
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 PM10-023 and placer mining land use approval AP10023 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.

“Instream Reservoir” means any water impoundment structure, where water is collected and retained for use, which is constructed in a natural channel or in a diversion, and through which the entire creek flow may be directed at any time.

“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.

“Permanent Diversion” means any direct or indirect alteration of a portion, or all, of the water flowing in the route, bed, bank or boundaries of a river, stream, lake or watercourse and is in place for a period of over 5 years.

“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.

“Seasonal Diversion” means any direct or indirect alteration of a portion, or all, of the water flowing in the route, bed, bank or boundaries of a river, stream, lake or watercourse and is in place for less than one year.

“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 the water or not.

“Wetted Perimeter” means the horizontal extent of the present water level while the work is taking place.

“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 to:
 - a) obtain water from Mills Creek, Kernine Creek, and Black Hills Creek at a maximum combined quantity of 24,264 cubic metres per day; and
 - b) use this water for a placer mining undertaking on grant numbers and lease numbers listed in Appendix A, attached; and
 - c) return a flow of water to Mills Creek, Kernine Creek, and Black Hills Creek, and to deposit Waste into Mills Creek, Kernine Creek, and Black Hills Creek; and
 - d) construct Seasonal or Permanent Diversions on Mills Creek, Kernine Creek, and Black Hills Creek.
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. All work authorized by this licence shall occur on the property that the Licensee has the right to enter upon and use for that purpose.
4. Where there is a discrepancy between this licence and the Stewart River Watershed Authorization, as attached as Appendix B, then the conditions of the Watershed Authorization shall prevail.
5. Effluent Quality Standard: The Licensee shall comply with the Category A, Fresh water fisheries production zone (and Moderate – Low for the designated portion of Kernine Creek) effluent discharge standards for any grab sample taken at the point in the effluent flow immediately before it enters the natural stream flow, as follows:

For Black Hills Creek, Mills Creek, and the upper sections of Kernine Creek:

- 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 1.5 ml/L.

For the lower section of Kernine Creek:

- a) The Design Target for effluent discharge shall be 0.2 ml/L; and
- b) The Action Level for effluent discharge shall be 0.8 ml/L; and
- c) The Compliance Level for effluent discharge shall be 1.2 ml/L.

6. All effluent discharge levels included in this licence are identified in excess of natural background concentrations in the Watercourse at the time of sampling.
7. 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 results from the deposit of such Waste, if resulting Waste contains any of the items prohibited by this paragraph, may enter the receiving Watercourse.

8. Except as authorized by this licence, no Waste shall enter any Watercourse as a result of any activity carried out by the Licensee.
9. 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

10. Instream dugouts may be constructed. The instream dugouts shall be constructed and maintained to withstand and convey at least a 1:2 year flood flow.
11. The Licensee may construct Seasonal and Permanent Diversions on Mills Creek, Kernine Creek, and Black Hills Creek, as described in the Application and subject to the Stewart River Watershed Authorization.

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12. A plug shall be left in place when constructing the diversions at the upstream end and the downstream end until the diversions are completed.
 13. After the diversions have been completed, the Licensee shall first remove the plug at the downstream end of the diversions and then gradually remove the plug at the upstream end of the diversions.
 14. Armouring shall be installed at both the upstream and downstream ends of the diversions.
 15. Prior to opening of the diversion channels, the sump for the pump shall be constructed at the downstream end of the diversions.
 16. The Licensee may construct an intake ditch to an out-of-stream pump pond/reservoir.
 17. Armouring shall be installed at the confluence of the intake ditch and the Watercourse.
 18. All instream earthworks, diversions, ditches, spillways and any other water related structures built, or otherwise constructed, for the storage or conveyance of water shall be able to withstand seasonal floods.
 19. 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.
 20. 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.
 21. A protective berm shall be constructed and maintained along the Watercourse channel diversions, if space allows or as determined by an Inspector.
 22. Settling facilities shall be provided for all mining wastewater.
 23. 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.
 24. The Licensee shall comply with the Riparian Zone requirements for:
 - a) Fresh water fisheries production zones for P 39919 up to and including part of P 39871 on Mills Creek; and
 - b) Moderate-Low zones for Kernine Creek, the lower section of Mills Creek, and on grants part of P 39871 up to and part of 42539 on Black Hills Creek.
 25. The Licensee shall provide barriers consisting of fish guards, screens, coverings or nets on all water intakes as follows:

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- a) Screens or nets shall have a minimum of 3.5 openings per centimeter and openings no greater than 3.2 millimetres along any given side.
 - b) If a punch plate or similar material is used, openings shall be no greater than 3.2 millimetres in length or width.
 - c) There shall be no less than 929 square centimeters of open screen for every 205 litres per minute being withdrawn.
 - d) The barriers shall be monitored and maintained to ensure that they function effectively at all times when water is being withdrawn.
 - e) The barriers shall be designed and installed in such a manner that the screen is submerged and a uniform flow is maintained through the total screen area.
 - f) Water shall not be withdrawn when the barrier is removed for renewal, repair or inspection.
 - g) The Licensee shall cease pumping or decanting and take remedial action if there is alteration the Riparian Zone and/or bed or bank of the Watercourse resulting from any pumping or decanting activity undertaken by the Licensee.

