ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672
5458 SRES SB 94 - SB 98

(030

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: JOHN LOPETRONE
TITLE:
ADDRESS: 10601 NAKUSKIN
CITY: ANCHORAGE ZIP: 99502
PHONE: 349-8419
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I AM IN SUPPORT OF SB 94.

POMID: 03122935
DATE: 02/16/87
TIME: 12:29:35
LIONAME: ANCHORAGE LIO

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: SUE FISHER
TITLE:
ADDRESS: GENERAL DELIVERY
CITY: CHICKEN, ALASKA ZIP: 99732
PHONE: N/A-
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I AM CONTACTING YOU IN SUPPORT OF SENATOR JACK COGHILL'S BILL, SB 94. I AM SUPPORTING THE BILL FOR SEVERAL REASONS, THE MINER NEEDS TO BE ABLE TO PROTECT HIMSELF AND HIS INDUSTRY FROM ENVIRONMENTAL GROUPS AND TO BE ABLE TO CONTINUE THE DEVELOPMENT OF MINERAL DEPOSITS. THE WAY IT STANDS RIGHT NOW THE MINER IS BEING REGULATED "OUT OF BUSINESS."

POMID: 03093340
DATE: 02/17/87
TIME: 09:33:40
LIONAME: ANCHORAGE LIO

COPIES: REPRESENTATIVE

SHULTZ

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: BILL FISHER
TITLE:
ADDRESS: GENERAL DELIVERY
CITY: CHICKEN ZIP: 99732
PHONE: N/A-
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I AM CONTACTING YOU IN SUPPORT OF SENATOR COGHILL'S BILL #94. I AM SUPPORTING THE BILL FOR SEVERAL REASONS. MINERS NEED TO BE ABLE TO PROTECT THEMSELVES AND THEIR INDUSTRY FROM ENVIRONMENTALIST GROUPS AND BE ABLE TO CONTINUE THE DEVELOPEMENT OF MINERAL DEPOSITS. THE WAY IT STANDS TODAY, THE MINER WILL BE REGULATED OUT OF BUSINESS.

POMID: 03091252
DATE: 02/17/87
TIME: 09:12:52
LIONAME: ANCHORAGE LIO

COPIES: REPRESENTATIVE

SHULTZ

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: RICHARD BURTON
TITLE:
ADDRESS: BOX 1
CITY: CHICKEN, ALASKA ZIP: 99732
PHONE: N/A-
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I AM IN SUPPORT OF SEN. COGHILL'S BILLB BECAUSE THIS IS IN SUPPORT OF THE MINERS.

EOM/MW

POMID: 07135042
DATE: 02/11/87
TIME: 13:50:42
LIONAME: FAIRBANKS LIO

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Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: JOHN C. THOMAS
TITLE:
ADDRESS: 2994 DYKE RD.
CITY: NORTH POLE ZIP: 99705
PHONE: 488-1879
BILL NO: SB 94
SUBJECT: MINERAL POLICY FOR STATE
MESSAGE: I SUPPORT SENATE BILL 94. ALASKA MUST HAVE AN ECONOMY IN ORDER FOR US TO FEED OUR CHILDREN. A GOOD MINERALS POLICY MEANS JOBS. SUPPORT A CONTRIBUTION TO THE ECONOMY, SUPPORT MINING. WE NEED JOBS. VOTE YES FOR SENATE BILL 94.

POMID: 07104824
DATE: 02/16/87
TIME: 10:40:24
LIONAME: FAIRBANKS LIO

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DONLEY	ABOOD
ELLIS	JONES
HOFFMAN	
HUDSON	
MENARD	

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: TERRY LORD
TITLE: SOURDOUGH GUNS
ADDRESS: 279 PAYSTREAK DRIVE
CITY: FAIRBANKS ZIP: 99712
PHONE: 457-8663
BILL NO: SB 94
SUBJECT: MINERAL POLICY
MESSAGE: I FIRMLY SUPPORT YOUR BILL TO HELP THE MINING INDUSTRY BACK ON IT'S FEET. I BELIEVE OUTSIDE ENVIRONMENTAL INTERESTS HAVE TOO LONG DICTATED WHAT THE ALASKAN MINING INDUSTRY CAN DO OR NOT DO. I SUGGEST EACH ENVIRONMENTA GROUP GO TO THEIR HOME STATE TO CONTROL PRACTICES OF MAJOR CHEMICAL- OIL, STEEL INDUSTRIES THAT DO FAR MORE DAMAGE TO A GREATER CONCENTRATED POPULATION THAN THE SMALL ALASKAN MINING INDUSTRY DOES. CLEAN UP THEIR OWN POLLUTED AREA.

POMID: 07110018
DATE: 02/09/87
TIME: 11:00:18
LIONAME: FAIRBANKS LIO

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: ORVAL HOLMES
TITLE:
ADDRESS: 1616 SUNCHA CIRCLE
CITY: FAIRBANKS ZIP: 99709
PHONE: 456-2582
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I AM IN SUPPORT OF SB94. WE NEED SOMETHING ALONG THOSE LINES.

AN

POMID: 07102032
DATE: 02/25/87
TIME: 10:20:32
LIONAME: FAIRBANKS LIO

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DAVIS	BENNETT
FRANK	
KOPONEN	
MILLER	

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: CARL JOHNSON
TITLE:
ADDRESS: 822 SKYLINE DRIVE
CITY: FAIRBANKS ZIP: 99712
PHONE: 457-2011
BILL NO: SB 94
SUBJECT: MINERAL POLICY FOR THE STATE
MESSAGE: ALASKA NEEDS A STATUTE SUCH AS SB94. THIS IS A STEP IN THE RIGHT DIRECTION TOWARDS PROVIDING BETTER BALANCE TO GOVERNMENT "ASSISTANCE" PROGRAMS FOR MINERAL DEVELOPMENT. MINERAL POLICY FOR STATE GOVERNMENT NEVER HAS BEEN A DIRECT AND POSITIVE MANDATE FROM THE LEGISLATURE AND HOPEFULLY PASSAGE OF THIS LEGISLATION WOULD PROVIDE THAT. AN

POMID: 07140116
DATE: 02/11/87
TIME: 14:01:16
LIONAME: FAIRBANKS LIO

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ZHAROFF
BENNETT
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PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: JOHN HANDELAND
TITLE: MAYOR, CITY OF NOME
ADDRESS: BOX 281
CITY: NOME ZIP: 99762
PHONE: 443-2175
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: AS A COMMUNITY IN AN AREA OF PROVEN MINERAL RESERVES, AND RECOGNIZING THE NEED FOR ECONOMIC DEVELOPMENT, ESPECIALLY IN LIGHT CURRENT STATE FINANCIAL CONDITIONS, WE ARE IN SUPPORT OF SENATE BILL 94 AND URGE IT'S PASSAGE.

POMID: 11161529
DATE: 02/10/87
TIME: 16:15:29
LIONAME: NOME INFORMATION OFFICE

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STURGULEWSKI
DUNCAN
ZHAROFF
ELIASON

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: RON ENGSTROM
TITLE: PRES.-NOME CHAPTER AK MINERS ASSOC.
ADDRESS: BOX 536
CITY: NOME ZIP: 99762
PHONE: 443-2586
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: THE NOME CHAPTER-ALASKA MINERS ASSOCIATION STRONGLY SUPPORTS YOUR EFFORTS ON SENATE BILL 94---ADOPTING A MINERAL POLICY FOR THE STATE.

POMID: 11160948
DATE: 02/10/87
TIME: 16:09:48
LIONAME: NOME INFORMATION OFFICE

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FAIKS
BENNETT
FAHRENKAMP
UEHLING

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: DON ROBERTS
TITLE:
ADDRESS: BX 1101
CITY: NOME ZIP: 99762
PHONE: 443-5933
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: AN EXCELLENT BILL THAT RE-AFFIRMS AND IMPLEMENTS THE STATE CONSTITUTION AND DEFINES MINING AS A PRIORITY USE.ALSO THE LAST PARAAGRAPH COULD PROVIDE A VEHICLE FOR CLASS ACTION SUITS AGAINST OBSTRUCTIONIST MILITANT STOP ALL PROGRESS ORGANIZATIONS HERE UNNAMED EXCELLENT. PLEASE MOVE IT FORWARD.

POMID: 11155153
DATE: 02/11/87
TIME: 15:51:53
LIONAME: NOME INFORMATION OFFICE

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DAVIDSON
HERRMANN
HOFFMAN
NAVARRE
PEARCE
SHULTZ
SPRINGER
SUND
SPRINGER

DUNCAN
ELIASON
FISCHER
JONES
STURGULEWSKI
ZHAROFF
HENSLEY

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: FRED PAYTON
TITLE:
ADDRESS: BOX 925
CITY: NOME ZIP: 99762
PHONE: 443-2177
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I SUPPORT SB 94. THE PASSAGE OF THIS BILL WILL BE HELPFUL FOR THE STATES FUTURE.

POMID: 11132536
DATE: 02/13/87
TIME: 13:25:36
LIONAME: NOME INFORMATION OFFICE

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	ADAMS	BARNES	ABOOD
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	MARTIN	PETTYJOHN	DUNCAN
	SHULTZ	ULMER	ELIASON
			FAHRENKAMP
			FAIKS
			FISCHER
			HALFORD
			HENSLEY

Bruce

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: ELMER MARTINSON
TITLE:
ADDRESS: BOX 452
CITY: NOME ZIP: 99762
PHONE: 443-2139
BILL NO: SB 94
SUBJECT: STATE MINERAL POLICY; CIVIL ACTION
MESSAGE: I SUPPORT SB 94. I URGE YOUR SUPPORT ALSO.

POMID: 11132054
DATE: 02/13/87
TIME: 13:20:54
LIONAME: NOME INFORMATION OFFICE

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MENARD	MILLER	KELLY
NAVARRE	PEARCE	KERTTULA
PETTYJOHN	PHILLIPS	RODEY
POURCHOT	RIEGER	STURGULEWSKI
SHULTZ	SPRINGER	SZYMANSKI
SUND	SWACKHAMMER	UEHLING
TAYLOR	ULMER	ZHAROFF
WALLIS	ZAWACKI	

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: JACK DUNLAP
TITLE:
ADDRESS: BOX 326
CITY: THORNE BAY ZIP: 99919
PHONE: N/A-
BILL NO: SB 94
SUBJECT: STATE M ERAL POLICY; CIVIL ACTION
MESSAGE: I WHOL .IEARTILY SUPPORT SB 94. IT IS HIGH TIME THE STATE REALIZES THE ECONOMIC POTENTIAL OF ALASKA'S NATURAL RESOURCES AND SETS OUT A PLAN TO RECOVER WHAT HAS BEEN LOST DUE TO THE LEGISLATORS LACK OF PLANNING AND SHORT SIGHTINESS.

POMID: 03123139
DATE: 02/16/87
TIME: 12:31:39
LIONAME: ANCHORAGE LIO

COPIES: SENATORS

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BACK TO GOLD
The Star Lake mine puts Saskatchewan back in the gold business. Page 3

NOTHING TO FEAR?
State-owned mines may not be the threat they appear to be. Page 13

CUTTING THE SO_2
Inco is working hard at reducing sulphur dioxide emissions. Page 15

The Northern Miner

Founded 1915

Hemlo Gold shares flow back to Canada

by James Barland

As much as $20-million worth of stock in **Hemlo Gold Mines**, one-fifth of the shares sold by **Noranda Inc.** in Europe, came back to Canada within two days of the initial public offering, estimates one industry analyst.

Noranda put 12.2 million shares of the company up for sale at $19.25 Feb 3 reducing its stake in the recently-formed company to 50.1% from 62.4%. Hemlo Gold owns and operates the Golden Giant gold mine at Hemlo, Ont., expected to produce more than 300,000 oz of gold a year by the time it reaches full production in late 1988.

The issue, although one of the most eagerly awaited of any Canadian gold mining issue because of the quality of the Hemlo property, is reported to have met with some resistance in Europe because of the price. With 87.3 million shares outstanding, the company will have the largest market capitalization of any Canadian gold mining issue including such well established producers as Campbell Red Lake Mines, Placer Development and Echo Bay Mines.

Hemlo Gold, however, has about $200 million in debt and will have very little in the way of cash – none of the proceeds of this issue will be received by the company – thereby impairing its potential to grow.

In fact, a rights issue is anticipated shortly in order to finance expansion of production at Hemlo and to finance future exploration and possible acquisitions.

In Canada, however, demand has apparently been greater than could be met by the seven million shares sold here by Noranda. As a result, up to a million of the shares alloted for Europe were sold there and quickly sold back into Canadian hands within two days of the issue.

Hemlo Gold is seen by mining analysts worldwide as a core holding for investment portfolios. With proven and probable ore reserves of 23 million tons grading 0.283 oz gold per ton, it is expected to be a major, low-cost (about $110(US)) gold producer for at least 25 years.

By the same token, however, some analysts says there is little upside potential for speculation in the issue. It will almost certainly be a steady money maker for years, but its ability to grow is not so evident.

See Page 2

Partners reviewing Golden Pond study

The Golden Pond feasibility study has been completed by Inco Ltd. and is being reviewed by the project partners, an Inco spokesman tells The Northern Miner. The Golden Pond project, located in Casa Berardi and Dieppe twps., Que., hosts drill-indicated reserves of 7.2 million tonnes grading 0.25 oz gold per ton. Teck Corp., which has a 30% interest in Golden Knight Resources, Inco's partner, is involved in the feasibility review. Inco says the review should take less than two months to complete.

At that time, The Northern Miner expects the partners will announce a production decision. Golden Knight, which holds a 40% interest in the project, has soared to new highs on the Toronto Stock Exchange trading over $17. Inco holds a 60% interest in the project. Inco President Donald Phillips notes that all of his company's gold projects, including Golden Pond, could be in production by 1989. Inco has gold properties in Brazil and the U.S.

North American Metals sees production potential

by David Duval

VANCOUVER – The Golden Bear project near Dease Lake, B.C., is proving to be one of the more exciting exploration plays in the province. **North American Metals** is conducting a major underground drilling program there which it expects will prove up sufficient reserves for production.

A $2.5-million underground development program is also under way on the 1,400 level drift which will be extended some 2,000 ft north of the Bear deposit. The purpose of the program is to test an area that was first intersected by two surface drill holes, one averaging 0.22 oz gold across 6.6 ft and the other 0.14 oz over 26.6 ft. This area is 2,800 ft south of the Fleece deposit where joint venture partner **Chevron Minerals** has established inferred reserves of 660,000 tons grading 0.2 oz.

The current drill program, which is designed to block out reserves below the 1,400 level, is progressing smoothly and indeed has generated some impressive assay

See Page 2

Gold production 480,000 oz for Echo Bay Mines in 1987

With 480,000 oz of gold estimated to be produced this year, output has more than quadrupled for Edmonton-based **Echo Bay Mines** from the 118,600 oz poured back in 1983 from its then-only gold mining operation, the Lupin mine in the Northwest Territories.

Now some four years and the acquisition of five mines later, Echo Bay has become the country's second largest gold producer. The way things look now, it will be surpassed only by the **Dome Mines** group of companies, which last year produced 553,000 oz of the yellow metal. Estimated production from the Dome group for this year is still unavailable.

Most of the increase in Echo Bay's production will come through a full year's production not only at the three producing Nevada mines acquired from Tenneco Inc. last fall but also at the Sunnyside mine in southwestern Colorado.

Looking at 1986, the Edmonton-based company produced 320,693 oz., up 21% from the 264,511 oz produced in 1985.

The increased gold production has certainly perked up the company's bottom line. Net earnings for the year ended Dec 31, amounted to $25.9 million(US), or 61¢ per share, a substantial jump over the $15.2 million or 38¢ per share posted in the previous year.

Revenues were $126.1 million in 1986 based on an average realized gold price of $367 per oz, up from $83.8 million at an average price of $324 per oz in 1985.

Fourth-quarter net earnings were $9 million or 20¢ per share versus $5.2 million or 13¢ per share in the 1985 quarter. Revenues were $46.4 million based on an average gold price of $399 per oz, compared with 2.7 million at $334 per oz.

The company has changed from Canadian to U.S. dollar reporting, effective with its Dec 31 financial statements to "reflect the growing international nature of Echo Bay's shareholders and to conform with the currency in which gold is generally traded."

Northair drilling

'Spectacular' intersection

VANCOUVER – Recent drill results from Northair Mines' Wilta gold project in southeastern B.C. included one spectacular intersection grading 1.4 oz over 59 ft. According to Donald A. McLeod, president, check assays (fire) were even higher and he notes the cut value was 0.52 oz over that same length.

The company is conducting a $500,000 exploration and development program on the property which, after completion, will give it a 56% interest. **BP Selco** and **Rio Algom** are also involved.

The current program includes 950 ft of drifting and crosscutting plus 7,800 ft of underground diamond drilling in 49 holes. More than half the drill program has been completed and the high grade hole was one of five released. The remaining results included 14.1 ft of 1.4 oz, 32.8 ft of 0.21 oz, 20.3 ft averaging 0.16 oz and 39.4 ft grading 0.15 oz.

Mr McLeod tells The Northern Miner that an "in-house" feasibility study has been completed for the project and he feels it is definitely viable. He says the production decision would include moving the dormant Northair mill near Squamish to the Wilta property and expanding the facility. The new expanded rate would be from 400 to 600 tons per day, he adds.

