H2S – 64

H2S Contingency Plan

2018

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, April 13, 2018 4:25 PM
To: 'Julie W. Gutierrez'; Griswold, Jim, EMNRD; aag@geolex.com
Cc: GMcAfee@lucid-energy.com; Goetze, Phillip, EMNRD; Brown, Maxey G, EMNRD
Subject: RE: Lucid "Red Hills Gas Processing Plant" with Red Hills AGI #1Well (API # 30-025-40448) H2S-64
Attachments: OCD Acceptance of H2S-64 CP 4-13-2018.pdf

Julie, et al.:

The New Mexico Oil Conservation Division (OCD) has completed its review of the above subject Hydrogen Sulfide Gas Contingency Plan (CP).

Please find attached OCD's acceptance letter (letter) of the CP for record. OCD will update the "H2S-64" Administrative Record to include the CP and letter today.

Please contact me if you have questions.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us
"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD and see "Publications")

-----Original Message-----
From: Julie W. Gutierrez <jwg@geolex.com>
Sent: Friday, April 13, 2018 4:10 PM
To: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; aag@geolex.com
Cc: GMcAfee@lucid-energy.com; jwg@geolex.com; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: Lucid red Hills

Jim,
Lucid is willing to do a plan for the pipeline; however we really need the approval for the plant and well as they need to commission the well this weekend. Please let us know. You can reach me or Alberto anytime. 5052357158 or 5052594283.
Thanks
Julie

Sent from my iPhone

State of New Mexico
Energy, Minerals and Natural Resources Department

APRIL 13, 2018

Julie W. Gutiérrez
Geolex, Inc®
500 Marquette Avenue, NW Suite 1350
Albuquerque, NM 87102

RE: Lucid Delaware, LLC. Red Hills Gas Processing Plant with Acid Gas Injection Well (H2S-064): H2S Contingency Plan (April 2018) Section 13, Township 24 South, Range 33 East in Lea County, New Mexico

Dear Mrs. Gutiérrez:

The Oil Conservation Division (OCD) is in receipt of Lucid Delaware LLC's "Red Hills Gas Processing Plant" with Acid Gas Injection Well Facility H2S Contingency Plan dated April 2018.

OCD has completed its review of the revised plan and finds that it appears to meet the intent of the OCD Hydrogen Sulfide Gas Regulations (19.15.11 NMAC). Therefore, OCD hereby accepts the plan for record.

If you have any questions, please contact Carl Chavez of my staff at (505) 476-3490, mail at the address below, or email at CarlJ.Chavez@state.nm.us. Thank you.

Please be advised that OCD approval of this plan does not relieve Lucid Delaware, LLC. of responsibility should its operations fail to adequately detect, investigate, and/or undertake corrective actions to prevent or stop a hydrogen sulfide release(s) that may pose a threat to groundwater, surface water, human health, public safety or the environment. In addition, OCD approval does not relieve Lucid Delaware, LLC. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely,

Jim Griswold
Environmental Bureau Chief

JG/cjc

cc: OCD Hobbs District Office

H_2S Contingency Plan
Red Hills Gas Processing Plant
Lea County, NM

Lucid Delaware, LLC
3100 McKinnon St #800
Dallas, TX 75201

April 2018

Prepared by:

GEOLEX®
INCORPORATED

TABLE OF CONTENTS

FIGURES

APPENDICES

Location of Plant

LUCID GAS PROCESSING PLANT

Lucid Delaware, LLC (Lucid) has completed and plans to operate an approved acid gas injection (AGI) well at the Red Hills Gas Processing Plant located in southeastern New Mexico. The Plant and well are located in Lea County, New Mexico on land owned by Lucid.

Mailing Address:

1934 W. NM Highway 128
Jal, NM 88252

Driving Directions from Jal, NM to the Plant:

Travel about 21 miles West on NM State Road 128 from Jal, NM.

ACID GAS INJECTION WELL

The Red Hills AGI #1Well is located on the northeast corner of the Plant (see Figure 2)

Surface Locations of the well is

1,600’ FSL, 150’ FEL, Section 13, T24S, R33E
Latitude: 32.214586, Longitude: -103.517520 (API # 30-025-40448)

GLOSSARY OF ACRONYMS UTILIZED IN THE PLAN

ACGIH	American Conference of Governmental Industrial Hygienists
AGI	Acid Gas Injection
ANSI	American National Standards Institute
API	American Petroleum Institute
CO_2	Carbon Dioxide
DCS	Distributed Control System
DOT	Department of Transportation
ERO	Emergency Response Officer
ESD	Emergency Shut-Down
H_2S	Hydrogen Sulfide
IC	Incident Commander
ICS	Incident Command System
ICC	Incident Command Center
IDLH	Immediately Dangerous to Life or Health
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee
MSDS	Materials Safety Data Sheets
NACE	National Association of Corrosive Engineers
NCP	National Contingency Plan
NIIMS	National Interagency Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NGL	Natural Gas Liquid
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMOCC	New Mexico Oil Conservation Commission
OCD	Oil Conservation Division
OSHA	Occupational Safety and Health Administration
PLC	Programmable Logic Controller
PPE	Personal Protective Equipment
PPM	Parts Per Million
ROE	Radius of Exposure
SCBA	Self-Contained Breathing Apparatus
SERC	State Emergency Response Commission
SO_2	Sulfur Dioxide
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

I. INTRODUCTION [NMAC 19.15.11 et. seq.][API RP-55 7.1 RP-49, RP-68]

Lucid purchased the Red Hills Gas Processing Plant from Agave Energy in 2016. Agave built the Plant and drilled the existing Acid Gas Injection (AGI) well in 2012-13. However, the well was never completed and never put into service because the plant was processing only sweet gas. Lucid now plans to begin processing sour gas and, thus, has completed the AGI. The Red Hills Gas Plant (hereinafter the "Plant") is a natural gas processing plant which will be processing field gas containing hydrogen sulfide (H_2S) and will also handle and/or generate sulfur dioxide (SO_2). The Plant has one AGI well (Red Hills AGI #1) which it will be utilizing for disposal of H_2S. This Hydrogen Sulfide Contingency Plan (the "H_2S Plan" or "the Plan") is being submitted to document procedures that are to be followed in the event of an H_2S release that occurs at any location on the Plant or at the AGI Processing area where Red Hills AGI #1 is located

This plan complies with **New Mexico Oil Conservation Division (OCD) Rule 11*(§ 19.15.11 et. seq. NMAC).*** The plan and operation of the Red Hills Plant conform to standards set forth in ***API RP-55 "Recommended Practice for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide" as well as API RP 49 "Recommended Practice for Drilling and Well Servicing Operations Involving Hydrogen Sulfide" and API RP 68 " Oil and Gas Well Servicing and Workover Operations involving Hydrogen Sulfide", and applicable NACE standards for sour gas service and current best management practices.*** The Plant does not have any storage tanks in which H_2S or other gas or gas products are stored, and thus, API regulations and OCD regulations (specifically 19.15.11.12.E NMAC) relative to those types of storage are not applicable for this plant. Drilling and completion of the AGI well was done in compliance with NMAC 19.15.11.11. The terms used in this Plan are used as defined in Title 19 Chapter 15 Part 11 of the New Mexico Administrative code (19.15.11.7- Definitions) unless otherwise defined herein. Safety precautions in the event of a release could include placement of road blocks, evacuation along designated routes or instructions to shelter-in-place. When the term "shelter-in-place" is used in this Plan, it means that individuals should go inside homes, businesses, etc., turn off heating and air conditioning systems, close windows and doors and put towels or tape around doors and/or windows that are not sealed and wait for further instruction.

II. SCOPE [API RP-55 7.2]

This Plan is specific to the Red Hills Gas Processing Plant and AGI Well. It contains procedures to provide for an organized response to an unplanned release of H_2S from the Plant or the AGI Well contained within the Plant and documents procedures that would be followed to alert and protect any members of the public, residents in surrounding areas and/or contractors working on or around the plant in the event of an unplanned release. This H_2S Contingency Plan has been prepared to minimize the hazard resulting from an unplanned H_2S release. It will be used to inform company personnel, local emergency responders and the public of actions to be taken should the Plant experience such an H_2S release. All operations shall be performed with safety as the primary goal. The highest priority of the Red Hills Gas Plant, during an unplanned H_2S release, is to protect company employees, contractors and the public; the secondary concern is to minimize the damage and other adverse effects of the emergency. In the event of a release, any part of the Plant operation that might compromise the safety of individuals will cease until the operation can be re-evaluated and the proper engineering controls implemented to assure safety. No individual should place the protection of the Plant property above his or her own personal safety.

In a serious situation involving an H_2S release, not only Red Hills employees are involved, but local Fire Departments, Law Enforcement, County and even State of New Mexico agencies may be interested parties. In any emergency situation involving a H_2S release, delegation of duties will be made to appropriate employees and groups. These duties will be reviewed on an annual basis to ensure complete understanding and facilitate a well-coordinated response by all involved personnel to the emergency situation.

III. PLAN AVAILABILITY [API RP-55 7.3]

The H_2S Plan shall be available to all personnel responsible for implementation, regardless of their normal location assignment. A copy of the Plan will be maintained at the Red Hills Plant Control Room, in the Plant Supervisor's office at the plant, and in the Lucid Corporate Office. See Appendix E for the H_2S Plan Distribution List, which lists all the additional entities that will be provided a copy of the H_2S Plan.

IV. EMERGENCY PROCEDURES [NMAC 19.15.11.9.B(2)(a)] [API RP-55 7.4 a] [29 CFR 1910.1200]

RESPONSIBILITIES AND DUTIES OF PERSONNEL DURING AN EMERGENCY

It is the responsibility of all personnel on-site to follow the safety and emergency procedures outlined in this H_2S Contingency Plan. The Plant uses the Incident Command System (ICS) for emergency response (see Figure 7 for a diagram of the command structure). The ICS structure used is based on the National Interagency Incident Management System (NIIMS) and is consistent with the National Contingency Plan (NCP). All Plant employees shall be prepared to respond to an H_2S emergency at the Plant and the AGI Well. All Plant employees must be H_2S certified, and that certification must be renewed on an annual basis. In the event of an accidental release that results in the activation of the H_2S Plan all personnel will be evacuated out of the affected area, and the Plant Supervisor, or designee, will be the on-scene Incident Commander (IC in this Plan). Plant Operators will immediately respond to the emergency, as detailed in Section V. of this plan and in Appendices A and B. The IC will contact and coordinate with Lucid's management team.

The Plant Supervisor/IC or designee shall determine:

1) Plant Shutdowns
2) Isolation of pipeline segments
3) Repairs, tests or restarts as required

If an emergency occurs, the Plant Supervisor, or designee, shall be notified first, and that individual will notify the VP of Operations who will notify the Director of Technical Services; the Director of Technical Services shall activate the Corporate Emergency Response Plan. If any person in this chain of command is unavailable, the individual making the call will elevate the communication to the next level. The intention of this process is to allow the IC to make one phone call and then be able to focus on the incident response.

Site Security [NMAC 19.15.11.12.B]

In order to have an accurate listing of all personnel on-site in the event of an emergency, a daily sign-in log sheet will be utilized. The sign-in log sheet will include, at a minimum the name of the individual entering the plant, the company name, time of arrival, and time of departure. All personnel are required

to sign in at the Plant Office/Control Room. In compliance with 19.15.11.12.B NMAC the Plant and AGI Well are contained within a secure fenced area with locking gates.

Discovery and Internal Reporting

All personnel, including contractors who perform operations, maintenance and/or repair work in sour gas areas within the Plant must wear personal H_2S monitoring devices to assist them in detecting the presence of unsafe levels of H_2S. There are also fixed H_2S monitors located throughout the plant. Personal monitoring devices will give an audible alarm at 10 ppm as will the fixed H_2S monitors. When any person, discovers a leak or emission release they are to attempt to resolve the issue as long as H_2S levels remain at 10 ppm or below. If the response action needed to resolve the issue is more than simply closing a valve or stopping a small leak, the individual who has discovered the leak shall notify the Control Room Operator who will contact the Plant Supervisor or his designee so that the Plant Supervisor can activate the H_2S Contingency Plan, if necessary. The Control Room Operator will also initiate and maintain a Chronologic Record of Events Log (see Appendix F) which records the time, date and summary of events. He will record, at a minimum, the following information:

- Name, telephone number, and location of person reporting the situation
- Type and severity of the emergency
- Location of the emergency and the distance to surrounding equipment and/or structures
- The cause of the spill or leak, name and quantity of material released, and extent of the affected area including the degree of environmental hazard
- Description of injuries (if any) and report of damage to property and structures

All non-essential persons shall be notified of the release and evacuated from the area. Responding Operator will put on 30-minute Self Contained Breathing Apparatus (SCBA) and will first help any persons requiring assistance during the evacuation and then attempt to resolve the issue.

Local emergency response providers will also be contacted as deemed necessary by the IC. If necessary, the Control Room Operator (or designee) will then conduct the notifications of federal and state regulatory agencies including the NMOCD District Office and emergency response agencies listed in Appendix C. Red Hills operations personnel are to advise any contractor and all others on-site or attempting to enter the Plant that the H_2S Plan has been activated.

IMMEDIATE ACTION PLAN

Immediate Action Plans outlining procedures and decision processes to be used in the event of an H_2S release are contained in Appendix A. These procedures and decision processes have been designed to ensure a coordinated, efficient and immediate action plan for alerting and protecting operating personnel and the public as well as to prevent or minimize environmental hazards and damage to property. Emergency response actions may be taken for a variety of situations that may occur. The Plan is activated in progressive levels (Levels 1, 2 and 3), based on the concentration and duration of the H_2S release. Response Flow Diagrams illustrating these Immediate Action Plans are contained in Appendix B. **Red Hills Plant Operators are authorized to elevate the level of response, based on observed conditions, if they feel a lower level response may not be effective in protecting personnel, the public, or the environment.** Additional or long-term response actions will be determined on a case-by-case basis, if needed, once the Incident Command Center (ICC) and System (ICS) are established following the immediate response.

