ARTEMIS GOLD INC

Blackwater Mine

Fuel Management and Spill Control Plan

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Work Instructions

Fuel Management and Spill Control Plan

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Acronyms and Abbreviations

Indigenous nations	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Stellat'en First Nation, Saik'uz First Nation and Nazko First Nation (as defined in the Project's Environmental Assessment Certificate #M19-01)
Application or Joint MA/EMA Application	Joint *Mines Act* / *Environmental Management Act* Permits Application
Artemis	Artemis Gold Inc.
BC	British Columbia
Blackwater	Blackwater Gold Project
BW Gold	BW Gold LTD.
CCME	Canadian Council of Ministers of the Environment
CEA Agency	Canadian Environmental Assessment Agency
CM	Construction Manager
CSA	Canadian Standards Association
DS	Decision Statement
EAO	Environmental Assessment Office
ECCC	Environment and Climate Change Canada
EM	Environmental Manager
EMBC	Emergency Management BC
EMLI	Ministry of Energy, Mines and Low Carbon Innovation
EMP	Environmental Management Plan
EMS	Environmental Management System
ENV	Ministry of Environment and Climate Strategy
EPCM	Engineering, Procurement and Construction Management
FMSCP	Fuel Management and Spill Control Plan
GM	General Manager
km	Kilometre
m	Metre
MAR	Mine Access Road
MERP	Mine Emergency Response Plan
MP	Management Plan
Mtpa	Million tonnes per annum

MWLAP	Ministry of Water, Lands and Air Protection
New Gold	New Gold Inc.
PPE	Personal protective equipment
Project	Blackwater Gold Project
SDS	Safety Data Sheet
t	Tonnes
TDG Regulations	*Transportation of Dangerous Goods Regulations*
VP	Vice President
WHMIS	Workplace Hazardous Materials Information System

1.0 Project Overview

The Blackwater Gold Project (the Project) is a gold and silver open pit mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver.

The Project is presently accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR and an exploration access road, which connects to the Kluskus-Ootsa FSR at km 142. The Kluskus FSR joins Highway 16 approximately 10 km west of Vanderhoof. A new, approximately 13.8 km road (Mine Access Road) will be built to replace the existing exploration access road, which will be decommissioned. The new planned access is at km 124.5. Driving time from Vanderhoof to the mine site is about 2.5 hours.

Major mine components include a tailings storage facility (TSF), ore processing facilities, waste rock, overburden and soil stockpiles, borrow areas and quarries, water management infrastructure, water treatment plants, accommodation camps and ancillary facilities. The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230 kilovolt overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

The Blackwater mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation, and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa FSRs and Project transmission line cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation, and Yekooche First Nation (BC EAO 2019a, 2019b).

Project construction is anticipated to take two years. Mine development will be phased with an initial milling capacity of 15,000 tonnes per day (t/d) for the first five years of operation. After the first five years, the milling capacity will increase to 33,000 t/d for the next five-years, and to 55,000 t/d in Year +11 until the end of the 23-year mine life. The Closure Phase is Year +24 to approximately Year +45, ending when the Open Pit has filled to the target closure level and the TSF is allowed to passively discharge to Davidson Creek via a closure spillway. The Post-closure phase begins in Year +46.

New Gold Inc. received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the *2002 Environmental Assessment Act* (BC EAO 219c) and a Decision Statement (DS) on April 15, 2019 under the *Canadian Environmental Assessment Act, 2012* (CEA Agency 2019). In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets, and rights in the Blackwater Project that were previously held by New Gold Inc. On August 7, 2020, the Certificate was transferred to BW Gold LTD. (BW Gold), a wholly-owned subsidiary of Artemis, under the *2018 Environmental Assessment Act*. The Impact Assessment Agency of Canada notified BW Gold on September 25, 2020 to verify that written notice had been provided within 30 days of the change of proponent as required in Condition 2.16 of the DS, and that a process had been initiated to amend the DS.

BW Gold received *Mines Act* Permit M-246 on June 22, 2021, and *Environmental Management Act* Permit PE-110602 on June 24, 2021, authorizing early construction works for the Project. These works include clearing, grubbing ditching, and site levelling at the Plant Site location and sediment and erosion controls, including construction of ditches, diversions, and a sediment control pond (SCP). BW Gold received an amended *Mines Act* Permit M-246 on March 8, 2023, approving the Mine Plan and Reclamation Program and superseding the previous version. BW Gold received *Environmental Management Act* Permit PE-110652 on May 2, 2023, authorizing discharge of effluent to surface water and groundwater from the Blackwater mine.

2.0 Purpose and Objectives

The Fuel Management and Spill Control Plan (FMSCP) identifies the procedures to transport, transfer, dispense, store and manage petroleum products during construction, operations, and post-closure. The plan is required by Section 9.14 of the *Joint Information Requirements for Mines Act* / *Environmental Management Act Permits* (EMPR & ENV 2019).

The FMSCP includes a Spill Response Plan to manage spills and a contingency plan for preventing, managing and containing spills. The FMSCP applies to the mine site, MAR, airstrip and airstrip access road, and freshwater supply system access road.

The FMSCP objectives are to:

- Describe plans for fuel delivery and storage, and fuel handling and dispensing, transport, and inspections;
- Provide practices and procedures for timely and coordinated response to an environmental emergency in case of a fuel spill, and scheduled reviews of such practices and procedures;
- Train personnel to understand the type and extent of an environmental emergency and fuel spill situation and to respond efficiently;
- Describe communication protocols to notify authorities, Aboriginal Groups, stakeholders and communities in the event of an environmental emergency, so that those groups may initiate timely response for their own interests or so that their assistance may be elicited; and
- Describe response procedures for early containment and control of an environmental emergency, and approaches to cleanup so that any consequences of an environmental emergency are managed responsibly.

3.0 Roles and Responsibilities

BW Gold has the obligation of ensuring that all commitments are met and that all relevant obligations are made known to mine personnel and site contractors during all phases of the mine life. A clear understanding of the roles, responsibilities, and level of authority that employees and contractors have when working at the mine site is essential to meet Environmental Management System (EMS) objectives.

Table 3-1 provides an overview of general environmental management responsibilities during all phases of the mine life for key positions that will be involved in environmental management. Other positions not specifically listed in Table 3-1 but that will provide supporting roles include independent environmental monitors, an Engineer of Record (EOR) for each tailings storage facility and dam, an Independent Tailings Review Board (ITRB), TSF qualified person, geochemistry QRP, and other qualified persons and qualified registered professionals (QRPs).

Table 3-1: Blackwater Gold Roles and Responsibilities

Role	Responsibility
Chief Executive Officer (CEO)	The CEO is responsible for overall Project governance. Reports to the Board.
Chief Operating Officer (COO)	The COO is responsible for engineering and Project development and coordinates with the General Manager to ensure overall Project objectives are being managed. Reports to the CEO.

Role	Responsibility
Vice President (VP) Environment & Social Responsibility	The VP Environment & Social Responsibility is responsible for championing the Environmental Policy Statement and EMS, establishing environmental performance targets and overseeing permitting. Reports to the COO.
General Manager (GM) Development	The GM is responsible for managing project permitting, the Project's administration services and external entities, and delivering systems and programs that ensure Artemis's values are embraced and supported, Putting People First, Outstanding Corporate Citizenship, High Performance Culture and Rigorous Project Management and Financial Discipline. Reports to the COO.
Mine Manager	The Mine Manager, as defined in the *Mines Act*, has overall responsibility for mine operations, including the health and safety of workers and the public, EMS implementation, overall environmental performance and protection, and permit compliance. The Mine Manager may delegate their responsibilities to qualified personnel. Reports to the GM.
Construction Manager (CM)	The CM is accountable for ensuring environmental and regulatory commitments and obligations are being met during the construction phase. Reports to the GM.
Environmental Manager (EM)	The EM is responsible for the day-to-day management of the Project's environmental programs and compliance with environmental permits, updating EMS and Management Plans. The EM or designate will be responsible for reporting non-compliance to the CM, and Engineering, Procurement and Construction Management (EPCM) contractor, other contractors, the Company and regulatory agencies, where required. The EM informs the Environmental Monitors of current site conditions that may influence monitoring programs. Supports the CM and reports to the Mine Manager.
Departmental Managers	Departmental Managers are responsible for implementation of the EMS relevant to their areas. Report to the Mine Manager.
Indigenous Relations Manager	Indigenous Relations Manager is responsible for Indigenous engagement throughout the life of mine. Also responsible for day-to-day management and communications with Indigenous groups. Reports to the VP Environment & Social Responsibility.
Communications Coordinator	The Communications Coordinator is responsible for is responsible for developing communication processes and procedures during a potential mine emergency situation as well as establishment and testing of communication systems. Reports to the Mine Manager.
Community Relations Advisor	Community Relations Advisor is responsible for managing the Community Liaison Committee and Community Feedback Mechanism. Reports to the Indigenous Relations Manager.
Environmental Monitors	Environmental Monitors (Environmental Specialists and Technicians, including CPESC) are responsible for tracking and reporting on environmental permit obligations through field-based monitoring programs. Report to the EM.

Role	Responsibility
Aboriginal Monitors	Aboriginal Monitors are required under EAC #M19-01 Condition 17 and will be responsible for monitoring for potential effects from the Project on the Indigenous interests. Aboriginal Monitors will be involved in the adaptive management and follow-up monitoring programs. Report to the EM.
Employees and Contractors	Employees are responsible for being aware of permit requirements specific to their roles and responsibilities. Report to Departmental Managers.
Qualified Registered Professionals and Qualified Persons	Qualified registered professionals and qualified persons will be retained to review objectives and conduct various aspects of environmental and social monitoring as specified in Environmental and Social Management Plans.

