

**Platinum Group Metals Ltd.
Waste Management Plan
Providence Ni-Cu-PGE Project
South Mackenzie District, NT
LUP W2015C0008**

v2. February 2016

Dated: February 2016
Prepared for Platinum Group Metals Ltd.
By R.van Egmond

Table of Contents

1. Introduction	3
2. Waste Type Identification	6
3. Waste Management	9
4. Summary of Waste Planning	15
5. Monitoring and Evaluation	15

List of Figures

Figure 1 Providence Project Location	4
Figure 2 Providence Project, Credit Lake Camp and Land Use Area	5
Figure 3 Credit Lake Onsite Waste Management Facilities	11
Figure 4 Grey Water Sum Design	12

List of Tables

Table 1 Hazardous or Potentially Hazardous Waste Characterization	4
Table 2 Non-mineral Waste	7
Table 3 Mineral Waste	8
Table 4 Grey Water Sum Design	12

Appendices

Appendix A – Platinum Group Metals Waste Management Table

1. Introduction

This Waste Management Plan is an Updated Version under the newly granted Land Use Permit ('LUP') W2015C0008 to cover work on the Providence Project.

The Providence Property is owned and operated by Platinum Group Metals Ltd. ("PTM") under the LUP W2015C0008. The project is in early stage exploration stage with till geochemistry sampling, ground and airborne geophysics, rock sampling and geological mapping used to generate targets for drill testing. There have been approximately 26 diamond drill holes completed on the project that have intersected NI-Cu-PGE mineralization over a 5kilometer trend. Geophysics and geological mapping indicate that there is a further 15 kilometers of favorable rock to explore along a 20 kilometer long east-west trend.

The Exploration Project is supported by an existing camp constructed by past operators. The camp has been retained as the base of operations in its current location to mitigate the need for camp relocation and further disturbance of new areas.

Contact information:

R. Michael Jones, President and CEO
Suite 788 - 550 Burrard Street
Vancouver, BC, V6C 2B5
604-898-5450

Effective Date

This Updated Waste Management Plan has an Effective date of February 20, 2015 and is submitted as an effective plan prior to field activity and camp occupation. The main waste management plan is in place from previous operations with the updates offering a more detailed and compliant waste management strategy.

Project Location

The project area and support camp is located approximately 250 kilometers north of Yellowknife and 60km west of the Tibbett to Contwoyto seasonal ice road where it passes the Diavik and Ekati Diamond Mines (Figure 1).

Figure 2 indicates the area covered by the Land Use Permit W2008C0015 ("LUP") in red. Area is between 64, 31, 00 N to 64,38,43 N and 111, 40, 27 W to 112, 13, 38 W. The renewed LUP is for a reduced area that covers only the area of the 11 mineral Leases and 1 claim that cover the Providence Ni-Cu-PGE mineralization as well as the existing camp known as "Credit Lake Camp". The camp is located approximately 11km southeast of the

exploration area and leases on a gravel esker on the shore of an un-named lake. The camp is designed to support a maximum of 20 people during drilling programs.