Photo by The Northern Miner

I. Michael Rubison (left), counsel at Aird & Berlis, and Robert Parsons, author of "Canadian Mining Taxation," talk shop at last week's seminar on recent developments in mine financing and flow-through shares, held in Toronto.

$750 million to be raised in '87

Flow-through will survive federal budget, experts say

by Thomas Loree

Come budget day (Feb 18), it's unlikely that federal Finance Minister Michael Wilson will shoot down, or even wound, flow-through share financing for mineral exploration. That was the consensus at a seminar on new developments in mine financing, held recently in Toronto.

Describing flow-through as "the engine that's driving the Canadian mining sector," mining consultant Edward Thompson said he doesn't believe Mr Wilson will tamper significantly with the popular tax incentive.

"He would, indeed, be very foolish to kill this golden bird," Mr Thompson said. "Although politicians sometimes make silly decisions, Mr Wilson has come through as a very intelligent minister in the discussions I've had with him."

There has been considerable speculation that Mr Wilson will eliminate, or seriously weaken, flow-through financings – either in this month's budget or in a tax reform paper expected sometime in the spring. Flow-through shares provide investors with considerable tax breaks for investing in junior companies which perform exploration work. The federal government allows a tax writeoff of $1.33 for every dollar spent. A typical flow-through share issue allows two types of deductions: a 100% deduction on account of "Canadian exploration expense;" and a 33⅓% deduction on account of "mining exploration depletion allowance."

See Page 21

Mining industry 'a priority' B.C. premier tells Chamber

VANCOUVER – Without giving any specifics, the premier of British Columbia told a B.C. & Yukon Chamber of Mines luncheon that deregulation will be a top priority for his government.

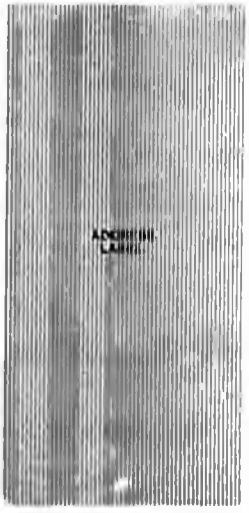
According to William Vander Zalm, a major emphasis has been placed on "removing red tape" and eliminating regulations that have hindered economic growth in the past. He claimed deregulation would help the mining industry which he said was "a priority in the province."

Mr Vander Zalm also pointed out that B.C. was seeking further help for the mining industry "along the lines of the previous federal-provincial agreement." This was a reference to the ERDA mineral agreement into which the two levels of government contributed a total of $10 million for mineral exploration in B.C. over a 5-year period.

B.C. Premier Vander Zalm

That expenditure was well below what was allocated for several smaller sectors of the provincial economy which caused an uproar in the mining community at the time. Lorne E. Sivertson, assistant deputy minister energy, mines and petroleum resources, told The Northern Miner that discussions will be held this March with the

See Page 2



New ore zone for Geodome at gold project in Idaho

Discovery of a new ore zone is reported by Geodome Resources at its gold project near Hailey, Idaho.

The company says the new zone was discovered through its U.S. subsidiary, Sunbeam Mining Corp., as the result of the latter's recently completed drill program.

The zone is outside of and to the north of its proposed open pit mine, Geodome says, and requires drilling and sampling because the zone is open and undelineated on several sides.

The company expects its final feasibility study by the end of February. Construction and preproduction stripping would start in the summer this year, with gold production beginning late this year or early next.

Drill proven reserves are estimated at 4,000,000 tons of 0.07 oz gold per ton.

A year-round vat leaching plant is planned to eliminate the effects of cold weather and environmental concerns.

Geodome has applied for listing on the Toronto Stock Exchange, and expects approval "in the near future."

Texpet Oil & Gas has changed its name to CCW Systems Ltd. on a share-for-share basis.

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MINERAL EXPLORATION CLASSES

The Ontario Geological Survey will present classes in mineral exploration, February 23 to 27 inclusive. Classes will be held from 7 to 10 p.m. in the Ontario Room, Macdonald Block, 900 Bay Street, Toronto. Registration is from 6:30 to 7 p.m.

- Mineral and rock identification
- Elementary geology and prospecting techniques

SPECIAL TOPICS COURSE

A series of special lectures on gold, gem stones, platinum, the market outlook and prospecting organized by the Prospectors and Developers Association of Canada. Lectures will be held from 7:30 to 9:30 p.m. in the St. Clair Room, Macdonald Block, 900 Bay St., Toronto from March 2 to 6 inclusive.

Free admission to both

Registration is at the classes.

Mines and Minerals Division
Ministry of Northern Development and Mines
Ontario

CAPE BRETON DEVELOPMENT CORPORATION

The Cape Breton Development Corporation a Federal Crown Agency engaged in underground coal mining will have the following equipment surplus to its requirements by February 28, 1987.

1 LOVAT M-300 TUNNEL BORING MACHINE

The M-300 is a fully shielded open face rock boring machine with a bore diameter of 25 feet.

The machine has a back-up system for maintaining all required services including electrics, hydraulics, ventilation, dust control, cooling storage, repair, etc. Included with the machine are all the auxiliary systems both electrical and hydraulic.

This machine has driven 5.5 km of tunnel at rates of up to 125 meters a week.

1 ERECTOR TRANSPORTER

The Erector Transporter (ET) is a combination low-head mobile crane/straddle carrier designed and built by the Beaver construction Group Limited of Montreal, Canada, to facilitate the assembly and dismantling of the Lovat Tunnel Boring Machine within the narrow confines of the tunnel bore. Disassembly of the Lovat 25 foot diameter Tunnel Boring Machine was accomplished in just over two weeks using the Erector Transporter as against an estimated eight weeks by normal means.

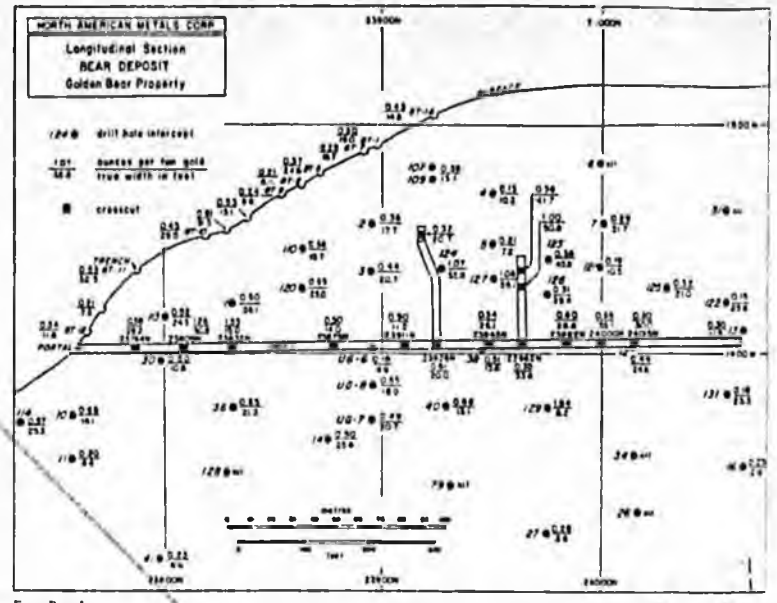
The above items are located at Donkin Morien Mine, Cape Breton, Nova Scotia and may be viewed by contacting Philip MacLennan, Asset Disposal Officer at (902) 564-2786.

All items are offered "as is" and "where is" without any guarantees or warrantees expressed and/or implied. The seller will not be responsible in any way, for any errors or omissions in the description or condition of any items included in this article.

The tunnel boring machine will be in operation until Feb. 11, 1987, which at that time we will start to dismantle.

William Reid,
Director of Purchasing/Inventory Control
Cape Breton Development Corporation
P.O. Box 2500,
Sydney, Nova Scotia
B1P 6K9

North American Metal



From Page 1

results. These included 11.1 ft of 1.24 oz, 18 ft averaging 0.55 oz, 20.7 ft grading 0.39 oz and 30.4 ft averaging 0.36 oz.

Assay results from crosscut and raise headings have also been encouraging and values included 50.8 ft of 1.9 oz, 11.2 ft grading 0.9 oz, 35.1 ft of 0.55 oz and 41.7 ft of 0.36 oz. The company confirms there appears to be some upgrading of drill hole values with underground development.

The company drove a drift through the centre of a carbonate unit between the footwall and hangingwall zones, then ran crosscuts into the main mineralized area for sampling purposes. The walls of these crosscuts were tested by percussion drilling and Jeff Franzen, project engineer, claims that "some of the results have been very spectacular."

He says the discovery is basically a vein-type deposit which occurs within a 4.5-mile-long fault structure. Gold has been localized along this structure and some very "broad mineralized structures have been found," he states. The consistency of the grade has been impressive and Mr Franzen feels the "nugget effect has been virtually zero."

North American has spent more than $3 million on the project and this includes 2,800 ft of underground development. Under its agreement with Chevron, North American will earn a 50% interest in the property for $9 million in expenditures. Chevron, which has already put $12.3 million into the project, will have to contribute on a pro rata basis after North American has earned its interest.

The current drill program is designed to establish the pit bottom and move reserves into the proven category. Engineering studies are currently under way and the new results will assist in open pit design work, he states.

The company has sent a 15-ton bulk sample, representing various ore types, to Vancouver for metallurgical test work. Results from this will be used in flow sheet design.

Hemlo Gold Mines

From Page 1

The U.S. market was frozen out of this issue in order to avoid the red tape involved with registering the issue for sale there. However, many U.S. investors were able to "come in the back door" to gain some shares in Hemlo Gold by earlier picking up shares of Goliath Gold Mines or Golden Sceptre Resources.

Shares of those two companies, which originally held the Hemlo ground on which the Golden Giant mine was put down and financed the early exploration work, were swapped for shares of Hemlo Gold in January. Sceptre shares were traded 1-for-1 while Goliath shares were traded for 1.2495 shares of Hemlo Gold.

As a result of that restructuring and this issue, about half of the shares of Hemlo gold – about as many shares as Echo Bay has outstanding in total – will be actively traded. That should ensure that Hemlo Gold will be a very liquid issue on the Toronto Stock Exchange, perhaps a market leader.

U.S. investors may buy the shares directly once they are listed, but that potential impetus to increase prices – the increased market of U.S. investors – may have been dulled somewhat by their access to Sceptre and Goliath. Those two issues will trade on the TSE until Feb. 11.

The issue will provide $223.6 million for Noranda. It plans to use that money to reduce its debt which stood at about $2 billion at the end of 1986.

The Golden Giant mine began producing gold in April, 1985. In the nine months ended Sept. 30 it was milling at an average rate of 2,259 tons per day with an average millhead grade of 0.335 oz gold per ton and a recovery rate of 95.1% to produce 193,284 oz at a cash operating cost of $109 (US) per oz.

Vander Zalm

From Page 1

federal government on the ERDA agreement.

While admitting that no decision had been made to increase funding, he conceded that B.C. would be discussing what exactly federal participation would be in the event the funding agreement was increased. If it was, B.C. would have to match the federal expenditure.

Commenting on discussions with representatives of the federal government over B.C.'s offshore seabed, Mr Vander Zalm claimed they have been "dragging their feet since 1984," noting the provincial court has already ruled in B.C.'s favor. That ruling applies to the seabed between the mainland and Vancouver Island. Also in dispute is the seabed between the mainland and Queen Charlotte Islands. This is prospective ground for oil and gas exploration as opposed to mineral exploration, he explained.

In his keynote address to the association's 75th annual meeting, the president of the B.C. & Yukon Chamber of Mines, Charles Aird, expressed industry concerns about the federal government's comprehensive land claims policy. That policy is currently under review and he said a meeting with the government left the chamber with concerns that the "mining industry might be selectively burdened with compensatory legislation," particularly in northern areas.

Tax reform was cited as another concern, especially the deduction of Canadian exploration expense and the depletion allowance for mineral exploration. Mr Aird said these constituted the "essence of the flow-through share concept" and their elimination would be harmful to producers but "devastating to the exploration side of the industry."

Mr Aird noted that the provincial government's 1986 FAME program (Financial Assistance to Mineral Exploration) was very popular, although limited in scope and duration. He also said the Wilderness Advisory report occupied much of the chamber's attention, citing the report's restrictions on access which were "unacceptable to the exploration community."

A discussion paper from the ministry of forests also suggested that 40% of the province be deemed natural areas and managed as a recreation concept with restrictions on off-road vehicles. "We are continually seeing our resource base eroded by single-use land reserves and proposals," he said.

Wide zone trenched on Can America bet

Encouraging gold values have been received by **Can America Precious Metals** on a property held under option from **Cochrane Oil & Gas**. Located in the Manitou Lakes area in northwestern Ontario, the property covers a major splay fault off the Manitou Straits Fault.

Trenching of a quartz-pyrite stringer stockwork associated with the fault, has outlined a zone averaging 0.12 oz gold per ton across a true thickness of 24.5 ft, the company says. Three trenches have exposed the mineralized zone for more than 160 ft along strike. Gold values range from 0.08-0.1 oz in the trenches with higher values of 0.21-0.43 oz gold in certain sections.

Can America can earn a 50% interest in the property by spending $400,000 on exploration. A small 2,500-ft diamond drilling program is scheduled to start in February.

AMC President Asks Congress To Include A "Competitiveness Test" In All Legislation

WASHINGTON, D.C. — The president of the American Mining Congress called on the Congress to include in all legislation it enacts a "competitiveness test" that would "take into account the impact of its actions on the nation's ability to compete in the world marketplace."

In remarks prepared for delivery to the AMC's annual membership meeting at the Capital Hilton Hotel, AMC President John A. Knebel said that "restoring this nation's competitive edge is our most essential economic goal." He said federal regulations issued by government agencies should be subject to the same competitiveness test.

"Here's how it would work," said Knebel. "Before a bill is sent to the President for his signature or before a federal regulation is issued, the following questions would need to be answered: Will employment be adversely affected? Will U.S. trade be hurt? Will capital formation be impeded?

"If the answer to any of these questions is yes, the legislation or rulemaking would not go forward."

"A competitiveness test requirement is no different from the Environmental Impact Statement required by the National Environmental Policy Act or the Economic Impact Analysis required when a new federal regulation is proposed. In short, it would serve as a directive to Congress or to the regulatory agency to take into account the impact of its actions on this nation's ability to compete in the world marketplace."

The AMC president said the "competitiveness test" could help revitalize American industry, particularly the mining industry, and ensure the retention of this nation's competitive edge.

"Just as our national leaders have an opportunity to do something other than talk about our competitiveness," Knebel told the AMC membership, "so do our members have an opportunity to demonstrate once again that the mining industry is as essential to this nation's economy and security as it ever was.

"We believe we have a great story to tell about the contribution of mining to America — and we intend to carry it to the country in the months and years ahead. I am convinced of this: If you get involved in the AMC effort to get the word out, we will not only survive, but will rally our nation to save its vital mining industry."

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The Mineral Industry Of Colorado In 1986

WASHINGTON, D.C. — The value of nonfuel mineral production in Colorado in 1986 was estimated at $424.9 million, according to the Bureau of Mines, U.S. Department of the Interior. This represents a modest increase over the 1984 value, but still much below the peak value of $1.2 billion in 1981. The major factor in this increase was a surge in production and value of gold. Of the nine industrial minerals and eight metals produced, increases in output were seen in all except sand and gravel, lead, zinc, and tin. The principal restraint on increase in total value was the state's most important mineral, molybdenum. Although output increased moderately, lower prices resulted in lower total value as demand for this steel-hardening metal continued soft. Colorado's rank among nonfuel mineral-producing states was 19th, compared with 22nd in 1983 and 7th in 1981.

The dramatic rise in gold output resulted mainly from opening of a large new gold mine, Galactic Resources Inc. of Vancouver, Canada's, Summitville Mine, and return to operation of Colorado's other major gold producer, the Sunnyside Mine, by its new operator, Echo Bay Mines Co. of Edmonton, Canada. The large open pit, heap leach operation at Summitville, opened in April and closed for the winter in October, employs 320 workers and has a projected annual production of 120,000 troy ounces of gold, which makes it Colorado's largest gold producer.

AMAX Inc.'s two large Colorado molybdenum mines, Climax and Henderson, operated at about 50% of capacity in the first six months of the year and about 34% of capacity in the second six months, producing a total of about 40 million pounds of molybdenum. Total employment at the two mines, which had peaked at about 5,000 in 1980, was reduced to about 900 workers, 700 at Henderson and 200 at Climax. Both mines were closed for the month of July.

Ideal Basic Industries, Inc. avoided bankruptcy when Holderbank Financiere Glaris Ltd., a Swiss company acquired a 67% interest in the company. Ideal Basic's two cement plants in Colorado operated with reduced work forces and production schedules.

Union Carbide Corporation, (Umetco), under suit by the State of Colorado, agreed to spend at least $40 million over the next 15 years to clean up radioactive wastes at its Uravan uranium-vanadium plant, the nation's oldest such plant.

Koppers Co., Inc. of Pittsburgh and Redland PLC, a British construction materials firm, acquired Denver-based Mobile Premix Inc. (M.P.M. Inc.). M.P.M. will be combined with four other Koppers' subsidiaries — Western Paving Construction Co. of Denver, the Sterling Companies of Wyoming and Colorado, Broderick and Gibbons Inc. of Pueblo, and Mid-Kansas Construction of Wichita — to become Western-Mobile Inc., based in Denver, with 1,500 employees and annual sales of about $200 million.

