

Pogo Gold Mine Project

Plan of Operations Approval

Plan of Operations F20039500

DEPARTMENT OF NATURAL RESOURCES
Division of Mining, Land and Water

December 18, 2003

The Alaska Department of Natural Resources, Division of Mining, Land and Water (DNR), 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 Chapters 86.800 (Plan of Operations), 96 (Miscellaneous Land Use) and 97 (Mining Reclamation), approves the Plan of Operations F20039500 for the Pogo Gold Mine Project submitted by:

Teck-Pogo, Incorporated
3520 International Street
Fairbanks, AK 99701

Throughout this document, unless otherwise specifically indicated, reference to Teck-Pogo and Permittee are considered a reference to both Teck-Pogo and the parent companies of the joint venture partners of the Pogo Joint Venture.

Throughout this document, the Plan of Operations is considered to consist of: the Pogo Project Plan of Operations (October 2003); Pogo Project Reclamation and Closure Plan (October 2003); and the Pogo Project Water Management Plan (February 2002 and supplemented June 2002). Reference to any of these plans throughout this document is considered to be a reference to the Plan of Operations. Likewise any and all stipulations associated with the approval of any of these individual plans are considered to be a requirement of the Plan of Operations Approval.

Effective dates of this plan approval are January 18, 2004 through January 18, 2009, unless sooner revoked for cause; however, Teck-Pogo's obligations under the terms and conditions of this plan approval shall continue, unless sooner terminated in accordance with the provisions of this plan approval, until completion of all requirements under and pursuant to the Plan of Operations.

This plan approval is for activities upon State managed lands encompassed by the Pogo Mine Project Millsite Lease (ADL # 416949).

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

The Plan of Operations was found to be complete and is approved with the following conditions:

Financial Assurance. This Plan of Operations Approval does not take effect until Teck-Pogo submits a bond in a form and substance approved by DNR. 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 plan of operations are met. Modifications to this Plan of Operations may, at DNR's discretion, require bond review and update. The

total Bond of \$22,135,568.00¹ has been accepted for the Pogo Project. The total bond for the project shall be submitted as follows:

Prior to project start: \$250,000.00

Prior to the end of the fourth month from project start: \$2,500,000.00

Prior to the end of the twelfth month from project start: \$19,385,568.00

Terms of this Plan Approval. The Terms and Conditions contained within the Reclamation and Closure Plan for the Pogo Project (December 2002, updated October 2003), Pogo Project Plan of Operations (February 2002, updated November 2002 and October 2003), and the Pogo Mine Project Millsite Lease (ADL 416949) are hereby included as stipulations of this Plan Approval. If there is a difference between the Plan of Operations as submitted and the terms contained within this Plan Approval, the terms contained within this Plan Approval take precedence.

The Authorized Officer for DNR is the Director of the Division of Mining, Land and Water or his designee. The Authorized Officer may be contacted at 3700 Airport Way, Fairbanks, Alaska 99709, telephone (907) 451-2795, and fax (907) 451-2703 or at edf@dnr.state.ak.us. Teck-Pogo will be notified of changes to the authorized officer as needed.

Alaska Historic Preservation Act. Teck-Pogo will comply with the stipulations of the Programmatic Agreement By and Among The Advisory Council on Historic Preservation, The U.S. Environmental Protection Agency, The U.S. Army Corps of Engineers, The State of Alaska, and The Alaska State Historic Preservation Officer Regarding the Pogo Gold Mine Project, executed on August 12, 2003.

Forestry Resources. All timber on the Millsite Area that will be cleared to allow Millsite Operations shall be salvaged in accordance with the stipulations contained in the Early Entry Authorization for the Pogo Mine Access Road Right-of-Way (ADL # 416809 & 417066).

Monitoring Plan. Monitoring results obtained during a reporting period shall be summarized and reported to the Authorized Officer quarterly, on or before the 15th day of the month following the quarter, in an electronic format acceptable to DNR. Electronic copies should also be sent to ADNR (Jim Vohden at jimv@dnr.state.ak.us, and Jack Winters at Jack_Winters@dnr.state.ak.us), and ADEC (Pete McGee at

¹ This bond amount is based on the following indirect costs:

- Contingency Allowance: 10%
- Mob/Demob: 5%
- Engineering Redesign: 3%
- Contractor Profit & Overhead: 10%
- Agency Administration: 3%

Pete_Mcgee@dec.state.ak.us). Amendments to this distribution list will be provided to Teck-Pogo as needed.