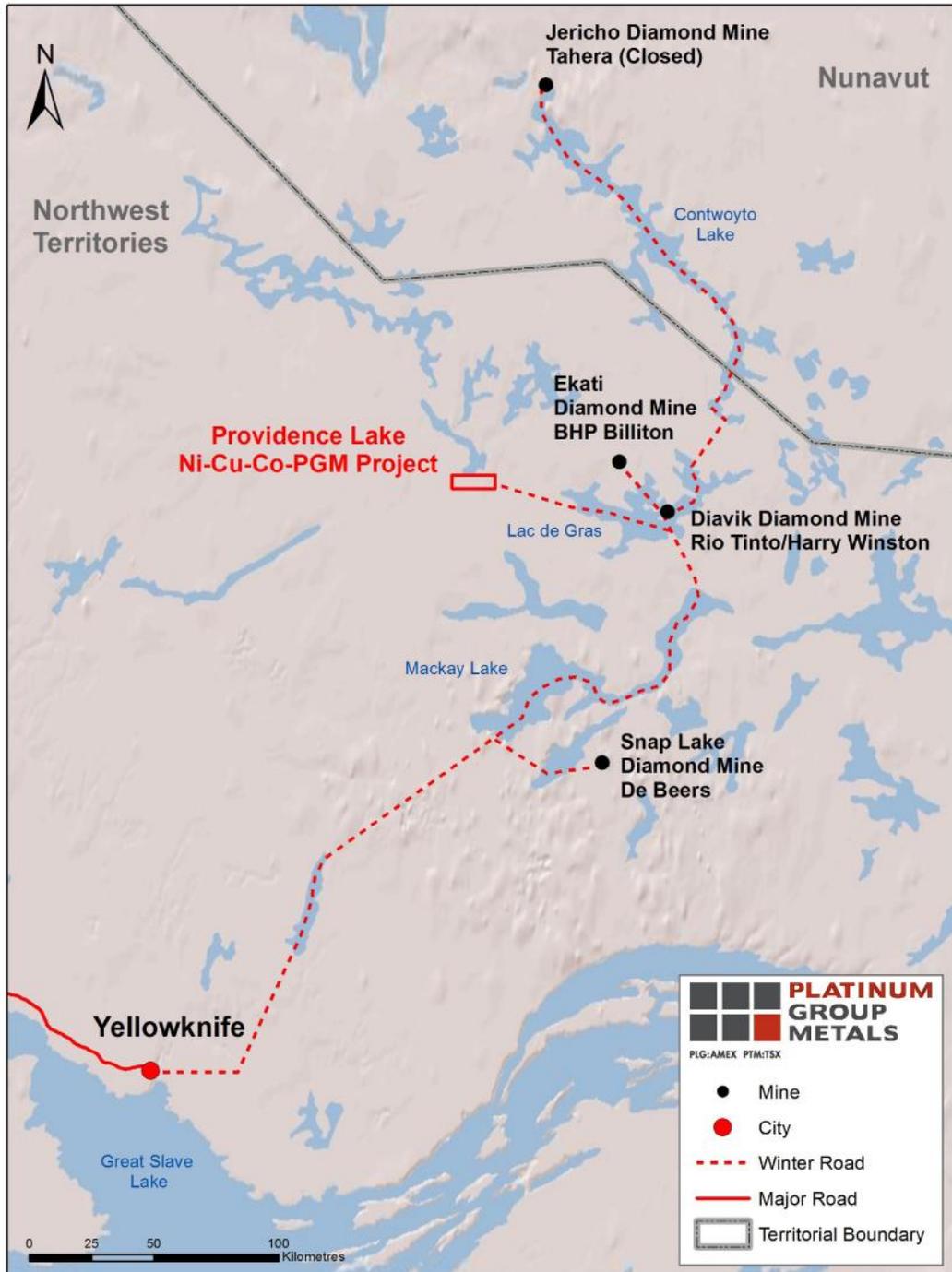


Figure 1: Project Location Map

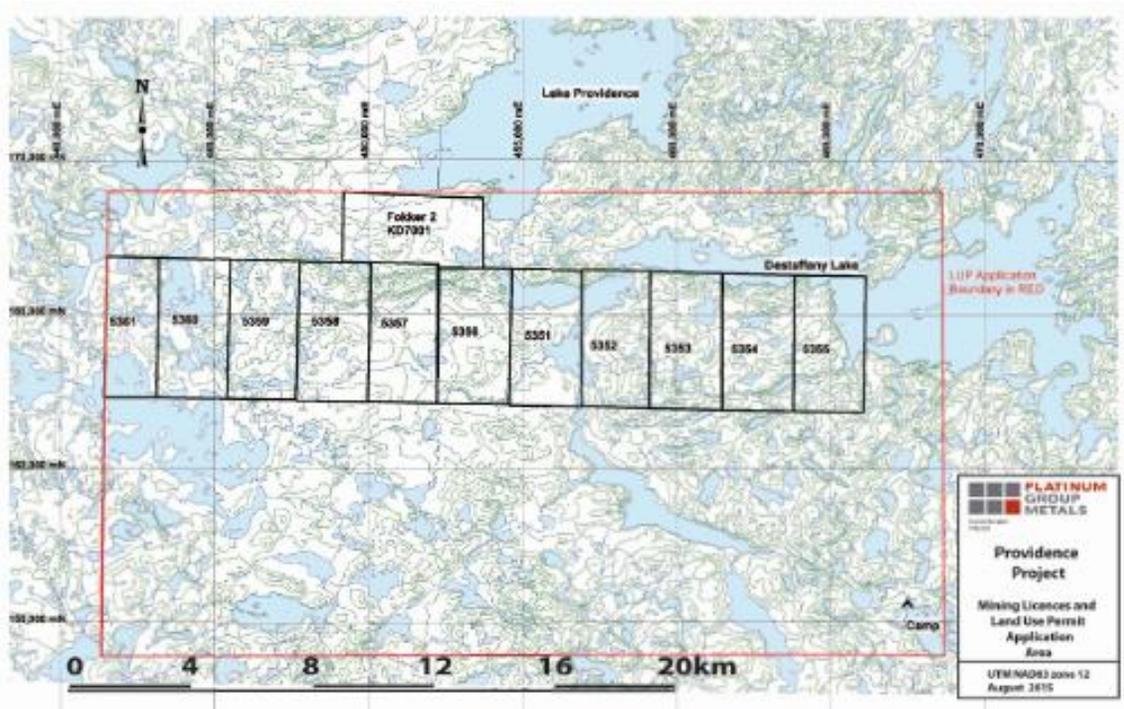


Figure 2: LUP W2015C0008 area marked in red with Providence Property Leases and Credit Lake Camp Location in southeast.

Principles of the Waste Management Plan Proponent

This Waste Management Plan incorporates the basic principles of waste management, source reduction, reuse, recycle/recover, treatment and disposal. PTM has, and will continue to conduct operations within the accepted environmental standards of the mineral exploration industry and NWT government guidelines. The methods described are aimed at reducing the environmental footprint of operations.

It is cost effective and environmentally sound to follow common principles during exploration field activities. These include;

- The reduction of materials brought in to camp and decreasing the volume of waste created.
- Sourcing alternative materials with reduced or none toxic components.
- Re-purposing materials to reduce the amount of new materials brought in to camp Reusing material such as drilling fluids and construction materials is an industry expectation and can reduce the amount of waste generated

- Treatment of waste at site to reduce the volume of accumulated wastes for appropriate disposal
- Choosing the best option for waste disposal and containment that meets regulatory requirements and reduces liability to the environment. When disposing of waste, the type of waste, volume, location and final containment must be considered. The waste disposal options available to the mineral exploration industry include approved landfills and onsite disposal. The physical and chemical characteristics as well as the regulatory requirements and liability associated with disposal may limit which options are available for waste disposal.

Purpose of the Plan

Platinum Group Metals is committed to minimizing impact of exploration activities on the environment. As such this plan is prepared to show the company's commitment to environmental compliance as well as to ensure the health, safety and well-being of all personnel involved in these projects. This plan will act as a directive on the proper handling and management of a variety of waste streams resulting from these exploration projects.

