APPENDIX P: Emergency Response Plan

APPENDIX P

Black Butte Copper Project
Mine Operating Permit Application
Emergency Response Plan
Revised April 24, 2017

Prepared for:

Montana Department of Environmental Quality

Prepared by:

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Revised
April 24, 2017

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1.0 INTRODUCTION

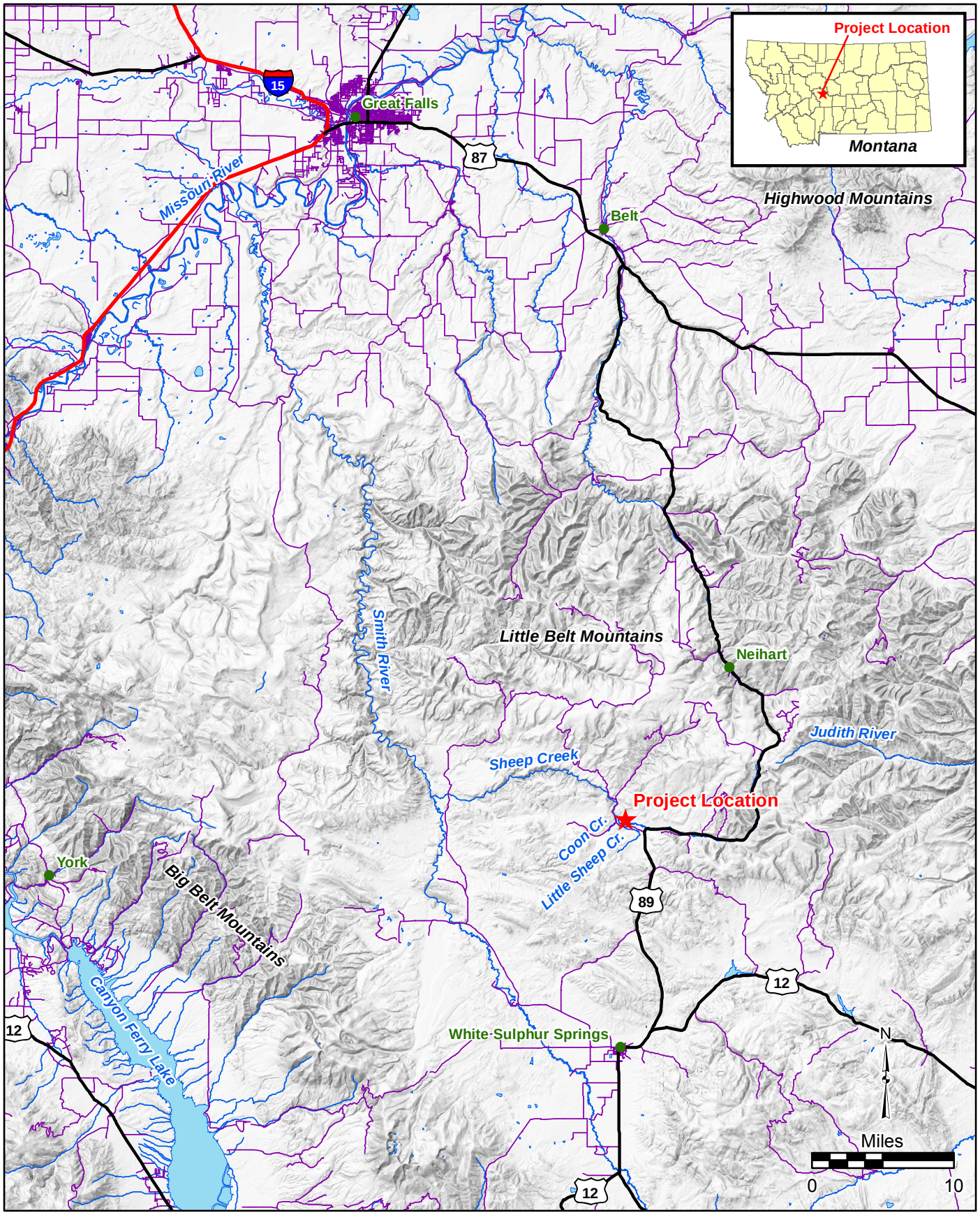
On December 15, 2015, Tintina Resources, Inc. (Tintina) first submitted a Mine Operating Permit (MOP) Application for its Black Butte Copper Project to the Montana Department of Environmental Quality (DEQ) Air, Energy & Mining Division – Hard Rock Mining Bureau for review and approval under the Montana Metal Mine Reclamation Act. The DEQ commented on this original document on March 10, 2016 and Tintina revised the document and responded to DEQ's comments on Revision 1 of the MOP on September 13, 2016. The Black Butte Copper Project is located approximately 15 miles (24 km) north of White Sulphur Springs, Montana (Figure 1). Figure 2 shows the proposed Black Butte Project Facilities and road access. DEQ requested that Tintina provide an updated and revised Emergency Response Plan for the project as a revised appendix for this MOP Application to address potential emergency situations that could endanger Tintina or contract employees, subcontractors, the public, or the environment.

The proposed operation will mine a total of approximately 15.3 million tons (13.9 million tonnes (Mt)) of combined copper-enriched rock and waste rock. This includes 14.5 million tons (13.2 Mt) of copper-enriched rock with an average grade of 3.04% copper, and 0.8 million tons (0.7 Mt) of waste rock. Mining will occur at a rate of approximately 1.3 million tons/year (1.2 Mt/year) or 3,640 tons (3,300 tonnes) of copper-enriched rock per day, over a mine life of approximately 19 years (including construction and reclamation). The mining company will directly employ approximately 240 workers, with an additional 24 contract miners working at the site during the first four years of mining. It will require a maximum of approximately 144 sub-contracted employees during the initial 30 to 36 months of the support facility construction.

This Emergency Response Plan describes response procedures that would be implemented in the event of various types of emergencies and includes sections on: emergency contacts, site evacuation plan, medical emergencies, spill response plan (including the location and sizes of above ground fuel tanks and secondary containment measures), storm water management plan, flood response plan and fire response plan. This spill contingency plan (included in this Black Butte Copper Emergency Response Plan in Section 4.0) has been provided to the state fire marshal as part of the MOP Application requirements (ARM 17.24.116(n)) and a letter stating this is included in Appendix A of this document.

In addition, to this Emergency Response Plan Tintina acknowledges that it must submit a formal Storm Water Pollution Prevention Plan (SWPPP) to the DEQ's Water Quality Bureau, and a Spill Prevention, Control and Countermeasures (SPCC) plan to the DEQ Permitting and Compliance Division Waste and Underground Tank Management Bureau prior to initiating construction on this project.

Tintina employees and contractors, overseen by the senior on-site supervisor, will act as first responders to all future construction / operational, underground and above ground mine emergencies. In such situations, mine personnel and mine rescue and fire equipment will be essential to the initial emergency response and will be backed-up by local community and area emergency support organizations. The Black Butte Copper Project priority call out list will be revised and formalized upon start of facility construction work and the underground decline, at which time major contractors will be added to the list. However, a current complete list of emergency contacts and Tintina employees is included below in Section 2.1.



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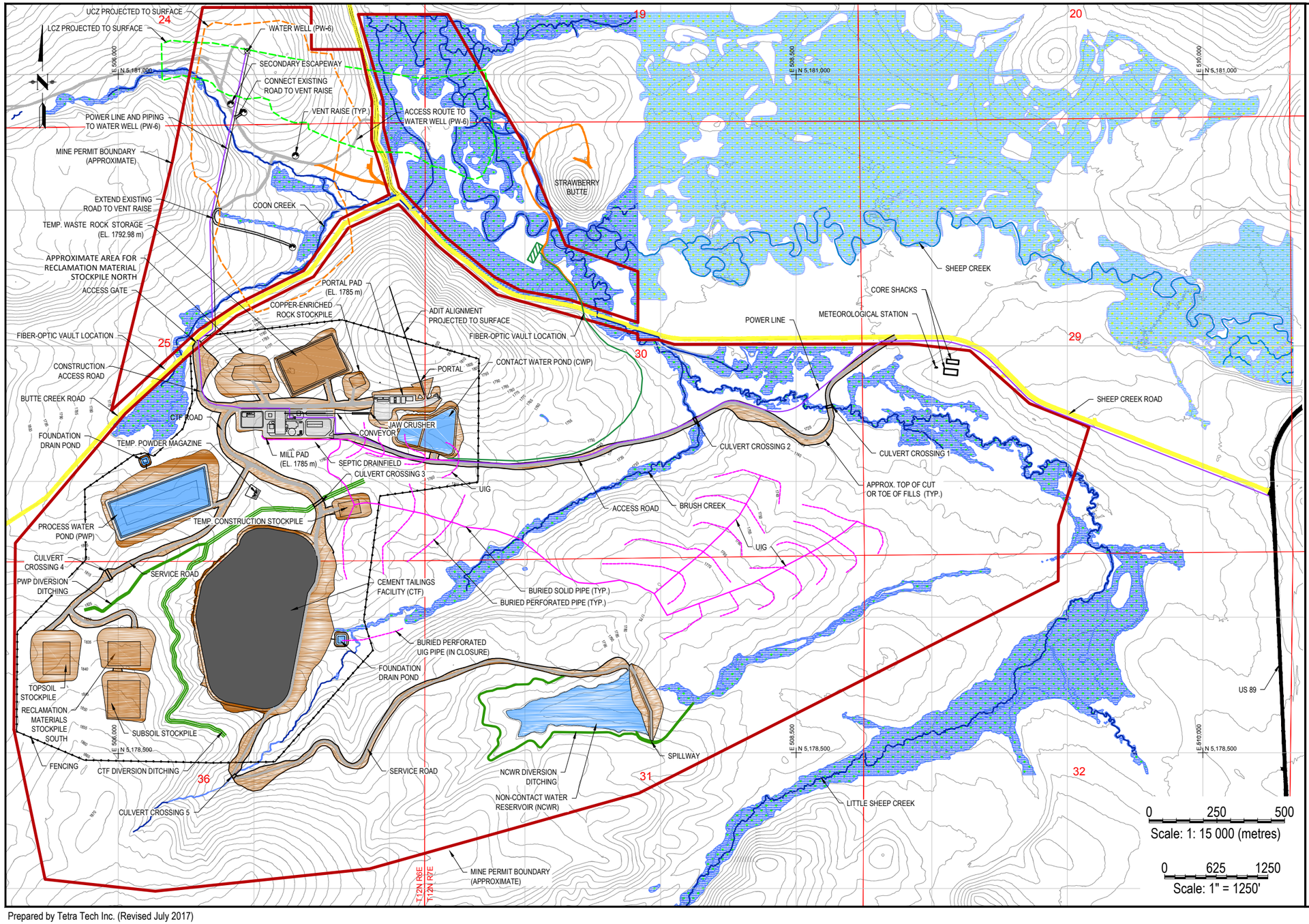
Prepared by Tetra Tech, Inc. 2015

Legend

- Project Location
- City
- Interstate
- U.S. Route
- Local Road
- Stream
- Lake

TINTINA RESOURCES

Figure 1
Project Location
Black Butte Copper Project
Meagher County, Montana



LEGEND

- STREAMS
- STREAMS (OUTSIDE PROJECT BOUNDARY: SEE NOTE BELOW)
- WETLANDS
- WETLANDS (OUTSIDE PROJECT BOUNDARY: SEE NOTE BELOW)
- US ROUTE 89
- COUNTY ROAD
- PRIVATE ROAD
- SECTION LINE
- 32 SECTION NUMBER
- E 1,000 N 1,000 UTM Z12N NAD83 COORDINATES
- LCZ PROJECTED TO SURFACE
- UCZ PROJECTED TO SURFACE
- MINE PERMIT BOUNDARY (APPROX.)
- NEW MINE ROAD
- NEW FENCE
- POWER LINE ROUTE
- APPROX. TOES / TOP OF CUT
- DIVERSION DITCH
- CULVERT CROSSING
- UNDERGROUND INFILTRATION GALLERY (UIG) - SOLID PIPE
- UNDERGROUND INFILTRATION GALLERY (UIG) - PERFORATED PIPE
- BURIED WATER LINE
- BURIED ALLUVIAL CONVEYANCE PIPELINE (ALLUVIAL INFILTRATION GALLERY)
- FOUNDATION DRAIN POND
- VENT RAISE
- WATER WELL

Some streams and wetlands shown outside of the project boundary were determined via photo-interpretation and were not delineated according to USACE methodology. These features are presented for display purposes only and do not represent jurisdictional features.

Streams within the project boundary represent jurisdictional features that were determined during field inventory to have an ordinary high water mark (OHWM) consistent with 33 CFR § 328.3.

Topographic base map from US Geological Survey (2011):
Strawberry Butte 7.5 Minute Quadrangle.
Map Projection: UTM Zone 12N
Map Datum: NAD83
Contour Interval: 5m

Prepared by Tetra Tech Inc. (Revised July 2017)

FIGURE 2
Facilities Site Plan
Black Butte Copper Project
Mine Operating Permit Application
Meagher County, Montana

TINTINA RESOURCES

2.0 EMERGENCY CALL LIST AND EVACUTION PLAN

During emergencies, ensuring the safety and well-being of people and protection of the environment at the emergency site are Tintina's staff priorities. The first response action to be implemented during emergency situations will be notification of the appropriate professional emergency services. Non-life threatening or minor injuries and events resulting in non- or low significance environmental impacts will warrant notification of Tintina management who will, in turn, notify the appropriate external entities or agencies.

In some situations it may be necessary for Tintina and contract employees and subcontractors to report to a designated rally point to ensure that all personnel are safe and accounted for. Further evacuation may also be warranted.

The following sections describe emergency notification, rally points, and evacuation procedures.

2.1 Emergency Notification

Table 1 lists emergency contact information for professional emergency services and Tintina management. Notification priorities are as follows;

- **Fatality, life threatening, or serious injury** – Notify appropriate emergency services (i.e., fire department, ambulance, or hospital) immediately. Notify Tintina senior on-site supervisor immediately or alternatively call Tintina managers from Table 1 in the order listed until a manager is reached. Tintina management will be responsible for further notifications of family members, the Mining Safety and Health Administration (MSHA), the Occupational Safety and Health Administration (OSHA), or other entities as warranted.

