

YUKON WATER BOARD

Pursuant to the *Waters Act* and *Waters Regulation*, the Yukon Water Board hereby grants a Type B water use licence for placer mining undertaking to:

Groundhog Exploration
P.O. Box 566
Dawson City, YT Y0B 1G0

LICENCE NUMBER: PM07-592

LICENCE TYPE: B **UNDERTAKING:** PLACER

WATERSHED: Fortymile River

WATERSHED SENSITIVITY: Moderate-Moderate with a Current Development Designation

LOCATION: Latitude: 64° 16" N Longitude: 140° 30" W

WATER SOURCE: Maiden Creek, a tributary of the Fortymile River

MAXIMUM QUANTITY: 1, 964 cubic metres per day

EFFECTIVE DATE: The effective date of this licence shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.

EXPIRY DATE: May 31, 2013

This licence shall be subject to the restrictions and conditions contained herein, and to the restrictions and conditions contained in the *Waters Act* and the *Waters Regulation* made thereunder.

Dated this 18 day of

December, 2008

S. Baird
Witness

Approved by:

[Signature]
Chairperson
YUKON WATER BOARD

PART A DEFINITIONS

"Act" means *Waters Act* and any amendments thereto.

"Action Level" means the end-of-pipe sediment concentrations that must not be exceeded, on average, for the life of the mining operation.

"Application" means application for water use licence PM07-592 and placer mining land use approval AP07592 and any subsequent information presented to the Yukon Water Board up to the date of the Board's decision.

"Board" means the Yukon Water Board.

"Compliance Level" means a maximum end-of-pipe concentration that shall never be exceeded.

"Design Target" means the best settling facility that can be established at a placer mining operation, given the prevailing site characteristics.

"Inspector" means any person designated as an Inspector under the Act.

"Natural Boundary" means the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water is so common and usual, and so long continued, as to mark upon the soil of the bed of the lake, stream or other body of water, a character distinct from that of the banks thereof, both in respect to vegetation and in respect to the nature of the soil itself. In addition, the best estimates of the edge of dormant or old side channels and marsh areas are considered to be natural boundaries.

"Regulation" means the *Waters Regulation*.

"Riparian Zone" means a portion of the stream bank, either vegetated or not, immediately adjacent to the stream channel and is measured from the high water mark on each bank of the watercourse and follows the shape of the channel.

"Spring Freshet" means the sudden increase in flow carried by a stream as snowmelt occurs at higher elevations in the watershed.

"Waste" means any substance as defined in the Act.

"Watercourse" means any stream, lake, pond, river, creek, spring, ravine or swamp, whether ordinarily containing water or not.

"Work Areas" means any area disturbed and/or altered by mining activities, excluding any stable diversion channel.

PART B WATER USE AND WASTE DEPOSIT

1. The Licensee is hereby authorized:
 - a) to obtain water from Maiden Creek at a maximum quantity of 1, 964 cubic metres per day; and
 - b) to use this water for a placer mining undertaking on the following grant numbers as shown in Appendix A, attached; and
 - c) to return a flow of water to Maiden Creek, and to deposit Waste into Maiden Creek; and
2. All of the activities authorized in Part B (1) shall be as described in the Application and subject to the conditions of this licence. Where there is a discrepancy between the Application and the conditions of this licence, then the conditions of this licence shall prevail.
3. In this licence, the Board has relied on the representations, warranties and undertakings provided by the Licensee in the material filed in the Application.
4. All work authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.
5. Where there is a discrepancy between this licence and the Watershed Authorization for the Fortymile River, as attached as Appendix B, then the conditions of the Watershed Authorization shall prevail.
6. Effluent Quality Standard: The Licensee shall comply with the following effluent discharge standards for any grab sample taken at the point in the effluent flow immediately before it enters the natural stream flow:
 - a) the Design Target for effluent discharge shall be 0.2 ml/L; and
 - b) the Action Level for effluent discharge shall be 1.0 ml/L; and
 - c) the Compliance Level for effluent discharge shall be 2.5 ml/L.
7. All effluent discharge levels included in this licence are identified in excess of natural background concentrations in the Watercourse at the time of sampling.
8. Except as otherwise authorized by this licence, the Licensee shall not deposit, or permit the deposit of Waste containing:
 - a) anything toxic to fish;
 - b) floating solids;
 - c) visible oil or grease; or
 - d) a total concentration of mercury in excess of 0.005 milligrams per litre;

into a receiving Watercourse, or in any place, under conditions where such Waste, or any other Waste that results from the deposit of such Waste, if resulting Waste contains any of the items prohibited by this paragraph, may enter the receiving Watercourse.