Proper and prompt execution of the plan will mitigate and minimize the effects of waste on the local environment. The plan is designed to employ best practices and be in compliance with current Acts, Regulations, Permits and Licenses. A Waste Management Plan is required under regulation for projects requiring land and water use permits. Platinum Group is submitting this Waste Management Plan as a requirement under LUP W2015C0008.

2. Waste Type Identification

Waste characterization is used in assessing the appropriate handling, treatment, transportation and disposal of the waste. Characterization is the assessment of the physical, chemical and toxicological properties of the waste product. These properties are used to determine the dangers relating to handling, storage, and transportation of the waste on public roads, as well as to determine the environmental consequences of the waste so that an appropriate disposal option can be determined. This also allows the determination of a hazardous or non-hazardous waste as well as dangerous drilling waste classification. Waste transportation and disposal is regulated by the Northwest Territories or Environment Canada.

The anticipated waste materials generated during exploration activities based out of the Credit Lake Camp are described below.

- Domestic Waste in Camp - this includes all combustible materials, and
- Sewage - from contained indoor "Pacto" style toilets as well as pit toilets

- Grey Water - from kitchen and washing facilities in camp
- Hazardous Materials - includes fluids and solids that have met end use status (eg. batteries, oils, detergents)
- Recyclables - metals and glass that can be returned to the appropriate recycling facilities in Yellowknife
- Contaminated Soil – from possible hydrocarbon contamination clean-up

Waste Generated during the course of exploration and camp occupancy can be classified into different categories and the waste handling can be designated according to classification. Regulated wastes include any waste material which is specifically regulated as hazardous (in CEPA or through the various guidelines issued by EPS of GNWT-ENR), and dangerous for transport (in CEPA and TDGA). Drilling wastes (drilling fluids and drill cuttings) are managed by GNWT Department of Lands – North Slave Regional Office and the Wek’èzhii Land and Water Board.