This report was prepared in January 1987 in the Denver State Activities Office in cooperation with the Colorado Geological Survey.

THUNDER MOUNTAIN GOLD, INC.
1306 Washington Mutual Bank Building
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"Aerial view of leach pads and metallurgical plant"

Production at the Thunder Mountain Project in Valley County, Idaho commenced in August 1986. Coeur d'Alene Mines Corporation is the operator of the mining and milling facilities. During the 1986 season, 11,300 ounces of gold and 9,700 ounces of silver were produced.

Thunder Mountain Gold, Inc. is registered on the Spokane, Washington Stock Exchange

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13 New Gold Mining Operations Started In Nevada In 1986

RENO, NV — The Nevada minerals industry made a substantial contribution to the economic base and diversification of the rural counties during 1986, according to Richard Sumin, president of the Nevada Mining Association.

Sumin, general manager of the Battle Mountain Gold Corp., noted also that opening of 13 new gold mining operations during the past year has strengthened Nevada's five-year role as the nation's leading producer of gold.

The new activity created over 2,000 new jobs within the state's minerals industry, he said.

A NMA staff report describes the expanding minerals production — all gold and silver — and notes its impact on local economies.

Comparing calendar year 1984 with calendar year 1985, the number of mining operations producing gold and/or silver declined from 214 to 204 while the number of people employed in these operations actually increased from 4,028 to 4,499.

When the 1986 increases are added to the 1985 statistics, there are at least 216 precious metals mines operating in Nevada with 6,627 people employed by them — a 50 percent increase in employment the past year.

According to Nevada Employment Security Department statistics, the average annual wage paid by mining companies is $29,837. This is the highest in the state and comes in well ahead of that paid to construction workers at $24,215. The next closest average annual wage is for workers in transportation, communications and utilities, at $22,658.

Dennis Bushta, director of Industrial Relations for Newmont Gold Co. in Elko County, made the observation at a public meeting that the company's 700 employees, with their families, add some 2,400 people to the local population. The local economic impact of the company's payroll is something like $30 million a year.

According to State Mines Inspector records, the new operations begun in 1986 are:

— Echo Bay Ltd., McCoy Gold Mine, near Battle Mountain, 130 new jobs;

— Sunshine Mining, Weepah Mine, Silverpeak, 75 new jobs;

— Pegasus Gold, Inc., Florida Canyon Project, near Winnemucca, 80 new jobs;

— Silver King, Lone Tree

— Silver King, Lone Tree Project near Ely, 60 new jobs;

— Coeur d'Alene Mines Corp., Rochester Mine, near Lovelock, 200 new jobs;

— Freeport McMoRan, Jerritt Canyon Mine, near Elko, 75 new jobs;

— Western Goldfields Corp., Hog Ranch Mine, near Gerlach, 70 new jobs;

— Atlas Corp., Gold Bar Mine, near Eureka, 30 jobs;

— Placer US, Inc., Bald Mountain Project, near Ely, 122 new jobs;

— Standard Slag, Lewis Mine Project, near Lovelock, 27 new jobs;

— FMC Corp., Gabbs Project, near Gabbs, 191 new jobs; and

— Gold Venture, Inc., Inspiration Project, near Austin, 130 new jobs.

Expanding their operations were:

— Echo Bay Ltd., Round Mountain Gold Project in Nye County, expanded operations with jobs increased from 276 to 368; and

— Newmont Mining Corp., Gold Quarry Mine near Carlin, expanded operations with jobs increased from 260 to 540.

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PAH/Kaiser Awarded Contract For Aluminum - Lead/Zinc Study

LAKEWOOD, CO — The Interior Department's Bureau of Mines has awarded Pincock, Allen & Holt, Inc. (PAH) and Kaiser Engineers, Inc. (KE) of Oakland, California a contract to develop engineering and cost data for lead, zinc, and aluminum (bauxite) mineral deposits, concentrators and smelting/refining facilities. The study is in connection with the Bureau's ongoing Minerals Availability Program, which is measuring and classifying identified domestic and foreign minerals resources according to extraction technologies and commercial availability. The program's purpose is to provide information needed in formulating domestic and foreign minerals policy.

In a joint statement, PAH President Ernie Bohnet and KE Vice-president Arnold Kackman said, "The contract, valued at about $539,000, will include the on-site collection of site-specific data and the subsequent economic evaluation of numerous bauxite and lead/zinc mining properties and their associated processing, smelting and refining facilities throughout the world."

Al Kuestermeyer, PAH Manager of Mineral Economics, and Ray Neider, KE Project Manager, will lead the lead/zinc and aluminum efforts, respectively. Both have extensive backgrounds in project management, engineering planning, and financial analysis for the Bureau of Mines in previous contracts under the Minerals Availability Program.

Pincock, Allen & Holt, Inc., a member of the Matthew Hall Group, is a full service international minerals consulting firm specializing in exploration planning, ore reserve estimation modeling, mine engineering, process plant design and financial analysis. Complementing the group and available for leasing is a full portfolio of computer software that is used to support project studies. PAH's offices are located in Lakewood, Colorado and Tucson, Arizona.

DCNR To Issue Registration Certificate

CARSON CITY, NV — The Nevada Administrative Code East West Minerals, Inc. made application to the Department of Conservation and Natural Resources (DCNR) for one air quality registration certificate for the construction of the Eastgate Zeolite Mine, located near Eastgate, Nevada. The DCNR announced its intent to issue one air quality registration certificate to East West Minerals, Inc., based on the preliminary review of the project, as proposed.

A copy of the review and proposed restrictions is available for public inspection at the Churchill County Library in Fallon, Nevada, 553 South Maine Street, 89406, and the Division of Environmental Protection, Room 103, 201 South Fall Street, Carson City, Nevada. A copy of the review can be obtained from the Division of Environmental Protection, Room 103, 201 South Fall Street, Carson City, Nevada 89710, (702) 885-5065.

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RESOLUTION 4-0287

A RESOLUTION SUPPORTING RECOMMENDATION OF THE ALASKA MINERALS COMMISSION

WHEREAS, the Greater Fairbanks Chamber of Commerce recognizes the importance of mineral development to Fairbanks and northern and interior Alaska, and

WHEREAS, numerous restraints encountered by the mining industry in Alaska have resulted in economic declines related to mineral activity; and

WHEREAS, many of the problems facing the mineral industry stem from the lack of a clear, statutory policy supporting the responsible development of Alaska's mineral resources; and

WHEREAS, the Alaska Minerals Commission was established by the Alaska State Legislature to report its recommendations pertaining to these restraints to the Governor and Legislature; and

WHEREAS, the Alaska Minerals Commission has finished its report and makes recommendations for appropriate actions that will allow for a strong mining industry throughout Alaska; and

WHEREAS, the Fairbanks Chamber's Board of Directors concurs with the recommendations, particularly because great undeveloped mineral potential exists in northern and interior Alaska;

NOW, THEREFORE, be it resolved that the Greater Fairbanks Chamber of Commerce urges the Governor and the Fifteenth Alaska State Legislature to take urgent and appropriate action to implement the recommendations of the Commission with our unanimous support of Senate Bill 94 with the reservation that a new section is needed to explain and clarify the legislative intent of the bill with respect to the relationship between subsection (a) and (b).

BE IT FURTHER RESOLVED, that copies of this resolution be sent to:
Governor Cowper
Senator Coghill
Chairman, Senate Resources Committee
Sponsors Coghill, Bennett, Faiks, Fahrenkamp and Uehling.

DATED THIS 23rd DAY OF February, 1987

BY _____
James Dodson, Chairman of the Board

BY _____
Althea St. Martin, Acting President

Miners Advocacy Council
P.O. Box 83909
Fairbanks, Alaska 99708

RESOLUTION

WHEREAS, the Miners Advocacy Council recognizes both the historic, current and future importance of mineral development to Alaska; and

WHEREAS, the Miners Advocacy Council represents many members whose families and businesses depend upon the Alaska mineral industry; and

WHEREAS, the new Alaska Commissioner of Commerce has stated that Alaska has the potential for a $3 billion mineral industry; and

WHEREAS, the reality is that in 1986, Alaska's mineral industry declined--falling from $270 million to $231 million, while British Columbia's mining industry approached almost $2 billion; and

WHEREAS, while gold prices increased 25 percent in 1986, gold mining in Alaska decreased 16 percent in contrast to a 5 percent rise in gold mining in the Yukon; and

WHEREAS, in 1986, Alaskan mineral exploration expenditures fell from the 1981 high of $76 million back to the 1974 low of less than $10 million; while expenditures in British Columbia increased 24 percent in 1986 to $100 million; and

WHEREAS, the mining industry is more successful in the Yukon and British Columbia than it is in Alaska and they operate under the same harsh climatic and remote geographic condition; and

WHEREAS, our members report that venture capital for Alaskan mining projects is difficult to raise worldwide, because of the worldwide perception that mining in Alaska is saddled with an uneconomic regulatory and political climate that is encouraged by the state; and

(1)

WHEREAS, over 83 mining companies have left the state since the early 1980s, and

WHEREAS, many of the problems facing the mineral industry stem from the lack of a clear, statutory policy supporting the responsible development of Alaska's mineral resources; and

WHEREAS, Alaska--at a time strategic minerals are being embargoed from South Africa--contains many strategic minerals which could be used in the national interest if the state would adopt a policy favoring Alaska's strategic mineral development, and

WHEREAS, the numerous restraints encountered by the mining industry in Alaska have resulted in economic declines related to mineral activity; and

WHEREAS, the Alaska Minerals Commission was established by the Alaska State Legislature to report its recommendations pertaining to these restraints to the Governor and Legislature; and

WHEREAS, the Alaska Minerals Commission has finished its report and makes recommendations for appropriate actions that will allow for a strong mining industry throughout Alaska; and

WHEREAS, the Miners Advocacy Council agrees with all the recommendations, but would like to see the bill made stronger with more recommendations; and

THEREFORE BE IT RESOLVED, that the Miners Advocacy Council urges the Governor and the Fifteenth Alaska Legislature to take urgent and appropriate action to implement the recommendations of the Commission with our unanimous support of Senate Bill 94 or similar legislation; and

BE IT FURTHER RESOLVED, that since Alaska mineral lands are a finite entity, that legislation requiring the treatment of mineral lands as a separate entity--similar to the treatment of native and federal lands where acre-for-acre trade-outs are required--be also adopted as part of this bill; and

BE IT FURTHER RESOLVED, that accommodation be made in the bill for the adequate and timely financing of mineral

(2)

assessment work where pertinent; and

BE IT FURTHER RESOLVED, that accommodation be made in the bill so that all state agencies must issue permits for exploration and/or mining within 90 days after the application--unless such agencies can present substantial scientific evidence that issuance of the permits poses an identifiable hazard to resources or resource users; and

BE IT FURTHER RESOLVED, that accommodation be made in the bill for all such mining/exploration permits to be issued through the State Division of Mining;

BE IT FURTHER RESOLVED, that copies of this resolution be sent to Governor Cowper; Senator Coghill, Chairman of the Senate Resources Committee; and sponsors Coghill, Bennett, Faiks, Fahrenkamp and Uehling.

Dated this 24th day of February, 1987 by:

Leslie Noyes
Executive Director
Miners Advocacy Council

(3)

5-046-A
Bradley
1/29/87

IN THE SENATE BY COGHILL

SENATE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act adopting a mineral policy for the state."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 44.99 is amended by adding a new section to read:

Sec. 44.99.110. DECLARATION OF STATE MINERAL POLICY; CIVIL ACTION. (a) 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, stable employment, and the encouragement of responsible economic development within the state for the benefit of present and future generations through the purposeful 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) state land be available for mineral exploration and development through multiple use practices that may not subordinate mineral resource development;

(2) mineral development not be encumbered by excessive, unattainable unreasonable, or uneconomical legislative or administrative stipulations;

(3) a comprehensive transportation infrastructure be developed in the state to facilitate the entry into the market place of mineral products; and

(4) the general and public functions of the state that promote mineral development, inform and educate the public, and advance the knowledge and technology of the mineral industry receive the

support of the state.

(b) A person may file a civil action against a person or entity, including the state, an instrumentality of the state, or an officer or employee of the state acting in an official capacity, for failing to carry out a policy established under this section. A court, in issuing a final order in an action brought under this subsection, may award costs and expert witness and attorney fees to the prevailing party.

DRAFT

For an Act entitled: "An Act adopting a mineral policy for the state."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 44.99 is amended by adding a new section to read:

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(1) <u>state land be available for mineral exploration and development through multiple use practices.</u>

[(1) STATE LAND BE AVAILABLE FOR MINERAL EXPLORATION AND DEVELOPMENT THROUGH MULTIPLE USE PRACTICES THAT MAY NOT SUBORDINATE MINERAL RESOURCE DEVELOPMENT;]

2) mineral development will be encouraged through reasonable and consistent, non-duplicative regulations and administrative stipulations.

[(2) MINERAL DEVELOPMENT NOT BE ENCUMBERED BY EXCESSIVE, UNATTAINABLE, OR UNECONOMICAL LEGISLATIVE OR ADMINISTRATIVE STIPULATIONS;]

(3) A statewide transportation infrastructure be encouraged to facilitate mineral development and the entry into the marketplace of mineral products.

[(3) ACOMPREHENSIVE TRANSPORTATION INFRASTRUCTURE BE DEVELOPED IN THE STATE TO FACILITATE THE ENTRY INTO THE MARKET PLACE OF MINERAL PRODUCTS; AND]

(4) the general and public functions of the state that promote mineral development, inform and educate the public, and advance the knowledge and technology of the mineral industry receive the support of the state.

(b) Within (1) year of the effective date of this Act, all State departments, boards, and commissions shall review their statutory authority, administrative regulations, and procedures applicable to mineral exploration and development in order to address any deficiencies or inconsistencies with this Act.

[(b) A PERSON MAY FILE A CIVIL ACTION AGAINST A PERSON OR ENTITY, INCLUDING THE STATE, AN INSTRUMENTALITY OF THE STATE, OR AN OFFICER OR EMPLOYEE OF THE STATE ACTING IN AN OFFICIAL CAPACITY, FOR FAILING TO CARRY

OUT A POLICY ESTABLISHED UNDER THIS SECTION. A COURT, IN ISSUING A FINAL ORDER IN AN ACTION BROUGHT UNDER THIS SUBSECTION, MAY AWARD COSTS AND EXPERT WITNESS AND ATTORNEY FEES TO THE PREVAILING PARTY.]

Environment group raps Coghill mining proposal

News-Miner Bureau

JUNEAU—The director of Alaska's main environmental lobbying group says Sen. Jack Coghill's bill to promote mining is impractical and will falter in the state House.

"I can't imagine it would pass," said Gail Gatton, director of the Alaska Environmental Lobby, an umbrella organization for several groups in the state.

Coghill's bill, SB94, outlines four general methods he believes the state should use to promote mineral development. The bill also gives miners the right to sue the state agencies if their regulations do not follow the four methods.

Gatton said the breadth of the bill makes it impractical.

"It's one thing to sue for unfairly enforcing a regulation, but to just sue them (the state) because they're not encouraging development?" she asked.

Gatton also said at least three of the four ways Coghill wants to promote the mining industry are flawed.

- The state does not have the money to open transportation routes into northern Alaska, she said.
- Excessive regulations are not the reason mining companies are leaving Alaska, Gatton maintains. Despite the claims of companies, the real reasons for the exodus are the high cost of extracting minerals in a remote environment and depressed mineral prices on the world market, she said.

Although some permitting processes can be condensed, environmental regulations should be considered a cost of doing business, she said.

"You can't drop back and blame the regulatory agency for market conditions," she said. "They just don't understand economics."

- State land should be withdrawn from mineral development based on other values such as recreation and wildlife habitat, Gatton said. Categorically opposing all mineral closures in management plans for refuges and parks is an over-reaction, she said.

"That's as unreasonable as if we came in and asked for them (refuges) always to be closed (to mining)," she said.

Gatton agreed the state should be giving technical assistance to miners, but that requires no new legislation. She said the state already has technology development grants and a loan program for miners.

Most of the measures in Coghill's bill came from the report of the Alaska Minerals Commission, which is presented its findings before House and Senate resource committee meetings this week in Juneau.

Gatton said the mining commission members are all employed in the industry and the group does not have a balanced perspective.

The commission was asked by the Legislature last year to find ways in which the state government could assist mining in Alaska. It has been meeting since August.

Top military brass join discussion about curriculum at Ben Eielson

Recommendations for a new high school planner and master schedule drew Eielson Air Force Base's top brass to a Board of Education meeting Tuesday.

Col. Philip Nuber, wing commander at Eielson, appeared in civilian clothes to testify as the parent of a Ben Eielson High School student. Nuber and other Eielson parents said they are concerned that reduced staff and shrinking course offerings at Ben Eielson will affect the quality of students' education.

"The courses that are offered have decreased significantly," Nuber told board members. "It's getting to the point where students are getting a marginal education. The real problem we find is, as a military family moving from school to

ing the school to offer three years of one foreign language or two years of two foreign languages. That is the minimum number of language courses required by Northwest Accreditation standards, according to committee chair Bill Brannian, who said Eielson is currently below minimum acceptable staffing levels.

The board also approved a recommendation setting minimum class size at 15 for West Valley, Lathrop and North Pole high schools. Classes with 10-14 students may remain if approved by the superintendent.

