

**Niblack Underground
Exploration Project**

DRAFT

Reclamation Plan Approval

Reclamation Plan Approval J072711

DEPARTMENT OF NATURAL RESOURCES
Division of Mining, Land and Water

_____, 2007

The Alaska Department of Natural Resources, Division of Mining, Land and Water (ADNR), in accordance with and subject to Alaska Statutes 27.19 (Reclamation) and 38.05 (Alaska Land Act) and the Alaska Administrative Code, Title 11 and Chapter 97 (Mining Reclamation), approves the Reclamation Plan for the Niblack Underground Exploration Project (J072711) submitted by:

Niblack Mining Corporation
615-800 West Pender Street
Vancouver, BC, Canada V6C 2V6

Throughout this document, unless otherwise specifically indicated, reference to Niblack Mining Corporation, NMC or Permittee are considered a reference to Niblack Mining Corporation. Throughout this document, unless otherwise specifically indicated, reference to the State, Department, ADNR, DNR or Division are considered a reference to the State of Alaska – Department of Natural Resources – Division of Mining, Land & Water.

Throughout this document, the Reclamation Plan is considered to consist of the Reclamation and Closure Plan for the Niblack Underground Exploration Project (April 2007), the Niblack Project Operational Characterization Plan (April 13, 2007), and the Niblack Project Water Quality Baseline and Site Monitoring Plan (April 13, 2007). Reference to any of these plans throughout this document is considered to be a reference to the Reclamation Plan. The above referenced documents are appendices to the Niblack Project Underground Exploration Plan of Operations (April 13, 2007).

Effective dates of this plan approval are _____, 2007 through _____, 2012, unless sooner revoked for cause; however, Niblack Mining Corporation's obligations under the terms and conditions of this plan approval shall continue, unless sooner terminated in accordance with the provisions of this Reclamation Plan Approval, until completion of all requirements under and pursuant to the Reclamation Plan Approval.

This plan approval is for activities upon private lands encompassed by the Niblack Mining Corporation's controlled patented mining claims as described in the Reclamation and Closure Plan for the Niblack Underground Exploration Project (April 2007).

This plan approval does not constitute certification of any property right or land status claimed by the applicant.

Niblack Mining Corporation has proposed that the post-project land use for the privately held patented mineral claims be for mineral development or other commercial use and has requested approval for access roads and surface structures (i.e. land camp) to remain at the end of the project. Alaska Statute AS 27.19.030(b) and Alaska Administrative Code 11 AAC 97.310(b)(6) & (7) allow the owner of private land to have "an alternate post-mining (or post-exploration) land use". On private property, the owner may propose an alternate post-exploration land use that can

include trails and commercial uses. The retention of the access roads and surface structures (i.e. land-camp) post-project is allowed by Statute; therefore, bonding for the reclamation of these facilities will not be required.

The Reclamation Plan was found to be complete and is approved by ADNR with the following conditions:

GENERAL STIPULATIONS

Financial Assurance. This Reclamation Plan Approval does not take effect until Niblack Mining Corporation submits a bond in a form and substance approved by ADNR. The bond shall not be released until all affected areas have been reclaimed and are approved by the Authorized Officer and all other terms of this Reclamation Plan Approval are met. Modifications to the Reclamation Plan may, at ADNR's discretion, require bond review and update. The total bond amount of \$1,237,317 has been approved for the Niblack Underground Exploration Project. ADNR may require revision to the financial responsibility cost estimate based upon monitoring results at the Niblack Project Site.

Terms of this Plan Approval. The Terms and Conditions contained within the Reclamation and Closure Plan for the Niblack Underground Exploration Project (April 2007), the Niblack Project Operational Characterization Plan (April 13, 2007), and the Niblack Project Water Quality Baseline and Site Monitoring Plan (April 13, 2007) are hereby incorporated by reference as stipulations of this Reclamation Plan Approval. If there is a difference between the Reclamation Plan as submitted and the terms contained within this Reclamation Plan Approval, the terms contained within this Reclamation Plan Approval take precedence. Changes to the documents incorporated herein must be approved by ADNR if they affect this plan approval. If ADNR approves the changes, they become terms of this Reclamation Plan Approval.