BW Gold will employ a qualified person as an EM who will ensure that the EMS requirements are established, implemented and maintained, and that environmental performance is reported to management for review and action. The EM is responsible for retaining the services of qualified persons or QRPs with specific scientific or engineering expertise to provide direction and management advice in their areas of specialization. The EM will be supported by an experienced environmental staff that may include Environmental Monitors,Environmental Specialists and Technicians and by a consulting team of subject matter experts in the fields of environmental science and engineering.

During the Construction phase, BW Gold will be entering into multiple Engineering, Procurement and Construction contracts, likely for the Transmission Line, Process Plant, and Tailings Each engineer/ contractor will have their own CM and there will be a BW Gold responsible project manager and/or Superintendent who ultimately reports to the GM Development. Some of the scope, such as the TSF and Water Management Structures will be self-performed by BW Gold, likely using hired equipment. Other smaller scope packages may be in the form of Engineering, Procurement and Construction Management (EPCM) contracts. The EPCM contractors will report to the CMs who will ultimately be responsible for ensuring that impacts are minimized, and environmental obligations are met during the Construction phase. For non EPCM contractors, who will perform some of the minor works on site, the same reporting structure, requirements, and responsibilities will be established as outlined above. BW Gold will maintain overall responsibility for management of the construction and operation of the mine site and will therefore be responsible for establishing employment and contract agreements, communicating environmental requirements, and conducting periodic reviews of performance against stated requirements.

The CM is accountable for ensuring that environmental and regulatory commitments/obligations are being met during the construction phase. The EM will be responsible for ensuring that construction activities are proceeding in accordance with the objectives of the EMS and associated management plans. The EM or designate will be responsible for reporting non-compliance to the CM and EPCM contractor, other contractors, and regulatory agencies, where required. The EM or designate will have the authority to stop any construction activity that is deemed to pose a risk to the environment; work will only proceed when the identified risk and concern have been addressed and rectified.

Environmental management during operation of the Project will be integrated under the direction of the EM, who will liaise closely with Departmental Managers and will report directly to the Mine Manager. The EM will be supported by the VP of Environment and Social Responsibility to provide an effective and integrated approach to environmental management and ensure adherence to corporate environmental standards. The EM will be accountable for implementing the approved management plans and reviewing them periodically for effectiveness. Departmental area managers (e.g., mining, milling, and plant/site services) will be directly responsible for implementation of the EMS, management plans, and standard operating

procedures relevant to their areas. All employees and contractors are responsible for daily implementation of the practices and policies contained in the EMS.

During closure and post-closure, staffing levels will be reduced to align with the level of activity associated with these phases. Prior to initiating closure activities, BW Gold will revisit environmental and health and safety roles and responsibilities to ensure the site is adequately resourced to meet permit monitoring and reporting. The Mine Manager will maintain overall responsibility for management of Closure and Post-closure activities at the mine site.

Pursuant to Condition 19 of the EAC #M19-01, BW Gold has established an Environmental Monitoring Committee to facilitate information sharing and provide advice on the development and operation of the Project, and the implementation of EAC conditions, in a coordinated and collaborative manner. Committee members include representatives of the BC EAO, UFN, LDN, NWFN, StFN, SFN, NFN, BC EMLI, BC ENV, and BC MOF.

Pursuant to Condition 17 of the EAC #M19-01, Aboriginal Group Monitor and Monitoring Plan, BW Gold will retain or provide funding to retain a monitor for each Indigenous nations defined in the EAC #M19-01 prior to commencing construction and through all phases of the mine life. The general scope of the monitor's activities will be related to monitoring for potential effects from the Project on Indigenous nations' interests.

4.0 Compliance Obligations, Guidance, and Best Management Practices

4.1 Legislation

Federal legislation applicable to the FMSCP includes:

- *Canadian Environmental Protection Act, 1999*;
- *Environmental Emergency Regulations*;
- *Declaration on the Rights of Indigenous Peoples Act*;
- *Hazardous Products Act*;
- *Hazardous Products Regulations*;
- *Hazardous Materials Information Review Act*;
- *Hazardous Materials Information Review Regulations*;
- *Transportation of Dangerous Goods Act, 1992*;
- *Transportation of Dangerous Goods Regulations* (TDG Regulations); and
- *Fisheries Act*.

Provincial legislation applicable to the FMSCP includes:

- *British Columbia Building Code Regulation*;
- *British Columbia Fire Code Regulation* (BC Fire Code);
- Declaration on the Rights of Indigenous Peoples Act;
- *Environmental Assessment Act*;
- *Mines A*ct;

- Health, Safety and Reclamation Code for Mines in British Columbia (Code; EMLI 2021);
- *Motor Vehicle Act*;
- *Environmental Management Act*;
- *Contaminated Sites Regulation*;
- *Hazardous Waste Regulation*;
- *Ozone Depleting Substances and Other Halocarbons Regulation*;
- *Petroleum Storage and Distribution Facilities Storm Water Regulation*;
- *Spill Contingency Planning Regulation*;
- *Spill Preparedness, Response and Recovery Regulation*;
- *Spill Reporting Regulation*;
- *Waste Discharge Regulation*;
- *Fire Services Act*;
- *British Columbia Fire Code Regulation*;
- *Forest Act*;
- *Forest and Range Practices Act*;
- *Forest Service Road Use Regulation;*
- *Transport of Dangerous Goods Act*;
- *Transport of Dangerous Goods Regulation*;
- *Water Sustainability Act*;
- *Workers Compensation Act*; and
- *Occupational Health and Safety Regulation*.

4.2 Environmental Assessment Office and Federal Decision Statement Conditions

There are no EAC conditions requiring a fuel management plan; however, there are EAC conditions that include topics covered by the FMSCP as follows:

- Condition 13 (Construction Environmental Management Plan) includes measures to address hydrocarbon spill prevention and response; and
- Condition 36 (Accidents and Malfunctions Administration and Communication Plan) identifies notice requirements for Aboriginal Groups, Tatelkus Lake 28, nearby residents and businesses and local governments, local communities in the event of an accident or malfunction.

There are no specific conditions in the federal DS related to fuel management and spill response. Condition 10.3 requires the development of an accidents and malfunction response plan that includes the types of accidents and malfunctions that may cause adverse environmental effects and measures to be implemented in response to each type of accident or malfunction. Accidents or malfunctions could include hazardous material spills.

4.3 Existing Permits

Aside from the EAC conditions, the requirement related to fuel management ands spill response is found in the Mines Act Permit M-246, Part C, Section 8 - Construction Environmental Management Plan.

(b) The Permittee must, at a minimum 30 days prior to the start of any new disturbance within the Permitted Mine Area, submit a site specific CEMP to the Chief Inspector for each area of new construction. The Permittee must ensure that the plans include, but are not limited to, the following, and lists as item vi) **Fuel Management and Spill Response.**

4.4 Guidance and Best Management Practices

Guidance documents related to fuel management and spill prevention may include:

- Workplace Hazardous Materials Information System (WHMIS);
- A Field Guide to Fuel Handling, Transportation & Storage (BC Ministry of Water, Land and Air Protection [BC MWLAP] 2002);
- Forest Road Engineering Guidebook (BC FLNRO, n.d.);
- Implementation Guidelines for Part 8 of the *Canadian Environmental Protection Act, 1999* – Environmental Emergency Plans (Government of Canada 2004);
- Emergency Preparedness and Response CSA-Z731-03 (R2014; Canadian Standards Association [CSA] 2003);
- Chief Inspector's Directive: Hydrocarbon Spills, May 15, 2015 (EMLI 2015); and
- Technical Guidelines for the *Environmental Emergency Regulations*, 2019 Version 2.0 (ECCC 2019).

5.0 Support

5.1 Training and Awareness

Employees and contractors will receive training in spill response procedures as part of the pre-work Site Orientation as well as refresher training as required. The purpose of this training is to provide all site personnel with a basic level of environmental awareness and an understanding of their obligations regarding compliance with regulatory requirements, commitments, and best practices. The EM will be responsible for developing the environmental content for the Site Orientation and refresher training. Records will be maintained in a database and designated employees will be responsible for delivering the Site Orientation.

All those responsible for the management, implementation, and operation of any aspect of this plan will be competent for their role. Prior to the commencement of work on the Project, these personnel will:

- Have reviewed and be aware of the requirements of this plan;
- Be aware of the legislative requirements, specifically including but not limited to:
  - Workplace Hazardous Materials Information System (WHMIS);
  - Material Safety Data Sheets (SDS);
  - *Hazardous Waste Regulation*;
  - *Spill Reporting Regulation;*
  - A Guide to Fuel Handling, Transportation & Storage (BC Ministry of Water, Land and Air Protection);
  - Transportation of Dangerous Goods (federal and provincial legislation and regulations);

- Be trained in, and aware of:
- Safety and emergency response procedures;
- Evacuation procedures;
- Procedures for handling fuels and controlling and cleaning-up leaks and spills;
- Speed limits on roads on and off the mine site;
- Obligations to report all spills; and all communication protocols with Aboriginal Group;
- Role of Aboriginal Monitors related to spill response;
- Be knowledgeable in fuel storage and handling locations and spill response equipment locations on mine site; and
- Be trained in spill response procedures.

5.2 Internal and External Communication

5.2.1 Internal Communication

Petroleum spills greater than 25 litre on site will be reported to the EM. Spills <100 litre will follow the spill reporting procedures for Level 1 in Table 9.1-1 Fuel Spill Severity Classification. Environmental incident reports are submitted via Blackwater's internal hazard identification system. The EM, Mine Manager and other relevant parties receive notifications when hazards are entered. If a spill is outside of a regulatory threshold, the EM will be notified immediately.