- **Significant environmental damage or release** – Notify appropriate emergency services immediately. Notify Tintina Emergency Response Team and on-site management immediately. Tintina management will be responsible for further notifications of regulatory agencies or other emergency response entities as warranted.

- **Large Fires** – Fires that cannot be safely extinguished by mine personnel will be immediately reported to the Meagher County Fire Department and/or the U.S. Forest Service Fire Center. Tintina management will then be notified as soon as possible.

- **Small Fires** – Fires that can be safely extinguished by mine personnel will be extinguished immediately and Tintina management notified as soon as possible.

- **Non-life threatening injury, requiring first-aid** – Notify appropriate emergency services if necessary to administer first aid. Notify Tintina management within 24 hours. Tintina management will be responsible for further notifications of family members, MSHA, OSHA, or other entities as warranted.

- **Minor environmental damage or release** – Notify Tintina management as soon as possible. Tintina management will be responsible for further notifications of regulatory agencies or other entities as warranted.

- **Potentially serious near-miss events** – Notify Tintina management within 24 hours.

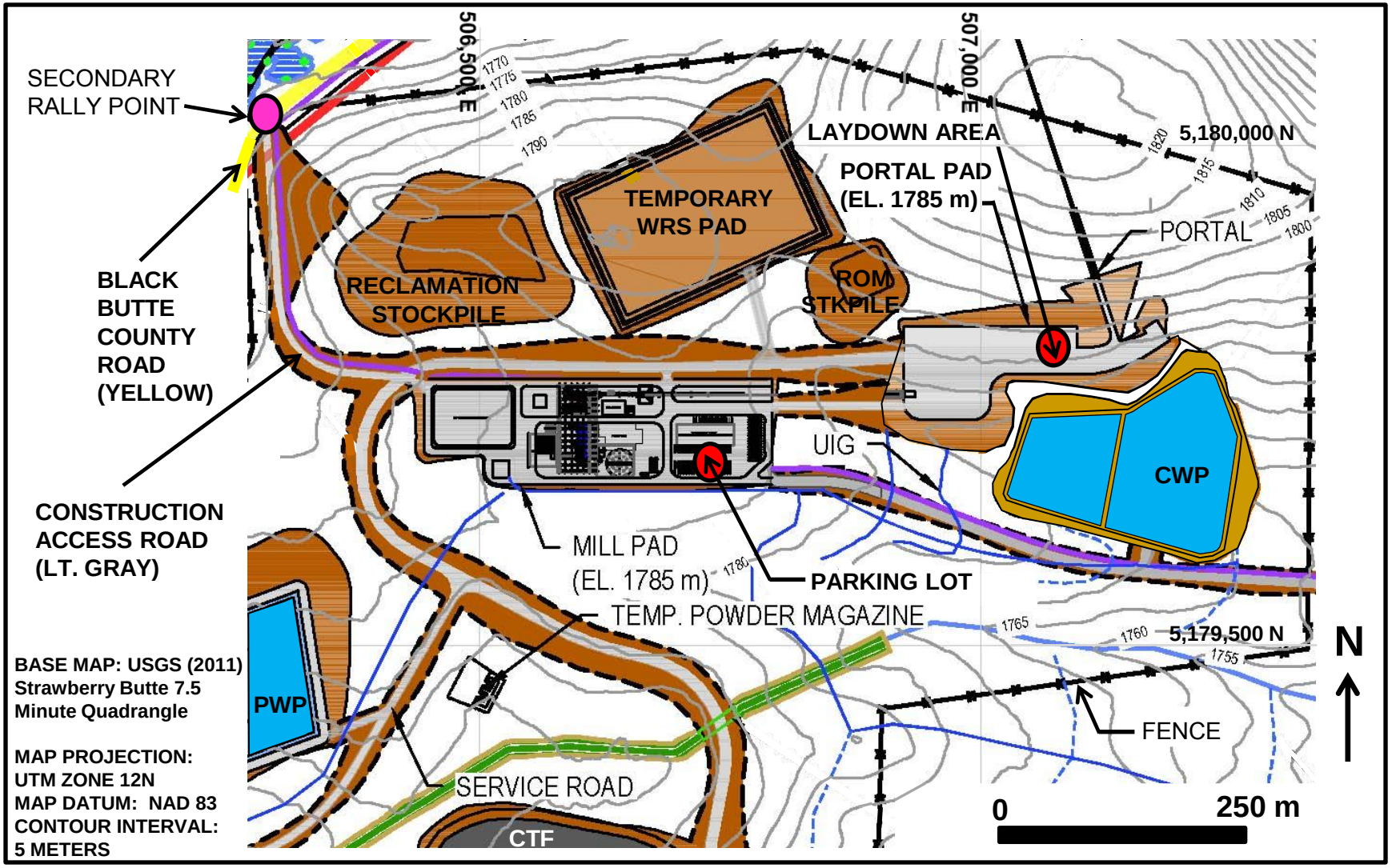
Table 1. Black Butte Copper Project Emergency Contact Information			
Contact	**Cell Phone**	**Office Phone**	**Location**
Site / Core Shed Location	--	(406) 547-3799	Lat. 46.772944 N Long. -110.880214 W 65 Sheep Creek Road
Site / Portal Location	--	Pending	Lat. 46.772671 N Long. -110.907545 W Butte Creek Road
Off-Site Emergency Response Services			
Fire/Ambulance Meagher County	911	(406) 547-3397	White Sulphur Springs, MT
Hospital Mountain View Medical Center	911	(406) 547-3321	16 West Main St White Sulphur Springs, MT
Transfer Hospital- Emergency Benefis - Great Falls	911	(406) 455-5200	1101 26Th St. Great Falls, MT
Transfer Hospital- Emergency St. Peter's - Helena	911	(406) 442-2480	2475 E. Broadway St. Helena, MT
Transfer Hospital- Emergency St. Vincent - Billings	911	(406) 237-7000	1233 N. 30th St. Billings, MT
Police Meagher County Sherriff Office	911	(406) 547-3397	White Sulphur Springs
Sherriff John Lopp	911	(406) 547-3397	White Sulphur Springs
US Forest Service - Fire Center	911	(406) 547-3361	Lewis and Clark NF
White Sulphur Springs Ranger District	--	(406) 547-3361	204 West Folsom White Sulphur Springs
Spill and Release of Fuel or Chemicals Call in the order listed until someone is reached.			
Montana Disaster and Emergency Services	--	(406) 841-3911	Helena, MT
Montana DEQ (Duty Officer)	--	(406) 431-0014	Helena, MT
National Response Center	--	1-800-424-8802	Washington, DC
Tintina Resources, Inc. Management Call in the order listed until someone is reached.			
Lead Mining Consultant Bob Jacko	(509) 279-9690	(406) 547-3466	Spokane, WA
VP Exploration Jerry Zieg	(509) 951-4068	(406) 547-3466	Spokane, WA
Environmental Mgr. Allan Kirk	(406) 581-7456	(406) 581-7456	Bozeman, MT
Senior Geologist Todd Johnson	(509) 688-9164	(406) 547-3466	Spokane, WA
CEO John Shanahan	(406) 475-4788	(406) 547-3466	Helena, MT
VP Communications and Corporate Secretary Nancy Schlep	(406) 224-8180	(406) 547-3466	White Sulphur Springs, MT
Senior Field Technician Chance Matthews	(406) 403-8180	(406) 547-3466	White Sulphur Springs, MT
Office Manager Alysha Wilson	(406) 853-3881	(406) 547-3466	White Sulphur Springs, MT

2.2 Rally Points

Emergency situations such as fire, explosions, flooding, bomb threats, etc. will require an accurate accounting of on-site personnel to assure that they are present and accounted for prior to organizing and initiating subsequent evacuation or other response actions. Personnel in the vicinity of the mine portal and support area would be notified of the need to assemble at a predetermined rally point by an alarm system. All personnel will be required to assemble at the specified rally point (Figure 3) immediately upon hearing the appropriate signal alarm according to the following:

- **Administration and Mill personnel** –
    - **Primary rally location**
        - at the parking lot located immediately south of the Truck Shop Complex and Administration Building (Figure 3).
        - **Alarm signal** = air horn, **three (3)** short blasts
    - **Secondary rally location –**
        - at the junction of Butte Creek Road and access road to site (located northwest of the Reclamation Material Stockpile area (Figure 3)
        - **Alarm signal** = air horn **two (2)** short blasts followed by one long blast
- **Underground personnel** –
    - at the laydown area on the Portal Pad located immediately west/southwest of the portal. Contractors and staff working in the temporary office trailers on the portal pad in the early years (first 2 to 3 years) will also use this rally point.
    - **Alarm signal =** stench gas warning system – most commonly used fire warning system in underground mines. It employs the injection of a stench into the ventilation system for carrying the fire warning signal to the underground miner.

Security personnel will keep a head-count of every individual on the mine site during any given shift. Head-counts conducted at the rally point will be compared to the security head-counts and Tintina and contract employee and sub-contractor lists to ensure that all employees are accounted for.



Prepared by Tintina (2016)

TINTINA RESOURCES

PRIMARY RALLY POINT

SECONDARY RALLY POINT

Figure 3
Facility Plan Map Showing the Rally Points
Mine Operating Permit Application
Meagher County, Montana

2.3 Evacuation

In the event that the project site must be evacuated, evacuation procedures, timing, methods of transportation and routes would be communicated to Tintina and contract employees and subcontractors assembled at the rally points described above in Section 2.2. The most likely two evacuation routes would be either along the main project access route east to the intersection of the Sheep Creek (county) road and from there to US Highway 89; or by heading west from the portal area to the intersection of the access road and Butte Creek Road then northeast to Sheep Creek (county) road and then east to US Highway 89 (Figure 4). Total average distance is about 2.5 miles (4.0 km).

If this evacuation route is impassable (e.g. fire or flooding) two alternate evacuation routes (conditions permitting, summer and fall) have been identified, both of which begin by travelling west on the Butte Creek Road (Forest Road 6492). The Miller Creek Access route (Figure 4) travels west from the project site on the Butte Creek Road (Forest Road 6492) for about 1.5 miles (2.4 km), then turns south onto Forest Road 6492-A for about 1.5 miles (2.4 km), then turns south again on Forest Road 831 for about 8 miles (12.9 km) and ends up travelling east down Miller Gulch to the Junction of US Highway 89. Total distance is about 11 miles (17.7 km).

The second alternate route, the Butte Creek Access route (Figure 4), travels west from the project site on the Butte Creek Road (Forest Road 6492) for about 14 miles (22.5 km) and then turns south onto the Smith River Road for 5 miles (8.0 km), to the Junction of County Road 360, then follows County Road 360 for about 16 miles (25.8 km) to the Junction of Highway 89 on the west end of the town of White Sulphur Springs. Total distance is about 35 miles (56.3 km).

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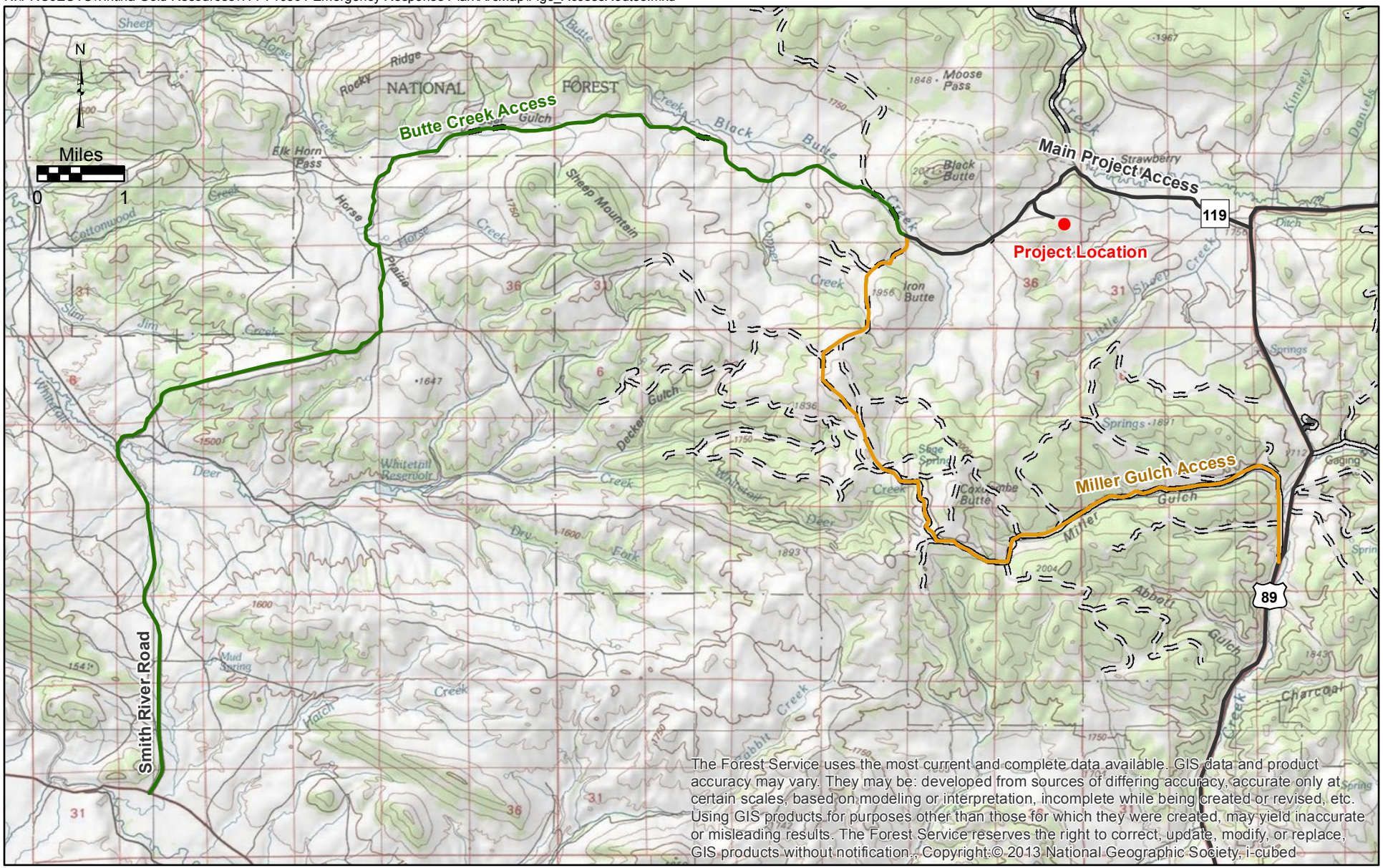


Prepared by Tetra Tech, Inc. 2013

- Project Location
- Main Project Access
- Butte Creek Access
- Miller Gulch Access
- Paved Road
- Gravel Road, Suitable for Passenger Car
- Dirt Road, Suitable for Passenger Car
- Road, Not Maintained for Passenger Car

TINTINA RESOURCES

Figure 4
Access Routes
Black Butte Copper Project
Meagher County, Montana

3.0 MEDICAL EMERGENCIES

As specified in Section 2.1, emergencies services are to be notified immediately in the event of any life-threatening or serious injury, and the contacts and telephone numbers for off-site emergency response services are provided in Table 1.

