

CALICO RESOURCES USA CORP.

GRASSY MOUNTAIN MINE PROJECT
MALHEUR COUNTY, OREGON

EMERGENCY RESPONSE PLAN

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GRASSY MOUNTAIN MINE PROJECT
EMERGENCY RESPONSE PLAN**

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1 INTRODUCTION

This Emergency Response Plan (Plan) has been prepared in support of the Grassy Mountain Mine Project (Project) located in Malheur County, Oregon, and has been included as part of the Consolidated Permit Application.

1.1 Resource Study Area

The Project is located approximately 22 miles south-southwest of Vale (Figure 1) and consists of two areas: the Mine and Process Area and the Access Road Area (Permit Area) (Figure 2). The Mine and Process Area is located on three patented lode mining claims and unpatented lode mining claims that cover an estimated 886 acres. These patented and unpatented lode mining claims are part of a larger land position that includes 419 unpatented lode mining claims and nine mill site claims on lands administered by the Bureau of Land Management (BLM). All proposed mining would occur on the patented claims, with some mine facilities on unpatented claims. The Mine and Process Area is in all or portions of Sections 5 through 8, Township 22 South, Range 44 East (T22S, R44E) (Willamette Meridian).

The Access Road Area is located on public land administered by the BLM, and private land controlled by others (Figure 2). A portion of the Access Road Area is a Malheur County Road named Twin Springs Road. The Access Road Area extends north from the Mine and Process Area to Russell Road, a paved Malheur County Road. The Access Road Area is in portions of Section 5, T22S, R44E, Sections 3, 10, 11, 14, 15, 21 through 23, 28, 29, and 32, T21S, R44E, Sections 1, 12 through 14, 23, 26, 27, and 34, T20S, R44E, Sections 6 and 7, T20S, R45E, and Sections 22, 23, 26, 35, and 36, T19S, R44E (Willamette Meridian). The width of the Access Road Area is 300 feet (150 feet on either side of the access road centerline) to accommodate possible minor widening or re-routing, and a potential powerline adjacent to the access road. There are several areas shown that are significantly wider than 300 feet on the Permit Area Map (Figure 2), which are areas where the final alignment has not yet been determined. The final engineering of the road will be consistent throughout, and within the Permit Area. The Access Road Area also includes a buffer on either side of the proposed road width for the collection of environmental baseline data. The road corridor will be approximately 30 feet wide, which includes a 20-foot wide road travel width (ten feet on either side of the road centerline), two-foot wide shoulders on each side of the road, minimum one-foot wide ditches on each side of the road, and appropriate cut and fill. The Access Road Area totals approximately 876 acres.