5.2.2 External Communication

Spill regulatory thresholds are identified in Appendix A and will be reported to Emergency Management BC (EMBC) by the Mine Manager or designate. The EM will notify the Ministry of Environment and Climate Change Strategy (ENV) depending on the environmental impact and whether a spill threshold was exceeded (e.g., spill below a reporting threshold, but it has or is likely to enter a body of water). External contacts are listed in Table 5.2-1.

Table 5.2-1: External Contact Information

Contact	Phone Number
Site Emergency Contacts	
Gatehouse	TBC
Security	TBC
Ambulance / First Aid	TBC
Mining Operations in Region	
Mount Milligan Mine	250-996-0066
Gibraltar Mine	250-992-1800
Endako Mine	250-669-6211

Contact	Phone Number
BC EMLI – First Contacts in Case of an Emergency	
Chief Inspector of Mines	250-952-0494
Deputy Chief Inspector of Mines	250-952-0471
BC EMLI maintains one mine rescue equipment cache for the province located in Kamloops. The Chief Inspector of Mines or the Deputy Chief Inspector of Mines, Health and Safety authorize any loan of equipment from the cache.	
Emergency Services	
EMBC Emergency Coordination Centre	1-800-663-3456
BC Wildfire Service	1-800-663-5555 (or *5555 cell)
BC ENV – Environmental Emergency Program Enforcement and Environmental Safety Programs Officers	1-800-663-3456 (via EMBC)
Transportation Safety Board of Canada (Gatineau, Quebec)	1-800-387-3557
RCMP (Vanderhoof)	250-567-2222
RCMP (Fort St. James)	250-996-8269
RCMP (Prince George)	250-561-3300
BC Air Ambulance	911
BC Ambulance Service (Vanderhoof)	250-567-9039
St. John Ambulance (Prince George)	250-561-1696
Local Hospitals	
St. John Hospital (Vanderhoof)	250-567-2211
University Hospital of Northern British Columbia (formerly Prince George Regional Hospital)	250-565-2000
Indigenous Offices	
Ulkatcho First Nation	250-742-3260
Lhoosk’uz Dené Nation	250-992-3290
Nadleh Whut’en First Nation	250-690-7211
Stellat’en First Nation	250-699-8747
Saik’uz First Nation	250-567-9293
Nazko First Nation	250-992-9085
Other Contacts	
Canfor Administration Centre (Prince George)	250-962-3500
BC Hydro	1 800 224 9376

Contact	Phone Number
Fixed Wing and Helicopter Providers	
Northern Thunderbird Air (NT Air)	250-963-9611
Yellowhead Helicopters	250-567-5777

Notes:

BC = British Columbia; BC EMLI = British Columbia Ministry of Energy, Mines and Low Carbon Innovation; BC ENV = British Columbia Ministry of Environment and Climate Change Strategy; EMBC = Emergency Management BC; RCMP = Royal Canadian Mounted Police

This table will be updated to include emergency contacts for communities, Aboriginal Groups, individual residents and other industries identified in the Project area as having the potential to incur effect from an emergency incident occurring at the mine site. This table will also be updated to include any other contacts (designated mine site control centre, specialist consultants, etc.) identified. All information in this table is periodically updated as needed to remain current.

6.0 Fuel Delivery and Storage Areas

Site personnel will notify Security whether fuel is expected to be delivered and if there are any special considerations with any delivery.

Fuel will be delivered to the mine site by bulk tanker. Upon arrival at the mine security gate, Security will ensure the driver has reviewed the fuel delivery procedure via a visual check of records. If the driver's name is not recorded, the driver will be required to review the procedure. The transport driver will sign off to acknowledge that they have received, reviewed and understand the procedure to be followed. All completed reviews shall be sent to the Manager for review and filing.

Security will ensure that bulk tanker drivers are familiar with Site and fuelling locations. If a driver is new to site or unsure, Security will contact the Site Services Supervisor on the radio to escort the bulk tanker to the Bulk Fuel and Ready Line area following the route detailed in a map provided at the security shack. Prior to transport on site the driver will be made aware of high risk areas including critical spots such as corners with restricted vision and any haul road crossings, etc.

6.1 Bulk Fuel and Ready Line

Fuel will be primarily stored in the Bulk Fuel and Ready Line area. It is anticipated that several temporary fuel tanks, with a range of sizes, will be utilized on-site to accommodate various construction areas. For mining Stage 1, approximately 500,000 L of cumulative diesel storage is anticipated. For mining Stages(s) 2 and 3, approximately 1,000,000 L of cumulative diesel storage is anticipated. During all phases approximately 10,000 L of gasoline will be stored at yet to be determined light vehicle fuelling locations.

Tank capacity will be designed to meet surface and mining fleet requirements depending on the stages of mining, as diesel consumption will fluctuate annually. In the event of weather related delays for fuel delivery it is anticipated that approximately five days of inventory will be maintained. Over the life of mine, storage capacity will be monitored and adjusted, accordingly.

Temporary, above ground, fuel storage tanks will be double walled and protected from collisions. They will be placed in locations that will limit harm to the environment should there be a spill or accidental release. Construction site, temporary double-walled fuel tanks are generally not required to be placed within engineered bunds.

More permanent or fixed fuel storage areas will be surrounded by an appropriately sized bund that will vary in size depending on volume stored. Sloping of the bund should be 3H:1V on the inside and a 2.5H:1V slope on the outside, but may vary due to field fitting. The bund and the fuel storage area will be lined with a buried geotextile and high density polyethylene liner. The geotextile and liner will be keyed into the construction of the bund to prevent “creep” over time and to effectively seal the fuel storage area in case of a spill.

To recover contaminated surface water in the fuel storage area, a sump will be placed at a low point.

Storage tank construction and operation will follow the Project phases to support the increase in mining operations and mine fleet. The anticipated full build-out of the facility will be completed in Year +10.

As the cumulative fuel storage in the Bulk Fuel and Ready Line area will exceed 100,000 L, the fuel storage facility will be designed, registered, and managed as per the *Petroleum Storage and Distribution Facilities Storm Water Regulation*. This includes:

- Designing the separator system as per section 5 of the *Petroleum Storage and Distribution Facilities Storm Water Regulation* so it:
  - directs all drainage from the petroleum transfer area to the separator;
  - receives only precipitation runoff, vehicular petroleum discharges and accidental discharges of petroleum from the petroleum transfer area;
  - provide hydraulic retention time required to separate droplets greater than 0.015 cm in diameter from storm water or to another standard approved in writing by the director;
  - is designed to prevent the discharge of an accidental spill by having:
    - a minimum volume of 1,000 litres;
    - a shutoff valve on the separator outlet;
    - the capability to sample the effluent discharge from the separator outlet;
  - is designed for a 10 year return period storm event of 60 minutes duration for the nearest rainfall recording station;
  - is designed for a water temperature of 5 degrees Celsius and a petroleum specific gravity of 0.85;
  - is documented on a site plan which shows the location of the separator system, the areas serviced by the storm sewer and the point or points of discharge to the environment;
  - is certified as such by a professional engineer registered in BC;
- Managing the separator system as per section 6 of the *Petroleum Storage and Distribution Facilities Storm Water Regulation* as follows:
  - Conducting weekly visual inspections to look for any evidence of petroleum bypass or other condition which might indicate malfunctioning of the separator;
  - Taking corrective actions to correct any malfunction identified during weekly inspections;
  - Taking monthly measurements of the thickness of accumulated petroleum on the surface of the separator and the accumulated sludge in the bottom of the separator;
  - Taking measurements of the thickness of petroleum on the surface of the separator immediately following an accidental discharge of petroleum to the separator;
  - Maintaining and recording in a cleanout log:
    - visual inspection results;
    - monthly measurements indicated above;
    - details of any accidental discharges;

- During periods of extended freezing temperatures, an operator will convert the separator to a spill interceptor by emptying the separator, closing the outlet valve, recording the date that the separator is converted to a spill interceptor and returned to separator operation in the cleanout log, and discontinuing the inspections and measurements for the period of time that the separator functions as a spill interceptor.
- After each inspection and measurement, the operator will:
  - immediately remove the accumulated petroleum from the surface of the separator if the accumulated thickness of petroleum exceeds 50 mm, and
  - immediately remove the accumulated sludge from the bottom of the separator if the accumulated thickness exceeds 150 mm, or impairs the operation of the separator, and clean and inspect the separator, regardless of the accumulated thickness of petroleum and sludge, at least once every two years.
- Maintain records of: inspections and cleanout log for the separator which includes the date, visual appearance, measured thickness of oil and sludge layers, volume of oil and sludge removed, name and signature of the person entering the data and, if applicable, the name of the oil and sludge removal contractor; the date and quantity of accidental discharge of petroleum greater than 100 litres into the separator system; and a copy of the site plan. Keep all records for at least two years.
- Do not intentionally discharge or allow the intentional discharge of any substance, including tank bottom water, into a separator system unless the substance is water, or water contaminated with hydrocarbon such that the resultant mixture is not waste oil.
- Close the separator outlet valve immediately after a petroleum spill is discovered and will not reopen the valve unless the thickness of accumulated petroleum on the surface of the separator is reduced to less than 50 mm.
- BW will institute a preventive maintenance, monitoring and inspection program to prevent the accidental discharge or spillage of petroleum products.

6.2 Camp Fuel Farm

Electricity will be supplied to the operation camp by the main power distribution system or, in the event of a service disruption, backup generators. A 25 kV overhead line to a 4.16 kV transformer will be routed to the Main Electrical Distribution centre. An appropriately sized generator will power camp facilities at the Project. To the extent such a generator is diesel powered, it will have an appropriately sized storage tank for diesel fuel.

