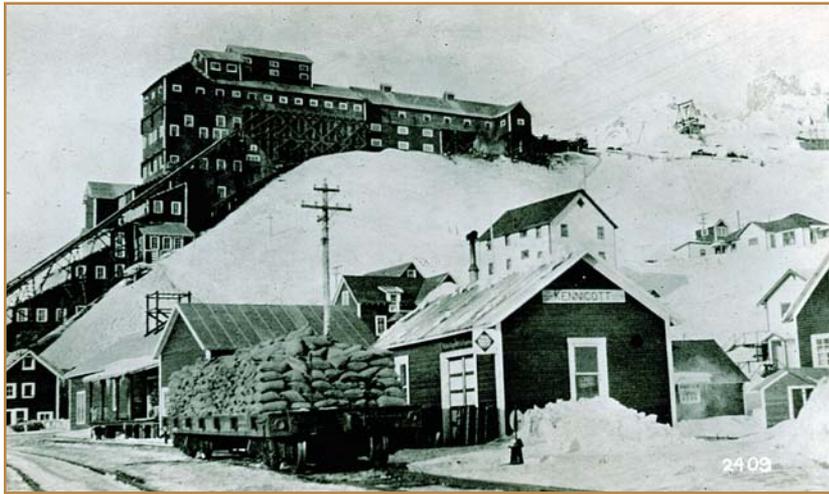




Fort Knox Pit, North of Fairbanks

Report of the 2009 Alaska Minerals Commission



Town of Kennecott, Wrangell St.-Elias

The Alaska Minerals Commission was created by the 14th Legislature and signed into law on June 6, 1986. The enabling legislation instructs the Commission to make recommendations to the Governor and Legislature on ways to mitigate constraints, including governmental constraints, on the development of minerals, including coal, in the state.



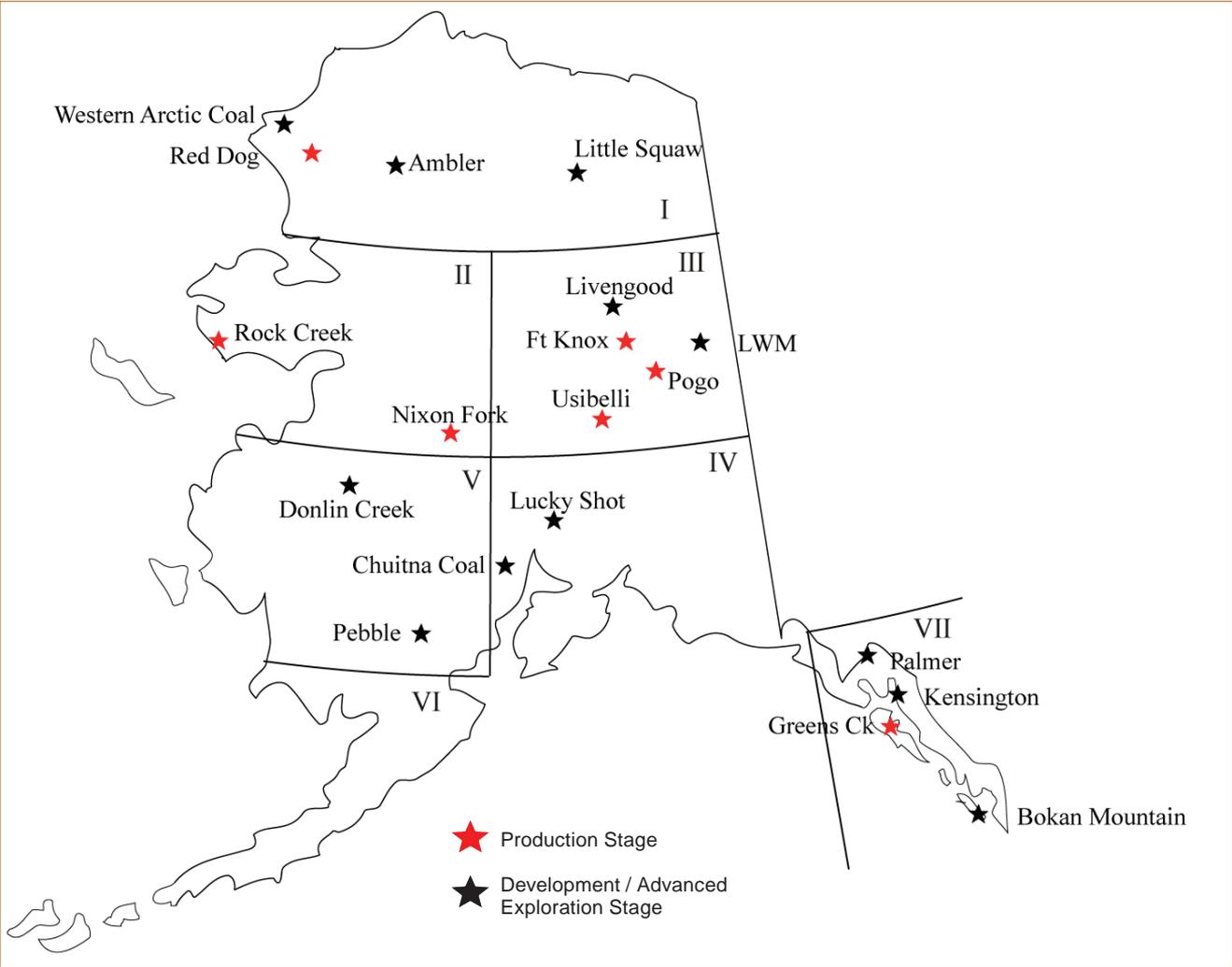
Bear Creek Dredge, Cripple Mountain Area



Greens Creek Mine, Juneau



Dog Cart on Seward Peninsula Railway, Nome



Alaska Minerals Commission Members

January 2009

Chairman	Irene Anderson	Bering Straits Native Corporation P.O. Box 1008, Nome, Alaska 99762 Phone (907) 443-5252 Fax (907) 443-2985 E-mail: irene@beringstraits.com
Vice-Chairman	Mark Robinson	Olympic Resources Group Box 1348, Wrangell, Alaska 99929 Phone (907) 874-2948 Fax (907) 874-2947 E-mail: akmark@aptalaska.net
	Del Ackels	Goldust Mines P.O. Box 61520, Fairbanks, Alaska 99706 Phone (907) 474-0971 Fax (907) 474-0966 E-mail: golddustmines@gci.net
	Leo Mark Anthony	C-D Development Co. 2020 Lake Otis Parkway, Anchorage, Alaska 99508 Phone (907) 279-4702 Fax (907) 279-4702 E-mail: AKleomarkanthony@yahoo.com
	Gregory Beischer	Millrock Resources Inc. 111 W 16 th Ave # 301, Anchorage, Alaska 99516 Phone (907) 743-9347 Fax (907) 563-6713 E-mail: gbeischer@millrockresources.com
	Bartly Coiley	Usibelli Coal Mine, Inc. 100 Cushman Street, Suite 210, Fairbanks, Alaska 99701 Phone (907) 452-2625 Fax (907) 451-6543 E-mail: bcoiley@usibelli.com
	Karl Hanneman	Teck Cominco Alaska, Inc. 3105 Lakeshore Drive, Building A, Suite 101 Anchorage, Alaska 99517 Phone (907) 460-9700 Fax (907) 455-8326 E-mail: Karl.Hanneman@teck.com
	Robert Retherford	Alaska Earth Sciences, Inc. 11401 Olive Lane, Anchorage, Alaska 99515 Phone: (907) 522-4664 Fax (907) 349-3557 E-mail: rmr@aes.alaska.com
	Charlotte MacCay	Pebble Limited Partnership 3201 C Street, Suite 604, Anchorage, Alaska 99503 Phone (907) 339-2600 Fax (907)339-2601 E-mail: charlottemaccay@pebblepartnership.com
	Dr. Lance D. Miller	NovaGold Resources Inc. 2321 Belmont Dr., Anchorage, Alaska 99517 Phone (907) 321-4470 E-mail: lance.miller@novagold.net
	Bill Jeffress	SRK Consulting 4710 Business Park Blvd, F-40, Anchorage, Alaska 99503 Phone (907) 677-3520 Fax (907) 677-3620 E-mail: bjeffress@srk.com

Staff

Rich Hughes	Development Specialist, Office of Economic Development Department of Commerce, Community and Economic Development 211 Cushman St., Fairbanks, Alaska 99701-4639 Phone (907) 451-2738 Fax (907) 451-2742 E-mail: rich.hughes@alaska.gov
--------------------	---

Foreword

The Alaska Minerals Commission was created by the 14th Legislature, signed into law on June 6, 1986, and is authorized until 2014. The Governor, the President of the Senate, and the Speaker of the House each appoint Commission members. The current members represent the placer, hard rock, and coal mining industries and come from diverse areas of the state. The enabling legislation instructs the Commission to make recommendations annually to the Governor and Legislature on ways to mitigate constraints on the development of minerals, including coal. This report fulfills that mandate.

Many important recommendations have been implemented since the first report in January 1987 and have contributed to the growth of the industry in Alaska.