9. Except as authorized by this licence, no Waste shall enter any Watercourse as a result of any operation carried out by the Licensee.
10. If, subsequent to the issuing of this licence, the Licensee uses water and/or deposits Waste in one or more ways not authorized in this licence, and the combined effect of those uses and/or deposits of wastes, as determined by an Inspector:
 - a) has no potential for significant adverse environmental effects; and
 - b) does not interfere with existing rights of other water users or Waste depositors; and
 - c) satisfies the criteria set out in column 2 of Schedule 6 of the Regulation;

no amendment to this licence will be required for that use of water and/or deposit of Waste.
11. Fuels, lubricants, cleansers, solvents and similar chemicals or substances shall be used, transported, stored and disposed of in such a way that said substances are not deposited in, or allowed to be deposited in, waters.

PART C MINING ACTIVITIES

12. All storage and settling facilities and associated spillways, drains and water supply ditches located outside the Watercourse channel shall be of adequate capacity and construction.
13. All works associated with the undertaking, including, but not limited to, all dams, weirs, spillways, stream crossings, ditches, gates, water intakes, culverts and settling facilities shall be maintained in good repair.
14. Settling facilities shall be provided for all mining wastewater.
15. Available overburden shall be stockpiled for use in future site restoration, and such stockpiles shall be located where they will not adversely affect water quality in any Watercourse.
16. The Licensee shall comply with the Riparian Zone requirements for Freshwater Fisheries Production zones for Maiden Creek.
17. The Licensee may use the existing bridge, as described in the Application.

PART D SEASONAL CLOSURE

18. The Licensee shall comply with the following conditions pertaining to seasonal closure:
- a) The mine site shall be left in a stable condition at the end of each mining season.
 - b) An Inspector shall be contacted not less than 2 weeks prior to seasonal closure.
 - c) Spring Freshet shall not be routed through Work Areas.
 - d) All mined or otherwise disturbed ground surfaces, including cut banks, fill slopes and tailings piles shall be stabilized annually to prevent erosion and surface runoff from carrying sediment into adjacent Watercourses.

PART E DECOMMISSIONING

19. Prior to final decommissioning and/or expiry of this licence, the Licensee shall:
- a) ensure that the final creek channel approximates its pre-licence condition in length, gradient and stability, except as may otherwise be required in this licence; and
 - b) ensure that all dams and dikes across Watercourse channels are removed; and
 - c) contact an Inspector not less than 2 weeks prior to final decommissioning.

PART F REPORTS, SAMPLING AND ANALYSIS

20. Where there is a surface discharge from the settling facilities, the Licensee shall take weekly samples at a point upstream of the water supply intake and at a point in the effluent flow immediately before it enters the natural stream flow, and shall analyze these samples for settleable solids using the Imhoff cone 1 hour test or laboratory analysis.
21. Where no discharge from the settling facility to a Watercourse occurs, whether by surface discharge or seepage, no sampling is required.
22. On or before the anniversary of the date of issuance of this licence, and for each year during which this licence is in effect, the Licensee shall submit an annual report to the Board.
23. Annual reports during the year reported shall include the information required by this licence and by the Regulation including, but not necessarily limited to:

- a) the quantity of water used under this licence; and
- b) the quantity, concentration and type of any Waste deposited under this licence; and
- c) all data collected which is required by this licence; and
- d) a description of the reclamation that has taken place; and
- e) a list of grant numbers of claims where any reclamation has taken place.

