible. In the event an ESD device fails, prolonged concentration or increased concentration of H2S could exist until the ESD and failed equipment components have been repaired.

Roles and Responsibilities

In the event of a release of gas containing H2S;

- **MOC employed first responder(s) must:**
 - Move away from the hydrogen sulfide source and get out of the affected area.
 - Don proper personal breathing equipment.
 - Isolate the area and prevent entry by other persons into the 100 ppm ROE.
 - **Close NM 176 East/West Traffic**
 - **Roadblock Locations are on Page 16 of this plan.**
 - Notify Supervisor(s) of the release and Roadblock Completion.
 - Alert MOC Team members and other 3rd Party affected personnel.
 - Assist personnel in distress, without putting themselves in distress.
 - Proceed to the designated emergency muster point.
- **MOC Supervisor(s) must:**
 - Account for all MOC personnel and 3rd Party personnel.
 - Identify any potential missing personnel in the area of exposure.
 - Notify MOC's H2S Plan Point of Contact.
 - **Brad Horton - (575) 393-5905**
 - Update MOC's H2S Plan Point of Contact regularly as new information is received.
- **MOC's H2S Plan Point of Contact**
 - Contact NM Local and State authorities for mass notification of the H2S release to the public and to shut down the affected roads.
 - Initiate evacuation operations as applicable.
 - Coordinate with Local and State authorities in addition to MOC personnel on how to effectively contain the release.
 - Monitor and supervise all aspects of the containment operation and H2S Contingency Plan until the area is deemed Safe for Re-entry.

Emergency Procedures

Prior to attempting to contain the release, all responder(s) must:

- Coordinate with MOC’s POC and obtain permission to enter the affected area.
- 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.
- Have received training in:
 - Detection of H2S.
 - Measures for protection against the H2S Gas.
 - Equipment used for H2S protection and emergency response.

After successful repair or containment of the release. MOC will utilize the permanent H2S Sensors to monitor ambient air. Once Sensors indicate H2S levels have dropped below 10 ppm, MOC HSE representatives will use handheld Multi-Gas Detectors and perform a more detailed examination of the ambient air in the area of exposure. After 3 consecutive Multi-Gas examinations of 10 ppm or less the location will be determined safe for re-entry.

Emergency Response Muster Point

Upon activation of this plan. MOC’s Bell State 16 Com #1 Battery will be the primary muster point and on-site coordination headquarters for all personnel involved in containing the release.

GPS

Bell State 16 Com #1 – 32.4737410, -103.3750589



Ignition of Gas Source

Should control of the source 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.

ESD (Emergency Shutdown Procedures)

ESD devices will be installed on each Well Head for each Well associated with this Battery. These ESD devices will be automated so that if H₂S Concentration **exceeds 50 ppm** at any sensor at this location a Full Facility ESD and an ESD for each Well Head will occur. A Full Facility ESD will constitute powering down all equipment and setting automated valves to a "Closed" State to isolate the potential release to the maximum extent possible. In addition, Well Heads will have Master and Wing Valves located on the Christmas Tree manually shut as soon as MOC first responders arrive, and it is deemed safe to do so.

Contacting Authorities

Mewbourne 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. **The call list of essential and potential responders, on page 15 of this plan, has been prepared for use during a release.** MOC response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER). Additionally, pursuant to 19.15.11.16 NMAC, MOC will submit a full report of the incident to the NMOCD using Form C-141 no later than 15 days following the release.

Plan Reviews & Amendments

MOC will conduct testing monthly to determine the concentration of H₂S present at this location. New ROEs will be calculated, and the H₂S Contingency Plan will be amended as the ROE changes. Once ROEs decrease to the extent the H₂S Contingency Plan is no longer required by 19.15.11 NMAC, MOC will conduct yearly testing to monitor H₂S Concentration levels. During each testing period MOC will also review the subjects in this plan for material changes and make the appropriate amendments. Additionally, any new provisions added or amendments to the plan supplied by NMOCD will be made effective as they are received by MOC.

Annual Communication with Local Authorities

On an annual basis, MOC will prepare this H₂S Contingency Plan and file it with the appropriate local authorities' emergency planning committee and the state emergency response commission. MOC will also review and provide/update, the name, address and telephone number of the MOC point of contact at this time.