Members of the mine crew may be – and often are – certified as Emergency Medical Technicians (EMTs), and if such certified personnel are available in the event of a medical emergency they may be called upon to render aid. However, 24-hour ambulance/EMT service is available and should be dispatched from White Sulphur Springs if warranted by the nature of the emergency.

If it becomes necessary for Project personnel to transport an injured person or persons to a hospital emergency room, the nearest hospital is Mountain View Medical Center (Mountain View) in White Sulphur Springs at 16 West Main Street (the main highway through town).

If a medical emergency requires services beyond those available at Mountain View, three regional hospitals have been identified as transfer emergency medical facilities. The nearest transfer hospital is St. Peter's located in Helena, Montana. The other possible transfer hospitals are Benefis Health System in Great Falls, Montana and St. Vincent Hospital in Billings, Montana.

If a patient evacuation to one of these transfer hospitals becomes necessary, ambulance service from Mountain View in White Sulphur Springs should be used if at all possible, but in the event such ambulance service is not available, Project personnel may be required to transfer an injured worker or injured workers to one of the three transfer hospitals.

3.1 Directions to Area Hospitals

Directions and related maps (Figures 5 to 8) to the four hospitals are provided below. For each medical destination, written directions and miles are provided along with a Google map of the route. Addresses and telephone numbers of the hospitals are also provided.

For Mountain View in White Sulphur (Figure 5), the directions are from the core shacks located south of the Sheep Creek Road in the northeast most portion of the Mine Permit area.

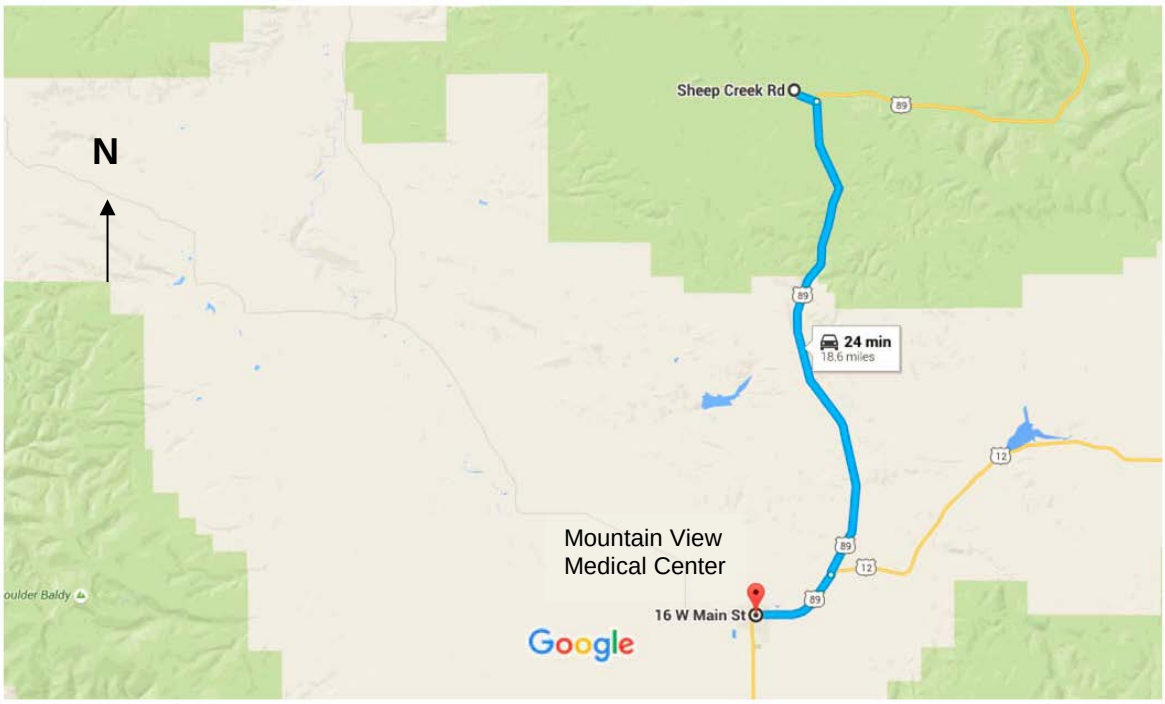
For Benefis in Great Falls (Figure 6), St. Peter's in Helena (Figure 7), and St. Vincent in Billings Figure 8), the directions begin at Mountain View Medical based on the assumption that a patient or patients would first be transported directly to Mountain View. However, in the event the transport to either Great Falls, Helena, or Billings is directly from the Project site, the routes would be altered as indicated for the three hospitals below.

If traveling directly from the Project site to St. Vincent in Billings, take Sheep Creek Road to U.S. Highway 89, then turn right (south) and travel on Highway 89 approximately 16 miles (25.8 km) south to the junction with U.S. Highway 12 E, turn left (east) and proceed as in Step 3 above.

3.1.1 Directions to Mountain View Medical Center, White Sulphur Springs

Driving directions: Black Butte Copper core shed - Mountain View Medical Center (18.5 mi)	
1. Begin at Core Shed on Sheep Creek Rd	
2. Proceed southeast on County Road 119/Sheep Creek Rd	
3. Continue on County Road 119/Sheep Creek Rd to US HWY 89N	0.7 mi
4. Turn right (south) onto US HWY 89N	
5. Continue south on US HWY 89N	15.0
6. Turn right (west) on US HWYs 12W/89N	
7. Continue west on US HWYs 12W/89N to White Sulphur Springs	2.8 mi
8. Upon entering White Sulphur Springs, hospital is on the left	
Total miles	**18.5**
Mountain View Medical Center 16 W Main St White Sulphur Springs, MT (406) 547-3321	

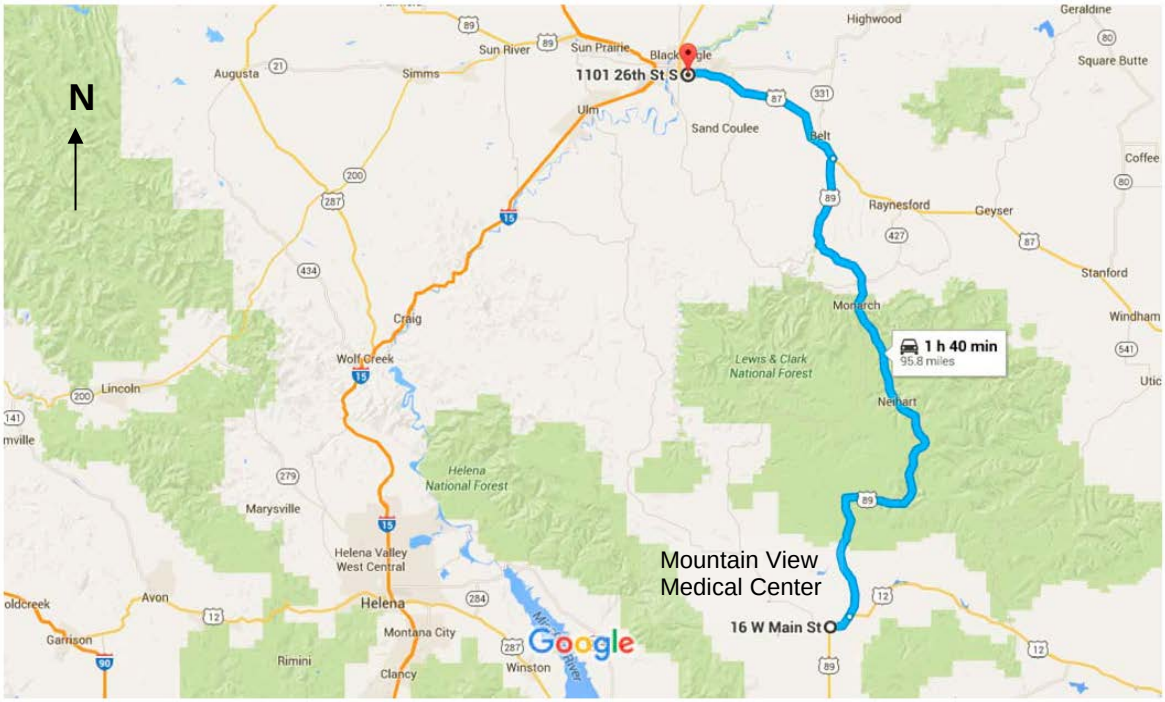
Figure 5. Map Showing the Route from the BBC Project site to Mountain View Medical Center in White Sulphur Springs.



3.1.2 Directions to Great Falls Benefis Hospital

Driving directions: Mountain View Medical Center, White Sulphur Springs - Benefis Hospital Emergency, Great Falls, MT (95.7 miles)	
1.Proceed east from 16 W Main St (US HWYs 12E/89N), White Sulphur Springs	
2. Continue east on US HWYs 12/89 to junction of US HWY 12 and US HWY 89	2.8 mi
3. Turn left (north) onto US HWY 89N	
4. Proceed north on US HWY 89N	71.2 mi
5. Turn left (west) onto MT HWYs 200W/3N /US HWYs 87N/89N	
6. Proceed west to Great Falls	21.6 mi
7. Turn left onto 26th St S	
8. Hospital is on the left	0.1 mi
Total miles	**95.7**
Benefis Hospital Emergency 1101 26th St S Great Falls, Mt 59405 (406) 455-5200	

Figure 6. Map Showing the Route from Mountain View Medical Center to Great Falls Benefits Hospital.

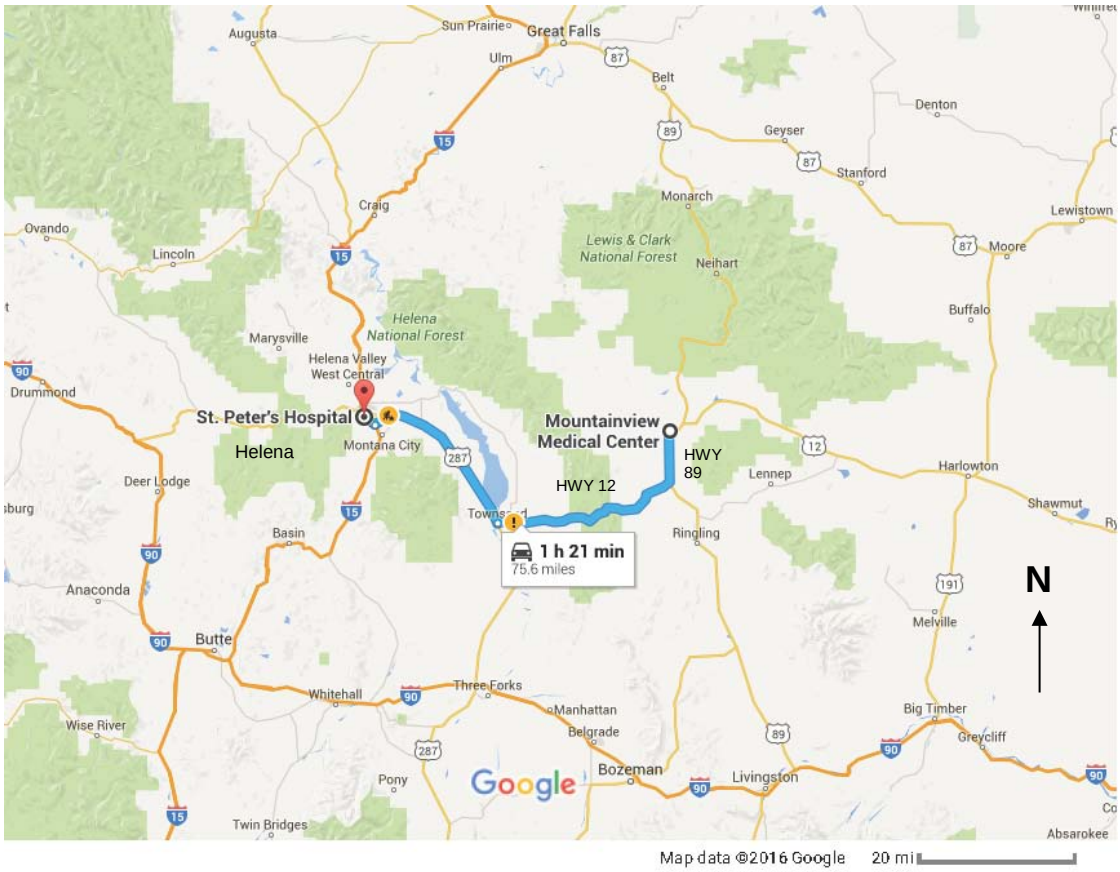


If traveling directly from the Project site to Benefis in Great Falls, take Sheep Creek Road to U.S. Highway 89, then turn left (north) and proceed as in Step 4 above.

