

**FINAL**

**Rock Creek Mine**

**Reclamation Plan Approval**

**(F20129578)**

DEPARTMENT OF NATURAL RESOURCES  
Division of Mining, Land and Water

February 3, 2012

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 the Alaska Administrative Code, Title 11 and Chapter 97 (Mining Reclamation), approves the Reclamation Plan for the Rock Creek Mine (F20129578) submitted by:

Alaska Gold Company LLC  
P.O. Box 640  
Nome, AK 99762

Correspondence to the company should be sent to:  
Alaska Gold Company LLC  
Suite 2300-200 Granville St,  
Vancouver, BC, Canada V6C 1S4

Throughout this document, unless otherwise specifically indicated, reference to Alaska Gold Company, AGC or Permittee are considered a reference to Alaska Gold Company LLC.

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 Rock Creek Mine Reclamation and Closure Plan (October 2011), the Rock Creek Mine Closure Plan – Supplement to Phase I Construction (December 5, 2011), the Rock Creek Mine Closure Plan Errata (December 20, 2011), the Rock Creek Mine Revised Closure Cost Estimate (January 5, 2012), the Alaska Gold Company LLC Name Change Letter (February 3, 2012), and the RC Closure Cost EstimateNG 12-30-11\_THPOST.xlsm.. Reference to any of these documents throughout this Reclamation Plan Approval is considered to be a reference to the Reclamation Plan. Likewise any and all stipulations associated with the approval of any of these individual plans are considered to be a requirement of the Reclamation Plan Approval.

Effective dates of this plan approval are February 3, 2012 through February 2, 2017, unless sooner revoked for cause; however, Alaska Gold Company LLC's obligations under the terms and conditions of this plan approval shall continue beyond the effective term of this plan approval, unless sooner terminated in accordance with the provisions of this 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 Rock Creek Mine as described in the Rock Creek Mine Reclamation and Closure Plan (October 2011).

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

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

## GENERAL STIPULATIONS

**Financial Assurance.** This Reclamation Plan Approval does not take effect until Alaska Gold Company LLC submits financial assurance in an amount and form approved by ADNR. In accordance with terms of Alaska Gold's financial assurance and applicable regulations, the financial assurance shall not be released until 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 Rock Creek Mine Reclamation and Closure Plan and notification of Temporary Closure may, at ADNR's discretion, require review and update of the amount and/or the form of the financial assurance. The total initial financial assurance amount of \$20,272,000 has been approved for the Rock Creek Mine. ADNR may require or allow revisions to the financial responsibility cost estimates based upon: (1) monitoring results at the Rock Creek Mine; (2) changes in costs for labor, equipment, fuel, or chemicals; (3) changes in the scope and nature of work required under the Rock Creek Mine Reclamation and Closure Plan; and/or, (4) completed and approved reclamation.

**Terms of this Plan Approval.** The Terms and Conditions contained within the Rock Creek Mine Reclamation and Closure Plan (October 2011), and the following Supporting Documents are hereby incorporated by reference as stipulations of this Reclamation Plan Approval:

- Rock Creek Mine Closure Plan – Supplement to Phase I Construction (December 5, 2011);
- Rock Creek Mine Closure Plan Errata (December 20, 2011);
- Alaska Gold Company Name Change Letter (February 3, 2012);
- Rock Creek Mine Revised Closure Cost Estimate (January 5, 2012); and,
- RC Closure Cost EstimateNG 12-30-11\_THPOST.xlsm.

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 Reclamation Plan Approval. If ADNR approves the changes, they become terms of this Reclamation Plan Approval.

**Authorized Officer.** The Authorized Officer for ADNR is the Director of the Division of Mining, Land and Water or his or her designee. The Authorized Officer is designated as Joe Wehrman. The Authorized Officer may be contacted at 550 West 7<sup>th</sup> Avenue, Suite 900D, Anchorage, Alaska 99501-2577, Attention: Joe Wehrman, or joe.wehrman@alaska.gov, telephone (907) 269-8630, and fax (907) 269-8930. Alaska Gold Company LLC will be notified of changes to the authorized officer as needed.

**Monitoring.** Monitoring shall be conducted in accordance with the Rock Creek Mine Reclamation and Closure Plan (October 2011) as approved by the Department.