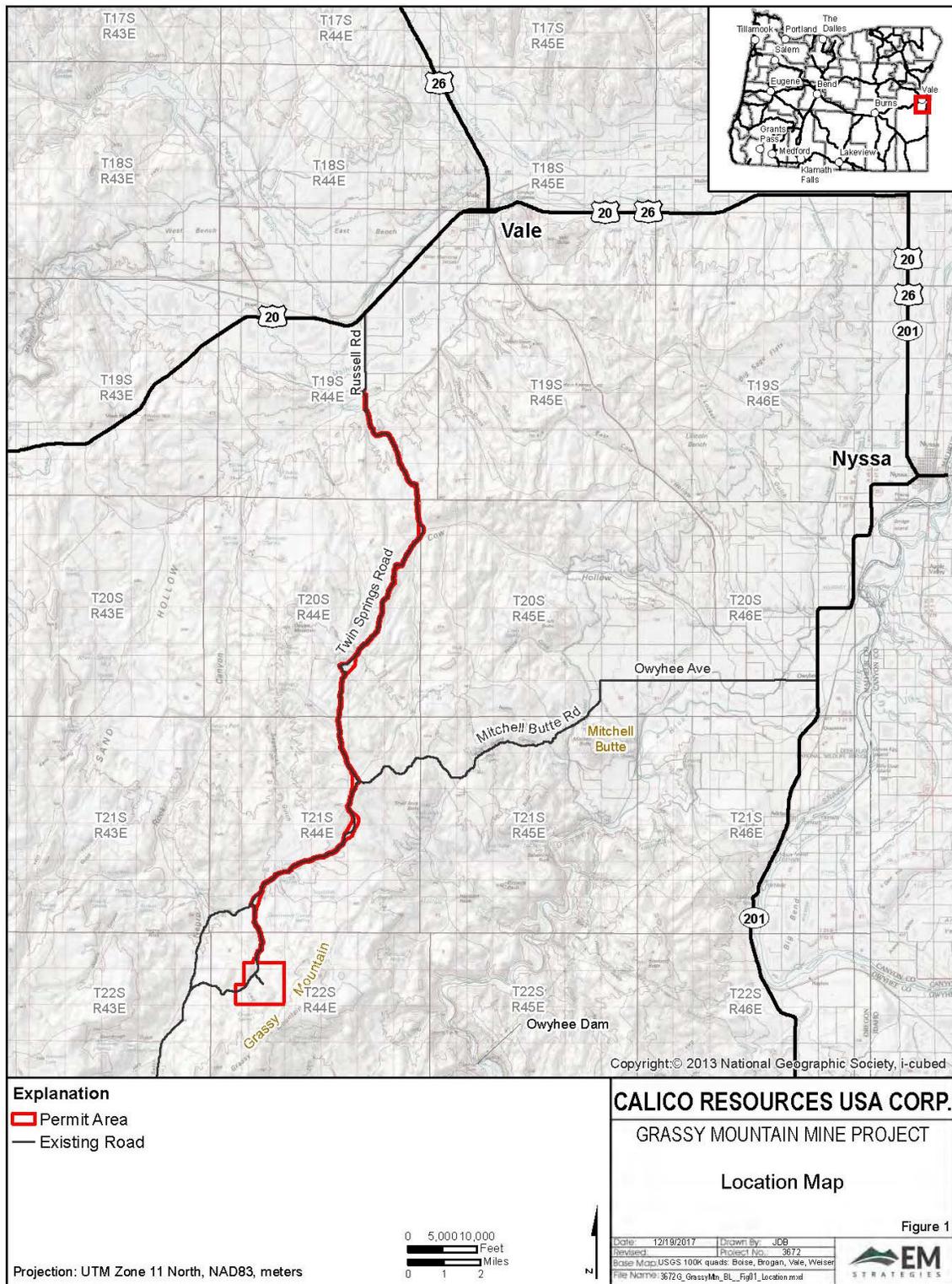


Figure 1: Location Map

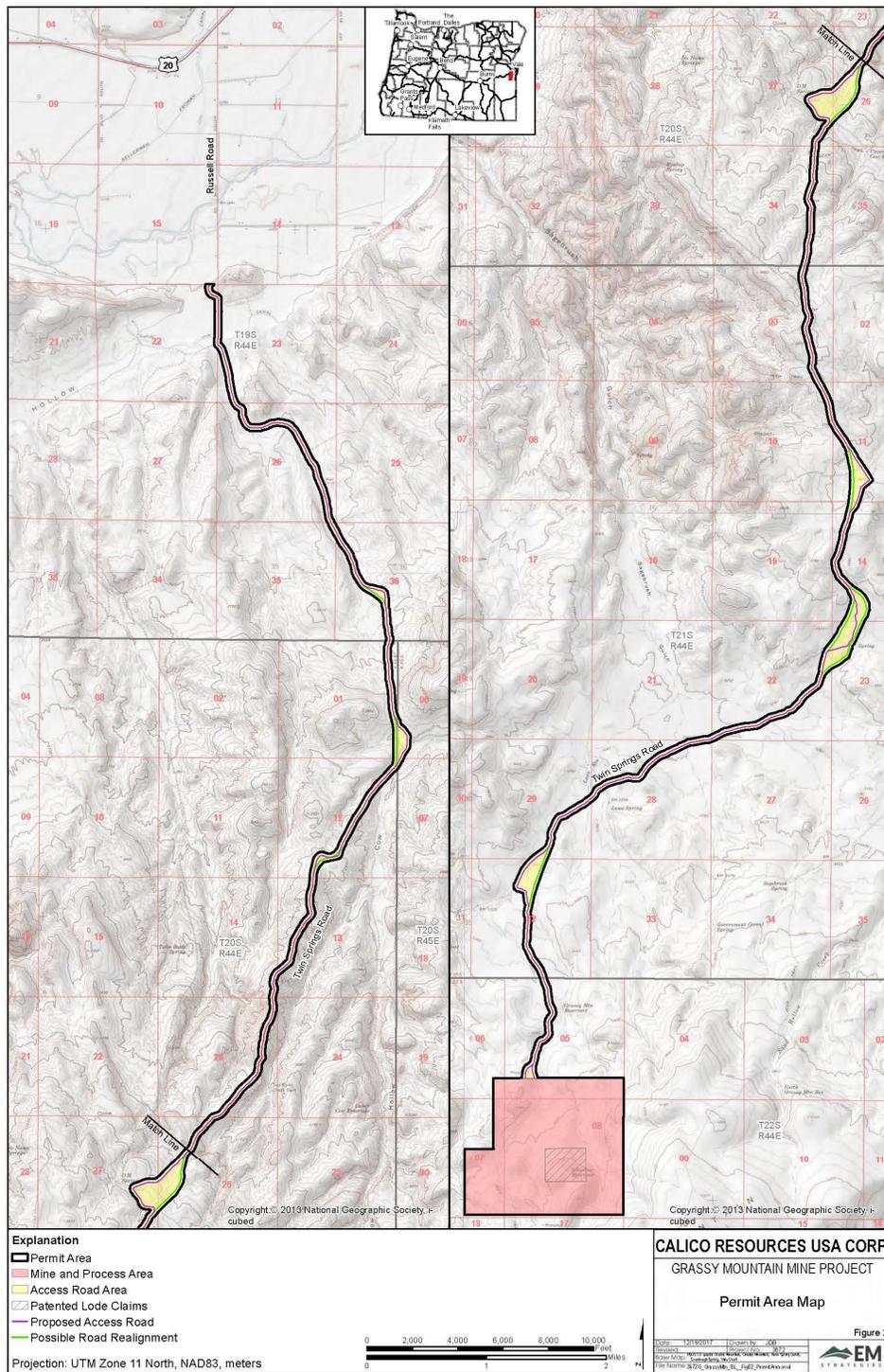


Figure 2: Permit Area Map

2 PLAN PURPOSE

The purpose of this Plan is to establish responsibilities and guidelines for actions to be taken by mine personnel in the event of a process fluid spill at the mine. These guidelines are intended to assist personnel and responsible parties in making timely decisions and taking positive actions toward a successful resolution of the problem. In addition, this plan has been prepared in support of the application for a new Water Pollution Control Facility (WPCF) Permit for the Project.

This Plan identifies potential sources of process fluid spills, establishes measures of prevention, and defines control, cleanup, and reporting procedures, including instructions for what should be done in the event of a hazardous material spill, petroleum release, or natural disaster.

This Plan does not currently provide the names and contact numbers of site-specific personnel, as they have not been finalized. However, this will be done by the time operations begin and Calico will revise this document to reflect the complete information.

The objectives of this Plan are to:

1. Reduce the potential for accidental spills and environmental degradation by taking precautionary measures and being prepared for potential emergencies;
2. Provide the operating facility with the necessary information to properly respond to a hazardous material emergency;
3. Define personnel roles for emergencies involving hazardous conditions; and
4. Include a self-audit program to ensure that the Plan and related response activities meet environmental protection objectives.

2.1 Plan Review

This is a preliminary version of the Plan. As the Project proceeds and final information concerning permit requirements, construction, operations, and site personnel is developed, the Plan will be revised prior to Project commissioning.

This Plan will be reviewed and updated on a regular basis during operations to ensure it remains applicable to the hazards associated with the operation and the responsible parties who will be assigned to respond to a spill. Modifications or changes should be made at any time if conditions pertaining to this Plan change at the site.