"We purposely excluded Ben Eielson because of their special problems," said Brannian. With 350 high school students, Eielson is too small to ge. ner 15 for some advanced courses.

The board also directed the district administration to work out staffing for Eielson that will allow it to offer advanced placement and honors courses next year, meaning the school may not have to cut more teachers. Principal Elizabeth Motley said the school now has 19.75 teachers.

Obituaries

Gerd Wendler
635 DePauw Drive
Fairbanks, AK 99701

4 Feb 87

Senator Jack Coghill,

FEB – 9 1987

Dear Senator,

I want only to congratulate you for introducing SB 94. I believe the miners were singled out for severe enforcement of water standards, even though these standards are unrealistic. What about the Mapco refinery in Fairbanks? Thousands and thousands of gallons of fuel were leaked into the ground, but no fines were levied.

Fight also the individual income tax, which the Gov wants to introduce

Keep up the good work

sincerely

G. Wendler

FEB 17 1987

Feb. 11, 1987

Dear Senator Coghill;

I have a mining claim on state land here in Alaska. Because of this I am in support of SB94. I hope to hear that the Senate has passed this bill soon.

Thank you for your continued support of the Alaskan mining industry.

Sincerely,

Pamela D. Thompson

Box 108

Tok, Alaska 99780

FEB 2 0 1987

February 17, 1987

Senator Coghill, Chairman
Senate Resource Committee
Pouch V
Juneau, Alaska 99811

Dear Senator Coghill:

The mining industry in Alaska needs all the help it can get, especially for the small miners.

I have read Senate Bill 94, and completely support its intent. You may want to ad the adjective "unreasonable" to Section 44.99.110(a)(2).

Very truly yours,

James D. Sourant

JDS/rcj

Sourant and Strandberg
Attorneys at Law
1500 West 33rd Ave., Suite 210
Anchorage, Alaska 99503-3639

GENERAL REFINING CORPORATION, ALASKA
551 3rd Street, Fairbanks, Alaska 99701
(907) 456-1452

FEB 17 1987

February 13, 1987

SENATOR COGHILL
CHAIRMAN, SENATE RESOURCE COMMITTEE
POUCH V
JUNEAU, ALASKA 99811

DEAR SENATOR COGHILL,

I HAVE JUST FINISHED READING SENATE BILL NO. 94. THIS BILL SPONSORED BY YOURSELF AND SENATORS BENNETT, FAIKS, FAHRENKAMP AND UEHLING IS THE TYPE OF FORTHRIGHT LEGISLATION,"WITH TEETH",THAT WE ALASKANS NEED.

THE GOVERNOR, AND THE STATE POPULACE IN GENERAL, MUST BE MADE TO SEE THE SERIOUSNESS OF OUR ECONOMIC PLIGHT WITHOUT THE DEVELOPMENT OF OUR VAST NATURAL RESOURCES.

SINCERELY,

L. BRUCE STILLWELL
PRESIDENT,
GENERAL REFINING CORPORATION
OF ALASKA

~~P.O. BOX 80325~~
FAIRBANKS, ALASKA 99708
TELEPHONE: (907) 479-4890

Manning & Company

CONSULTING ENGINEERING GEOLOGISTS

FEB 20 1987

Kenneth H. Manning
543 Ookpik Way
Fairbanks, Ak. 99709

Senator Jack Coghill, Chairman
Senate Resources Committee
Room 508, Capitol Building
Pouch V
Juneau, Ak. 99811

Feb. 13, 1987

Re: Mineral Policies Bill (SB 94)

Dear Senator Coghill and Committee Members:

I am writing in support of the mineral policies bill and I would like to make some additional recommendations.

1. One critical flaw in the present "mineral policies" of the State that must be corrected is the failure to recognize the mineral lands open to mineral entry (i.e. claim staking or leasing) as one entity or one "unit" for the entire State. Every other land entity such as boroughs, Native lands, park lands, are all counted by the acre and any change in their boundaries is watched with an "acre for acre swap", a trade or exchange. This "entity" factor is essential to developing a stable mineral policies act for Alaska. As U.S. Senator Frank Murkowski spoke only days ago about Alaska's dealings with ANWR, he mentioned swaps of lands or purchase of lands in exchange for "opening up" ANWR. Any additional mineral closure orders on Alaska lands MUST be made in this exchange manner; the struggling mineral industry must be given this "bottom line".

2. Any mineral "policy" of the State must adhere to or be consistent with the Federal mining law. By virtue of the Statehood Act, Alaska's State mining policies must compliment the Federal mining laws and the Alaska Constitution. Present trends by the Dept. of Natural Resources (DNR) have drasticly altered away from the time proven Federal mining law of 1872. In specific the concept of "mineral rights" as a "property right" must be upheld and the inseverable surface use rights essential to allow the development of mineral rights, MUST be recognized and protected. DNR has been constantly whittling away and not preserving these essential factors of inseverable rights. To not allow a miner to build a permanent structure, not allow occupancy of the mine during non-mining time, to require the miner to rent or lease his own cabin from the State, all are quite contrary and opposite to a mineral policy that should at the "least" allow a stabilization of the inseverable rights of use. Imagine asking the Natives not to build a "permanent" structure on their lands, to require them to "rent" their cabins from the State, or to constantly and continuely put "Native Closure Orders" on their lands! The thousands of court cases on mining law have consistantly upheld the connection of mineral rights to the inseveralbe rights of use, and any such State mineral policies act must do the same.

3. The tide must be turned in Alaska to stabilize a mineral policy or perhaps it's better said to reverse the negative mineral policies that have plagued Alaska since statehood. **At this time a policy of encouragement or posititve mineral use must be established to stop the momentum of 25 years of negative policies.** In specific surface uses of mining claims can not be unjustly severed form the mining use. Why should a miner be required to own a "second" home, not on his mineral property, if in fact he has a viable mineral property that may take him his lifetime to mine out? Imagine such an attitude toward farmers! Why not encourage the industry with a process similar to the "patent" application of federal lands. If a State mining claim passed the same tests of proven viability, why not give that property additional significant rights to help encourage development? Farm land has been given this special favor and encouragement for years! Why not Alaska's oldest "homegrown" industry -- MINING!

4. LAST BUT NOT LEAST, the elusive regulatory climate of the industry must be stabilized. An industry "use" catagory for water quality standards, for surface use rights, for mineral taxations, must be recognized as the basic foundations upon which a mineral industry in Alaska needs to survive. The "annual" rehash of the mining regulations has been extremely detrimental. **A DEPARTMENT of Minerals and Energy Management is the only real answer.** To always be "second fiddle" to the DEC, particularly with todays "blind environmental extremism" toward all resource development in Alaska, must be changed. Resource use and development must be corrected to be "equal" with environmental use and protection. The Department of Natural Resources has evolved into a "habitat" department, with resource development policies again taking a back seat.

IN SUMMARY the mineral policies of the State of Alaska must recognize the "development" factors and solidify the necessary criteria to ensure the long-term stabilization of those factors; without this foundation there is no minerals policy.

Thank you for your time.

KHM/
cc: Governor Cowper

Sincerely,

Kenneth H. Manning
Professional Geologist

DORIS LOENNIG
A PROFESSIONAL CORPORATION
ATTORNEY AT LAW

SUITE 120, 515 SEVENTH AVENUE - FAIRBANKS, ALASKA 99701
907 452-2005

February 10, 1987
(Dictated 2-10-87)

Senator John B. Coghill, Chairman
Senate Resource Committee
Pouch V
Juneau, Alaska 99811

Dear Jack:

I have recently had an opportunity to review the first report of the Minerals Policy Committee. I understand that Senate Bill 94 addresses the recommendations of the Minerals Policy Committee in its first report.

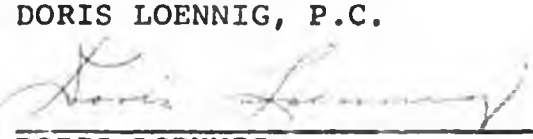
This letter is written to urge that your committee support the provisions of Senate Bill 94, reporting it out of your committee with a unanimous pass resolution and that it be vigorously supported on the Senate floor.

I am particularly anxious that the multiple use concept be supported that in implementing multiple use that mineral resource development not be subordinated to recreational, scenic, and fishing interests.

I also believe that the enforcement provisions of the act be enacted which permits citizens to file suit on the failure of the State to carry out the policies of the act. As you well know the environmental groups have used this provision effectively to frustrate and inhibit the development of the State's mineral resources. This provision will enable citizens to force the State to carry out the policies enacted by the legislature with respect to mineral development. I understand that the environmentalist are fighting this provision. They know only too well, how effective this provision can be when an aroused citizenry puts the heat on a reluctant government entity.

Very truly yours,

DORIS LOENNIG, P.C.

By: 
DORIS LOENNIG

DL:dcm

A ALASCOM Telegram

1987 FEB 12 13 09

Bruce

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PMS

SENATOR JACK COGHILL, CHAIRMAN SENATE RESOURCES COMMITTEE

POBOX V 0212

JUNEAU AK 99811

SUBJECT: SENATE BILL 94

THE DEVELOPMENT OF MINERALS IN THE STATE OF ALASKA IS OF CRITICAL IMPORTANCE TO THE CONTINUED VIABILITY OF THE ALASKAN ECONOMY. IT THEREFORE MAKES COMMON AS WELL AS BUSINESS SENSE TO ESTABLISH THIS AS AN OFFICIAL POLICY OF THE STATE. THE PRESENT STATE POLICY FOUND IN AS44.99.100 DOES NOT ADEQUATELY CONVEY THE MESSAGE THAT RESPONSIBLE MINERAL DEVELOPMENT IS A STATE PRIORITY. PLEASE STRENGTHEN THE STATE POLICY TOWARD MINERAL DEVELOPMENT THROUGH THE ADDITION OF AS44.99.110.

IF SB94 DIES ON THE FLOOR DUE TO SECTION (B), PLEASE RE-SUBMIT THE BILL WITHOUT THIS SECTION.

DAN COFFEY, ALASKA MINERS ASSOCIATION MEMBER

2550 DENALI ST SUITE 1300 ANCHORAGE AK 99503

ALASCOM Telegram

09011

1987 FEB 10 14 32

Bruce

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PMS

SENATOR JACK COGHILL, CHAIRMAN SENATE RESOURCE COMMITTEE
POBOX V
JUNEAU AK 99811

WE SUPPORT RESONSIBLE DEVELOPMENT OF THE STATES MINERAL RESOURCES. WE SUPPORT SENATE BILL 94. WE WOULD LIKE TO HAVE THE LEGISLATURE ESTABLISH A POLICY TO ENCOURAGE MINERAL DEVELOPMENT IN ALASKA.

ALASKA GOLD COMPANY
JOSEPH F FISHER, GENERAL MANAGER

The Impact of Mining on Alaska's Economy: Past, Present and Potential

Charles B. Green

Presentation to the Alaska Miners Association
Convention, October 31, 1986
Captain Cook, Anchorage

Thank you, Scott.

The topic I was asked to speak on today is the Impact of Mining on Alaska's Economy: Past, Present and Potential and I'm flattered to be the first speaker of the opening session of this convention. However, I think if I was in the audience comparing the titles of this morning's talks, I might look on mine the same way, that as a kid, I used to look on broccoli: its on your plate, you know it's supposed to be good for you, so you might as well eat it first so you can enjoy the rest of the meal.

I suppose like other things I disliked as a child, broccoli turns out to be one of my favorite vegetables as an adult. There's a comparison here with recent economic events in Alaska. Faced with shrinking servings of oil and government (our present economic steak and potatoes), there has been a renewed interest in the lesser economic vegetables, including mining.

There is some irony here as prior to World War II mining was the primary industry of most regions of the State. In fact, between 1900 and World War II, Alaska enjoyed a reputation in the international mining world which we may never repeat.

Alaska's hard rock mines in Juneau were world famous. The Treadwell mine set a world record for underground production in 1915 and that record was more than doubled the following year by its neighbor, the Alaska Juneau mine.

Not only were these mines famous for their high productivity, they were also famous for their low operating costs, low ore grades and persistent profits. For these reasons, Juneau, in the early years of this century was one of the mining capitols of the world, and its mines pioneered the technology of high production, low grade, underground mining world wide.

The Kennecott copper mine located in the Wrangell Mountains, operated from 1911 to 1938 and has been characterized as one of the richest copper mines in the world. The profits from Alaska's Kennecott mine financed the exploration and development of the large open pit mines in the Southwestern U.S. that revolutioned copper mining.

And of course in the 1920's large scale dredging operations began in Fairbanks and other areas of the state establishing Alaska as one of the primary placer gold producers of the world.

What was the economic impact of this mining activity? That question can be answered in terms of millions of ounces of gold or tons of copper but that doesn't mean much to us today.

From the perspective of the individual living and working in Alaska during that time, the primary economic benefit was employment, whether that employment was in mining or in a support industry. The new wealth from mining created employment and an economy where there had been none before.

However, in terms of the location of the workforce, there is a difference between pre-World War II Alaska and the present. In the late 1800's and early 1900's the workforce came largely from outside Alaska. While a prime concern of the Alaskan workforce today is that employers hire locally, a real concern of prewar employers was the availability of a workforce, local or not. Many of the mining jobs were filled by Asian, and Eastern and Northern European immigrants.

With the placer gold strike in the Klondike followed by strikes in Nome and elsewhere across Alaska, many of California's placer miners came north. And joining them were many of Juneau's hard rock miners who saw an opportunity to work for themselves and possibly strike it rich.

Between the years of the initial stampede and the end of World War II, the level of placer gold mining activity itself was influenced not only by the price of gold or by the richness of deposits, but by unemployment from economic depressions sending jobless workers north, or by wars enlisting those miners and taking them back south.

In 1910 the population of Fairbanks was about 10,000 at the height of the placer mining activity. But the population dwindled to less than 1200 after World War I. The Fairbanks dredging operations, developed in the 1920's, were responsible for bringing the population back up to about 3,000 and maintaining that population until World War II.

From the perspective of contemporary Alaskans the economic impact of the State's historical mining industry is the legacy of communities, cities, roads and railroads that define our social and economic framework today. Due to the Treadwell and AJ mines, Alaska's capitol was moved from Sitka to Juneau. Referring back to my remarks about Fairbanks, I think it is also fair to conclude that if it were not for the gold dredges of the F.E. Company, Alaska's interior city would be Nenana and modern Fairbanks might be comparable to a highway community like Tok or Delta.

Of course the other lasting impact of the mining industry was the construction of the the transportation network. Many of our roads, including the Richardson, Elliot, Taylor, Steese and other highways, were built to access and supply mining districts. The Alaska Railroad was created by an act of Congress to access the Healy coal fields and to reach the navigable rivers of the Interior. (By the way, to reach the Interior's navigable river system you don't need to go to Fairbanks, you've accomplished that at Nenana.)

Moving to the second part of my topic, what is the present economic contribution of the industry to Alaska?

Fortunately or unfortunately this early in the day, that should probably be answered with some statistics. However at this point I've got to inject a disclaimer before reciting numbers. My training is as an engineer and for those of you who have schooling in engineering you know that keeping your units straight was half the work of getting an engineering degree.

You know that pounds of mass and pounds of force are apples and oranges and adding kilo-pascals per square meter and pounds per square inch results in nonsense.

However, in the discipline of economics, the complex workings of industrial society are reduced to a few common denominators, usually dollars and jobs. Since I have no training as an economist, I'm going to warn you about my statistics. While they ostensibly represent dollars or jobs, I'm probably guilty of mixing things like macro-dollars per cubic impact and dollar-jobs per man hour squared. The reason I'm citing them is to give us a ballpark comparison of the relative magnitude of Alaska's primary industries.

In 1985 Alaska's mining industry produced about $62 million of metals (primarily gold), $124 million of industrial minerals (primarily sand and gravel) and about $40 million of coal. That totals $226 million of gross value. About 3700 people were employed.

In comparison, the agricultural industry produced $25 million of crops and livestock and employed 740 people. The forestry industry produced about $200 million of timber products and the employed 2300 people.

Tourism (watch out - we're getting into kilo-pascals here) generated in state sales of about $700 million and employed over 10,000 people.

The wholesale value of the 1985 fish harvest was about $1 billion and some 6200 people were employed.

Finally, the value of oil and gas produced was about $10 billion and over 9000 people were employed.

So if you want to rank the non-government industries in 1985, mining is tied with forestry in a distant fourth place behind tourism, fishing and oil and gas.

Just as further comparison, if you add up the employment sustained by these 6 industries you get about 32,000 jobs. That compares with some 67,000 jobs in state, federal and local government not including the military.

What about 1986? Mining has lost ground. With residential, commercial and oil field construction activities down, the sand and gravel component of mineral production and employment will be down. While coal

production is holding its ground, the placer mining industry will show a significant decline.

My office along with the Division of Mining and Geology collaborate to publish annual mineral industry reports, and we're beginning to get information for 1986. While it will be several months before we can develop our final figures, we do have some preliminary results.

Gold production and employment from placer mining will be down despite the rise in the price of gold this year.

Interior Alaska has been the State's largest placer gold producer. However, in the Circle Mining district, the number of active operations in 1986 dropped to about 18 from 44 in 1985. In the Wiseman district, there were only a fraction of the operations active this year compared with last.

Additionally, virtually no one mined in the National Parks this year. In 1985, there were 30 operations that produced over 20,000 ounces of gold and employed some 150 people. The Kantishna district, in the Denali Park, had 17 placer mines active in 1985 and none in 1986. The next speaker, Keith Tryck will probably deal with the primary reasons for this decline in some detail. However, I would like to add a few words on the subject.