Highlights of additional progress made during 2008 include:

- transfer of the National Pollutant Discharge Elimination System (NPDES) authority from EPA to the State,
- initiation of the Department of Transportation Western Alaska Transportation plan,
- substantial progress with the conveyance of the State's land entitlement in accordance with the Statehood Act,
- infrastructure development under the Roads to Resources program,
- improvements in employee recruitment for ADEC and ADNR,
- additional progress in geological and geophysical mapping, and
- re-establishment and staffing of the Citizens Advisory Commission on Federal Areas.

During 2008, the Commission met in Fairbanks on October 8 and held a follow-up meeting in Anchorage on November 4. The recommendations in this report are the result of those meetings. On behalf of the Commission, I would like to express appreciation to those members of the public, the Alaska Miners Association, the Resource Development Council, and the many government agencies and private organizations that contributed to the preparation of the report. The Commission wishes to thank Commissioner Notti, Department of Commerce, Community and Economic Development. Division of Economic Development staff, Rich Hughes, provided valuable administrative and professional support. Diane Somers expertly formatted and assembled the report for publication and printing.

Irene Anderson, (Chair)
ALASKA MINERALS COMMISSION

Alaska Minerals Commission

2009 Report to the Governor and Alaska State Legislature

Table of Contents

(www.dced.state.ak.us/oed/minerals/mining.htm)

FOREWARD	ii
EXECUTIVE SUMMARY	iv
PART A: ISSUES REQUIRING STATE ACTION	1
A1) Regulatory Reform.....	1
1a) Improving Investment Climate in Alaska by Ensuring a Fair and Open Regulatory Environment in Which to Do Business	1
1b) Funding Disclosure for Ballot Initiatives.....	2
1c) Re-evaluation of the Alaska Coastal Management Program (ACMP).....	2
1d) National Pollutant Discharge Elimination System (NPDES) Primacy	3
1e) Storm Water Runoff Program, Non-Point Source Water Pollution Control.....	3
1f) Water Quality Regulations – Natural Conditions	4
1g) Water Quality Regulations – Groundwater	5
1h) Water Quality Regulations – Mixing Zones	6
A2) Access And Infrastructure.....	6
2a) Power Supply	6
2b) Transportation Infrastructure.....	7
A3) State’s Rights Issues	7
3a) Securing Rights-of-Ways Over Federal Land.....	7
3b) Navigability Determinations.....	8
3c) Land Transfer (BLM 2009)	8
A4) Data Acquisition and Archive	9
4a) Geophysical and Geological Mapping	9
4b) Geologic Materials Center.....	9
A5) Improving Investment Climate In Alaska	10
5a) Tax Considerations - Boroughs.....	10
5b) Mined Land Reclamation and Closure Financial Assurance Regulations.....	11
5c) Large Mine Permitting Core Funding	12
5d) Agency Recruitment and Retention.....	13
5e) Minerals Marketing and Foreign Trade.....	13
A6) Education, Research, and Workforce.....	14
6a) AMEREF	14
6b) College Of Engineering and Mines	15
6c) Workforce Development.....	16
6d) Statewide Minerals Education and Promotional Program.....	17
PART B. FEDERAL ISSUES OF STATE CONCERN	
B1) Coal Program Funding.....	19
B2) Private Inholdings In National Parks.....	20
APPENDIX A: Enabling Legislation.....	21
APPENDIX B: Alaska Minerals Commission.....	22
APPENDIX C: Mineral Policy Act	23

Executive Summary



Modern Milling, Kinross

The Alaska mining industry experienced a tumultuous year in 2008. Gold and base metal prices decreased gradually through the first half of the year, with base metal prices then falling precipitously in the later half. Reflecting the prior robust metal markets in 2007, revenue to the State of Alaska from the minerals industry for FY 2007 increased 96% and reached \$178M. Fort Knox began construction of a heap leach facility, adding several years of life to the mine. Pogo achieved its first full year of commercial production. Greens Creek and Red Dog were both challenged by low metal prices in the latter half of the year. Construction and development of the Rock Creek/Big Hurrah and Kensington projects continued into 2008. Kensington was put on care and maintenance pending resolution of legal challenges surrounding

its permits. Rock Creek commissioned operations in the 3rd quarter, but was put on care and maintenance for the winter due to operational considerations and cash flow issues associated with the credit markets. Nixon Fork was closed due to ore reserve difficulties.

In 2007, several anti-mining ballot initiatives were submitted to the Lt. Governor. In 2008, one of these became Ballot Measure Four, which threatened all large scale mining in the state. Although Ballot Measure Four was defeated, there remains concern that similar ballot initiatives could arise in the future that may negatively impact the mining industry and the economy of the state. Ballot initiatives lack the educational process of debate and subsequent refinement provided by the creation of State legislation. Furthermore, the lack of clear legal direction for the Administration and State agencies regarding the release of educational information to the public related to ballot initiatives may be undermining the premise of an informed public. The Minerals Commission asserts that with this heightened awareness of how the initiative process and public perception can affect an industry so integral to the state, it becomes a State responsibility to educate the citizens of the state about mining. For citizens to vote responsibly on these issues, they need to understand the economic benefits mining has to offer, as well as the environmental safeguards imposed and enforced by the state that ensure that mining will occur in an environmentally sound manner.

The body of this report contains various recommendations, many of them regarding environmental regulations and general public education. We propose that the enactment of these recommendations will help bring public understanding and environmental protection closer to a balance that enables public and State support of the mineral industry.

The Commission looks forward to working with the Governor, the Legislature, and the Agencies to build the framework for a robust, sustainable, environmentally responsible industry that benefits Alaskans in all corners of the state.

CURRENT RECOMMENDATIONS

The Commission encourages the Governor and Legislature to act on the recommendations provided in this 2009 report as summarized below:

- Avoid changing the designation of lands to stop mineral development, especially in areas with valid existing rights that were selected by the State for their mineral potential

- Maintain a thorough, transparent permitting process for responsible mineral development
- Ensure that Enforceable Policies proposed by the Coastal Districts under the Coastal Zone Management Program are not duplicative of existing laws and regulations
- Ensure that Enforceable Policies flow from existing laws and regulations and do not establish new standards without following either federal or state processes
- Support State assumption of the NPDES program by providing adequate budget
- Pursue waterbody reclassification petitions in a timely manner
- Work toward EPA approval of DEC natural background site specific water quality guidance
- Develop water quality regulations for groundwater
- Develop a database listing all mixing zones issued in Alaska
- Create a public presentation on the need for industrial and municipal mixing zones
- Ensure mixing zone regulations remain objective and broad based
- Continue support for developing transportation infrastructure
- Support the need for developing power generation capacity and distribution in the state
- Develop conveyance procedures with BLM for Rights-of-Ways over federal lands
- Support development of Recordable Disclaimers of Interest in navigability determinations
- Support and fund DNR transfer of BLM managed lands to the State's 104.4 million acre entitlement
- Increase the investment in geophysical and geological surveys to more than \$1M per year
- Ensure future municipal taxes, especially within the unincorporated regions, are broad based, equitable, and stable
- Develop a working group to standardize calculation methods for reclamation and closure financial assurance requirements
- Provide core funding within the Large Mine Permitting Team in DNR to pay for essential staff training and public outreach
- Enhance the recruitment and retention of essential permitting professional staff
- Enhance the development of foreign investment in Alaska's minerals industry
- Fund the AMEREF program in the amount of \$100,000 annually
- Support the UAF College of Engineering and Mines
- Encourage the Congressional delegation to support the passage of the Energy and Mineral Schools Re-investment Act in Congress
- Support programs to improve availability of professional and trained workers for the mining industry
- Fund a statewide Minerals Education & Promotion Program to educate the public about the minerals industry
- Encourage the Alaska Delegation to seek full funding for Alaska's Coal Regulatory Program
- Work with the federal government to ensure National Park System inholders are treated fairly and equitably.



Modern Milling, Kinross

Findings and Recommendations

Part A: Issues Requiring State Action

A1) REGULATORY REFORM

A1a) IMPROVING INVESTMENT CLIMATE IN ALASKA BY ENSURING A FAIR AND OPEN REGULATORY ENVIRONMENT IN WHICH TO DO BUSINESS

FINDING: The controversy regarding the Pebble Project threatens the integrity of Alaska's land management and regulatory process and if not managed appropriately will jeopardize Alaska's ability to attract venture capital to support further growth of the mining industry.

Land use priorities for the Bristol Bay region were established years ago by legislative action, including the designation of Federal and State parks in areas deemed worthy of special protection. The Pebble Project is located on land that is open for mineral entry selected by the State in part for its mineral resource potential. The mineral rights in the area were acquired in accordance with Alaska laws, regulations, and land use designations. In order to exercise those rights under current laws and regulations, the Pebble Project will have to undergo intense technical and public review and demonstrate with a high degree of certainty that potential impacts can be appropriately mitigated. Mining projects will not be permitted under current laws unless they meet these high standards.

Nevertheless, mining industry opponents are using misinformation and political influence to threaten the entire industry in an attempt to thwart the Pebble Project even before the detailed scientific review necessary for the state and federal permitting process has begun. Project opponents have attempted to use the Legislature and the ballot initiative process to change the land use priorities after the fact in order to advance their own private purposes.

It is appropriate to examine how a robust fishing industry can co-exist in the region in concert with a vibrant mining operation. This issue should and will be evaluated by scientists in the context of a thorough and transparent project review. The State would be well served by managing its resources to achieve both.