3 PROJECT DESCRIPTION

3.1 Project Activities

Calico Resources USA Corp (Calico) plans to construct, operate, reclaim, and close an underground mining and precious metal milling operation. In general, the proposed mining and precious metal processing operations will consist of an underground mine and ore processing facilities, including a conventional mill and tailings storage facility (TSF) and a waste rock storage

area (WRSA), as well as other support facilities. The Project will include the following major components:

- One underground mine;
- One WRSA;
- One carbon-in-leach (CIL) processing plant;
- One borrow pit area;
- One TSF;
- Run-of-mine ore stockpile;
- One reclaim pond;
- A water supply well field and pipeline, associated water delivery pipelines, and power;
- A power substation and distribution system;
- One ventilation shaft;
- Access and haul roads;
- Ancillary facilities that include the following: haul, secondary, and exploration roads; truck workshop; warehouse; stormwater diversions; sediment control basins; reagent and fuel storage; storage and laydown yards; explosive magazines; fresh water storage; monitoring wells; meteorological station; an administration/security building; borrow areas; growth media stockpiles; a landfill; and solid and hazardous waste management facilities to manage wastes; and
- Reclamation and closure, including the potential development of an evaporation cell for the TSF.

3.2 Chemical Use

Calico will transport, store, and use a variety of fuels and reagents for operation of the Project. A summary of these materials is provided in Table 3-1. These fuels and reagents will be transported, used, and stored in accordance with applicable federal, state, and local regulations and guidelines, including the United States Department of Transportation, Oregon Department of Transportation, Bureau of Alcohol, Tobacco, Firearms and Explosives, Department of Homeland Security, and Mine Safety and Health Administration (MSHA). The on-site storage containerization and units may vary according to vendor availability.

Table 1: Fuels and Reagents Volumes and Shipments

Chemical	On-Site Storage	Anticipated Stored Amount	Estimated Consumption Rate	Shipment Frequency (per week)
Mill Ore Processing				
Sodium Cyanide – Mixed to 25% Sodium Cyanide (NaCN)	10,000 gal	10,000 gal		1
Lime - Dry pebble at 90% Calcium Oxide (CaO)	25-ton truckload	100-ton silo	30 tons/day	4

Chemical	On-Site Storage	Anticipated Stored Amount	Estimated Consumption Rate	Shipment Frequency (per week)
Anti-Scalant (liquid surfactant)	240 lb carboy	2 carboys	30 lbs/day	
Carbon Acid Wash & Neutralization				
Hydrochloric Acid (HCL) - Liquid 30%	HDPE totes	3,000 gal	10 lbs/day	7
Acid Wash Vessel	2,320 working gal			
Acid Mix Tank	282 working gal			
Caustic Soda - Sodium Hydroxide (NaOH) - Liquid	4,887 working gal	5,000 gal	5 lbs/day	7
Fluxes				
Borax (pentahydrats) - Dry	50 lb sacks	20 sacks	20 lbs/day	*
Silica (SiO2) - Dry	50 lb sacks	10 sacks	10 lbs/day	
Niter (NaNO3) - Dry	50 lb sacks	5 sacks		
Feldspar - Dry	50 lb sacks	5 sacks		
Mercury Control				
Sulfide-impregnated Carbon - Dry	50 lb sacks	40 sacks	25 lbs/day	*
Mercury Recovered				
Mercury	80 lb flask		5 lbs/day	*
Electrolytes				
Sodium Hydroxide (NaOH) - Dry	20 lb sacks	10 sacks	15 lbs/day	*
Assay and Met Lab				
Sulfuric Acid (H ₂ SO ₄) Reagent Grade	1 gal	6 gal		
Nitric Acid (HNO ₃) Reagent Grade	1 gal	10 gal	1lb/day	
Hydrofluoric Acid (HFI) Reagent Grade	1 gal	2 gal		
Hydrochloric Acid (HCL) Reagent Grade	1 gal	4 gal		
NaCN Reagent Grade - Dry	5 lb box	10 boxes	1 lb/ day	*
Buffer Solution Reagent Grade - Dry	5 lb box	10 boxes		
Lead Nitrate (PbNO ₃)- Dry	20 lb bag	1 bag		
Acetylene	Size 45 industrial Acetylene Cylinder	3 in lab/15 in shop	2 cylinders per week	
Fluxes				
Borax Penta - Use Plant Source			18 lbs/day	*
Silica - Use Plant Source				
Lead Oxide - Reagent Grade	80 lb pail	1 pail	2 lbs/day	*

Chemical	On-Site Storage	Anticipated Stored Amount	Estimated Consumption Rate	Shipment Frequency (per week)
Methyl Ethyl Ketone (MEK)	5 gal pail	1 pail		
Silver Inquart	10 lb package	1 pkg		
Fuel/Lube/Oil				
Diesel- Truck Shop	30,000 gal	Up to 30,000 gal	6,000 gal/day	1
Ammonium Nitrate/Fuel Oil (ANFO)	60 ton silo	Up to 60 tons	8 tons/day	
Gasoline	10,000 gal	Up to 10,000 gal	250 gal/day	
30WT Motor Oil	4,000 gal	Up to 4,000 gal	15-20 gal/day	
Used Motor Oil	4,000 gal	Up to 4,000 gal	15-20 gal/day	
Antifreeze	2,000 gal	Up to 2,000 gal	1-15 gal/day	
Hydraulic Fluid	2,000 gal	Up to 2,000 gal	10-15 gal/day	
90WT Gear Lube	2,000 gal	Up to 2,000 gal	10-15 gal/day	
Waste Antifreeze	2,000 gal	Up to 2,000 gal	10-15 gal/day	
Grease bins	4 x 120 gallon totes, 4 x 30 gallon drums	Up to 4 totes, up to 4 drums	5-10 gal/day	

lb = pound
gal = gallons

3.3 Organization and Personnel

The Project will be operated by Calico. Key site personnel and their respective classifications are summarized in Table 3-2. The primary contact for the project is the General Manager.

Table 2: Facility Personnel Summary

Personnel Classification	Name
General Manager	To Be Determined
Mine Superintendent	To Be Determined
Process Superintendent	To Be Determined
Maintenance Superintendent	To Be Determined
Environmental Manager	To Be Determined
Safety Officer	To Be Determined

4 SPILL PREVENTION

4.1 Inspections

Tanks, pipelines, and process components will be inspected for leaks and/or damage on a routine basis. Employees, contractors, and other workers on site will be instructed to immediately report leaks and damage to the working supervisor and the Environmental Department for assessment. The working supervisor will be responsible for scheduling and implementing necessary repairs as soon as possible. If a discharge has occurred or will occur, the working supervisor will inform the Environmental Department, in writing, of the intended schedule and manner of repair.