PART D WATERCOURSE CROSSINGS

26. The Licensee may modify the bed or banks of streams to maintain existing fords to allow fording of the Watercourse.
27. The Licensee may modify the bed or banks of streams to allow fording of the Watercourse. The distance between fords, including existing fords, in:
 - a) Freshwater Fisheries Production Zones shall be limited to every 300 metres, or shall not exceed more than 4 fords every 1,000 metres; and
 - b) Moderate – Low zones shall be limited to every 800 metres, or shall not exceed more than 3 fords every 2,000 metres.
28. The Licensee shall adhere to the following conditions when constructing and/or maintaining fords:
 - a) The width of the approach to the ford shall be a maximum of 10 metres.
 - b) All crossings shall be at a right angle to the Watercourse; and
 - c) Removal of vegetation adjacent to the crossings shall be minimized; and
 - d) Non-erodible materials shall be placed up the bank on both sides of the crossing to stabilize the banks; and
 - e) The Watercourse crossings approaches shall be low and stable enough to support the vehicles and equipment; and
 - f) The Watercourse shall be crossed on either a firm rock bottom or a coarse gravel bottom; and

- g) Equipment crossing the Watercourse shall be mechanically sound and free of leaks; and
- h) The blade or bucket on equipment shall be raised above the Wetted Perimeter while crossing any Watercourse.

PART E DIVERSION/CHANNEL CONSTRUCTION AND RESTORATION

29. The Licensee shall adhere to the following conditions regarding construction of all diversions, redirection of the Watercourse into the original channel and restoration:
- a) The Permanent Diversions shall be built to a 1:10 year flood design level for moderate-low zones, and a 1:5 year flood design for Fresh Water Fisheries Production zones.
 - b) The Seasonal Diversions shall be built to a 1:1 year flood design level.
 - c) The bed and banks of the Permanent and Seasonal Diversion channels shall be left in a stable condition.
 - d) Topsoil and organic overburden or fines from washed tailings shall be spread on the graded areas on both sides of the restored channel.
 - e) Willows shall be planted along the inside bank of any sharp bends of the Permanent Diversion channel.

For Black Hills Creek (Moderate-Low habitat suitability):

- f) The Permanent and Seasonal Diversion channels width shall be no less than 9.3 metres.
- g) The Permanent and Seasonal Diversion channels depth shall be no less than 0.53 metres.
- h) The Permanent and Seasonal Diversion channels grade shall be between 0.0% and 0.4%.
- i) The bed and banks of any tributary (gulch or pup) of Black Hills Creek shall be left in a stable condition and shall be left in such a manner so that erosion is controlled and revegetation is possible.
- j) Structures such as boulder groupings shall be provided and spaced no further apart than; every 37.2 metres for Permanent Diversions.
- k) Anchored or buried trees shall be placed along the Permanent Diversion channel and spaced no further than 186 metres apart.

For Kernine Creek and lower section of Mills Creek (Moderate-Low habitat suitability):

- l) The Permanent and Seasonal Diversion channels width shall be no less than 3.6 metres.
- m) The Permanent and Seasonal Diversion channels depth shall be no less than 0.45 metres.
- n) The Permanent and Seasonal Diversion channels grade shall be between 0.0% and 3.0%.

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- o) The bed and banks of any tributary (gulch or pup) of Kernine and Mills Creek shall be left in a stable condition and shall be left in such a manner so that erosion is controlled and revegetation is possible.
 - p) Structures such as rock islands shall be provided and spaced no further apart than; every 21.6 metres for Permanent Diversions.
 - q) Anchored or buried trees shall be placed along the Permanent Diversion channel and spaced no further than 72 metres apart.

For upper sections of Mills Creek (Fresh water fisheries production zone):

- r) The Permanent and Seasonal Diversion channels width shall be no less than 3.6 metres.
- s) The Permanent and Seasonal Diversion channels depth shall be no less than 0.45 metres.
- t) The Permanent and Seasonal Diversion channels grade shall be between 0.0% and 3.0%.
- u) The bed and banks of any tributary (gulch or pup) of Kernine and Mills Creek shall be left in a stable condition and shall be left in such a manner so that erosion is controlled and revegetation is possible.
- v) Structures such as rock islands shall be provided and spaced no further apart than; every 36.0 metres for Permanent Diversions.