7.0 Fuel Management

Propane, diesel and gasoline will be used at the mine. Propane will be used for heating systems and incineration. Diesel will be the primary fuel source for power mobile equipment and generators; gasoline will be used to power smaller pieces of equipment, light vehicles, and some tools.

Fuel dispensers will be designed and operated to meet the relevant statutory regulations and when practicable recommended practices described in A Field Guide to Fuel Handling, Transportation and Storage (BC Ministry of Water, Land and Air Protection 2002) and the BC Fire Code.

In case of a fuel spill, the Spill Response Plan will be followed (Section 9). The following management practices will be implemented throughout all phases of the Project to prevent spills and other hazards that may result from fuel management.

7.1 Handling and Dispensing

- At the Bulk Fuel and Ready Line and larger temporary fuel tanks, fuel will be dispensed directly from tanks to haul trucks and fuel-transport trucks by means of high-flow (Wiggins-type) nozzles and receivers.
- Fuel transfer trucks will deliver fuel to mobile equipment, and to various other smaller, temporary tanks at various locations on Site.
- Fixed fuel dispensers will be physically protected from collision damage by concrete barriers (> 10 cm high) or guard rails BC Fire Code 4.5.3.3).
- All operators will remain with the fuel nozzle while refueling.
- Ignition will be turned off while the vehicle is being refueled.
- Two approved and current 20 lb BC fire extinguishers will be available within 9 metres of the work area while handling fuel (BC Fire Code Section 4.6.9.1).
- At least one approved and current 20 lb portable fire extinguisher within the tank vehicle (BC Fire Code Section 4.11.2.1).
- Prevent tanks from being overfilled by providing continuous supervision of the filling operation by personnel qualified to supervise such an operation; **or**, an overfill protection devise conforming to ULC/ ORD-C58.15 (BC Fire Code 4.3.1.8).
- Fuel loading procedures must be posted at the fueling site and reviewed with all personnel.
- After refueling, hose and nozzle and will be stored in a secure and safe position to prevent unnecessary spillage. Hoses will be kept off the ground and valves closed and locked when not in use.
- Do not fuel or service equipment within a riparian management area of a stream or wetland, or within 30 m of a shoreline.
- Complete visual inspections of the piping system, pumps and ancillary equipment for leaks spills and obvious abnormal conditions.
- All transfers from tanker trucks to tanks at remote fueling stations will be done using enclosed lines, hoses, and pumps.
- All storage and transfer locations will also be equipped with appropriate spill kits.
- Fuel transfer procedures will include best management steps to ensure no overtopping of tanks or spillage. In addition, inventories will be tracked regularly to check on any possible losses. All spills or accidents will be reported immediately as per the requirements in this plan.

7.2 Storage

- Fuel tanks will be CSA approved and comply with regulations and recommended practices described in A Field Guide to Fuel Handling, Transportation, and Storage (BC MWLAP 2002) and the BC Fire Code. Tanks will bear a current Underwriters Laboratories of Canada certification plate or label.
- The Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products (CCME 2003) states that all aboveground storage tank systems containing petroleum products and having a single or total capacity of more than 4,000 litres (880 gallons) at a site shall register all storage tanks of the system with the authority having jurisdiction.

- Tanks have not yet been selected, but will follow legal requirements and consider best practices in the selection of leak detection and tests.
- Storage tanks must be installed on firm foundations designed to minimize uneven settling and corrosion. Multiple tanks must be separated by a minimum of 1 m.
- An oil/water separator is required to treat storm water effluent at all bulk plants and tank farms that have a cumulative storage capacity that is greater than 22,000 gallons (100,000 litres).
- Tanks and sumps will have high-level alarms.
- Fuel will be stored in containers in good condition that are designed and constructed for fuel storage.
- To minimize the risk of fuel leaks during storage of fuel:
  - All equipment used to store or dispense fuel will be free of leaks.
  - Fuel storage locations and equipment will be inspected according to a developed inspection program. Fuel storage locations will be visually inspected daily for leaks, spills, and obvious abnormal conditions. Any leakage will be repaired immediately. If tanks are resting on the ground, daily measurements of fuel levels by tank dip and calculation of fuel gain or loss will be taken.
  - Tanks will be physically protected from collision.
  - All tanks will be regularly serviced.
  - Tanks will be filled to an acceptable safe filling level of approximately 90% capacity (BC MWLAP 2002).
- Fuels will be stored separately from corrosive materials.
- Smoking in and around fuel storage and fuel dispensing facilities will be prohibited. Signage will be placed adjacent to all such locations.
- When not in use, Mobile fuel storage trucks will be parked in designated locations and in a manner to prevent spills and avoid risks of collisions.
- A fuel cache with more than four drums should be contained within a secondary containment.
- Tank supports will have a fire-resistance rating of at least 2 hours.
- Fuel storage and dispensing will occur at least 30 m from watercourses and wetlands.
- Any tank that will be out of service for more than 180 days must have all liquid and vapour removed from the tank and its connected piping, isolated by closing and locking valves or piping from the tank, and the contents shipped to an appropriate facility for storage or use. The tank must also be clearly marked by signs to indicate they are empty.
- Liquid levels in tanks containing flammable or combustible liquids will be measured at intervals no greater than one month.

7.3 Transport

- BW Gold will require emergency response plans from fuel trucking contractors and request that it includes reporting requirements to Indigenous nations when off-site or en-route.
- Fuel will be transported in containers and vehicles that comply with the federal *Transportation of Dangerous Goods Act* and the provincial *Transport of Dangerous Goods Act* hazard classification.
- Tank trucks must be inspected by a facility registered by Transport Canada. Visual inspections will be done every two years and pressure tests will be done every five years.

- Containers for the transportation of fuel will be labelled to communicate the hazard the material represents, made of a material that is compatible with the transported fuel, and in good condition (not damaged, rusting or leaking).
- Vehicles for the transportation of fuels will be labelled to communicate the hazard the material represents.
- Tanks and containers with a capacity of greater than 50 gallons (230 litres) used for the transportation of flammable liquids or combustible liquids, shall conform to the requirements for the construction of cargo tanks on tank vehicles.
- Fuels will be transported separately from other hazardous or non-compatible materials.
- Vehicles and transportation plans will be designed to minimize the chance of a potential spill and to minimize the effect of a spill, should one occur.
- Transport containers will be properly secured and positioned to allow safe access and handling of containers.
- Containers of 5 gallons (23 litres) or less should be stored in an equipment box (Truck box/slip, Tidy Tanks) of a vehicle, reducing the risk of the container to bounce and spill.
- The slip tank will be regularly inspected for leaks and cracks. The slip tank will be repaired or replaced as required to maintain tank integrity.
- The spill response plan and a spill response kit, capable of containing and absorbing fuel spills will be available in all vehicles that are used for the transportation of fuel.
- Maintain appropriate spill equipment with the transport vehicle and at all work sites.
- Employees will be prohibited from smoking in and around fuel transport containers and vehicles.

7.3.1 Fuel Driver Requirements

All drivers will:

- Will be trained and have CPPI Drivers Certification Training and Transportation of Dangerous Goods certification course or equivalent;
- Be trained in the relevant sections of the TDG Regulations as applicable to their job and have ready access to their certification;
- Be trained on the Spill Response Plan and spill reporting requirements both within and outside the mine site boundary;
- Ensure no smoking or open flames are used around the fuel stations at any time;
- Wear a hardhat and safety glasses at all times;
- Yield to larger traffic;
- Obey the speed limit within the pit area;
- Obey all posted speeds within and outside the mine site boundary;
- Have all lights and markers turned on;
- Follow the designated route; and
- Review site delivery procedures.

7.3.2 Bulk Fuel and Temporary Fuel Tank Delivery

Trucks delivering fuel to the Bulk Fuel and Ready Line area are required to follow the procedure below:

1. Proceed directly to the Bulk Fuel and Ready Line area or temporary fuel tank area following the route on the map.
2. Park beside the pump (use required wheel chocks).
3. Staff will have determined which tank is to be filled and the correct valve inside the Bulk Fuel and Ready Line area will be open. In addition, the driver will confirm the quantity of space available in the tank prior to offloading as a precautionary measure in the event that a tank's high level alarm potentially fails.
4. The driver will hook the Static Grounding Line and the hose up to the truck and the pump.
5. Open the valve on the tank and check for leaks.
6. Open the valve and start the pump. The fuel will unload and fill the tank.
7. The driver must stay at the pump checking that fuel is unloading and there is no spillage. In the event of a spill the driver shall contact Security.
8. Upon completion turn off the pump and close all valves.
9. Hang up the hose, unclip and stow the Static Grounding Line.
10. Leave all paper work in the drop off box.

During closure, the Bulk Fuel and Ready Line area and all temporary fuel tank areas will be decommissioned. Prior to decommissioning, BW Gold will evaluate the Project's fuel requirements for the post-closure phase and may select an alternate tank location closer to activities at that time. The fuel delivery contractor will be kept appraised of any change to the delivery point, when and if necessary.

7.4 Inspections and Maintenance

7.4.1 Inspections

Stationary fuel and dispensing stations, generator facility and fuel storage areas will be visually inspected and documented based on the type of tank and associated piping in accordance with Section 4.4 of the BC Fire Code Inspections requirements for fuel storage and dispensing areas will not change in schedule due to closure, however, resources available to execute inspections may vary and roles and responsibilities will need to be re-evaluated as the site moves into closure and post closure.