4.2 Transfer of Petroleum Products

Employees, contractors, and other workers responsible for the transfer of petroleum products are required to remain at the fill point until fill procedures are completed and the transfer line is placed back in the proper storage location. Spillage will be reported to the maintenance supervisor and the Environmental Department, and cleanup will be scheduled and implemented.

4.3 Preventive Maintenance

Preventive maintenance will be performed to maintain the integrity of the systems. Faulty valves, joints, elbows, and other fixtures or fittings that could result in the release of possible contaminants outside a containment structure will be repaired or replaced immediately upon identification.

4.4 Spill Containment Structures

Hydrocarbon products, including lubricants, oils, antifreeze, and used oil will be stored at the truck workshop (Figure 3). Reagents will be transported, stored, and used in accordance with federal, state, and local regulations. Diesel fuel and hydrocarbon products will be stored in primary (tanks, tote bins, barrels) and secondary containment to prevent release to the environment. Spill containment will be designed for 110 percent of the largest tank or tanker within the containment.

5 EMERGENCY PREPAREDNESS

5.1 Personal Protective Equipment

Mine and process personnel will be required to wear personal protective equipment (PPE), including hardhats, steel-toed and steel-shanked boots, leather gloves, eye protection, safety vests, and hearing protection (where necessary), as required by MSHA. Process personnel will also be provided with chemical-resistant gloves, aprons, coats, pants, face shields, and dust masks or air-purifying respirators, depending on the particular task being performed at a given time. Eye wash stations will be placed at all locations where hazardous chemicals are stored.

5.2 First Aid

A first aid clinic will be housed in the administration and security offices. First aid kits will be maintained in the administration building, security office, maintenance shop and warehouse, assay laboratory, and process building, in addition to vehicles and heavy equipment as required by MSHA. Personnel will be trained and certified in CPR (cardiopulmonary resuscitation) and basic first aid on an annual basis.

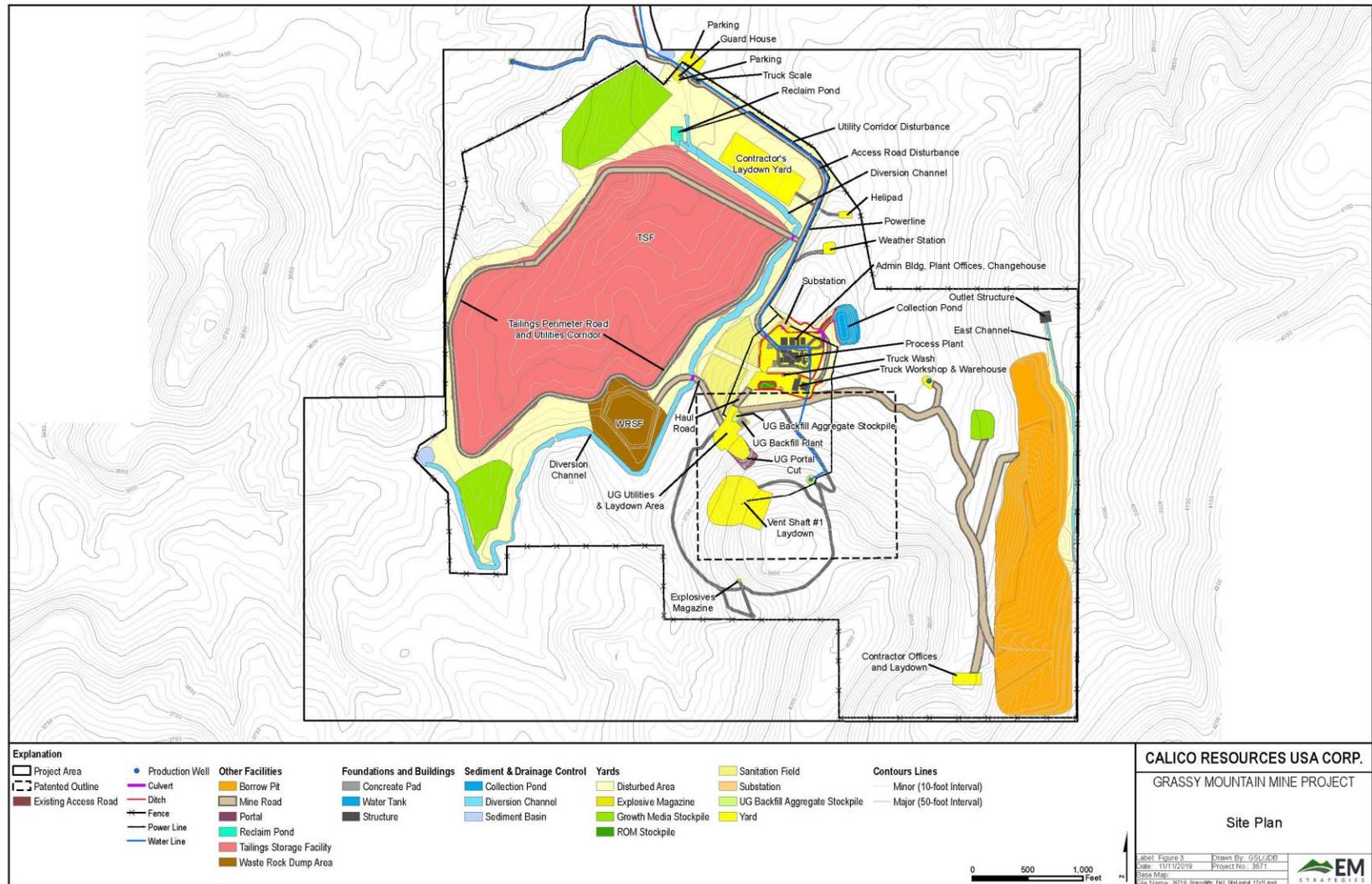


Figure 3. Site Layout Map

5.3 Fire Extinguishers

Fire extinguishers will be placed in buildings, equipment storage yards, vehicles, and heavy equipment, as required by MSHA. Fire extinguishers will be of the type required to address the reasonably anticipated class of fire at a given location. Fire extinguishers will be serviced regularly to ensure their proper functioning.

Locations and proper use of fire extinguishers will be reviewed with personnel on an annual basis, at a minimum, and upon assignment for new personnel.