**Reporting.** The results of monitoring, required by the Rock Creek Mine Reclamation and Closure Plan and any other monitoring required by this Reclamation Plan Approval 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 first through third calendar quarters, in hard copy and electronic format acceptable to ADNR. Any other monitoring required by state or federal authorizations shall be provided upon request of the Authorized Officer. An annual report will be due by March 1<sup>st</sup> that summarizes activities (surface disturbance, reclamation, monitoring, and water treatment / discharge) conducted during the previous calendar year, includes fourth-quarter monitoring data, and that discusses relevant plans for the upcoming year. The annual report shall also address the adequacy of the financial assurance, including, but not limited to, inflation, significant changes in reclamation activity costs, concurrent reclamation, expansion or other changes to the operation of the facility, and monitoring results.

Electronic copies of all quarterly reports and electronic and hard copies of the annual report should also be sent to ADNR, 3700 Airport Way, Fairbanks, AK 99709-4699 (Steve McGroarty at [steve.mcgroarty@alaska.gov](mailto:steve.mcgroarty@alaska.gov) and Jim Vohden at [jim.vohden@alaska.gov](mailto:jim.vohden@alaska.gov)), ADNR Office of Project Management and Permitting, 550 West 7<sup>th</sup> Avenue, Suite 900D, Anchorage, AK, 99501 (Sharmon Stambaugh at [sharmon.stambaugh@alaska.gov](mailto:sharmon.stambaugh@alaska.gov)), ADF&G Habitat Division, 1300 College Road, Fairbanks, AK 99701-1551 (Bill Morris at [william.morris@alaska.gov](mailto:william.morris@alaska.gov)), and ADEC, Wastewater Discharge Program, 610 University Avenue, Fairbanks, AK 99709-3643 (Tim Pilon at [tim.pilon@alaska.gov](mailto:tim.pilon@alaska.gov)). Amendments to this distribution list will be provided to Alaska Gold Company LLC as needed.

**As-Built Maps.** Alaska Gold Company LLC shall submit to ADNR an “as built” map in conjunction with a Final Mine Closure Report (unless otherwise approved by ADNR). The map (or maps) shall illustrate the final reclamation and closure of all facilities within the project area as described in the Rock Creek Mine Reclamation and Closure Plan (October 2011). The plan maps shall show: the location and size of: the tailings storage facility dam breach; permanent storm water diversion channels; the inert solid waste Monofill; and, the disposal site for the CIL Tailings and Prussian Blue. Maps shall be 1”=200’ (1:2400) or other appropriate scale necessary to review the closure of individual facilities. The Final Closure Report should summarize all completed closure related activities.

**Temporary Closure.** Alaska Gold Company LLC shall notify the Authorized Officer in writing at least thirty (30) days prior to any planned Temporary Closure (suspension of reclamation operations) of ninety (90) days or longer. Alaska Gold Company LLC 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 either the resumption of reclamation activities or the application for resumption of mining or milling activities. The notice shall include a Temporary Closure Plan reflecting current site conditions. The Temporary Closure Plan shall also include the following:

- Reclamation or construction activities anticipated to occur during the period of closure;
- The procedures, methods, and schedule to be implemented for the treatment, disposal, and storage of any mine waters;
- The control of surface and groundwater drainage to and from the facility and the surrounding area;
- The control of erosion from the tailings area, material sites, waste rock disposal areas, and any other disturbed areas within the facility boundary;
- The secure storage of chemicals during the period of closure;
- Procedures and schedule for continuation of site monitoring; and,
- Procedures for maintaining containment of all water at the facility and providing continuing treatment of that water in accordance with APDES Permit AK0053627 or subsequent discharge permit.

ADNR shall have fifteen (15) days to review and approve or require modifications to the Temporary Closure Plan. Once a Temporary Closure Plan has been approved, it becomes enforceable under the conditions of this Reclamation Plan Approval and full implementation of the approved specific plan is required. The Temporary Closure Plan can be amended by submitting a revised plan to ADNR for approval.

Reclamation activities 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 operations to be permanently abandoned or ceased, whereupon final reclamation must commence unless otherwise agreed by the Department.

Alaska Gold Company LLC shall ensure that the project area and facilities are maintained in a safe condition during a Temporary Closure. Alaska Gold Company LLC shall not allow the project area and facilities to be degraded or eroded or allow facilities to fall into 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.

Written Departmental approval is required before resuming operations after a period of temporary closure.

**Abandonment or Cessation of Operations.** The Rock Creek Mine Reclamation and Closure Plan (October 2011) represents the permanent cessation or

abandonment of mining and milling operations at the Rock Creek Mine. Permanent reclamation of individual facilities must be implemented and completed in accordance with the conditions of this Reclamation Plan Approval.