3.1.3 Directions to St. Peter's Hospital, Helena

Driving directions: Mountain View Medical Center, White Sulphur Springs - St. Peter's Hospital Emergency, Helena (75.6 miles)	
1. Proceed west from 16 W Main St (US HWYs 12E/89N), White Sulphur Springs	
2. Turn left at the first cross street onto US HWY 12W/3rd Ave. SW	0.1 mi
3. Continue west on US HWY 12W to junction with US HWY 287N	42.0 mi
4. Turn right (west)) onto US HWY 287N	28.5 mi
5. Turn left (south) onto HWY 282	2.6 mi
6. Turn right (northwest) onto Colonial Dr.	1.1 mi
7. At the traffic circle, continue straight to stay on Colonial Dr.	1.1 mi
8. Turn left (west) onto E. Broadway St.	0.3 mi
9. Hospital is on the left	
Total miles	**75.6 mi**
St Peter's Hospital-Emergency 2475 East Broadway St. Helena, Mt 59601 (406) 442-2480	

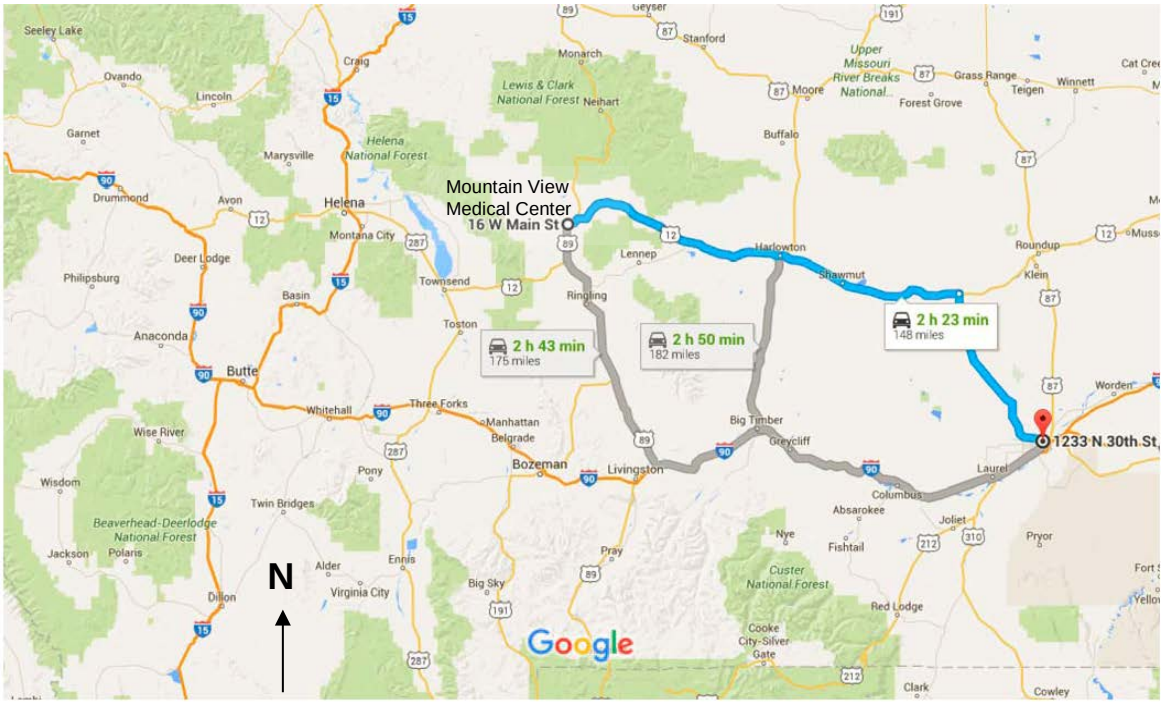
Figure 7. Map Showing the Route from Mountain View Medical Center to St. Peter's Helena Hospital.



3.1.4 Directions to Saint Vincent Hospital, Billings

Driving directions: Mountain View Medical Center, White Sulphur Springs - St. Vincent Hospital Emergency, Billings (147.8 miles)	
2. Proceed east from 16 W Main St (US HWYs 12E/89N), White Sulphur Springs	
2. Continue east to 12E/89N junction - stay on US HWY 12E heading east	2.8 mi
3. Continue east on US HWY 12E to junction with MT HWY 3S	100.2 mi
4. Turn right (south) onto MT HWY 3S	
5. Proceed south on MT HWY 3S to Billings	43.3 mi
6. Keep right to continue toward N 27th St	0.2 mi
7. Veer right onto N 27th St	
8. Continue south on N 27th St	1.1 mi
9. Turn right (west) onto 12th Ave N	0.2 mi
10. Turn right onto N 30th St	194 ft
11. Hospital is on the right	
Total miles	**147.8**
St Vincent Hospital-Emergency 1233 N 30th St Billings, Mt 59101 (406) 237-7000	

Figure 8. Map Showing Route from Mountain View Medical Center to Saint Vincent Hospital in Billings.



4.0 SPILL RESPONSE PLAN

This Emergency Spill Response (contingency) Plan is intended to prevent the discharge of hydrocarbon and other chemical products to the environment. The objectives of the plan are to prevent the occurrence of spills, to control spills should they occur, and to outline strategies for spill clean-up. The plan provides essential information and the protocols to follow in the event of a hydrocarbon or chemical spill. Any leak, spill, or release outside containment areas must be reported to Tintina's Environmental Manager immediately, and a spill report must be completed on every release. The appropriate reporting forms including those for post-response clean-up can be found during the construction phase of the project in the Construction Operations and/or Underground Mine office at the site. During the operational phase of the project, reporting forms can be found in the Mine Administrative Offices.

Prior to beginning of construction operations at the Black Butte Copper Project site, the Montana DEQ and the State will be required to review and approve a permit for Tintina's final formal Spill Prevention Control and Countermeasures (SPCC) plan. The state fire marshal and Meagher County Fire Warden have been notified that the Spill Response Plan (and Emergency Response Plan) has been filed with the Montana DEQ (see Appendix A of this document) as part of the MOP Application to satisfy ARM 17.24.116(n).

4.1 Types of Spills and Releases

Incidents involving hydrocarbons, most notably diesel, gasoline, oil and other lubricants are some of the most common environmental incidents which occur on construction sites and operational sites.

The following are general procedures for chemical spills/releases:

- **Contained spill –**
  - Inside containment or a bermed area (none of the material has escaped).
  - Spilled substance can be identified and there is no risk of fire/explosion.

- **Controlled spill**
  - Outside a contained area but spill is too small to spread off site.
  - Spilled substance can be identified and there is no risk of fire/explosion.

- **Uncontrolled spill**
  - Outside a contained area and surface (or underground) contaminant flow moves from the spill site.
  - This type of spill has the potential to enter the drainage system that flows away from the mining property.

In addition, any spillage of acid-producing materials onto unlined surfaces will be collected in two different ways (described below) that is dependent upon the facility location and the drainage flow directions that are ultimately controlled by installed drainage controls and the existing site topographic conditions as shown on Figure 2 (Facilities Site Plan), Plate 1 (Site Drainage Control), and/or Figure 3.43 (Pipeline Plan Map) of the MOP Application.

In the northern part of the project (generally located north of the intersection of the CTF haul road and the CTF diversion ditch) the "contact" water from the haul road, mill pad, portal pad,

WRS pad, copper-enriched stockpile, PWP, and CWP will be diverted using drainage controls (lined drainage ditches and/or pipe and pipe trenches) to the CWP.

In the southern part of the project (generally located south of the intersection of the CTF haul road and the CTF diversion ditch), the "contact" water and storm water from the haul road will be diverted to the south using drainage controls (identified above, and illustrated on Plate 1) to the CTF foundation drain pond. The solutions from the CTF foundation drain pond will then be piped (and pumped) back to the north/northeast to the water treatment plant and / or the PWP (or to the CWP during construction) as shown on Figure 3.43 Pipeline Plan Map) in the MOP Application. The berms along the haul roads will have openings at any number of site-specific locations (determined during construction) to prevent excessive water flows and eliminate the erosion concerns resulting from storm-water diversion.

4.2 General Rules for Responding to a Spill or Release

- Containment and cleanup activities shall only be performed as directed by trained safety and/or environmental personnel.

- When handling chemicals, personnel must be familiar with and know the location of the Material Data Sheets (MDS) and Safety Data Sheets (SDS) for that particular material. MDS and SDS binders are located in the Operations/Administration office and all Warehouse/Service Storage areas where chemicals are stored or used.

- All persons not needed to help with spill remediation activities, or who are at risk, will leave the area.

- If the spill has breached the operations (mine permit) boundary, the affected landowners (Forest Service, Meagher County and surrounding private land owners) will be immediately notified by the mine General Manager. Permission for clean-up must be given by the landowner. Every effort will be made to keep wildlife and livestock out of the contaminated area if the spill would be harmful.

- Refer to Section 3.0 for any injuries requiring medical attention.

Critical steps in managing spills and releases are as follows:

- Determine the location/source of leaks,
- Identify the leaking material,
- Assess personnel protective equipment (PPE) requirements,
- Stop the leak,
- Isolate and contain the spilled material,
- Management and agency notifications,
- Spill cleanup and disposal of material, and
- Investigation of the cause of the spill.

In all cases, the response procedure for a spill or release is as follows:

- Safety and detection
    - Assess safety situation for yourself and others

  - If you cannot identify the substance, evacuate immediately and contact emergency personnel
  - If there is a risk of fire or explosion, evacuate immediately and contact emergency personnel
  - Shut off ignition source(s)
- Trace source
  - Put on appropriate PPE
  - Trace the source of the spill
  - Determine if spill is continuing
- Stop or control
  - Stop or control the leakage by shutting valves, plugging holes, constructing berms, moving mobile equipment—only if it is safe to do so
- Emergency notification
  - Contact Emergency Response Personnel
  - Contact the on-call Environmental Personnel
  - Contact on-site Project Supervisor
- Secure area
  - Divert traffic and people away from the immediate area; evacuate if necessary
- Contain
  - Contain the leakage using temporary berms or other response specific materials
- Recover product
  - Recover any free liquid into hazmat approved containers if possible
  - Recover absorbent pads, etc.

- Clean up
  - Clean up the spill by pumping, absorbing, chemically treating
  - Do not spread or dilute spills with degreasers, detergents or water
  - Remove the spilled product as directed by environmental department representative
  - Remove contaminated soil to an appropriate area as directed by environmental department representative

- Report spill and all clean-up efforts
  - The supervisor of the scene will report the incident and the efforts of clean up and disposal using all forms and memorandum found at Operations Office and notify on-site Environmental supervisor
  - Environmental supervisor will then notify Safety personnel and the General Manager
  - Depending on the severity of the spill the General Manager will notify the outside authorities of the situation
- Replace Used Equipment
  - Any equipment or materials consumed in the clean-up operation should be replaced as soon as possible
- Monitor
  - Monitor the spill site to validate effectiveness of the clean-up and impact on the environment

4.3 Reportable Quantities and Agency Notification

Petroleum releases from regulated above ground storage tanks (AST) must be reported to DEQ within 24 hours of being detected as required by ARM 17.56.501. DEQ must be notified of releases of greater than 25 gallons (94.6 liters) of petroleum from an AST. Petroleum releases less than 25 gallons (94.6 liters) in volume must be contained and cleaned up within 24 hours. If cleanup cannot be completed within 24 hours, owners and operators must report the release to DEQ.

Releases and spills of reportable quantities will be reported immediately to the state's Disaster and Emergency Services (DES) 24-hour phone number (406) 841-3911. If no one can be reached at that number, the release or spill may be reported to the Montana Department of Environmental Quality (DEQ) duty officer at (406) 431-0014. Spills may also be reported to the National Response Center (NRC), at 1-800-424-8802 which is staffed 24 hours a day, 365 days per year.

4.4 Mine Phases

The proposed Black Butte Copper Mining Project will be conducted in two phases: a start-up surface / underground decline construction phase, and an underground mining and operational phase. The following sections will describe each facility containing hydrocarbons and/or using other chemical products associated with these two mine phases.

4.4.1 Start-up Surface / Underground Decline Construction Phase

The start-up surface / underground decline construction phase of the mine project will begin at the onset of the mine project and take approximately 2.5 years to complete (until the PWP and CTF are completed, and mill becomes operational). This start-up phase will include construction of access roads, surface excavations, and site grading in preparation for the construction of all of the surface mine support facilities, and the initial years of the underground mine portal and decline (tunnel) development. All construction will occur on private property. Surface construction will prepare the site access roads and the portal pad facilities including: waste rock storage facilities, copper-enrich rock storage pad, dry/change house, office, shop / warehouse, power supply building, fuel/oil storage and wash/lube pad building, and the portal collar and initial decline mine access ramps. Other off-portal pad facilities that will be constructed during this phase include: other access / service roads, the mill pad, the cemented tailings facility (CTF), the temporary waste rock storage (WRS) pad, the contact water pond (CWP), the process water pond (PWP), a temporary concrete batch plant located on western end of the mill pad laydown area to be used during construction, subsurface underground infiltration galleries (UIG), soil stockpiles, a temporary surface explosive magazine, domestic water supply and storage facilities, water treatment plant (located on the mill pad), pipelines, and septic and drain field facilities. Construction will involve the use of heavy surface construction equipment including dozers, excavators, scrapers, haul trucks, loaders, grader, compactors, water truck and construction personnel transport equipment.

Most of the constructed support facilities located on the portal pad for this start-up phase are temporary and shown in Figure 9 (Plan Map of the Portal Pad Showing Contractor Support Facilities) and most will be removed prior to starting the following mining / operational phase once more permanent operational facilities are constructed on the mill pad. The portal pad facilities will be constructed prior to and during the initial phases of underground excavation of the decline. The portal pad will contain support facilities including: decline portal collar, office, dry / change house, shop / warehouse and power supply building, two 20 x 20 foot (6 x 6 meter) diameter

round water storage tanks each capable of storing 6,000 gallons (22,712 liters), a fuel/oil storage and wash/lube pad building, and a lay-down area. Other off-portal pad facilities include a temporary surface explosive magazine, and domestic water supply and storage. The only facilities on the portal pad that will remain for the mine operations phase include: the two 20 x 20 foot 6,000 gallon (22,712 liter) water tanks, a propane tank (to seasonably supply heaters for the underground air intakes), and portable toilet(s).