Mining in the National Parks and other conservation units is a national issue. And the way that issue at the national level is being phrased is "should mining be allowed in our parks?." What is being left out of that debate is an historical perspective.

As most Alaskans know, the miners didn't elect to move into the parks, the parks expanded in 1980 to encompass the mining districts. Mining had been going on in these areas, in some case for up to 90 years. Within that time, there were periods of sustained mining activity that were far greater in their environmental impacts than will be any present or conceivable future activity.

During these periods both the seasonal and year round populations of many of these mining districts far exceeded present levels. And that population put far greater demands on the water, timber, fish and wildlife. In addition, there were no regulations and mining practices were far less sensitive to environmental concerns.

Yet these areas, which were coveted as having special natural and wildlife values, were included in 1980 into National conservation units. Now we begin to learn, despite apparent guarantees protecting valid existing rights, and despite present practices and environmental regulations, that modern mining activities are incompatible.

To me, there is a paradox in that logic, however, such things as reasoned historical perspectives turn out to be irrelevant to the process. If you don't have the will or the means to file lawsuits arguing the intent of ANILCA and NEPA and FLPMA, or arguing whether or not various Federal and State agencies are in or out of compliance with

their own or somebody else's regulations, you're not even playing in the game. And I think its fair to conclude that unless the State joins that game and joins it soon, there will not only be further decline in the placer industry over the next few years but that the small independent operator on public lands will have largely gone the way of the wooly mammoth.

Another important aspect of the minerals industry is exploration and the news here is not very good either. Our preliminary estimates are that expenditures for exploration in 1986 will approximate 1985 levels of about $10 million. The reason this is not good news is that this level of expenditure represents the lowest level of expenditure over the last fifteen years. Since 1981 estimated expenditures have fallen from $76 million and from the $100 million level estimated for the 1970's.

This is bad news not just in terms of the immediate economic impact these expenditures have on the economy, but because exploration represents the 'seed corn' for the future of the industry. There are probably several reasons for this decline, not the least of which has to do with several years of low commodity prices and a dramatic contraction and reorganization of the U.S. mining industry.

However, commodity prices and the health of the industry may be at the outset of a recovery.

1986 did have its bright spots. Usibelli continued its coal exports which doubled Alaska's coal production over domestic demand. With the initial dock construction at Red Dog completed, the beachhead has been established for the next step, the construction of the road. If all goes well, the contracts for the road will be let this winter and construction begun next year.

On Admiralty Island, the mine road for the Greens Creek project was built this fall. A decision will be made this December on whether to begin underground work on a new adit, as well as on other mine facilities.

Final development decisions for these projects will be an important milestone for Alaska, and once either of these hard rock mines are in production, the State will have established its credentials in the international mining world.

And finally, this summer a new piece of mining equipment arrived in Nome, the BIMA dredge. As you probably know, the BIMA formerly mined placer tin in Indonesia and began mining offshore placer gold for the Inspiration Gold Corporation this July. The dredge is 15 stories high and is capable of processing 60,000 yards per day. In a recent edition of the Nome Nugget, there is picture of the buildings of Front Street with the BIMA towering behind them in Norton Sound. The caption reads, "BIMA me up, Scotty."

What is the economic impact of this project on Nome? Inspiration had a seasonal workforce of 66 employees of which 47 were Alaskans and 42 from Nome. This figure doesn't include employment through local

contractors to the project. As Alaskan workers become trained in the more technical positions, the percentage of local hire will increase. The company estimated that during the season, local expenditures were between 500 - 700,000 dollars per month.

Of course, Inspiration is just the newest gold dredging operation in Nome. The Alaska Gold Company, which can trace its heritage to the early 1900's, has been dredging since the 1970's. In 1985, they employed 73 people, of whom 58 were Alaskans and 50 Nome residents.

These two operations represent the largest private sector employment in Nome. And as capital projects such as the construction of the Nome port are finished, and as the government payroll continues to drop as it did this year, those two operations will become increasingly critical to the economy of Nome and the region.

I think these projects illustrate the most important contribution that the mining industry will make to the State and that is providing regional employment and supporting regional economies, through service and support businesses as well as local tax revenues. This is not only true of the larger mining projects, but of the smaller placer operations.

In 1985, my office updated our 1983 report giving an economic profile of the placer mining industry, and one of the most significant findings was that out of 2200 industry jobs, over a third of the workforce was from rural communities.

At this point, I should turn to the last of my topics and that is the future potential of the industry. We only have to look across our border to Canada to see that our industry has real potential for growth. The Province of British Columbia, and the Northwest and Yukon Territories between them share similar geologies, climates and geographical constraints with the varied regions of Alaska. There are also, of course, differences in history and governmental management. Together, the mines of these regions produce some $2 billion worth of metals and industrial minerals and $1 billion worth of coal.

For Alaska, if you go through the exercise of adding up the gross value of production of all potential major mining projects including Red Dog, Greens Creek, Quartz Hill, Beluga Coal, throw in a few smaller scale hard rock properties presently being explored, and increase coal exports from Healy, there is no problem arriving at a billion dollar industry and adding several thousand jobs to the Alaska economy as well. Understanding that these projects represent some of the largest and richest, and that other developments would likely follow once the infrastructure has been developed, you can further increase your estimates of the industry's potential size and impact.

However, I didn't crunch the numbers for you today. For one reason it's been done many times before and you can find those estimates elsewhere, and secondly, the importance of the exercise is not to

generate the numbers but to demonstrate the potential for the growth of the industry, growth that may not be possible in other industries.

I'm not a fisheries expert but I think that it is fair to say that compared with minerals, the same potential for growth in fisheries is not there. There may be the potential for increasing the value of the industry by increasing instate processing, but the industry has already bumped up against the limits of its harvest.

For minerals, the harvest at this time is limited only by economics and our access to the resources. For example, in the Noatak region where Red Dog is found, there is no good reason not to believe that in terms of known and potential reserves, the region could supply a significant portion of the worlds zinc demand for hundreds of years. Red Dog itself will have a life of over 50 years and extensions to that deposit remain to be explored. Other deposits in the area have been discovered and I am certain there are additional deposits that await discovery. That is the nature of the geology of the region.

I'm not proposing that we should expect that there will someday be a half dozen world class zinc mines operating in the area, but I am trying to demonstrate the growth potential for just one mineralized area of our state.

As I mentioned, our harvest of minerals is limited by economics and access. By economics I mean things like commodity prices, interest rates, labor and material costs, the availability of capital, exchange rates and so on. For the most part, we have little control over these factors. By access I mean not only transportation access, but access in the sense of providing rights of access to explore for, develop, produce and market minerals. And access is something that we do have control over.

There are a number of issues before the state at this moment that will affect our ability to access our mineral resources into the foreseeable future. They include such things as rights of transportation access inherent in RS 2477 right-of-ways and in Titles 11 and 15 of ANILCA; and the right of mineral entry to land for the purpose of exploring and developing mineralsm and many other issues.

While economics have largely been unfavorable for Alaska's mineral industry over the past several years, there have been some recent developments that may have brought us to a new junction in our economic history. The fall of oil prices has changed the role of state government from one of deciding how much to give to its citizens to one of how much it must now take away. The importance of industries such as mining increase with the decrease in petroleum revenues and government largesse.

Secondly, if you believe economic forecasters, the mining industry may be at the beginning of a recovery. Precious metal prices have recovered, zinc prices are up and even copper prices are forecast to improve. The inflationary binge in prices and new production during the 1970's resulted in the hangover of industry shakeouts and losses in

the first half of the 80's. Industry may be about to emerge into a more stable and profitable period.

And finally, these economic events have coincided with a political event, the election of a new legislature and administration. An astrologer might find something uniquely interesting about this: a fortunate alignment of an economic Mars with a political Jupiter. At the very least, I think we may be permitted a note of optimism when looking at the prospects for mining in the future.

In last Sunday's Daily News Miner, columnist Fred Pratt was discussing Alaska's position in Pacific Rim trade. Fred made the point that Alaska's competition as a mineral supplier is keen and that Alaska is not guaranteed, simply by virtue of its geographical position and mineral resource potential, a share of the Pacific Rim market. And he's right.

However, our geographic location and resources present us the opportunity and it is up to us to have our house in order so that we can take advantage of the opportunity and when external economics are right to compete successfully for those markets.

Addressing that concern, I'd like to digress a bit at this point from my assigned topic. Yesterday afternoon, I spoke during the agency session in some detail about the activities of the Alaska Minerals Commission. For those of you who were present, I'm going to be repetitive but brief.

The Minerals Commission was created by the 1986 legislative session and 11 commission members, all from the minerals industry, were appointed. They are Del Ackels, Earl Beistline, Jerry Booth, Joe Davis, Don Finney, Karl Hanneman, Jenny Hawley, Peter Richardson, Darrell Spilde, Joe Usibelli and Ernie Wolff. I'm sure most of you know many of these people and know that they represent a cross section of the placer, hard rock and coal industries.

The Minerals Commission was charged with making recommendations to the governor and legislature on ways to mitigate the constraints on the development of minerals in Alaska. The Commission has divided its work into five areas: Land Management, Regulations, Transportation, Administrative Policy and Education.

Additionally, the Commission will draft a proposed Alaska Minerals Policy Act for adoption as a State statute.

Recommendations in these areas will form the Commission's first report to the governor and legislature at the beginning of the upcoming legislative session and should begin to address several concerns and issues that will help the State put its mineral house in order.

Thank you.

MINERS ADVOCACY COUNCIL FACTS
ON:

ALASKA'S GOLD MINING ECONOMY IN 1986
(based on data and sources contained in an information paper available from the MAC office)

Alaska's gold miners had some advantages in 1986 over 1985:
*Gold prices rose 25%
*Fuel costs dropped 50%
*Labor was plentiful and hungry for work.

Despite the good news:
*Alaskan gold production fell 16%. Large production from two companies in Nome masked an even greater decline.

*About 30% of Alaska's gold miners were flushed out of the market this year. Mine permit applications fell 29%. About 400 mining jobs were lost statewide.

*Alaska's mining industry as a whole spent the lowest amount in 15 years on mineral exploration. Between 1981 and 1986, exploration expenditures fell from $76 million to less than $10 million.

In the Interior:
*active operations declined 47%.
*mine expenditures fell from $27 million to 12.6 million.
*mine employment dropped from 621 jobs to 292.

Industry and government officials attribute declines to the negative effects of state water quality regulations and several lawsuits.

Due to **Northern Alaskan Environmental Center v. National Park Service** suit, active mine operations within the parks declined from 30 in 1985 to 1 in 1986. This resulted in a 90 loss of gold production over 1985.

The **Sierra Club v. Bureau of Land Management** suit dampened mining on BLM lands. Of the 38 active operators in the Circle Mining District in 1985, only 18 mined in 1986. Only 11 plan on mining in 1987--down from 91 in 1984. About 80% of all Alaskan placer mining occurs on federal lands.

To produce an ounce of gold from a typical Nevada hardrock mine costs $250--versus $375 from a similar mine in Alaska. Costs to produce an ounce of gold from an Alaskan placer mine typically range from $250 to $300.

Alaskan mine transportation costs average between 20% and 30%--versus a worldwide average between 5% and 10%.

INFORMATION PAPER
on

THE ECONOMICS OF THE MINING INDUSTRY AS RELATED TO PLACER GOLD--1986

compiled by Leslie Barber
for the Miners Advocacy Council

Alaska's mining industry had several advantages in 1986 over 1985.

* Gold prices rose 25 percent.
* Fuel costs dropped 50 percent.
* Labor was plentiful and hungry for work.

Despite the good news, preliminary statistics from Tom Bundtzen, economic geologist for the State Division of Mining and Geology showed that:

* Alaskan gold production fell 16 percent. In 1986, only 160,000 ounces of gold were produced, down from 190,000 ounces in 1985. Large production at Nome's new 15-story BIMA dredge and the Alaska Gold Company masked an even greater percent-decline.

* Mine permit applications also declined--by 29 percent. Of the 512 mine operators who did apply for 1986 permits, only 195 reported mining--down from 266 in 1985. "The most telling statistic here is a loss of 26.7 percent of the active mines statewide," Bundtzen reported.

According to Charles Green, development specialist for the State Division of Minerals and Forest Products:

* The mining industry again spent the lowest amount in 15 years on mineral exploration--about $10 million. Preliminary statistics show this 1986 figure to be about the same as 1985's. Exploration expenditures rose from $10 million to $70 million between 1974 and 1980. Between 1981 and 1986, they fell from a high of $76 million back to less than $10 million.

The declines hit Alaska's Interior particularly hard. Interior mining districts--where state and Environmental Protection Agency (EPA) water quality enforcement actions were concentrated--suffered a 47 percent decline in active operations, according Del Ackels, acting Chairman of the Fairbanks branch of the Alaska Miners Association (AMA). While 90 mines operated in 1985, only 48 operated during 1986, within the Interior districts of Circle, Livengood, Kantishna, Koyukuk and Fairbanks.

Direct mining expenditures in the Interior economy also dropped--from $27 million in 1985 to $12.6 million in 1986, Ackels reported. This figure excludes spin-off spending.

Preliminary statistics show a loss of 260 to 400 mining jobs statewide, according to Bundtzen. His final statistics will be available in January, 1987 for spring publication. Ackels reported that in the Interior, mine employment fell from 621 jobs in 1985 to 292 in 1986. This figure excludes inactive mine operators. Since the average mine has two operators, mine closures may have put an additional 84 people out of work.

The average Alaskan miner has been operating for 17 years, according to the AMA. Operator unemployment figures concern the industry: if a miner can no longer mine, he loses the value of a third of his productive life experience as well.

The writing was already "on the wall" when the AMA polled its membership in March, 1986. Only 44 percent planned on mining in 1986. Of the 56 percent not planning on mining, over 50 percent checked "state and federal environmental regulations" as reason for not mining.

Unattainable state and federal water quality regulations, selective enforcement practices, lawsuits, an unattractive Alaskan political climate for mineral investment, and gold price-trend uncertainties prior to the 1986 summer mining season triggered the declines, according to various industry and government officials.

The current climate of environmental regulation and litigation adversely affected placer mining economics by:

1. completely stopping some operators from mining,
2. causing tremendous costs that forced other miners out of business,
3. clouding the future so mine operators can't make long-term plans or obtain financing from banks.

So stated Keith Tryck, Chairman of the Placer Committee for the Anchorage branch of the AMA, in his presentation on the Economic Consequences of Recent Environmental Litigation Aimed at the Alaska Placer Mining Industry, given at the October 1986 AMA Convention in Anchorage.

Due to the National Park Service/Northern Alaska Environmental Center lawsuit, 1986 gold production from mines within Alaska's national parks declined by 22,000 ounces--a 90 percent loss over 1985. The 17 active placer operations in the Kantishna area of Denali National Park in 1985 fell to zero in 1986. Of the 30 active operations within the parks in 1985, only three were granted permits to operate in 1986--and only one actually operated.

The Bureau of Land Management/Sierra Club lawsuit dampened mining on BLM lands in 1986. For example, of the 38 active operators in the Circle Mining District in 1985, only 24 mined in 1986. According to Ackels who mines in the Circle District, only 11 to 14 are planning on mining in 1987--down from 91 mines in 1984.

Considering that 80 percent of all Alaskan placer mining occurs on federal lands, these two lawsuits alone may have dealt a deathblow to the industry. As Green said in his October 1986 AMA convention presentation, The Impact of Mining on Alaska's Economy: Past, Present and Potential: "I think it's fair to conclude that unless the State joins that game and joins it soon, there will not only be further decline in the placer industry over the next few years but that small independent operators on public lands will have largely gone the way of the woolly mammoth."

If the 6(i) lawsuit--which deals with leasing of, and royalties from, state mining claims--is successful, no one will want to file mining claims on state lands either. Miners would receive a much better deal on federal or private lands, where patent ownership is possible. According to the Pacific Legal Foundation, this suit was brought by a coalition of environmental organizations in an attempt to curtail mineral extraction from state lands.

The water quality lawsuit, filed by the Miners Advocacy Council against the state, deals with flaws in the procedures by which the state water quality standards have been promulgated. Bruce Geraghty, Executive Director of the Miners Advocacy Council, noted that this suit can provide industry some relief; but so far, the state has been successful in sandbagging resolution of the issues. For example, the state refused to grant an administrative hearing until after the suit was filed. Such actions drain industry funds from research, development and exploration.

The industry considers the low in exploration expenditures to be particularly bad news for two reasons. Not only is less money fueling Alaska's economy; but as Green said, "exploration represents the 'seed corn' for the future of the industry."

Green attributes the decline in exploration spending in Alaska to several years of low commodity prices and a dramatic reorganization of the U.S. mining industry. However, he adds, economic forecasters consider commodity prices and the industry's health to be at the beginning of a recovery. Yet Alaska's mining industry needs to be in a position to capitalize on this recovery.

Alaska's mining industry needs "access" to be able to take advantage of the economic recovery taking place in the U. S. mining industry according to Green. "By access, I mean not only transportation access, but access in the sense of providing rights of access to explore for, develop, produce and market minerals," he said. Under access rights, he includes RS 2477 right-of-ways, Titles 11 and 15 of ANILCA, and the right of mineral entry to land for exploration and development.