PART G GENERAL CONDITIONS

24. The expiry date of this licence shall be May 31, 2013.
25. Sewage, including all human excreta and wastewater associated with daily camp operations, shall be disposed of in accordance with the *Public Health and Safety Act* of the Yukon.
26. The location of subsurface grey water pits and/or pit privies shall be not less than 30 metres from the Natural Boundary of any Watercourse, and at least 1.2 metres above bedrock or the water table.
27. If very permeable soils are encountered, the pit privy or grey water pit shall be lined with 0.6 metres of sand or silt.
28. All garbage and refuse shall be kept in a covered container until removed from the site or, where appropriate, incinerated and buried under not less than 1 metre of compacted soil in pits located not less than 30 metres from the Natural Boundary of any Watercourse.
29. The Licensee shall immediately contact the 24-hour Yukon Spill Report number (867) 667-7244, and implement the Spill Contingency Plan should a spill or unauthorized discharge occur. A detailed written report on any such event including, but not limited to, dates, quantities, parameters, causes and other relevant details and explanations shall be submitted to the Board no later than 10 days after its occurrence.
30. No condition of the water use licence limits the application of any federal, territorial, first nation or municipal legislation.
31. In the event that the Licensee fails to comply with any provision or condition of this licence, the Board may, subject to the Act, cancel the licence.

32. Where any direction, notice, order or report under this licence is required to be in writing, it shall be given:

a) to the Licensee, if delivered, faxed or mailed by registered mail, to the following address:

Groundhog Exploration
P.O. Box 566
Dawson City, YT Y0B 1G0

Fax #: (250) 537-0849

and shall be deemed to have been given to the Licensee on the day it was delivered or faxed, or 7 days after the day it was mailed, as the case may be; or

b) to the Board, if delivered, faxed or mailed by registered mail, to the following address:

Yukon Water Board
Suite 106, 419 Range Road
Whitehorse, YT Y1A 3V1

Fax #: (867) 456-3890


and shall be deemed to have been given to the Board on the day it was delivered or faxed, or 7 days after the day it was mailed, as the case may be.

c) The Board or the Licensee may, by notice in writing, change its address for delivery.

APPENDIX A

Grant Number	Grant Number
P45160	P45174
P45161	P45175
P45162	P45176
P45163	P45177
P45164	P45178
P45165	P45179
P45166	P45180
P45167	P45845
P45168	P45846
P45169	P45847
P45170	P45848
P45171	P45849
P45172	P45850
P45173	

APPENDIX B

 Fisheries and Oceans Canada / Pêches et Océans Canada

40 MILE RIVER WATERSHED AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT FOR SPECIFIED STREAMS IN THE YUKON TERRITORY

Pursuant to Section 35(2) of the Federal *Fisheries Act*;

The Minister of Fisheries and Oceans Canada (the "Minister") hereby revokes the conditions of the Yukon Placer Authorization (June 1993) and subsequent amendments pertaining to placer mining works or undertakings and sediment discharge standards in the 40 Mile River watershed.

The Minister hereby authorizes the "harmful alteration, disruption or destruction of fish habitat" resulting from placer mining works or undertakings and discharge of sediment at concentrations specified in this authorization, uncontaminated by deleterious substances, within certain streams or portions of streams in the 40 Mile River watershed as identified on the *Yukon Placer Fish Habitat Suitability Map - 40 Mile River Watershed* (Schedule 1).

Authorization issued to:

Individuals or companies conducting placer mining in certain streams or portion of streams within the 40 Mile River watershed, Yukon Territory that hold a valid Water Use License pursuant to the *Waters Act* (Yukon) for placer mining activities.

Location of Project

The works and undertakings are located within the drainage basin of the 40 Mile River watershed, in the Yukon Territory. This authorization applies to certain streams or portions of streams classified on the *Yukon Placer Fish Habitat Suitability Map - 40 Mile River Watershed* (Schedule 1). Larger-scale maps may be available from the Yukon Placer Secretariat or Fisheries and Oceans Canada.

Valid Authorization Period

The valid authorization period for the harmful alteration, disruption and destruction of fish habitat resulting from placer mining works or undertakings is from March 31, 2008 until such time as this authorization is revoked, rescinded, amended or replaced by the Minister.

Amendments or revisions to the terms and conditions identified in this authorization may be required if placer mining activities result in an unforeseen risk to fish or fish habitat resources as demonstrated through monitoring of management parameters (water quality, aquatic health, and physical habitat compensation or rehabilitation). An annual and 5-year review will be conducted to review results of monitoring activities and should amendments be recommended, the process will be guided by the *Adaptive Management Framework for Yukon Placer Mining*, available from the Yukon Placer Secretariat or Fisheries and Oceans Canada.