Hazards and Characteristics of H2S and SO2

Hydrogen Sulfide Gas (H2S) is a potentially lethal gas that can cause rapid unconsciousness, and death in high enough concentrations. H2S is a colorless gas and is only able to be smelt in low concentrations (often smelling like Rotten Eggs). At higher concentrations H2S paralyzes the olfactory nerve and an individual is no longer able to smell the gas. In addition, H2S is highly flammable and explosive, with an explosive range of 4.3 to 45 percent. The byproduct of burning H2S gas is Sulfur Dioxide (SO2) which is another gas with deadly characteristics.

SO2 is another potentially lethal gas that can cause death in high enough concentrations. Like H2S, SO2 is a colorless gas. It also targets the respiratory system and can cause nose, throat, and lung irritation. SO2 reacts violently with Oxidizing Agents and contact with oxidizing agents should be avoided. In the presence of moisture or water SO2 can turn into Sulfuric Acid. Caution should be used when attempting to extinguish SO2 with water.

Both H2S and SO2 are considered Poisonous Gases!!!

Characteristics of H2S and SO2					
Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H2S	1.189 (Air=1)	10 ppm	100 ppm/hr	500 ppm
Sulfur Dioxide	SO2	2.21 (Air=1)	2 ppm	100 ppm	1,000 ppm

H2S Concentration (ppm)	Symptoms/Effects
0.01-5	Odor threshold (when rotten egg smell is first noticeable to some).
5-10	Prolonged exposure may cause nausea, tearing of the eyes, headaches or loss of sleep.
10-100	Possible fatigue, loss of appetite, headache, irritability, poor memory, dizziness.
100-500	Coughing, eye irritation, Loss of smell (olfactory fatigue or paralysis). Death may occur after 48 hours.
500-1000	Staggering, collapse in 5 minutes. Death after 30-60 minutes.
1000-2000	Instant death

H2S Drilling, Completion, Workover, and Well Service Operation Plan

I. HYDROGEN SULFIDE (H2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling, completion, workover, or well service operations on any Well associated with this Tank Battery:

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. Training records will be retained for a minimum of 5 years after the date of completion and made available to NM OCD for inspection.

II. HYDROGEN SULFIDE OPERATIONAL REQUIREMENTS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

- A. Well Control Equipment
 - a. Flare line
 - b. Choke manifold - Remotely Operated
 - c. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
 - d. Auxiliary equipment may include if applicable: annular preventer and rotating head.
 - e. Mud/Gas Separator

- B. Protective equipment for essential personnel:
30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.
- C. H2S detection and monitoring equipment:
Portable H2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:
- Bell nipple
 - Suction pit
 - Choke manifold
 - Shale shaker
 - Rig floor
 - Living Quarters (usually the company man's trailer stairs.)
 - Trip tank
 - Cellar

Visual warning systems

- a. Wind direction indicators as shown on well site diagram
 - b. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.
- D. Mud program:
- The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.
- E. Metallurgy:
- a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H2S trim.
 - b. All elastomers used for packing and seals shall be H2S trim.
- F. Communication:
- a. Company personnel have/use cellular telephones in the field.
 - b. Land line (telephone) communications at Office

- G. Well Testing:

- a. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- b. There will be no drill stem testing.

H2S Production Operation Plan

HYDROGEN SULFIDE (H2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing production operations on any Well associated with this Tank Battery and the Tank Battery itself:

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

5. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
6. Corrective action and shut-in procedures when producing a well and blowout prevention and well control procedures.
7. The contents and requirements of the H2S Production Operation Plan and Public Protection Plan.

There will be an initial training session prior to any field work to be completed during Employee Onboarding. Initial training will also be required for any current employees currently working in for transferred into a known H2S Area prior to field work in that Area. The initial training session shall include a review of the site specific H2S Production Operation Plan and the Public Protection Plan.

There will be annual training to refresh all personnel, whether regularly assigned, contracted, or employed on an unscheduled basis. Personnel will receive training from a qualified instructor in the areas listed above and complete a written H2S worksheet. Attendance will be tracked via worksheet completion.

Semiannually, on-site drills and release simulations will be conducted for all personnel, whether regularly assigned, contracted, or employed on an unscheduled basis at this location. Drills and simulations will include training in the responsibilities and duties of essential personnel. Attendance will be tracked via a sign in sheet.

Training records will be retained for a minimum of 5 years after the date of completion and made available to NM OCD for inspection.