Alaska is starved for capital and needs outside investment for mineral exploration and development to occur, according to Tom Albanese of NERCO Minerals. To capitalize a typical mine in Nevada costing $18 million requires $31.7 million in Alaska--a 76 percent increase. Operating costs would run $45.5 million in Nevada--versus $64 million in Alaska--a 40 percent increase.

To produce an ounce of gold from this typical Nevada mine costs $250--in contrast with a $375 an ounce price to produce this gold at a similar mine in Alaska. Investors become interested in Nevada gold at $250 an ounce. They become interested in Alaska gold at $375 an ounce. "Therefore, $400 gold is needed to attract investors to Alaska," said Albanese.

Factors contributing to Alaska's higher capitalization and operating costs include high regulatory and transportation expenditures. For example, regulations account for 15 percent of Usibelli Coal Mine, Inc.'s total cost. Of the $100 million U. S. Borax has spent on its Quartz Hill mine, $25 million has been spent on environmental requirements for the mine--which isn't even in production yet.

Mining transportation costs average between 20 to 30 percent in Alaska. The worldwide average lies between 5 and 10 percent.

In effort to counter the 1986 downward trends, industry representatives are working closely with the newly formed Alaska Minerals Commission. This state-funded commission is developing an Alaskan Minerals Policy Act as well as recommendations for regulatory reform.

The Resource Development Council (RDC) is working on several pieces of legislation beneficial to mining and other industries. They are also rewording the "clean" water bill--HB627--vetoed in 1986 by Governor Sheffield.

The industry is encouraged by Governor-Elect Cowper's support of: site-specific water quality regulation, possible reclassification of some streams and land information centralization. Centralized land information would help clarify which permits are needed and could indicate an area's mineral potential. "Hopefully, the governor realizes that only 18 percent of Alaska has had any mineral or geologic assessment work done on it," Geraghty noted--referencing information available at the State Division of Mining and Geology.

In an attempt to solve Alaska placer miners' turbidity problems, the EPA and the U. S. Bureau of Mines tested the flocculant, polyethalene oxide (PEO), at four mines this summer. Although the PEO did not achieve the state standard of 5 NTUs, it did substantially reduce the level from thousands of NTUs to averages in the 100s.

Esperanza Mining, which tested a combination of coagulants and flocculants this summer, achieved a rate as low as 1.5 NTUs. However, the test had a limiting factor. It required large settling ponds not possible at all operations.

Usibelli Coal Mine, Inc. tested a gelatin form of flocculant, called a gel log, which could have applications to placer mines with efficient settling ponds.

Bright spots did occur in the gold industry this year. A high-grade copper/gold deposit was discovered in a road cut along the Haines Road--demonstrating that not all of Alaska's resources have been uncovered.

The BIMA dredge appeared in Nome, after being safely barged from Indonesia. The dredge began offshore placer gold mining tests for Inspiration Gold Corporation in July. It directly employed 45 people from Nome. Inspiration, together with the Alaska Gold Company, became the largest private-sector employer in Nome. Over one-third of Alaska's 2200 placer mining jobs are filled by rural Alaskans. When placer mining is allowed to grow, this traditional area of Alaska's highest unemployment gains additional jobs.

Alaska shares similar geological, climatic, and geographical characteristics with the Yukon, British Columbia and the Northwest Territories. Combined, these Canadian entities support a $3 billion mineral industry. According to Green, Alaska could have at least a $1 billion industry, adding several thousand jobs to the economy.

"But," said Geraghty, "unless the mining industry wanting to do business in Alaska sees some relief from the risks--selective enforcement, unmeetable regulations, uncertain land issues, and increasing litigation targeted against the industry--little reason exists to expect the declining trends to change, despite a brighter future in gold prices and the U.S. mining industry overall."

IN SUMMARY, gold exploration, production and employment all suffered in 1986. "Gold production in 1986 should be up, rather than down," Tryck said, based on his research. His conclusion: The solution to this dilemma is political.

Miners Advocacy Council
P.O. Box 83909
Fairbanks, Alaska 99708

for more information, contact:
Leslie Barber 452-6227

December 11, 1986

News Release--[STATE ECONOMIC GEOLOGIST PRESENTS REPORT IN SPOKANE ON ALASKA'S MINERAL INDUSTRY - 1986]

Tom Bundtzen, economic geologist for the Alaska Division of Mining and Geology in Fairbanks, Alaska, presented: Alaska's Mineral Industry - 1986, at the 92nd Annual Convention of the Northwest Mining Association, held in Spokane, Washington from December 3rd through the 6th.

"Times are rough in Alaska for certain parts of the industry," Bundtzen said. He noted that in 1986, mineral industry expenditures for exploration, development and production in Alaska declined from $270 million to $220 million--$50 million less than last year.

Bundtzen attributed the decline to: (1) the negative effects of several lawsuits and strict state water quality regulations on the placer mining industry; and, (2) the dramatic reduction in sand and gravel production due to the catastrophic decline in oil revenues.

On the 1986 bright side, Bundtzen noted that Alaska coal exports increased, the Red Dog mine received construction approval and Alaska tin production reached its highest level in nearly 40 years. The BIMA dredge--four or five times larger than any other gold dredge ever operated in Alaska--began test production in 1986, and the Valdez Creek Mining Company was Alaska's largest gold producer for the third consecutive year.

12/22/86

The

Exploration drop most dramatic

Mining expenditures decline

By JOHN FRIDRICH
Staff Writer

Money spent for exploration, development and production of minerals in Alaska during 1986 declined by 14.4 percent from 1985, the fifth year in a row that expenditures for exploration have fallen, according to figures compiled by the state.

Slightly more than $231 million was spent to find and recover a variety of minerals in Alaska during 1986, a decrease of $38.8 million from the previous year. Gold, coal and sand and gravel accounted for 91 percent of the state's production, with tin, silver, antimony, tungsten and building stone making up a majority of the remaining nine percent.

The most dramatic decline in mining-related activities has come in the area of exploration. In 1981, when the state Department of Natural Resources resumed keeping mining activity records, more than $76.3 million was spent to locate Alaska's mineral wealth. By 1984, that total had dropped to $22.2 million, falling to $9.1 million last year and $8.9 million this year, a decline of nearly 89 percent in six years.

Tom Bundtzen, a state economic geologist, who along with Charlie Green of the Department of Commerce and Economic Development, compiled the data, said there are a variety of reasons for the decline.

"One of which is that the metal commodities markets have not been performing all that well," said Bundtzen, who works out of the Division of Geophysical and Geological Survey's Northern Region office in Fairbanks. In addition, mining companies, benefitting from cheaper fuel and labor costs, have found the economic climate in Third World countries more attractive, he said.

Stiff water quality regulations and two lawsuits filed by environmental organizations also played a role. The Sierra Club vs. National Park Service suit closed down mining in three parks, with narrow exceptions, until the agency completes comprehensive environmental assessments, which could take several years.

Thirty companies were mining in the Denali, Wrangell-St. Elias and Yukon-Charley River parks in 1985, but only one small mine was operating in 1986. Bullion companies estimated that the closure meant a loss of 22,000 ounces of placer gold, Bundtzen said.

"A fair amount of loss of production could be attributed to this one issue (the NPS suit)," he said.

In the midst of the decline in mining activity, there were some bright spots. In the waters of Norton Sound near Nome, the world's largest gold dredge conducted production tests for seven weeks this summer. Capable of working 40,000 yards of material a day, six times the amount of dredges used locally in the past, the 14-story tall "Bim" employed 66 people, including 44 Nome residents, and spent "millions of dollars," according to Bundtzen. The Alaska Gold Co. was also active. "You could say Nome was a mining town this summer," he said.

Canadian-based Cominco Ltd. announced that it plans to begin mining the Red Dog zinc deposit east of Kotzebue.

Cominco officials have said they plan to spend $400 million on Red Dog in the next four years, according to Bundtzen, with production scheduled to start in 1991. "The commodity (zinc) is used more now than it every has been. A lot of people think it has a big future," he said.

Coal production in Alaska increased by 10 percent and tin output jumped 12 percent.

MINERS ADVOCACY COUNCIL FACTS ON: ALASKA'S MINING ECONOMY

Alaska's mining industry had several advantages in 1986 over 1985.

* Gold prices rose 25%
* Fuel costs dropped 50%
* Labor was plentiful and hungry for work.

Despite the good news,

* Alaskan gold production fell 16%. Large production from two companies in Nome masked an even greater decline.

* Mine permit applications dropped 29% -- from 729 to 512. Only 195 miners reported operating in 1986 versus either 266 or 410 in 1985, (based on two different state surveys).

* The mining industry spent the lowest amount in 15 years on mineral exploration. Exploration expenditures rose from $10 million to $70 million between 1974 and 1980. Between 1981 and 1986, they fell from $76 million back to less than $10 million.

* Between 260 to 400 mining jobs were lost statewide. In 1985, over one-third of the placer industry's 2200 jobs were filled by rural Alaskans.

* When the Alaska Miners Association polled its membership in March of 1986, only 44% planned on mining this year. Of the 56% not planning on mining, 50% checked "state and federal environmental regulations" as reason for not mining.

The current climate of environmental regulation and litigation affects the mineral industry by:

* stopping some miners completely
* causing tremendous costs that force miners out of business
* clouding the future so operators can't make long-term plans or obtain bank financing.

In the Interior,

* active operations declined 47 percent.
* mining expenditures fell from $27 million to $12.6 million.
* mine employment dropped from 621 jobs to 292--excluding inactive mine operator. The average Alaskan miner has been operating for 17 years.

Alaska shares similar geological, climatic and geographical characteristics with the Yukon, British Columbia and the Northwest Territories. Together, they produce a $3 billion mineral industry. According to the state, Alaska could have at least a $1 billion industry, adding several thousand jobs to the economy.

MINERS ADVOCACY COUNCIL FACTS ON: THE COSTS OF MINING IN ALASKA

In general comparison, a typical mine costing $18 million in Nevada requires $31.7 million in Alaska. Operating costs that run $45.5 million in Nevada cost $64 million in Alaska. To produce an ounce of gold from this typical Nevada mine costs $250 versus $375 from a similar mine in Alaska.

Investors become interested in Nevada gold at $250 an ounce. They become interested in Alaskan gold at $375 an ounce. Therefore, $400 gold is need to attract investors to Alaska.

Contributing to Alaska's higher mining costs:
*Regulations account for 15% of Usibelli Coal Mine, Inc.'s total costs. They account for 25% of what U. S. Borax has spent so far on its Quartz Hill mine.

*Mine transportation costs in Alaska average between 20% to 30% Worldwide, they average between 5% and 10%.

Average Expenditures by Placer Mine Type in 1985:

Recreational and Assessment	$ 8,700.00
Small	38,600.00
Medium	216,600.00
Large	1,169,100.00

Type classification of Placer Mining Operations is based on employment, 1 to 3, 3 to 4, 4 to 7, and more than 7 respectivly.

Costs to Alaska's economy due to current lawsuits:

* Northern Alaskan Environmental Center v. National Park Service
Of the 30 active operations within the parks in 1985, only three were granted permits to operate in 1986--and only one actually operated. This resulted in a 90% loss of gold production over 1985.

* Sierra Club v. Bureau of Land Management
In the Circle Mining District alone--in 1985, 38 operators were active --where only 24 mined in 1986. Only 11 are planning on mining in 1987--down from 91 mines in 1984. 80% of all Alaskan placer mining occurs on federal lands.

* 6(1) lawsuit:
If successful, no one will want to file on state land. The industry would receive amuch better deal on federal or private lands, where patent ownership is possible.

* Water Quality suit:
Such actions drain industry funds from research, development and exploration.

* Mining is (or was in 1985) Alaska's fourth largest non-government industry.

STATE/EPA AGREEMENT
SFY 1987

Every one of the following statements of fact is taken from this document.

The monitoring compliance goal for placer mining is 100%. The monitoring compliance goal for Class A drinking water systems is 70%. The goal for Class B systems is 50%.

Water Pollution Control Program allowcates 265 days for Inspection/Surveillance/Investigation of placer mining. Seafood processors are allowcated 12 days. Petroleum industries will receive 76 days of effort.

Water Pollution Control Enforcement/Compliance Action is estimated at 204 days of effort on placer mining, 56 days on sewage treatment plants, 29 days on petroleum industries, 15 days on seafood processing.

Water Pollution Control Monitoring/Testing section estimates 229 days will be spent on placer mining, 43 days on sewage treatment plants, 2 days on seafood processors.

Water pollution from placer mining generated less complaints than any other sector except agriculture, which generated no complaints.

The amount of money spent on placer mining pollution control exceeds the amount of money spent on hazardous waste management in the state of Alaska.

Placer Miners of Alaska feels that the greater good of the public is not served by the skewed priorities evident in this document..

Josh Moore

Josh Moore
Secretary, Placer Miners of Alaska

RON SHEARDOWN
3512 Campbell Airstrip Road
Anchorage, Alaska 99504
(907) 333-1602, 333-1400

February 20th 1987

Senator Jack Coghill
Capitol Building, Room 205
P.O. Box "V"
Juneau, Alaska 99811

Dear Senator Coghill: Re: A diversified economy for Alaska with orderly development.

With regard to our recent fiscal problems in Alaska, I would like to offer the following idea's for a diversified economy for Alaska with orderly development and the potential of the mining industry to contribute. I submit the following scenario. First I think we need to go back and examine the pre oil boom to get a perspective of the future. Probably one would have to go back and examine state government from statehood in 1959, and possibly to the purchase of Alaska in 1867, to the present to come up with a reasonable future for Alaska.

Alaska has over 100 years of records and experience in fishing, trapping, mining, timber, transportation, agriculture, tourism, military, building and living in an arctic climate and more recently oil and gas. If we can not figure out at this time how to diversify our economy and create orderly development, then we better give up.

Remembering the election of 1974, the rhetoric used to unseat Governor Bill Egan was based on four points, amongst others as best I can remember.

1. To protect the new found wealth of Prudhoe Bay and not lose it, as happened to a portion of the 1969 $900 million bid bonus money. Probably the most damaging item to the Egan campaign in 1974.

2. Diversify the economy.

3. Use our new found wealth to smooth the boom and bust of Alaskas past.

4. We had to prepare for 1988 and declining oil revenues as Prudhoe Bay started its decline.

As is evident, Hammond did not follow this advise and set

the stage for the problems we are in today. His idea of diversification must have been more government departments and state employees as he fought every major mining and timber development during his administration. He did support the fishing and hunting industry as well as tourism and farming, we all remember Delta barley. He was also successful in locking up major portions of Alaska. We can easily see that without a balanced diversified economy including fishing, tourism, timber, mining, oil and gas, farming, industry and government spending, Alaska cannot afford the luxury of a large state bureaucracy. Socialism only pays when it has a strong private enterprise system to pay for it. Even China and Russia are looking to private enterprise to bail out their economic system. As Winston Churchill once said "Some see private enterprise as the predatory target to be shot, others as a cow to be milked, but few are those who see it as a sturdy horse pulling the wagon."

It is interesting that in 1986 as the price of oil went down -31.8%, gold went up +22.8%, Platinum up +38.3%, silver down -7.4%, most base metals down approximately -10%?, coffee down -43.3%. A more diversified economy will help smooth the boom and bust of depending on one commodity to solve all our problems.

In 1986 we got the first indication of what declining oil revenues meant, although for a different reason than was forecast in 1974. Lower prices have the same effect on the economy as less oil through the pipe due to depleted reserves. God only knows we have had plenty of warning and still put most of our eggs in one basket. We can now easily see what the lack of grease does to the wheels of progress in Alaska if we do not have a diversified resource industrial base.

A strong diversified economy for Alaska should mean 1 to 3 billion dollars annually each (gross value sales) from fishing, tourism, timber, mining, and that other great industry, government spending ($10-12 billion). The sum of these industries should be equivalent to the annual gross sales value of the oil and gas industry ($10-12 billion), if we hope to have a diversified orderly economy and smooth the boom and bust of Alaskas past.

I expect mining to have annual gross sales of 1 billion + by 1992 with the projects that are in production now, committed to go to production at this time and projects that are in the permitting stage (fast track) at this time. COMINCO-NANA Red Dog $300m, AMSELCO Greens Creek $200m, DIAMOND SHAMROCK Beluga Coal $200m, PLACER US Beluga Coal $100m, USIBELLI Healy Coal $39m, INSPIRATION Nome Offshore $30m, CAMINDEX Valdez Creek $15M, ALASKA GOLD Nome Onshore $10m, present rate of gravel mining $125m, and placer mining $60m. ($1.079b).

I am showing placer mining at the 1985 rate of production ($60m) because of the present water quality and reclamation regulations. This is an industry that could grow to the range of $100 to $300 million dollars in the next 5 to 10 years if proper

attainable economic standards were developed by the State of Alaska and the Federal Government. This industry is not regulated in black and white, only in different shades of grey. Government regulation and dominance has reached a new low in this industry. Other than a few large operators this industry is the true Alaskan entrepreneur and I can not understand why people are so set in eliminating this life style. Would we rather have them living on food stamps and off the tax payers. With proper economic attainable laws and regulations, government leadership and some engineering help these people can operate in a professional profit making manner. They do not need government loans, grants or hand outs. Remember the laws that are designed to eliminate the small placer miner will eliminate the large operator in time, (example the problems that Diamond Shamrock is having on their Beluga coal project with water quality and reclamation.)