During the transition from surface to underground construction in the start-up phase, as support facility buildings are completed on the portal pad, fueling, fuel and hazardous material storage areas will be constructed in eastern-most of the two 50 x 80 foot (15 x 24 m) fabric covered, insulated, steel truss arch buildings, constructed on a concrete slab (Figure 9).

The eastern 50 x 80 foot (15 x 24 m) fabric-covered building on the portal pad (labeled WPDSL, Figure 9) will serve as the Fuel / Oil Storage, Wash/Lube Pad and Mobile Equipment Shop / Repair Building and will have built in containment for fuel storage, lubricants and shop fluids. This facility will provide above ground fuel and oil storage (tanks), contain a fueling station and lubrication bays, and a wash pad for equipment. The entire concrete pad for the building will slope to a perimeter foundation curb on the outside and toward one end of the pad. The wash pad will slope into a sediment sump built into the concrete pad that can be cleaned with a piece of mobile equipment. The sediment sump overflows into a hydrocarbon skimming and sediment settling sump. The underflow from this sump will report to a “grey” water sump that will be pumped into a wash pad water recycle system for further cleaning prior to reuse. Wash pad sediments and oil-skimming residues will be collected and hauled off-site by a licensed hazardous waste disposal company. The fuel/lube storage area will be surrounded by hydrocarbon containment sump which will be sized for 110% containment of the total tank capacities located in the facility.

The early start-up surface / underground decline construction phase of the Project, will utilize both diesel and bio-diesel products as well as a smaller volume of gasoline. Two large diesel storage tanks are planned in this early phase along with day tanks that will be placed on appropriately design concrete pads within the WPDSL building (Figure 9). The planned above ground fuel-storage tanks for the early startup phase will include:

- 8,000 gallon (30,283 liter) double walled tank (diesel)
- 6,000 gallon (22,712 liter) double walled tank (bio-diesel)
- 1-500 gallon (1,892 liter) double walled tank (gasoline)
- 1-500 gallon (1,892 liter) day tank (diesel generator)
- 1-250 gallon (1,136 liter) day tank (diesel generator)

A fuel and lubricant truck will be used to dispense fuel to mobile equipment and fueling stations will be constructed at the fuel storage tanks. The fuel station will be located on concrete pads with spill containment to capture potential spills.

Various oils and anti-freeze necessary for mine operations will also be stored on the same concrete pad as the fuel tanks. A small connectivity exchange (Conex) unit or semi-van trailer will be located within a containment area near the fuel tanks to complete the fuel/lube station that will store a number of potential pollutants including in five-gallon buckets and quarts): lubricants, oils, fuel additives, antifreeze/coolants, cleaning fluids, and other similar material. It is estimated that there will be approximately 2,000 gallons (7,571 liters) of various oils, including storage for used oil. No fuel is expected to be stored in the underground workings. All hazardous materials (fuels, waste lubricating oil, hydraulic fluid, antifreeze, and other similar waste) will be stored in

U.S. Department of Transportation (DOT) approved containers with secondary containment, and labeled by specific fluid type. Used oil will be collected and hauled offsite by a licensed hazardous waste disposal company.

During this start-up surface construction and initial underground decline development phase, emergency spill response kits will be located in: (1) the Conex unit in the storage/containment area near the WPDSL building on the portal pad (Figure 9), (2) in the shop / warehouse building (Figure 9), and (3) at the core shacks located on the northeastern side of the mine permit boundary area.

The western-most 50 x 80 foot (15 x 24 m) fabric-covered building (labeled Shop, Figure 9) on the portal pad will be constructed on a concrete slab to serve as the Shop / Warehouse and Power Supply Generator Building This facility will be used as a fabrication / maintenance shop and equipment repair area.

Although line power is available near the site, it does not have sufficient power to support the anticipated first 2.5 years of mining and construction support activities. Therefore, two on-site generators are planned for the Project start-up and will continue to provide power until adequate line power and an electrical substation is available at the site. These generators will then be used as back-up power sources in the case of line power failure. The generators will be housed in or adjacent to the Shop / Warehouse building on the portal pad (Figure 9). One generator (a 545 kW unit) will be the primary source of power until line power is provided to the site, and then will be used as a back-up generator in the case of line power failure. This generator will be housed in a van-trailer with a “day-use” diesel fuel tanks of approximately 500 gallons each and containment will be provided for 2 -500 (1,892 liter) gallon day-use fuel tanks. A 320 kW backup generator will provide emergency backup power for the underground pumps, vent fans, and shop in the event the main generator power supply is disrupted. The 320 kW generator will be skid mounted and has a “day” fuel tank with approximately 250 gallons of fuel on board. Containment will be provided for 500 and 250 gallon day-use fuel tanks on the generators. The generators will be alternated during use. Once adequate line power and substation are operational these generators will then be used as emergency back-up power sources in the case of line power failure. The building will also provide warehouse space to store supplies, parts, small quantities of lubricants and other items.

Fuel will be transferred from the fuel storage area to the generator’s day-use tanks (on the portal pad) as needed. Most of the underground equipment will be electric or diesel powered. On-site generated electricity will be used to provide underground and surface electrical transmission to power underground pumps, vent fans, and equipment as well as the shop and WPDSL buildings. Power will also be distributed to pumps in the CWP area, and distribution lines will be buried between the generators housed in or adjacent to this building and the portal and other facilities.

4.4.1.1 Underground Decline Construction Phase

The underground mine development associated with this early construction phase will include: establishing the mine portal collar, driving the development decline (ramp access to reach the mineable copper-rich deposit units), installation of utilities (including underground power, water and air lines), and establishing the underground infrastructure (sumps, pump stations, ventilation, ventilation raises and secondary escape ways). Related infrastructure requirements include: contact water diversion ditches, contact water pond (CWP) with partitioned brine storage, the

waste rock storage facility (WRS) with seepage collection system, water treatment plant construction on the mill pad, and underground infiltration galleries.

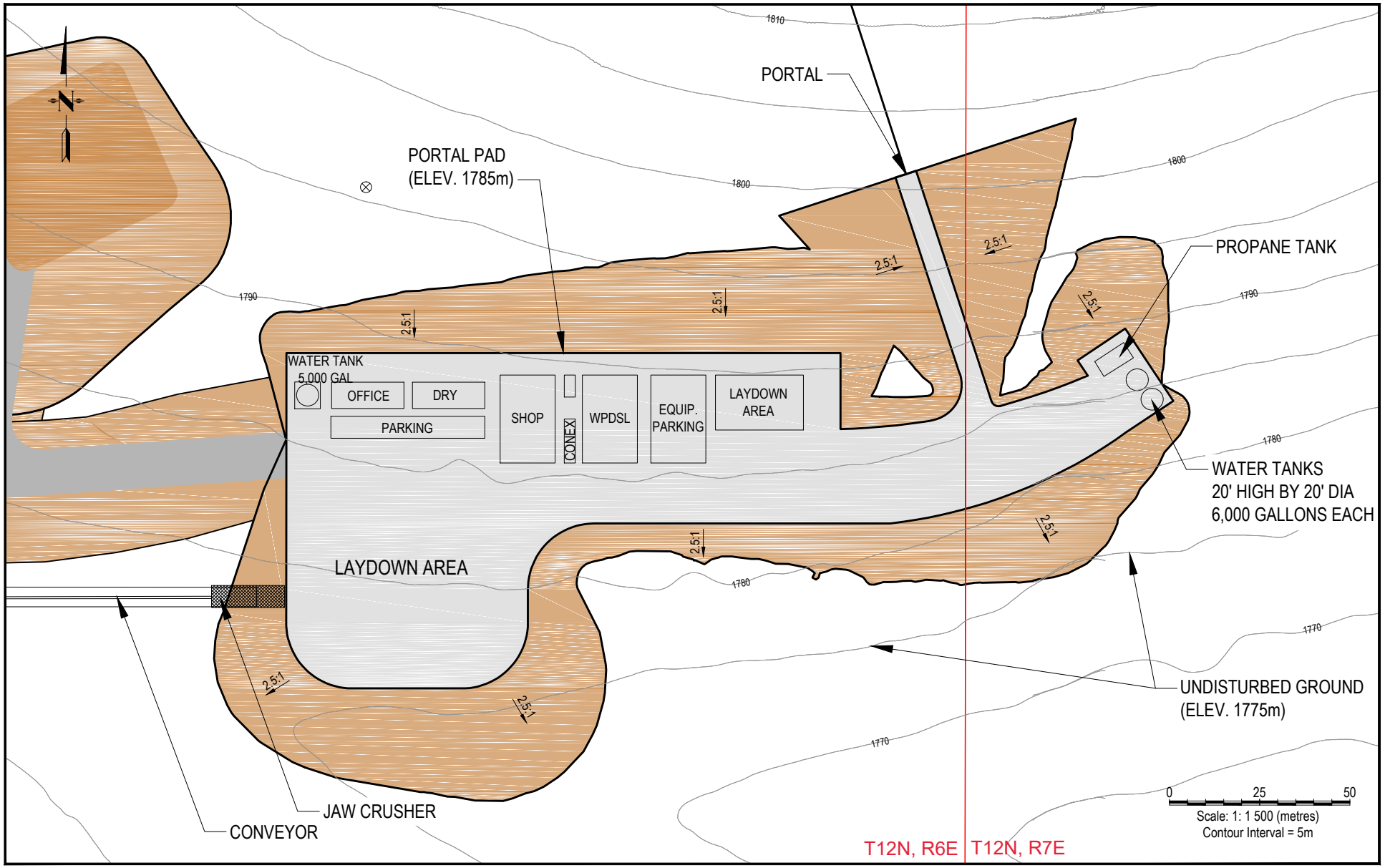
4.4.1.2 Mine Dewatering and Disposition of Water Treatment Residuals

The initial first year of mining will establish the portal collar and drive approximately 1,700 feet (518 m) from the portal to a location about 220 feet (67 m) below the ground surface before encountering the groundwater table. Therefore, very little water is expected to be generated during the first year of mining. Water produced from underground during this period will be stored in the two 6,000 gallon (22,700 liters) water tanks located at the east end of the portal pad and will be used to support underground mining operations. Any excess groundwater produced from the underground mine will be pumped to temporary storage in the segmented Contact Water Pond (CWP) and from there to the construction phase Vibratory Shear Enhanced Processing (VSEP) Reverse Osmosis WTP for treatment and discharge of the treated water (permeate) to underground infiltration galleries. Brine from the RO treatment plant will be temporarily stored in a segmented brine portion of the CWP until completion of the PWP. With the completion of the PWP near the end of year two, brine will be pumped from temporary storage in the segmented CWP to the PWP for use as a portion of the mill start-up water. As a safeguard, the underground infiltration galleries and the WTP will be available for use when underground activities commence.

Groundwater from mine dewatering and water collected in the CWP during the early surface construction and initial underground mine decline development phase (years 1 to 2.5) will require treatment. Based on hydrologic modeling, mine inflow and therefore dewatering is expected to increase from 0 to a maximum of 300 gallons per minute (gpm) (1,136 L/min) over this 1.5 year period. The estimated volume of water to be treated during the early mine development and construction phase is 94.6 million gallons (358.1 million L). Treatment of this volume of water should result in about 2.4 million gallons of brine to be stored in the brine section of the CWP for subsequent transfer to the PWP. The segmented CWP has total brine storage capacity of 21,000 m^3 (5.5 million gallons). Reagents used at the WTP in this early phase will be the same used during the later mine operating phase and is described in Section 4.4.2 below.

Because the RO system will be capable of treating as much as 510 gpm (1,931 L) of feed water generated from underground, the RO system has excess capacity to handle additional volume that may be produced by precipitation and other high volume inflows from underground into the CWP requiring water treatment. The CWP has storage capacity of 35,000 m^3 (9.3 million gallons) for pretreated water from underground and contact water from various facilities and an additional capacity of 35,000 m^3 (9.3 million gallons) for the 1:200 year storm event. It is intended that the CWP volume be kept to a minimum during the start-up phase and operationally by treating water through the RO water treatment plant. Brine will be transferred from this pond once the PWP is completed (approximately year 2) and no brine will be stored on the pond operationally. However, the CWP will again be used to store brine in pre-closure as underground mine water is treated to attain pre-mining background level.

During the surface construction and initial underground decline phase, the clarifier underflow (fine grained suspended sediment removed from mine water prior to RO water treatment) from the water treatment plant will be dewatered using both plate and frame filter presses, and the resultant sludge hauled to: (1) the WSR pad and mixed with waste rock, (2) placed underground in fresh muck piles that will be ultimately hauled to the WSR pad, or (3) placed in dead-end headings underground to allow additional settling/decanting of solids and ultimately moved to the CTF during the operational phase.



Prepared by Tetra Tech Inc. (2017)

FIGURE 9

Plan Map of Portal Pad Showing Contractor Support Facilities

Black Butte Copper Project

Mine Operating Permit Application

Meagher County, Montana

TINTINA RESOURCES

4.4.2 Underground Mine Operations Phase

The underground mine operations phase will start once the mill becomes operational sometime between years 2 to 3 in the Life of Mine plan. During this phase, copper-enriched rock will be mined from the underground mine and either stored on the copper-enriched stockpile and/or processed through the mill. Waste rock generated from the underground mine during this mine phase will be transported directly to the CTF. Paste tailings generated from the paste plant will either be piped back underground or piped to the CTF for disposal. Prior to the start of the underground Mine Operations phase, most of the portal pad facilities (except for the two 6,000 gallon water tanks, the propane tank, and portable toilet(s)) and all of the hydrocarbon and other chemical products will be moved to the mill pad shown in Figure 10. The only other areas away from the mill pad that may contain some small quantities of hydrocarbons and/or chemicals during this mine operations phase are the ventilation raise collars, and at the core shacks which will be described below.