As-Built Maps. Teck-Pogo shall submit to ADNR an annual “as built” map illustrating the current development of all facilities within the millsite lease boundary. The plan maps shall show cleared and grubbed areas; growth medium stockpiles; roads; waste rock dump development; material site development; and facility construction. Maps shall be 1”-500’ or other appropriate scale necessary to review the development of individual facilities.

Dam Safety Authorizations. Teck-Pogo shall acquire a Certificate of Approval to Construct a Dam and a Certificate of Approval to Operate a Dam from DNR’s Dam Safety and Construction Unit prior to beginning construction of the Recycle Tailings Pond Dam.

GENERAL STIPULATIONS

Pogo Project Plan of Operations

1. Waste rock shall not be removed from the millsite boundary
2. Detailed engineering plans shall be submitted to DNR for approval prior to the construction of the sewage outfall line to the Goodpaster River.
3. Prior to operation of the Off-River Treatment Works, a plan to monitor the flow in the Goodpaster River shall be approved by DNR.
4. Construction drawings of material sites must be provided to DNR for approval before development of these sites begins.
5. Riparian Buffer. Within 50 feet of the Goodpaster River, Teck-Pogo shall avoid grubbing of vegetative mat in all areas; minimize clearing of shrubs and small trees where this will not compromise aircraft safety; and trim shrubs and small trees to no less than a 3-foot height in areas where aircraft safety is a concern. If merchantable timber must be salvaged within 50-feet of the river, extra care should be taken to minimize disturbance and to adhere to the above specifications.

Pogo Project Reclamation Plan

1. *Facility Removal and Reclamation.* Unless otherwise approved by DNR, all Phase III reclamation shall be completed within 2.5 to 5 years after the cessation of mining activities at the Pogo Mine.
2. *Exploration Drill Hole Closure.* Unless retained for monitoring purposes, or otherwise approved by DNR, all drill holes will be abandoned in compliance with ADEC requirements by the end of the exploration season.

3. Specific reclamation plans for each gravel pit, material site, and the Off-River Treatment Works shall be approved by DNR.
4. A closure plan for underground workings shall be submitted to DNR for approval. This plan must describe at a minimum how backfilling in access declines will compartmentalize hydrogeology, the effects that any remaining exploration drill holes might have on hydrogeology, and shall also include final plug plans. Final plug plans will include consideration of chemical stability of the concrete (or other plug material), grout, and surrounding rock in the mine water environment.
5. Post Closure Monitoring. Wells MW99-213 and MW99-216 shall be sampled through Phase V—Post Closure Monitoring.
6. Fill removed from pads, roads, and the airstrip during wetlands restoration should be placed, where feasible, into portions of the Off-River Treatment Works or other gravel pits to create additional shallow water habitat.
7. At closure, a channel should be cut through the shallow bar between the two cells of the 1525 Portal Area material site to allow fish year-round access to both cells.
8. Prior to the 12th month from project start, Teck-Pogo will submit a revised Appendix F (Reclamation Cost Estimate) which provides additional detail as requested by DNR. DNR will provide this request to Teck-Pogo in writing no later than 8 months from project start.

Drystack Tailings Facility. This structure should be designed by a qualified professional engineer, and an engineering design report, design and construction drawings, and construction specifications should be developed and submitted to DNR. The design should consider interim and final configurations. The following are specific concerns which should be addressed in the report:

1. The static and seismic stability of the structure should be demonstrated.
2. The stability evaluations should consider the failure planes along slick surfaces between lifts of shell zone compacted with a smooth drum roller.
3. All assumptions such as material properties should be clearly listed and referenced.
4. Recommendations for field verifications of material properties and other assumptions should be clearly specified.
5. Long term consolidation and settlement of the general placement zone should be considered in final grading plans.
6. Recommendations or restrictions on future expansion and closure should be included.

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, and the site has been reclaimed in accordance with the reclamation plan.

Environmental Audit. A third-party environmental audit shall be conducted every five years as stipulated in the Millsite Lease. This audit will include all aspects of the project, including the access road, material sites, and the maintenance/staging facility. The third party contractor should be mutually agreed on by the State and Teck-Pogo, but in the event that agreement cannot be reached, the State retains the final selection decision.