7.4.2 Maintenance

Maintenance will include:

- Developing preventative maintenance strategies for mobile equipment, including replacing worn hoses and "O" rings, instead of running them to failure;
- Using replacement parts that meet the manufacturer's specifications for the given application;
- Ensuring that hoses are properly routed and frame clamped; and
- Using catch trays to prevent oil spills during field repairs and immediately collecting any spilled oils.

Maintenance requirements for fuel storage and dispensing areas will not change in schedule due to closure, however, resources available to execute inspections may vary and roles and responsibilities will need to be re-evaluated as the site moves into closure and post closure.

8.0 Spill Prevention Strategies

The cause of any spill is generally attributable to either direct human error (fatigue, lack of training, etc.) or indirect human error (fire, explosion, equipment failure, etc.). Therefore, having appropriate prevention and contingency strategies are necessary to proper planning.

There are two categories of spill prevention, which are:

1. Prevention before the fact; and
2. Prevention after the fact.

Prevention before the fact is the anticipation of potential causes of spills and the implementation of preventative measures to ensure that these spills do not occur. Prevention after the fact is the determination of the cause of a spill and the implementation of measures to prevent its reoccurrence. Strategies that BW Gold employees will implement to prevent spills include:

- Awareness of spill response steps listed in Section 9.2 Spill Response Procedures.
- Educate employees on the hazards and consequences of spills and on methods of transfer, transportation and storage. This may be achieved by conducting seminars, drills and practice.
- Follow the correct fuel disposal procedures.
- Take care when working around watercourses.
- Make a checklist of the operation's potentially hazardous areas available to the maintenance inspectors and operators. These checklists would be used for inspections and quality control.
- Use area logbooks during regular inspections.
- Use anti-spill devices such as drip pans, interceptor drains, high-level sensors and one-way valves when transferring materials from one vessel to another.

8.1 Containment

Appropriate facility design and containment vessel selection is a key component of spill risk reduction. The following containment-related design parameters or mitigation measures will be implemented to reduce the risk of fuel spills on the mine site:

- For leak control and environmental protection, all unenclosed fuel storage tanks larger than 454 L will be double walled.
- When required (i.e., when storage capacity is >100,000L) fuel storage areas will be lined to ensure storm water is allowed to drain towards separators and/or sumps.
- Tanks inside buildings will be protected by curb and building floor systems. The secondary containment systems will be designed in accordance with the FM Data Sheet 7-88 and BC Fire Code. Additional protection will be incorporated as required based on environmental and permitting requirements.
- Where fuelling equipment cannot be installed inside the containment areas, drip trays will be provided to contain any spills that might occur.

- Containment area floors will be sloped away from the fuel storage tanks and will incorporate sumps and drainage control for removal of accumulated rainwater and melted snow.
- Accumulated water within a containment will be monitored weekly, and removed using a vacuum truck for appropriate off site disposal. Records will be kept of offsite disposals.
- When required thecontainment berm at a tank farm containing a single tank must be of sufficient size to contain the volume of the tank plus 10%. For a multi-tank farm facility, the berm must contain 110% of the largest tank or 100% of the largest tank plus 10% of the aggregate volume of all tanks within the berm, whichever is greater.
- Where a geotextile membrane is used in a containment berm, ensure that it is always covered with a protective layer of soil.
- Secondary containment facilities will not be used for storage purposes. All double walled tanks > 80,000 L that operate as bulk plants should have some form of secondary containment capable of containing an accidental spill from the tank, piping, or transfer systems, as per the BC Fire Code.
- Precipitation will be pumped out if it is accumulating within fuel containment areas.

8.2 Engineered Systems

The preferred manner to deal with spills is by avoidance through embedded mechanisms (e.g., engineered prevention such as check valves, automatic shut offs, level gauges and alarms, etc.) within the storage, handling, and transportation activities. Reducing risks associated with spills starts with properly trained operators, well-designed fuel stations, and good equipment maintenance.

Engineered systems that BW Gold will implement to assist in the prevention of spills can be found in the Chemicals and Materials Storage, Transfer, and Handling Management Plan (Appendix 9-M of the Joint *Mines Act* / *Environmental Management Act* Permits Application [the Application]).

8.2.1 Process Upsets and Non-Compliant Discharge

For the purposes of the FMSCP, process upsets will be limited to the ready line and bulk fuel storage area. Process upsets in this area will be managed through engineered systems.

Each fuel dispensing skid will include an integral drip tray with clean out to capture any minor drips. Each nozzle will have a holder with drip containment and a drain. Each skid will have a start/stop panel for controlling the pumps and valves. The panel will also have an emergency shutdown button.

The ready line and bulk fuel storage area will be surrounded by a sufficiently sized bund with appropriate inside and outside sloping. The bund and fuel storage area will be lined with a buried geotextile and high density polyethylene liner. The geotextile and liner will be keyed into the construction of the bund to prevent “creep” over time and to effectively seal the fuel storage area in case of a spill.

To recover contaminated surface water in the fuel storage area, a sump will be placed at a low point.

All non-compliant discharge will be managed in accordance with Section 9.

9.0 Spill Response Plan

Response to general mine site emergencies is captured in the Mine Emergency Response Plan (MERP: Appendix 9-J of the Application). The spill response plan included in this Plan is specific to fuels. Spill response to all other chemicals is presented in the Chemical and Material Storage, Transfer, and Handling Plan (Appendix 9-M of the Application).

9.1 Fuel Spill Response Procedures

The following procedure summarizes the basis for actions in dealing with spills no matter the size:

1. Communicate that the spill has occurred to supervisor. If the spill is or is likely to trigger provincial reporting threshold >100 litres of TDG Regulations Class 3 – flammable/combustible liquids or waste oil or the spill has or is likely to enter a water body, the supervisor will ensure that the spill or the imminent spill is immediately reported to EMBC by calling 1-800-663-3456. See Section 5.2.2 for external notification requirements.
2. Consider the risk (danger) to personal health and the environment. If possible secure the area, identify substance and level of response required. Protect waterways from oil or chemical pollutants. For a chemical spill, check the SDS for identification of all hazards associated with the chemical.
3. Cease the flow from the source (e.g., shut off valves if possible).
4. Contain the spill to minimize contamination (e.g., temporary berm, booms and socks from the kit).
5. Absorb the spill using the pads, pillows, etc. in the kit. Finish cleanup with floor sweep.
6. Dispose of Contaminated Product[1]. Ensure the contaminated waste is treated appropriately (e.g., oil-soaked waste in marked bins separated from general waste bins). And all oil contaminated soil (OCS) is thoroughly cleaned up, placed in labelled drums, and disposed of as waste in a manner appropriate, see the Waste (Refuse and Emissions) Management Plan (Appendix 9-N of the Application) for more information.
7. Conclude by reporting and investigating how the spill could have been prevented.
8. Evaluate past spills within the mine site and their causes to develop preventative controls.

An Initial Report as outlined in section 4 of the *Spill Reporting Regulation* will be completed and submitted upon identification of a spill. Another End-of-Spill Report will be submitted within 30 days after the emergency response completion date for the spill as outlined in section 6 of the *Spill Reporting Regulation.*

If on-site trained personnel or on-site available spill response equipment cannot handle the spill, an external spill response contractor will be arranged to attend to the situation. The Environment Manager, in coordination with external consultants, will develop a plan for cleanup and remediation.

For Level 2 or 3 Spill (see Table 9.1-1), the EM will notify all relevant agencies and stakeholders of the event. In the event of a large spill or a spill near waterways, the Emergency Response Plan Coordinator will be notified and Incident Command will be convened.

9.1.1 Fuel Spill Classification

There are three levels of fuel spills, as defined in Table 9.1-1. For non-fuel spill material types and reportable quantities, see prescribed substances and quantities for immediate spill reporting according to the *Spill Reporting Regulation* (Appendix A).

[1]Section 8 of the Contaminated Sites Regulation.

Table 9.1-1: Fuel Spill Severity Classifications

Spill Severity	Description	Action Required	Example
Level 1	• Volume of fuel spill is small and contained on site and is less than BC reportable threshold quantity (100 L). • No risk to persons or environment. • Can be completely contained and cleaned up by on site employees.	• Internally reportable with Spill Report procedure. • Cleanup required.	• Spill during an oil change. • Spill from overfill during fueling.
Level 2	• Volume of fuel spill is greater than the BC reportable threshold quantity (100 L) or material enters or is likely to enter a body of water that does not leave Mine site boundaries. • No significant danger to persons or environment. • Can be completely contained and cleaned up by on site employees and equipment.	• Notify EM, who will notify EMBC, Indigenous Monitors and EMC Members[2]. • Complete Spill Report. • Notify Mine Manager. • Cleanup and disposal of contaminated materials as per EM.	• Punctured oil drums. • Spill from haul truck.
Level 3	• Volume of fuel spill is greater than BC reportable threshold quantity (100 L) and spill may leave Mine site boundaries (that may be classified as a Yinka Dene waterbody). • Potential risk to persons in area or immediate environment. • May require additional off-site resources or consultation. • May be of media and public interest.	• Notify EM who will notify EMBC, Indigenous Monitors and EMC Members[2] . • Complete Spill Report. • Complete Incident Investigation. • Notify Mine Rescue. • Notify Mine Manager. • Cleanup actions may require input from Government agencies.	• Overturned fuel transport truck. • Spill to a sensitive environment.

9.2 Containment and Spill Control

In the event of a spill, stop the flow of petroleum products and eliminate any ignition sources, if possible. Individuals who do not make up a part of the Spill Response Team should leave the area immediately.

Prior to taking any action, ensure that a complete assessment is made to ensure that resources are used effectively. Use appropriate safety procedures and personal protective equipment. An intense and quick response is essential to minimize the potential impact on the environment.