HYDROGEN SULFIDE OPERATIONAL REQUIREMENTS

Note: All H2S safety equipment and systems will be installed, tested, and operational before initial well production.

- A. Well Control Equipment
 - a. ESD Valve (Automated)
 - b. Manual Valves

- B. Protective equipment for essential personnel:
 - Battery will be supplied with rescue packs, supplied air vessels, and escape packs.
 - 30-minute SCBA units located at briefing areas, as indicated on well site diagram.
 - As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.
 - MOC personnel that regularly visit this location will have supplied air vessels, rescue packs, and escape packs on their MOC provided company vehicle.

- C. H2S detection and monitoring equipment:

Permanent H2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

 - Tanks
 - Heaters
 - Separators
 - Wellhead

Additionally, personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will wear personal H2S monitors while on location.

- D. Visual warning systems:
 - a. Wind direction indicators as shown on well site diagram
 - b. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Signs shall contain the words "Poison Gas". Bilingual signs will be used when appropriate.

- E. Inspection/Calibration of Safety Equipment
 - a. Monthly
 - i. Personal H2S monitor
 - ii. SCBA (& before each use)
 - iii. Rescue Packs/Escape Packs
 - iv. Supplied Air Vessels
 - b. Every 3 Months
 - i. Permanent H2S Sensors on location

Mewbourne Oil Company Contact List

Hobbs	Cellular
Superintendent- Robin Terrell	(575) 390-4816
HSE Coordinator- Brad Horton (MOC POC)	(575) 393-5905

Agency Call List

Hobbs (Lea County)	
State Police	(575) 392-5588
City Police	(575) 397-9265
Sherriff's Office	(575) 393-2515
Ambulance / Fire Department	(575) 397-9308
LEPC (Local Emergency Planning Committee)	(575) 393-2870
Lea Regional Hospital	(575) 392-6581

Carlsbad (Eddy County)	
State Police	(575) 885-3137
City Police	(575) 885-2111
Sherriff's Office	(575) 887-7551
Ambulance / Fire Department	(575) 885-2111
LEPC (Local Emergency Planning Committee)	(575) 887-3798
Carlsbad Medical Center	(575) 887-4100

Government Agencies

New Mexico Oil Conservation Division (Santa Fe)	(575) 476-3441
New Mexico Oil Conservation Division (Hobbs)	(575) 241-7063
US Bureau of Land Management (BLM)	(575) 887-6544
Air Quality Bureau, Santa Fe, NM	(575) 827-1494
NM Emergency Response Commission (Santa Fe)	(505) 476-9600
24HR #	(505) 827-9126
National Emergency Response Center (DC)	(800) 424-8802

Emergency Services

Wild Well Control	(281) 784-4700
Cudd Pressure Control	(915) 563-3356
Halliburton	(575) 746-2757
Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
Flight For Life – Lubbock, TX	(806) 743-9911
Aerocare – Lubbock, TX	(575) 842-4433

Roadblock Locations



NM 176 Road Block East – Set up a road block 6,150’ East of the North Wilson Battery Lease Road Entrance, near the Goodnight Midstream Llano Facility Entrance, to prevent travel of West Bound Traffic on NM 176. **GPS 32.4747307, -103.3754173**

NM 176 Road Block West - Set up a road block 5,000’ West of the North Wilson Battery Lease Road Entrance, near San Simon Road, to prevent travel of East Bound Traffic on NM 176. **GPS 32.4827529, -103.4103091**

Amendment Record

Revision Date	Authority	Custodian	Revision Details
09/29/2022	HSE	Environmental Specialist	<ul style="list-style-type: none">• Updates and revisions to NM standards
10/30/2024	HSE	Engineer	<ul style="list-style-type: none">• Updates and revisions per NMOCD recommendations after failed submission

Appendix**ROE Calculation****Parameters and Equations:**

100ppm ROE calculation (as per 19 NMAC 15.11.7.K.1):

$$X_{100\text{ppm}} = (1.589 * C_{\text{H}_2\text{S}} * Q)^{0.6258}$$

500ppm ROE calculation (as per 19 NMAC 15.11.7.K.2):

$$X_{500\text{ppm}} = (0.4546 * C_{\text{H}_2\text{S}} * Q)^{0.6258}$$

X = radius of exposure (ft)

 $C_{\text{H}_2\text{S}}$ = decimal equivalent of the mole or volume fraction of H_2S present