Description of Works or Undertakings

This authorization permits the harmful alteration, disruption or destruction of fish habitat, in certain streams or portions of streams in the 40 Mile River watershed resulting from placer mining works or undertakings: Those undertakings covered by this authorization are limited to:

- The construction of diversion channels,
- In-stream works,
- Water acquisition, and;
- Discharge of sediment from settling facilities.

Works or undertakings are completed in accordance with methods identified in the *Guidebook of Mitigation Measures for Yukon Placer Mining* available from the Yukon Placer Secretariat and Fisheries and Oceans Canada.

Conditions of Authorization

1. The general watershed conditions of this authorization notwithstanding, should any specific works, undertakings, or activities authorized by this authorization, due to weather conditions, different soil, local topography, updated fisheries information or other natural conditions, appear in the opinion of the Fisheries and Oceans Canada, likely to cause greater adverse environmental effect than was contemplated by this watershed authorization, then Fisheries and Oceans Canada may direct the specific Placer Mining operation to suspend or alter works and activities to avoid or mitigate adverse effects with respect to fisheries resources. In circumstances where DFO holds the view that greater adverse environmental effects will occur at a specific site than were contemplated by this watershed authorization Fisheries and Oceans Canada may also modify the application of this authorization to that specific site. Should Fisheries and Oceans Canada propose such modification Fisheries and Oceans Canada will give the Placer Mining operation the opportunity to discuss and respond to the proposed modification.
 2. All works or undertakings will be conducted in accordance with:
 - 2.1. The measures identified in the *Guidebook of Mitigation Measures for Yukon Placer Mining* as per the fish habitat suitability classification of streams or portions of streams identified on the *Yukon Placer Fish Habitat Suitability Map - 40 Mile River Watershed* (Schedule 1).
 - 2.2. Discharge standards for placer mine effluent identified in the *Sediment Discharge Standards for Placer Mine Effluent – 40 Mile River Watershed* (Schedule 2).
 - 2.2.1. Sediment discharge standards will be phased in as identified in Schedule 2.
 3. Prior to proceeding with placer mining works or undertakings that are likely to result in the harmful alteration, disruption or destruction of fish habitat, the proponent will complete the applicable *Fish Habitat Design, Operation and Reclamation Worksheets* (Appendix A - G of the
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Guidebook of Mitigation Measures for Yukon Placer Mining) and include these worksheets as a component of their submission for project review to the Yukon Environmental and Socio-economic Assessment Board and the Yukon Water Board.

4. Fish habitat reclamation measures will be identified in the *Fish Habitat Design, Operation and Reclamation Worksheets* in accordance with the measures identified in *Guidebook of Mitigation Measures for Yukon Placer Mining*. These worksheets are to be included in the submission for project review to the Yukon Environmental and Socio-economic Assessment Board and the Yukon Water Board.
5. The proponent must ensure that all plans developed pursuant to this authorization have been duly prepared and acknowledges sole responsibility for all design, safety and workmanship aspects of all the works associated with this authorization.
6. In the event that any of the forgoing conditions cannot be met, the provisions of this authorization do not apply and the proponent will apply to Fisheries and Oceans Canada for review prior to proceeding.

The holder of this authorization is hereby authorized under the authority of section 35(2) of the Federal *Fisheries Act*, R.S.C., 1985, c.F. 14, to carry out the work or undertaking described herein. This authorization is valid only with respect to fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies. Failure to comply with any condition of this authorization may result in charges being laid under the Federal *Fisheries Act*.

Authorization #: 08-HPAC-PA5-00056

Date of Issuance: April 11, 2008

Approved by:



Steve Gotch

Title: Manager, Oceans Habitat and Enhancement Branch
Yukon / Transboundary Rivers Area
Fisheries and Oceans Canada

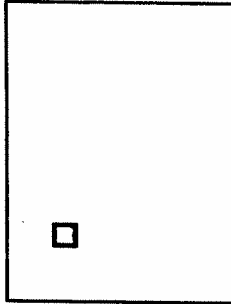


Schedule 1
Yukon Placer Fish Habitat Suitability Map - Forty Mile River Watershed (Category B)