Stamp Mill, Treadwell Mine, Douglas Island.

Proposals that ignore existing laws and regulations and seek to change land use designations after the fact on areas with valid existing rights without just compensation are ill-advised and should not be supported by the Legislature. Companies doing business in Alaska, regardless of which industry, deserve a fair and open hearing prior to conclusive decisions about a project. Alaska must remain governed by objective laws and regulations.

The Commission Recommends That:

- A1a-1) The Legislature should avoid changing the designation of lands to stop mineral development, especially in areas with valid existing rights that were selected by the state for their mineral potential.
- A1a-2) The Legislature should not jeopardize the thorough and transparent permitting process that exists within State and Federal regulatory agencies to evaluate projects and mitigate potential impacts.

A1b) FUNDING DISCLOSURE FOR BALLOT INITIATIVES

FINDING: Alaska's Ballot Initiative lawmaking process is presently open to abuse and misuse. The Initiative put forward by opponents of the Pebble project threatened the entire industry. The damage could have had far-reaching consequences to the industry, to ANCSA corporations, to the service and supply industries, and to the State. The source of funding for this initiative was largely obscured. For Alaskans to make informed decisions in this lawmaking process, it is crucial that the process be transparent, including the disclosure of funding sources.

In order for Alaska's lawmaking process to maintain its high regard, importance, and legitimacy, it is important that the process be as open and transparent as possible. Initiative created law has the same authority as law created by elected officials, and therefore, voters have the right to know who is making law through the initiative process.

The Commission Recommends That:

A1b-1) The Legislature should pass an act strengthening the requirement for disclosure of the identities of persons and groups that expend money in support of or opposition of Ballot Initiatives.

A1C) RE-EVALUATION OF THE ALASKA COASTAL MANAGEMENT PROGRAM (ACMP)

FINDING: In 2003, the Alaska State Legislature mandated the reform of the Alaska Coastal Management Program (ACMP). Although the changes to the program are nearing completion, the Department of Natural Resources (DNR) has initiated a "re-evaluation" of ACMP to ascertain some of the challenges and implementation problems associated with the revised program. Coastal districts, industry and applicants, state and federal agencies, non-governmental organizations, and interested members of the public have been invited to provide comments and propose changes to the program.

Among the issues that DNR, with the input from stakeholders, will be re-evaluating are:

- How ADEC fits into the Coastal Management Program;
- Coastal districts' authority and ability to write enforceable policies and revisit the requirements for designated areas to address certain coastal uses and resources;
- Certain consistency review issues (i.e., scope of the project to review, requirement of a coastal project questionnaire, etc.); and
- Completing the ABC List revisions in a manner that includes consideration of cumulative impacts.



Modern Milling, Kinross

Based on the written comments that have been submitted, DNR will prepare a responsive statutory proposal for consideration during the 2009 legislative session, and a subsequent regulatory package for implementing the changes.

The Commission Recommends That:

- A1c-1) The Governor should direct the DNR to ensure that Enforceable Policies proposed by the Coastal Districts under the Coastal Zone Management Program are not duplicative of existing federal or state laws and regulations.
- A1c-2) The Governor should direct the DNR to ensure that Enforceable Policies flow from existing laws and regulation and are not establishing new standards without following either federal or state process.
- A1c-3) The Legislature should ensure that Alaska resources are equally protected and not impose a higher level of protection just because similar resources are located within the boundaries of a Coastal District or Coastal Resource Service Area.

A1d) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PRIMACY

FINDING: NPDES permitting remains one of the most important challenges associated with mining projects. On October 31, 2008 EPA approved Alaska's proposed state NPDES program. This move is anticipated to improve permitting by allowing for improved communication between state regulators, permittees, and the public; by removing duplicative efforts of state certification while also permitting through EPA; and by addressing unique Alaska water issues while maintaining high environmental standards.



Beach Mining, Nome

In order to ensure a responsible and smooth assumption of the NPDES program, ADEC has been actively developing NPDES program capacity and expertise. It is essential for all parties that the transition of NPDES primacy from EPA to the State be well organized and supported by adequately trained staff.

The Commission Recommends That:

- A1d-1) As the NPDES program progresses through its phased transition between now and 2014, it is important that the legislature continue to fund ADEC to support training and program development to effectively support the State in assuming the full responsibility for regulating discharge to Alaska waters.

A1E) STORM WATER RUNOFF PROGRAM NON-POINT SOURCE WATER POLLUTION CONTROL

FINDING: Storm water discharges are regulated under the NPDES program, and certain storm water discharges require a NPDES permit from EPA.

Under the NPDES program, the State of Alaska Department of Environmental Conservation (ADEC) is scheduled to assume full authority for permitting and enforcement for stormwater in November, 2010. However, until then EPA administers the NPDES Stormwater program. Pursuant to Section 401 of the Clean Water Act, the ADEC certifies these EPA general storm-water permits (Multi -

Sector General Permit MSGP and Construction General Permit CGP). This is commonly known as “401 Certification”. Permit conditions are shown in both permits as “Conditions Applicable to Specific States, Indian Country Lands or Territories” and must be respected by permittees. All Storm Water Pollution Prevention Plans (SWPPP) are required to be reviewed by ADEC in order for the applicant to receive a “Letter of Non-Objection.”

Industrial activities, such as mining, have two types of NPDES storm water permits, general and individual. EPA has recently issued the 2008 Multi-Sector General Permit (MSGP) that allows a facility operator to quickly obtain permit coverage. This permit presents all requirements up front, allowing facility operators to become familiar with, and prepare for, activities such as SWPPP implementation and monitoring prior to applying for permit coverage.

Those mining facilities for which that the MSGP-2008 permits are either not available or not applicable can obtain coverage under an individual permit that will be developed with requirements specific to the facility.

The transition of authority for the NPDES storm water program, changes to the MSGP, and more rigorous agency interpretation of the regulations in recent years, have all contributed to confusion and inconsistency in the storm water pollution prevention programs.

The Commission Recommends That:

- A1e-1) The Governor should direct the ADEC to provide educational outreach to better inform the regulated industries, such as mining, about the requirements of the Storm Water Pollution Prevention Program.
- A1e-2) The Governor should direct the ADEC to continue to offer workshops on writing and implementing effective SWPPP.
- A1e-3) Best Management Practices (BMPs) designed to protect waters of the State should suffice both within a coastal district and exterior to a designated coastal district boundary.

A1f) WATER QUALITY REGULATIONS – NATURAL CONDITIONS



Dome Creek Drift Mine. Olnes, Alaska. Fairbanks District.

FINDING: ADEC’s mission to protect the environment and control water pollution is primarily upheld through the employment of water quality standards. However, water quality regulations are a prescriptive set of rules that fail to consider discharge limits in waters with naturally elevated water quality parameters. This situation was exacerbated by the State’s decision in 1972 to arbitrarily classify all waters in the state to the highest use due to lack of time and resources to properly conduct a more thorough and accurate classification process.

This has created serious complications for permitting and enforcement actions where natural conditions exceed the legally applicable water quality standards, as is often the case in the highly mineralized areas where mining occurs.

The State can address this situation through natural condition site-specific criteria and/or reclassification of streams to more accurately reflect their natural condition.

To date, State provisions to develop natural background criteria have lacked the necessary guidance for EPA to recognize the State's authority to set natural condition standards. As a result, the provisions have not resulted in an effective solution. In 2006, ADEC developed natural condition guidance that has the potential to substantially resolve the disparity between water quality standards and natural conditions. The guidance has been formally put into effect for State use, but EPA approval for use in NPDES permitting remains outstanding.

The Commission Recommends That:

- A1f-1) The Governor should direct the ADEC to pursue waterbody reclassification petitions in a timely manner.
- A1f-2) The Governor should direct the ADEC to continue to work with EPA to finalize the recently promulgated Natural Background Site Specific Conditions regulations.
- A1f-3) The Legislature should support ADEC in their efforts to gain EPA approval of the Natural Condition Background Site Specific Guidance.

A1g) WATER QUALITY REGULATIONS – GROUNDWATER

FINDING: Environmental monitoring of mine sites must often address the discharge of intercepted water or mine drainage to groundwater, as well as the potential for seepage of metals or acid rock drainage from tailings and waste rock.

The State of Alaska does not have specific water quality regulations for groundwater, and by default surface water quality criteria are applied to regulate these discharges. The application of surface water regulations to groundwater discharges is inappropriate for several reasons including naturally elevated metals from direct, and often long term, association of the water with the soil and/or bedrock in both the discharge and the receiving waters. The surface water regulations also include criteria based on the protection of fish and aquatic life. The application of these criteria do not allow for consideration of the type of aquifer the water is discharged into, its retention time, or its potential to reach and impact surface waters where fish and aquatic life are present.



Pogo Facilities

As a result, direct discharges to groundwater often require costly water treatment in order to meet criteria that are more stringent than the quality of the receiving waters. Additionally, monitoring for impacts is complicated by the natural exceedences of the water quality criteria. Strict legal interpretation of the standards does not allow for ADEC to enforce these regulations based on reason or discretion without potential for lawsuits imposed upon the agency and the permittee.