5.4 Additional Fire Suppression Measures

Water for fire protection will be distributed from the fire water tank located on Grassy Mountain via a network of piping and will be maintained under a constant pressure with a jockey pump. The piping will be looped and sectionalized to minimize loss of fire protection during maintenance. Where located outside buildings, fire water piping will be buried below the ground surface to eliminate the potential of pipes freezing.

Yard hydrants will be limited to the fuel storage tank area. Wall hydrants will be used in lieu of yard hydrants and will be located on the outside walls of the buildings in cabinets that will be heated during winter months.

Fire protection within buildings will include standpipe systems, sprinkler systems, and portable fire extinguishers. Standpipe systems will be provided in all structures that exceed 46 feet in height, as well as where required by building code, local authorities, or the insurance underwriter.

Sprinklers will be provided at the following locations or to protect the following items: truck workshop; assay laboratory; over hydraulic or lube packs that contain more than 120 gallons of fluid; lube-storage rooms; any conveyor belts that are within tunnels or other enclosed spaces which would be hazardous to fight fires manually; transformers; and warehouse.

5.5 Hazardous Materials Identification

A variety of chemicals and reagents will be used in the mining and ore processing activities at the mine. Hazardous materials are defined by 49 Code of Federal Regulations (CFR) 172 according to the following characteristics:

- Toxicity;
- Explosive properties;
- Corrosiveness;
- Flammability;
- Oxidizing properties; and
- Potential for violent or chemical reaction when mixed.

Safety Data Sheets (SDS) for hazardous materials used in mine operations will be maintained in strategic locations at the mine. The SDS provide relevant information on physical characteristics, hazardous reactivity, fire and explosion data, and health hazard information, including safety precautions, first aid, and medical treatment.

Tanks and other containers will be clearly labeled as to their contents.

5.6 Hazardous Material Spill Prevention and Countermeasures

A variety of hazardous materials will be used at various locations at the mine and process facilities. They will be stored at the most efficient location according to their place of use. Small quantities of chemicals will be stored in secure, fire-proof cabinets adjacent to the area of their use. In areas where corrosive materials are stored or used, the concrete floor will be covered with an impermeable compound, resistant to corrosive chemicals. Only chemical groups compatible with one another may be stored together. Incompatible materials will not be stored in proximity to one another (i.e., same room or cabinet).

A fuel storage depot will be located near the Processing Facilities (Figure 3). It will include separate diesel above-ground tanks for fueling of light/intermediate and heavy vehicles. Gasoline will also be stored in an above-ground tank in the fuel storage depot at the contractor yard. Spill containment will be designed for 110 percent of the largest tank or tanker within the containment. Camlock fittings or other appropriate fittings will be located within the containment to collect any spilled fuels. A sump will be located at one end of the containment so that any spilled fuels can be pumped for appropriate disposal from the containment using a portable pump.

Hydrocarbon products, including lubricants, oils, antifreeze, and used oil will be stored at the truck workshop (Figure 3). Reagents will be transported, stored, and used in accordance with federal, state, and local regulations. Diesel fuel and hydrocarbon products will be stored in primary (tanks, tote bins, barrels) and secondary containment to prevent release to the environment.

Spill containment and cleanup equipment maintained at strategic locations throughout the mine include the following:

- Oil absorbent rolls;
- Oil absorbent pads;
- Oil absorbent booms;
- Oil absorbent pillows;
- Spill kits;
- Backhoe or excavator;
- Motor graders; and
- Bulldozers.

If the spill is of significant size and/or duration, special cleanup efforts such as those provided by environmental contractors will be used as necessary.

5.7 Fluid Management System

Calico will adhere to a Fluid Management Plan (FMP) and Monitoring Plan developed for the WPCF Permit Application. The FMP will describe the containment and monitoring of process solutions, and will address components associated with process solutions, including the CIL plant and reclaim ponds. Response and reporting requirements specific to the process solution will be addressed in the FMP. The FMP will be updated periodically to incorporate improvements identified during implementation.

5.8 Communications System

On-site communications will comprise of inter-connected mobile and fixed systems, including a land-line or cable telephone network, portable two-way radios, and internet. Access for internet and corporate network connections will be made via satellite connections or a cable line.

The primary means of communication between the underground and the surface will be via a leaky-feeder very high frequency radio system.

5.9 Alarm System

A fire alarm system will be installed in the following surface facilities (per MSHA regulations 30 CFR 57.4330): administrative/security building; truck workshop; warehouse; assay laboratory; and CIL process building. A fire alarm system will be provided and maintained in operating condition in the underground mine area, per MSHA regulations 30 CFR 57.4360. These systems will be used to initiate evacuations and alert personnel of emergency situations.

5.10 Evacuation Plans

Evacuation plans will be developed for structures including the administrative/security building, truck workshop, warehouse, assay laboratory, CIL process building, and other structures that might require evacuation during an emergency. Evacuation plans will outline the procedures that should be followed in the event of a fire or other emergency requiring evacuation and will define the responsibilities of key personnel. Evacuation maps showing suggested evacuation locations and emergency response routes will be posted at appropriate locations throughout the Project site.

Two emergency refuge stations are considered to be necessary in case of fire or rockfalls that would block access and prevent full evacuation of personnel. These refuges will allow the staff to remain safe in an underground mine for 48 hours. The refuges are mobile, each can accommodate up to 20 people within the protected chamber, and they will be arranged so that they are always no more than 650 feet from the areas where the mine operation personnel are located.

5.11 Ancillary Power Systems

Electrical power will be supplied to the mine via an Idaho Power overhead powerline. The power demand will be approximately five megawatts throughout the life of the mine. The Idaho Power powerline will connect to the Project substation, located near the processing facility.

One emergency diesel generator capable of producing 2,000 kilowatts will be located at the process facility. This generator will provide sufficient emergency power to operate critical components at the facility in the event of a power outage.

At the start of mining, an underground 480 volt (V) transformer will be placed near the entrance to the portal. This will supply power to electrical equipment used to develop the main decline and portable fans. Once development has advanced far enough that carrying power at 480 V becomes too inefficient, a main powerline will be installed along the rib of the decline to carry 4.16 kilovolts and will be connected to the transformer which will be moved underground.

Upon completion of the decline to the 3,224-foot level, and the initiation of production-mining activities, a second underground transformer will be purchased for use in the lower areas of the mine.

Line power will also be carried up the hill to the location of the ventilation shaft to supply power to the ventilation fan.