Technical Corrections

The following technical corrections should be submitted to DNR within 4 months of project start:

RECLAMATION PLAN

Reclamation Plan, Page 3-5, Section 3.4, Plant Growth Media, the first bullet states that growth media will not be salvaged from the drystack facility. This is incorrect—Table 3.1 indicates that growth media will be salvaged from the drystack. Reclamation Plan, Page 3-5, Section 3.4, Plant Growth Media, the first bullet should be revised accordingly.

Section 4.5.3 states that the airstrip will be left in place for site monitoring. This is inconsistent with the statement in section 4.3.11, which states that the monitoring will be done with helicopters and all-terrain vehicles once the airstrip is reclaimed.

Section 5.3 will need to be revised to reflect updated bond cost estimates.

Submit a revised Figure D.4. Figure D.4 appears to be incomplete in that the gravel pit plan view appears to have portions of the drawing missing.

Table E.4 has not been updated as agreed to by Teck-Pogo. The grass species Indian Milkvetch, Smooth Brome, and Meadow Foxtail, should be replaced with the following: Norcoast Hairgrass, Egan American Sloughgrass, Wainwright Slender Wheatgrass

Standard Stipulations

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.
- d. **Exceptions.** The Authorized Officer may under unique or special circumstances grant exceptions to this stipulation on a case-by-case basis. Requests for exceptions should be made to the Authorized Officer.
- e. **Definitions.**
 - 1) **"Containers"** means any item which 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 (800) 478-9300. 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. Teck-Pogo shall permit authorized representatives of DNR 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 Teck-Pogo may from time to time adopt.

At any time upon DNR's written request, Teck-Pogo shall promptly make any and all records, documents, or other information required to be kept or maintained by law, regulation, ordinance or this Plan of Operations Approval available to DNR for inspection and copying as reasonably required by DNR to determine Teck-Pogo 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).

Assignment. This plan approval may be transferred or assigned with prior written approval from DNR. DNR will only disapprove a transfer with good cause and will evaluate whether the proposed assignee (1) is qualified to hold interests in state mining rights under AS 38.05.190 and 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 Teck-Pogo, and must provide to DNR all proofs of insurance, bonds, or undertakings required by this plan approval. Transfer of this plan approval may, at DNR's discretion, require bond review and update.

Other Authorizations. The issuance of this authorization does not alleviate the necessity of Teck-Pogo 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.

Reservation of Rights. DNR reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land under this authorization.

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

Modifications. Any request for modification of the plan of operations and any other affected permits or authorizations must be made by written application to DNR. Amendments to the Plan of Operations may, at the discretion of DNR, 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 Teck-Pogo or DNR as against the other.

Commencement of permitted activities will be considered an acceptance by Teck-Pogo of these special stipulations.

Approved:


Tom Irwin, Commissioner
Department of Natural Resources

12/18/03
Date

Appeal Right and Procedure

This is a final administrative order and decision of the department for purposes of an appeal to Superior Court. A person adversely affected by this final order and decision may (1) appeal to Superior Court within 30 days in accordance with the rules of the court, and to the extent permitted by applicable law, or (2) first request reconsideration of this decision, in accordance with AS 44.37.011 and 11 AAC 02.020, to Tom Irwin, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501. Any such request for reconsideration must be received at that address, or received by being faxed to 1-907-269-8918, by January 7, 2004. Failure of the commissioner to act on a request for reconsideration by January 17, 2004 is a denial of reconsideration and is also a final administrative order and decision for purposes of an appeal to Superior Court. It may then be appealed to Superior Court within a further 30 days in accordance with the rules of the court, and to the extent permitted by applicable law. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources. This decision goes into effect on January 18, 2004 unless the commissioner first orders reconsideration.

At the time a request for reconsideration is filed, an appellant may submit additional written material to support it, including evidence or legal argument. If the Commissioner orders reconsideration and if the Commissioner in his discretion under 11 AAC 02.050(a) further determines that there are questions of fact to be resolved that require a hearing, the hearing will be held in Fairbanks on January 12, 2004 at 10:00 A.M. at the Department of Natural Resources offices in Fairbanks, located at 3700 Airport Way. The hearing procedures under 11 AAC 02.050(b) will be announced at the time of his determination, if any. If a hearing is held, an appellant may submit additional written material at the hearing.