Annual Review of Geochemical Characterization and Water Quality

Data: ADNR will conduct an annual review of the geochemical characterization and water quality data and may require changes to the Reclamation Plan if needed to ensure that facilities can be closed in a manner that prevents exceedances of water quality standards.

Authorized Officer. The Authorized Officer for ADNR is the Director of the Division of Mining, Land and Water or his designee. The Authorized Officer is designated as Rick Fredericksen. The Authorized Officer may be contacted at 550 West 7th Avenue, Suite 900D, Anchorage, Alaska 99501-2577, Attention: Rick Fredericksen, telephone (907) 269-8621, and fax (907) 269-8930 or at rick_fredericksen@dnr.state.ak.us. Niblack Mining Corporation will be notified of changes to the authorized officer as needed.

Alaska Historic Preservation Act. If burials or human remains are discovered as a result of or during the activities authorized by this Reclamation Plan Approval, all activities that would disturb such remains shall be stopped and measures taken to protect the site. The State Historic Preservation Officer (907-269-8722) and the State Troopers shall be contacted immediately so that compliance with state laws may begin.

Reporting. The results of monitoring, required by all State and federal authorizations (unless otherwise indicated by the Authorized Officer), obtained during a reporting period shall be summarized and submitted to the Authorized Officer quarterly, no later than 60 days after the last day of the quarter, in hard copy and electronic format acceptable to ADNR. An annual report will be due by April 1st that shall summarize activities (surface disturbance, underground development & drilling, and reclamation) conducted during the previous calendar year and include fourth-quarter monitoring data. The annual report should include surface acreage disturbed, tons of both potentially acid generating (PAG) and non-potentially acid generating (NAG) development rock produced at the Niblack Project Site, and underground drilling activities that occurred the previous year and are planned for the next year. The annual report shall also address the adequacy of the financial responsibility, including, but not limited to, inflation, significant changes in reclamation activity costs, concurrent reclamation, expansion or other changes to the operation of the facility. Electronic and hard copies should also be sent to ADNR (Steve McGroarty at stevem@dnr.state.ak.us, Jim Vohden at jimv@dnr.state.ak.us, Mark Minnillo at mark_minnillo@dnr.state.ak.us, Al Ott at al_ott@dnr.state.ak.us), and ADEC (Kenwyn George at kenwyn_george@dec.state.ak.us and Ed Emswiler at ed_emswiler@dec.state.ak.us). Amendments to this distribution list will be provided to Niblack Mining Corporation as needed.

Reporting – Operational Characterization Plan. The results and records of waste rock characterization and handling, obtained during each month of active underground drift development, should be submitted in an electronic format to Steve McGroarty at stevem@dnr.state.ak.us and Kenwyn George at kenwyn_george@dec.state.ak.us, no later than 30 days after the end of the reporting month. In addition to the requirements outlined in Section 4.1.4 (Quality Control and Monitoring) of the Niblack Project Operational Characterization Plan (April 13, 2007), Niblack Mining Corporation shall include a record of the final disposition or placement of all blast rounds.

As-Built Maps. Niblack Mining Corporation shall submit to ADNR an “as built” map in conjunction with each annual report (unless otherwise approved by ADNR). The map (or maps) shall illustrate the current development of all facilities within the project area as described in the Reclamation and Closure Plan for the Niblack Underground Exploration Project (April 2007). The plan maps shall show: cleared and grubbed areas; topsoil and growth medium stockpiles; roads; temporary PAG development rock storage facility and NAG waste rock dump; material sites; facility construction; and any unreclaimed exploration disturbance. Maps shall be 1”=200’ (1:2400) or other appropriate scale necessary to review the development of individual facilities.

Temporary Closure. Niblack Mining Corporation shall notify the Authorized Officer in writing at least thirty (30) days prior to any planned Temporary Closure of ninety (90) days or longer. Niblack Mining Corporation shall notify the Authorized Officer of any unanticipated Temporary Closure expected to last ninety (90) days or more within ten (10) days of the first day of the Temporary Closure. The notice shall state the nature and reason for the Temporary Closure, the anticipated duration of the Temporary Closure, what actions will be taken to maintain compliance with project permits and plan approvals, and any event which would reasonably be anticipated to result in the resumption of underground exploration activities or the permanent cessation of underground exploration activities. Underground exploration operations must resume for not less than ninety (90) consecutive days in order to terminate the running of the Temporary Closure. If a Temporary Closure extends beyond three (3) years, the Department may deem underground exploration operations to be permanently abandoned or ceased, and whereupon final reclamation must commence unless otherwise agreed by the Department.