Figure 10 illustrates the layout and major operational components of the mill facility. Most of the operational components on the mill pad will use either hydrocarbon or chemical products. These facilities include: a bermed fuel storage area and fueling station containing above ground tanks, fuel supplies for emergency back-up generators, the temporary concrete batch plant (to be used during construction), and chemical reagents used in the mill processing plant, the assay/met laboratories, and the water treatment plant (described below).

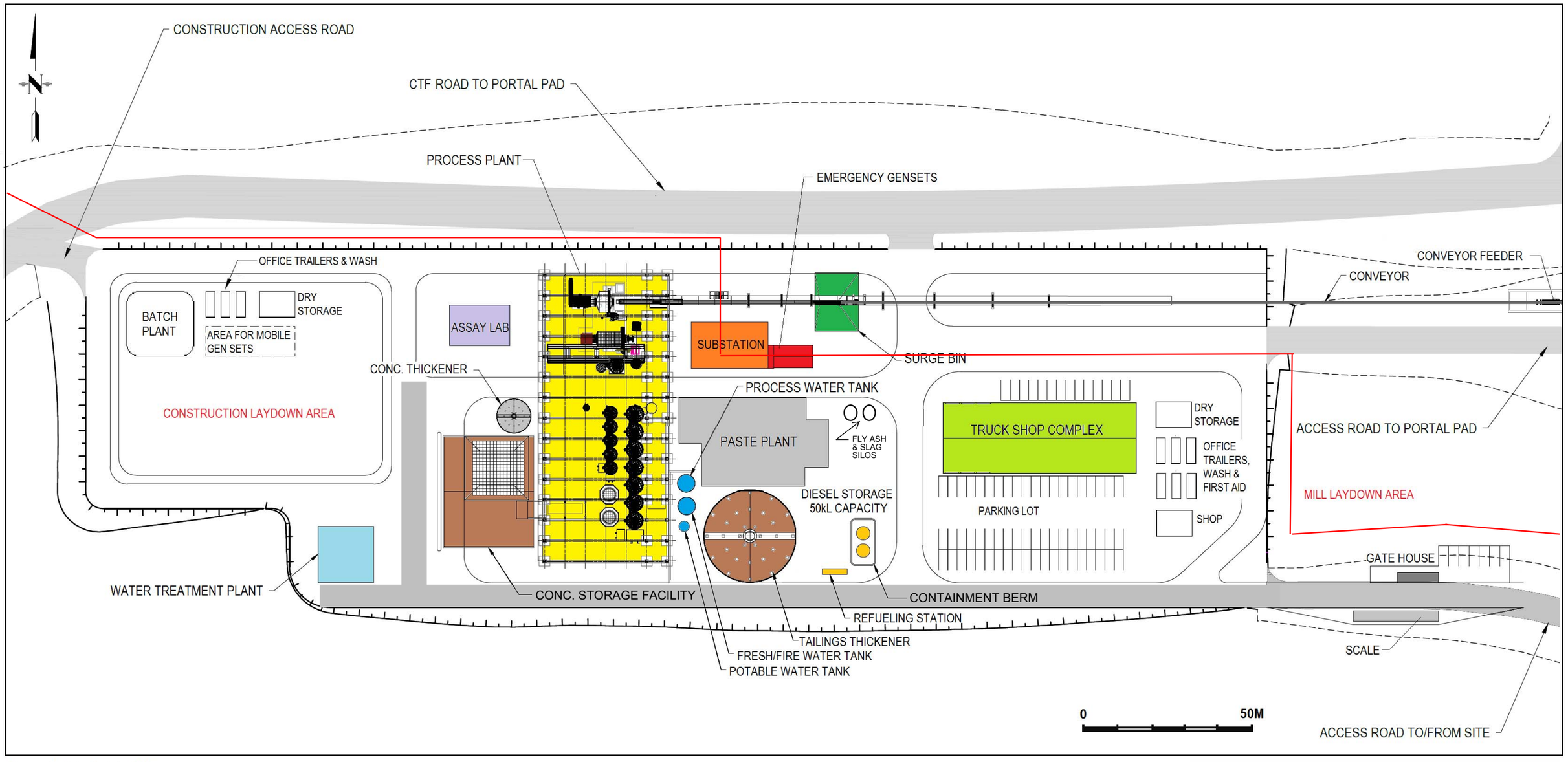
The truck shop complex will consist of a 130 foot (40 m) by 65 foot (20 m) pre-engineered steel frame and steel sided building. It is designed to accommodate facilities for repair and maintenance of heavy surface and underground mine equipment and other light vehicles. The facility will also contain warehouse storage space for spare parts and consumables; an emergency vehicle storage area with first aid station; designated training areas, and offices for the site supervisors, mine engineers, and General and Administrative (G&A) staff. Mine dry (change) facilities will also be provided in this complex. The truck shop/administration complex will be located east of the process facilities. The service bays inside the truck shop area will consist of:

- Four heavy vehicle repair bays
- One light vehicle service and welding bay
- Emergency vehicle bay.

The heavy vehicle repair bays will be designated for service and repair of major equipment. These will include automatic hose reels for dispensing engine oil, transmission fluid, hydraulic oil, air, solvent, diluted coolant, and grease. Hose reels will be supplied by delivery pumps located in the lubrication storage tanks. Waste lubricant recovery systems will pump used oil and coolant to holding tanks located at the lubrication storage building for recycling.

One bay will be used for servicing and maintaining light vehicles. All small equipment required for wheel alignment, balancing and tire repair, automotive testing, and diagnostic purposes will be available in this bay. The light vehicle bay will also be used for welding work. Ventilation fans and flash shields will be provided for personal protection.

A medical/first aid station, ambulance, fire truck and spill response truck/equipment will be located in a dedicated bay area in the truck shop. Patients requiring evacuation will be transferred to the hospital in White Sulphur Springs, MT.



Prepared by Tetra Tech Inc. 2016

Proposed Powerline

CONC. = Concentrate

TINTINA RESOURCES

Figure 10

Plan Map Showing Mill Facilities

Black Butte Copper Project

Meagher County, Montana

The fuel storage and fueling area will be 100 feet (30 m) long by 50 feet (15 m) wide and located immediately southwest of the staff parking lot in the mill area (Figure 10). A one-week supply of diesel fuel will be kept on site. Freight trucks will transport diesel fuel to the mine. Fuel will be pumped from the trucks into fuel storage tanks. Two 13,000 gallon (approximately 50,000 L) double-walled above ground fuel tanks will be erected during the construction stage. The fuel tank farm spill containment area will be lined with HDPE liners and protected by safety berms placed along the perimeter. The spill containment capacity will be no less than 110% of the total tank storage. Fueling areas will be on pads adjacent to the fuel storage areas, and a fueling station will be housed in a modular container with automatic shut-off mechanisms to prevent over-fueling and spillage. Manual fire suppressant equipment will be installed at the fueling station.

The lube and oil storage and dispensing area will consist of refurbished cargo containers with a gross floor area of 120 square yards (100 m^2). It will be located approximately 40 feet (12 m) from the truck shop. This distance allows fire safety separation between the truck shop and the lube and oil storage area. The lubricant storage facility will house tanks with a two-week supply of lubricants, and coolants. Waste oil from the mining and plant support equipment fleet will also be stored in this area. A separate HDPE-lined and bermed exterior storage facility will be provided for waste oil and spent coolants prior to being picked up by an third party contractor for recycling or disposal. The lubricant storage building will be furnished with loading/unloading arms and pumps. This storage facility will also contain air-operated transfer pumps for supplying lubricants to the dispensing reels located in the truck shop service bays.

The process plant and mill area will contain areas for the following processes:

- Crushing (jaw crusher)
- Grinding (semi-autogenous grinding mill and ball mill)
- Flotation (utilizing hydrocarbon reagents)
- Regrinding
- Concentrate dewatering and handling
- Reagent handling
- Paste backfill (separate build to east of mill building)
- Tailings thickening (adjacent to the paste plant and mill building)

Hydrocarbon-based reagents will be used in the process plant to support the flotation circuit. The Project process plant flotation cells will range from 65 cubic yards (50 cubic meters) in size to approximately 6.5 cubic yards (5 cubic meters) depending upon which stage in the process the cell is employed. The flotation process requires addition of trace amounts of reagents (measured in ounces per ton (grams per tonne) to alter the surface chemistry of copper minerals, and allow the copper minerals to 'float' to the surface froth of the flotation cell. The ability to attach a mineral particle to an air bubble forms the basis of the mineral separation used to produce a copper concentrate. Oils or hydrocarbons form the basis of copper flotation reagents, and typically work best if added to the water and rock slurry at rates of 0.7 to 3.5 ounces per ton (20 to 100 grams per tonne) of solids being processed. The copper flotation process uses lime to maintain a high pH, which significantly improves the effectiveness of the separation of copper minerals from the slurry.

Reagents used for the copper-enriched rock milling process will include hydrated lime ($Ca(OH)_2$) as a pH modifier, sodium isopropyl xanthate (SIPX) and Areophane 3418A as copper collectors, and methyl isobutyl carbinol (MIBC) as a frothing agent. Chemicals used may be varied during the optimization process. The collectors will be added to the flotation process slurry streams to modify the chemical and physical characteristics of mineral particle surfaces, and to enhance the floatability of copper minerals. Flocculent will be used as a settling aid during concentrate and

tailings thickening. Anti-scalant will be added as required to protect pipelines and process equipment from caking and mineral precipitates.

The reagent preparation and storage facility will be located within a containment area designed to accommodate 110 % of the volume of all tanks. This will ensure containment in the event of an accidental spill. The storage tanks will be equipped with level indicators and instrumentation to ensure that spills do not occur during normal operation. Appropriate ventilation, fire protection, fire and mixing safety protection and Material Data Sheet (MDS) stations will be provided in the area. These reagents will be handled in accordance with MDS (and Safety Data Sheets – SDS) requirements (to comply with OSHA to the Hazard Communication Standards) and any unused test reagents will be returned to the suppliers for disposal.

Tailings from the milling process will be dewatered using a separate high-rate thickener and flocculent (a chemical that causes colloids to form, and other suspended particles in liquids to aggregate, forming a floc) to initially achieve a solid density of 60%. The tailings will be further dewatered to 70-80% solids using a vacuum filter. Thickened tailings will be sent to a paste plant where cement, fly ash, and slag will be added as binders. Then they will be used for structural backfill in underground workings or placed as cemented paste tailings in the CTF.

The mill pad will also contain assay and metallurgical laboratories (labeled assay lab in Figure 10), which will have all the laboratory equipment necessary for metallurgical grade testing and control. The laboratories will have all appropriate heating, ventilation, and chemical disposal equipment as needed. Reinforcement of the facility floor will accommodate specialized equipment.

During the underground mine operating phase, the maximum daily quantity of water processed through the WTP could be as large as 588 gpm (2,226 liters) while the maximum flow rate through the RO system will be capped to 500 gpm (1,893 Lpm). Treated water will be discharged to the underground infiltration galleries, and preferably the brine reject liquid will be disposed on-site using the PWP, or alternatively to the paste plant. Clarifier sludge treatment residuals will be mixed with waste rock and disposed of in the CTF.

The RO water treatment plant is also located on the mill pad as described earlier (Plate 1) and will use similar chemical products and reagents during both the early surface construction / initial underground decline phase, and the mine operating phase. The WTP will be located on the southwest corner of the mill pad. The treatment process will have various components including an oil and grease skimmer, clarifier, and Reverse Osmosis (RO) system to remove contaminants. Brine from the RO system will be disposed of in the PWP, or added to the paste plant with cement and binders for disposal in the CTF or underground. Reagents and chemical products that will be used and stored at the WTP will include: ferric chloride ($FeCl_3$) and an anionic flocculent (added ahead of the clarifier), reverse osmosis anti-scalants, scale inhibitors, anti-foulants, RO membrane cleaners, and biocides. These RO water treatment chemical products and reagents will be stored in a designated area inside the WTP building. The clarifier underflow will be dewatered using a plate and frame filter press, and the resultant sludge hauled to the tailings facility for on-site disposal with mine waste rock. Solids that accumulate in the media filters will be periodically backwashed with filtered effluent or final RO product water. The backwash water will be routed back to the CWP. To mitigate potential fouling of the RO membranes, hydrochloric acid (HCl) and antiscalant will be added to the RO feed water after the granular media filter. Treated water will be stored in a product storage tank before discharge or reuse. The treated water will be nearly pure water, containing less than 50 mg/L total dissolved solids (TDS), and will meet all of the Estimated Non-Degradation Maximum Treatment Levels (ENDMTLs).

The WTP will produce filter backwash, dewatered solids from the filter press, permeate from the RO system, and RO reject. The filter backwash will be directed to a new storage tank and metered

back into the clarifier for re-treatment. Dewatered solids will be stored on-site for ultimate disposal with waste rock in the tailings facility. The RO permeate will meet discharge requirements and can be discharged at the underground infiltration gallery system or reused. After the mine facilities are in place, there will be multiple options for disposal of RO reject. The preferred brine disposal option is pumping of brine to the paste plant and incorporation of the brine into the cemented tailings for permanent disposal. Under the expected operating conditions (i.e., RO feed flow of 500 gpm and RO recovery of approximately 81.7%), about 92 gpm (346 Lpm) of RO reject will be sent to the PWP (85% when using the VSEP RO System). If RO recovery is lower than anticipated, a higher volume of RO reject brine will be produced. If the paste plant does not have sufficient capacity to accept the higher volume, a fraction of the brine produced could be sent directly to the PWP. Disposal of RO reject brine to the PWP is also a contingency when the Paste Plant is not operating due to maintenance or unscheduled shutdowns.