[2] As listed in Appendix D-1 (Accidents and Malfunction Call-Out Sheet) of the Accidents and Malfunctions Administration and Communication Plan

Ensure a plan is established to safely respond to the spill:

- Determine safety and protective equipment for working in or around the spill;
- Provide first aid to injured persons; and
- Monitor vapour levels if applicable (e.g., gasoline, flammable liquids).

9.2.1 Spill on Land

The following actions should be taken when there is a spill on soil, gravel, rock or vegetation:

- Mark the perimeter of the spill;
- For larger spills build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm for easy capture of the spill after all vapors have dissipated;
- Remove the spill by using absorbent pads and/or by excavating the soil, gravel or snow;
- Process hydrocarbon impacted soils through the primary crusher and processing plant for encapsulation in tailings in the TSF; and
- Dig a test pit to determine the depth of the spill.

9.2.2 Spill on Water

The following actions should be taken when there is a spill on water:

- Use a floating containment boom to capture spill for recovery after vapors have dissipated;
- Use absorbent pads to capture small spills;
- Use a skimmer for larger spills;
- Make a note of destination of the spilled product downstream;
- Identify eddies, pools or culverts to use in diverting the spill;
- Note the depth and the velocity of the water;
- Note soils, vegetation, fish spawning areas, bird habitat, and wildlife;
- Identify any downstream areas and the rate of spread of the main slick;
- Visually inspect the foreshore to identify the extent of contamination;
- Note where the product is pooling along shore; and
- Note any marsh areas that must be protected.

9.2.3 Spill on Snow/Ice

The following actions should be taken when there is a spill on snow or ice:

- Build a containment berm around the spill using snow;
- Remove the spill using absorbent pads or particulate absorbent material; and
- Process contaminated snow/ice through the truck wash bay oil/water separator.

9.2.4 Cleanup

General cleanup for Level 2 and 3 spills may include the following:

- Build a containment berm around the spill using gravel, earth, or overburden using heavy equipment (e.g., loader, dozer, or excavator);
- Excavate a sump using a backhoe, lining it with appropriate impervious material (e.g., tarp or poly), and diverting the spill into the sump;
- Block culverts with appropriate materials;
- Divert spill into storm water pond or diversion channels where it can be isolated;
- Divert spill into site drainage sump and block inlet and/or outlet;
- Use absorbents (e.g., oil booms or pads) for hydrocarbon spills;
- Remove the spill splashed on vegetation using particulate absorbent material;
- Use emergency response kit; and
- Use over pack barrel (310 L size) for containing a leaking 205 L barrel if the leak cannot be stopped.

Cleanup of Spill on Land

Additional considerations for a cleanup of Level 2 or 3 spills on land include the following actions:

- Remove the spill splashed on vegetation using particulate absorbent material;
- Larger spills can be removed by pumping the spill into labelled 205 L drums;
- Dig recovery ditches around the perimeter (and pits within the spill area) to contain the spill;
- Monitor the ditches and pits to ensure the collection system are effective; and
- Sample the soil to determine the extent of contamination.

Cleanup of Spill on Water

Examples of actions that should be taken when there is a spill on water include, but are not limited to:

- Use a floating containment boom to capture spill for recovery after vapors have dissipated;
- Use absorbent pads to capture small spills;
- Use a skimmer for larger spills;
- In a ditch or stream, contain the spill using tarp containment system, underflow system or containment booms;
- In open water, divert the spilled product to the containment system using sorbent booms, synthetic booms;
- Use sorbent pads and/or pumps to collect the spill products from the containment area;
- Use a skimmer or suction pump (i.e., pump truck) if the volume is significant and the spill is contained; and
- Develop a monitoring program to assess and remove free product over a given time frame.

If an emergency response is triggered, control of the situation will be transferred to the Emergency Response team. The team will be guided by the MERP (Appendix 9-J of the Application) and a response will be created that is appropriate for the scenario.

9.3 Disposal

Disposal of contaminated materials resulting from a spill cleanup will be determined by the EM with reference to the SDS and may include:

- Collecting and storing used materials in sealed, labelled containers; and
- Shipping contaminated materials off site, unless otherwise approved, in waste manifested loads taken by a carrier with a list of emergency contacts and emergency measures clearly indicated.

Particulate sorbent used to treat spills, including, floating boom must be removed unless approved by the BC MOE. For spills that trigger reporting to EMBC, the disposal method should be confirmed with EMBC.

Procedures established during operation will be modified to appropriately address the management of products for the lower level of activity during post-closure. Monitoring and inspection will continue on a scheduled basis.

10.0 Resource Inventory

10.1 Fuel Spill Abatement Materials

BW Gold's fuel trucks and light duty vehicles that travel the surface mine roads will be equipped with materials to provide preliminary response to a spill. Operators of the vehicles will be responsible for maintenance of the spill kits. Examples of items in spill kits are as follows:

- 25 absorbency pads;
- 13 L bag of Oclansorb;
- 4 large plastic garbage bags;
- 1 roll heavy gauge poly for containment;
- 1 shovel;
- 1 Pulaski;
- 2 plugs for burst gas tank or oil drum;
- 1 Watergate® barrier; and
- Although employees will be wearing basic site personal protective equipment (PPE), additional PPE will be included in the vehicle spill kits, such as extra gloves and safety goggles.

There are spill kits located in close proximity to storage areas containing hazardous materials. The spill kits will be easily accessible. Examples of what these kits may contain are:

- 50 absorbency pads;
- 4 of 4"×10' sorbent socks for booming;
- 1 container of plugging compound for sealing tanks or drums;
- Box of Large plastic garbage bags;
- Box of vinyl gloves; and
- Plastic container to store used absorbents.

Disposal of used items is to be coordinated with the warehouse. Additional abatement materials are located at the warehouse.

10.2 Equipment Inventory

A varying inventory of heavy equipment suitable for contingency during a fuel spill, will be on site at different phases of the life of mine. The Mine Manager and Departmental Managers have a current list and locations schedule of heavy equipment and its availability for use.

The following equipment is representative of the type of heavy machinery to be located at various locations within the project area, which will be available for spill contingencies on site specific basis:

- D10 Caterpillar Dozer;
- D9 Caterpillar Dozer;
- D6T Caterpillar Dozer;
- 988K Caterpillar Loader;
- 395 Caterpillar Excavator
- 349 Caterpillar Excavator
- 18M Caterpillar Grader;
- 60 Ton Tadano Crane;
- 430 Caterpillar Rubber Tired Backhoe; and
- 242 Caterpillar Skid Steer;

As with any change at the site, as the operation moves into the different stages of the life of mine, equipment and fuel needs will need to be evaluated to ensure that sufficient spill response equipment is available on site and in the correct location.

10.3 Spill Response Kits

Spill response kits appropriate to the type and volume of material are appropriately specified for each piece of equipment that handles or transports contaminant materials (including fuel), including:

- Pickup trucks;
- Dump trucks;
- Commercial transport trucks;
- Excavation equipment; and
- Fuel trucks.

Spill response kits are located at appropriate material handling and storage locations, including:

- Process plant;
- Truck maintenance building;
- Fueling areas;
- Equipment caches; and
- Storage tank areas.

Spill response kit contents are based on the potential risk associated with the material, volume of material, and environmental sensitivity of the area. General kit contents should include:

- Oil absorbent pads;
- Absorbent socks;
- Granular absorbent; and
- Protective equipment (e.g., gloves, goggles, protective suits).

All kits should be stored in a visible location in an appropriate weather-resistant container. Regular inspections of the kits are performed to ensure that kits are complete and all materials remain functional.

When utilized a Mobile Spill Response Unit vehicle will be outfitted with a self-contained collection of spill response materials for rapid deployment to spill sites.

11.0 Spill Response Evaluation and Remediation

This section outlines the post-spill evaluation, monitoring, and remediation requirements following the identification of a mine-related spill into any area within the Mine Site outside of an engineered containment system. Follow-up monitoring after a Level 2 or 3 spill may be applicable in cases where there is a possibility that impact to the environment has occurred. This could include soil and surface water sampling near the area of a spill cleanup to ground, or the implementation of a ground water monitoring program to document the environmental conditions of a Level 2 or 3 spill. Proper sample collection is required to understand the nature of the material being discharged and to determine if the spill has resulted in an effect to the receiving environment. The sampling requirements for measuring the potential impact of a spill in the receiving environment are presented in Table 11-1.

Table 11-1: Sampling Requirements

Sampling Sites	Sample Bottles / Containers	Purpose
Point of Discharge	3 x 1 L 1 x 500 ml 2 x 50 ml 2 x 20 L carboys	• Characterization • Toxicity effects • Provincial and Federal requirement
Upstream of Point of Discharge (beyond the influence of effluent)	3 x 1 L 1 x 500 ml 2 x 50 ml	• Characterization • Provincial Government Requirement
Downstream of Point of Discharge	3 x 1 L 1 x 500 ml 2 x 50 ml 2 x 20 L carboys	• Characterization • Toxicity effects • Provincial Government Requirement

A camera should be taken to the site and pictures of the spill and receiving environment taken for documentation purposes. A variety of camera angles and both, close and distance photographs, are useful for preparation of spill reports.

11.1 Corrective Action Plan

After initial response to arrest the source of the spill is completed a corrective action plan for remediation will be developed with consideration for potential downstream effects to wildlife and fish and fish habitat. As there are many possible scenarios, a prescriptive plan needs to be based on the receiving environment and substance spilled.

Mine Site personnel and transport companies should be aware of various scenarios that could occur and potentially impact waterbodies/habitat where fish and wildlife are present. Measures to be prepared for a potential spill should be done ahead of transferring of materials from one vessel to another.