6 SPILL RESPONSE ACTIVITIES

6.1 Emergency Response Procedures

The following emergency response procedures (ERPs) are to be followed in the event of a hazardous materials release:

1. The first responder reports the incident and notifies the supervisor;
2. The supervisor notifies the General Manager and Environmental Manager;
3. The Environmental Manager contacts off-site emergency response teams at the General Manager's direction;
4. Gather information about the incident;
5. Complete preliminary information on an incident report form;
6. Contact and transmit information to the emergency response team;
7. An emergency response team is dispatched to the incident;
8. Contact additional emergency units if necessary;
9. Contain spill material and control release;
10. Contact off-site specialists/contractors as required by circumstances;
11. Remove and secure contaminated material;
12. Arrange for proper disposal of contaminated material;
13. Supervisor completes an incident report form;

14. Verbally notify agencies of spill if the amount is greater than or equal to the reportable quantity;
15. Follow up incident with debriefing; and
16. Evaluate emergency response procedures and modify as necessary.

6.2 Duties of Mine Personnel

6.2.1 General Manager

The General Manager or his designate will be notified as soon as possible when a reportable spill or release occurs. The General Manager will direct all public statements made to the media, if required.

6.2.2 Emergency Response Team

The Emergency Response Team (ERT) will include employees who have been specially trained to work with hazardous materials in a safe and proper manner. The team will be trained in the use of all safety gear and will promote and demonstrate safe remediation practices. The prime responsibility of the team is to assess a scene for hazards, act professionally and conduct cleanup procedures as outlined in the previous section.

6.2.3 Environmental Manager

The Environmental Manager will determine and verify pertinent facts about the incident, including the amount and location of the spill or release, probable direction and time of travel of the spill, resources required at the scene, and the property that may be affected. The Environmental Manager may advise, instruct, and/or direct containment, countermeasures, and cleanup of the release. The Environmental Manager will assess the area to determine the effect and extent of the spill or release and report the information to the General Manager.

6.2.4 Safety Officer

The Safety Officer will ensure the safety of all persons involved with a spill or release. Once on the scene of the spill, the Safety Officer will evaluate the area for dangers and will ensure that all persons involved are equipped with the appropriate safety gear and have received the proper training. The Safety Officer may also determine if tests for toxic gases are required prior to handling of the spilled material.

6.2.5 Supervisor

The foreman of an area where a spill or release occurs is responsible for coordinating the initial containment. The Supervisor is responsible for determining if the spill will require the ERT. Once the spill or release is controlled, the Supervisor must coordinate with the Environmental and Safety Departments to determine if the spill is or is not a reportable spill.

6.3 Emergency Response for Chemical Spills

Calico will receive, store, use, and transport a variety of chemicals for use at the mine and process facilities. These chemicals will be handled according to standard industry practices which will include the use of PPE, task training, and preventive maintenance of equipment, tanks, pipes, and fittings. Unplanned events may occur that require rapid response to protect worker health, prevent or reduce releases to the environment, and reduce damage to equipment.

6.3.1 Lime – Calcium Oxide

Specifications

Lime is shipped by trailer truck and consists of white, odorless, solid pebbles or powder that will be pneumatically transferred from the truck to a lime silo. It is an alkali, highly corrosive, and highly exothermic when in contact with water.

Personal Safety

1. Wear an approved dust respirator, work gloves, goggles, and a full covering of clothing.
2. Do not use water.

Immediate Response

Follow ERPs as outlined in **Section 6.1**.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Scoop or sweep up spilled lime and place in a suitable container.
3. Excavate contaminated soil and place within a secured area.
4. Reclaimed lime may be placed into the process circuit with approval from the Process Supervisor.

6.3.2 Antiscalant

Specifications

Antiscalant properties may vary by manufacturer. Antiscalant is generally a straw-colored liquid with a slight ammonia odor. Antiscalant will be trucked to the site in barrels or other containers.

Personal Safety

Recommended PPE includes gloves and eye/face protection.

Immediate Response

1. Secure area to prevent contact and slipping.
2. Absorb with an inert material and scoop up into an appropriate container. Avoid use of iron, copper, or aluminum containers or equipment. Wash area thoroughly with water and scrub to remove slip hazard.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Contact the Environmental or Safety Departments for disposal options.

6.3.3 Hydrochloric Acid

Specifications

Hydrochloric acid will be shipped to the site in 220-pound drums. Hydrochloric acid is a clear, colorless, or slightly yellow fuming liquid with a pungent, biting odor. It is acidic, highly corrosive, and on reacting with other materials may give off chlorine gas which is highly toxic.

Personal Safety

Wear a self-contained breathing apparatus or an approved respirator, goggles, rubber suit, rubber gloves, and boots.

Avoid contact with metals and sulfides as these will produce hydrogen gas, which is highly flammable and may cause fire or explosion; it is an asphyxiant. Stay upwind as a respirator will not provide protection from hydrogen gas.

Immediate Response

1. Notify the Environmental and Safety Departments of the spill and request special instructions for personnel safety during cleanup.
2. Follow the ERPs as outlined in **Section 6.1**.
3. Evacuate and isolate the immediate area to avoid personnel exposure.
4. For a pipeline leak, adjust appropriate valves to isolate the system and stop further leakage.
5. Dike the area to contain the spill.

Containment, Countermeasures, and Cleanup

1. Neutralize all pooled solution with water, soda ash, or lime. Verify that the solution is neutralized with a pH tester.
2. If possible, place any neutralized solution back in the process circuit.
3. Excavate the contaminated soil and mix with lime. Contact the Environmental or Safety Departments for disposal options.
4. Neutralized material may be placed in previously approved areas.

6.3.4 Sodium Hydroxide

Specifications

A sodium hydroxide solution will be shipped to the site dry in five-pound boxes. Sodium hydroxide is an alkali, is highly corrosive, and may give off hydrogen gas which is highly inflammable and potentially explosive and is an asphyxiant.

Personal Safety

1. Wear an approved respirator, face shield, suit, gloves, and boots. A self-contained breathing apparatus should be worn in the case of large spills.
2. Provide ventilation to the area.
3. Use water spray to divert or reduce vapors.

