STATE OF COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

TR 6 M1977-410 Cross-Caribou Mine 5-6-2020

rmittasch@nedmining.com <rmittasch@nedmining.com> Wed, May 6, 2020 at 10:36 AM
To: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>

Dear Ms. Eschberger:

As you requested in your correspondence dated April 7, 2020, attached is the Technical Revision Application to the Division. I will be mailing a hard copy to your office.

This Technical Revision is to provide the equivalent of a site specific SPCC plan, including a description of all fuel/oil storage locations,

spill prevention measures, spill response and mitigation operation and a disposal plan.

This Technical Revision also include a revised mining plan map in accordance with Rules 6.2.1(2) and 6.3.5(2), which shows all fuel/oil storage.

Please feel free to contact our Team or myself if there are any questions regarding this matter.

Yours truly,

Richard Mittasch

Calais Resources Colorado, Inc.

Grand Island Resources, LLC

VP of operations

(516) 582-0833

Rmittasch@nedmining.com

TR 6 M1977-410 Cross-Caribou Mine 5-6-2020.pdf
7251K

COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
1313 Sherman Street, Room 215, Denver, Colorado 80203 ph(303) 866-3567

REQUEST FOR TECHNICAL REVISION (TR) COVER SHEET

File No.: M- 1977-410 Site Name: Cross Gold Mine

County Boulder TR# *(DRMS Use only)*

Permittee: Calais Resources Colorado, Inc.

Operator (If Other than Permittee):

Permittee Representative: Richard Mittasch

Please provide a brief description of the proposed revision:

This TR is to provide the equivalent of a site specific SPCC plan, including a description of all fuel/oil storage locations, spill prevention measures, spill response and mitigation operation and a disposal plan.

As defined by the Minerals Rules, a Technical Revision (TR) is: "a change in the permit or application which does not have more than a minor effect upon the approved or proposed Reclamation or Environmental Protection Plan." The Division is charged with determining if the revision as submitted meets this definition. If the Division determines that the proposed revision is beyond the scope of a TR, the Division may require the submittal of a permit amendment to make the required or desired changes to the permit.

The request for a TR is not considered "filed for review" until the appropriate fee is received by the Division (as listed below by permit type). Please submit the appropriate fee with your request to expedite the review process. After the TR is submitted with the appropriate fee, the Division will determine if it is approvable within 30 days. If the Division requires additional information to approve a TR, you will be notified of specific deficiencies that will need to be addressed. If at the end of the 30 day review period there are still outstanding deficiencies, the Division must deny the TR unless the permittee requests additional time, in writing, to provide the required information.

There is no pre-defined format for the submittal of a TR; however, it is up to the permittee to provide sufficient information to the Division to approve the TR request, including updated mining and reclamation plan maps that accurately depict the changes proposed in the requested TR.

Required Fees for Technical Revision by Permit Type - Please mark the correct fee and submit it with your request for a Technical Revision.

Permit Type	**Required TR Fee**	**Submitted** (mark only one)
110c, 111, 112 construction materials, and 112 quarries	$216	☐
112 hard rock (not DMO)	$175	☐
110d, 112d(1, 2 or 3)	$1006	☐

Cross Mine (M1977-410)

Technical Revision No. 6

Submitted by:
Calais Resources Colorado, Inc.
&
Grand island Resources, LLC

Prepared for:

Colorado Division of Reclamation, Mining and Safety

May 5, 2020

Table of Contents

Maps

Attachments

1. Introduction

This Technical Revision (TR) is proposed in response to the Department of Reclamation (DRMS) Mining and Safety Minerals Program Inspection Report conducted on March 26, 2020 in conjunction with Permit No. M-1977-410. This TR includes a detailed plan of action for addressing the lack of a Spill Prevention, Control and Countermeasure (SPCC) plan. This plan describes measures that have already been taken and are further proposed at the site to address spill related concerns and lack of a plan to address them.

As of the time of this TR, Calais Resources Colorado, Inc. on April 23, 2020 has submitted an 'Application form for Transfer of Mineral Permit and Succession of Operators', to Grand Island Resources, LLC. (GIR) who is currently the owner of all the mining claims at the Cross Mine with Permit No. M-1977-410. Both Grand Island Resources, LLC., and Calais Resources Colorado, Inc are subsidiaries of Calais Resources, Inc.