The estimated amount of waste generated by the project and camp occupancy is considered below and can be classified into three categories by which management of each can be applied:

1) Hazardous or Potentially Hazardous Waste

Waste	Characteristics	Source	Est. amount/yr
Batteries (lead acid and alkali)	Sealed batteries	Machinery and various electronic equipment use in exploration	40kg
Used oils, fuels, lubricants, oil filters and solvents	Fuels, oils and additives	Operation of machinery (drill, generator, water pump, snow machines)	300L
Chemical Wastes (liquid or solid)	Camp cleaning and operating	Cleaning solutions painting	100L
Contaminated Soils	Soil with potentially hazardous hydrocarbon or chemical contamination	Fuel or solvent spill	250L

2) Non-mineral Waste

Waste	Characteristics	Source	Est. amount/yr
Domestic refuse	Dry waste/garbage includes recyclable	Camp activities	5,000kg
Putrescible	Food waste	kitchen	2,000kg
Construction Materials	Wood, metal and other solids	Construction material	4,000kg
Drilling and helicopter activity	Tires, used machinery, empty drums	Drill and helicopter fueling and maintenance	180 drums 500kg
Sewage and Grey Water	Drain water from washing	Kitchen and dry	72,000L

3) Mineral Waste

Waste	Characteristic	Source	Est. amount/yr
Drill cuttings	Non-toxic solid waste	Drilling – finely ground rock material and water	50,000L

3. Waste Management

Exploration Activities and Camp Occupancy will be mainly during two time periods. From March to May and July to September. The camp is the main generator of waste and storage area for waste brought back from the drill sites. The waste reduction management is crucial to minimize weights being back hauled to proper disposal facilities in Yellowknife since the only access to the remote site is by airplane on skies or floats.

NOTE: the obsolete on-site incinerator is not to be used for burning any waste; EXCEPT dry, clean wood and cardboard as allowed under Land Use Permit regulations.

1. **Hazardous or Potentially Hazardous Waste** materials are kept in a segregated and secure storage facility in the camp. Used materials from camp, and that which is returned from the drills, are sorted by the onsite personnel and stored in sealed plastic or steel containers on site to await shipment via fixed-wing aircraft to Yellowknife. There are separate storage containers for lead acid batteries, lithium batteries, oil filters, waste oil and fuel, chemical wastes, contaminated soils and sludge. Hazardous waste materials will be disposed of at the appropriate facility in Yellowknife as per the waste identification and management table. Shipping vessels will be clearly labelled as to the destination facility for proper disposal.
2. **Domestic Waste (dry waste) and construction/camp garbage** is brought to a central sorting area in camp where it is sorted into re-usable/recyclable materials, burnable waste and non-burnable waste to be removed to Yellowknife. It is to be stored in an enclosed structure to prevent spread by wind. All clean paper, cardboard and untreated wood will be burned on a daily basis. The kitchen area creates the highest volume of waste that needs sorting and as such receptacles. Double bagged plastic bag lined garbage containers are placed in the kitchen and dry areas. Once full they are sealed and placed in a secure holding area is used to store materials until the next available flight backhaul. Any dry waste shipped back to Yellowknife either goes to the recycling depot or land fill as indicated by the waste disposal criteria for that type of waste (Appendix A).
3. **Putrescible Waste** Used or old food items will be transported to Yellowknife on a weekly basis on regularly available back-haul flights. This is done to prevent the attraction of wildlife. Food items should only be consumed in the kitchen area, not in the sleeping, office or core shack tents. Any waste stored onsite or backhauled to Yellowknife will be properly packaged with heavy duty double plastic bags. The kitchen contains three waste receptacles for clean burnable, non-burnable and recyclable items. The camp man is responsible for sorting the three waste streams to ensure compliance. All clean paper, cardboard and untreated wood will be burned on a daily basis. Putrescible wastes are double bagged with industrial grade garbage bags and stored in an enclosed structure

adjacent to the kitchen area lined with raised shelves to ensure it can be regularly cleaned and restrict odors from escaping and prevent the attraction of wildlife.