The Commission Recommends That:

- A1g-1) The Governor should direct the ADEC to develop water quality regulations for groundwater that address the naturally elevated metals and other parameters that are likely to occur in groundwater, the groundwater pathway, the retention time of the discharge within the groundwater system, and the potential to impact fish and aquatic life.

A1h) WATER QUALITY REGULATIONS – MIXING ZONES

FINDING: Only a small percentage of the mixing zones currently authorized in Alaska relate to mining operations. There is a tremendous lack of understanding in Alaska about why mixing zones are required by many types of activities other than mining operations. Most mixing zones are needed by municipal waste treatment plants in order to comply with water quality standards. Some fish processing plants use mixing zones to achieve compliance with water quality standards, either in fresh or marine water. If these mixing zones are not authorized or renewed, there could be grave consequences for these existing facilities.

In order to be an effective tool for all Alaska, mixing zone regulations must consider site-specific conditions, such as the productivity of the habitat compared to the potential benefit of a municipal waste treatment plant or an industrial project that might require a mixing zone. Without flexibility in the regulation, many projects that could significantly improve the overall health and welfare of people throughout Alaska may be precluded.

The Commission Recommends That:

- A1h-1) The Governor should direct the ADEC to develop a database that includes all the mixing zones issued in Alaska, and to develop a presentation that explains the need for mixing zones and why the various facilities are dependent upon the fair and impartial application of mixing zone regulations. The ADEC should take that presentation to the public to improve the understanding of the mixing zone as a necessary regulatory tool for many facets of Alaska activity.
- A1h-2) The Legislature should not change the mixing zone laws to target the mining industry, because the unintended consequences on the mixing zones required by municipalities and fish processing facilities would be significant.

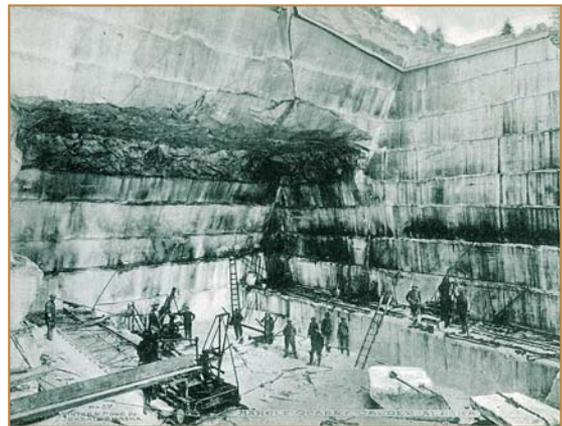
A2) ACCESS AND INFRASTRUCTURE

A2a) POWER SUPPLY

FINDING: Major mines require substantial amounts of electric power. Uncertainty regarding the cost and availability of power is a considerable deterrent to all forms of capital investment in Alaska, not just mining.

If the existing power grid in Alaska were to be enhanced by additional generation facilities, future extensions of the grid could incrementally extend power-by-wire not only to mining developments, but also to remote communities. The existing power grid in Alaska does not have an adequately diverse fuel mix, as it is currently critically dependent upon the uncertain supply and volatile pricing associated with Cook Inlet natural gas.

Coal fired generation, either via conventional plants or advanced technology such as gasification, offers the means to provide a stable long term power supply to enhance the existing power grid in Alaska. Other forms of energy also provide opportunities for consideration.



Marble Quarry, Calder, Prince of Wales Island

The Commission Recommends That:

- A2a-1) The Governor and Legislature should act now to prevent a future power crisis in Alaska by facilitating the study of all possible commercial forms of energy for power generation. The conclusion of this study should be implemented in a high priority manner to provide cost-effective power to the residential and rural areas of the state.

A2B) TRANSPORTATION INFRASTRUCTURE

FINDING: The viability of rural Alaska is presently hinging on the cost of living, in addition much of the mineral resource potential of Alaska is located in remote areas lacking transportation infrastructure. Infrastructure development will accelerate minerals development while also lowering the cost of living and providing needed employment in rural Alaska through less expensive transportation of fuel and goods.

The Commission Recommends That:

A2b-1) The Governor and legislature should continue their support for infrastructure. Regional plans coupled with a commitment from the State for capital investment on priority projects will provide for a sustainable future in rural Alaska. Specifically the Western Alaska Transportation Study has renewed interest in a transportation corridor from Fairbanks to Nome. The legislature should consider convening a hearing on western Alaska transportation solutions.

A3) STATE'S RIGHTS ISSUES

These issues have been segregated because, although they are also about ownership and access, both of which are fundamentally important in mineral investment decisions, they are not exclusively Alaska issues, and require cooperative efforts with other states at the federal level.

A3a) SECURING RIGHTS-OF-WAYS OVER FEDERAL LAND

FINDING: Overland access to or through federal land is critical for exploration, development, and mining. The federal government has not been receptive to granting rights-of-ways to states. However, the Secretary of the US Department of Interior issued a policy which would allow states' to apply for Rights-of-Ways (R-O-W) through the Bureau of Land Management (BLM). The process for the State to submit the R-O-W Application has not been developed.

The State filed a Quiet Title under Revised Statute (RS) 2477, at the cost of greater than \$500,000 and settled out of federal court, for two trails in the Chandalar – Coldfoot area. Part of the settlement was to survey and mark the two trails and have them recorded.



Red Dog Port Delong Mountain Terminal

If the State had not settled out of court with the BLM, the court cost to assert the State's right would have been an additional \$1 million.

The Commission Recommends That:

A3a-1) The Governor should work with the Bureau of Land Management to develop and implement a process to allow the State to apply for Rights-of-Ways over federal land.

A3b) Navigability Determinations

FINDING: Navigable waters provide methods of access to resources throughout the State of Alaska, including to minerals and materials.

The State and the federal Bureau of Land Management (BLM) are working toward transfer of navigable waters to the State through the filing of “Recordable Disclaimers of Interest”. The BLM now recognizes Alaska’s claim to about 65 water bodies using this process. The cost of research to identify navigable waters has been sponsored by the federal budget; this budget allocation is expected to be discontinued.

The Commission Recommends That:

- A3b-1) The Legislature should adequately fund the Department of Natural Resource’s Public Access Assertion and Defense Unit and personnel within the Department of Fish and Game to work on the Recordable Disclaimer applications.
- A3b-2) If necessary to assert State’s rights, the Legislature should adequately fund the Department of Law to support any Quiet Title actions to ensure that the State receive ownership of water bodies.
- A3b-3) The Governor and Administration should work with the BLM to establish more efficient methods for determining what water bodies are navigable and to recognize the established Gulkana Case Law in regard to susceptibility when issuing Recordable Disclaimers of Interest.

A3c) LAND TRANSFER (BLM 2009)

FINDING: The “Alaska Land Transfer Acceleration Act” of 2004 allows the State of Alaska to file with the Bureau of Land Management (BLM) the priority land selections under the Alaska Statehood Act, including lands withdrawn by the Department of Interior under Public Land Orders (PLO). In 1971 and 1972 the PLO’s 5150, 5151, and 5182 withdrew land north of the Yukon River along the Trans-Alaska Pipeline for “inner” and “outer” utility corridors. The BLM manages land use along the corridor, which is approximately 24 mile wide and 198 mile long. The corridor excludes leases under the Mineral Leasing Act. Alaska, not the federal government, should own the land where roads and pipelines are situated, in this case the Dalton Highway and Trans-Alaska Pipeline. The Alaska Department of Natural Resources selected these corridors. The BLM can “lift” the PLO’s through a process which includes public notice. Alaska has asked for the “lifting” of the PLO’s to no avail as BLM determined that the corridors are of “national interest”.

In 2005, the Alaska Department of Natural Resources/Division of Mining, Land and Water submitted to BLM the priority land selections of 15.6 million acres. In FY 2007 Alaska received title to greater than 2 million acres of land. Alaska now has title to a total of 94.35 million acres of the 104.4 million acre entitlement. Approximately 37% of Alaska’s lands (almost 35 million acres) were selected for the mineral value. The present acreage claimed in Alaska under mining claims is 3.9 million acres.

The “Filing of Final Priorities” will be completed by the December 2008 deadline imposed by the Alaska Land Transfer Acceleration Act. Due to federal budget limitations, Alaska does not expect to receive final patent to the 104.4 million acre entitlement by the end of 2009. The State’s participation in the process must continue to completion.

The Alaska Department of Natural Resources continues to work on land management, including updating regional land use plans and commenting on the Bureau of Land Management area plans. BLM plans to review and update the Utility Corridor Resource Management Plan beginning in 2009.

The Commission Recommends That:

A3d-1) The Governor and Legislature should provide adequate funding for the Department of Natural Resources to carry out the actions necessary to receive title to and manage the full entitlement of 104.4 million acres of land, including the Trans-Alaska Pipeline Corridors. This includes continuation of funding of State involvement to completion.

A4) DATA ACQUISITION AND ARCHIVE

A4a) GEOPHYSICAL AND GEOLOGICAL MAPPING

FINDING: Alaska is one of the most sparsely mapped regions of the world and ranks far behind many third world countries in spending for geologic data acquisition. Many potential investors in Alaska's mineral industry are discouraged by the lack of detailed geologic information and choose to invest in areas that have more public data to guide grassroots exploration.