Immediate Response

1. In the case of a small spill, dilute with water and mop up or absorb with inert dry material.
2. In the case of a large spill, absorb with dry earth, sand, or other non-combustible material.
3. Stop leak if safe and dike if needed.
4. Neutralize residue with a dilute solution of acetic acid.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Use appropriate tools to put the spilled solid in a waste disposal container.
3. Neutralize residue with a dilute solution of acetic acid.
4. Excavate the contaminated soil. Contact the Environmental or Safety Departments for disposal options.

6.3.5 Sodium Cyanide

Specifications

Sodium cyanide in aqueous solution will be shipped to the site in a tanker truck and transferred to and stored in a 10,000-gallon tank. Sodium cyanide is odorless when dry and emits an almond-like odor when damp. Sodium cyanide is highly toxic and may give off hydrogen cyanide gas which is highly toxic. It is more likely to give off hydrogen cyanide gas when in contact with an acid.

Personal Safety

1. Wear an approved respirator for vapors and dust, goggles, rubber suit, rubber, gloves, and boots. A self-contained breathing apparatus should be worn in the case of large spills.
2. Eliminate all ignition sources and use water spray to reduce vapors.
3. Avoid contact with acids and acid fumes.

Immediate Response

1. Notify the Environmental and Safety Departments of the spill and request special instructions for personnel safety during cleanup.
2. Follow the ERPs as outlined in **Section 6.1**.
3. Evacuate and isolate the immediate 50-foot area to avoid personnel exposure.
4. Dike the area to contain the spill. Prevent entry into confined areas.

Containment, Countermeasures, and Cleanup

1. Use appropriate tools to put the spilled solid in a waste disposal container.
2. Follow ERPs as outlined in **Section 6.1**.
3. Excavate the contaminated soil. Contact the Environmental or Safety Departments for disposal options.

6.3.6 Carbon

Specifications

Carbon will be delivered to the site by truck in containers. Carbon can be granular, pelletized, or powdered. Carbon is neither toxic nor corrosive.

Personal Safety

1. Ventilate area.
2. Wear a dust mask, gloves, and eye protection.

Immediate Response

1. Shovel and sweep material into an appropriate container.
2. Wash area with water if necessary.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Contact the Environmental or safety Department for disposal options.

6.3.7 Gasoline and Diesel Fuel

Specifications

Gasoline and diesel fuel are shipped to the site by tanker truck in large amounts. Gasoline liquid and vapor are toxic and highly flammable

Personal Safety

1. Stay upwind, out of fumes, and keep out of low areas.
2. Wear rubber gloves and boots.
3. No smoking or open flames near gasoline or diesel fuel.

Immediate Response

1. Notify the Environmental and Safety Departments of the spill and request special instructions for personnel safety during cleanup.
2. Follow the ERPs as outline in **Section 6.1**.
3. Remove all sources of ignition.
4. Evacuate and isolate the immediate area to avoid personnel exposure.
5. Stop the leak without personal safety risks.
6. Dike the area to contain the spill.

Containment, Countermeasures, and Cleanup

1. Remove all diesel-contaminated soil and place in a designated area for removal and disposal.
2. Gasoline-contaminated soil will be temporarily stored on a synthetic liner and will be covered to prevent volatilization. Contact the Environmental Department for appropriate disposal options.
3. All diesel or gasoline liquids recovered from a spill will be placed in drums or dumpsters for proper disposal.

6.3.8 Propane

Specifications

Propane will be shipped to the site by tanker truck. Propane is a gas which is an asphyxiant and highly flammable.

Personal Safety

1. Stay upwind, out of fumes, and keep out of low areas.
2. Wear rubber gloves and boots.
3. No smoking or open flames near propane.

Immediate Response

1. Notify the Environmental and Safety Departments of the spill and request special instructions for personnel safety during cleanup.
2. Follow the ERPs as outline in **Section 6.1**.
3. Remove all sources of ignition.
4. Evacuate and isolate the immediate area to avoid personnel exposure.
5. Stop the leak without personal safety risks.
6. For a pipeline leak, adjust appropriate valves to isolate the system and stop the leak.
7. Dike the area to contain the spill.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Remove propane-contaminated soil and place in designated area for removal and disposal.
3. All propane liquid recovered from a spill will be placed in drums or dumpsters for proper disposal.

6.3.9 Automatic Transmission Fluid

Specifications

Automatic transmission fluid (ATF) is shipped to the site by tanker truck. It is a red, transparent-colored liquid. It is toxic, corrosive, and flammable.

Personal Safety

1. Provide adequate ventilation.
2. Wear rubber gloves, goggles, boots, and an approved respirator when necessary.

3. No smoking or open flames near ATF.

Immediate Response

1. Notify the Environmental and Safety Departments of the spill and request special instructions for personnel safety during cleanup.
2. Follow the ERPs as outlined in **Section 6.1**.
3. Remove all sources of ignition.
4. Isolate the spill area and stop the leak without personal safety risks.
5. For a pipeline leak, adjust appropriate valves to isolate the system and stop the leak.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Contact the Environmental Department for appropriate disposal options.
3. Recover free product for recycling or disposal.
4. Use sand, earth, or absorbent material to absorb from spill area.
5. Remove contaminated soil and place in designated area for removal and disposal.

6.3.10 Bulk Oils

Specifications

Bulk oils are shipped to the site in 55-gallon drums or in bulk by tanker truck. Oils are toxic and flammable.

Personal Safety

1. Wear rubber gloves and boots.

Immediate Response

1. Follow the ERPs as discussed in **Section 6.1**.
2. Remove all sources of ignition.
3. Stop the leak.
4. Dike the area if the spill is large.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Pump pooled oil into 55-gallon drums. Contact the Environmental Department for additional instruction.
3. Remove contaminated soil and place in a designated area for removal and disposal.

6.3.11 Ethylene Glycol (Antifreeze)

Specifications

Shipped in tanker trucks at 50 percent ethylene glycol, the material has a distinctive green color and a pH of 9. It is toxic.

Personal Safety

1. Wear rubber gloves, eye protection, and self-contained breathing apparatus.
2. In the event of fire, avoid contact with strong acids, bases, and oxidizers.
3. Thoroughly wash contacted skin and clothing.