4. **Sewage** is treated with lime to reduce odor and increase decomposition within the pit toilets. Pit toilets will not be allowed to fill beyond 1.0 meters from surface to allow for proper backfill and relocation. On site “Pacto” toilets can be also be used during winter months and will be maintained in good working order to prevent any leakage. Bagged sewage will be sealed into double bagged and shipped back to Yellowknife clearly labelled as sewage. There is will be disposed of at the sewage treatment facilities to avoid the contamination of city landfill.
5. **Grey water** from the kitchen and washing facilities is collected in a covered sump. The lines coming from the kitchen will utilize a strainer to remove any food waste. The strainers should be cleaned regularly to prevent the attracting of wildlife. The sump is located >50 meters from the shoreline within a coarse gravel and sand sub straight for best filtration.
6. **Hazardous or Potentially Hazardous Waste** materials are kept in a segregated and secure storage facility in the camp. Used materials from camp, and that which is returned from the drills, are sorted by the onsite personnel and stored in sealed plastic or steel containers on site to await shipment via fixed-wing aircraft to Yellowknife. There are separate storage containers for lead acid batteries, lithium batteries, oil filters, waste oil and fuel, chemical wastes, contaminated soils and sludge. Any liquids or potentially leaking articles will be placed in 20L sealed plastic buckets and labelled for proper disposal site in Yellowknife. Hazardous waste materials will be disposed of at the appropriate facility in Yellowknife as per the waste identification and management table. Shipping vessels will be clearly labelled as to the destination facility for proper disposal.

Details of onsite Waste Management Facilities:

Waste Storage Facilities: On site waste storage facilities are designed for the safe storage of hazardous materials and the secure storage of wildlife attractants such as non-burnable organic waste with the containment being 100%. A centralization of the facility in camp ensures that all waste destined for Yellowknife is located in a convenient spot for efficient loading onto aircraft returning to Yellowknife.

Several plastic shipping boxes with secure lids approximately 4” x 4” x 3” are on the property for recyclable materials. Before putting the materials into the boxes they are double bagged to seal any smells that may attract wild life. The plastic boxes can be readily cleaned between flights to keep them clean of animal attractants and residual odor.

Additional storage of garbage is within a side room to the kitchen located at the southeast entrance. There ae shelves to keep the bags off the floor and the room is double doored to