Future mines that could be on stream by 1997,include US BORAX Quartz Hill, GCO Lik, DOYON Alaska Asbestos, SOHIO-KENNECOTT Bornite Arctic, NERCO Delta?, HANSON Goodnews Bay, CIRI Johnson River?, ECHO BAY Alaska Juneau-Treadwell, QUEENSTAKE West Chichagof, UNION PACIFIC Wishbone Hill coal, CHUGACH Bering River Coal, Lost River, ALASKA APOLLO Unga Island, additional offshore dredging, additional placer mines and possibly 3 or 4 small to medium size hard rock gold mines.

To give you some perspective of mining in other states and provinces; Arizona (Udall) 1.483 billion dollars sales per year, Wyoming 3.231b, California 2.003b, Texas 1.715b, Nevada .616b, Idaho .412b, Utah .524b, British Columbia 2.000b+, This does not include coal, uranium and gravel in some cases. I am working on new up-dated numbers for these states and provinces and will forward to you when finished.

It is interesting to note that Alaska has close to one hundred billion dollars in drilled mineral reserves at this time. This includes base metals, precious metals, industrial minerals, coal and gravel. At the present rate of mining this represents approximately 500 years of reserves, at one billion dollars per year it represents 100 years of reserves and at three billion dollars per year it represents 33 years reserves. Alaska has the potential to develop many times this reserve in the future under proper state leadership. There are very few countries in the world as well endowed with minerals as Alaska. I think one of our transition team members put it best when she made the statement that if we cannot manage a few mines and timber spreads, then how can we tell countries such as South Africa how to run their affairs.

I suggest a mix of policies, programs, laws and regulations that recognize the special characteristics of the mining industry in Alaska and the economic forces shaping its future. Policies are needed that will facilitate adjustment and that will help to contribute to economic growth in future years.

First impro e mineral investment climate in Alaska. 85 companies have pulled up stakes and left Alaska in the past few years. (One company told me a few years ago that they prefer the banana republics to Alaska as they know where they stand). Mining exploration money in Alaska has reduced 89.5% from $76m in 1981 to less than $9m in 1986. British Columbia increased 24% in 1986 to over $100m, while Alaska continued to decline. The resource agencies should co-operate and encourage sound resource development and stop dividing the fishing industry from the mining and timber industry etc. The agencies have got to get more professional and scientific, and stop making each development a political issue.

Second is to improve the international trading environment in Alaska. Alaska should do away with the Worldwide Combined Reporting Method of taxation and base the Alaska corporate tax on Alaska sales only.

Third is to bring domestic cost structures in line with international realities. (workmens compensation, Davis Bacon, labor laws, Jones Act, the mining laws and environmental laws and regulations etc.)

If implemented, these proposals will lead to increased investment and employment in rural areas, and they will benefit all Alaskans.

The mining industry is not asking for financial handouts. Rather, it is proposing the removal of obstacles to growth and investment, the streamlining of regulation, and the creation of a supportive policy environment in several respects. Since most suggestions will be essentially cost-free, I believe the government can contribute strongly to economic renewal in this sector while pursuing the important goal of putting its fiscal house in order. It can be shown that some stimulative measures can yield positive revenue return.

It is interesting to note that when Red Dog and Greens Creek are in production, Alaska will have two of the most modern and up to date mines in the World as models to the industry and Alaska.

Hoping this is of assistance to you and congratulations and good luck in your new position as Chairman of Senate Resources, we are looking forward to being of assistance to you in our industry. Please feel free to call on me at any time I can be of assistance to you.

Sincerely,

Ron Sheardown

1984 MINERAL PRODUCTION VALUES

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	COMMODITY	ALASKA	ARIZONA	CALIF	COLORADO	IDAHO	MONTANA	NEVADA	NEW MEXICO	N D	OREGON	S D	TEXAS	UTAH	WASHINGTON	WYOMING
2	TOTAL VALUE $M	$ 399,437	$1,493,479	$2,003,445		$412,265		$615,753	$619,144	$21,794	$120,402	$193,407	$1,715,407	$524,162		
3	RANK IN 50 STATES															
4	LAND AREA, SQ MILES	591,004	114,000	158,706	104,091	83,564	147,046	110,561	121,593	70,703	97,073	77,116	266,957	84,599	68,138	97,809
5	POPULATION M	500	3,053	25,622	3,178	1,001	824	911	1,424	686	2,674	706	15,999	1,657	4,349	511
6	VALUE/PERSON		$496	$78		$412		$676	$435	$32	$45	$274	$107	$317		
7	GEM STONES		$2,700	$500	$80	$150	$450	$1,300	$200	$2	$400	$70	$175	$80	$200	$225
8	GOLD	$ 63,000	$18,591	$30,985	$21,643		$65,349	$359,750			W	$111,994		W		
9	SAND AND GRAVEL	$ 95,000	$101,959	$389,603	$89,537	$13,509	$21,269	$20,505	$22,389	$11,351	$37,117	$12,169	$228,743	$34,507	$66,271	$13,372
10	SILVER	,157	$33,320	W	$17,909	$193,606	$46,018	$52,727	W		W	$407		W		
11	STONE	$ 32,500	$27,300	$160,990	$26,297	$7,100	$2,400	$4,700	$17,149		$37,500	$31,442	$311,236	$16,400	$31,700	$7,600
12	OTHER (INCLS W)		$102,939	$268,294	$278,515	$100,029	$93,521	$151,787	$358,157	$4,529	$45,031	$5,803	$414,352	$423,193	$102,907	$458,187
13	CLAY		$819	$23,969	$2,111	$743	$19,250	$1,191	$143		$288	$343	$23,051	$2,223	$1,646	$57,299
14	COPPER		$1,100,182		W	$5,455	W							W		
15	GYPSUM		$2,332	$12,443	W			$8,850	$1,622				$19,431	$2,671		$2,618
16	LEAD		W			W	W	W								
17	PUMICE		,-1	$1,600					$1,259							
18	LIME		$17,304	$26,827		$5,616	$5,097			$5,912			$61,214	$16,471		
19	MOLYBDENUM		$78,117		W											
20	BORON			$456,687												
21	CEMENT			$520,029								$31,056	$581,830		W	
22	DIATOMITE			W												
23	PEAT			W	W											
24	TALC			$1,642							$66		$5,705		W	
25	ANTIMONY	$ 226				W										
26	PHOSPHATE					$126,566										
27	BARITE						W	14,924								
28	IRON ORE							W								
29	MERCURY	$,002						W								
30	POTASSIUM SALTS								$204,100							
31	PERLITE								$14,115							
32	NICKEL										W					
33	FELDSPAR											$124				
34	MICA												W			
35	SALT												$69,672	$28,651		
36	SULFUR												W			
37	BERYLLIUM /TON	$,600												$6		
38	COAL	24,634			$390,610		$726,000								$ 96,800	$3,176,800
39	URANIUM															
40	TOTALS	$399,437	$1,493,479	$2,003,445	$816,682	$412,295	$975,363	$615,753	$619,144	$21,794	$120,402	$193,407	$1,715,407	$524,162	$299,424	$3,231,729

DRAFT LETTER TO THE EDITOR

March 24, 1986

With oil revenues drastically reduced, many people in Alaska have been crying out for diversification of our State's economy. It is ironic that with all of this concern over diversification in the economy, Alaska's oldest industry, mining, is dying. After a resurgence in the 1970's and early 1980's, over 85 companies have abandoned their exploration and development activities in the State. These companies listed below have withdrawn in spite of the fact they discovered tens of billion of dollars worth of minerals.

People concerned about the diversification of Alaska's economy should be asking themselves the question, "Why has the mining industry left the State?". Depressed world mineral prices are a major factor in this exodus. However, Alaska's regulatory and taxation climates have contributed significantly. With the high cost of development in Alaska, it is difficult to attract mineral exploration and development capital into an constantly changing regulatory and tax environment.

The attitude of the State government towards Alaska mining was recently demonstrated when the administration refused to help Alaska's placer miners fight the Sierra Club in their suit against the Bureau of Land Management. Placer mining is Alaska's only viable industry throughout most of the interior that does not depend on federal or state subsidies to produce economically. Placer miners now face the threat of being closed down by reulation and the State of Alaska is refusing to stand up for this industry.

Mining means jobs and economic diversification to Alaska. It's time for the State and all Alaska residents to get behind the industry and encourage it. Reasonable regulations, stable taxation and preservation of the placer industry would all help the industry.

This is an unpublished letter recieved from the Alaska Miners Association BRG

MINING COMPANIES WITHDRAWING FROM ALASKA

Amax Exploration Company
American Copper and Nickel
Amoco Minerals Company
Anaconda Minerals Company
Anglo United
Asamera
Asarco Inc,
Aspen Exploration
B. P. Exploration
Billiton Exploration, USA
Boliden
Cabot Mineral Resources
Campbell Chibougamou Mines, Ltd.
Chevron
Cities Service Minerals
Conoco
Consolidated Gold Fields
Conwest Exploration, Ltd.
Cyprus Exploration Co.
Dennison Mines (U.S.) Inc.
Dome Mines
Duval CORP,
Enserch Exploration, Inc. Metals Div.
Ethyl Corporation
Exxon Minerals
FMC Corporation
Falconbridge Nickel Mines
Getty Oil Company
Gulf Resources
Gulf Minerals
Hanna Mining Company
Hecla Mining Company
Hudson Bay Mining & Smelting Company
Hunt Oil Company
Inexco
Knox & Kaufman
Kennecott
Lost River Mining Corporation
Louisiana Land Company
Louisiana Pacific
MacIntyre Mines, Ltd.
Mapco, Inc.
Mankomin Exploration, Inc.
Marietta Resources International
Marubeni
Mining Corporation
Mobil
Mohawk Oil and Gas
Molycorp Inc.
Newconx (Canada)

Newmont Exploration Company
Noranda Exploration, Inc.
Northgate Exploration Ltd.
Occidental Minerals Corporation
Pathfinder Mines Corporation
Patino Inc.
Phelps Dodge Exploration
Phillips Petroleum Minerals
Placid Oil Company
Portland General Electric (coal)
Preussag Inc.
Quintana Minerals
R & M Exploration
Ranchers Exploration
Rexcon Inc.
Rio Algom Exploration
Rio Tinto Cancdian Exploration, Ltd.
St. Joe American
Shell Oil Company
Sherrit Gordon
Silver Standard Mines
Sunshine Mining Company
Superior Oil Company
Teck Mines, Ltd.
Teton Exploration
Texasgulf, Inc.
U. S. Steel
Union Carbide
Union Oil Company (coal)
United Nuclear
Uranerz
Urangesellschaft USA, Inc.
83 Westpark Minerals

SB

98

5-0534B
Bradley
3/16/87

Original sponsors: Fahrenkamp, Faiks, Coghill, et al.

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE BILL NO. 98 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the use of water."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 46.03.020(10) is amended to read.

(10) adopt regulations necessary to effectuate the purposes of this chapter, including, by way of example and not limitation, regulations providing for

(A) except as provided in AS 46.03.023, control, prevention, and abatement of air, water, or land or subsurface land pollution;

(B) safeguard standards for petroleum and natural gas pipeline construction, operation, modification, or alteration;

(C) protection of public water supplies by establishing minimum drinking water standards, and standards for the construction, improvement, and maintenance of public water supply systems;

(D) collection and disposal of sewage and industrial waste;

(E) collection and disposal of garbage, refuse, and other discarded solid materials from industrial, commercial, agricultural, and community activities or operations;

(F) [REPEALED

(G)] control of pesticides;

(G) [(H)] such other purposes as may be required for the implementation of the policy declared in AS 46.03.010;

(H) [(I)] handling, transportation, treatment, storage, and disposal of hazardous wastes;

* Sec. 2. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.023. LIMITATION ON POWER OF DEPARTMENT. The department may not establish a water quality criterion for turbidity.

* Sec. 3. AS 46.03.080 is amended to read:

Sec. 46.03.080. QUALITY AND PURITY STANDARDS. After study and public hearings held upon due notice, the department may, except as provided under AS 46.03.023, establish standards of quality and purity or group the designated waters of the state into classes as to minimum quality and purity, or both. The department shall classify waters in accordance with considerations of best usage in the interest of the public. The department may alter and modify classifications after hearing.

* Sec. 4. AS 46.15 is amended by adding a new section to read:

Sec. 46.15.045. SMALL SCALE USE OF WATER. A person may use less than a significant amount of water without a permit unless the commissioner determines under AS 46.15.080(b) that the use of less than a significant amount of water without a permit is not in the public interest. A person using less than a significant amount of water without a permit acquires no water right or priority unless an application is filed and a permit or certificate is issued under AS 46.15.-030 - 46.15.185.

* Sec. 5. AS 46.15.133(f) is amended to read:

(f) The commissioner may, by regulation, designate additional types of appropriations that [WHICH] are exempt from this section and provide simplified procedures for ruling on the applications.

* Sec. 6. AS 46.15.133 is amended by adding a new subsection to read:

(g) An application to appropriate not more than 5,000 gallons of

water a day is exempt from the notice provisions of this section except that the commissioner shall notify the Department of Fish and Game of each application to appropriate water from a stream designated under AS 16.05.870(a). Notwithstanding this subsection, the commissioner may require public notice under this section

(1) on a determination that the total amount of water available in an area is limited considering the number of potential users from the source of the water; or

(2) on request of the municipality in which the area is located.

* Sec. 7. AS 46.15.260 is amended t read:

Sec. 46.15.260. DEFINITIONS. In this chapter, unless the context otherwise requires,

(1) "appropriate" means

(A) to divert, impound, or withdraw a quantity of water from a source of water, for a beneficial use; or

(B) to reserve water under [IN ACCORDANCE WITH] AS 46.15.145;

(2) "appropriation" means

(A) the diversion, impounding, or withdrawal of a quantity of water from a source of water for a beneficial use; or

(B) the reservation of water under [IN ACCORDANCE WITH] AS 46.15.145;

(3) "beneficial use" means a use of water for the benefit of the appropriator, other persons or the public, that is reasonable and consistent with the public interest, including, but not limited to, domestic, agricultural, irrigation, industrial, manufacturing, fish and shellfish processing, navigation and transportation, mining, power, public, sanitary, fish and wildlife, recreational uses, and

maintenance of water quality;

(4) "source of water" means a substantial quantity of water capable of being put to beneficial use;

(5) "water" means all water of the state, surface and subsurface, occurring in a natural state, except mineral and medicinal water;

(6) "commissioner" means the commissioner of natural resources;

(7) "director" means the director of the division of lands, Department of Natural Resources;

(8) "person" includes an individual, partnership, association, public or private corporation, state agency, municipality [POLITICAL SUBDIVISION] of the state, and the United States; [.]

(9) "mineral and medicinal water" means

(A) water of a hot spring or spring with curative properties that [WHICH] has been reserved by the federal government under Public Land Order No. 399; and

(B) geothermal fluid, as [THE TERM IS] defined in AS 41.06.060;

(10) "significant amount of water" means

(A) a use of more than 5,000 gallons of water in a single day from a single source; or

(B) the regular daily or recurring seasonal use of more than 500 gallons of water a day for 10 days or more a year from a single source; or

(C) a water use that may adversely affect the water rights of another appropriator or the public interest.

* Sec. 8. AS 16.05.870(b) - (c), 16.05.880 - 16.05.900 and AS 16.20.070 are repealed.

ALSO (d)

* Sec. 9. The criterion for turbidity established in 18 AAC 70.020(b) is repealed.

IN THE SENATE BY FAHRENKAMP

SENATE CONCURRENT RESOLUTION NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

Relating to the state's water quality criterion for turbidity.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the legislature finds that the state water quality criterion for turbidity has unreasonably interfered with reasonable economic opportunities for resource development in the state; and

WHEREAS the legislature determines that there is no reasonable relationship between the economic and social costs of retention of the turbidity criterion and the benefits obtained from its retention; and

WHEREAS the legislature is considering the repeal of the existing water quality criterion for turbidity but wishes to comply with the requirements of sec. 303 of the Clean Water Act (33 U.S.C. 1313); and

WHEREAS the legislature intends to exhaust all reasonable efforts to have its revised water quality standards, without the turbidity criterion, approved by the Administrator of the Environmental Protection Agency;

BE IT RESOLVED by the Alaska State Legislature that the Governor is respectfully requested to direct the commissioner of environmental conservation to present revised water quality standards that do not contain a criterion for turbidity to the Administrator of the Environmental Protection Agency for approval under sec. 303(c) of the Clean Water Act; and be it

FURTHER RESOLVED that the Governor is also requested to direct the commissioner of environmental conservation to present to the administrator with the revised standards a detailed explanation of the adequacy of the revised standards in the protection of the public health and welfare, the

enhancement of the quality of water, and the achievement of the purposes of the Clean Water Act notwithstanding the absence of a turbidity criterion; and be it

FURTHER RESOLVED that if the administrator fails to approve the revised water quality standards submitted by the commissioner of environmental conservation, the Governor is respectfully requested to direct the commissioner of environmental conservation and the attorney general to request a variance under sec. 302 of the Clean Water Act from the applicable federal water quality standard that the administrator uses to justify the rejection of the request for approval.