Forty Mile River Watershed (Category B)
Yukon Placer Fish Habitat Suitability Map

- Reach Model Classification**
- Water Quality
 - Fresh Water Production Zones
 - Moderate-Low Suitability
 - Moderate-Moderate Suitability
 - Moderate-High Suitability
 - Chinook Salmon Production
 - Areas of Special Consideration
- Lakes**
- L - Small < 10%
 - L - Small 10-50%
 - L - Small > 50%
 - L3 - Large <1%
 - L4 - Large 1-8%
 - L5 - Large >8%
 - Lakes (12 - 12)
- Areas of Special Consideration**
- Previous Development Designation**
- Current
 - Historical
 - Extensive



0 2 4 8 Km

Fisheries and Oceans Pêches et Océans
Canada

Sediment Discharge Standards for Placer Mine Effluent – 40 Mile River Watershed

Habitat Suitability	Water Quality Objective (WQO)	Sediment Discharge Standard for Mine Discharge
Moderate-H	<25 mg/L	Compliance Level: <200 mg/L
Moderate-M	100 mg/L	Design Target: 0.2 ml/L Action Level: 0.4 ml/L Compliance Level: 0.8 ml/L
Moderate-L	<200 mg/L	Design Target: 0.2 ml/L Action Level: 1.0 ml/L Compliance Level: 2.0 ml/L
Freshwater Fisheries Production Zones	<300 mg/L	Design Target: 0.2 ml/L Action Level: 1.0 ml/L Compliance Level: 2.5 ml/L
Areas of Special Consideration		
40 Mile River (main stem)	<100 mg/L ¹	Design Target: 0.2 ml/L Action Level: 0.4 ml/L Compliance Level: 0.8 ml/L
Clinton Creek (lower main stem)	100 mg/L ¹	Design Target: 0.2 ml/L Action Level: 0.4 ml/L Compliance Level: 0.8 ml/L
Water Quality Zones		
Unnamed Creek East of Mickey Creek	Downstream: WQO mg/L	Compliance Level: 2.5 ml/L

¹ The water quality objective is established for management and effectiveness monitoring purposes. The placer mine operator is not required to monitor or report on this objective for compliance purposes.

General Notes Regarding Sediment Discharge Standards

- The point at which the above-listed Sediment Discharge Standards for Mine discharge will be measured will be a point in the effluent flow immediately before it enters the natural stream flow.

- Sediment Discharge Standards for Mine discharge include all releases of effluent (both point and non-point sources) into the natural stream flow of a watercourse.
- All effluent discharge levels are identified in excess of natural background concentrations at the time of sampling.
- When the sediment discharge standard is a settleable solids standard (ml/l), measurement will either involve laboratory analysis, or utilizing an Imhoff cone.

General Notes Regarding Sediment Discharge Standards - continued

- When the sediment discharge standard is a suspended solids standard (mg/l), measurement will either involve laboratory analysis, or utilizing a portable digital turbidity/suspended solids correlation meter.
- Samples collected for the purpose of determining compliance with the above-listed Sediment Discharge Standards for Mine discharge will be analysed via laboratory analysis.

Phase-In Schedule for Sediment Discharge Standards for Yukon Placer Mining

The Yukon placer mining industry's strong overall compliance record has been achieved through effective dialogue with inspectors from Energy Mines and Resources Yukon, which bases its activities on the principles of Education, Encouragement and Enforcement.

The phase-in schedule proposed below will allow inspectors and the Yukon Placer Secretariat enough time to ensure that each operator fully understands what is required to comply with the requirements of this Authorization and the new management system for Yukon placer mining.

The phase-in of new sediment discharge standards will adhere to the following requirements.

- 2008 – Licensed placer miners will be informed about the operating practices required to comply with the new system for managing placer mining activity under the *Fisheries Act*. Inspectors and the Yukon Placer Secretariat will ensure that each operator is aware of the specific changes required at his or her site.
- 2009 – All licensed placer miners must be oriented to the Design Target and Action Level, and must comply with a Sediment Discharge Standard for Mine discharge of no greater than 2.5 ml/L, or the standard stipulated in their existing water use license, whichever is more stringent.
- 2010 – All operations must be oriented to operate within the Design Target and Action Level, and must not exceed the Compliance Level stipulated in the table of ***Sediment Discharge Standards for Placer Mine Effluent*** for the habitat suitability classification and the watershed in which the mine is located.