Q = Daily Facility throughput (SCFD)

Calculation Date: 12/1/2024

100ppm Calculation:

$$X_{100\text{ppm}} = (1.589 * .04 * 1004094)^{0.6258}$$

$$X = 1,016 \text{ feet}$$

500ppm Calculation:

$$X_{500\text{ppm}} = (0.4546 * .04 * 1004094)^{0.6258}$$

$$X = 464 \text{ feet}$$

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan-Grisham
Governor

Melanie A. Kenderdine
Cabinet Secretary-Designate

Benjamin Shelton
Deputy Secretary (Acting)

Gerasimos Razatos, Division Director (Acting)
Oil Conservation Division



BY ELECTRONIC MAIL

January 3, 2025

Mr. Kyle Bolyard
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88240
kbolyard@mewbourne.com

Re: Mewbourne Oil Company - Notice of an Administratively Complete Hydrogen Sulfide Contingency Plan, North Wilson Deep Unit 5H (30-025-52087), Lea County, New Mexico

Dear Mr. Bolyard:

The New Mexico Energy, Minerals and Natural Resource Department's Oil Conservation Division (OCD) has reviewed the Hydrogen Sulfide (H₂S) Contingency Plan submitted to the OCD on December 10, 2024, by Mewbourne Oil Company (Mewbourne) for the North Wilson Deep Unit 5H (30-025-52087) located in Lea County, New Mexico. The submitted H₂S Contingency Plan has been determined to be administratively complete and approved under the conditions specified in 19.15.11 NMAC and summarized in Attachment A to this letter.

Please be advised that OCD's acceptance of this plan does not relieve Mewbourne of responsibility should its operations fail to adequately detect, investigate, and/or undertake corrective actions to prevent or stop a hydrogen sulfide release. In addition, OCD's acceptance does not relieve Mewbourne of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Please do not hesitate to contact me at (505) 627-9623 or via email should you have any questions.

Respectfully,

Jeff Harrison
Environmental Scientist and Specialist
jeffrey.harrison@emnrd.nm.gov

Attachment A. Conditions of Approval

Pursuant to 19.15.11 NMAC, [14744] MEWBOURNE OIL CO shall comply with the following conditions of approval:

1. Determinations of the hydrogen sulfide concentration in the gaseous mixture within wells, facilities or operations shall be established by testing, testing a representative sample, or using process knowledge in lieu of testing. If a representative sample or process knowledge is used, the concentration derived shall be reasonably representative of the hydrogen sulfide concentration expected within the well, facility or operation. Testing will be conducted in accordance with applicable ASTM or GPA standards or by other division approved method. For a well being drilled, completed, recompleted, worked over or serviced in an area with insufficient data where hydrogen sulfide concentrations could reasonably be expected to exceed 100-ppm, a 100-ppm radius of exposure equal to 3,000 feet will be assumed.
2. If a change or alteration could materially increase the hydrogen sulfide concentration in a well, facility or operation, [14744] MEWBOURNE OIL CO shall make a new determination in accordance with 19.15.11 NMAC.
3. If the hydrogen sulfide concentration in a well, facility or operation is determined to be 100-ppm or greater or increases to reach or exceed 100-ppm during operations, the-100 ppm and 500-ppm radii of exposure shall be determined and the applicable requirements of 19.15.11 NMAC must be followed.
4. If the calculation of the radius exposure reveals that a potentially hazardous volume is present as per the definition of subsection H of 19.15.11.7 NMAC, [14744] MEWBOURNE OIL CO shall provide the results of the hydrogen sulfide concentration determination and calculations of radii of exposure to the division prior to the beginning of operations.
5. Radii of exposure shall be recalculated if the measured volume fraction of hydrogen sulfide observed in a well, facility or operation increases by factor of 25 percent. Should any recalculation reveal the presence of a potentially hazardous volume, these results must be provided to the division within 60 days.