Only 45% of Alaska has been mapped at a scale of 1:250,000, and only 14% has been mapped at a scale of 1:63,360. For most resource assessment purposes, 1:63,360 is the minimum scale required. For comparison, the state of Nevada is mapped 100% at 1:250,000 and 44% at 1:63,360. Many states consider 1:24,000 the minimum scale for their purposes and many have significant coverage at this scale. Alaska clearly lags far behind its peers in geological mapping.

Since 1993, the State of Alaska has spent an average of \$400,000 per year on airborne geophysical surveys and the "ground truth" geologic mapping necessary for interpretation of the airborne surveys. Over the past five years, the state has spent approximately \$750,000 annually. The geophysical work to 2007 has covered approximately 10,900 square miles, less than 6% of the State's land entitlement. At the current rate of mapping, it will take more than 100 years to have basic coverage of State land in Alaska. A healthy, growing mining industry, as well as competent State management of mineral and other natural resources, requires a much more substantial and consistent annual investment in basic geological data acquisition.

State sponsored geophysical and geological surveys provide an immediate economic stimulus. Industry often responds to state findings by staking mining claims and investing millions of dollars in prospective lands. The mapping program activities bring in revenue that help cover the program costs.

The Commission Recommends That:

A4a-1) The Governor and the Legislature increase the annual rate of investment in geophysical and geological surveys in mineral-interest lands to a level greater than \$1,000,000 per year.

A4 b) GEOLOGIC MATERIALS CENTER

FINDING: The Alaska Geologic Materials Center (GMC) is the state's archive of geologic samples collected by mineral exploration companies, oil & gas exploration companies, and state and federal agencies since the early 1900s. The facility is used heavily (400-500 visits per year) by industry, government, and academia in support of resource exploration, land-use management, and research. In addition to core samples and cuttings representing approximately 12 million feet of oil & gas exploration and production drilling, the collection includes nearly a quarter million feet of diamond-drill

mineral-exploration core samples, as well as collections from USGS, BLM, MMS, and the former U.S. Bureau of Mines. New collections are added every year. These materials, occupying roughly 30,000 square feet of total storage area, have for several years exceeded the capacity of an aging former state fish hatchery in Eagle River. Due to lack of heated space, approximately half the collection is currently stored outdoors in 60 unheated, unlit portable shipping containers. Moreover, the facility lacks sufficient space and equipment for proper sample processing, layout, and viewing. Quoting from the 2006 GMC Concept Study, “The lack of additional storage capacity coupled with inadequate processing and scientific examination space has resulted in a crisis situation – if a new repository is not developed soon, the State of Alaska, federal agencies, private industry, and the public will be at risk of losing irreplaceable scientific resources.”

The sample collection stored at the GMC is an invaluable geologic library—a first stop for nearly all geologic-resource exploration projects in Alaska. Replacing the collection, if that was even feasible, would likely cost hundreds of millions of dollars. A modern facility with proper environmental controls, examination space, and equipment is critical to the state’s resource development and will pay for itself many times over in future revenues. DNR has begun the process of replacing and upgrading the facility, completed a federally funded scoping study, and initiated the architectural and engineering design in FY2009.

The Commission Recommends That:

A4b-1) The Governor and Legislature provide funding in FY2010 to finalize the architecture and engineering design for a new Geologic Materials Center and work toward securing funds for its construction.

A5 IMPROVING INVESTMENT CLIMATE IN ALASKA

A5a) TAX CONSIDERATIONS - Boroughs

FINDING: Diversification of the Alaska economy is a cornerstone of all credible discussions regarding long-term fiscal planning for Alaska. With the development of the Greens Creek, Red Dog, Fort Knox, True North, and Pogo mines over the last decade and a half, it is a proven fact that mineral development can bring substantial private sector investment and employment to diverse geographic regions of Alaska, from southeast Alaska to the Interior and on to the northwest Arctic. Other projects such as Kensington, Chuitna Coal, Rock Creek, Nixon Fork, Donlin Creek, and Pebble offer potential economic development to still other parts of Alaska, including western, eastern, and southwestern Alaska.

Mining is an industry that can bring economic development to areas both inside and outside the rail belt. Yet with much of Alaska’s mineral potential located in portions of the state that remain within the unorganized borough, there are major fiscal uncertainties with respect to the private sector investment needed to explore and develop these projects. The Legislature has considered the possibility of mandatory borough formation in these areas, bringing with those proposals the uncertainty of taxation formulas, tax rates, and the overall equity of the potential tax structures that might be instituted.

The mining industry expects to contribute to state and local government. In addition to State income tax paid by corporations in all industries, mining operations pay an additional 7% Net Profits Interest (NPI) Mining License Tax to the state, regardless of where they are located in Alaska. Operations on state land pay an additional 3% NPI royalty. Mining is one of the few industries to pay this additional percentage of profits to the state over and above the corporate income taxes. In addition, all of the major mining operations make large payments to local municipal governments via property taxes or payments in lieu of property taxes.

During discussions regarding borough formation in rural areas, it has become clear that the residents in these areas do not generally endorse payment of taxes themselves to support new local government. If borough formation was effected in these areas, it is possible that the potential tax burden would be placed primarily on the major industry in the region. While the mining industry does expect to pay its fair share of future municipal government costs, if and when it is appropriate to form these local governments, it should do so by an equitable, broad-based tax such as a property tax, not an industry-specific tax such as a severance tax. Without the mitigating effects of a broad-based tax, the mining industry could then end up facing a very onerous tax structure. Such uncertainty serves as a strong disincentive to the very investment and economic diversification that is so vital to rural development.

From the perspective of making the initial decision about whether to invest in Alaska, the unpredictability of future tax liability makes planning difficult. The inability to predict tax burden, and the economic impact, at the development decision stage is a serious disincentive to investment in the state. Placing limits on the extent of new taxes for mining operations would make economic planning more predictable and thereby reduce the disincentive for investment in Alaska.

The Commission Recommends That:

A5a-1) The Governor and the Legislature take steps to improve the investment climate for the mining industry by ensuring that future municipal taxes, especially in those areas presently within unincorporated regions of Alaska, are broad-based, equitable, and stable.

A5B) MINED LAND RECLAMATION AND CLOSURE FINANCIAL ASSURANCE REGULATIONS

FINDING: Reclamation and closure financial assurance for mining activity is authorized through the Department of Natural Resources and the Department of Environmental Conservation Solid Waste Programs. Reclamation and closure financial assurance is provided to secure sufficient funds for the State to ensure a mine site can be fully reclaimed should the mine permittee be wholly or partially negligent in meeting the requirements of the approved reclamation plan.

Calculation of reclamation and closure financial assurance requirements includes direct costs such as removal of infrastructure, backfilling, contouring, reseeding, monitoring, and wetlands mitigation projects. Also included are indirect costs such as contingency factors for equipment efficiency rates, project management, and inflation. Financial assurance requirements, which in recent years have ranged from 1.2 million to 154.9 million dollars per facility, represent a substantial project cost component.

No State guidelines have been adopted for determining reclamation costs. As a result, calculation, particularly of indirect costs, is subjective and at the complete discretion of the State permit writer. Disagreement between the permittee and the agencies on these costs is common, with differences in each party's calculations ranging up to 50 % or more. Without approved guidelines, it is not possible for mining companies to meaningfully conduct financial planning for an operation until very late in the permitting process. The unpredictability of this significant financial liability is an unnecessary hardship for developing mines and a deterrent to attracting mining companies to invest in Alaska.

The Commission Recommends That:

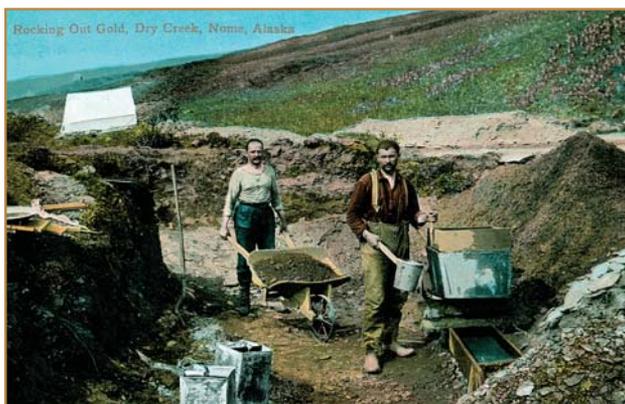
A5b-1) The Governor form a working group between members of the mining industry, DNR, and ADEC to develop calculation methods for reclamation and closure financial assurance requirement guidelines.

During discussions regarding borough formation in rural areas, it has become clear that the residents in these areas do not generally endorse payment of taxes themselves to support new local government. If borough formation was effected in these areas, it is possible that the potential tax burden would be placed primarily on the major industry in the region. While the mining industry does expect to pay its fair share of future municipal government costs, if and when it is appropriate to form these local governments, it should do so by an equitable, broad-based tax such as a property tax, not an industry-specific tax such as a severance tax. Without the mitigating effects of a broad-based tax, the mining industry could then end up facing a very onerous tax structure. Such uncertainty serves as a strong disincentive to the very investment and economic diversification that is so vital to rural development.

From the perspective of making the initial decision about whether to invest in Alaska, the unpredictability of future tax liability makes planning difficult. The inability to predict tax burden, and the economic impact, at the development decision stage is a serious disincentive to investment in the state. Placing limits on the extent of new taxes for mining operations would make economic planning more predictable and thereby reduce the disincentive for investment in Alaska.