The mill pad will contain an internal network of roads and a surface parking area sized for approximately 100 vehicles located to the south of the Truck Shop Complex (Plate 1). The areas within the mill facility footprint adjacent to concrete foundations of buildings and other structures will have a gravel surface. The parking area on the southeast side of the pad and the access road to the east of the pad will see street and highway traffic only (no mine haul traffic). The CTF road to the north, west, and south of the mill facility area and the mill pad adjacent to and north of the truck shop complex will see only haul and mine equipment traffic. Concentrate trucks will remain on the road on the south side of the mill pad on their way to the access road.

Back-up power (during power outages) during the underground mine operations phase will be provided by two 1 MW diesel EPA Tier 3 or 4 certified and compliant generators located near the substation on the north side of the mill facility pad (Figure 10). Back-up generators may be stored in 20 foot (6 m) shipping containers. The most critical power loads are for fire/equipment and pumps, thickener rakes, reagent agitators/pumps, emergency lighting, ventilation exhaust fans, and electrical heaters.

Small quantities of hydrocarbons and/or chemical products will also be stored and utilized at the ventilation raise collars. Propane tanks and generators (one of each) will be required at each of the two intake ventilation raises (including the secondary escape). The propane tanks at each intake ventilation raise are necessary to provide heat. During winter months intake air must be heated with propane fired heaters before entering the mine. The heaters and propane tanks will be located on the surface at the collars of the intake ventilation raises.

One exhaust ventilation raise will be developed as a secondary escape way for underground mine personnel as is required by MSHA. It will be equipped with a mechanized escape hoist installed at the raise collar. Because the exhaust fans will be located underground, the top of the mechanized egress raise will have a concrete collar foundation and a tripod style headframe that will support the secondary egress conveyance. This secondary egress raise will incorporate a 60 horse-power hoist mounted in a shipping container and will provide hoisting speeds of up to 30 feet/sec (0.9 m/s). A second escape way will be located in the fresh air intake ventilation raise for the Upper Copper Zone (IVU). This secondary escape way will contain ladders and platforms to the surface.

The core shack will have hydraulic core splitter(s) and core saw(s) that will require small quantities of lubricating oils at the site. Small quantities of fuels may also be stored at the core shack for light vehicles and other small portable equipment (chain saws and weed whackers, etc.).

Emergency spill response kits will be located in the following areas during the underground mine operational phase: adjacent to the refueling station on the mill pad, at the truck shop complex on the mill pad, on the construction laydown area on the mill pad, and at the core shack).

Hazardous materials that would be stored and used at the project site during the underground mining phase of the mine project includes: diesel fuel, gasoline, lubricants, coolant, and other miscellaneous additives used to support the mining and processing activities. All hazardous materials (fuels, waste lubricating oil, hydraulic fluid, antifreeze, and other similar waste) will be stored in U.S. Department of Transportation (DOT) approved containers with secondary containment, labeled by specific fluid type. The liner for the tank secondary containment will also be rated for all materials/liquids to be stored as well as UV resistant. All of the hydrocarbons and/or chemical products will be stored within either the enclosed truck shop or diesel storage tanks on the mill pad (Figure 10) and regulated under a formal, site-wide Spill Prevention and Control and Countermeasures (SPCC) plan and permit (Section 4.4.3). For hazardous waste materials, a licensed commercial hazardous waste disposal contract service, that specializes in handling and recycling or other licensed means of disposal of these types of waste will pick up and transport them to an appropriate recycling or disposal facility.

Hazardous wastes generated by the assay lab will be hauled off site by a licensed hazardous waste contractor. All State and Federal regulations will be followed in dealing with hazardous wastes generated at the project. The lab will likely develop a Standard Operating Procedure (SOP) and on-site storage protocols for handling and properly disposing of the hazardous waste(s) generated by the assay lab.

During this underground mine phase the largest volumes of potential pollutants would consist of diesel fuel, gasoline, and waste motor oil. During this phase, diesel fuel would be stored in double walled above ground storage tanks in a 50 kL storage/containment facility constructed on the mill pad (Figure 10). Fuel would be delivered to the site by a licensed carrier or properly trained staff on an as needed basis. The anticipated level of activity during the underground mine operations phase will require 1-3 loads of diesel per week, depending on actual amount of work conducted at the site.

Employee vehicles and all supply deliveries including fuel, and lubricants, cement, slag, replacement parts and trucks with ore concentrate (in sealed containers), access the mine / mill site along the main access road and all pick-up and delivery traffic accesses the mill site along the south side of the mill pad as shown in Figure 10 (Plan Map Showing Mill Facilities). Clean, over-the-road ore concentrate trucks will pick up concentrate in sealed containers from the construction laydown area located on the west end of the mill pad, using the access road along the south side of the mill pad. The Employee parking is located south and east of the mill. These designated parking areas and access routes are designed to separate clean on-road traffic (confined to south, southeast and west ends of the mill) from potential PAG contaminated haul routes located north of the mill. Therefore any possible tracking of PAG materials into clean traffic areas is eliminated. Appropriate road traffic directions signs will be posted in critical areas to control the flow of traffic.

4.4.3 Site-Wide SPCC Plan Development

A portion of this Emergency Response Plan will be replaced by a formal Spill Prevention, Control, and Countermeasures (SPCC) plan. This SPCC Plan will be prepared and submitted to the

Montana Department of Environmental Quality (DEQ) Permitting and Compliance Division Waste and Underground Tank Management Bureau prior to initiation of construction at the project site. This plan will describe:

- the protocols for storage and handling of fuels and other hazardous materials across the mine site;
- details of spill response actions that would be initiated to address releases of hazardous materials;
- how spillage of acid-producing materials onto other unlined surfaces (such as from the pipelines carrying contaminated water) will be handled during the mine life;
- and contain examples of internal and agency forms for inspections and spill reporting;
- which agencies needs to be contacted to report various types of spills.

Employees and contractors will be regularly trained on the SPCC plan, spill response, and reporting procedures following the general guidelines presented in Section 3.2.

A copy of the SPCC plan will be kept onsite and maintained in accordance with applicable EPA requirements, and made available during regulatory inspections by the Montana Department of Environmental Quality (DEQ) Waste Management and Remediation Division (WUTMB). The Local and State Fire Marshal's Office were both presented with Tintina's Appendix P Emergency Response Plan. However, the State Fire Marshal's Office will review the final SPCC Plan during an onsite inspection following installation and prior to use of above ground storage tanks and pipelines."

5.0 FLOOD RESPONSE PLAN

The mine and its support facilities are located on high ground well away from any creeks or streams that could pose a potential risk of flood danger to mine employees, subcontractors and visitors to the mine site.

A possible scenario where flooding could threaten the safety of mine personnel is if Sheep Creek were to flood to a degree that caused unsafe travel conditions to and from the mine using Sheep Creek Road. Due to the horizontal and vertical distances separating the creek from the road and the very large water storage volume represented by the Sheep Creek floodplain (wetlands), the potential for the road to be flooded is very low, and would only be expected during the most severe flood event, and could likely be anticipated well in advance of unsafe travel conditions developing. During such an event, day-to-day mining operations could be suspended until flooding subsided to allow safe level. Maintenance- and standby-level operations would continue. Two alternate roads (conditions permitting, summer and fall) accessing the project site are described in Section 2.3 Evacuation plan above, and illustrated on Figure 4.

5.1 Storm Water Pollution Prevention Plan

Prior to any construction or surface disturbing activities associated with the mining project, Tintina is required to apply for a permit for authorization for Storm Water Pollution Prevention Plan (SWPPP) for storm water discharges associated with construction activities from the DEQ's Water Protection Bureau. The SWPPP is designed to protect the state waters from pollutants, which during construction are principally sediment. There are three major components to the Storm Water Pollution Prevention Plan:

- Assessing the characteristics of the site such as nearby surface waters, topography, and storm water runoff patterns;

- Identifying potential sources of pollutants such as sediment from disturbed areas, and stored wastes or fuels. Included in this component will be: identifying how PAG materials would be controlled to minimize contamination of unlined surfaces (such as roadways, materials graded on road surfaces against berms, and fill slopes) and describing how the project will prevent co-mingling of unaffected water with water affected by construction activities and later by mining and milling; and

- Identifying Best Management Practices (BMPs) which will be used to minimize or eliminate the potential for pollutants to reach surface waters through storm water runoff.

BMPs at construction sites typically develop various erosion and sediment control measures and implement a plan of regular maintenance and inspections to ensure that they operate correctly over time.

There are four general principles that must be abided by as part of the permitting process.

1) There must be no discharge of process waste water pollutants to state surface waters,

2) Any discharge to state surface waters must be composed entirely of storm water generated by rainfall precipitation and snowmelt,

3) A discharge of storm water must not cause or contribute to a violation of water quality standards, and

4) Tintina must implement and maintain all BMPs and storm water management controls in accordance with the requirements of the General Storm Water or Individual Permit.

Early surface construction and initial underground decline development activities associated with the Black Butte Copper Project will involve construction of the decline as well as site-grading and support facility construction. All of the support facilities that are located on the portal pad and off the portal pad have been previously described in Section 4.4.1 (Surface Construction and Initial Underground Decline Development). All construction will occur on private property. Occupancy and reclamation agreements will be attempted to be reached with the landowners. Additional future disturbances may include limited monitor well and exploration drilling.

After Tintina has completed construction activities at the site and prior to going into production, they will be required to apply for a second permit for authorization for storm water discharges associated with industrial activity from the DEQ's Water Protection Bureau.

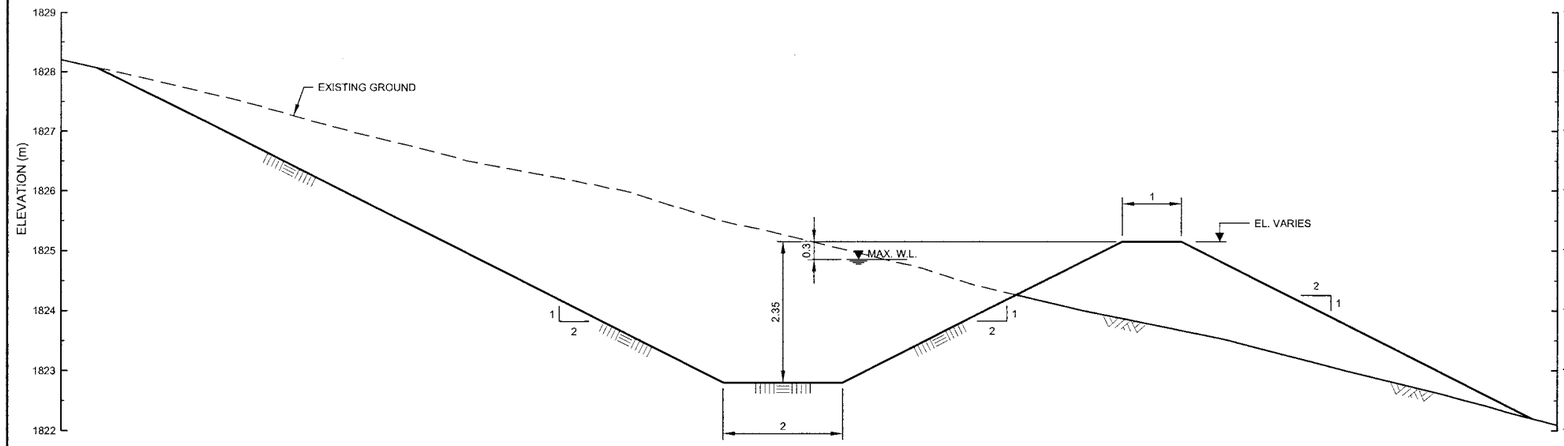
Best Management Practices for construction activities are described in detail in Section 3.7.6 of the Mine Operating Permit Application. During Tintina' s preparation of a SWPPP, a water control and a storm-water management plan will be prepared and implemented at the site to prevent co-mingling of unaffected water with water affected by construction activities and later by mining and milling. This plan will also develop controls for run-off from the site and adjacent areas. Storm water management is typically implemented by diverting storm water runoff around disturbed areas, or by collecting runoff for sediment removal prior to discharge. The majority of storm water runoff at the site will be controlled by diversion around disturbed soils. Diversion structures will consist of drainage ditches or swales, spreaders, sediment traps, rock berms, straw wattles, and slash windrows. Drainage structures will be sized to safely convey the 24-hour, 100-year storm event.

All storm water controls will be constructed prior to, or in conjunction with, soil removal and stockpiling. Storm water controls are passive systems that require regular inspection for eroded areas and build-up of sediment in the slash windrow or sediment traps. With proper maintenance and inspection, each storm water control will remain in place until completion of the construction phase, and where required throughout the operational stages of the Project. Many BMPs will remain in place through mine closure and until subsequent stabilization and revegetation of disturbed areas is complete.

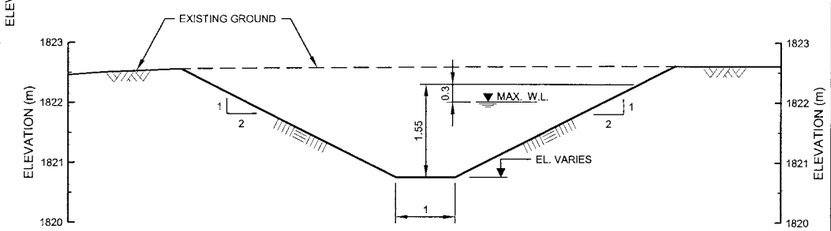
A surface water diversion ditch around the upper sides and side slopes of disturbed areas will be used to divert clean storm water from the disturbed facility areas within the site. Energy dissipation features or spreaders will be constructed where the surface water diversion outlets meet undisturbed ground. The spreaders will convert the flow concentrated in the diversion ditch to sheet flow and discharge it over an erosion blanketed lip to an undisturbed area at non-erosive velocities. The spreaders will be located such that the discharge water will not be collected by the down-slope berms or concentrated in down-slope channels. If site conditions determine that the spreaders are not appropriate for the site, down-slope drainage channels and energy dissipating outlets or infiltration basins will be specified. Sediment carried from diversions around facilities by storm water runoff will be periodically removed from the ditches and sump(s) collection drains or infiltration basins.