TELEPHONE NUMBERS, COMMUNICATION METHODS AND MEDIA SITE

Telephone Numbers and Communication Methods

In the event of activation of the Plan, emergency responders, public agencies, local government and other appropriate public authorities must be contacted. Public awareness and communication is a primary function of this Plan. Lucid has compiled a list of various public, private, federal, state, and local contacts that are to be notified at various phases during the activation of the Plan, and that information is included in Appendix C of this Plan. The Level 1, 2 and 3 Immediate Action Plans and the Response Flow diagrams contained in Appendices A and B indicate when certain entities are to be contacted in event of activation of this Plan. Lucid will contact by telephone all potentially affected parties as well as state and local response organizations if the H_2S Plan is activated. All entities contacted will be advised of the following:

- The nature and extent of the release/emergency at the Plant and recommendations for protective actions, such as evacuation or shelter-in-place.
- Any other event-specific information that is necessary to protect the public.
- Updated status of the release and continued safety measures to be taken, including but not limited to when to evacuate and/or when it is safe to return to the area

In the event of activation of the Plan, in addition to notifying individuals, businesses and operators (listed in Appendix C) Red Hills personnel, as designated by the IC, will make a visual inspection of the ROE area to ensure that no individuals are seen inside the ROE. If any are observed, they will be advised to evacuate immediately to a designated Emergency Evacuation Area (see Figure 4).

LOCATION OF NEARBY RESIDENCES, MEDICAL FACILITIES, ROADS, BUSINESSES PUBLIC RECEPTORS AND PRODUCERS

Residences and Medical Facilities

There are no residences or medical facilities located within the 500 or 100 ppm Radius of Exposure (ROE) of the Plant. (See Section VI and Appendix D of this Plan for specific information about ROE calculations and map showing the 500 and 100 ppm ROE).

Roads

There are two public roads located within the 100 ppm ROE (SR 128 and SR 21 The Delaware Basin Road). SR 128 also has a section within the 500 ppm ROE. There are emergency trailers, equipped with flashing lights, windsocks, and roadblock signs for use in alerting the public of hazardous conditions on any of these roads. In the event of activation of this Plan, Red Hills personnel will be dispatched to establish roadblocks on these roads to prevent entrance into the 500 and/or 100 ppm ROE, depending on the response level and as designated by the IC (see Figure 4). Roadblocks will be established at the designated locations regardless of wind direction in anticipation that variations in wind conditions can occur. Signs warning of the potential presence of H_2S will be installed where the 500 and 100 ppm ROEs of the Plant intersect the above referenced public roads. (See Figure 4 for the location of these signs; see Figure 8 for a sample photograph of one of these signs.)

Businesses or Other Public Receptors

There are two unmanned electrical sub-stations within the 100 and 500 ppm ROE of the Plant. Both substations are owned by Xcel Energy. There is also an unmanned cell phone tower within the ROE

which is owned by InSite Towers, LLC. (See Figure 4.) There are no other public areas within the ROE. Telephone contact information for above entities is included in Appendix C so that they can be contacted should the Plan be activated.

Producers
There is only one producer with an active well within the ROE (COG Operating). Contact information for this producer is contained in Appendix C.

EVACUATION ROUTES, EMERGENCY ASSEMBLY AREAS AND ROAD BLOCK LOCATIONS

Evacuation Routes and Emergency Assembly Areas
Figure 3 shows the Plant plot plan, location of the AGI Well and also shows internal plant evacuation routes. Figure 4 shows the locations of Emergency Assembly Areas and recommended evacuation routes. Evacuation for all visitors and all personnel that are not operators begins with the 10 ppm H_2S warbling alarm and activation of amber beacons (see Appendix A). The responding Plant operator(s) are to put on the 30-minute SCBA and first determine if any personnel are in distress and assist any distressed personnel to evacuate to Emergency Assembly Area 1. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. Responding operators, wearing the SCBAs, will then investigate the cause of the release. At the sound of the alarm and activation of amber beacons, all other personnel in the Plant are to stop work, check the prevailing wind direction (using visible windsocks) and immediately proceed along designated evacuation routes and/or upwind to the pre-designated Emergency Assembly Areas shown in Figure 4. Prevailing winds for the area are from the southwest. Personnel should evacuate along the designated route unless that route is downwind of the release (based on the wind directions observed at the windsocks); in that event all evacuees should proceed along a route that is perpendicular to the release and then upwind to the designated Emergency Assembly Area.

Roll call shall be conducted at the Emergency Assembly Area to ensure all personnel (including contractors and visitors) are accounted for and have evacuated safely. The Red Hills Plant is a Process Safety Management (PSM) facility and requires all personnel to check-in and sign-in at the Plant Office or Plant Control Room before entering the Plant. The sign-in sheet will be used at the Emergency Assembly Areas to make a full accounting of all personnel and visitors. At each Emergency Assembly Area, the ambient air quality will be monitored for H_2S concentration to ensure the area remains at less than 10 ppm. If the H_2S concentration rises to 10 ppm or greater, the assembly area will be relocated as detailed in the immediate action plan section of this document (see Appendix A).

Road Block Locations
Pre-planned road block locations (which would be utilized in the event of a Level 1, 2 or Level 3 response) are shown on the ROE Map (Figure 4). Each location will have portable road barriers and flashing lights and warning signs. The IC will designate representatives to staff each of the roadblocks. If deemed necessary by the IC, the State or Local Police will be asked to assist with maintaining the roadblocks.

MONITORING EQUIPMENT, ALARM SYSTEMS, SAFETY EQUIPMENT AND SUPPLIES

Emergency Shutdown Systems [NMAC 19.15.11.12.D(1)]
The Red Hills Plant is equipped with an emergency shutdown (ESD) system at the Plant and AGI Well. The ESD system is a fail-safe hardwired system. ESD manual push-button stations are placed throughout the Plant. Operators in consultation with the IC will determine if an H_2S release situation

warrants ESD of the plant. When activated the ESD System is designed to perform the following actions through the use of a hardwired interface:

- Close all hydrocarbon inlet and outlet valves to and from the Plant and AGI Well.
- Initiate a distinct alarm and/or light which is separate from the general plant alarm.
- Shut off fuel at all individual fuel users.
- Isolate Natural Gas Liquid (NGL) storage tanks and product pumps.
- Shut down all electric motors (with exceptions such as lube oil pumps, flare blowers, instrument air compressors, etc.).
- Shut down rotating equipment (engine-driven equipment, expander/compressors, pumps, etc.)
- Isolate fuel to engine-driven equipment.

The locations of the ESD buttons and Isolation Valves are shown in Figures 2 and 3. The ESD systems are designed to prevent a Level 3 response. Block valves on incoming lines can be closed where they enter the Plant perimeter (see Figure 3). Additional isolating block valves outside the Plant perimeter on the incoming lines can be closed to prevent further gas flow into the Plant. The block valves furthest upstream can isolate the entire system from the field gathering lines coming into the Plant. At the discretion of the IC, operations personnel may be designated to close valves at field locations on inlet gas pipelines to ensure that incoming gas is shut off. Figure 9 shows the map of the sour gas pipeline which feeds the Red Hills Plant with gas from a gathering system and compressor station in TX. The pipeline is buried and conforms to all applicable NACE and DOT requirements. There are no facilities or gathering system connections to the line in NM until it enters the Red Hills Plant as shown in Figures 2 and 3 as a yellow line entering the sour gas plant from the east.

AGI compressors will be shut-down if two or more of the H_2S sensors located in the AGI Well area go into high alarm (90 ppm). When AGI compressors are shut-down isolation valves upstream and downstream of the units will close as well as those located on the wellhead.

The Plant ESD can be activated at any time by the Red Hills Plant Operators and is to be activated if efforts to control the release have failed or if a catastrophic release has occurred.

ALARMS, VISIBLE BEACONS AND WIND INDICATORS

Colored beacons, horns, and wind direction indicators and ESD stations are situated in various locations throughout the Plant and are shown on Figure 2. The audible signal for an emergency response is a continuous warble alarm that sounds at 10 ppm H_2S. Amber beacons are also activated at 10 ppm H_2S. The alarm will convert to a siren when the concentration of the H_2S release is 90 ppm or higher, and evacuation of the Plant will be initiated. As per 19.15.11.12.C, wind direction indicators which are visible night and day are installed throughout the Plant as shown in Figure 2. At least one wind direction indicator can be seen from any location within the Plant as well as from any point on the perimeter of the Plant.

SIGNS AND MARKERS [NMSA 19.15.11.10]

The Plant and AGI Well (contained totally within the Plant boundaries) have readily readable warning, caution and notice signs which conform to the current ANSI standard Z535.1-2002 (Safety Color Code). These signs contain language warnings about the presence of H_2S/Poisonous Gas and high-pressure gas; they are posted at the Plant entrance and around the perimeter of the Plant and where isolation/block valves are located (see Figure 3). The signs are of sufficient size to be readable at a distance of 50 feet and contain the words “Caution Poison Gas”. Emergency response phone numbers are also posted at the

entrance to the Plant, and there are signs at the Plant entrance requiring that all visitors sign-in at the Plant office. Lucid does not have the authority to require individual operators who send gas to the Plant for processing to conform to OCD and/or Department of Transportation (DOT) regulations relative to placement of warning signs at individual wells or on gathering lines. It is the responsibility of these individual operators to conform to appropriate regulations and to certify compliance with those regulations to those regulating agencies, as required. Signs warning of the potential presence of H_2S will be installed where the 500 and 100 ppm ROEs of the Plant intersect the above referenced public roads. (See Figure 4 for the location of these signs; and see Figure 8 for a sample photograph of one of these signs).

EMERGENCY EQUIPMENT

Emergency Trailers

Emergency trailers, equipped with flashing lights and windsocks will be utilized at public road locations to establish roadblocks (as shown in Figure 4) to alert the public in the event of hazardous conditions.

First Aid Equipment

The first aid stations are located at the all Emergency Assembly Area (see Figure 4) and at other strategic locations throughout the plant.

GAS DETECTION EQUIPMENT

Fixed Monitors

The Red Hills Plant has numerous ambient hydrogen sulfide detectors placed strategically throughout the Plant to detect possible leaks. Upon detection of hydrogen sulfide at 10 ppm at any detector, visible beacons are activated and an alarm is sounded. Upon detection of hydrogen sulfide at 90 ppm at any detector, an evacuation alarm is sounded throughout the Plant at which time all personnel will proceed immediately to a designated evacuation area. The Plant utilizes fixed-point monitors to detect the presence of H_2S in ambient air. The sensors are connected to the Control Room alarm panel's Programmable Logic Controllers (PLCs), and then to the Distributed Control System (DCS). The monitors are equipped with amber beacons. The beacon is activated at 10 ppm. The plant and AGI Well horns are activated with a continuous warbling alarm at 10 ppm and a siren at 90 ppm. All monitoring equipment is Red Line brand. The Control Panel is a 24 Channel Monitor Box, and the fixed point H_2S Sensor Heads are model number RL-101.

The Plant will be able to monitor concentrations of H_2S via H_2S Analyzers in the following locations:

- Inlet gas of the combined stream from Winkler and Limestone
- Inlet sour liquid downstream of the slug catcher
- Outlet Sweet Gas to Red Hills 1
- Outlet Sweet Liquid to Red Hills Condensate Surge

The AGI system monitors can also be viewed on the PLC displays located at the Plant. These sensors are all shown on the plot plan (see Figure 2). This requires immediate action for any occurrence or malfunction. All H_2S sensors are calibrated monthly.

Personal and Handheld H_2S Monitors

All personnel working at the Plant wear personal H_2S monitors. The personal monitors are set to alarm and vibrate at 10 ppm. Handheld gas detection monitors are available at strategic locations around the Plant so that plant personnel can check specific areas and equipment prior to initiating maintenance or other work. The handheld gas detectors have sensors for oxygen, LEL (explosive hydrocarbon atmospheres), H_2S and carbon dioxide (CO_2).

RESPIRATORS

The plant is equipped with 30-minute SCBA respirators and cascade hose reel systems strategically located throughout the Plant. The cascade hose reel systems have 2-4 compressed air cylinders hooked up in series to provide a sustained supply of breathing air for extended work time in a hazardous atmosphere. Each cylinder will supply one person 6-8 hours of breathing air at normal workloads or 3 hours at medium/heavy workloads. Several hose reels and masks may be attached to a cascade system. The system is equipped with a low-pressure alarm to allow workers to safely exit the hazardous area with plenty of reserve air capacity. All Plant personnel are trained and fit tested annually to use the SCBA respirators.

PROCESS PURGE SYSTEM

All vessels, pumps, compression equipment, and piping in the acid gas injection process are designed and equipped to allow purging with pipeline quality gas to remove the acid gas prior to conducting maintenance or inspection work. The purge gas stream with residual acid gas is routed safely into the acid gas flares located at the plant. All flares are equipped with autoignition fuel assist devices in compliance with 19.15.11.11(D) NMAC. See Figures 2 and 3 for location of flares. Operating procedures include this purging of all equipment to avoid acid gas exposure to personnel and to prevent acid gas from escaping to the environment.

FIRE FIGHTING EQUIPMENT

Plant personnel are trained only for incipient stage fire-fighting. The fire extinguishers located in the Plant process areas, compressor buildings, process buildings, and company vehicles are typically a 30# dry chemical fire extinguisher. The Plant is also equipped with portable fire extinguishers that may be used in an emergency, and air packs, which can be utilized for escape or rescue, are located throughout the plant in key locations.

V. CHARACTERISTICS OF HYDROGEN SULFIDE (H_2S), SULFUR DIOXIDE (SO_2) CARBON DIOXIDE (CO_2) [NMAC 19.15.11.9.B(2)(b)] [API RP-55 7.4 b.]

HYDROGEN SULFIDE (H_2S)

The projected inlet gas streams into the Plant contain approximately 5,500 ppm (or .55 mole percent) of H_2S based on data generated from the sampling of the combined inlet gas stream. H_2S is a colorless, toxic and flammable gas, and has the odor of rotten eggs. It is heavier than air and presents a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.