Niblack Mining Corporation shall ensure that the project area and facilities are maintained in a safe condition during a Temporary Closure and Niblack Mining Corporation shall not allow the project area and facilities to be degraded or eroded or allow facilities to fall in a state of disrepair during or as a result of the Temporary Closure. Action shall be taken to prevent or mitigate any impacts to ground or surface waters from project facilities. All collection, treatment, maintenance, and monitoring activities required under project permits or plan approvals shall be performed under any Temporary Closure. Niblack Mining Corporation shall manage and monitor the adit and the temporary PAG development rock storage facility to ensure that seepage, leachate or runoff does not cause down-gradient groundwater or surface water quality exceedances.

Abandonment or Cessation of Operations. Not later than thirty (30) days after the permanent cessation or abandonment of underground exploration operations at the Niblack Underground Exploration Project, Niblack Mining Corporation shall notify the Authorized Officer of the cessation of exploration operations and provide a schedule for the final reclamation of the site.

Permanent Closure. For purposes of determining monitoring requirements and bond release, closure of a facility is achieved when the applicable surface and ground water quality standards have been met (including natural conditions as allowed in 18 AAC 70), and the site has been reclaimed in accordance with the Reclamation Plan Approval.

Environmental Audit. Periodic third-party environmental audits may be required for the purpose of evaluating Niblack Mining Corporation's performance under its permits and plan approvals, to determine compliance with applicable environmental laws and regulations, and to assist in updating, renewing or issuing permits and plan approvals. The requirement for an environmental audit is not currently anticipated;

however, one may be required if adit ground water conditions, water quality monitoring results, and/or geochemical test results indicate site conditions and facility performance significantly different from those anticipated at the time of project authorization. The environmental audit, if required, shall include an evaluation of the adequacy of the reclamation financial sureties. The environmental audit shall also evaluate the adequacy of agency oversight to protect environmental resources.

If required, environmental audits shall occur during the snow-free season; or prior to final closure if this occurs prior to 2012. If the underground exploration project continues beyond the initial five-year Reclamation Plan Approval period, an audit may be required, and subsequent audits may be required every five years and prior to final closure, unless otherwise approved by ADNR and Alaska Department of Environmental Conservation (ADEC). The audits will include all aspects of the project, including the material sites, temporary PAG development rock storage facility, NAG development rock dump, water treatment facility, water infiltration area, and the adit – including, but not limited to, the geochemical and water quality monitoring associated with each of these facilities. The third-party contractor and the scope of the environmental audit should be mutually agreed on by ADNR, ADEC and Niblack Mining Corporation, but in the event that agreement cannot be reached, ADNR and ADEC retain the final decision authority regarding the selection of the contractor and the scope of the audit. Costs for the third-party environmental audit shall be borne by Niblack Mining Corporation.

PROJECT DOCUMENT - SPECIFIC STIPULATIONS

Reclamation and Closure Plan for the Niblack Underground Exploration Project (April, 2007):

Section 2.5.2 Revegetation Methods and Materials – Changes to the proposed seed mix, or the use of “non-Alaskan” seed sources, shall be approved by ADNR.

Section 2.6.1 General Reclamation Completion Criteria – Erosion features which form in areas that have been regraded and covered with topsoil must be stabilized if they affect the long-term stability of the reclaimed area or may result in additional erosion and sedimentation. Actions to stabilize erosion features shall be conducted in a manner that minimizes disturbance to adjacent areas. Subsequent inspections shall be completed to verify that rills and gullies do not persist. If chronic or long-term erosion features are identified, then remediation of the site drainage that is contributing to the formation of the rills and gullies shall be completed. Areas that have been regraded and covered with topsoil shall be monitored for conditions of slope saturation caused by subsurface flow; if these are identified and could result in slope instability, measures shall be taken to remediate the site drainage that is contributing to the slope saturation.