The Commission Recommends That:

A5a-1) The Governor and the Legislature take steps to improve the investment climate for the mining industry by ensuring that future municipal taxes, especially in those areas presently within unincorporated regions of Alaska, are broad-based, equitable, and stable.



Rocking for Gold, Dry Creek, Nome

A5B) MINED LAND RECLAMATION AND CLOSURE FINANCIAL ASSURANCE REGULATIONS

FINDING: Reclamation and closure financial assurance for mining activity is authorized through the Department of Natural Resources and the Department of Environmental Conservation Solid Waste Programs. Reclamation and closure financial assurance is provided to secure sufficient funds for the State to ensure a mine site can be fully reclaimed should the mine permittee be wholly or partially negligent in meeting the requirements of the approved reclamation plan.

Calculation of reclamation and closure financial assurance requirements includes direct costs such as removal of infrastructure, backfilling, contouring, reseeding, monitoring, and wetlands mitigation projects. Also included are indirect costs such as contingency factors for equipment efficiency rates, project management, and inflation. Financial assurance requirements, which in recent years have ranged from 1.2 million to 154.9 million dollars per facility, represent a substantial project cost component.

No State guidelines have been adopted for determining reclamation costs. As a result, calculation,

During discussions regarding borough formation in rural areas, it has become clear that the residents in these areas do not generally endorse payment of taxes themselves to support new local government. If borough formation was effected in these areas, it is possible that the potential tax burden would be placed primarily on the major industry in the region. While the mining industry does expect to pay its fair share of future municipal government costs, if and when it is appropriate to form these local governments, it should do so by an equitable, broad-based tax such as a property tax, not an industry-specific tax such as a severance tax. Without the mitigating effects of a broad-based tax, the mining industry could then end up facing a very onerous tax structure. Such uncertainty serves as a strong disincentive to the very investment and economic diversification that is so vital to rural development.

From the perspective of making the initial decision about whether to invest in Alaska, the unpredictability of future tax liability makes planning difficult. The inability to predict tax burden, and the economic impact, at the development decision stage is a serious disincentive to investment in the state. Placing limits on the extent of new taxes for mining operations would make economic planning more predictable and thereby reduce the disincentive for investment in Alaska.

The Commission Recommends That:

A5a-1) The Governor and the Legislature take steps to improve the investment climate for the mining industry by ensuring that future municipal taxes, especially in those areas presently within unincorporated regions of Alaska, are broad-based, equitable, and stable.

A5B) MINED LAND RECLAMATION AND CLOSURE FINANCIAL ASSURANCE REGULATIONS

FINDING: Reclamation and closure financial assurance for mining activity is authorized through the Department of Natural Resources and the Department of Environmental Conservation Solid Waste Programs. Reclamation and closure financial assurance is provided to secure sufficient funds for the State to ensure a mine site can be fully reclaimed should the mine permittee be wholly or partially negligent in meeting the requirements of the approved reclamation plan.

Calculation of reclamation and closure financial assurance requirements includes direct costs such as removal of infrastructure, backfilling, contouring, reseeding, monitoring, and wetlands mitigation projects. Also included are indirect costs such as contingency factors for equipment efficiency rates, project management, and inflation. Financial assurance requirements, which in recent years have ranged from 1.2 million to 154.9 million dollars per facility, represent a substantial project cost component.



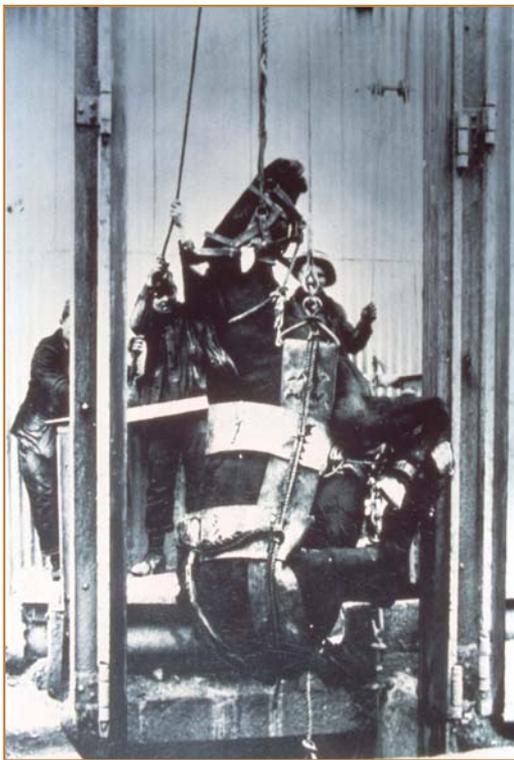
Nome January 28 Rock Creek

No State guidelines have been adopted for determining reclamation costs. As a result, calculation, particularly of indirect costs, is subjective and at the complete discretion of the State permit writer. Disagreement between the permittee and the agencies on these costs is common, with differences in each party's calculations ranging up to 50 % or more. Without approved guidelines, it is not possible for mining companies to meaningfully conduct financial planning for an operation until very late in the permitting process. The unpredictability of this significant financial liability is an unnecessary hardship for developing mines and a deterrent to attracting mining companies to invest in Alaska.

The Commission Recommends That:

A5b-1) The Governor form a working group between members of the mining industry, DNR, and ADEC to develop calculation methods for reclamation and closure financial assurance requirement guidelines.

A5c) LARGE MINE PERMITTING CORE FUNDING



Mule Being Lowered into Treadwell Mine, Douglas Island

FINDING: DNR's Large Mine Permitting Team (LMPT) has the responsibility of coordinating various State agencies, and to the extent possible, federal agencies, and review and authorization of large mine projects in Alaska. LMPT members are paid for their work on projects through Memoranda of Understanding (MOU) with the project proponents and their salaries largely dependent upon this funding. While this user fee substantially reduces cost to State government for large mine projects, core funding from the State general fund is necessary to allow LMPT personnel to perform work that is not directly related to a project that is subject to an MOU. An adequate core budget should be established to assure that funding is available for critical non-project specific items, like training and mine permitting public outreach. Funding for training is necessary to keep personnel at the cutting edge of environmental protection technology and methodology.

Further, opponents of the mining industry occasionally use the MOU structure to criticize DNR. Opponents question whether DNR is influenced by project proponents paying the salaries of the regulators. While it is the view of the Commission that the DNR LMPT conduct themselves in a professional manner free of bias, the potential for a perceived conflict would be removed if core funding was established for some of the activities of the Large Mine Permitting Team, such as training and outreach projects.

The Commission Recommends That:

A5c-1) The Legislature provide core funding within the Large Mine Permitting Team in DNR to pay for essential training and mine permitting public outreach.

A5d) AGENCY RECRUITMENT AND RETENTION

FINDING: Mine exploration, development, operation, and closure are all dependent on permits acquired through ADEC, ADNR, and ADF&G. In order for permits to be thorough, legally defensible, and timely, these agencies must be able to maintain a team of highly skilled, experienced, and motivated mining and environmental professionals. If the State cannot grow its mine permitting capability in tandem with the growth of the industry in Alaska, it risks losing the investment it has made over past decades to attract the industry.

Recruitment and retention of qualified staff can be difficult due to competition from other sectors that offer higher pay scales and other non-cash compensation for professional employees. Additionally, internal policies and procedures on rehire of retired employees, merit increases, and “acting” positions are resulting in employee disincentives.

During 2008, both ADEC and ADNR were able to improve their recruitment rates through the use of professional recruiting consultants, and through the offer of innovative hiring incentives such as flexible scheduling and accommodation of work location preferences.



Shovel Loading, Fort Knox, Fairbanks Area

The Commission Recommends That:

- A5d-1) The Governor ensure that the State increase the cash portion of professional staff compensation so that the State is, at a minimum, competitive with federal agency counterparts, and that the State,
- A5d-2) Institute a definitive policy that allows rehire of retired State employees with no financial disincentive, and that it
- A5d-3) Pay persons that are in “acting” positions at the rate for the new job in which they are working, both for time worked and for vacation time, and that it
- A5d-4) Allow merit increases for persons in “acting” positions, and that it eliminate the “longevity steps” which inhibit merit increases for long term employees, and that it
- A5d-5) Maintain the use of professional recruiters, and that it
- A5d-6) Maintain job location and schedule flexibility for employees.

A5e) MINERALS MARKETING AND FOREIGN TRADE

Until the economic crisis in the fall of 2008, Alaska continued to enjoy growth in minerals exploration as a result of high metal prices, a very well endowed minerals heritage, and a development-friendly administration. Alaska is considered one of the premier locations in the world for mineral exploration and development investment. Most of the exploration funding comes through foreign-based companies, particularly Canada. Interest from Japan and some European countries is also noted. US-based companies are becoming more interested in Alaska as a stable investment opportunity. With the recent change in worldwide economics, Alaska must be even more competitive in the global arena.