The Licensee shall comply with all applicable Riparian Zone requirements.

PART F SEASONAL CLOSURE

30. 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) To prevent flood damage during freshet, the Licensee shall block all intakes to the out of stream reservoirs, dewater all water reservoirs and settling facilities prior to seasonal closure.
- d) Spring Freshet shall not be routed through Work Areas. Where diversion channels around working areas are built or excavated, they shall be open in preparation for Spring Freshet.
- e) 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 G DECOMMISSIONING

31. 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) contact an Inspector not less than 2 weeks prior to final decommissioning.

PART H REPORTS, SAMPLING AND ANALYSIS

32. Where there is a surface discharge from the settling facilities, the Licensee shall take weekly samples at a point upstream of the water supply and 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.
33. Where no discharge from the settling facility to a Watercourse occurs, whether by surface discharge or seepage, no sampling is required.
34. On or before the anniversary 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.
35. 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 I SECURITY

36. The Licensee shall provide security in the amount of \$65,000.00 prior to the commencement of any water use and/or mining activities.
37. The Licensee shall provide details of reclamation completed for each year of the licence and any outstanding reclamation that was not completed for each year of the licence. For all outstanding reclamation for each year reported, the Licensee shall provided a detailed cost estimate for the completion of that reclamation for that year.
38. If the detailed cost estimate of the outstanding reclamation for each year exceeds the amount required by condition 36 of this licence and which is held in trust by Government of Yukon, the

Licensee shall provide additional security that is equivalent to the cost estimate provided for each year of this licence.

39. Security shall be provided in a form as set out in section 11(3) of the *Waters Regulation*.

PART J GENERAL CONDITIONS

40. The expiry date of this licence shall be March 31, 2020.
41. Sewage, including all human excreta and wastewater associated with daily camp operations, shall be deposited of in accordance with the *Public Health and Safety Act* of the Yukon.
42. The location of subsurface grey water pits and/or 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.
43. If very permeable soils are encountered, the pit privy or grey water pit shall be lined with 0.6 metres of sand or silt.
44. 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.
45. 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.
46. No condition of the water use licence limits applicability of any statutory authority.
47. Activities authorized by this licence shall not take place on placer leases. The Licensee shall convert placer leases, which are included in this licence, to placer claims before beginning active mining on those claims. Where the Licensee has staked out, subject to the *Placer Mining Act*, the placer lease or portions of the placer lease into placer mining claims and has been given a grant of placer mining claims, the Licensee shall promptly notify the Board by providing a copy of the grant of placer mining claims and shall also show the placer lease number or a portion of the placer lease number from which the grant or placer mining claims was created. Where the Licensee provides such information to the Board, the grant of placer mining claims shall be deemed to be included in this licence.
48. 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.

49. 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 or mailed by registered mail, to the following address:

Joel White
12 Buttercup Place
Whitehorse, YT
Y1A 5V1

and shall be deemed to have been given to the Licensee on the day it was delivered 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	Grant Number
P39328	P39334	42473
42474	42475	42476
42477	42478	42479
42480	42481	42482
42483	42484	42485
42486	42487	42488
42489	42490	42491
42492	42493	42494
42495	42496	42497
42498	42499	42500
42501	42502	42503
P 39486	P 40584	P 40585
P 40586	P 40587	P 40588
P 40589	P 40590	P 40591
P 40592	P 40593	P 40594
P 40595	P 40596	P 40597
P 40598	42504	42505
42506	42507	42508
42509	42510	42511
42512	42513	42514
42515	42516	42517
42518	42519	42520
42521	42522	42523
42524	42525	42526
42527	42528	42529
42530	42531	42532
42533	42534	42535
42536	42537	42538
42539	P 30115	P 30116
P 30117	P 30118	P 30119
P 39919	P 39920	P 41106
P 39858	P 39859	P 39860
P 39861	P 39862	P 39863
P 39864	P 39865	P 39866
P 39867	P 39868	P 39869
P 39870	P 39871	P 39872
P 39873	P 39874	P 39875
P 39876	P 39877	P 39878
P 39879	P 39880	P 39881
P 39882	P 39883	P 39884
P 39885	P 39886	P 39887

P 39888	P 39889	P 39890
P 39891	P 39892	P 39893
P 39894	P 39895	P 39896
P 39897	P 39898	P 39899
P 39900	P 39901	P 39902
P 39903	P 39904	P 39905
P 39906	P 40486	ID00818 (Lease)
ID00819 (Lease)		