Section 4.2 Long-Term Monitoring and Maintenance Program – Soil and vegetation monitoring shall be conducted in post-closure years 5 and 10 in conjunction with the required water quality monitoring events. This vegetation monitoring may consist of digital photography of the reclaimed sites and transmittal of photos, with a photo-location map, to ADNR.

Section 3.3 Task 2 Adit Plug and Portal Entrance Reclamation – A closure plan for the underground adit shall be submitted to ADNR for approval prior to initiation of adit closure activities. The plan must describe the hydrogeology and geotechnical conditions of the adit. Final adit plug design shall include consideration of the chemical stability of the concrete, grout, and surrounding rock in the anticipated “groundwater environment”. The plan must also consider the effects of any remaining ‘un-grouted’ exploration drill holes located between the proposed plug location and the portal; grouting of these drill holes may be required depending upon groundwater quantity and quality discharging from the drill holes.

Section 3.4 NAG Waste Rock Storage Area - Prior to initiation of reclamation of the NAG waste rock dump, Niblack Mining Corporation shall submit to ADNR final facility closure plans for review and approval. The final facility closure plans shall include consideration of water quality monitoring data and waste rock geochemical monitoring results. Exceedances of water quality from the NAG waste rock dump are not expected; however, if seepage or runoff from the NAG waste rock dump exceeds water quality standards, ADNR may require the reclamation of this facility to minimize infiltration. The final facility closure plans shall specify final slopes, cover design (if applicable), growth medium replacement depths, erosion control measures, and surface flow diversion ditches.

Niblack Project Operational Characterization Plan (April 13, 2007):

Section 2.3 Waste Rock Classification Criteria - The composite drill-hole cutting samples, from blast rounds diverted to the PAG temporary storage facility based upon visible base metal sulfide minerals, shall undergo the on-site NAG Test, XRF, or other approved characterization method to quantify the total sulfur content of the blast round material.

Section 3.1.2 Pre-Development Tests - Sample selection for the pre-development test program should be representative of the major lithologies (including mafic dykes) within each of the three main stratigraphic units and the proposed sample suite should be presented to ADNR for review and approval.

Section 3.1.3 External Laboratory Confirmation of Field Analysis – Blast round selection for external laboratory confirmation of field analysis should be representative of the major lithologies (including mafic dykes) within each of the three main stratigraphic units.

Section 3.1.4 Kinetic Tests (lab) - Sample selection for the laboratory kinetic test program should be representative of the major lithologies (possibly including mafic dykes) within each of the three main stratigraphic units and the proposed sample suite shall be presented to ADNR for review and approval.

Section 3.1.5 Kinetic Tests (field) - Sample selection for the field kinetic test program should be representative of the major lithologies (possibly including mafic dykes) within each of the three main stratigraphic units and the proposed sample suite shall be presented to ADNR for review and approval.

Section 4.1.4 Quality Control and Monitoring – The five “cut-channel” samples taken from each of the three main stratigraphic units, should be representative of the major lithologies (possibly including mafic dykes). In addition to the on-site characterization technique used to segregate waste rock and multi-element ICP analysis, the samples should also be analyzed for total sulfur by the Leco Furnace Method. It is recommended that blast rounds selected for “cut-channel” sampling also be selected for the External Laboratory Confirmation Testing (Section 3.1.3) if practical and appropriate.

Appendix A1 Collection, Compositing and Preparation of Rock Samples – “Muck-pile” grab samples are not an approved sample collection methodology for waste rock segregation decisions, unless it can be demonstrated that “muck-pile” grab samples are representative of the material contained in the blast rounds. This must be done through an appropriate comparison of muck-pile grab samples to drill-hole cuttings, cut-channel samples, and /or pilot-hole samples for the various lithologies, and must be approved by ADNR.

STANDARD STIPULATIONS

Reclamation Stipulations.

- a. Topsoil and overburden, not promptly redistributed to an area being reclaimed, shall be separated and stockpiled for future use. This material shall be protected from erosion and contamination by acidic or toxic materials and shall not be buried by development rock or surface construction activities.
- b. The area to be reclaimed shall be recontoured or reshaped to blend with surrounding topography using approved development rock or overburden and then be stabilized to a condition that shall retain sufficient moisture to allow for natural revegetation.
- c. Stockpiled topsoil, overburden fines and brush or other organic material shall be spread over the recontoured areas to promote natural plant growth.