FINDING: More aggressive marketing of Alaska’s virtues relative to its minerals endowment and development-friendly administration would further improve exploration investment and enhance other developmental opportunities in the minerals-related industry. The effectiveness of Foreign Trade Offices maintained by the State in Korea, Japan, China, and Taiwan could be enhanced by more

aggressive marketing support. Investments by North American-based companies could be improved by a better marketing effort in strategic locations or through appropriate means. With capital markets in retreat, Alaska needs to accelerate the marketing of its resources and should consider additional value added industries such as smelting and refining metal in state. Alaska is truly one of the best places in the world to explore and develop mineral deposits.

The Commission Recommends That:

- A5e-1) The Governor ensure that the Department of Commerce, Community and Office of Economic Development (OED) work with the Alaska Minerals Commission and the Alaska Miner's Association to provide information, marketing materials, and instruction to the Alaska Foreign Trade Offices in Asia; and
- A5e-2) The Office of Economic Development be provided with adequate funding to expand the presence at domestic and foreign trade shows at which investment in Alaskan mineral exploration, development, and mining projects can be promoted; this funding should be on the level of \$50,000 annually; and
- A5e-3) The State continue with high-level Trade Mission efforts that promote development of coal resources in Alaska; and
- A5e-4) The Governor ensure that the OED investigate the opportunity for value added mineral processing in the state which would provide for a larger tax base, high paying jobs, higher value exports, and a base for manufacturing.

A6) EDUCATION, RESEARCH, AND WORKFORCE

A6a) AMEREF

FINDING: The "Alaska Resource Kit", which is available for use in the statewide public school system, is an excellent program for educating Alaska's students in the issues and fundamentals of resource development. The program provides a broad-based resource education for Alaska's students that is critical to their future ability to make well reasoned decisions about the use and protection of Alaska's wealth of natural resources. The kit incorporates technical, economic, and environmental aspects into a balanced program that addresses mineral, timber, and energy development.



USSR&M's Dredge No. 2 at Nome

AMEREF is supported by the resource industries in partnership with the State of Alaska. The resource industries fund AMEREF's production and replacement of all teaching materials and ensure the technical accuracy of the materials. The resource industries also organize and distribute the education kits. AMEREF is looking to expand the program by obtaining additional funding through various grant programs.

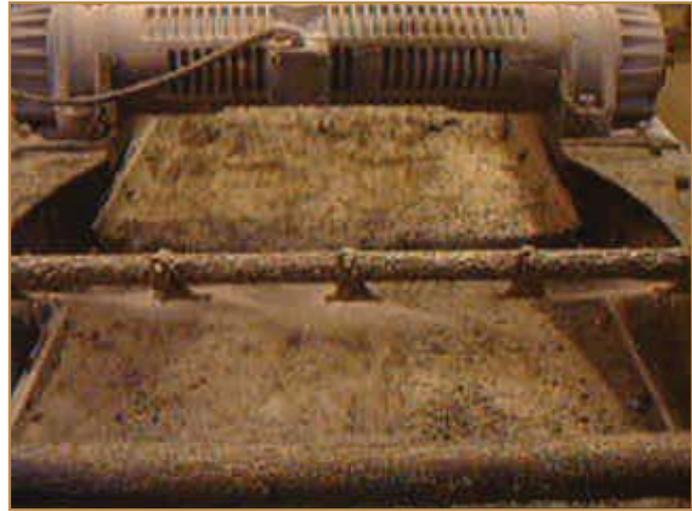
The AMEREF program's successful integration into the State of Alaska school systems has been the result of past cooperative efforts between AMEREF and the Alaska Department of Education. A DOE position was specifically designed to work with AMEREF to ensure that the curriculum was developed in a manner that would meet State standards. This position also provides teacher training to familiarize Alaska teachers with the program and to facilitate its application in the classroom.

The Commission Recommends That:

A6a-1) The Governor and the Legislature should appropriate \$100,000 to the Division of Teaching and Learning Support, Minerals and Energy Education Program for curriculum development of AMEREF. Industry will continue to support all AMEREF materials, but the State's support in funding Department of Education approved curriculum development is essential to the program's integrity.

A6b) COLLEGE OF ENGINEERING AND MINES

FINDING: The College of Engineering and Mines at the University of Alaska Fairbanks (UAF) has been educating engineering students since 1915 when the school was founded as the Alaska Agriculture College and School of Mines. UAF recently integrated the School of Mineral Engineering (SME) and its degree programs into the College of Engineering and Mines (CEM). The integrated program, located on the Fairbanks campus (UAF), now offers undergraduate and graduate degree programs in mining engineering, geological engineering, and petroleum engineering as well as electrical engineering, mechanical engineering, and civil engineering. The program also offers a graduate level degree in mineral processing.



Modern Milling, Kinross

Two essential components of a successful engineering program at UAF include faculty and student recruiting. The CEM is well positioned with respect to scholarships that it can offer to undergraduate and graduate students and it has established an aggressive recruiting program that should bear fruit in the future. Faculty recruiting on the other hand is more problematic, in that there is a high demand for well trained and experienced professionals in the minerals industry.

In order for the University of Alaska to continue to be successful in the development of world class engineers, the Legislature and the University must fund these essential programs through the University's budget at a level that ensures continuation of these programs. The retention of faculty and staff and the recruitment of new staff are essential to the long term success of CEM.

A new source of Federal funding for Accreditation Board for Engineering and Technology (ABET) accredited educational programs is the Energy and Mineral Schools Reinvestment Act (EMSRA) which would provide funds for existing programs at accredited petroleum and mining schools, applied geology and geophysics programs, and to individuals for degrees in petroleum and mining engineering, petroleum/mining geology and geophysics, and mineral economics.

Since the dissolution of the U.S. Bureau of Mines, there has been a need to develop an alternative source of funding to support academic and research activities within ABET accredited universities related to mineral exploration, mining, mineral processing, and mine reclamation.

In June 2006, the U.S. House of Representatives passed a bill entitled the Energy and Mineral Schools Re-investment Act. The House bill would have provided a defined source of funding for universities with ABET accredited programs in geological, mining, mineral processing, and petroleum engineering. The total expected annual designated funding for these universities was on the order of \$200 million. The legislation failed to pass the Senate.

The State would benefit greatly by a general public education program that raises awareness of both the potential of the industry and the rigorous permitting and review procedure that any new mining project will face. Such a program would have a positive influence on the attitude of residents of the state toward the minerals industry by encouraging good science to be used as the criteria for project evaluation. This will positively reflect on the acceptance of mining projects throughout the state and encourage further investment of risk capital.

The Commission Recommends That:

- A6d-1) The Governor, Administration, and Legislature fund a Statewide Minerals Education & Promotion Program intended to educate the public about the minerals industry; the needed funding is estimated to be \$750,000; the program would be implemented as soon as funded and is expected to be conducted during FY2010 and FY2011.
- A6d-2) The program should be assigned to the Department of Commerce, Office of Economic Development to work in concert with the Minerals Section and LMPT of the Department of Natural Resources.
- A6d-3) The program should be managed by a committee comprised of 7 – 9 members of State government, native corporations, industry, and non-government volunteers and led by the Office of Economic Development.

Part B

Federal Issues Of State Concern

B1) COAL PROGRAM FUNDING

FINDING: The Alaska coal regulatory program (Alaska Program) is jointly funded by the federal and state government (50/50 matching grant from the Office of Surface Mining). Appropriations for regulatory grants to western states have not kept pace with increases in coal production and the related regulatory workload.

Alaska's program has 3.75 full time equivalent positions including geologists, a manager, a grants specialist, and administrative support staff.

Demands on the Alaska Program continue to grow. During 2009, the program could be working on four new surface mine projects. In addition to the expected new mining permits, there has been continued interest in exploring for coal in new areas or areas of the state that have, up to now, been dormant. BHP Billiton is exploring on 1.7 million acres on the Western Arctic Coal exploration Project on the North Slope of Alaska. There has been renewed interest in the Bering River and Mat Su Valley coal fields and numerous requests for general information on coal resources throughout the state.



Usibelli Coal Mine Modern Dragline Healy

Remote locations of many of these projects add to the operating costs of the coal program. Inspection a remote location such the Western Arctic exploration program may cost several thousands of dollars.

Legal costs are also mounting for the coal program. In 2007 the Alaska Coal Program received a Lands Unsuitable for Surface Coal Mine Operations petition for the Chuitna Watershed. The petition covers approximately 150 square miles with only a portion overlapping the Chuitna Coal Project. The Alaska Program expects to incur legal fees associated with the petition.

The Commission Recommends That:

- B1-1) The Governor and Legislature encourage the Alaska Delegation to seek full funding for Alaska's Coal Regulatory Program.

B2) PRIVATE INHOLDINGS IN NATIONAL PARKS



Rock Creek Pit 2008

FINDING: The economic constitutional rights of private property owners, including owners of valid mining property in-holdings within National Parks in Alaska must be recognized, protected, and respected. Action is needed to resolve the political and economic realities related to mineral development in National Parks given: (1) the need for administrative finality (denial/approval of proposed mining operations), (2) constraints within the federal acquisition program, and (3) NPS responsibility to protect park resources.

The Alaska delegation previously sponsored legislation which allowed for miners who owned mining property within the Denali National Park to unilaterally move their property into a takings process whereby the courts and Department of Justice settled the matter of value. Perhaps a

similar concept supported by legislation should apply to all private property within other National Parks in Alaska. This process moved the controversy and rhetoric away from the direct interaction between NPS and the miners and set in motion an alternative approach. The Mining EIS preferred alternative was to acquire properties from willing sellers as this provided protection of park resources. Selected properties will include those for which the owner is entitled to fair market value based on a delineated mineral resource and considering pre-Park conditions.