6. Hydrogen sulfide contingency plans should be developed to be aligned with paragraph 7.6 of the most current version of the guidelines from the API publication Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide (RP-55) or other current division-approved standards.
7. Hydrogen sulfide contingency plans must also address or contain all elements described in subsection B of 19.15.11.9 NMAC. These include but are not limited to emergency procedures for a release, responsibilities and duties of personnel during an emergency, an immediate action plan, information for contacting emergency responders, governmental agencies and other appropriate authorities, the locations of potentially effected public areas and public roads, evacuation routes, required road blocks in the event of a release, procedures for public notification, the availability and location of safety equipment and supplies, the characteristics of hydrogen sulfide and sulfur dioxide, maps of the location depicting areas of exposure, public areas and roads, a discussion of proposed hydrogen sulfide training and drills for personnel, a description of how coordination shall be achieved with state emergency plans and a specific hydrogen sulfide activation level and summary of the most probable scenarios that would trigger the immediate action plan.
8. The contingency plan shall be activated when a release creates hydrogen sulfide concentrations greater than specified in the plan. At a minimum, the plan should be activated when the hydrogen sulfide concentration exceeds 100-ppm for a public area, 500-ppm at a public road, or 100-ppm at 3000 feet from the site of the release.
9. Should an operator become aware of a public area or public road that is created that poses a potentially hazardous volume where none previously existed, the operator has 180 days to submit a hydrogen sulfide contingency plan to the division.
10. The hydrogen sulfide contingency plan shall be reviewed and amended any time a subject contained within the existing plan materially changes.
11. Contingency plans shall be maintained on site, reasonably accessible, and available for division inspection.

12. On an annual basis, [14744] MEWBOURNE OIL CO shall file with the appropriate local emergency planning committee and the state emergency response commission an inventory of the wells, facilities and operations for which plans are on file with the division and the name, address and telephone number of a point of contact.
13. For each well, facility or operation involving a hydrogen sulfide concentration of 100-ppm or greater, [14744] MEWBOURNE OIL CO shall install and maintain signs or markers that conform with the current ANSI standard Z535.1-2002 (Safety Color Code), or some other division-approved standard. The sign or marker shall be readily readable and shall contain the words "poison gas" and other information sufficient to warn the public that a potential danger exists. The person shall prominently post signs or markers at locations, including entrance points and road crossings, sufficient to alert the public that a potential danger exists.
14. [14744] MEWBOURNE OIL CO shall conduct drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100-ppm or greater with due consideration to the guidelines in the API publications Recommended Practice for Oil and Gas Well Servicing and Workover Operations Involving Hydrogen Sulfide, RP-68, and Recommended Practices for Drilling and Well Servicing Operations Involving Hydrogen Sulfide, RP-49, most recent editions, or some other division-approved standard.
15. Drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100-ppm or greater shall include hydrogen sulfide detection and monitoring equipment that is accurate and precise which automatically activates visible and audible alarms when the hydrogen sulfide's ambient air concentration reaches a predetermined value the operator sets, not to exceed 20-ppm.
16. Hydrogen sulfide sensors must be placed at the shale shaker, rig floor and bell nipple for a drilling site and the cellar, rig floor and circulating tanks or shale shaker for a completion site. For workover and well servicing operations, one operational sensing point shall be placed as close to the well bore as practical. Additional sensing points may be necessary for large or long-term operations.
17. [14744] MEWBOURNE OIL CO shall provide and maintain as operational hydrogen sulfide detection and monitoring equipment during drilling when drilling is within

500 vertical feet of a zone anticipated to contain hydrogen sulfide and continuously thereafter through all subsequent drilling.

18. Drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100-ppm or greater shall include at least two wind indicators, at separate elevations, that are always visible from principal working areas. Should a sustained hydrogen sulfide concentration exceed 20-ppm at a detection point, red flags shall be displayed.
19. For drilling and completion operations in areas where it is reasonably expected that a potentially hazardous hydrogen sulfide volume will be encountered, [14744] MEWBOURNE OIL CO shall install a flare system to safely gather and burn hydrogen-sulfide-bearing gas. The person shall locate flare outlets at least 150 feet from the well bore and flare lines shall be as straight as practical. [14744] MEWBOURNE OIL CO shall equip the flare system with a suitable and safe means of ignition. Where noncombustible gas is to be flared, the system shall be designed to provide supplemental fuel to maintain ignition.
20. When the 100-ppm radius of exposure includes a public area, the following well control equipment is required for drilling. A remote-controlled well control system that is always operational beginning when drilling is within 500 vertical feet of the formation believed to contain hydrogen sulfide and continuously thereafter during drilling. The system must minimally include a pressure and hydrogen-sulfide-rated well control choke and kill system including manifold and blowout preventer that meets or exceeds the specifications in API publications Choke and Kill Systems, 16C and Blowout Prevention Equipment Systems for Drilling Wells, RP 53 or other division-approved specifications. This equipment shall be tested and maintained pursuant to the specifications referenced, according to the requirements of 19.15.11 NMAC, or as the division otherwise approves.
21. When the 100-ppm radius of exposure includes a public area, the following well control equipment is required for completions, workovers and well servicing. A remote-controlled pressure and hydrogen-sulfide-rated well control system that meets or exceeds API specifications or other division-approved specifications that is operational at all times during a well's completion, workover and servicing.
22. Drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100-ppm or greater shall use a hydrogen sulfide mud

program capable of handling hydrogen sulfide conditions and well control, including de-gassing.