Permanent reclamation of a facility will be complete when the following criteria are met:

- All terms of the current Rock Creek Mine Reclamation and Closure Plan and conditions of this Reclamation Plan Approval have been met;
- All performance standards under 11 AAC 97.200 and 11 AAC 97.240 have been achieved;
- Active water treatment is not required for any water discharged from the facility, surface water discharged from the mine site or facilities meets water quality criteria, and all groundwater discharge below the facilities meets or does not exceed triggers as defined by the Alaska Department of Environmental Conservation for the Rock Creek Mine; and,
- A stable vegetative cover is established per the requirements of this Reclamation Plan Approval.

**Post-Closure.** After mining and milling operations have permanently ceased and after completion of reclamation of the site in accordance with the Rock Creek Mine Reclamation and Closure Plan and conditions of this Reclamation Plan Approval, Alaska Gold Company LLC shall maintain the site during the post-closure monitoring period, correcting any erosion, settlement or other degradation of the facilities that may impair water quality or threaten the environment.

Post-closure monitoring of the groundwater, surface water and visual monitoring for settlement and erosion shall continue according to the monitoring schedule set out in the current Rock Creek Mine Reclamation and Closure Plan approved by ADNR. This schedule and the parameters monitored may be modified by ADNR based on the monitoring results.

**Erosion Standard:** Erosion features which form in areas that have been recontoured and covered with topsoil must be stabilized if they affect the long-term stability of the reclaimed area or may result in additional erosion or 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.

**Invasive Weed Control:** Alaska Gold Company LLC shall inspect revegetated areas to identify invasive plant species and eradicate these species to the extent practicable. If invasive plant species are identified, Alaska Gold Company LLC shall notify the Authorized Officer. If equipment is brought into the area from regions with known populations of invasive plant species or noxious weeds, that equipment should be inspected and thoroughly cleaned to remove soil, plant and seed contaminants prior to use

at the mine site. If a population of noxious weeds is found at the mine site, equipment should be inspected and thoroughly cleaned to remove soil, plant and seed contaminants prior to use at another area at the mine site.

## **PROJECT - SPECIFIC STIPULATIONS**

### **Rock Creek Mine Reclamation and Closure Plan (October 2011):**

#### Section 5.2.2 Soil Cover and Revegetation:

- Fertilizer application rate of 450 lbs per acre of 20N-20P-10K will be required for bonding purposes; unless otherwise approved by ADNR.
- Seed mix and application rate shall be per the following table or as otherwise approved by ADNR Plant Materials Center.

Seed Type	%	lbs / acre
Tufted Hairgrass	40	10
Glaucous Bluegrass	30	7.5
Red Fescue	20	5
Bluejoint	5	1.25
Polargrass	5	1.25
	100	25

- The 70% revegetation cover criteria must be achieved, and maintained for, a minimum of five years after the last application of seed, fertilizer, growth media, soil amendments, or water except for natural precipitation, unless otherwise approved by ADNR.

#### Section 5.3.3 Buildings and Equipment:

- Buried pipes shall be blown free of contents with compressed air; unless otherwise approved by ADNR.

#### Section 5.3.4 Recycle Water Pond:

- Alaska Gold Company LLC shall submit a more detailed plan for final closure of the Recycle Water Pond to ADNR for review and approval, thirty (30) days prior to initiating physical closure of the site.

#### Section 5.4 Area 2 – Main Pit and Walsh Pit:

- A qualified geologist shall examine the proposed material to be quarried from Main Pit for the production of Rip Rap, to ensure that it is composed of low-sulfide or non-sulfide material.

- Any pit dewatering wells shall be closed per ADEC requirements within 12 months of the permanent closure of the Rock Creek Mine, unless otherwise authorized by ADNR.

**Rock Creek Mine Plan of Operations Volume 4 (Reclamation Plan - May 2006) and the Rock Creek Project Operational and Closure Monitoring Plan (May 2006):**

- Mining at the Big Hurrah Mine was not approved by ADNR pending receipt and approval of additional geochemical characterization and management plans for the site. Alaska Gold Company LLC did not develop the Big Hurrah Project. The requirements of ADNR Reclamation Plan Approval (F20069578) remain in effect for the Big Hurrah Project until Alaska Gold Company LLC submits and receives approval for a revised Reclamation and Closure Plan for that site. Alaska Gold Company LLC shall provide a revised Reclamation and Closure Plan for the current site conditions at the Big Hurrah location by December 31, 2012, unless otherwise approved by ADNR.

## **STANDARD STIPULATIONS**

**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 which 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.

### **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. 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.
- f. 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.
- g. 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 (Tim Pilon – (907) 451-2136) to advise the agencies of proposed hole plugging methodology and receive approval for the hole plugging plans.