The Commission Recommends That:

- B2-1) The Governor and the Legislature work with Federal Government to allow Alaska mineral property holders in National Parks to move their properties into a takings process where the courts and the Department of Justice settle the issue of valuation fairly and equitably considering pre-Park conditions.

Appendix A

Enabling Legislation

Chapter 98 Session Laws of Alaska, 1986 As Amended by Chapter 12 Session Laws of Alaska, 1998

AN ACT

Relating to the Alaska Minerals Commission; and providing for an effective date.

Section 1(a) The Legislature finds that the minerals industries, including metallic minerals, industrial minerals, and hydrocarbons, have traditionally and continue to be the major source of wealth and income in the state.

(b) The Legislature further finds that there are major constraints on the continued development of a diverse mineral industry in the state, including the Environmental Protection Agency's effluent guidelines, state water quality standards and improperly classified streams and rivers, restriction on surface access, complex and numerous permitting requirements, and limited access to minerals through mineral closing orders and restrictions on multiple use through state and federal land use plans.



Treadwell Mill, Douglas Island

Section 2. ALASKA MINERALS COMMISSION ESTABLISHED. (a) The Alaska Minerals Commission is established in the Department of Commerce and Economic Development.

(b) The Commission is composed of 11 members. The Commission shall be composed of individuals who have at least five years' experience in the various aspects of the minerals industries in the state. The Governor shall appoint five members of the Commission, one of whom must reside in a rural community. The President of the Senate shall appoint three members of the Commission. The Speaker of the House of Representatives shall appoint three members of the Commission. Each member serves at the pleasure of the appointing authority.

(c) The Commission shall make recommendations to the Governor and to the Legislature on ways to mitigate the constraints, including governmental constraints, on development of minerals, including coal, in the State.

(d) The Commission shall report its recommendations each year to the Governor and the Legislature during the first 10 days of the regular session of the Legislature.

Sec. 3. This Act is repealed February 1, 1994.*

Sec. 4. This Act takes effect immediately in accordance with AS 01.10.070(c)

*Note: The Act was amended to extend the life of the Commission to February 1, 2014.

Appendix B

Alaska Minerals Commission

STATEMENT OF PURPOSE

The Alaska Minerals Commission was created by the 14th Legislature in Chapter 38 of the Session Laws of 1986 and was established to make recommendations to the Governor and to the Legislature on ways to mitigate constraints on the development of minerals in the State.

The minerals industry offers the greatest potential of any Alaska industry for expanding and diversifying the State's economic base, for increasing Statewide employment, and for generating new wealth to create businesses and provide revenues for State and local governments.

However, Alaska has a complex pattern of land ownership and management; has overlapping and uncertain regulatory requirements; has unique geographic, geologic and climatic conditions; and has an undeveloped transportation system.

To attract the capital necessary for the exploration and development of new mines, to ensure that mines can be developed feasibly and in a timely fashion, and to ensure that producing mines remain viable, constraints on the industry must be mitigated.

The Alaska Minerals Commission will prepare reports for the First and Second Sessions of the 15th Legislature and the First Session of the 16th. Legislature, recommending to the Governor and to the Legislature the adoption of legislation and the implementation of administrative policy that will best accomplish the statement of policy found in Article VIII of the Constitution of Alaska:

"It is the policy of the State to encourage the settlement of its land and development of its resources by making them available for maximum use consistent with the public interest."

And the statement of policy found in the President's National Materials and Minerals Report to Congress of April 5, 1982:

"It is the policy of this administration to decrease America's mineral vulnerability by taking positive action that will promote our national security, help ensure a healthy and vigorous economy, create American jobs, and protect America's national resources and environment."

The goals and recommendations of the Alaska Minerals Commission are to assure that the Legislature and the State administration endorse and promote development of a viable mining industry in the state.

Appendix C

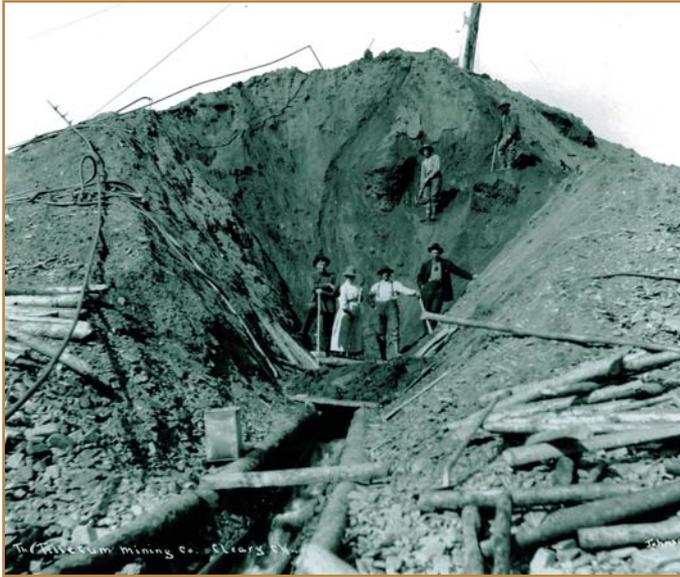
Mineral Policy Act

Sec. 44.99.110. Declaration of state mineral policy. The Legislature, acting under Art. VIII, sec. 1 of the Constitution of the State of Alaska, in an effort to further the economic development of the state, to maintain a sound economy and stable employment, and to encourage responsible economic development within the state for the benefit of present and future generations through the proper conservation and development of the abundant mineral resources within the state, including metals, industrial minerals, and coal, declares as the mineral policy of the State that

- (1) mineral exploration and development be given fair and equitable consideration with other resource use in the multiple use management of state land;
- (2) mineral development be encouraged through reasonable and consistent non-duplicative regulations and administrative stipulations;
- (3) mineral development and the entry into the marketplace of mineral products are considered in developing a statewide transportation infrastructure system;
- (4) mineral development be encouraged through appropriate public information and education, scientific research, technical studies, and the University of Alaska program involvement; and
- (5) economic development with respect to the state mineral industry is encouraged with Pacific Rim nations (Sec.1 Ch. 138 SLA 1988).

Photo Credits

Description	Photo Page	Source/Credit
Marble Quarry, Calder, Prince of Wales Island.....	Page 6	Candy Waugaman
Stamp Mill, Treadwell Mine, Douglas Island	Page 1	Candy Waugaman
Beach Mining, Nome	Page 3	Candy Waugaman
Dome Creek Drift Mine. Olnes, Alaska. Fairbanks District.....	Page 4	Candy Waugaman
USSR&M's Dredge No. 2 at Nome	Page 16	Candy Waugaman
Rocking for Gold, Dry Creek, Nome	Page 12	Candy Waugaman
Treadwell Mill, Douglas Island.....	Page 21	Candy Waugaman
Town of Kennecott, Wrangell-St. Elias.....	Front Cover	Candy Waugaman
Dog Cart on Railway, Nome Area	Front Cover	Candy Waugaman
USSR&M's Dredge No. 2 at Nome	Back Cover	Candy Waugaman
Tillecum Mining Company, Cleary Creek, North of Fairbanks.....	Back Cover	Rich Hughes
Mule Being Lowered into Treadwell Mine, Douglas Island	Page 14	Lance Miller
Rock Creek Pit 2008.....	Page 20	Lance Miller
Nome January 28 Rock Creek	Page 13	Lance Miller
Banner Wind & Rock Creek.....	Back Cover	Brian Jackson
Pogo Facilities	Page 5	Teck Cominco - Steve Newkirk
Dredge,Cripple Mountain Area Bear Creek	Front Cover	Alamin Mining Company - Jim Halloran
Fort Knox Pit, North of Fairbanks.....	Front Cover	Rich Hughes
Shovel Loading, Fort Knox, Fairbanks Area	Page 15	Rich Hughes
Exclusive Paving Dredge Fairbanks.....	Back Cover	Exclusive Paving
Greens Creek Mine, Juneau	Front Cover	Greens Creek Mining Rich Heig
Modern Milling, Kinross	Page iv	Kinross 2006 AMA Presentation
Modern Milling, Kinross	Page v	Kinross 2006 AMA Presentation
Modern Milling, Kinross	Page 13	Kinross 2006 AMA Presentation
Modern Milling, Kinross	Page 17	Kinross 2006 AMA Presentation
Red Dog Port Delong Mountain Terminal	Page 7	Teck Cominco Alaska Incorporated
Usibelli Coal Mine Modern Dragline Healy	Page 19	Rich Hughes



Tillecum Mining Company, Cleary Creek, North of Fairbanks



Exclusive Paving Dredge, Fairbanks



Banner Wind & Rock Creek, Nome



USSR&M's Dredge No. 2 at Nome



This publication was released by the Department of Commerce, Community, and Economic Development. Its purpose is to report the findings and recommendations of the Alaska Minerals Commission to the Governor and to the Legislature of Alaska. It was produced at a cost of \$3.63 per copy and printed in Fairbanks, Alaska. This publication is required by Chapter 98, Session Laws of Alaska, as amended by Chapter 4, Session Laws of Alaska, 1993.