**PLACER LAND USE APPROVAL FOR A CLASS 4
OPERATING PLAN**

Pursuant to the *Placer Mining Act* and the *Placer Mining Land Use Regulation* made thereunder, the Yukon Water Board hereby approves the Class 4 Placer Land Use Operating Plan as submitted by:

Groundhog Exploration
P.O. Box 566
Dawson City, YT Y0B 1G0

APPROVAL NUMBER: AP07592 **WATER LICENCE:** PM07-592

WATERSHED: Fortymile River

WATERSHED SENSITIVITY: Moderate-Moderate Habitat Suitability with a Current Development designation

LOCATION: Latitude: 64° 16" N Longitude: 140° 30" W

EFFECTIVE DATE: The effective date of this approval shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.

TERM: The term of this mining land use operating plan approval shall be for a period of five years, commencing on the effective date of water use licence PM07-592.

The operating plan shall be subject to the restrictions and conditions contained herein, and to the restrictions and conditions contained in the *Placer Mining Act* and the *Placer Mining Land Use Regulation* made thereunder.

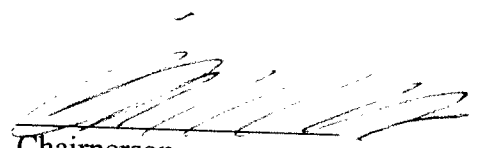
Dated this 18 day of

December, 2008

Baird

Witness

Approved by:



Chairperson
YUKON WATER BOARD

PART A DEFINITIONS

"Act" means the *Placer Mining Act*.

"Application" means application for water use licence PM07-592 and placer land use approval AP07592, and any subsequent information presented to the Yukon Water Board up to the date of the Board's decision.

"Board" means the Yukon Water Board.

"Claims" means any parcel of land located or granted for placer mining; and "Mining Property" includes, besides claims, any ditches or water rights used for mining thereon, and all other things belonging thereto or used in the working thereof, for mining purposes.

"Inspector" means any person designated as an Inspector under the Act.

"Operation" means a placer land use operation.

"Operator" means a person who engages in a placer mining land use operation.

"Regulation" means *Placer Mining Land Use Regulation*.

"Road" means a pathway for vehicular traffic, the construction of which requires the movement of rock or earth.

"Special Waste Management Facility" means an operation which handles or disposes of special wastes generated by other persons or operations, and which is approved in accordance with the provisions of the *Special Waste Regulations of the Environment Act* of the Yukon Territory.

"Stripping" means excavation, undertaken as part of an operation, that is limited to the removal of trees, brush and vegetative mat.

"Trail" means an access to a site within a claim or lease that is constructed with little or no movement of rock or earth.

"Trenching" means excavation that extends below the vegetative mat, undertaken as part of an operation.

"Vegetative Mat" means the organic surface of soil characterized by the accumulation of organic matter, or partly decomposed organic matter, derived mainly from leaves, twigs and woody materials and includes the root mass of living vegetation.

PART B GENERAL CONDITIONS

1. This approval applies to those grant (claim) numbers that are included in water use licence PM07-592, including any amendments thereto.
2. The term of this mining land use operating plan approval shall be for a period of five years, commencing on the effective date of water use licence PM07-592.
3. All operating activities must comply with the operating conditions contained in Schedule 1 of the *Placer Mining Land Use Regulation* and with the operating plan AP07592 submitted. Where there is a discrepancy between the operating plan submitted and this approval, the terms of this approval shall prevail.
4. The Operator must contact Department of Energy, Mines and Resources, Client Services and Inspections Branch, every year before beginning operations and at least 2 weeks prior to leaving the site at the end of every season.
5. All risk of fire hazards must be avoided.
6. All solid waste, debris, equipment, fuel barrels and other waste on the Mining Property must be safely stored and disposed of in accordance with the *Solid Waste Regulation* when the Operation ceases.
7. Nothing in this approval limits the application of any federal, territorial, first nation or municipal legislation.