Hydrogen Sulfide Properties and Characteristics	
CAS No.	7783-06-4
Molecular Formula	H_2S
Molecular Weight	34.082 g/mol
Ceiling Concentration	20 ppm (OSHA)
Ceiling Peak Concentration	50 ppm (OSHA)
Threshold Limit Value (TLV)	15 ppm (ACGIH)
Time Weighted Average (TWA)	10 ppm (NIOSH)
Short Term Exposure Level (STEL)	15 ppm (ACGIH)
Immediately Dangerous to Life or Health (IDLH)	100 ppm
Specific Gravity Relative to Air (Air=1.0)	1.189
Boiling Point	-76.5F
Freezing Point	-121.8F
Vapor Pressure	396 psia
Auto-ignition Temperature	518F
Lower Flammability Limit	4.3%
Upper Flammability Limit	46.0%
Stability	Stable
pH in water	3
Corrosivity	Reacts with metals, plastics, tissues and nerves

Physical Effects of Hydrogen Sulfide		
Concentration		**Physical Effects**
Ppm	%	
1	0.00010	Can be smelled (rotten egg odor)
10	0.0010	Obvious & unpleasant odor; Permissible exposure level; safe for 8-hour exposure
20	0.0020	Acceptable ceiling concentration
15	.005	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure without respirator
50	0.0050	Loss of sense of smell in 15 minutes
100	0.0100	Immediately dangerous to life and health (IDLH) loss of sense of smell in 3-15 minutes; stinging in eyes & throat; Altered breathing
200	0.0200	Kills smell rapidly; stinging in eyes & throat
500	0.0500	Dizziness; Unconscious after short exposure; Need artificial respiration
700	0.0700	Unconscious quickly; death will result if not rescued promptly
1000	0.1000	Instant unconsciousness; followed by death within minutes

SULFUR DIOXIDE (SO_2)

SO_2 is produced as a by-product of H_2S combustion. The waste gas stream consisting of H_2S and CO_2 is routed to the plant acid gas flare during abnormal conditions when the acid gas injection equipment is out of service. Waste gas is routed to the acid gas flare at the AGI Well sites during maintenance operations when equipment needs to be blown down. It is colorless, transparent, and is non-flammable, with a pungent odor associated with burning sulfur. SO_2 is heavier than air but can be picked up by a breeze and carried downwind at elevated temperatures. It can be extremely irritating to the eyes and mucous membranes of the upper respiratory tract.

Sulfur Dioxide Properties & Characteristics	
CAS No.	7446-09-5
Molecular Formula	SO_2
Molecular Weight	64.07 g/mol
Permissible Exposure Limit (PEL)	5 ppm(OSHA)
Time Weighted Average (TWA)	2 ppm(ACGIH)
Short Term Exposure Level (STEL)	5 ppm(ACGIH)
Immediately Dangerous to Life and Health (IDLH)	100 ppm
Specific Gravity Relative to Air (Air = 1.0)	2.26
Boiling Point	14°F
Freezing Point	-103.9°F
Vapor Pressure	49.1 psia
Auto-ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
Corrosivity	Could form an acid rain in aqueous solutions

Physical Effects of Sulfur Dioxide	
Concentration	**Effect**
1 ppm	Pungent odor, may cause respiratory changes
2 ppm	Permissible exposure limit; Safe for an 8 hour exposure
3-5 ppm	Pungent odor; normally a person can detect SO_2 in this range
5 ppm	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure
12 ppm	Throat irritation, coughing, chest constriction, eyes tear and burn
100 ppm	Immediately Dangerous To Life & Health (IDLH)
150 ppm	So irritating that it can only be endured for a few minutes
500 ppm	Causes a sense of suffocation, even with first breath
1,000 ppm	Death may result unless rescued promptly.

CARBON DIOXIDE (CO_2)

CO_2 is a colorless, odorless and non-flammable. It is heavier than air.

Carbon Dioxide Properties & Characteristics	
CAS No.	124-38-9
Molecular Formula	CO_2
Molecular Weight	44.010 g/mol
Time Weighted Average (TWA)	5,000 ppm
Short Term Exposure Level (STEL)	30,000 ppm
Immediately Dangerous to Life and Health (IDLH)	40,000 ppm
Specific Gravity Relative to Air (Air = 1.0)	1.5197
Boiling Point	-109.12°F
Freezing Point	-69.81°F
Vapor Pressure	830 psia
Auto-ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
pH in Saturated Solution	3.7
Corrosivity	Dry gas is relatively inert & not corrosive; can be corrosive to mild steels in aqueous solutions

Physical Effects of Carbon Dioxide	
Concentration	**Effect**
1.0 %	Breathing rate increases slightly
2.0 %	Breathing rate increases to 50% above normal level. Prolonged exposure can cause headache, tiredness
3.0 %	Breathing rate increases to twice normal rate and becomes labored. Weak narcotic effect. Impaired hearing, headache, increased blood pressure and pulse rate
4 – 5 %	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt
5 – 10 %	Characteristic sharp odor noticeable. Very labored breathing, headache, visual impairment, and ringing in the ears. Judgment may be impaired, followed within minutes by loss of consciousness
10 – 100 %	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation

VI. RADII OF EXPOSURE [NMAC 19.15.11.7. K]

WORST CASE SCENARIOS: See Appendix D for actual ROE calculations. The basis for worst case scenario calculations is as follows:

- The worst-case ROE for this Plan has been calculated utilizing the inlet and TAG flow rates (24-hour rate) contained in the permit issued by OCD for this Plant which is 60 MMCFD. The ROE calculation in this Plan utilizes that inlet flow rate and an H_2S concentration for inlet gas of .55 mole percent. The calculated ROE's for the inlet gas are shown in the calculations in Appendix D.

- The worst-case scenario ROE assumes an uncontrolled instantaneous release of a 24-hour volume of gas at the Plant. Because the Plant is a throughput process plant, it is impossible that the entire 24-hour throughput volume of the Plant could be released instantaneously as is assumed in the worst-case scenario calculations of the ROE. Further, the Plant's ESD systems would be activated in the event of a catastrophic emergency and would prevent the flow of gas into the Plant and would isolate the AGI compressors and equipment and route the acid gas safely to the Plant acid gas flare. To comply with NMAC 19.15.11, the worst-case scenario calculations (assuming an instantaneous release of the 24-hour processing and/or TAG volume) are utilized here (see Appendix C for actual calculations).

The formulas for calculating the radius of exposure (ROE) are as follows:

100 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.1):
X=[(1.589)(hydrogen sulfide concentration)(Q)](0.6258)

500 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.2):
X=[(0.4546)(hydrogen sulfide concentration)(Q)](0.6258)

Where:
X = radius of exposure in feet
"hydrogen sulfide concentration" = the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture
Q = Escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psi absolute and 60 degrees Fahrenheit)

ROE FOR RED HILLS PLANT WORST CASE SCENARIO

500-ppm ROE 1,735 feet (.33 miles)
100-ppm ROE 3,796 feet (.72 miles)

The ROE for the Plant and AGI Well are shown on Figure 4. This ROE pattern is designed to include the 100 ppm and 500 ppm radii for a potential worst-case failure at any point in the system.

VII. FACILITY DESCRIPTION, MAPS AND DRAWINGS [NMAC 19.15.11.9.B (2)(c)] [API RP-55 7.4 c.]

DESCRIPTION OF PLANT OPERATIONS AND RED HILLS AGI #1 WELL

The Plant and AGI Well are in operation and are manned 24-hours-a-day, 7-days-a week. The Plant operations include gas compression, treating and processing. The Plant gathers and processes produced natural gas from Lea and Eddy Counties in New Mexico. Once gathered at the Plant, the produced natural gas is compressed, dehydrated to remove the water content and processed to remove and recover natural liquids. The processed natural gas and recovered natural gas liquids are then sold and shipped to various customers. The inlet gathering lines and pipelines that bring gas into the plant are regulated by DOT, NACE and other applicable standards which require that they be constructed and marked with appropriate warning signs along their respective rights-of-way.

Figure 2 shows the major process units and all process major process equipment for both of the sweet gas plant areas (Cryo 1 and Cryo 2) and the Sour Gas Plant to the east. Sweet gas enters the facility from both the east and west (Figure 2 - blue lines) Sour gas will enter the new sour treating facility from the east (Figure 2 – yellow lines). This enters the sour slug catcher. Sour gas travels from the sour slug catcher to the sour amine plant (new plant). From here acid gas is routed to the Acid Gas Compressor and to the AGI well. In the event of Acid Gas Compressor shutdown Acid Gas will be routed to the Sour Flare and inlet sour gas will be shut in. Sweet gas from the Sour Treater is sent to the inlet sweet lines that enter the facility from the east and west. Sweet gas is routed to the sweet slug catcher associated with Cryo Plant 1. After the sweet slug catcher sweet gas is split between Cryo 1 and Cryo 2. Fixed gas sensors on the sweet outlet of the sour treater facility will actuate an ESD valve that will shut off sweet gas from the sour treater should H_2S above 4 ppm be sensed downstream of the treater. SCBAs and cascade trailers are located in the control room and associated shop at Cryo 1. Emergency escape packs are located throughout the sour gas treater. If alarms sound in the sour gas treater area operator are to use an emergency escape pack to safely leave the area. There are 8 emergency escape packs in the sour gas treater area (some locations depicted will have 2) and there will be 5 SCBAs in the control room. Each Operator will be outfitted with a face mask that can be connected to the air from the cascade trailers.

Because the natural gas that is gathered and processed at the Plant contains H_2S (“sour gas”), it must be treated or processed to remove these and other impurities. The CO_2 and H_2S stream that is removed from the natural gas in the amine treating process is compressed to approximately 1,500 – 2,644 psi. This is accomplished using electric driven, reciprocating compressors. Water vapor contained in the gas stream is removed during compression and cooling and is disposed of through a wastewater disposal system. The compressed acid gas is transported via an overhead stainless stainless-steel, corrosion-resistant, NACE-compliant pipe, approximately 300 feet in length, from the compressor to the AGI Well where it is injected into the Cherry Canyon Formations (6,650 feet). The pipe between the compressors and the AGI Well is contained totally within the boundaries of the Plant and does not cross any public roads. H_2S sensors are located at critical junctions along the pipe which is run on an overhead pipe rack. The pressure in the pipe is monitored continuously so that the acid gas injection process could be stopped should there be any unusual variations in pressure.

The AGI Well is an integral component of the Red Hills Gas Plant design. It is constructed using the same materials as shown in Figure 5. The overall schematic of the AGI well is shown in Figure 6. The surface casing extends to 1,372 to protect all usable ground water. The intermediate casing extends to 5,346 feet to assure the protection of the shallow producing zones in the area. Each string of the telescoping casing is cemented to the surface and includes the “downhole” subsurface safety valve (SSV)

which is located approximately 250 feet below the surface on the production tubing to assure that fluid cannot flow back out of the well in the event of a failure of the injection equipment. In addition, the annular space between the projection tubing and the well bore are filled with corrosion-inhibited diesel fuel (an inert fluid) as a further safety measure which is consistent with injection well designs that have been approved by NMOCD for acid gas injection.

Per National Association of Corrosion Engineers (NACE) specifications, downhole components including the SSV and packer are constructed of corrosion resistant alloy (CRA). CRA casing and tubing joints are also constructed of CRA material. The gates, bonnets and valve stems within the Christmas tree are CRA material as well. The rest of the Christmas tree is made of standard carbon steel components and outfitted with annular pressure gauges that remotely report operating pressure conditions in real time to a gas control center. Pursuant to NMAC 19.15.11.12.D(2), in the case of abnormal pressures or any other situation requiring immediate action, the acid gas injection process can be stopped at the compressor, and the wellhead can be shut-in using a hydraulically operated wing valve on the Christmas tree. The Plant operator or IC may also shut the SSV. In addition, the injection tubing has profile nipples which provide the ability to insert a blanking plug into the base of the well below the packer which would allow for the safe reentry into the well, if needed. These safety devices provide for downhole accessibility and reentry under pressure for permanent well control. The SSV provides a redundant safety feature to shut-in the well in case the wing valves do not close properly (see Figures 5 and 6). All of the control equipment on the well is designed and constructed in a manner such that under a worst-case scenario the well can be safely reentered under pressure to obtain permanent well control consistent with **NMAC 10.15.11.12(D)2**.

MAPS AND FIGURES

Figure 1 shows the location of the Red Hills Plant and AGI #1. The plot plan of the Plant is the base for Figures 2 and 3 and show the locations of safety equipment and emergency evacuation routes at the plant. Figure 4 shows the 100 and 500 ppm ROE, escape routes, roadblock locations, emergency assembly areas and locations of H_2S warning signs. The design schematic of the AGI Well is shown in Figure 5, and the schematic of the AGI Well's tie-in to the Red Hills Plant is shown in Figure 6. Figure 7 is the Incident Command Structure and Figure 8 is an example of an H_2S warning sign.

VIII. TRAINING AND DRILLS [NMAC 19.15.11.9.B(2)(d)] [API RP-55 7.4 d.]

Lucid will conduct annual training for its own personnel as well as for the public and emergency responders, as detailed below. Training will include:

- Characteristics of H_2S and safety precautions
- An overview of the Red Hills Plant and AGI operations
- A review of their roles in responding to activation of the Red Hills H_2S Contingency Plan
- Location of the Radii of Exposure and how to protect the public within the Radii of Exposure
- Potential roadblock locations, potential evacuation routes, and how they can assist in implementing the Plan.

TRAINING OF ESSENTIAL PERSONNEL

Annual training for Red Hills personnel shall include plant operators, mechanics, instrument and electrical technicians, and maintenance support personnel. Plant Operators will be responsible for initiating and implementing the H_2S Contingency Plan. In addition, all Plant personnel will receive:

- Annual training on the H_2S Contingency Plan. This training will include a review of all aspects of the Plan and will include, at a minimum, one table top drill involving activation of the Plan.
- Plant Orientation Training - All Plant personnel, visitors, and contractors must attend a Plant overview orientation prior to obtaining permission to enter the Plant. A refresher course on this

training is required annually for all persons. Included as part of this orientation is how to respond and evacuate safely in the event of a H_2S alarm or release. This training also complies with the requirements of the Lucid and its Plant Process Safety Management Program and Procedures Manuals.

- All Plant personnel are also trained annually on the Red Hills Emergency Response Plan.
- H_2S and SO_2 Training - All Plant personnel must be H_2S certified and must also receive annual refresher training on H_2S and SO_2, which is conducted by Red Hills personnel. Individuals must maintain their H_2S certification to work at the plant. If an individual is unable to attend, they may be required to attend a third-party training session. All contract employees are required to have had H_2S training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant.
- Respirators - All Plant personnel are trained annually on the proper use of respirators. In addition to the annual training, all Plant personnel are fit-tested annually on the respirators. All Plant personnel must have medical clearance for respirator use.
- Hazard Communication - All Plant personnel are trained annually on Hazard Communication. The annual training includes, at a minimum, the use of material safety data sheets (MSDS) for those materials that are present at the Plant.
- Personal Protective Equipment (PPE) - All Plant personnel are trained annually on the Lucid requirements for PPE. The training includes, at a minimum, a review of all the types and levels of personal protective equipment and how to select the correct equipment for the job.