- d. Exploration trenches shall be backfilled and the surface stabilized to prevent erosion. Brush piles, stumps, topsoil, and other organics shall be spread on the backfilled surface to inhibit erosion and promote natural revegetation. Reclaimed exploration trenches shall have water bars installed as needed for erosion control.
- e. Shallow auger holes (limited to depth of overburden) shall be backfilled with drill cuttings or other locally available material in such a manner that closes the hole to minimize the risk to humans and wildlife.
- f. All surface drill holes shall be plugged by the end of the exploration season during which they are drilled, unless otherwise specifically approved by the Division of Mining, Land & Water.
- g. All surface drill holes shall be plugged with bentonite holeplug, a benseal mud, or equivalent slurry, for a minimum of 10 feet within the top 20 feet of the drill hole in competent material. The remainder of the hole will be backfilled to the surface with drill cuttings. If water is encountered in any drill hole, a minimum of 7 feet of bentonite holeplug, a benseal mud, or equivalent slurry shall be placed immediately above the static water level in the drill hole. Complete filling of the drill holes, from bottom to top, with a bentonite holeplug, benseal mud, or equivalent slurry is also permitted and is considered to be the preferred method of hole closure.
- h. If artesian conditions are encountered in surface drill holes, the operator shall contact the Division of Mining, Land & Water (Steve McGroarty – (907) 451-2795) or the Department of Environmental Conservation (Kenwyn George – (907) 465-5313) to advise the agencies of proposed hole plugging methodology and receive approval for the hole plugging plans.

Upon completion of drilling activity, drill pads shall be reclaimed as necessary to encourage natural revegetation of the sites and protect them from erosion.

Fuel and Hazardous Substances. Secondary containment shall be provided for fuel or hazardous substances.

- a. **Container marking.** All independent fuel and hazardous substance containers shall be marked with the contents and the Permittee's name using paint or a permanent label.
- b. **Fuel or hazardous substance transfers.** Except for hand operated equipment, secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers, where feasible and prudent. Appropriate spill response equipment must be on hand during any transfer or handling of fuel or hazardous substances to respond to a spill of up to five gallons. Transfer operations shall be attended by trained personnel at all times.

Vehicle refueling shall not occur below the ordinary high waterline of any waterbody. This restriction does not apply to water-borne vessels provided no more than 30 gallons of fuel are transferred at any given time.

- c. **Storing containers within 100 feet of waterbodies.** Containers with a total capacity larger than 55 gallons, which contain fuel or hazardous substances, shall not be stored within 100 feet of a waterbody. This stipulation does not apply to tanks on watercraft.
- d. **Exceptions.** The Authorized Officer may under unique or special circumstances grant exceptions to Stipulation “C” (above) on a case-by-case basis. Requests for exceptions should be made to the Authorized Officer.
- e. **Definitions.**
 - 1) **"Containers"** means any item that is used to hold fuel or hazardous substances. This includes tanks, drums, double-walled tanks, portable testing facilities, fuel tanks on small equipment such as light plants and generators, flow test holding tanks, slop oil tanks, bladders, and bags. Manifolded tanks or any tanks in a series must be considered as a single container. Vehicles, including mobile seismic tanks, are not intended to be included under this definition.
 - 2) **"Hazardous substance"** is defined under AS 46.03.826(5) as (A) an element or compound which, when it enters into the atmosphere, or in or upon the water, or surface or subsurface land of the state, presents and imminent and substantial danger to the public health or welfare, including but not limited to fish, animals, vegetation, or any part of the natural habitat in which they are found; (B) oil; or (C) a substance defined as a hazardous substance under 42 U.S.C. 9601(14).
 - 3) **"Secondary containment"** means an impermeable diked area or portable impermeable containment structure capable of containing 110 percent of the volume of the largest container. Double-walled tanks do not qualify as secondary containment unless valves and piping are contained within the outer double wall.
 - 4) **"Surface liner"** means any safe, non-permeable container (e.g., drips pans, fold-a-tanks, etc.) designed to catch and hold fluids for the purpose of preventing spills. Surface liners should be of adequate size and volume based on worst-case spill risk.
 - 5) **Notification.** The Permittee shall immediately notify DNR and DEC by phone of any unauthorized discharge of oil to water, any discharge of hazardous substances (other than oil), and any discharge of oil greater than

55 gallons on land. All fires and explosions must also be reported to DNR. The DNR 24 hour incident notification number is (907) 451-2678; the Fax number is (907) 451-2751. The DEC spill report number is (907) 465-5340 (normal business hours) and (800) 478-9300 (after normal business hours). DNR and DEC shall be supplied with all follow-up incident reports.

