

YUKON WATER BOARD

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

Stanley Stempien
Box 355
City of Dawson, YT Y0B 1G0

LICENCE NUMBER: PM03-315

LICENCE TYPE: B **UNDERTAKING:** PLACER

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

LOCATION: Latitude 64°04'30" N Longitude 140°53'30" W

WATER SOURCE: Little Gold Creek, a tributary of Big Gold Creek

MAXIMUM QUANTITY: 2,500 cubic metres per day

EFFECTIVE DATE: April 2, 2004

EXPIRY DATE: April 1, 2014

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

This licence shall be deemed to be a renewal of licence number PM01-218.

PART A DEFINITIONS

“*Act*” means the *Waters Act* and any amendments thereto.

“Application” means application for water use licence PM03-315 and placer mining land use approval AP03315, including any subsequent information presented to the Yukon Water Board, up to the date of the Yukon Water Board’s decision.

“Board” means the Yukon Water Board.

“Diversion” means any direct or indirect alteration of a portion or all of the water flowing in the course, route, bed, bank or boundaries of a river, stream, lake or Watercourse.

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

“Inspector” means any person designated as an Inspector under the *Act*.

“Instream Reservoir” means any water impound 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 impound 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.

“*Regulation*” means the *Waters Regulation*.

“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 the soil of the bed of the lake, stream or other body of water a character distinct from 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.

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

“Work Area” 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 Little Gold Creek at a maximum quantity of 2,500 cubic metres per day; and
 - b. use this water for a placer mining undertaking on claim (grant) numbers:

| | | | | | |
|--------|--------|--------|--------|--------|--------|
| P9302 | P13803 | P13809 | P13815 | P21334 | P21340 |
| P9303 | P13804 | P13810 | P13816 | P21335 | P21341 |
| P9304 | P13805 | P13811 | P13817 | P21336 | P21342 |
| P13800 | P13806 | P13812 | P13818 | P21337 | |
| P13801 | P13807 | P13813 | P13819 | P21338 | |
| P13802 | P13808 | P13814 | P13820 | P21339 | |

and

- c. return a flow of water to Little Gold Creek and to deposit a waste into Little Gold Creek;

as described in the Application and subject to the conditions of this licence.

2. 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.
3. The Board has relied on the representation, warranties and undertakings provided by the Licensee in the materials filed with the Application. Such representations, warranties and undertakings are considered by the Board to be part of the license, but shall be subject to, and may be modified by, the conditions of the licence.
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 2.0 millilitres per litre above levels in the stream immediately above the uppermost mine operation.

6. Except as otherwise provided in this licence, the Licensee shall not deposit or permit the deposit of a 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 stream, 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 stream.

7. 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

8. Stream channel diversions and an intake ditch to an out of stream reservoir may be constructed.
9. 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.
10. All storage and settling facilities and associated spillways, drains and water supply ditches located outside the stream channel shall be of adequate capacity and construction.
11. 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.
12. A protective berm shall be constructed and maintained along the stream channel diversion.
13. Settling facilities shall be provided for all mining waste water.
14. Available overburden shall be stockpiled for future site restoration and such stockpiles shall be located where they will not adversely affect water quality in any Watercourse.
15. The Licensee shall provide barriers consisting of fish guards, screens, coverings or nets on all water intakes 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 distribution 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 bed or bank of the water channel.

PART D WATERCOURSE CROSSINGS

- 16. The Licensee may modify the bed and banks of streams to allow fording of the streams. The number of fords shall be limited to those shown in the Application.
- 17. The Licensee shall adhere to the following conditions regarding fording of the creek channels:
 - a. All crossings shall be at right angles to the stream.
 - b. Removal of vegetation adjacent to the crossing shall be minimized.
 - c. Non-erodible materials shall be placed up on the bank on both sides of the crossing to stabilize the banks.
 - d. The stream crossing approaches shall be low and stable enough to support the vehicles and equipment.
 - e. The stream shall be crossed on either a firm rock bottom or a coarse gravel bottom.
 - f. Equipment crossing the stream shall be mechanically sound and free of leaks.
 - g. The blade or bucket on equipment shall be left in the raised position when crossing the stream.

PART E DIVERSION/CHANNEL CONSTRUCTION AND RESTORATION

The Licensee shall adhere to the following conditions regarding construction of all diversions, redirection of the Watercourse into the original channel and restoration:

- 18. The diversion channel width shall be no less than 3.0 metres.