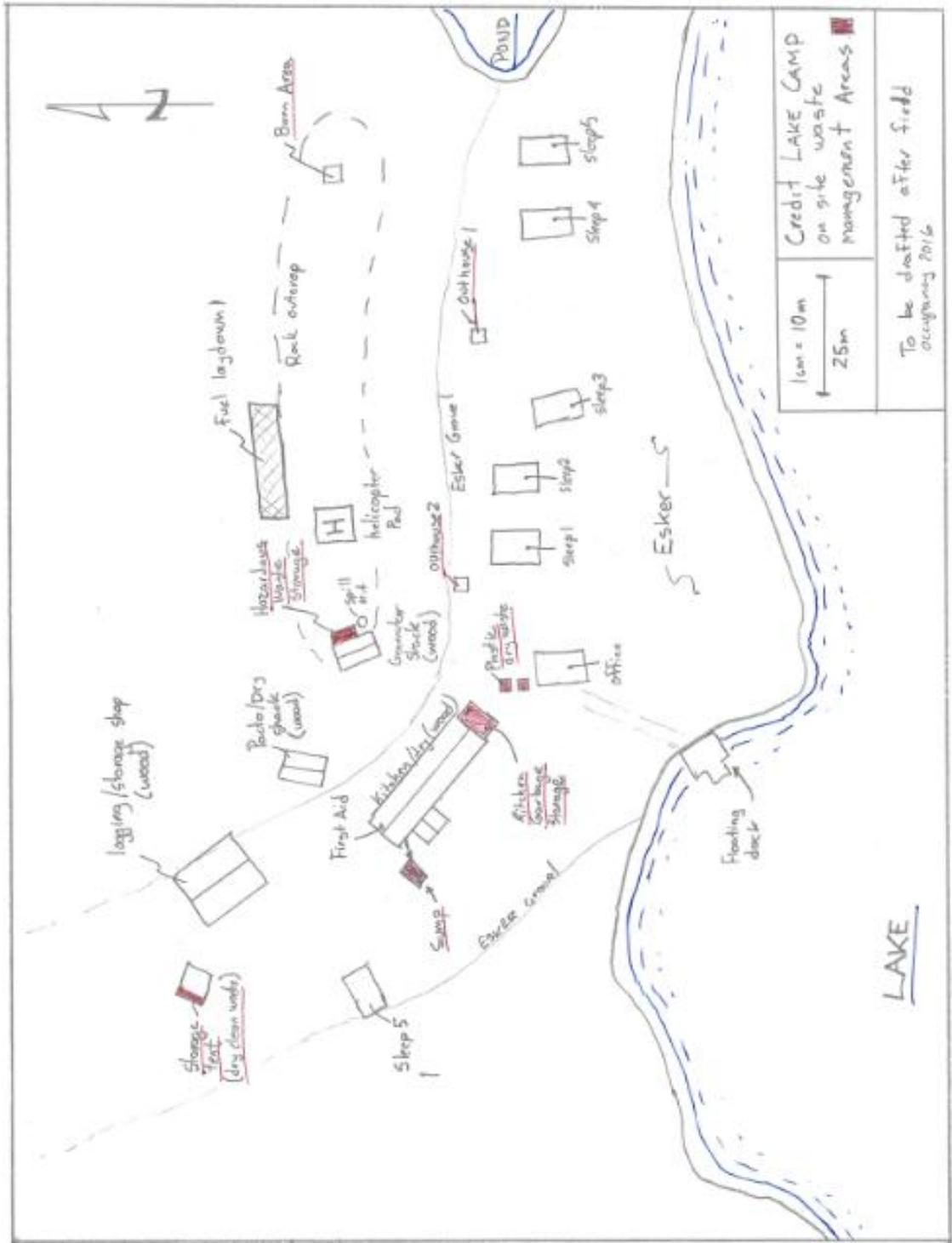


Figure 3 Credit Lake Onsite Waste Management Facilities

keep the odor of possible animal attractants contained. This room and shelves should be regularly cleaned between flights to remove any animal attractant odor.

Hazardous materials are stored in a secure plywood shack attached to the generator shack to protect wildlife and persons from. When possible materials are sealed into 20L white plastic buckets and marked with the appropriate material descriptor and destination of the material prior to transport back to Yellowknife.

Grey Water Sump: Grey water sump is located beside the kitchen and wash building and 50 Meters from the lake shore. It has a weighted plywood cover to prevent wildlife from being attracted to it and becoming trapped. The sump is situated in a patch of coarse-grained, gravelly sand. The feed lines have heat trace to prevent freezing in the winter months. The sump consists of a bottomless and baffled plywood box which acts as the initial catchment and allows for downward percolation of grey water. Grease settles in the first baffle compartment (Figure 3).

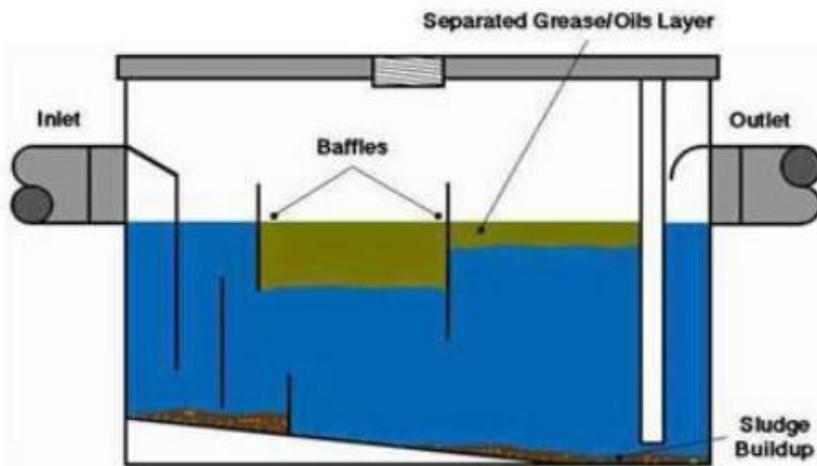


Figure 3: Sump Design

The sump dimensions are approximately 2 m deep x 1.5 m wide x 3 m long for a total volume of 9 cubic meters. This volume has proven sufficient to handle grey water production from camp during maximum occupancy. An inspection of the sump and surrounding area is conducted daily by the camp maintenance person. Strainers are cleaned and drains are flushed to keep them odour-free during operation and seasonal closures. At seasonal closure grey water lines will be drained, dismantled and hung on racks. The sump will be examined and any extraneous waste packaged and removed. The sump pit will be regularly treated with lime or bleach to kill odours which might attract wildlife and then backfilled and moved as necessary.