ON-SITE OR CLASSROOM EMERGENCY RESPONSE DRILLS

- The Plant will conduct, at least, a tabletop drill annually. Multiple drills during the year may be scheduled at the discretion of the Plant Supervisor.
- The annual drill will execute this Plan and include, at a minimum, the Public Officials and Local Emergency Response Agencies listed below.
- Annual training a will also include making contact with the entities including any that are identified as being within the 500 ppm and 100 ppm ROE (see Appendix C) to make sure contact information for them in Appendix C is current. Appendix C will be verified and updated annually by Red Hills/Lucid to be sure any changes of occupancy, ownership or new commercial and/or residential buildings are reflected, and all owners/occupants receive training on protective measures.
- The drills will also include briefing of public officials on issues such as evacuation or shelter-in-place plans.

NOTIFICATION AND TRAINING OF PRODUCERS LOCATED WITHIN THE ROE

Lucid will provide annual training to the producers listed in Appendix C that includes:

- An overview of the Plant and AGI operations
- Design and operating safety features on the Plant
- A review of the H_2S alarms and significance
- Notification procedures
- Roadblock locations
- Potential evacuation routes
- Procedures for sheltering in place
- Radii of exposure

TRAINING OF PUBLIC OFFICIALS AND EMERGENCY RESPONSE AGENCIES

All of the Emergency Response Agencies listed in Appendix C will have copies of the H_2S Contingency Plan and will receive training from Lucid:

- NM State Police-Hobbs and Office
- Lea County 911 Emergency Response
- Lea County Emergency Planning Committee
- Hobbs Police Department
- Lea County Sherriff's Department
- Hobbs Fire Department
- New Mexico Oil Conservation Division-Hobbs District Office

Training for emergency response agencies will include:

- An overview of the Plant and AGI operations
- Design and operating safety features on the Plant
- A review of the H_2S alarms and significance
- Notification procedures
- Roadblock locations
- Potential evacuation routes
- Procedures for sheltering in place
- Radii of exposure

The Red Hills Plant will also conduct, at a minimum, one annual tabletop drill involving the Emergency Response Organizations listed above on the activation of the Plant H_2S Contingency Plan.

TRAINING AND ATTENDANCE DOCUMENTATION [NMAC 19.15.11.9 G]

Per NMAC 19.15.11.9.G drill training will be documented, and those records will be maintained at the Plant and will be available to an OCD representative upon request. The documentation shall include at a minimum the following:

- Description or scope of the drill, including date and time
- Attendees and Participants in the drill
- Summary of activities and responses
- Post-drill debriefing and reviews

IX. COORDINATION WITH STATE EMERGENCY PLANS [NMAC 19.15.11.9.B(2)(e)]

NOTIFICATIONS AND REPORTS

The Plant has various notification and reporting obligations. Some are related to its state air quality permit that is overseen by NMED as well as state and federal spill reporting obligations. In addition to the regulatory obligations noted above, Plant personnel also have internal and external notification and reporting obligations associated with the activation of this Plan. Reporting obligations are as follows:

New Mexico Oil Conservation Division (OCD) [NMAC 19.15.11.16]
As soon as possible, but no later than four hours after plan activation, (recognizing that a prompt response should supersede notification), OCD will be notified by the IC or the IC's designee via email or fax to the District II Office of the activation of the H_2S Contingency Plan. In the event of a power failure, a phone call will be made within four hours. A full report of the incident to the OCD, utilizing Form C-141 shall be made no later than 15 days following the release (see Appendix G).

New Mexico State Police/ New Mexico Hazardous Materials Emergency Response Plan
The New Mexico State Police are responsible for overall scene management and coordination of all resources. A designated Emergency Response Officer (ERO) will establish the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) as the Incident Commander (IC) and be responsible for management of all response resources on scene. Off-scene coordination of

response resources will be handled through designated Headquarters Emergency Response Officers. Law enforcement-related activities will be coordinated by State Police.

X. PLAN ACTIVATION [NMAC 19.15.11.9.C] [API RP-55 7.4 d]

The plan will be activated at various levels (1 through 3) beginning with detection of 10 ppm H_2S at any monitor and as described in the Immediate Action Plans and shown in the Response Flow Diagrams in Appendices A and B, respectively. **At a minimum, Per NMAC 19.15.11.8.C, the Plan also shall be activated at Level 3 (see Appendices A and B for detail) whenever a release may create an H_2S concentration of more than 100 ppm in a public area, 500 ppm at a public road or 100 ppm 3,000 feet from the site of release.**

ACTIVATION LEVELS

The Plan has three activation levels that are described in detail in the Immediate Action Plan Section of this Plan (see Appendix A) and in outline form in the Response Flow Diagrams (see Appendix B).

Level 1 - Continuous warbling alarm sounded and amber beacons activated for H_2S greater than 10 ppm at personal or fixed monitor. (See Appendices A, Level 1, and Appendix B Level 1 for detail.)

Level 2 - Continuous siren sounded and amber beacons activated for H_2S greater than 90 ppm; when corrective actions at Level 1 have been unsuccessful or when Operators activate ESD. Notification of operators, businesses, public, BLM and state agencies initiated. (See Appendices A, Level 2 and B, Level 2 for detail.)

Level 3 - Catastrophic release; fire; explosion; a continuous release of maximum volume for 24 hours; or Rule 11 mandatory activation for 100 ppm in any defined public area; 500 ppm at any public road; or 100 ppm at a distance greater than 3000 feet from the site or the release. Notification of operators, businesses, public, and state agencies is initiated. (See Appendices A, Level 3 and B, Level 3 for detail.)

As soon as the Plan has been activated based on the criteria above, the Plant Supervisor, or designee, will be notified.

EVENTS THAT COULD LEAD TO A RELEASE OF H_2S

- Inlet and plant piping failure
- Amine still failure (This would be a leak in the amine process equipment, or amine still utilized to separate methane from H_2S and CO_2.)
- Flange/gasket leaks on inlet and plant piping
- Flange/gasket leak on the acid gas compressors
- Flange/gasket or valve packing leak at the AGI Well or associated piping
- Valve packing failure
- Seal failure on acid gas compressors
- Failure of flare to ignite during Plant emergency blow down
- Damage to AGI Wellhead

XI. SUBMISSION OF H_2S CONTINGENCY PLANS [NMAC 19.15.11.9.D]

SUBMISSION

Lucid submitted this H_2S Contingency Plan to the OCD for review and approval in March 2018 and resubmitted a revised plan addressing OCD comments in April 2018.

Lucid shall maintain a copy of the contingency plan at their corporate office in Dallas, Texas. The plan as approved by the OCD will be readily accessible for review by the OCD at the facility upon request.

REVISIONS TO THE PLAN

The H_2S Plan will be reviewed annually and revised at that time as necessary to address changes to the Plant facilities, operations, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the Plant and AGI Well, specifically those areas within the radii-of-exposure.

ANNUAL INVENTORY OF CONTINGENCY PLANS

Lucid, LP will file an annual inventory of wells, facilities and operations for which H_2S Contingency Plans are on file with the OCD with the appropriate Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission as per NMAC 19.15.11.9H. The inventory shall include the name, address, telephone number, and point of contact for all operations for which H_2S Contingency Plans are on file with the OCD.

FIGURES

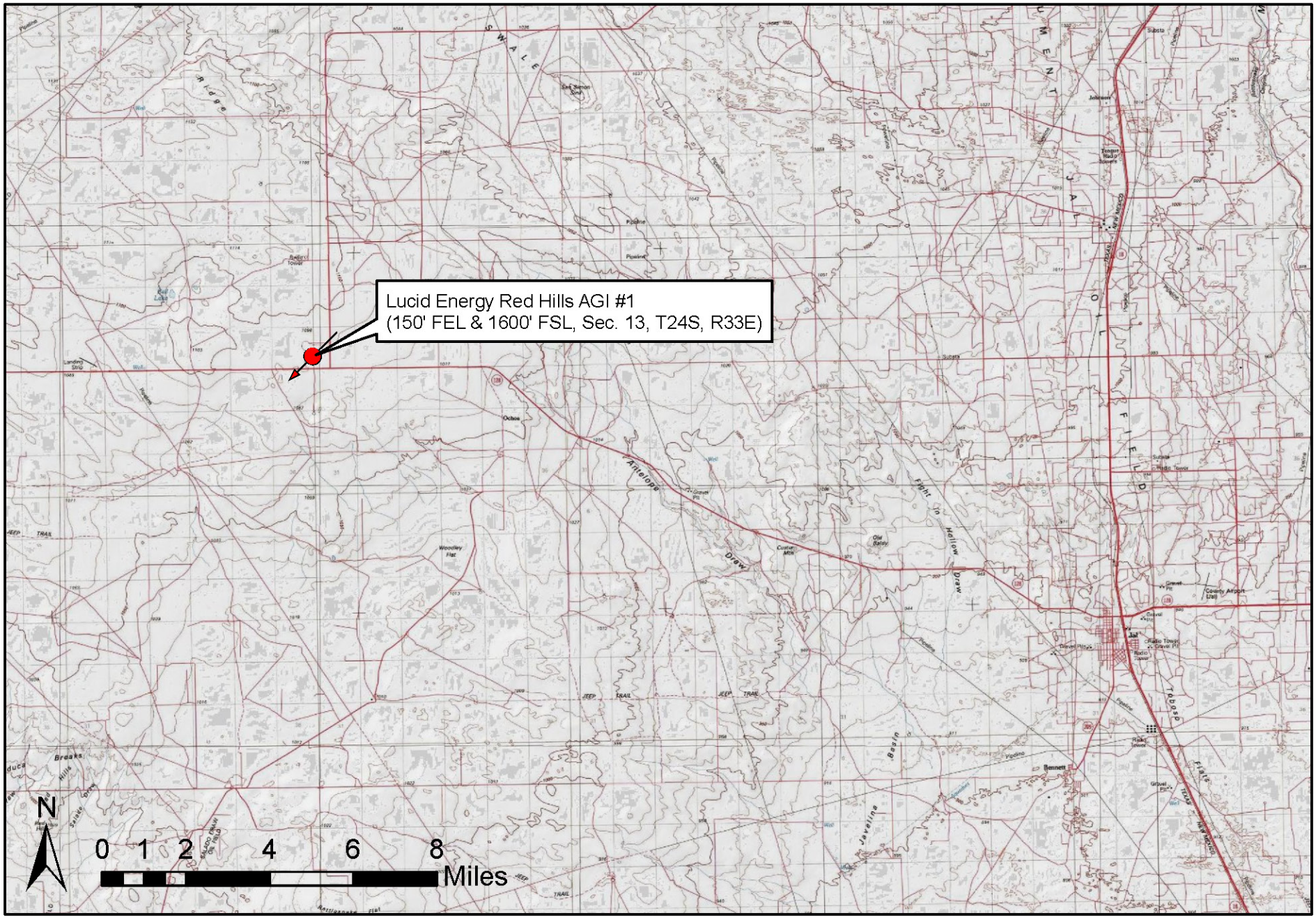


Figure 1: Location of Lucid Energy Red Hills AGI Well

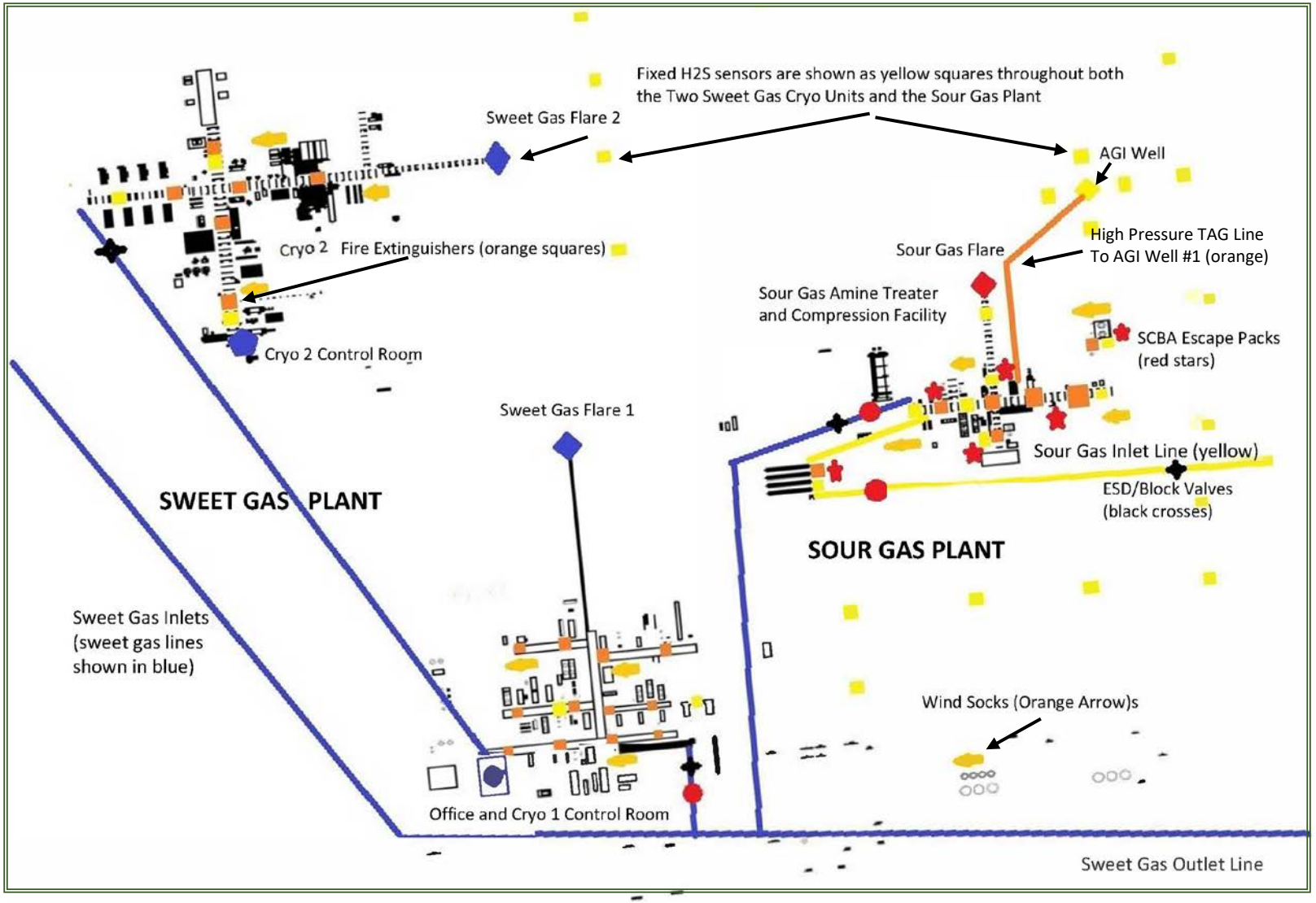


Figure 2: Plant Plot Plan Showing Location of Major Process Units, All Emergency Equipment, Sensors, Fire Safety Equipment, Wind Socks and Major Gas Flow Lines