2. Background

The Cross Mine site is located approximately 3 miles west of Nederland, Colorado adjacent to the Roosevelt National Forest, at an elevation of 9700 feet above mean sea level (MSL). The general location is parcels of land in Section 9, Township 1 South, Range 73 West of the 6 Principal Meridian, County of Boulder, State of Colorado, as shown on Map 1. This is an existing hard rock mining operation owned by Grand Island Resources Inc. (GIR), although at present, no active mining is being conducted. The entire permit area is on various properties either owned outright by GIR or granted through various lease agreements, as shown on Map 2.

The mine permit M-1977-410 was last revised through Amendment No. 1 (AM-1), approved in 2012. AM-1 increased the permit area from 2 acres to the current 9.35 acres, provided for surface waste rock disposal resulting from construction of the Cross Mine Decline portal, and construction of a new office/dry facility and a new sewer line and leach field. Map 3 depicts the permitted disturbances as approved through AM-1. This proposed TR will not result in an increase in the permitted disturbance.

The mine is currently in exploration and development stage but will ultimately operate throughout the year, producing ore of various metals to include gold, silver, lead and zinc. Total annual production of ore and waste rock will not exceed 70,000 tons per year. The approved mining plan is centered on mining, waste rock storage, and ore storage activities in the Cross Mine area, and on primarily waste rock storage in the Caribou Mine area. The waste rock at the site consists primarily of quartz monzonite and gneiss and is not considered to be acid-producing or metals-leaching material.

3. Purpose

The purpose of this TR is to provide the equivalent of a site specific SPCC plan, including a description of all fuel/oil storage locations, spill prevention measures, spill response and mitigation operation and a disposal plan.

4. Response to DRMS

The following measures have been taken to answer concerns of the DRMS report conducted 3/26/2020.

- A good portion of the containers in the fuel shed have already been removed. They were taken to Boulder County HAZMAT in February of 2020. A plan was in place to properly dispose of the remaining containers/materials when the weather warmed up, however the coronavirus outbreak and subsequent shutdown of all government services has delayed that plan. As of this date, Boulder County HAZMAT intends to open back up on June 1st 2020, after which we will schedule for the disposal of the rest of the containers and materials.
    - After all containers and materials are properly disposed of, the shed is to be demolished. The only container to remain is the 300g used oil container.
    - Future plans call for a fabric shed to be built in the old fuel shed's place.
- Two of the fuel containers were removed by a scrap metal contractor in February of 2020. The remaining fuel container was cut up to be used as a burn bin and is still on site.

Fuel Shed showing all containers moved inside until disposal is available through Boulder County HAZMAT as well as old fuel containers removed for scrap.

- Soil where fuel containers were crushed has been mitigated and removed to designated Waste Rock Pile (see Map 1). This refuse soil will be properly disposed of when HAZMAT locations are re-opened. Fresh rock/soil was brought in to replace the compromised soil.

Caribou where old diesel containers were crushed has been cleaned/mitigated.

- Minor areas of oil staining outside of Cross Mine where employees park have been scraped and removed. Fresh soil/road base has been brought in to cover any areas of concern.

- Undetermined how/where floor drain in the Ore Building is managed. Therefore, the drain has been permanently sealed off and concrete poured over sealed floor drain.

Ore building floor drain has been permanently sealed.

5. Fuel Storage locations

- New 500g diesel container (not currently in use) will be used for all future storage of diesel on the property. It is double walled with secondary containment.
- 300g used oil container will be transferred to Ore building when fuel shed is emptied.
- Ore building to store all other fuel/oil in approved containers. Current inventory pictured below.

Ore Building hazardous storage.

- Small/portable fuel storage containers are kept in fireproof containers in front of the Cross Mine.

Cross Mine fuel storage.

6. Spill prevention measures

- Because the Cross/Caribou Mines have limited fuel and oil on-site, the spill prevention plan is basic. All the roads on-site have a 2-10-foot berm built in so that if there were to be a spill, it would be contained to the road.