19. The diversion channel depth shall be no less than 1.1 metres.
20. The diversion channel grade shall be between 0.0 % and 3.5 %.
21. The bed and the banks of the diversion channel shall be left in a stable condition.
22. The bed and banks of any tributary (gulch or pup) of Little Gold Creek shall be left in a stable condition.
23. Class I armouring shall be used, as directed in Schedule I.
24. Structures such as boulder groupings or rock islands shall be provided and spaced no further than 36 metres apart.
25. Topsoil and organic overburden or fines from washed tailings shall be spread on the graded areas on both sides of the restored channel.
26. Active re-vegetation measures are required on at least one side of the restored channel.
27. The stream channel shall be left in such a manner so that erosion is controlled and re-vegetation is possible.

PART F SEASONAL CLOSURE

The Licensee shall comply with the following conditions pertaining to seasonal closure:

28. The mine shall be left in a stable condition at the end of each mining season.
29. An Inspector shall be contacted not less than two weeks prior to seasonal closure.
30. To prevent flood damage during freshet, the water reservoir intake ditch will be blocked and the diversion ditches shall be constructed and maintained to withstand and convey flood flows.
31. Spring freshet shall not be routed through the work areas. Where diversion channels around working areas are built or excavated, they shall be open in preparation for spring freshet.
32. 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

Upon final decommissioning and/or expiry of this licence, the Licensee shall:

33. Ensure the final creek channel approximates its pre-licence condition in length, gradient and stability, except as may otherwise be required in this licence; and
34. Ensure that all dams and dikes across streams are removed; and

35. Contact an Inspector not less than two weeks prior to final decommissioning.

PART H REPORTS, SAMPLING & ANALYSIS

36. Where there is a surface discharge from the settling facilities, the Licensee shall take weekly samples at the point upstream of the water supply intake and at the point of discharge from the final settling facility, and shall analyze these samples, using the Imhoff cone one hour test.
37. Where no discharge from the settling facility to a receiving stream occurs, whether by surface discharge or seepage, no sampling is required.
38. On or before the anniversary of the date of issuance of this license, and for each year during which this license is in effect, the Licensee shall submit an annual report to the Board.
39. Annual reports shall include the information required by this licence and by the Regulation, including, but not limited to:
- a. the quantity of water used under the licence, and
 - b. the quantity, concentration and type of any waste deposited under the licence, and
 - c. all data collected as a result of any sampling 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 the reclamation has taken place,
- during the year reported.

PART I GENERAL CONDITIONS

40. The expiry date of this licence shall be April 1, 2014.
41. 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 Territory.
42. 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.
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 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 the 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 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 licence limits the application of any federal, territorial, first nation or municipal legislation.
- 47. 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 this licence.
- 48. Where any direction, notice or order 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:

Stanley Stempien
Box 355
City of Dawson, YT Y0B 1G0

and shall be deemed to have been given to the Licensee on the day it was faxed or 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 it was mailed, as the case may be.

If normal mail service is interrupted by strike, slowdown, force majeure or other cause, a notice sent by Registered Mail will not be deemed to be received until actually received and the party sending the notice shall, if possible, deliver such notice in order to ensure prompt receipt thereof.