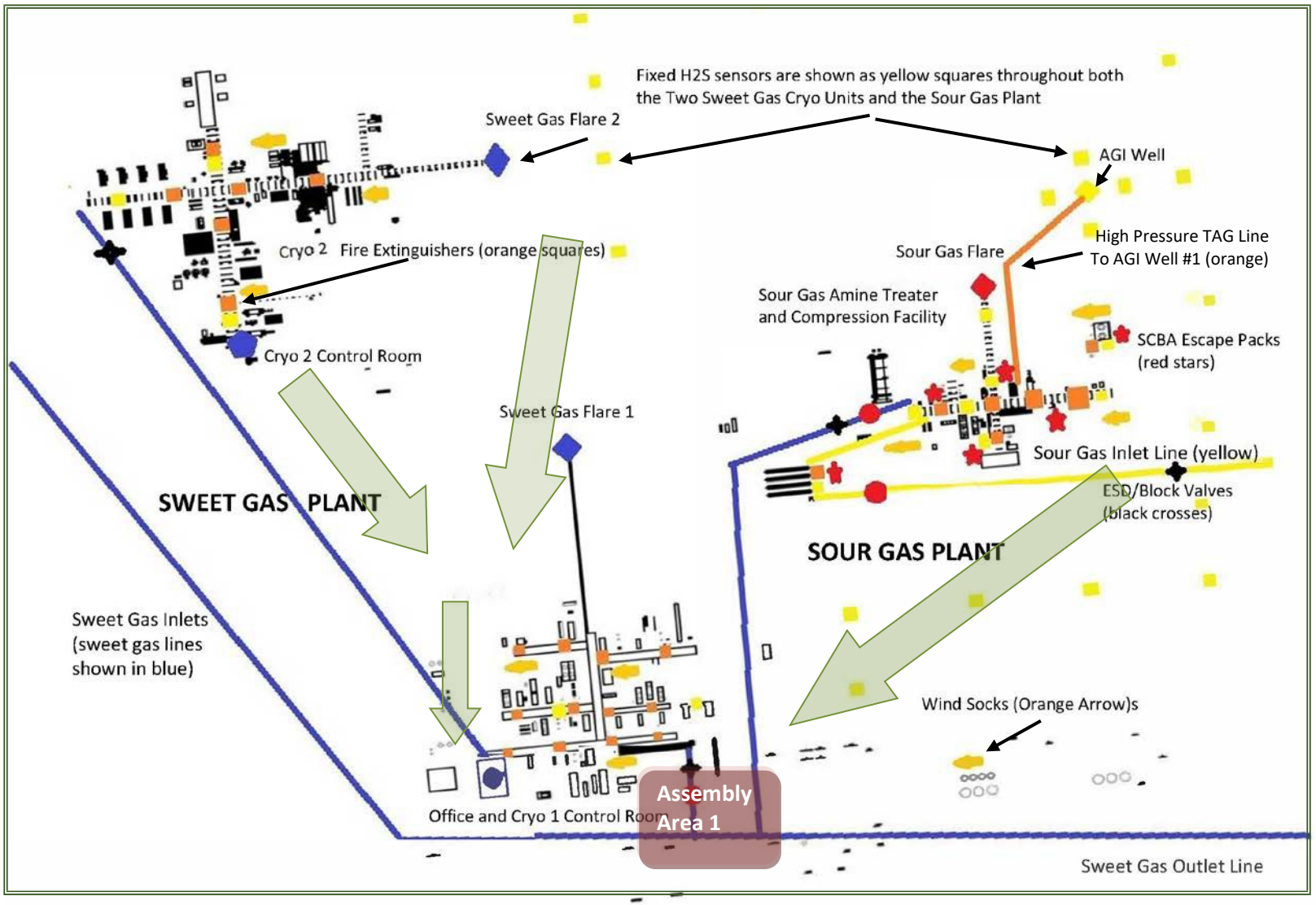


Figure 3: Emergency Evacuation Routes on Plant Property (shown in green arrows)

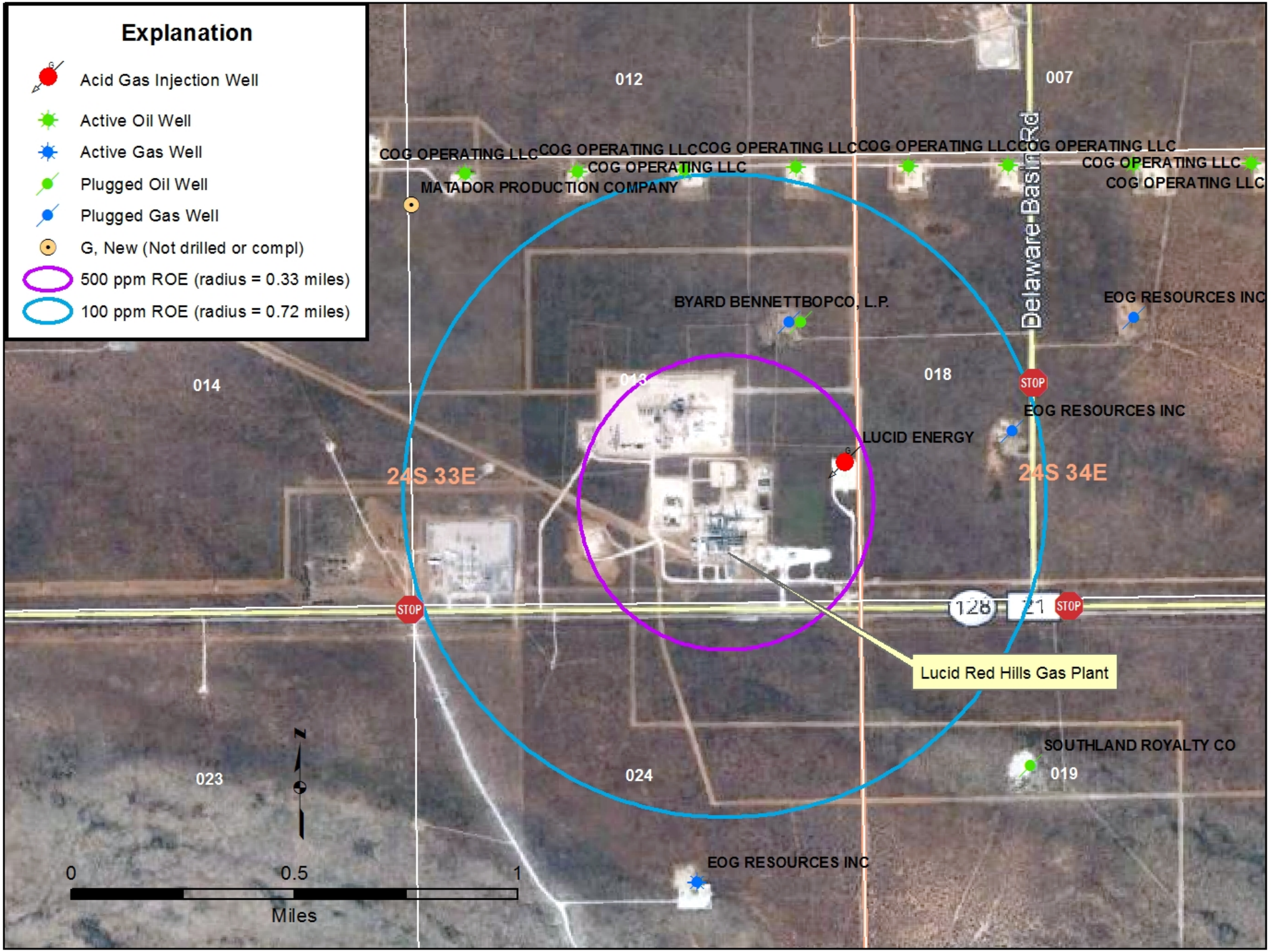
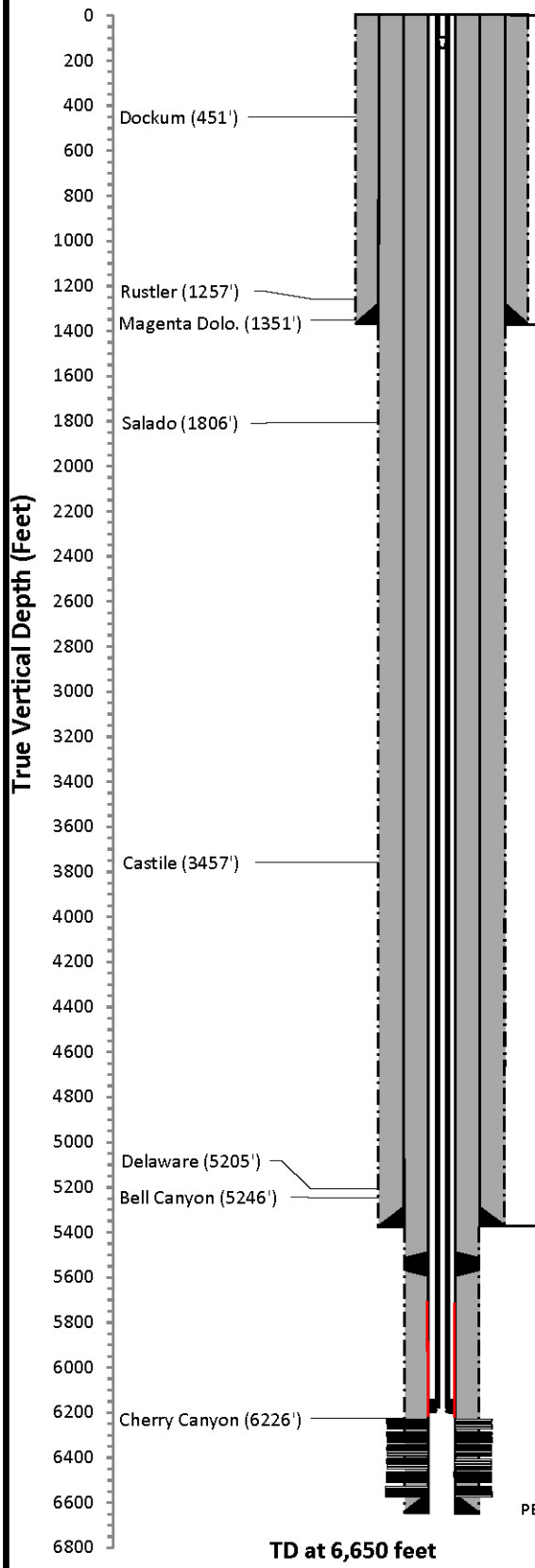

Explanation
Acid Gas Injection Well
Active Oil Well
Active Gas Well
Plugged Oil Well
Plugged Gas Well
G, New (Not drilled or compl)
500 ppm ROE (radius = 0.33 miles)
100 ppm ROE (radius = 0.72 miles)
012
007
Delaware Basin Rd
COG OPERATING LLC
COG OPERATING LLC
COG OPERATING LLC
COG OPERATING LLC
COG OPERATING LLC
COG OPERATING LLC
COG OPERATING LLC
MATADOR PRODUCTION COMPANY
BYARD BENNETTBOPCO, L.P.
EOG RESOURCES INC
014
013
018
STOP
EOG RESOURCES INC
LUCID ENERGY
24S 33E
24S 34E
STOP
128
21
STOP
Lucid Red Hills Gas Plant
SOUTHLAND ROYALTY CO
023
024
019
EOG RESOURCES INC
N
0
0.5
1
Miles

Figure 5: Lucid Energy Red Hills AGI #1 Well Schematic

Well Name:	Red Hills AGI #1	**Footage**	1600' FSL & 150' FEL
API:	30-025-40448	**Well Type**	AGI Exploratory Cherry Canyon
STR:	Sec. I-13, T24S-R33E	**KB/GL:**	3596/3580
County, St.	Lea County, New Mexico	**Lat, Long:**	32.214586, -103.517520



20" CONDUCTOR PIPE to 40 ft.