All spills, accidents, or observed instances of odour and/or petroleum product sheen in a watercourse will immediately be reported to the EM regardless of quantity or location (on-site or Project-related off-site). The EM is responsible for notification to mine management, Aboriginal Monitor(s), and any required reporting to outside agencies. Note, the term watercourse excludes isolated ponded water (puddles or ditches) at a construction site un-connected to a watercourse, and contact water collection systems directed to water treatment facilities.

12.0 Reporting and Record Keeping

12.1 Reporting

12.1.1 Monitoring Reporting

All spills, accidents, or observed instances of odour and/or petroleum product sheen in a watercourse will immediately be reported to the EM regardless of quantity or location (on-site or Project-related off-site). The EM is responsible for notification to mine management, Aboriginal Monitor(s), and any required reporting to outside agencies.

12.1.2 Compliance Reporting

Under the *Spill Reporting Regulation*, a spill of a prescribed substance and quantity listed in the Schedule to the Regulation (Appendix A) must be reported if:

- The spill enters, or is likely to enter, any body of water at any time of the year; or
- The volume of the substance spilled (or the potential to spill) is equal to or greater than the minimum quantity outline listed quantity for the listed prescribed substance.

If a spill occurs or is at imminent risk of occurring, the EM will ensure that the actual or potential spill is immediately reported to EMBC by calling 1-800-663-3456, and that an Initial Report and End-of-Spill Report is filed as required by the *Spill Reporting Regulation*.

Table 12.1-1 identifies reporting requirement and timeframes.

Table 12.1-1: Spill Reporting Requirements under the *Spill Reporting Regulation*

Spill Report	Content	Timeframe
Initial Report	When reporting a spill, the following information must be provided to the dispatcher: • The contact information for the individual making the report, the responsible person in relation to the spill, and the owner of the substance spilled; • The date and time of the spill; • The location of the spill site; • A description of the spill site and the surrounding area; • A description of the source of the spill; • The type and quantity of the substance spilled; • A description of the circumstances, cause and adverse effects of the spill; • Details of any action taken or proposed to comply with Section 91.2 (2) of the Act (Responsible Persons - spill response fact sheet [PDF]); • Names of any provincial, federal, local, and/or first nation government agencies at the spill site; and • The names of any other persons or government agencies advised about the spill.	Immediately.
Update Report	See information available in the End-of-Spill Report that is available at that time.	This report is required if any of the following three conditions are present: • As soon as possible at the request of the Minister; • At least once every 30 days after the date that the spill began until such time that the End-of-Spill Report is required; and • At any time the responsible person has reason to believe that information previously reported as part of the Initial Report was or has become inaccurate.

Spill Report	Content	Timeframe
End-of-Spill Report	The End-of-Spill Report must include the following information: (a) the contact information of: (i) the responsible person; and (ii) the owner of the substance spilled; (b) the date, time and duration of the spill; (c) the location of the spill site, which must be specified by: (i) its address, if any; and (ii) its latitude and longitude; (d) a description of the spill site and sites affected by the spill; (e) a description of the source of the spill; (f) the type and quantity of the substance spilled; (g) a description of the circumstances, cause and adverse effects of the spill, including, without limitation, a description of the following: (i) the activity during which the spill occurred (e.g., transportation, transfer of cargo, fuelling, cleaning, maintenance); (ii) the incident leading to the spill (e.g., tank rupture, overfill, collision, rollover, derailment, fire, explosion); (iii) the underlying cause of the spill (e.g., human error, external conditions, organizational or management failure); (iv) the adverse effects of the spill to human health, which must specify: (A) the number of injuries; (B) the number of fatalities; and (C) the number of evacuees. (v) the adverse effects of the spill to the environment and infrastructure at the spill site and the area surrounding the spill, which description must specify: (A) the size of the area adversely affected by the spill; and (B) the biological and other resources adversely affected by the spill, including, without limitation: (I) bodies of water; (II) flora and fauna; and (III) animal, fish and plant habitat.	If required, this report must be submitted within 30 days of the emergency response completion date of the spill.

Spill Report	Content	Timeframe
	(h) details of action taken to comply with section 91.2 [responsible persons — spill response] of the Act; (i) how and where waste from the spill was disposed of; (j) a copy of data from and reports of sampling, testing, monitoring and assessing carried out during spill response actions; (k) a map of the spill site and the area surrounding the spill and photographs of the spill; (l) the names of agencies on the scene; and (m) the names of other persons or agencies advised about the spill.	
Learned-Lesson Report	Must include: (a) a description of the effectiveness of the spill response actions; (b) a description of actions taken to prevent future spills and improve response to future spills; (c) if the responsible person is a regulated person: (i) a description of any changes that the person intends to make to the person's spill contingency plan to improve response to future spills; (ii) if the spill occurred in a geographic response area, a description of any changes that the person considers should be made to the related geographic response plan to improve response to future spills; and (iii) if spill response actions were carried out by a PRO, a description of any changes that the person considers should be made to the PRO's area response plan to improve response to future spills. (d) responses to any specific questions the director asks in the order.	When ordered to provide.

12.1.3 Incident Reporting

All spills will be reported and ranked for severity, with corrective actions assigned for follow up and completion. Significant events will trigger an incident investigation (including a root cause analysis). Investigations will be done by senior staff from relevant Managers. Remedial action may involve:

- Additional training for personnel;
- Enhanced equipment maintenance or inspection program; and
- Additional preventative infrastructure (containment berms, oil/water separators), etc.

The performance of the FMSCP will also be reviewed and be updated as necessary.

12.2 Record Keeping

The following documents will be kept on hand and available on the workplace intranet:

- Chemical and Materials Storage, Transfer and Handling Plan;
- Fuel Management and Spill Control Management Plan; and
- Mine Emergency Response Plan.

Records of all updates to these plans and audits performed to determine the adequacy of the FMSCP must be stored with the FMSCP for at least five years beginning on the date the record is made.

The record of testing will include:

- Date and time;
- Substance (theoretically) spilled;
- Managers or people involved in the exercise;
- Diary of the events of the response; and
- Follow up with individuals involved to find out where improvements to the FMSCP or training are required.

12.2.1 Incident Response Records

A database of fuel spills will be maintained on site that will include information on current status of remedial activities. Statistics on incidents of spills will be provided to the BW Gold's corporate group on a monthly basis. The outcomes of investigations following significant spills will be used to prevent future occurrences.

13.0 Evaluation and Adaptive Management

The FMSCP will be reviewed annually by the EM or delegated qualified registered professional. The review will evaluate the effectiveness of fuel management, spill prevention, and spill response and contingency plan actions. Performance metrics that will result in adaptive management are:

- Non-compliance with this plan;
- Measure of mitigation success;
- Response time;
- Number of un-reported spills;

- Number of reported spills;
- Timely completion of maintenance and inspections;
- Completion of required training; and
- Regulatory non-compliance orders associated with plan.

14.0 Plan Revision

The FMSCP is a “living” document and it will be reviewed annually. Proposed revisions will be reviewed and discussed with the Blackwater Joint Occupational Health and Safety Committee prior to implementation. Revised versions of the FMSCP will be filed with the Chief Inspector of Mines. Revisions from the previous version are listed in Table 14-1.

Table 14-1: List of Revisions to FMSCP

Section	Revision	Reason
4.1 Legislation	Removal of Regulations: • Export and Import of Hazardous Waste and Hazardous Regulations • Interprovincial Movement of Hazardous Waste • Range Planning and Practices Regulation	Regulations are not applicable to this plan.
4.3 Existing Permits	Added reference to the Mines Act Permit M-246 condition re: Fuel Management and Spill Control Plan.	Complete reference to permit conditions.
4.4 Guidance and Best Management Practices	Removal of “Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum”	“The Code is a model set of technical requirements and only comes into effect if adopted, in whole or in part, by an authority having jurisdiction.” BC has not officially adopted this code and the requirements within are overly prescriptive, confusing when attempting to cross reference with actual mandated requirements, and do not allow BWG to appropriately or economically field fit temporary above ground storage tanks.
5.1 Training and Awareness	Removal of “All those responsible for the management, implementation, and operation of any aspect of this plan will be competent for their role. Prior to the commencement of work on the Project, these personnel will: • Be trained in, and aware of: – Simulations of different spill scenarios, response procedure training, and post-simulation evaluation.	This is an unrealistic commitment. Expecting every single person who has any involvement in any aspect of the plan to have simulation training is excessive and not an attainable commitment. Additionally, what would be classified as ‘post-simulation evaluation’ training?

Section	Revision	Reason
5.2.1 Internal Communication	Removal the minimum requirement for internal spill reporting.	BWG does not want to be committed to a minimum requirement of 10 L for internal spill reporting. Currently, employees on site are required to report every spill regardless of size, so that root causes can be determined when spills are still insignificant. This allows BWG to change habits and identify problem areas early on.
6 Fuel Delivery / 6.1 Bulk Fuel Ready Line	Added the distinction between temporary and permanent/bulk fuel storage tanks.	Temporary storage tanks will be utilized on-site for varying time periods to support construction activities. It is not reasonable/feasible to create lined berms/bunds every time a temporary tank is moved to a new location.
6.1 Bulk Fuel and Ready Line	Updated this section to be more reflective of what is anticipated on-site.	
7.2 Storage	Removed: • All fuel storage vessels will include secondary containment with a sump • All dispensing stations will have concrete spill pads Changed the wording for mobile fuel storage truck parking.	Due to the temporary nature of some of BWGs fuel storage tanks, creating sumps and full secondary containment is not feasible or economical. Again, if the more permanent bulk stations are lined with geotextile and berms there is no additional need for concrete spill pads. Impermeable surfaces during construction will be limited and will not provide the safest parking location. Additionally, fuel trucks may be used at night.
8.1 Containment	Added wording to align better with actual regulations.	
8.2.1 Process Upsets and Non-Compliant Discharge	Removed overly descriptive wording around bunds, and slopes	These requirements too prescriptive and do not allow field fit flexibility. Additionally, they are not a regulatory requirement.
10 Resource Inventory	Removed the requirement to have all the listed items in a spill kit.	There is no need for every vehicle on-site to contain all the items in this list. Spill kits in vehicles will have a minimum supply of some items, but the extensive list is unreasonable and excessive for all vehicles.
11 Spill Response Evaluation and Remediation	Added requirement for geo-located photographic record.	Accurate location of incidents is standard for documentation.
11.1 Corrective Action Plan	Added note specifying certain exclusions from watercourse definition for reporting spill types	The note introduces a practical definition to aid decisions on reporting.