- In the event of a spill on the road, the clean-up process would follow these guidelines:
    - **Assess the spill and determine whether help is needed.** Making sure that the source of the spill is isolated as soon as safely possible is paramount.
    - **Contain the spill to prevent it from spreading.** It is vital to keep an oil or fuel spill away from drains or water.
    - **Notify Supervisors and/or management that a spill has occurred.** If other local authorities need to be informed, management will make that decision.
    - **Always were Personal Protective Equipment (PPE).** PPE is a critical piece of dealing with any oil or fuel spill and cleanup.
    - **When possible, absorb the spill with absorbents.** The goal is to remove all the containment from the ground, even if it means digging up some soil where oil has penetrated the surface. 3M Oil Absorbent pads are kept stocked on site.
    - **Dispose of waste absorbent by placing it into sealed plastic bags.** The bags of refuse should be transported to a registered hazardous waste disposal site.

2-10' berms throughout the property act as containment barriers for any spill that should occur.

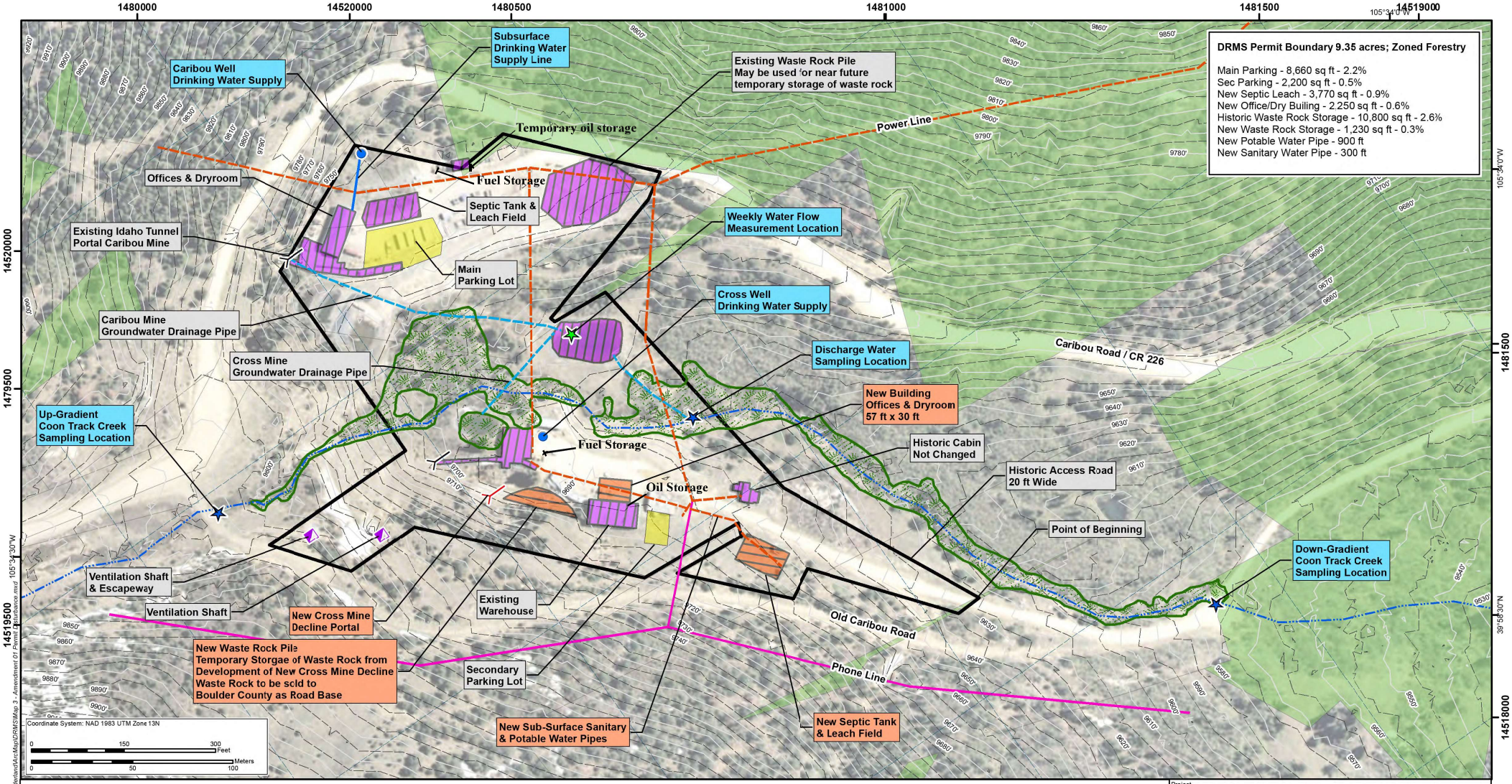
7. Floor Drains and storage

Due to the age of the property and lack of access to historical documents, no drawings or additional information were found during this discovery.

- Ore Building floor drain has been permanently sealed. No other floor drains in the building.
- Cross Mine Shop has no floor drains in the Shop. Only greywater is drained to a 500g vault. The Cross Mine utilizes an outhouse.
- Caribou Mine has two floor drains outside of the shop area. These two drains along with greywater from the building are drained to a 1000 gal. vault.

8. Proposed SPCC plan

Attached is the SPCC plan proposed by GIR. Upon approval of content and format, GIR will populate the form with all pertinent information and return the completed plan for final approval by DRMS. Please note, that all record keeping will be done digitally and managed via a data collection app.



Project
Cross Mine Technical Revision No. 5

Title
Amendment 01
Permit Disturbance

GRAND ISLAND RESOURCES

Project No. CO-0801			File No.		
GIS:	JST	04/23/20	Scale As Shown		Rev 0
Check:	BG	04/23/20	Map 3		
Review:	BG	04/23/20			

Spill Prevention, Control and Countermeasure (SPCC) Plan

Facility Name:	Cross Mine (M1977-410)
Address:	4415 Caribou Rd Nederland, CO 80466
Contact Name:	Richard Mittasch
Phone:	720.893.3749
Email:	rmittasch@nedmining.com

I. FACILITY INFORMATION