Human Waste (Sewage): Outhouse pit. Treatment of lime directly to waste to reduce odour and facilitate decomposition. The pits will be backfilled to original grade and house moved according to needs.

Incinerator: Currently and old incinerator is located east of camp 50m. It is not to be used for incinerating anything BUT dry clean wood and cardboard. No hydrocarbons (fuel) are to be added to aid in incineration. It acts more as a burn containment (as opposed to an empty metal drum). Remaining ash is removed after each burn and stored in empty fuel drums. These drums are stored beside the incinerator and the material within is not considered a wildlife attractant since it has been fully sterilized during incineration and was clean to start with. The contents of the drums are double bagged and brought to the dry waste storage area in camp in preparation for the next backhaul flight.

Waste Management Facilities in Yellowknife:

The prior separation and labelling of waste materials in camp will facilitate the proper disposal once the items arrive in Yellowknife on the backhaul flights. There are weekly flights to and from camp to Yellowknife which ensure that there is minimal build-up of stored waste materials to be shipped on the backhauls of each flight.

Hazardous or Potentially Hazardous Material

-KBL Environmental Hazardous Waste Facility (“KBL”) – Hazardous and potentially hazardous waste materials will be transported to the KBL facilities in Yellowknife for storage, segregation and consolidation of approved waste streams for bulk transportation to specialized end receivers. The facility is located in Yellowknife’s Kam Lake Industrial Park at #17 Cameron Road. The Kam Lake Industrial Area is located southwest of the Yellowknife International Airport and southeast of the City of Yellowknife. The KBL Yellowknife office is located at #343 Old Airport Road Yellowknife, NT X1A 2N8. Ph. 867-873-5263.

Solid Waste/Garbage/recyclables

-Yellowknife landfill - The Solid Waste Facility is located at Highway No. 4, Yellowknife. Ph . 867-669-3406. Waste materials and recyclables that have been separated are to be deposited in the assigned locations as directed by the Yellowknife landfill rules and regulations.

Diamond Drilling Waste Management

Platinum Group Metals Ltd. has a policy of following best industry practices for diamond drilling that adhere strictly to NWT environmental regulations.

Drilling will be conducted using a diamond drill with a HQ diameter or less, which has a 9.6cm outside diameter and it produces 6.1cm diameter core. The difference between the 2 diameters produces drill cuttings which a circulated to surface by pumping water down the hole. This circulation is settled in a small portable mud tank after passing through a filter. Drill cuttings are therefore formed by grinding the in-situ natural rocks and are usually inert. Tens of kilograms of cuttings are expected from each hole. Imagine a plus or minus 1-2 wheel burrows full of soil.

During the drilling process water is pumped from a near-by source and pumped down the hole, it then returns to surface where it is circulated through a settling tank and then through a filter. The type of filter used can be reviewed at this website: <http://www.poly-drill.com/pdfs/filter.07.pdf>

The used and filtered water is then returned down the hole. Most drill holes loose water into the cracks beneath the surface. The material collected in the filters and at the bottom of the mud tank are shoveled out and spread on the ground in a hollow. If on water these solids will be transported to the shoreline and deposited in a thoughtful manner at least 30m from the shore line avoiding any watercourse.

Drill holes on land are plugged. Casing is generally retrieved but if stuck in the hole it is cut to below the level of the surface of the land.

Sometimes when the drill rig encounters drilling difficulties like stuck rods or caving drill hole walls, drill additives may be used. In our experience the use of drill additives is rare in this area, drill conditions are good and it cost the company money to use these additives so there use is discouraged.

The additives used have been chosen for the non-toxicity and minimal environmental impact, they are also supplied by polydrill and can be reviewed at the above website.

In Permafrost areas road salt (the same salt used on roads during winter in Canada) is sometimes added to the drill hole to prevent the water from freezing. This practice has been rare in the Lac de Gras area and we don't expect to require this during this program, usually the practice of heating the water using propane is sufficient to prevent drill hole freeze-up.