13 3/8" SURFACE CASING to 1,372 ft. **17.5" OH**

13 3/8", 48 #/ft., H-40, STC
Cmnt to surface - 90 bbls returned
Lead Cmnt: 820 sx C Lite
Tail Cmnt: 180 sx Class C

SSSV @ 250'

9 5/8" INTERMEDIATE CASING to 5,346 ft. **12.25" OH**

9 5/8", 40 #/ft., J-55, LT&C 0-100'
9 5/8", 36 #/ft., J-55, LT&C 100-3,300'
9 5/8", 40 #/ft., J-55, LT&C 3,300'-4,200'
9 5/8", 40 #/ft., HCK-55, LT&C 4,200'-5,346'
Cmnt to surface - 60 bbls returned
Lead Cmnt: 1,280 sx C Lite
Tail Cmnt: 180 sx Class C

7" PRODUCTION CASING to 6,650 ft. **8.75" OH**

7" 26 #/ft., L80, LT&C from 0'-5,702'
w/ 7" G-3, 26 #/ft. VAMTOP, from 5,702'-6,239'
7" 26 #/ft., L80, LT&C from 6,239' - 6,650'
Cmnt to surface both stages - 1.5 bbls
Stage 1 - Lead: 250 sx EverCrete
StageTool in 7-in casing @ 5,539'
Stage 2 - Lead: 490 sx C Lite
Stage 2 - Tail: 100 sx Class C

TUBING AND EQUIPMENT

Halliburton Retrievable SSSV set @ 250 ft.
3.5", 9.3 #/ft, L80, VAMTOP from 0'-5,870'
3.5",SM2550, VAMTOP from 5,870'-6,167'
Bottom Hole P/T Gauge set above packer @ 6,167'-6,170'
Permanent Production-Packer set @ 6,170'
Check Valve and Choke (optional)
Annulus filled w/ diesel mixed with corrosion inhibitor/biocide

PERFORATIONS

Primary Target:
Upper Cherry Canyon (6 spf @ 60°)
6,230' - 6,250'
6,260' - 6,280'
6,295' - 6,335'
6,355' - 6,380'
6,400' - 6,415'
6,435' - 6,500'
6,525' - 6,583'

Prepared For: LUCID energy group

Prepared By: GEOLEX INCORPORATED

Schematic is properly scaled

FIGURE 6
RED HILLS PLANT
SCHEMATIC OF AGI WELL FACILITY

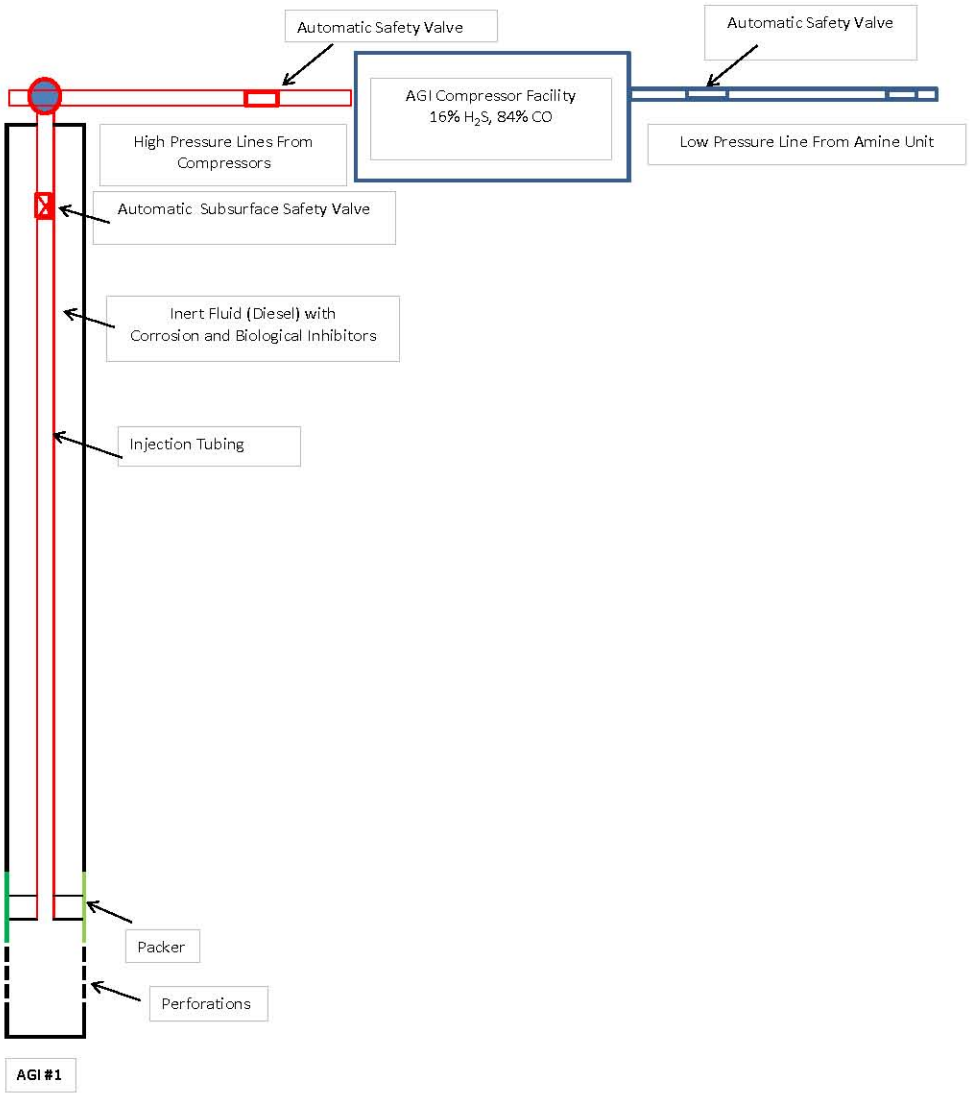
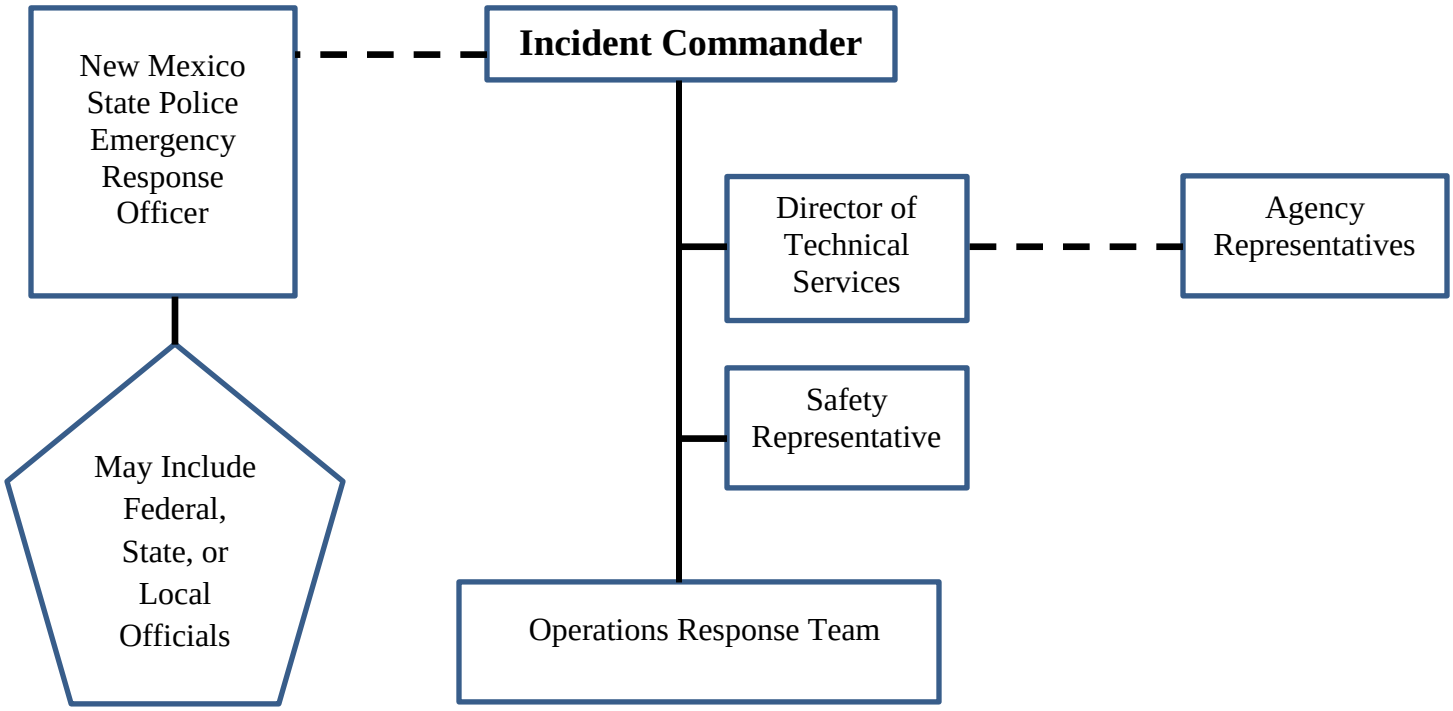


FIGURE 7

LUCID ENERGY RED HILLS PLANT

INCIDENT COMMAND SYSTEM STRUCTURE



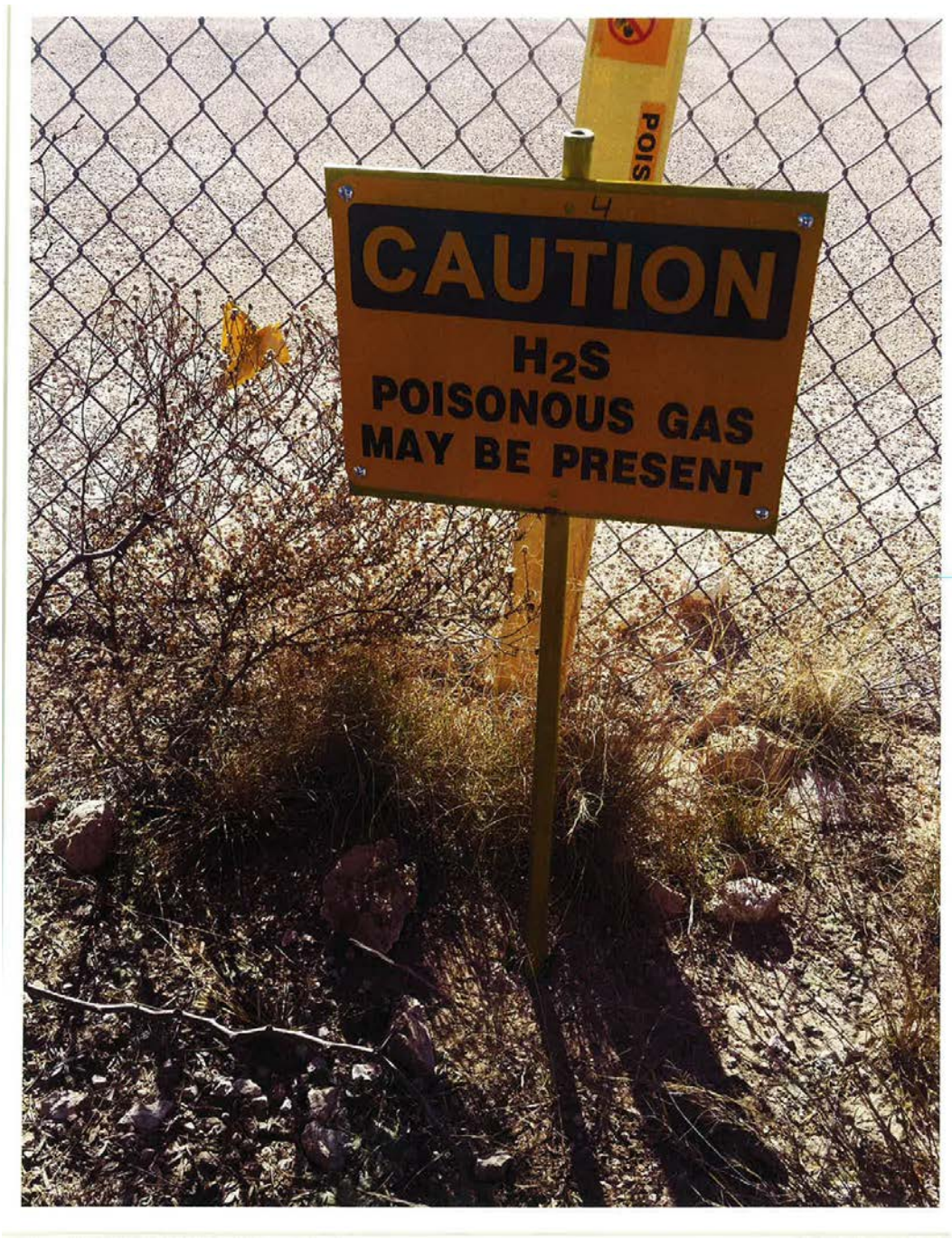


Figure 8 Example H2S Warning Sign

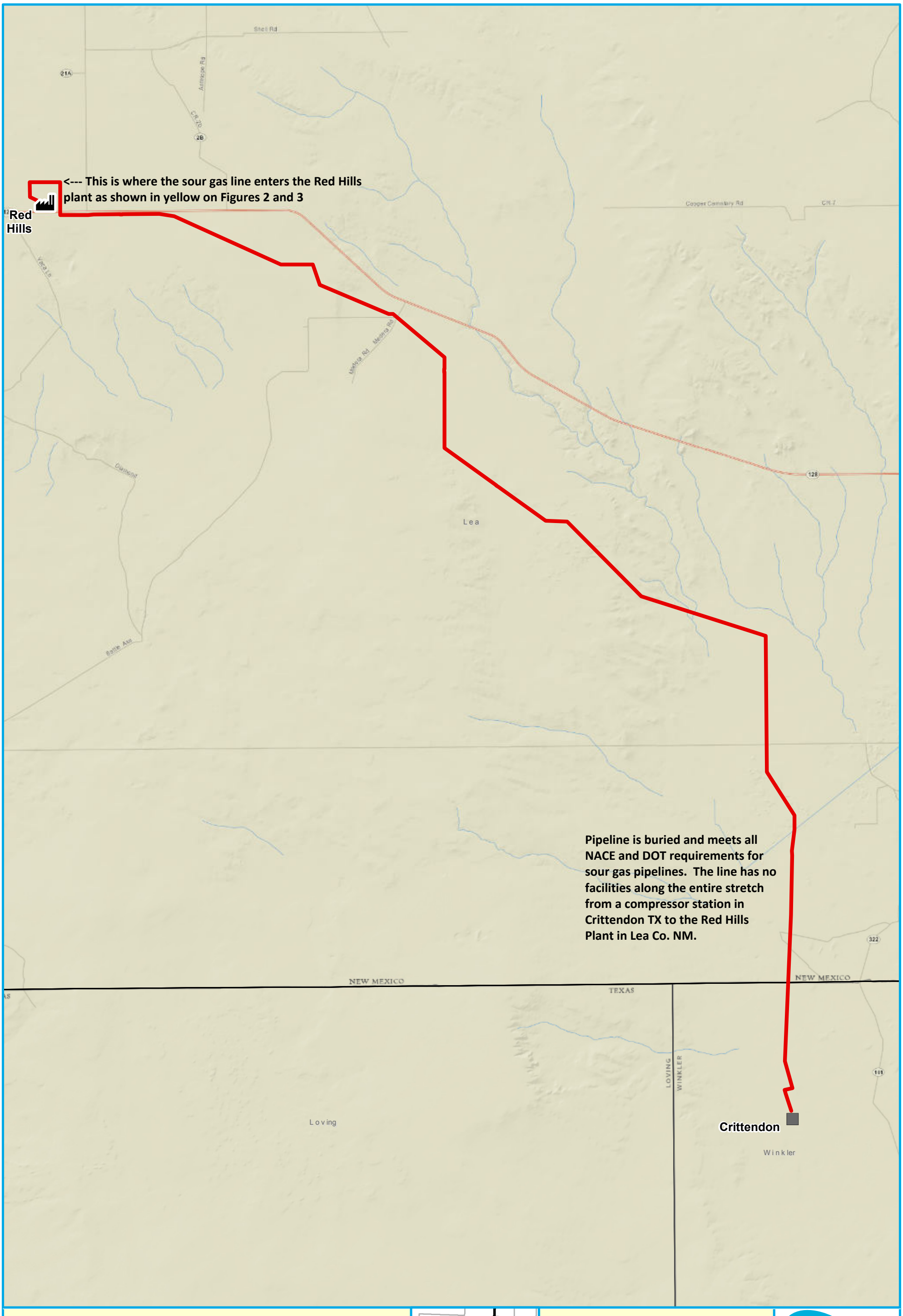


Figure 9 Sour Gas Pipeline from Gathering System and Compressor Station in Texas to Red Hills Plant