a. Facility Name:	Cross Mine (M1977-410)
b. Mailing Address:	PO Box 3395 Nederland, CO 80466
c. Physical address if different:	4415 Caribou Rd Nederland, CO 80466
d. Owner Name:	Grand Island Resources, Inc.
e. Site Contact Name:	Daniel Pollock
Work Phone Number:	720.207.5154
Mobile Phone Number:	312.342.6145
Email:	dpollock@nedmining.com

II. SITE ASSESSMENT

a. Location:

The Cross Mine site is located approximately 3 miles west of Nederland, Colorado adjacent to the Roosevelt National Forest, at an elevation of 9700 feet above mean sea level (MSL). The general location is parcels of land in Section 9, Township 1 South, Range 73 West of the 6 Principal Meridian, County of Boulder, State of Colorado, as shown on Map 1. This is an existing hard rock mining operation owned by Grand Island Resources Inc. (GIR), although at present, no active mining is being conducted. The entire permit area is on various properties either owned outright by GIR or granted through various lease agreements, as shown on Map 2.

III. FACILITY DESCRIPTION

a. Acres of land: 9.35

b. Facilities and Equipment:

Place an X beside all that apply.

___ Garage for vehicle processing
___ Parts store
___ On-site crushcr
____Impervious crush pad for crusher
___ Impervious pad for outside vehicle processing
___ Spill kit/emergency equipment
___ Refrigerant (Freon) extractor
___ Parts washer
___ Other structures and major equipment:

Please list: _____
_____
_____
_____
_____

c. Services:

Place an X beside all that apply.

___ Dismantler/Recycler
___ Sell used parts
___ Sell vehicles for scrap
____Crushing
___ Auto body/repair shop
___ Sell used cars
___ Other services:

Please list: _____
_____
_____
_____

d. Fixed Storage:

List capacity and contents of each storage container. For example, "One 6,000 gallon above ground tank containing diesel fuel." Be sure to include diesel, gasoline, waste oil, heating oil, kerosene, paint thinner and other solvents. Also describe the construction of the containers, secondary containment for each, liquid level indicators, alarms and method of corrosion protection for each container.

e. Non-Fixed Storage:

List capacity and contents of each storage container. For example, "One 55-gallon drum for recycled oil." Be sure to indicate what each container is used for; its condition and construction and how secondary containment is provided.

f. Total quantity of stored materials:

The combined quantity of the materials listed above: _____ gallons

IV. OIL SPILL HISTORY

Place an X on the appropriate line and proceed accordingly.