15.0 Qualified Registered Professionals

This management plan has been prepared and reviewed by, or under the direct supervision of, the following qualified registered professionals:

Reviewer Role	Name	Signature	Date
Prepared by:	Michelle Gillen, EP(CPA) Principal Consultant		05/12/2023
Reviewed by:	Rolf Schmitt, P.Geo. Technical Director		05/12/2023

16.0 References

Definitions of the acronyms and abbreviations used in this reference list can be found in the Acronyms and Abbreviations section.

Legislation

British Columbia Building Code Regulation, 264/2012.

British Columbia Fire Code Regulation, BC Reg. 263/2012.

Canadian Environmental Protection Act, 1999, SC 1999, c. 33.

Declaration on the Rights of Indigenous Peoples Act, SBC 2019, c. 44.

Environmental Assessment Act, SBC 2018, c. 51.

Environmental Emergency Regulations, 2019, SOR/2019-51.

Environmental Management Act, SBC 2003, c. 53.

Fisheries Act, RSC 1985, c. F-14.

Forest Act, RSBC 1996, c.157.

Forest and Range Practices Act, SBC 2002, c. 69.

Forest Service Road Use Regulation, BC Reg. 70/2004.

Hazardous Materials Information Review Act, RSC 1985, c. 24 (3rd Supp), Part III.

Hazardous Products Act, RSC 1985, c. H-3.

Hazardous Products Regulations, SOR/2015-17.

Impact Assessment Act, RSC 2019, c. 28.

Mines Act, RSBC 1996, c. 293.

Motor Vehicle Act, RSBC 1996, c. 318

Occupational Health and Safety Regulation, BC Reg. 269/97.

Petroleum Storage and Distribution Facilities Storm Water Regulation, BC Reg. 321/2004.

Spill Contingency Planning Regulation, BC Reg. 186/2017.

Spill Preparedness Response and Recovery Regulation, BC Reg.185/2017.

Spill Reporting Regulation, BC Reg. 187/2017.

Timber Harvesting and Silviculture Practices Regulation, BC Reg. 352/2002

Transport of Dangerous Goods Act, RSBC 1996, c. 458.

Transport of Dangerous Goods Regulation, BC Reg. 231/2002.

Transportation of Dangerous Goods Act, 1992, SC 1992, c. 34.

Transportation of Dangerous Goods Regulations, SOR/2001-286.

Water Protection Act, RSBC 1996, c. 484

Water Sustainability Act, SBC 2014, c. 15

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Secondary Sources

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BC EMLI. 2021. *Health, Safety and Reclamation Code for Mines in British Columbia*: Victoria, BC. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/health-and-safety/code-review/feb2021_health_safety_reclamation_code_2021_rev.pdf (accessed April 2021).

BC EAO. 2019a. *Assessment Report for Blackwater Gold Mine Project (Blackwater) With respect to the Application by New Gold Inc. for an Environmental Assessment Certificate pursuant to the* Environmental Assessment Act, *S.B.C. 2002, c.43.* Prepared by the Environmental Assessment Office. May 17, 2019.

BC EAO. 2019b. *Summary Assessment Report for Blackwater Gold Mine Project (Blackwater) With respect to the application by New Gold Inc. for an Environmental Assessment Certificate pursuant to the* Environmental Assessment Act, *S.B.C. 2002*, c. 43.

BC EAO. 2019c*. In the matter of the* ENVIRONMENTAL ASSESSMENT ACT *S.B.C. 2002, c. 43 (the Act) and in the matter of an Application for an Environmental Assessment Certificate (Application) by New Gold Inc. (Proponent) for the Blackwater Gold Project Environmental Assessment Certificate #M19-01*.

BC FLNRO. n.d. Engineering Manual, https://www2.gov.bc.ca/gov/content/industry/natural-resource-use/resource-roads/engineering-publications-permits/engineering-manual

BC MWLAP. 2002. *A Field Guide to Fuel Handling, Transportation & Storage*. 3rd Edition. February 2002.

CEA Agency. 2019. *Decision Statement Issued under Section 54 of the* Canadian Environmental Assessment Act, 2012*.* April 15, 2019.

CSA. 2003. *Emergency Preparedness and Response* CSA-Z731-03 (R2014).

ECCC. 2019. *Technical Guidelines for the Environmental Emergency Regulation*s, 2019 Version 2.0. http://publications.gc.ca/collections/collection_2020/eccc/En4-386-2020-eng.pdf.

Government of Canada. 2004. *Implementation Guidelines for Part 8 of the* Canadian Environmental Protection Act, 1999 – *Environmental Emergency Plans*. Environmental Emergencies Program. Environment Canada.

Appendix A Prescribed Substances and Quantities for Immediate Spill Reporting

Appendix A: Prescribed Substances and Quantities for Immediate Spill Reporting

Item	Substance Spilled	Specified Amount
1	Class 1, Explosives as defined in section 2.9 of the *Transportation of Dangerous Goods* (TDG) *Regulations*.	50 kg, or less if the substance poses a danger to public safety
2	Class 2.1, Flammable Gases, other than natural gas, as defined in section 2.14 (a) of the TDG Regulations.	10 kg
3	Class 2.2 Non-flammable and Non-toxic Gases as defined in section 2.14 (b) of the TDG Regulations.	10 kg
4	Class 2.3, Toxic Gases as defined in section 2.14 (c) of the TDG Regulations.	5 kg
5	Class 3, Flammable Liquids as defined in section 2.18 of the TDG Regulations.	100 L
	Blackwater Fuel Spill Level 1: • Can be completely contained and cleaned up by on site employees. • Internally reportable with Spill Report procedure.	<100 L
	Blackwater Fuel Spill Level 2: • No significant danger to persons or environment. • Can be completely contained and cleaned up by on site employees and equipment. • Notify EM, who will notify EMBC and Aboriginal Groups. • Complete Spill Report. • Notify Mine Manager. • Cleanup and disposal of contaminated materials as per EM.	100 L, or material enters or is likely to enter a body of water
	Blackwater Fuel Spill Level 3: • Potential risk to persons in area or immediate environment. • May require additional off-site resources or consultation. • May be of media and public interest. • Notify EM who will notify EMBC and Aboriginal Groups. • Complete Spill Report. • Complete Incident Investigation. • Notify Mine Rescue. • Notify Mine Manager. • Cleanup actions may require input from Government agencies.	100 L and spill may leave site boundaries
6	Class 4, Flammable Solids as defined in section 2.20 of the TDG Regulations.	25 kg

Item	Substance Spilled	Specified Amount
7	Class 5.1, Oxidizing Substances as defined in section 2.24 (a) of the TDG Regulations.	50 kg or 50 L
8	Class 5.2, Organic Peroxides as defined in section 2.24 (b) of the TDG Regulations.	1 kg or 1 L
9	Class 6.1, Toxic Substances as defined in section 2.27 (a) of the TDG Regulations.	5 kg or 5 L
10	Class 6.2, Infectious Substances as defined in section 2.27 (b) of the TDG Regulations.	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
11	Class 7, Radioactive Materials as defined in section 2.37 of the TDG Regulations.	Any quantity that could pose a danger to public safety and an emission level greater than the emission level established in section 20 of the *Packaging and Transport of Nuclear Substances Regulations*, 2015 (Canada)
12	Class 8, Corrosives as defined in section 2.40 of the TDG Regulations.	5 kg or 5 L
13	Class 9, Miscellaneous Products, Substances or Organisms as defined in section 2.43 of the TDG Regulations.	25 kg or 25 L
14	Waste containing dioxin as defined in section 1 of the *Hazardous Waste Regulation*.	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
15	Leachable toxic waste as defined in section 1 of the *Hazardous Waste Regulation*.	25 kg or 25 L
16	Waste containing polycyclic aromatic hydrocarbon as defined in section 1 of the *Hazardous Waste Regulation*.	5 kg or 5 L
17	Waste asbestos as defined in section 1 of the *Hazardous Waste Regulation*.	50 kg
18	Waste oil as defined in section 1 of the *Hazardous Waste Regulation*.	100 L
19	Waste that contains a pest control product as defined in section 1 of the *Hazardous Waste Regulation*.	5 kg or 5 L
20	PCB wastes as defined in section 1 of the *Hazardous Waste Regulation*.	25 kg or 25 L

Item	Substance Spilled	Specified Amount
21	Waste containing tetrachloroethylene as defined in section 1 of the *Hazardous Waste Regulation*.	50 kg or 50 L
22	Biomedical waste as defined in section 1 of the *Hazardous Waste Regulation*.	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
23	A hazardous waste as defined in section 1 of the *Hazardous Waste Regulation* and not covered under items 1 to 22.	25 kg or 25 L
24	A substance, not covered by items 1 to 23, that can cause pollution.	200 kg or 200 L
25	Natural gas.	10 kg

Source: *Spill Reporting Regulation* (BC Reg. 221/2017)