Water captured in the toe ditches surrounding the waste rock pads and seepage collection ponds will be diverted to the seepage ponds. A detailed snow plowing and removal plan will be included in the final storm-water pollution plan.

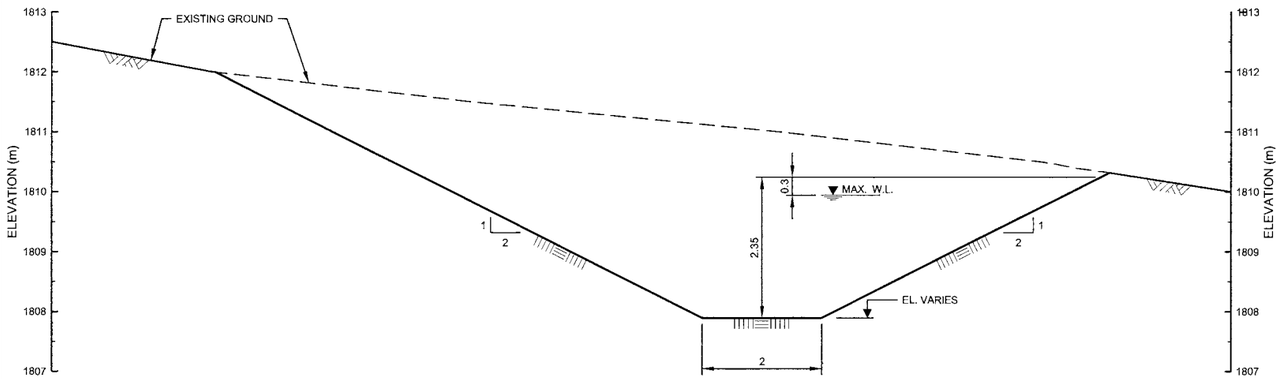
Plate 1 shows the general location of surface water run-on and run-off diversion ditches developed for the Project's construction areas, mine site and its supporting facilities. Typical cross-sections of diversion ditches are illustrated on Figure 11 from the CTF and PWP areas. The SWPPP will be developed for the Project site illustrating the final layout with respect to storm-water management. The SWPPP will be updated as needed to accurately reflect actual site BMPs conditions.



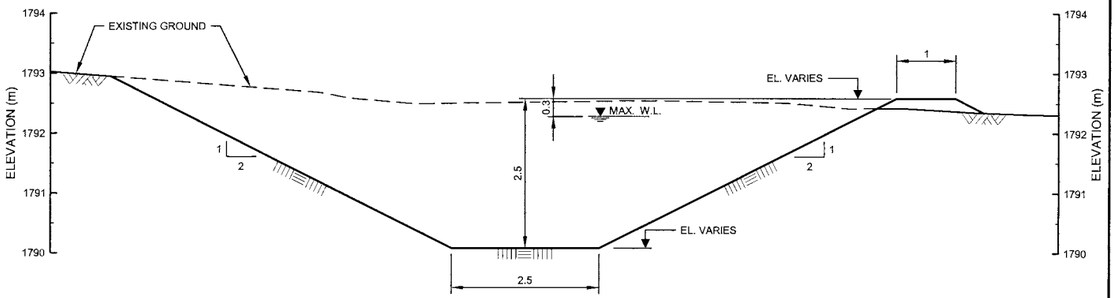
1 C5001 **SECTION TYPE 1**
CTF DIVERSION CHANNEL (CUT AND FILL)
SCALE A



3 C5002 **SECTION TYPE 3**
PWP DIVERSION CHANNEL
SCALE A



2 C5001 **SECTION TYPE 2**
CTF DIVERSION CHANNEL (ALL CUT)
SCALE A



4 C5002 **SECTION TYPE 4**
CTF AND PWP DIVERSION CHANNEL
SCALE A

FOR INFORMATION ONLY

SCALE A 1 0.5 0 1 2 3 4 5 m

NOTES:

1. DIMENSIONS AND ELEVATIONS ARE IN METERS, UNLESS NOTED OTHERWISE.
2. MAXIMUM WATER LEVEL (MAX. W.L.) BASED ON ANTICIPATED WATER DEPTH DURING THE PROBABLE MAXIMUM FLOOD (PMF).

Knight Piésold CONSULTING

TINTINA RESOURCES INC.

BLACK BUTTE COPPER PROJECT

Figure 11.
CTF and PWP Diversion Channel
Typical Sections (from Appendix K)

P/A NO.	DRAWING NO.	REVISION
VA101-460/3	C5003	0

REFERENCE DRAWINGS	
C5002	PWP DIVERSION CHANNEL - PLAN AND PROFILE
C5001	CTF DIVERSION CHANNEL - PLAN AND PROFILE
DRG. NO.	DESCRIPTION

REVISIONS						
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED
0	15OCT'15	ISSUED FOR MOP APPLICATION	MH	NSD		

SAVED: M:\101\00460\03\A\acad\DWGS\C5003\C5003_10/16/2015 10:33:22 AM, PPETKOVIC PRINTED: 10/16/2015 10:33:25 AM, Layout1, PPETKOVIC
XREF FILE(S): IMAGE FILE(S):

6.0 FIRE RESPONSE PLAN

This section of the Emergency Response Plan describes fire prevention and response actions to be followed by Tinitina staff and contractors at the Black Butte Copper Project site. In the event of a fire, the notification procedures listed in Section 2.0 will be followed. If an uncontrolled on-site fire occurs or if an emergency fire evacuation order is issued by the Lewis and Clark National Forest, by Meagher County, or by the Montana Department of Natural Resources and Conservation (DNRC), the evacuation procedures described in Sections 2.2 and 2.3 will be followed.

Fire protection is a typical component of both construction and mining operations. Fire hazards at the Project are very low for most of the year, and moderate in the late summer through the fall. The principle potential zones of fire include:

- Brush fires in the shrub-covered terrain surrounding the Project site,
- Fire at the mill processing facility, and
- Douglas fir forested ridgetops in the vicinity of the Project area.

A written letter notice (see Appendix A of this document) of the filing of the Emergency Response Plan, which includes the Spill Prevention Control and Countermeasures (SPCC) plan, to the Montana Department of Environmental Quality has been provided to the state fire marshal as per ARM 17.24.116(3)(n).

6.1 Fire Prevention

Fire prevention will be top priority. The fire prevention plan consists of the following components to minimize the potential for fires to start and/or spread at the project site.

- **Fire Watch** – 24-hour security personnel will conduct a fire watch during their shifts. Additionally, all employees will be required to report any sign of fires, including smoke columns at all times including while travelling to or from the project site.

- **Employee Awareness** – On site safety meetings will address fire prevention and safety issues related to fire prevention and will be conducted with all employees and subcontractors. Safety meetings will include identification of seasonally heightened fire risk, high fire risk activities that may occur at the site, and how to recognize fire signs and dangers. Training will also cover fire emergency communication protocols.

- **Smoking Policy** – Smoking will occur in designated smoking areas only. These areas will include fireproof receptacles for cigarette butts and will be in areas lacking combustible material.

- **Vehicle Fire Extinguishers** – All mobile equipment will have fire extinguishers installed for Class A, B, and C fires.

- **Fire Prevention Guidelines** – During the summer forest fire season, Department of Natural Resources and Conservation (DNRC) guidelines will be followed. Tintina will require employees, contractors, and subcontractors to comply with all applicable Federal and State fire laws and regulations, and insure that they take all reasonable measures to prevent and suppress fires in the area of operations.

- **Shop Sprinkler Systems** – The mill facility, shop and administrative areas will be protected to NFPA requirements with sprinkler systems and will be MSHA-compliant.

- **Response Equipment** – A medical/first aid station, ambulance, fire truck and spill response truck/equipment will be located in a dedicated bay area in the truck shop.

6.2 Fire Response

In the event that a fire does occur, the first person on the scene will be authorized to extinguish the fire if it can be done safely. If this is not possible the senior supervisor on-site will be alerted to supervise fire suppression and/or support off-site emergency responders with fire suppression duties. Practical and safe initial suppression activities will be performed by trained personnel with support from water trucks and other necessary equipment. This will only occur for starter fires or small fires and conditionally with no immediate danger to employees.

The senior supervisor on-site will coordinate initial response activities until relieved of this duty by professional fire-fighters. This supervisor will track the number and location of each employee on shift and will coordinate evacuation procedures as necessary.

If a large fire occurs that cannot be immediately extinguished by the Tintina employees and the contractors on-site, professional firefighting services from White Sulphur Springs and Meagher County will be called in and the senior supervisor on shift will be designated to coordinate on-site fire response activities until relieved of duty by the professional responders.

In the event of a brush fire, fire protection will be with water from the fire storage tank and the water and fire trucks, augmented by the White Sulphur Springs and Meagher County fire services. Support for fires involving Forest lands could include the U.S. Forest Service. Tintina will cooperate with Meagher County and other stakeholders on fire reduction mitigation activities.

Individuals requiring emergency hospitalization will be transported in accordance with procedures described in Section 3.0.

Plate 1.

Site Drainage Control.

EXTEND EXISTING ROAD TO VENT RAISE
COON CREEK
TEMP. WASTE ROCK STORAGE (EL. 1792.98 m)
NORTH
APPROXIMATE AREA FOR RECLAMATION MATERIAL STOCKPILE NORTH
ACCESS GATE
PORTAL PAD (EL. 1785 m)
COPPER-ENRICHED ROCK STOCKPILE
ADIT ALIGNMENT PROJECTED TO SURFACE
SHEEP
CORE SHACKS
METEOROLOGICAL STATION
POWER LINE
BER-OPTIC VAULT LOCATION
FIBER-OPTIC VAULT LOCATION
25
30
CONSTRUCTION ACCESS ROAD
OUTFALL
CULVERT CROSSING
PORTAL
CONTACT WATER POND (CWP)
APPROX. TOP OF CUT OR TOE OF FILLS (TYP.)
BUTTE CREEK ROAD
CTF ROAD
ROCK-LINED CHANNEL
JAW CRUSHER
CONVEYOR
ROCK-LINED CHANNEL
OUTFALL
CULVERT CROSSING
FOUNDATION DRAIN POND
TEMP. POWDER MAGAZINE
MILL PAD (EL. 1785 m)
SEPTIC DRAINFIELD
CULVERT CROSSING 2
CULVERT CROSSING 1
CULVERT CROSSING 3
OUTFALL
UIG
ACCESS ROAD
BRUSH CREEK
PROCESS WATER POND (PWP)
TEMP. CONSTRUCTION STOCKPILE
UIG
CULVERT CROSSING 4
OUTFALL
WP DIVERSION DITCHING
SERVICE ROAD
CEMENT TAILINGS FACILITY (CTF)
BURIED SOLID PIPE (TYP.)
BURIED PERFORATED PIPE (TYP.)
OUTFALL
BURIED PERFORATED UIG PIPE (IN CLOSURE)
FOUNDATION DRAIN POND
TOPSOIL STOCKPILE
RECLAMATION MATERIALS STOCKPILE SOUTH
OUTFALL
SUBSOIL STOCKPILE
E 506,000
N 5,178,500
E 508,500
N 5,178,500
FENCING
CTF DIVERSION DITCHING
36
OUTFALL
OUTFALL
SERVICE ROAD
SPILLWAY
NCWR DIVERSION DITCHING
31
NON-CONTACT WATER RESERVOIR (NCWR)
LITTLE SHEEP CREEK
CULVERT CROSSING 5
MINE PERMIT BOU (APPROXIMATE)
2N R6E
2N R7E

0 417.5 835 FEET
0 100 200 METERS

LEGEND
- MINE PERMIT BOUNDARY (APPROX.)
- EROSION CONTROL
- DRAINAGE DITCH
- CULVERT
- DIVERSION DITCH
- OUTLET PIPE TRENCH
- STORMWATER OUTFALL

TINTINA RESOURCES

Source: Hydrometrics, Inc.
3020 Bozeman Avenue, Helena, MT
(406) 443-4150

SITE DRAINAGE CONTROL

DRAWING FILE NUMBER
1104801H020
AUTOCAD 2000 DRAWING (DWG)
PLATE
1

UPDATE TIME: 3:12 PM
LTABORSKY\HEL\20170710\E\LAND PROJECTS\1104801\DWG\1104801H020.DWG

APPENDIX A.

Letter to State Fire Marshal

TINTINA RESOURCES

Tintina Montana, Inc.
Black Butte Copper Project
17 East Main St.
P.O. Box 431
White Sulphur Springs, MT 59645
www.tintinaresources.com (web)
(406) 547-3466

August 25, 2016

Mr. Dick Swingley, State Fire Marshal
Fire Prevention and Investigation Section
Department of Justice
2225 - 11th Ave. P.O. Box 201417
Helena, MT 59620

Dear Mr. Swingley:

Tintina Montana, Inc. has submitted a Mine Operating Permit (MOP) Application for the Black Butte Copper Project to the Montana Department of Environmental Quality (DEQ) Permitting and Compliance Division – Hard Rock Program for review and approval under the Montana Metal Mine Reclamation Act. This project is located approximately 15 miles north of White Sulphur Springs, Montana. The original MOP Application submission date was December 15, 2015 and is currently being revised to satisfy comments from the Montana DEQ.

As part of the MOP Application requirements (ARM 17.24.116(n)), a spill contingency plan must be provided to the state fire marshal. We have attached the Emergency Response Plan that is part of the MOP Application (Appendix P) that includes a Spill Response Plan in Section 4.0 of the document that should satisfy ARM 17.24.116(n) requirements.

Please feel free to contact me if you have any questions about this plan or any other aspects of the project.

Regards,
Bob Jacko

Operations Manager
Black Butte Copper Project

Attachments:

1. Black Butte Copper Emergency Response Plan (APP_P_MOPA_BBC_Emergency Response Plan.docx)

Distribution:

1. Rick Seidlitz, Fire Chief, Meagher County (MT) Fire Department
2. Otto Ohlson, Fire Chief, City of White Sulphur Springs, MT