___ There has never been a significant spill at the above-named facility.

___ There have been one or more significant spills at the above-named facility. Details of such spill(s) are described below.

For each spill that occurred, supply the following information:

- Type and amount of oil spilled
- Location, date and time of spill(s)
- Watercourse affected
- Description of physical damage
- Cost of damage
- Cost of clean-up
- Cause of spill
- Action taken to prevent recurrence

V. POTENTIAL SPILL VOLUMES AND RATES

Fill in all applicable blanks. Be prepared to show the engineer documentation of flow rates. Your fuel vendor and the manufacturer of your storage and dispensing equipment should be able to provide this documentation.

Potential Event	Volume Released	Spill Rate
Complete failure of a full tank*	___ gallons	instantaneous
Partial failure of a full tank*	1 to ___ gallons	gradual to instantaneous
Tank overflow**	1 to ___ gallons	up to ___ gallons per minute
Leaking during unloading***	up to ___ gallons	up to ___ gallons per minute
Pipe failure****	up to ___ gallons	up to ___ gallons per minute
Leaking pipe or valve****	several ounces to gallons	up to ___ gallons per minute
Fueling operations****	several ounces to gallons	up to ___ gallons per minute
Oil and grease	several ounces to quarts	spotting

* Volume of largest tank
** Calculate using the rate at which fuel is dispensed from the delivery truck into your tank(s).
*** Calculate using the rate at which petroleum would be withdrawn from the tank if it should have to be emptied (*e.g.,* if it were being taken out of service).
**** Calculate based on the specifications of your equipment.

VI. SPILL PREVENTION AND CONTROL

a. Spill Prevention:

Provide specific descriptions of containment facilities and practices. Include description of items such as double-walled tanks, containment berms, emergency shut-offs, drip pans, fueling procedures and spill response kits. Also, describe how and when employees are trained in proper handling procedures and spill prevention and response procedures.

b. Spill discharge and flow:

For each potential spill source, describe where petroleum would flow in the event of a spill. For example, "The 6,000 gallon diesel tank has a pre-manufactured secondary containment system capable of holding 110 percent of the total volume of the tank" and, "A spill from engine repair would be contained inside the shop building and quickly cleaned up with oil absorbents." Incorporate site map by reference (see instructions under *Appendices*).

c. Spill response:

Identify what equipment would be deployed by whom and in what situation. Also, include phone numbers for response agencies, *e.g.,* U.S. Coast Guard, fire department, spill response contractors, etc. A copy of your spill response plan may be attached as an appendix to this SPCC plan in lieu of completing this section.

d. Security

Provide a description of how all containers are protected when the facility is not in operation or unattended. Include a description of fencing, access control, gates, locks, etc. that prevent access by unauthorized individuals.

VII. FACILITY INSPECTIONS

a. Routine Inspections

Name facilities and the frequency with which they are inspected. For example, "The fuel pumps are inspected daily. The materials storage area is inspected monthly." Describe all facility containers, piping, etc. that is to be inspected. Name the person who has responsibility to implement preventative maintenance programs, oversee on-site inspections, coordinate employee training, maintain records, update the plan as necessary, and ensure that reports are submitted to the proper authorities.

b. Annual Inspections

Include a description of annual comprehensive inspections. For example, "A site inspection is also conducted annually by appropriate responsible personnel to verify that the description of potential pollutant sources are accurate, that the map reflects current site conditions, and that the controls to reduce the pollutants identified in this plan are being implemented and are adequate. This annual inspection will be conducted above and beyond the routine inspections done focusing on designated equipment and areas where potential sources are located."

VIII. RECORD KEEPING

Describe record keeping procedures. For example, "Record keeping procedures consist of maintaining all records a minimum of three years. The following items will be kept on file: current SPCC plan, internal site reviews, training records, and documentation of any spills or maintenance conducted in regard to these sites."