- 6) **Remediation.** Should any unlawful discharge, leakage, spillage, emission, or pollution of any type occur due to Permittee's, or its employees', agents', contractors', subcontractors', licensees', or invitees' act or omission, the Permittee, at its expense, shall be obligated to clean the area to the reasonable satisfaction of the State of Alaska.

Inspection and Entry. Niblack Mining Corporation shall permit authorized representatives of ADNR to enter into and upon the area and facilities covered under this plan approval at all reasonable times without notice for the purpose of inspecting the area and activities covered under this plan approval. Said inspections shall be subject to such safety and security procedures as Niblack Mining Corporation may from time to time adopt.

At any time upon ADNR's written request, Niblack Mining Corporation shall promptly make any and all records, documents, or other information required to be kept or maintained by law, regulation, ordinance, permit, or this Reclamation Plan Approval available to ADNR for inspection and copying as reasonably required by ADNR to determine Niblack Mining Corporation is in compliance with local, state and federal laws applicable to the operations authorized under this plan approval.

Violations. This authorization is revocable immediately upon violation of any of its terms, conditions, stipulations, nonpayment of fees, or upon failure to comply with any other applicable laws, statutes and regulations (federal and State).

Adverse Impact. Niblack Mining Corporation shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any limitation specified in this plan approval, including any additional monitoring needed to determine the nature and impact of the noncomplying activity. Niblack Mining Corporation shall cleanup and restore all areas adversely impacted by the noncompliance.

Permittee Responsibility for Actions of Contractors. Niblack Mining Corporation is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project, and shall ensure that workers are familiar with the requirements of this authorization.

Assignment. This plan approval may be transferred or assigned with prior written approval from ADNR. ADNR will only disapprove a transfer with good cause and will evaluate whether the proposed assignee: (1) is qualified to acquire all other permits and authorizations necessary to conduct operations under the plan; (2) is on notice of default or subject to an enforcement action by any state agency on any lease, reclamation bond, or other permit within the state. Any assignee must commit in writing to be bound by this plan approval to the same extent as Niblack Mining Corporation, and must provide to ADNR all proofs of insurance, bonds, or undertakings required by this plan approval. Transfer of this plan approval may, at ADNR's discretion, require bond review and update.

Other Authorizations. The issuance of this authorization does not alleviate the necessity of Niblack Mining Corporation to obtain authorizations required by other agencies for this activity.

Valid Existing Rights. This authorization is subject to all valid existing rights in and to the land under this authorization. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, as to the existence, number, or nature of such valid existing rights.

Change of Address. Any change of address must be submitted in writing to the Authorized Officer.

Modifications. Any request for modification of the Reclamation and Closure Plan for the Niblack Underground Exploration Project (April 2007), the Niblack Project Operational Characterization Plan (April 13, 2007), and the Niblack Project Water Quality Baseline and Site Monitoring Plan (April 13, 2007) and any affected permits or authorizations must be made by written application to ADNR. Applications for renewal or amendment of this plan approval must be made no later than 30 days before the expiration date of the plan approval or the planned effective date of the amendment. Amendments to the Reclamation Plan may, at the discretion of ADNR, require bond review and update.

Statutes and Regulations. This plan approval is subject to all applicable state and federal statutes, including state, federal, and any local statutes and ordinances in effect on the effective date of this plan approval, new statutes, regulations, and ordinances enacted or promulgated after said effective date, and changes to existing statutes and regulations made after the effective date, to the extent constitutionally permissible.

Severability. If any clause or provision herein contained shall be adjudicated to be invalid, it shall not affect the validity or effect of any other clause or provision of this plan approval, nor constitute any cause of action in favor of either Niblack Mining Corporation or ADNR as against the other.