PART C WILDLIFE

8. All incidents with wildlife must be reported to the District Conservation Officer in Dawson City.
9. Brush removed during the Operation must not be piled so that it blocks movement of wildlife or people.
10. At seasonal closure, any materials that may result in injury to wildlife including, but not necessarily limited to, wire, steel, glass or plastic must be removed or safely stored.

PART D RESTORATION PRACTICES

11. If the Vegetative Mat is disturbed during the mining operation, it must be removed so as to protect the seed and root stock contained within the Vegetative Mat.
12. The seed and root stock must be stored separately from any overburden or bedrock removed for use in re-establishing the Vegetative Mat when the Operation ceases.

13. All areas disturbed during the mining operation including, but not limited to, fuel and waste storage areas, clearings, corridors, camps, supporting infrastructure, trenches and drill sites, must be left in a condition conducive to re-vegetation by native plant species or other species adaptable to the local environment.
14. Conditions conducive to re-vegetation include provisions of an adequate soil layer with moisture retaining ability, no soil contamination by hydrocarbons or other hazardous substances, provision of adequate seed or root stock and contoured or otherwise stable slopes.
15. If adequate seed stock or root stock is not naturally available, re-seeding or transplanting of vegetation is required. Only non-invasive species may be used for re-seeding or transplanting.
16. All areas disturbed during the mining operation must be re-sloped, contoured or otherwise stabilized to prevent long-term soil erosion, slumping and subsidence.
17. All mining operations must be carried out to avoid or minimize damage to, and loss of, permafrost.
18. Available overburden must be stockpiled for use in future site restoration, and such stockpiles must be located where they will not adversely affect the water quality in any watercourse.
19. Tailings and overburden, or other relocated materials, must be levelled and contoured into low relief piles. The slope of these low relief piles must be no steeper than 2 horizontal to 1 vertical. Any such slope over 15 metres in height must be benched.
20. The following conditions apply to Stripping:
 - a) trees and brush must be cleared first,
 - b) topsoil and organic material must be stockpiled separately,
 - c) overburden must be located no closer than 5 metres from any standing trees,
 - d) overburden may be stacked along the valley wall, but must be contoured to blend with the natural topography.
21. All Trenching carried out by hand or with hand-held tools must be methodical. The trenches must be stabilized and marked in such a way as to minimize risk to the public.

22. If mechanized equipment is used for Trenching, all material must be segregated into two piles:
 - a) Vegetative Mat; and
 - b) overburden and bedrock;

to be conserved and used for backfilling the trenches.
23. Backfilling of the trenches must be conducted by replacing overburden and bedrock first, then covering with the Vegetative Mat.

PART E DRILLING

24. Vegetation other than within a drill sump must not be covered with drill cuttings.
25. Drill mud must be re-circulated when possible.
26. All drill fluids must be contained within a small (natural or artificial) sump in a suitable manner.
27. All drill holes that pose a hazard or that lead to ground water must be plugged in a suitable manner.
28. All drilling must be done in a way that minimizes its impact on wildlife and the public.
29. The location of drill holes must be marked on the ground by flagging or other suitable means.
30. There shall be no direct discharge from the drilling site to a watercourse.

PART F ARCHAEOLOGICAL SITES AND PALAEOLOGICAL SITES

31. All archaeological sites or palaeontological sites must be avoided.
32. If any archaeological objects or palaeontological objects are encountered, the Operator must:
 - a) immediately mark and protect the area from further disturbance; and
 - b) contact the Chief of Placer Land Use at (867) 456-3822; and
 - c) in the case of archaeological sites, human remains, grave sites, burial sites and all other abandoned, man-made structures older than 50 years old, immediately contact Heritage Resources at (867) 667-3771 or (867) 667-5386; and

- d) set aside and protect fossils that are unearthed, and at the end of each season the Operator shall contact Yukon Palaeontology at (867) 667-8089; and
- e) immediately contact Yukon Palaeontology if any mummified fossil remains with intact flesh are discovered; and
- f) prevent any further disturbances from being carried out within 30 metres of an archaeological or palaeontological site until the Chief of Placer Land Use indicates in writing that the activities may proceed.