APPENDICES

APPENDIX A

IMMEDIATE ACTION PLANS

LEVEL 1 ACTIVATION

Activating Conditions:

- **H_2S of 10 ppm or greater detected at any fixed monitor.**
- **When any person, discovers a leak or emission release they are to attempt to resolve the issue as long as H_2S levels remain at 10 ppm or below. If the response action needed to resolve the issue is more than simply closing a valve or stopping a small leak, the individual who has discovered the leak shall notify the Control Room Operator who will contact the Plant Supervisor or his designee so that the Plant Supervisor can activate the H_2S Contingency Plan, if necessary**

Alarms and Automated Activations:

- **Amber beacons and a continuous warbling alarm are activated if any fixed monitor senses H_2S at 10 ppm or greater. The alarm and amber lights are redundant systems which function independently of one another so that should one system fail, the other would remain active. These systems incorporate backup battery capabilities as recommended in API RP 55 which insure their operation in the event of a power failure.**
- **A computer in the Control Room and in the office of the Plant Supervisor establishes the location of the monitor(s) at the Plant or Well-site that has activated the alarm and flashing amber beacons.**
- **All employees also wear personal monitors that sound an audible alarm at 10 ppm H_2S or greater.**

Actions when Plan is Activated:

1. At the initial sound of an audible alarm or the sight of an amber beacon, responding Operator(s) in the vicinity of the alarm will put on 30-minute Self-Contained Breathing Apparatus (SCBA) and help any person in distress evacuate to Emergency Assembly Area 1.
2. All other personnel in the Plant complex shall immediately proceed to Emergency Assembly Area 1 (see Figures 3 and 4).
3. Control Room Operator and Plant Supervisor will be notified of the release. Plant Supervisor or designee will assume the role of IC. Control Room Operator will remain in the control room, identify the location(s) of the alarms and monitor H_2S concentrations throughout the Plant.
4. If a perimeter monitor (see Figure 2) detects 10 ppm H_2S or greater, all entities and individuals located within the 500 ppm ROE (see Figure 4) will be notified by the IC or designee that a release is occurring and to stand by for further instructions. Entities will be advised to alert their employees and any third parties working for them, or imminently scheduled to work in the area, of the release and to leave the area and not return until further notice. (Phone numbers are listed in Appendix C).
5. If deemed necessary, Plant personnel as designated by the IC will contact local emergency response service providers (phone numbers provided in Appendix C).
6. All personnel will be accounted for at Emergency Assembly Area 1 using the Plant sign in sheet and air quality will be monitored for H_2S concentrations. If H_2S concentrations reach 10 ppm or greater at Emergency Assembly Area 1, all personnel will be evacuated to Emergency Assembly Area 2 using the designated routes (see Figures 3 and 4).
7. If the concentration of H_2S in the control room reaches 10 ppm, the Control Room Operator will also put on a 30-minute SCBA.
8. Responding Operator(s) wearing SCBAs will assess the location of the alarm and attempt to make an initial determination of its cause and rule out potential false alarms based on sensor malfunction or other conditions. If the cause of the release is a minor problem such as a packing or seal leak, the Operator(s) will attempt to take the necessary steps to correct the situation and eliminate the source of the release.
9. IC will designate secondary re-entry teams in 30-minute SCBA's to re-enter and resolve the situation. Re-entry will occur in 15-minute increments at the direction of the IC until the problem is resolved or the Emergency Shutdown (ESD) is activated.
10. If corrective actions are successful, and the release is resolved and monitored H_2S levels in the Plant return to less than 10 ppm, the IC or designee will signal all clear, and personnel will be allowed to sign in and re-enter the Plant to resume work.
11. If the release is not resolved and H_2S levels continue to rise IC will initiate a Level 2 Response and/or instruct Operators to initiate Plant ESD.
12. The IC will initiate and maintain a Chronologic Record of Events Log (see Appendix F).
13. The Plant Supervisor or designee will contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 1. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of release.**

LEVEL 2 ACTIVATION

Activating Conditions:

- **Corrective actions at Level 1 are unsuccessful;**
- **90 ppm of H_2S or greater is detected at any fixed monitor.**
- **Operators activate ESD.**

Alarm and Automated Activations:

- **Continuous siren and amber lights will be activated. The siren and flashing lights are redundant systems which function independently of one another so that should one system fail, the other would remain active. These systems incorporate backup battery capabilities as recommended in API RP 55 which insure their operation in the event of a power failure.**

Actions:

1. The responding Operator(s), will put on SCBAs and help any persons in distress to evacuate to Emergency Assembly Area 2 (see Figure 4).
2. The Plant Supervisor and the Control Room Operator will be notified. The Plant Supervisor, or designee, will assume the role of IC. The Control Room Operator will put on SCBA, remain in the control room and monitor H_2S concentrations throughout the Plant.
3. All personnel will be evacuated to Emergency Assembly Area 2 via designated routes (see Figure 4).
4. At Emergency Assembly Area 2, all personnel will be accounted for using the Plant sign-in list, and air quality will continue to be monitored for H_2S at Emergency Assembly Area 2.
5. If two or more monitors within the AGI fenced area or around the AGI compressor (see Figure 2) detect 90 ppm H_2S or greater, AGI compression will be shut down.
6. Plant ESD can be activated at any time by the Red Hills Plant Operators as they and the IC determine that conditions are appropriate for such action.
7. Incident Command Center (ICC) will be established at Emergency Assembly Area 2.
8. A media staging area adjacent to Emergency Assembly Area 2 will be established and all media will be directed to it.
9. IC will designate personnel with H_2S monitors and emergency trailers to move to the designated Level 2 (500 ppm ROE) roadblock areas shown on ROE map. SR 128 will be blocked to prevent entry into the 500 ppm ROE (see Figure 4). Air quality will be monitored at each road block.
10. Emergency Responders, local law enforcement BLM and state agencies, including the OCD District Office (phone numbers provided in Appendix C) will be notified of the release and the status of containment by the IC or designee.
11. Designated personnel will notify all entities, individuals and producers within the 500 and 100 ppm ROE (phone numbers provided in Appendix C) of the nature of the release and the status of containment. All will be instructed to evacuate, or shelter in place, depending on the nature of the release and the prevailing wind conditions. They will be instructed to immediately alert all company personnel, third party contractors and/or service companies working in the area and those imminently scheduled to work in the area of the Plant evacuation status and advise them to leave and not reenter the Plant vicinity until further notice. All will be advised of the roadblocks on SR 128.
12. Re-entry will occur in full SCBA and at 15-minute increments at the direction of the IC until IC determines problem has been resolved.
13. If release is resolved and monitored levels of H_2S in the Plant are less than 10 ppm, IC or designee may authorize personnel to return to the Plant.
14. All entities and individuals previously notified will be informed that the release has been resolved and advised of the current monitored H_2S levels. Roadblocks will be recalled, and traffic will be restored.
15. If monitored H_2S levels at Emergency Assembly Area 2 or Level 2 roadblocks exceed 10 ppm, all personnel will evacuate to General Emergency Assembly Area 3 via designated route, ICC and media staging area will also be moved to Assembly Area 3.
16. If the release is not resolved or H_2S levels continue to increase, IC will initiate a Level 3 Response.
17. The IC will initiate and maintain a Chronologic Record of Events log. (Appendix F)
18. The Plant Supervisor or designee will contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 1. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of release.**

LEVEL 3 ACTIVATION

Activating Conditions:

- **Corrective actions at Level 2 are unsuccessful;**
- **H_2S concentrations reach 10 ppm or greater at Emergency Assembly Area 2;**
- **H_2S concentrations reach 10 ppm or greater at Level 2 roadblocks;**
- **A catastrophic release, fire or explosion has occurred;**
- **A continuous release of maximum volume for 24 hours occurs;**
- **As per NMAC 19.15.11 there is indication of 100 ppm H_2S in any defined public area, 500 ppm at any public road, or 100ppm at a distance greater than 3,000 feet from the site of the release.**

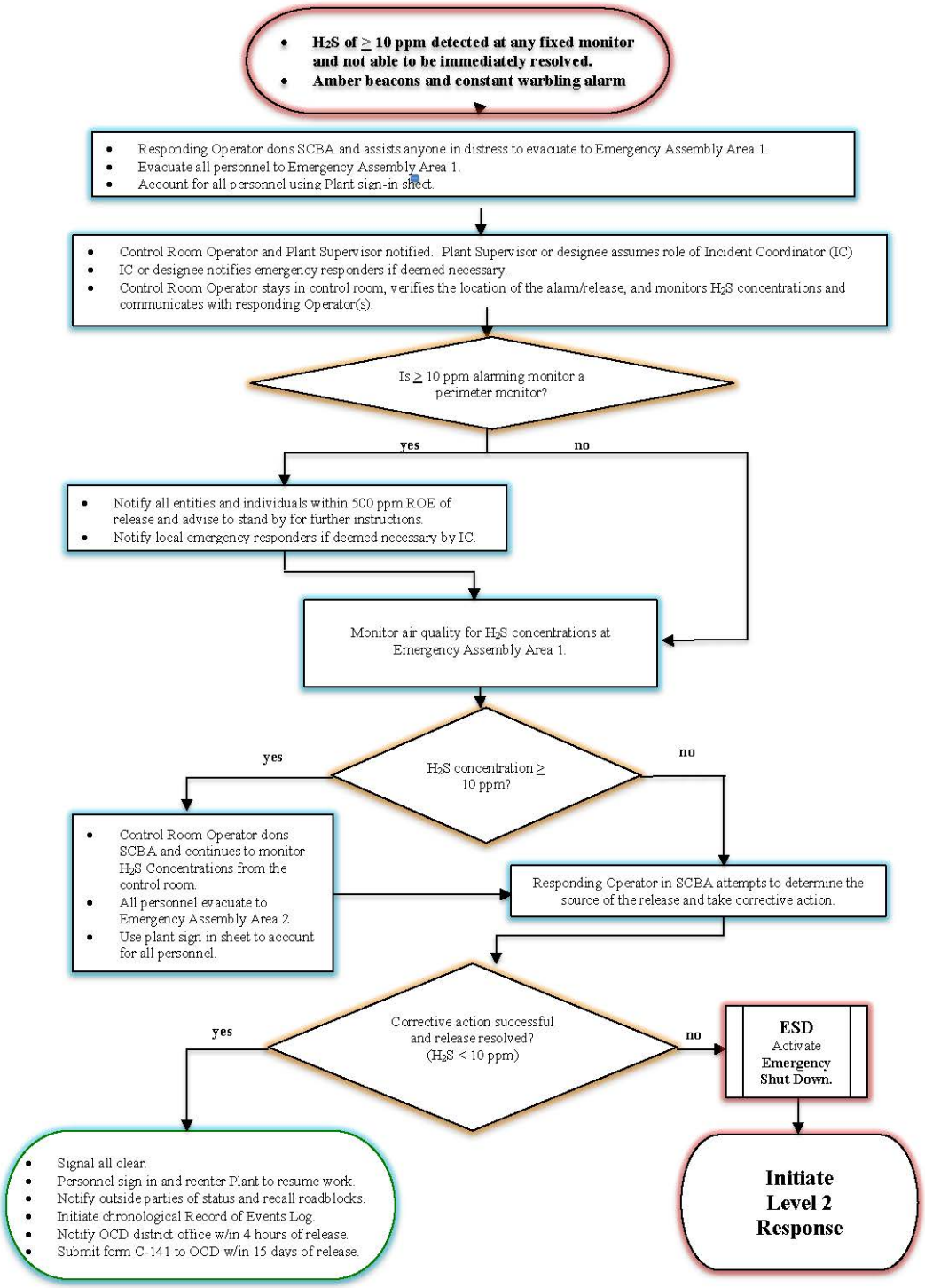
Actions:

1. All personnel should be evacuated to and accounted for at Emergency Assembly Area 3 using the Plant sign in sheet, and air quality will be monitored for H_2S concentrations (see Figure 4).
2. IC shall have activated or will immediately activate Plant ESD.
3. The ICC and media staging area shall be established and/or moved to Emergency Assembly Area 3.
4. Dispatch personnel with emergency trailers to move or establish designated Level 3 roadblocks at SR 128, and SR 21 (Delaware Basin Road) to prevent entry into the 100 ppm ROE (see Figure 4). Monitor H_2S concentrations at the roadblocks.
5. Local emergency responders, and state agencies, including the OCD District Office, will be notified of the release and status of containment (phone numbers provided in Appendix C).
6. All individuals and entities within the 100 ppm ROE will already have been notified to evacuate or shelter in place. IC will review the status of evacuation and make the final decision whether individuals within the 100 ppm ROE should evacuate or shelter in place based on, but not limited to H_2S concentration, wind conditions and whether a safe evacuation can be implemented. If individuals within the 100 ppm ROE are instructed to evacuate, IC will recommend an evacuation route. All entities will be instructed to immediately alert all company personnel, third party contractors and/or service companies working in the area and those imminently scheduled to work in the area of the Plant evacuation status and advise them to leave and not enter or re-enter the Plant vicinity until further notice. All will be advised of the roadblocks SR 128 and SR 21 (Delaware Basin Road).
7. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.
8. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.
9. Once release is resolved and monitored levels of H_2S in the Plant are less than 10 ppm, IC or designee may authorize personnel to sign in and return to the Plant.
10. All entities and individuals previously notified will be informed that the release has been resolved and advised of the current monitored H_2S levels at the Plant. Roadblocks will be recalled and traffic will be restored.
11. The IC will initiate and maintain a Chronologic Record of Events log. (Appendix F)
12. The Plant Supervisor or designee will contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 1. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of release.**