23. Except with prior division approval, [14744] MEWBOURNE OIL CO shall conduct drill-stem testing of a zone that contains hydrogen sulfide in a concentration of 100-ppm or greater only during daylight hours and not permit formation fluids to flow to the surface.
24. If hydrogen sulfide was not anticipated at the time the division issued a permit to drill but is encountered during drilling in a concentration of 100-ppm or greater, the operator shall satisfy the requirements of 19.15.11 NMAC before continuing drilling operations. The operator shall notify the division of the event and the mitigating steps that the operator has or is taking as soon as possible, but no later than 24 hours following discovery. The division may grant verbal approval to continue drilling operations pending preparation of a required hydrogen sulfide contingency plan.
25. Operations at oil pump stations and producing wells, tank batteries and associated production facilities, refineries, gas plants and compressor stations involving a hydrogen sulfide concentration of 100-ppm or greater shall be conducted with due consideration to the guidelines in the API publication Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide, RP-55, latest edition or some other division-approved standard.
26. Well sites and other unattended, fixed surface facilities involving a hydrogen sulfide concentration of 100-ppm or greater from public access by fencing with locking gates when the location is within 1/4 mile of a public area. For the purposes of Subsection B of 19.15.11.12 NMAC, a surface pipeline is not considered a fixed surface facility.
27. Oil pump stations, producing wells, tank batteries and associated production facilities, pipelines, refineries, gas plants and compressor stations involving a hydrogen sulfide concentration of 100-ppm or greater shall have equipment to indicate wind direction. [14744] MEWBOURNE OIL CO shall install wind direction equipment that is always visible from all principal working areas.
28. When the 100-ppm radius of exposure includes a public area, [14744] MEWBOURNE OIL CO shall install and maintain in good operating condition safety devices, such as automatic shut-down devices, to prevent hydrogen sulfide's

escape. Alternatively, [14744] MEWBOURNE OIL CO shall establish safety procedures to achieve the same purpose. Additionally, a well must possess a secondary means of immediate well control using an appropriate christmas tree or downhole completion equipment. The equipment shall allow downhole accessibility (reentry) under pressure for permanent well control.

29. [14744] MEWBOURNE OIL CO shall chain each stair or ladder leading to the top of a tank or vessel containing 300-ppm or more of hydrogen sulfide in the gaseous mixture or mark it to restrict entry.
30. [14744] MEWBOURNE OIL CO shall provide persons responsible for implementing a hydrogen sulfide contingency plan training in hydrogen sulfide hazards, detection, personal protection and contingency procedures.
31. Whenever a well, facility or operation involves a potentially hazardous hydrogen sulfide volume, [14744] MEWBOURNE OIL CO shall select equipment with consideration for both the hydrogen sulfide working environment and anticipated stresses and shall use NACE Standard MR0175 (latest edition) or some other division-approved standard for selection of metallic equipment or, if applicable, use adequate protection by chemical inhibition or other methods that control or limit hydrogen sulfide's corrosive effects.
32. [14744] MEWBOURNE OIL CO shall notify the division upon a release of hydrogen sulfide requiring activation of the hydrogen sulfide contingency plan as soon as possible, but no more than four hours after plan activation, recognizing that a prompt response should supersede notification. The person shall submit a full report of the incident to the division on form C-141 no later than 15 days following the release.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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CONDITIONS

Action 410340

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 410340
	Action Type: [UF-H2S] H2S Contingency Plan (H2S Plan)

CONDITIONS

Created By	Condition	Condition Date
jeffrey.harrison	See Attachment A of division correspondence dated January 3, 2025, regarding the H2S Contingency Plan for North Wilson Deep Unit 5H which is appended to the end of the conditionally approved Contingency Plan.	1/3/2025