Dated this 13th day of

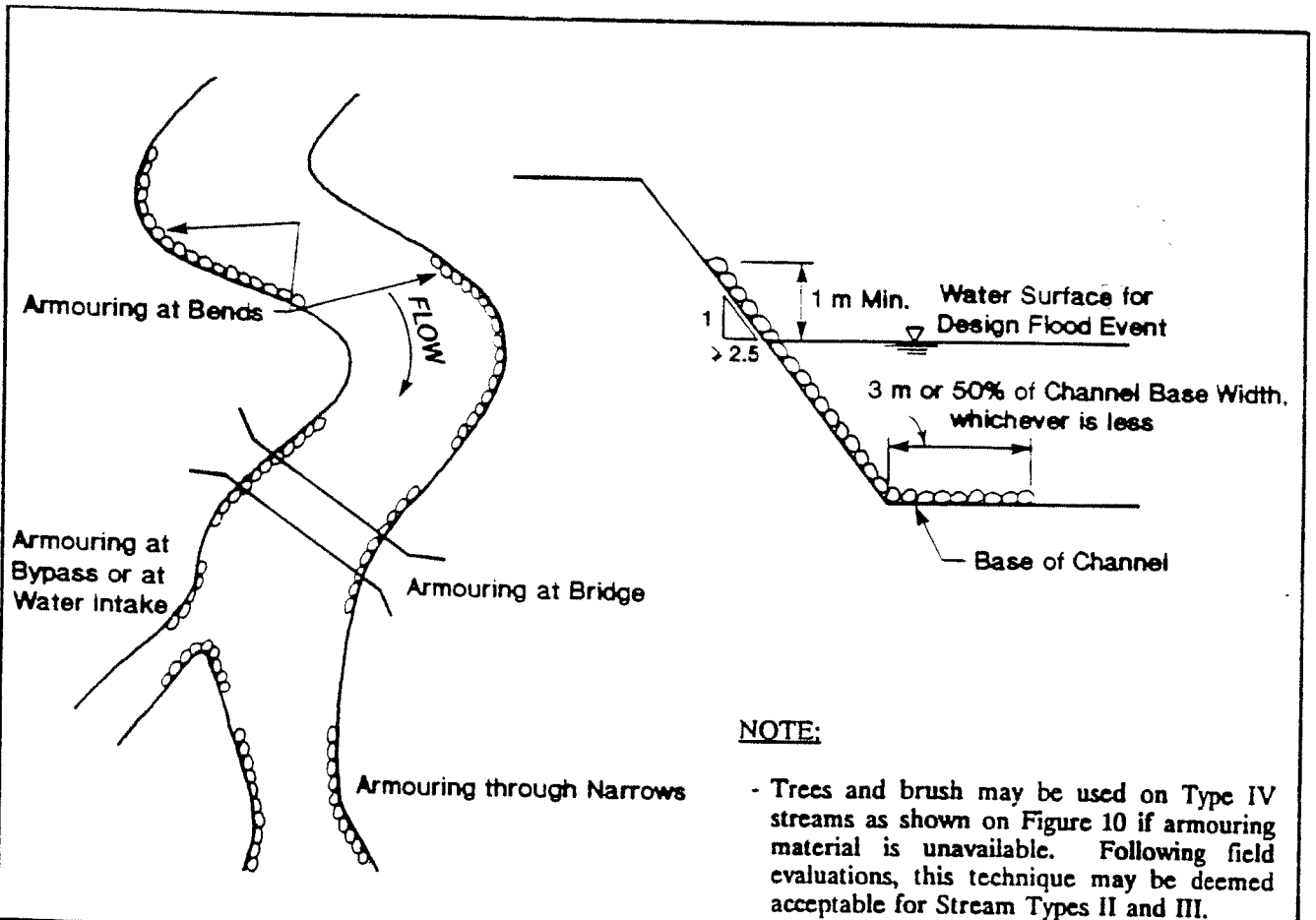
November, 2003

[Signature]
Witness

Approved by:

[Signature]
Vice-Chairperson
Yukon Water Board

SCHEDULE 1



PURPOSE:

- To control bank erosion at bends or curves, at bridge approaches and abutments and through channel narrows.

DESIGN:

- Channel armouring should extend from the base of the channel to at least 1 m above the water surface (depth of flow) for the design flood event.
- Armouring should extend beyond the toe of the channel bank along the base of the channel 3 m or 50% the base width of the channel, whichever is less.
- The bank or channel side slopes should be no steeper than 2.5H:1V where the bank is to be armoured.
- Use the following table to determine what size of armouring material should be used.

SUGGESTED STONE SIZES FOR ARMOURING MATERIAL

| | Riprap Class | | | | | |
|--------------------|--------------|--------|------------|--------|--------------|--------|
| | 1 | | 2 | | 3 | |
| | mm | inches | mm | inches | mm | inches |
| Maximum Stone Size | 450 | 18 | 800 | 32 | 1200 | 47 |
| Average Stone Size | 300 | 12 | 500 | 20 | 800 | 32 |
| Velocity | < 3 m/s | | 3 to 4 m/s | | 4 to 4.7 m/s | |

CONSTRUCTION:

- Place material on bank using available equipment.
- Ensure that there is a fairly uniform mix of armour material sizes on bank.

ARMOURING TECHNIQUES