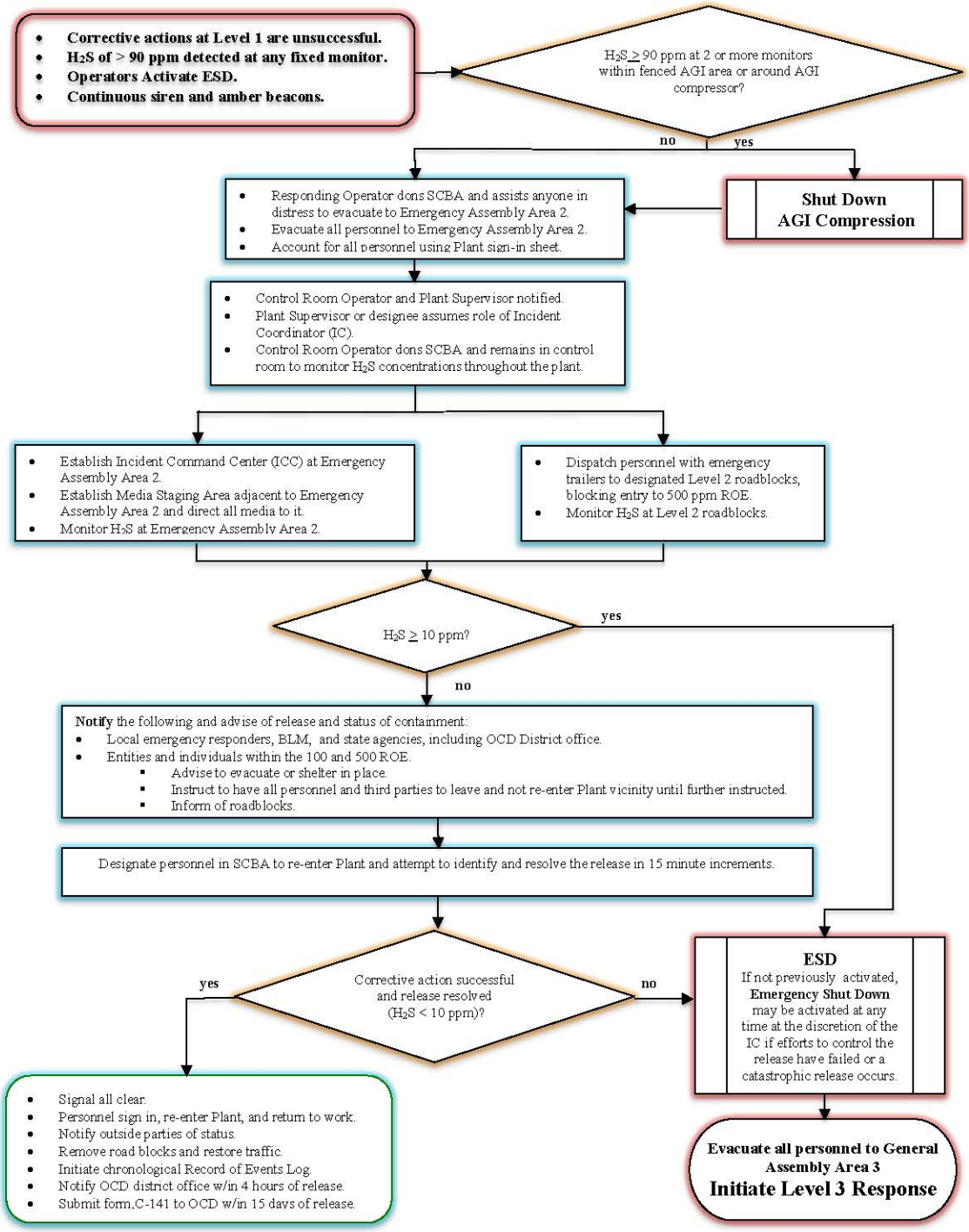
APPENDIX B

RESPONSE FLOW DIAGRAMS

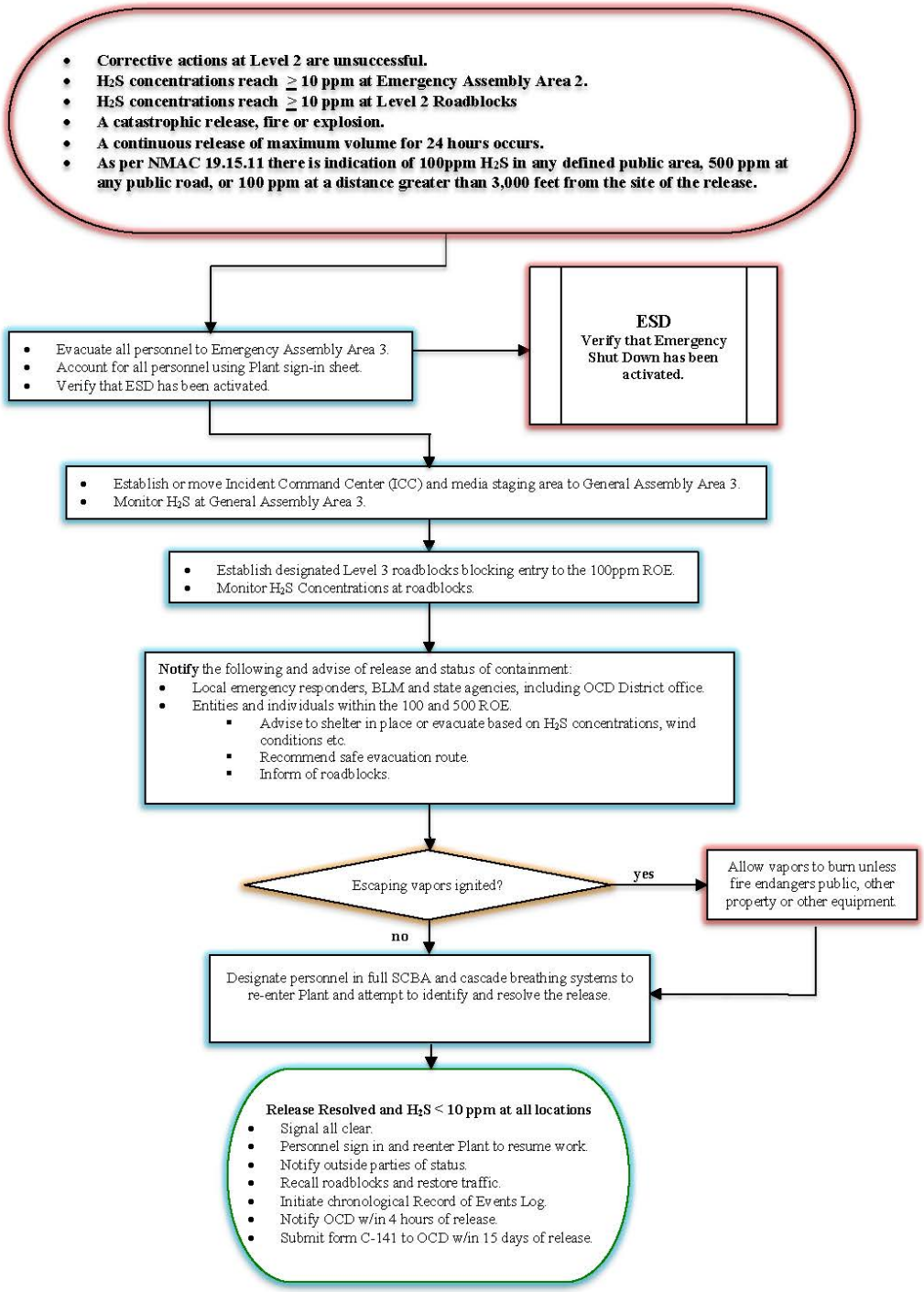
Red Hills Gas Plant—Level 1 Activation Response Flow



Red Hills Gas Plant —Level 2 Activation Response Flow



Red Hills Gas Plant—Level 3 Activation Response Flow



APPENDIX C
TELEPHONE NUMBERS
EMERGENCY CALL LIST

BUSINESSES PUBLIC RECEPTORS and PRODUCERS WITHIN THE ROE

BUSINESS/RECEPTOR	**OFFICE ADDRESS**	**Office Phone**
Xcel Energy	4201 Frankford Lubbock, TX 79407 Colby Morris 806-778-3611	800-687-8496 (Transmission) 612-330-6900 (Security) 806-796-3250 (Distribution)
InSite Towers, LLC	1199 North Fairfax Street, Suite 700 Alexandria, VA 22314	806-548-0626 Terry Reynolds, Operations Mgr.
PRODUCER	**OFFICE LOCATION**	**Office Phone**
100 ppm ROE		
COG Operating	One Concho Center 600West Illinois Avenue Midland, TX 79701	432-683-7443
PUBLIC AREAS WIHIN THE ROE	There are no Public Areas within the ROE	

LUCID COMPANY INTERNAL NOTIFICATIONS

NAME	TITLE	PHONE
Dustin McNeely	Plant Manager	575-810-6150
Joe Giles	VP of Operations	575-746-7046
Ruben Molina	Safety Coordinator	575-317-3237
OPERATIONS RESPONSE TEAM	Please Note: These individuals work in three shifts 24/7. A typical shift includes 3 operators, 1 maintenance technician and a supervisor (daylights). **All Operation Response Team Personnel are Emergency Responders and are Hazwopper Certified and fit tested for respirators and SCBAs.**	
Dustin McNeely	Plant Supervisor	575-810-6150 or 575-748-7012
11 individuals	Plant Operators	575-748-7012
2 individuals	Plant Maintenance Technicians	575-748-7012

EMERGENCY RESPONDERS

AGENCY	PHONE
Emergency Dispatch	911
Hobbs Fire Department	575-397-9308
Hobbs Police Department	575-397-9265
Hobbs Ambulance Service	575-397-9308
New Mexico State Police (Hobbs)	575-392-5588
Lea County Sheriff's Office	575-396-3611
Hobbs-Lea Regional Medical Center	575-492-5000
Lubbock University Medical Center (UMC) (Level 1 Trauma Center)	800-345-9911
American Association of Poison Control Centers	800-222-1222
HELICOPTER SERVICES Lubbock University Medical Center Transfer to Level 1 Trauma Center	800-345-9911

COUNTY AND LOCAL LAW ENFORCEMENT AND PUBLIC AUTHORITIES AND LOCAL GOVERNMENT AGENCIES

AGENCY	PHONE NUMBER

Oil Conservation Division Santa Fe Office District 1 Office, Lea County (Hobbs)	 505-476-3460 575-370-3186
Local Emergency Planning Committee (LEPC) Lea County	 575-396-8607
New Mexico State Police (Hobbs)	575-392-5580
Lea County Sheriff's Office	575-396-3611
National Response Center (NRC) Response Center	800-424-8802
New Mexico Department of Homeland Security & Emergency Management (NMDHSEM)	505-476-9600
New Mexico Department of Public Safety	505-827-9000

APPENDIX D

RADIUS OF EXPOSURE (ROE) CALCULATIONS

Lucid Energy **Red Hills Gas Plant** **ROE CALCULATIONS PURSUANT TO RULE 11**

If data is provided in mole% use calculator below for getting ppm

Enter Mole % in cell C5	Mole %	ppm
Convert mole% to ppm	0	0

If data is provided in mole fraction use calculator below for getting ppm

Enter Mole Fraction in cell C10	Mole Fraction	ppm
Convert mole fraction to ppm		5500

Use ppm derived from either of above calculations to input data below

Input Data Here	H_2S Concentration (ppm)	5500
	24 Hour Throughput (MMCFD)	60

The radius of exposure is calculated using the following equations:

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

$$X_{100ppm} = [(1.589)(Conc_{H2S})(Q)]^{(0.6258)}$$

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

$$X_{500ppm} = [(0.4546)(Conc_{H2S})(Q)]^{(0.6258)}$$

Where:

X = radius of exposure (ft)

$Conc_{H2S}$ = the decimal equivalent of the mole or volume fraction of H_2S in the gas

Q = daily plant throughput corrected to standard conditions (SCFD)

Plant parameters

Q =	60	MMSCFD =	60000000	SCFD		
$Conc_{H2S}$ =	5500	ppm =	0.55	Mole %=	0.0055	Mole Fraction

ROE calculation:

X_{100ppm} = [(1.589)*(0.0055)*(60000000)]^(0.6258)

X_{100ppm} = 3796 ft = 0.72 miles

X_{500ppm} = [(0.4546)*(0.0055)*(60000000)]^(0.6258)

X_{500ppm} = 1735 ft = 0.33 miles

APPENDIX E
H_2S PLAN DISTRIBUTION LIST

New Mexico Oil Conservation Division, Santa Fe Office

New Mexico Department of Public Safety (State Office)

Lea County LEPC/Emergency Manager*

Red Hills Plant Supervisor's Office

Red Hills Plant Control Room

Lucid Corporate Office

Red Hills Plant Emergency Trailers

New Mexico State Police, Hobbs Office

State of New Mexico Emergency Response Commission (SERC)

*Note: Lea County LEPC Emergency Manager will make and send copies of this plan to appropriate entities within his jurisdiction, including the Hobbs Fire Department.

APPENDIX F

CHRONOLOGIC RECORD OF EVENTS LOG

CHRONOLOGIC RECORD OF EVENTS LOG

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT /ACTIVITY LOG ICS 214

3. Individual Name	4. ICS Section	5. Assignment/Location

6. Activity Log	Page	of

TIME	MAJOR EVENTS

7. Prepared by:	Date/Time

UNIT/ACTIVITY LOG		ICS 214

APPENDIX G

NEW MEXICO OIL CONSERVATION DIVISION
FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name	Facility Type

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name:	Approved by Environmental Specialist:	
Title:	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	Attached ☐
Date: Phone:		

* Attach Additional Sheets If Necessary