PART G ACCESS ROADS AND/OR TRAILS

- 33. Off-Road and Trail routes must be reconnoitred and must be used in a way that minimizes ground disturbances, damage to permafrost and sensitive wildlife habitat. Trail routes must be flagged.
- 34. Vehicles must be operated in a manner which avoids rutting or gouging of a Road or Trail.
- 35. If rutting, gouging, ponding or permafrost degradation occurs off-Road or Trail, vehicle use must be suspended or relocated to ground that is capable of bearing the weight of the vehicle without causing such damage, and the former routes must be restored in compliance with Part D of this approval.
- 36. If there is no Road or Trail, the Operator must comply with the following conditions when mobilizing heavy equipment to a site:
 - a) Tracked vehicles with blades should be provided with mushroom pads to minimize terrain damage.
 - b) Dozers should travel with the blade raised, so as not to rip up the Vegetative Mat.
 - c) Vehicles may only be mobilized in ice-rich permafrost areas when the active layer is frozen, or when the surface is strong enough to support the vehicle without excessive permafrost degradation.
 - d) Use of skids on permafrost or wet ground is only allowed outside of winter, where it is not possible to use other means of equipment transportation.
- 37. At abandonment of a Road, compacted Road surfaces must be scarified to promote re-vegetation.

PART H CAMPS

- 38. All campsites must be kept clean and tidy.
- 39. All buildings and other facilities must be on well-drained soil.

40. Combustible and odorous kitchen waste must not be permitted to accumulate.
41. All wood debris, empty drums, junked equipment and metal waste must be kept in a secure area for final disposal.
42. Compacted soil must be loosened to allow for natural re-vegetation. Areas not likely to re-vegetate naturally must be spread with topsoil.

PART I FUEL HANDLING AND TRANSPORTATION

43. A spill contingency plan for petroleum products and other hazardous substances must be in place, and a copy posted in the camp and at all fuel handling locations.
44. All petroleum products, hazardous waste and chemicals must be transferred and handled in such a manner so as to prevent spillage.
45. All petroleum products, hazardous waste and chemicals must be stored in a secure manner no less than 30 metres from the ordinary high water mark of any water body.
46. All fuel tanks that exceed 4,000 litres must be registered according to the *Canadian Environmental Protection Act*.
47. When the fuel storage capacity exceeds 4,000 litres, secondary containment must be provided.
48. The secondary containment facility must be constructed of material impervious to petroleum products; and:
 - a) in the case of a single storage tank, be of sufficient size to accommodate at least 110% of the capacity of the storage tank; or
 - b) if there is more than one storage tank, be of sufficient size to accommodate 110% of the capacity of the largest tank or 10% of the total capacity of all the tanks, whichever size is greater.
49. All vehicles must be maintained and operated in a manner designed to prevent spills of fuel, lubricants, coolants or oil.
50. All waste petroleum products must be safely stored on site, be removed to a Special Waste Management Facility or disposed of in accordance with the *Special Waste Regulation*.
51. Sufficient spill clean-up equipment and materials must be in a state of readiness in order to clean-up all fuel spills.

52. If a spill or unauthorized discharge occurs, the Operator shall immediately implement the Spill Contingency Plan, and:
- a) contain and clean up the spill, and
 - b) contact the 24-hour Yukon Spill Report number, (867) 667-7244, and
 - c) contact an Inspector.
53. A detailed written report on any spills or unauthorized discharges including, but not limited to, dates, quantities, parameters, causes and other relevant details and explanations shall be submitted to the Board, and a copy to the Chief of Placer Land Use, no later than 10 days after its occurrence.
54. All fuel drums must be stored in an upright position.
55. All fuel and chemical containers must be sealed when not in use.
56. All containers of petroleum products with a capacity of 200 litres or greater must be clearly marked with the Operator's name and the contents.

PART J SEASONAL CLOSURE

57. The mine site must be left in a stable condition at the end of each mining season.
58. All mined or otherwise disturbed ground surfaces, including cut banks, fill slopes and tailings piles, must be stabilized annually.

PART K DECOMMISSIONING

59. At final decommissioning of the site everything must be removed including but not necessarily limited to, all buildings, machinery, materials, fuel drums, used hydrocarbons, unburied solid waste and metal waste, including junked vehicles.
60. The Operator must contact an Inspector not less than 2 weeks prior to final decommissioning.
61. The Operator may apply for a certificate of completion at the termination of the Operation, when all reclamation has been achieved.
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