Company representatives will visit the site after the drill has been moved to inspect the site. Any debris left by the drillers will be picked up in plastics bags and will be flown out to the Yellowknife land fill. Land Use inspections offer a final check, the company commits to following all recommendations and requests from the government inspections.

4. Summary of Waste Planning

Each class of waste generated during exploration activities and camp occupation is identified in the attached Waste Management Table which contains the following:

- Waste Stream
- Description
- Handling Method
- Management Method
- Comments

The Waste Management Table will be posted at the operations site to help operation staff determine how wastes are to be managed. The On-site camp man is responsible, in conjunction with the logistics coordinator and project manager, to ensure that all wastes are managed accordingly. The Waste Chart is included as Appendix B and is to be posted at all waste management sites and storage areas of operations.

5. Monitoring and Evaluation

The Waste Management during operations will be monitored by the camp manager to assure the Plan is being followed. Monitoring of the efficiency and effectiveness will be done by the project manager. Any modifications to the Waste Management Plan will be submitted to the appropriate regulatory body. Plan Review is on an ongoing basis in order to make any improvements immediately. Document review will be prior to any field program start to ensure the people coming to site will have the most up to date Plan.

Daily sorting, sump inspection, toilet inspection will be carried out by the camp Manager and any faults reported to the project manager to attend to.

Regular site inspections by Government of Northwest Territories Lands Inspectors also make sure the Plan is being adhered to. The inspection reports are provided to the camp manager so that any concerns noted are rectified immediately by the Camp Manager.

Appendix A

Platinum Group Metals Waste Management Table

*To be posted at all onsite waste facilities

Waste Stream	Description	Handling Method	Management Method
Absorbents	Absorbent materials used for spill clean up	Store in drum with rags	Handled and stored by camp man prior to transport to waste receiving facility
Aerosols	Not Empty	Bulk in a drum or pail	Transport to an approved waste receiving facility
Antifreeze / Glycol	From engines	Store in drum	Transport to an approved waste receiving facility
Batteries (acid)	Lead / acid batteries	Wear glove, handle carefully, store upright in battery bins or palletize	Transport to an approved waste receiving facility
Batteries (alkali)	Alkali batteries	Wear gloves, handle carefully, store upright in battery bins or palletize	Transport to an approved waste receiving facility
Batteries (gel cell)	No free liquid and unable to leak if battery were damaged	Bulk in a drum or pail	Transport to an approved waste receiving facility
Batteries (NiCd)	Rechargeable consumer batteries	Bulk in a drum or pail	Transport to an approved waste receiving facility
Beverages Cans and Plastics	Pop and juice containers	Bulk in a drum or pail	Transport to Yellowknife for recycling
Fuel containers with Residue	Empty fuel drums	Store in secure area on sides, lids and bungs on	Transport to an approved waste receiving facility
Construction waste	Left over camp construction and operation materials	Sort and designate as re-useable, recyclable, burnable or to be removed from site	Store the separated material in their designated locations on-site until they can be utilized or transported to an approved waste receiving facility
Contaminated Soil	Soil contaminated with either diesel, oil, drilling fluid or other spill material	Consolidate contaminated soil and place in sealed drums or pails	Consolidate containers for shipment to an approved receiving facility
Domestic Garbage	Camp waste, kitchen waste, burnable debris/wood	Food waste must be stored in secure, animal-proof containers	Transport to an approved waste receiving facility
Drilling Waste – Drill cuttings	Drilling cuttings	Pump to natural depression	Placed in a natural depression or sump at least 100 meters from the ordinary High Water Mark of the nearest water course (stream or lake)
Drilling Waste (Hydrocarbons Based)	Drilling sump liquids and solids where the drilling mud is inert or diesel based	Waste will be stored and transferred to offsite disposal facilities	Off-site disposal – store waste in sealed containers for disposal offsite
Filters	Process (glycol, dips, water)	Store in on site filter container	Transport to an approved waste receiving facility
Grey Water	From camp kitchen and dry.	Pumped into grey water sump box.	Natural filtration through permeable soil.
Kitchen Grease	Kitchen Grease	Store in sealed pails	Transport to an approved waste receiving facility
Paint	In cans or pails	Package in a drum or pail	Transport to an approved waste receiving facility
Sewage	Human Waste	Outhouse	Treated by the direct application of lime solution to permafrost contained sewage pits.
Waste Oils	From oil changes	Bulk in sealed drum	Transport to an approved waste receiving facility