**Inspection and Entry.** Alaska Gold Company LLC shall permit authorized representatives of ADNR to enter the area and facilities covered under this Reclamation Plan Approval at all reasonable times without notice for the purpose of inspecting the area and activities covered under this Reclamation Plan Approval. Inspectors shall observe Alaska Gold Company LLC's safety and security procedures.

Upon ADNR's written request, Alaska Gold Company LLC 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 Alaska Gold Company LLC is in compliance with local, state and federal laws governing the operations authorized under this Reclamation Plan Approval.

Upon ADNR's written request, Alaska Gold Company LLC shall promptly make any and all records, documents, or other information required to determine if site environmental controls are functioning as designed available to ADNR for inspection and copying as reasonably required by ADNR.

Upon ADNR's written request, Alaska Gold Company LLC shall promptly make any and all records, documents, or other information required to evaluate reclamation and closure cost estimates available to ADNR for inspection and copying as reasonably required by ADNR.

In any response to ADNR's written request, Alaska Gold Company LLC may assert that any and all records, documents, or other information is subject to the attorney-client privileges recognized under Alaska law or should be maintained as confidential business information in accordance with State law.

**Violations.** If the permittee fails to comply with AS 27.19, 11 AAC 97, or to comply with the provisions of the Reclamation Plan Approval, and the failure continues after service of written notice and an opportunity to be heard, the director will, in his or her discretion, pursue actions under AS 27.19, 11 AAC 97, and other applicable state law.

**Adverse Impact.** Alaska Gold Company LLC 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 Reclamation Plan Approval, including any additional monitoring needed to determine the nature and impact of the noncomplying activity. Alaska Gold Company LLC shall cleanup and restore all areas adversely impacted by the noncompliance.

**Permittee Responsibility for Actions of Contractors.** Alaska Gold Company LLC 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 Alaska Gold Company LLC, and must provide to ADNR all proofs of insurance, bonds, or undertakings required by this plan approval; this includes the requirements to complete the reclamation and closure of the site per the terms of the Reclamation Plan Approval, unless otherwise approved by ADNR. The new miner is liable for the full costs of reclamation to the standards of AS27.19, 11 AAC.97, and the approved reclamation plan, regardless of the amount of the reclamation bond. 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 Alaska Gold Company LLC to obtain and comply with authorizations required by other agencies including, but not limited to, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources – Division of Mining, Land and Water – Land and Water Sections, and Alaska Department of Fish & Game.

**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 Rock Creek Mine Reclamation and Closure Plan and any affected permits or authorizations must be made by written application to ADNR and may require the updating of related Supporting Documents. Requests for modification must be made no later than 30 days before the planned effective date of the modification. Modification to the Rock Creek Mine Reclamation and Closure Plan may, at the discretion of ADNR, require review and update of the financial assurance provided to ensure reclamation.

**Application for Renewal.** Applications for renewal of this Reclamation Approval must be made no later than 30 days before the expiration date of the Reclamation Plan Approval. Unless otherwise approved by ADNR, the periodic five-year renewal of the Rock Creek Mine Reclamation and Closure Plan will require the submission of the following updated Supporting Documents (SD) or the information must be incorporated into the body of the revised Reclamation and Closure Plan:

- Rock Creek Mine Revised Closure Cost Estimate (January 5, 2012); and,
- RC Closure Cost EstimateNG 12-30-11\_THPOST.xlsm.

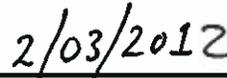
**Statutes and Regulations.** This plan approval is subject to all applicable state and federal statutes, including state, federal, and any local statutes and ordinances in effect on the effective date of this plan approval, new statutes, regulations, and ordinances enacted or promulgated after said 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 Alaska Gold Company LLC or ADNR as against the other.

**Save Harmless.** The recipient of this Reclamation Plan Approval (permittee) shall indemnify, save harmless, and defend the Department, its agents and its employees from any and all claims, actions or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or Alaska Gold Company LLC's performance under this Reclamation Plan Approval. However, this provision has no effect, if, and only if, the sole proximate cause of the injury is the Department's negligence.

**Commencement of permitted activities will be considered an acceptance by Alaska Gold Company LLC of these stipulations.**

Approved:   
Joe Wehrman,  
Department of Natural Resources

  
Date

**Appeal Right and Procedure**

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 days of the date of issuance and may be mailed or delivered to Daniel S. Sullivan, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to [dnr.appeals@alaska.gov](mailto:dnr.appeals@alaska.gov). This decision takes effect immediately. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31<sup>st</sup> day after the date of issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.