Immediate Response

1. Follow the ERPs as discussed in **Section 6.1**.
2. Safely stop the source of a leak or spill and contain.
3. Properly flag and mark the spill area. Isolate the spill from exposure to wildlife.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Reclaim free solution.
3. Excavate contaminated soils and place on a synthetic liner. Contact the Environmental Department for appropriate disposal options. Do not mix hydrocarbon and ethylene glycol contaminated soils.

6.3.12 Hydraulic Fluid

Specifications

Hydraulic fluid is a blend of ingredients which may vary slightly by manufacturer. It is a clear fluid with a slight odor. Shipments will be delivered to the site in containers or tanks. Hydraulic fluid is corrosive, toxic, and flammable.

Personal Safety

No particular safety equipment is required, although gloves are recommended.

Immediate Response

1. Dike area if needed.
2. Remove contaminated soils and use dry materials to soak up spills.

Containment, Countermeasures, and Cleanup

1. Follow ERPs as outlined in **Section 6.1**.
2. Use appropriate tools to put the spilled solid in a waste disposal container.
3. Excavate the contaminated soil. Contact the Environmental or Safety Departments for disposal options.

6.3.13 Ammonium Nitrate

Specifications

Shipped in tanker trucks, ammonium nitrate is white in color and consists of small round pearl-like granules. It is toxic, corrosive, and flammable.

Personal Safety

1. Wear an approved dust respirator, gloves, and boots.

2. Ammonium nitrate is not compatible with wood, sulfur, chlorides, phosphorus, fine metals, acids, organics, or solvents.

Immediate Response

1. Follow the ERPs as outlined in **Section 6.1**.

Containment, Countermeasures, and Cleanup

1. If the ammonium nitrate is spilled on an area that has hydrocarbon contamination, DO NOT REMOVE. Contact the Environmental Department.
2. Follow ERPs as outlined in **Section 6.1**.
3. If spilled on clean ground, then contain the spill and scoop or sweep up the spilled material and place in a clean plastic container marked with the new contents. The container must not have any traces of petroleum products prior to use.
4. Place the marked container by the ammonium nitrate silo and notify the Environmental Department.

7 EXTERNAL EMERGENCY SERVICES AND CONTACT INFORMATION

In addition to the internal ERPs described in Sections 6.1 and 6.2, responding mine personnel will first contact external emergency services via two-way radios installed in vehicles and heavy equipment or by phone. A separate radio frequency will be established for emergency use, and emergency response and communication protocols will be established. Once the emergency has been stabilized, the Sheriff's Department and additional regulatory agencies as required will be contacted.

Due to the remote location of the site, fire response will be handled by mine staff until the appropriate agency can respond.

The closest major medical center to the mine is Saint Alphonsus Medical Center in Ontario, Oregon, located approximately 37 road miles from the Project site. This has an emergency room and other facilities to handle injuries that may occur. If immediate care is necessary that cannot be provided at Saint Alphonsus Medical Center in Ontario, the Life Flight Air Ambulance out of Ontario, Oregon, is equipped to provide rapid air transportation of critically injured/ill persons. For less critical incidences, a clinic is available in Vale, Oregon, located approximately 22 miles from the Project.

Calico will have medical staff on site to treat minor incidents and to try to stabilize any major medical incidents until the Life Flight Air Ambulance out of Ontario, Oregon, is dispatched and can reach the Project site.

Emergency contact information for site personnel, first responders, medical care, and local and federal agencies is provided in Table 7-1.

Table 3: Emergency Contact Information

Position or Agency		Contact	Location	Phone Number(s)	Radio or Cell Phone Number
Calico Emergency Contacts	General Manager	TBD	TBD	TBD	TBD
	Mine Superintendent	TBD	TBD	TBD	TBD
	Process Superintendent	TBD	TBD	TBD	TBD
	Maintenance Superintendent	TBD	TBD	TBD	TBD
	Environmental Manager	TBD	TBD	TBD	TBD
	Safety Officer	TBD	TBD	TBD	TBD
	Off-Site Emergency Contact	TBD	TBD	TBD	TBD
	Northwest Interagency Coordination Center	On-Duty Personnel	150 SW Harrison Street, Suite 400 Portland, OR 97201	(503) 808-2720	n/a
	Malheur County Sheriff's Office	On-Duty Personnel	151 "B" Street West Vale, OR 97918	(541) 473-5126	n/a
BLM Vale District Office	On-Duty Personnel	100 Oregon Street Vale, OR 97918	(541) 473-3144	n/a	
Vale Fire and Ambulance	On-Duty Personnel	950 Hope Street Vale, OR 97918	(541) 473-3796	n/a	
Saint Alphonsus Medical Center Ontario	On-Duty Personnel	351 SW 9 th Street Ontario, OR 97914	(541) 881-7000	n/a	
Life Flight Air Ambulance	On-Duty Personnel	599 SW 33 rd Street Ontario, OR 97914	(800) 232-0911 (509) 678-4364	n/a	

TBD = to be determined

n/a = not applicable

8 REPORTING AND NOTIFICATION

Reportable environmental incidents will be conveyed to the appropriate agencies by Calico within 24 hours of incident stabilization. Calico's Environmental Manager or designee will be responsible for incident reporting. If the release is determined to be a reportable quantity, the incident will be reported as required by telephone no later than 5:00 p.m. of the next regular work day from the time of the incident to the following:

- Oregon Department of Environmental Quality's 24-hour emergency notification number at 1-800-452-0311;
- Local Emergency Planning Committee – to be determined;
- National Response Center at 1-800-424-8802;
- BLM – Vale District Office at (541) 473-3144; and
- Transportation incidents should be reported to 911.

Reporting is generally required within 24 hours, or the next business day if the release occurs on a weekend. Reporting to MSHA is immediate in the case of certain events including, but not limited to, fire and fatality.

Calico will also be responsible for obtaining special authority for emergency operations where equipment, personnel, or materials are required for the containment of spills or removal of hazardous material.

8.1 Incident Reporting Forms

Incident reporting forms and checklists that may be developed prior to initiation of operations and made available to personnel include, but are not limited to, the following: site safety plan; checklist for person identifying emergency; emergency response team leader checklist; incident scene checklist; operator checklist; safety specialist checklist; site access control checklist; and hazardous material checklist.

These forms will be used to document incidents that occur as well as assist mine personnel during an emergency.

9 TRAINING

Employees will be trained at least annually on the details of this Plan prepared for the Project. Training records will be retained in employee personnel files and in the facility operating record.