

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:

Douglas A. Olson
6752 Barbara Drive
Victoria, BC V8Z 5T5

LICENCE NUMBER: PM07-552

LICENCE TYPE: B **UNDERTAKING:** PLACER

WATER USE AREA: 02 **STREAM CLASSIFICATION:** IV

LOCATION: Latitude: 63° 59' N Longitude: 139° 01' W

WATER SOURCE: Hester Creek, a tributary of Hunker Creek and Hunker Creek, a tributary of Klondike River

MAXIMUM QUANTITY: 3,600 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: October 3, 2017

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.

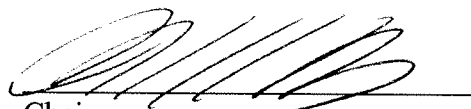
Dated this 10 day of

October, 2007



Witness

Approved by:



Chairperson
YUKON WATER BOARD

CONDITIONS OF WATER USE LICENCE PM07-552

PART A DEFINITIONS

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

"Application" means application for water use licence PM07-552 and placer mining land use approval AP07552, 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.

"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.

"Instream Settling Facility" means a water impoundment structure, pond, or series of ponds, where effluent is collected and retained for treatment, 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.

"Regulation" means the *Waters Regulation*.

"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 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.

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PART B WATER USE AND WASTE DEPOSIT

1. The Licensee is hereby authorized:
 - a) to obtain water from Hester Creek and Hunker Creek at a maximum combined quantity of 3,600 cubic metres per day; and
 - b) to use this water for a placer mining undertaking on the following grant numbers

P43011	P39470	P07681	P08542	P08543
42821	42822	P29107	P08193	P13793
P13794	P13795	P13796	P13797	P13798
P39482	P08194	P10103	P13500	P13501
P13502	P13503	P13504; and		
 - c) to return a flow of water to Hester Creek and Hunker Creek, and to deposit waste into Hester Creek and Hunker Creek; and
 - d) to use existing Instream Reservoirs and Instream Settling Facilities.
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. Effluent Quality Standard:

Any grab sample at the point of discharge from the final settling facility shall not exceed settleable solids of 5.0 millilitres per litre above levels in the Watercourse immediately above the uppermost mine operation.
6. Except as otherwise provided in 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;

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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.

7. 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.
8. 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.
9. Except as authorized by this licence, no Waste shall enter any watercourse as a result of any operation carried out by the Licensee.

PART C MINING ACTIVITIES

10. Existing Instream Reservoirs and Instream Settling Facilities may be used. The existing Instream Reservoirs, Instream Settling Facilities and overflow spillways shall be maintained to withstand and convey at least a 1:2 year flood flow.
11. The Licensee may use Hester Creek and Hunker Creek as a conduit to existing Instream Settling Facilities.
12. Armoring shall be maintained at the confluence of the existing intake ditch and the creek.
13. 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.
14. 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.
15. Settling facilities shall be provided for all mining wastewater.

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16. 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.
17. Forest cover, topsoil and debris shall be disposed of in such a manner so as to prevent entry into any Watercourse.
18. The Licensee shall provide barriers consisting of fish guards, screens, coverings or nets on all water intakes on Hunker Creek as follows:
 - a) Screens or nets shall have a minimum of 3.5 openings per centimetre 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 centimetres of open screen area 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 to the (leave strip and/or bed or bank) of the water channel.

PART D WATERCOURSE CROSSINGS

19. The Licensee may modify the bed or banks of streams to allow fording of the Watercourse. The number of fords shall be limited to those shown in the Application.
20. The Licensee shall adhere to the following conditions regarding fording of the creek channels:
 - a) all crossings shall be at a right angle to the Watercourse; and
 - b) removal of vegetation adjacent to the crossings shall be minimized; and
 - c) non-erodible materials shall be placed up the bank on both sides of the crossing to stabilize the banks; and

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- d) the Watercourse crossing approaches shall be low and stable enough to support the vehicles and equipment; and
- e) the Watercourse shall be crossed on either a firm rock bottom or a coarse gravel bottom; and
- f) equipment crossing the Watercourse shall be mechanically sound and free of leaks; and
- g) the blade or bucket on equipment shall be left in a raised position when crossing the Watercourses.

PART E SEASONAL CLOSURE

21. 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 intake ditches to the water reservoir shall be blocked and the settling facilities shall be bypassed.
 - d) Spring Freshet may be routed through Work Areas. When Spring Freshet is routed through Work Areas, the effluent standard of 5.0 millilitres per litre of settleable solids must be met. Where bypass 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 F DECOMMISSIONING

22. 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 stream channels are removed; and
 - c) Contact an Inspector not less than 2 weeks prior to final decommissioning.

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PART G REPORTS, SAMPLING AND ANALYSIS

23. 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 the point of discharge from the final settling facility, and shall analyze these samples for settleable solids using the Imhoff cone 1 hour test.
24. Where no discharge from the settling facility to a Watercourse occurs, whether by surface discharge or seepage, no sampling is required.
25. 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.
26. 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 H GENERAL CONDITIONS

27. The expiry date of this licence shall be October 3, 2017.
28. 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.
29. The location of subsurface grey water pits and/or pit privies shall be not less than 30 metres from the high water mark of any Watercourse, and at least 1.2 metres above bedrock or the water table.
30. If very permeable soils are encountered, the pit privy or grey water pit shall be lined with 0.6 metres of sand or silt.
31. 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.

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32. 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.
33. No condition of the water use licence limits the application of any federal, territorial, first nation or municipal legislation.
34. 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.
35. 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:

Douglas A. Olson
6752 Barbara Drive
Victoria, BC V8Z 5T5

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.