IN THE SENATE BY FAHRENKAMP

SENATE JOINT RESOLUTION NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

Relating to the requirement that a state have a water quality criterion for turbidity to comply with the Clean Water Act.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the legislature finds that the state water quality criterion for turbidity has unreasonably interfered with reasonable economic opportunities for resource development in the state; and

WHEREAS the legislature determines that there is no reasonable relationship between the economic and social costs of retention of the turbidity criterion and the benefits obtained from its retention; and

WHEREAS the legislature is considering the repeal of the existing water quality criterion for turbidity but wishes to comply with the requirements of sec. 303 of the Clean Water Act (33 U.S.C. 1313); and

WHEREAS the legislature intends to exhaust all reasonable efforts to have its revised water quality standards, without the turbidity criterion, approved by the Administrator of the Environmental Protection Agency;

BE IT RESOLVED by the Alaska State Legislature that the members of the Alaska delegation in Congress are respectfully requested to seek legislation that would waive or eliminate any requirement that a state's water quality plan under sec. 303(c) of the Clean Water Act have a turbidity criterion.

COPIES of this resolution shall be sent to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

Alaska State Legislature

Senate Resources Committee

Sen. John B. (Jack) Coghill, Chairman
Sen. Paul Fischer, Vice-Chairman
Sen. Lloyd Jones
Sen. Arliss Sturgulewski
Sen. Jim Duncan
Sen. Fred Zharoff
Sen. Dick Eliason

Box V
Juneau, Alaska 99811
(907) 465-4907

MEMORANDUM

TO: Senate Resource Committee Members

FROM: Resource Committee Staff RG

RE: CS SB 98; An Act relating to the Use of Water.

DATE: March 23, 1987

Today your packets contain the following items:

1) CS SB 98, the March 16, 1987 version brought before the committee on this date. The two resolutions also presented by Senator Fahrenkamp are included.

2) Senator Fahrenkamp's sponsor memo of March 16, 1987.

3) Legislative Council's sectional analysis

4) DNR's fiscal note.

5) Existing Alaska Statutes governing Fish and Games water quality authority.

6) DEC's 18 AAC 70.020; Turbidity Regulations.

7) Pages 404 through 407 of EPA's "red book."

8) Fairbanks Daily News-Miner article, March 19, 1987.

9) Anchorage Daily News article, March 11, 1986.

Staff is prepared to give a brief demonstration of turbidity, using an actual sample taken from a placer mine settling pond in the fall of 1986.

Alaska State Legislature

Official Business

M E M O R A N D U M

P.O. BOX V
State Capitol
Juneau, Alaska 99811

TO: S nator Jack Coghill/Members of the Resources Committee

FROM: Senator Bettye Fahrenkamp
Representative Mike Miller

DATE: March 16, 1987

RE: Analysis of Committee Substitute for SB 98/HB 109

Because turbidity is the major water quality problem faced by developers of natural resources, especially placer miners, we are proposing to repeal the State's turbidity standard set forth in 18 AAC 70-20(b). The standard for suspended solids would remain. The question is whether getting rid of turbidity would cause EPA to step in and require the State's water quality management plan to include such a standard. Section 303(c) of the Clean Water Act and the regulations promulgated pursuant to Section 303 (40 CFR § 131) answer this question.

Water quality standards consist of two parts: water uses and criteria. Water uses are such things as drinking, swimming, and fishing. Criteria are specific numbers describing the amount of pollutant load a body of water can have for a particular use. The relationship between them is described in 40 CFR 131.11(a) which provides as follows:

> "(a) Inclusion of pollutants. (1) States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. For waters with multiple use designations, the criteria shall support the most sensitive use."

The test then for determining whether turbidity can be repealed is whether it will interfere with any of the designated uses such as for drinking water, fishing, swimming, and the like. For the answer to that question, we turn to the so-called "Red Book" or the "Quality Criteria for Water." At page 404, that book shows that suspended solids and turbidity are a <u>combined</u> criteria. We have attached four pages from the Red Book on this subject for your reference.

As you can see, the only place where turbidity is a substantive concern is with drinking water and then, only "where the water enters the distribution system." Beyond that, the importance of turbidity is described thus at page 405:

> "Turbid water interferes with recreational use and aesthetic enjoyment of water. Turbid waters can be dangerous for swimming, especially if diving facilities are provided, because of the possibility of unseen submerged hazards and the difficulty in locating swimmers in danger of drowning. The less the turbid the water, the more desirable it becomes for swimming and other water contact sports. Other recreational pursuits such as boating and fishing will be adequately protected by suspended solids criteria developed for protection of fish and other aquatic life." (emphasis added)

In short then, turbidity is basically an aesthetic standard, important to health only where drinking water enters the distribution system, and not in the stream itself. These reasons should not be sufficient to cause EPA to overreact to repeal of turbidity as a water quality criteria under the Alaska Water Quality Standards.

Accordingly, the proposed changes to the first three sections of SB 98 would prohibit DEC from establishing a water quality criterion for turbidity and repeals the turbidity standard in the regulations (p. 5, lines 1-2). The accompanying resolution requests that the Commissioner revise the water quality plan without turbidity, present it to EPA and argue the points made above. This would occur in accordance with the procedure laid out in 40 CFR § 131.21 and Section 303 of the Act. The procedure provides that the state would submit a revised plan to EPA's Regional Administrator who would notify the state of approval within 60 days or within 90 days if the revisions are disapproved. Subsection (c) of § 131.21 provides:

> "A state water quality standard remains in effect even though disapproved by EPA until the state revises it or EPA promulgates a rule that supersedes the state water quality standard."

If EPA disapproves the proposed plan change and, in effect, maintains an effluent limitation on turbidity in permits issued to the miners, it would clearly be a water quality related effluent limitation established under § 302(a) of the Act. Thus,

it would appear appropriate for the State to act in behalf of the placer miners impacted to request a variance under § 302(b) of the Act, which provides as follows:

> "If a person affected by such limitation demonstrates at such hearing that (whether or not such technology or other alternative control strategies are available). There is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this chapter), such limitation shall not become effective and the administrator shall adjust such limitation as it applies to such a person."

Finally, if all else fails, you could seek a change in the Clean Water Act either through the authorizing or appropriations process to prevent application of the turbidity standard in Alaska.

The Committee substitute adds a new section on p. 4, lines 28-29, to repeal AS 16.05.870(b)-(d) and AS 16.05.880 (attached), and removes references to them elsewhere in the statutes. This law traces its origin to statehood long prior to the passage of comprehensive federal and state pollution control laws in the 1970s. In creating the Department of Environmental Conservation (DEC) in 1971, the Legislature provided that DEC was responsible for the protection of the State's air and water. AS 16.10.010 affords basically the same protection as AS 16.05.870, and more appropriately places regulatory authority with DEC. Indeed, AS 16.05.870 and AS 16.05.880 should have been deleted from the Alaska Statutes as part of Code revision when DEC's enabling legislation was passed. Both the public interest -- and the waters noted in the statute -- are adequately protected by the Clean Water Act and DEC's laws.

Protection of water quality to enhance fish and other aquatic life is a prime objective of the Clean Water Act, as well as the DEC. State requirements which either conflict with the Clean Water Act or are duplicative should be eliminated. Such additional state laws pose an unnecessary cost of State government and an unneeded regulatory burden on Alaskans at a time when we need to unshackle the private sector and broaden Alaska's economic base.

On p. 2, line 29, the Committee substitute changes from 1000 to 5000 as the number of gallons of water per day that is exempt from notice provisions. This change is supported by DNR.

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

M E M O R A N D U M March 20, 1987

SUBJECT: Use of water
[3/16/87 draft of CSSB 98(Resources)]

TO: Senator Jack Coghill
Chairman, Senate Resources Committee

FROM: Richard A. Bradley
Legislative Counsel

Bruce Geraghty has requested a sectional analysis of the above described bill.

As a preliminary matter, note that a sectional analysis or summary of a bill should not be considered an authoritative interpretation of the bill and the bill itself is the best statement of its contents. If you would like an interpretation of the bill as it may apply to a particular set of circumstances, please advise.

There are two aspects to this bill. The first relates to the power of the commissioner of environmental conservation to establish a "water quality criterion for turbidity;" see bill sections 1 - 3 and 8 - 9. The second relates to the "small scale use of water"; see bill sections 4 - 7

The sectional analysis requested will analyze the sections of the bill in these two aspects.

I. Water quality criterion for turbidity.

Section 1 of the bill amends AS 46.03.020(10). The section states the "powers of the department (of environmental conservation)". The amendment to the section limits the authority of the department to adopt regulations relating to the "control, prevention, and abatement of air, water, or land or subsurface land pollution." The section providing the limitation only relates, of course, to the "water quality criterion for turbidity."

Section 2 of the bill establishes the limitation. It provides that the department of environmental conservation may not establish a water quality criterion for turbidity.

Section 3 of the bill amends AS 46.03.080. The section relates to water quality and purity standards and establishes the limitation on the authority of the department relating to the water quality criterion for turbidity.

Section 8 of the bill establishes some repealers. The section repeals AS 16.05.870(b) - (c). In my view, the repealer should have also deleted AS 16.05.870(d). Those subsections provide:

> (b) If a person or governmental agency desires to construct a hydraulic project, or use, divert, obstruct, pollute, or change the natural flow or bed of a specified river, lake, or stream, or to use wheeled, tracked, or excavating equipment or log-dragging equipment in the bed of a specified river, lake, or stream, the person or governmental agency shall notify the commissioner of this intention before the beginning of the construction or use.
>
> (c) The commissioner shall acknowledge receiving the notice by return first class mail. If the commissioner determines that the following information is required, the letter of acknowledgement shall require the person or governmental agency to submit to the commissioner:
>
> > (1) full plans and specifications of the proposed construction or work;
> >
> > (2) complete plans and specifications for the proper protection of fish and game in connection with the construction or work, or in connection with the use; and
> >
> > (3) the approximate date the construction, work, or use will begin.
>
> (d) The commissioner shall approve the proposed construction, work, or use in writing unless the commissioner finds the plans and specifications insufficient for the proper protection of fish and game. Upon a finding that the plans and specifications are insufficient for the proper protection of fish and game, the

commissioner shall notify the person or governmental agency which submitted the plans and specifications of that finding by first class mail. The person or governmental agency may, within 90 days of receiving the notice, initiate a hearing under AS 44.62.370. The hearing is subject to AS 44.62.330 44.62.630.

Also proposed for repeal are AS 16.05.880 - 16.05.900; the sections provide:

Sec. 16.05.880. CONSTRUCTION WITHOUT APPROVAL PROHIBITED. If a person or governmental agency begins construction on a work or project or use for which notice is required by AS 16.05.870 without first providing plans and specifications subject to the approval of the commissioner for the proper protection of fish and game, and without first having obtained written approval of the commissioner as to the adequacy of the plans and specifications submitted for the protection of fish and game, the person or agency is guilty of a misdemeanor. If a person or governmental agency is convicted of violating AS 16.05.870 - 16.05.895 or continues a use, work or project without fully complying with AS 16.05.870 16.05.895, the use, work, or project is a public nuisance and is subject to abatement. The cost of restoring a specified river, lake, or stream to its original condition shall be borne by the violator and shall be in addition to the penalty imposed by the court.

Sec. 16.05.890. EXEMPTION FOR EMERGENCY SITUATIONS. In an emergency arising from weather or stream flow conditions, the department, through its authorized representatives, shall issue oral permits to a riparian owner for removing obstructions or for repairing existing structures without the necessity of submitting prepared plans and specifications as required by AS 16.05.870.

Sec. 16.05.895. PENALTY FOR CAUSING MATERIAL DAMAGE. If a person or governmental agency fails to notify the commissioner of any construction or use that causes material damage to the spawning beds or prevents or interferes with the migration of anadromous fish, or by neglect or noncompliance with plans and specifications required and approved by the commissioner causes material damage to the spawning beds or prevents or interferes with the migration of anadromous fish, the person

or governmental agency shall be guilty of a misdemeanor.

Sec. 16.05.900. PENALTY FOR VIOLATIONS. (a) A person who violates AS 16.05.870 - 16.05.895 is guilty of a class A misdemeanor.

(b) The court shall transmit the proceeds of all fines to the proper state officer for deposit in the general fund of the state.

The section also repeals AS 16.20.070; it provides:

Sec. 16.20.070. RELATIONSHIP TO OTHER LAWS. AS 16.20.050 and 16.20.060 do not affect AS 16.05.870 - 16.05.890.

Section 9 of the bill repeals the existing provision of the regulations of the Department of Environmental Conservation relating to the "criterion for turbidity" in 18 AAC 70.020(b).

II. Small scale use of water.

The responsibilities in this section belong to the commissioner of natural resources.

Section 4 of the bill adds a new Sec. 46.15.045; the section provides that a person may use less than a "significant amount of water" without a (water use) permit from the commissioner of natural resources -- unless the commissioner determines that such a use in "not in the public interest." As the last sentence of the section provides, no priority of use arises until an application is filed. See art. VIII, section 13, Alaska Constitution.

Section 5 of the bill amends AS 46.15.133(f); it adds "additional" to the authorization to the commissioner regarding the types of appropriations (of water) that are exempt from the notice requirements of the section.

Section 6 of the bill adds a new subsection (g) to AS 46.15.133. It provides that an application to appropriate not more than 5,000 gallons of water a day is exempt from the notice requirements of the section -- with two exceptions stated in the section.

Section 7 of the bill amends AS 46.15.260, a definitions section. Apart from some technical corrections to the law,

the substantive content of the section consists of its definition of a "significant amount of water."

If I may be of further assistance, please advise.

RAB:mkr
m10/026

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST:

Bill Version: CS for SB 98 (3/16/87)
Publish Date:

Revision Date: 3/16/87
Title: An Act relating to use of water

Agency Affected: Dept. of Natural Resources
BRU: Div. of Land & Water Mgmt.

Sponsor: Fahrenkamp, Faiks, et. al.
Requestor: Senate Resources

Components:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

With regard to the CS, dated 3/16/87, for SB 98, there are no anticipated additional staff or funding requirements.

Prepared by: Lawrence Z. Ostrovsky
Phone: 465-2500
Division: Special Assistant, Commissioner's Office
Date: 3/17/87

Approved by Commissioner: Judith M. Brady
Date: 3/13/87
Agency: Dept. of Natural Resources

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

(4)

The water quality criteria, when used in combination with the water use designation, constitute the water quality standard for a particular water body. The water quality standards regulate human activities which result in alterations to waters within the jurisdiction of the state.

(4) TURBIDITY (not applicable for groundwaters)	(5) TEMPERATURE	(6) DISSOLVED INORGANIC SUBSTANCES
Shall not exceed 5 NTU above natural conditions when the natural turbidity is 50 NTU or less, and not have more than10% increase in turbidity when the natural condition is more than 50 NTU, not to exceed a maximum increase of 25 NTU	Shall not exceed 15° C.	Total dissolved solids (TDS) from all sources shall not exceed 500 mg/l. Neither chlorides nor sulfates shall exceed 200 mg/l.
Shall not cause detrimental effects on indicated use	Shall not exceed 30° C.	TDS shall not exceed 1,000 mg/l. Sodium absorption ratio less than 2.5, sodium percentage less than 60%, residual carbonate less than 1.25 mg/l, and boron less than 0.3 mg/l. (See Note 7)
Shall not exceed 25 NTU above natural condition level. For all lake waters, shall not exceed 5 NTU over natural conditions.	Shall not exceed 20°C at any time. The following maximum temperature shall not be exceeded, where applicable: Migration routes 15°C Spawning areas 13°C Rearing areas 15°C Egg & Fry incubation 13°C For all other waters, the weekly average temperature shall not exceed site specific requirements needed to preserve normal species diversity or to prevent appearance of nuisance organisms.	Total dissolved solids shall not exceed a maximum of 1,500 mg/l including natural conditions. Increase in TDS shall not exceed one-third of the concentration of the natural condition of the body of water.
Shall not cause detrimental effects on established water supply treatment levels.	Shall not exceed 25°C.	No amounts above natural conditions which can cause corrosion, scaling, or process problems.
Shall not exceed 5 NTU above natural conditions when the natural turbidity is 50 NTU or less, and not have more than 10% increase in turbidity when the natural condition is more than 50 NTU, not to exceed a maximum increase of 15 NTU. Shall not exceed 5 NTU over natural conditions for all lake waters.	Shall not exceed 30° C.	Not applicable
Shall not exceed 10 NTU over natural conditions when natural turbidity is 50 NTU or less, and not have more than 20% increase in turbidity when the natural condition is more than 50 NTU, not to exceed a maximum increase of 50 NTU. For all lake waters turbidity shall not exceed 5 NTU over natural conditions.	Not applicable	Not applicable
Shall not exceed 25 NTU above natural condition level. For all lake waters, shall not exceed 5 NTU over natural conditions.	Shall not exceed 20°C at any time. The following maximum temperature shall not be exceeded where applicable: Migration routes 15° C Spawning areas 13° C Rearing areas 15° C Egg & Fry incubation 13° C For all other waters the weekly average temperature shall not exceed site specific requirements needed to preserve normal species diversity or to prevent appearance of nuisance organisms.	Total dissolved solids shall not exceed a maximum of 1,500 mg/l including natural conditions. Increase in TDS shall not exceed one-third of the concentration of the natural condition of the body of water.

(6)

SOLIDS (SUSPENDED, SETTLEABLE) AND TURBIDITY

CRITERIA:

Freshwater fish and other aquatic life:

Settleable and suspended solids should not reduce the depth of the compensation point for photosythetic activity by more then 10 percent from the seasonably established norm for aquatic life.

INTRODUCTION

The term "suspended and settleable solids" is descriptive of the organic and inorganic particulate matter in water. The equivalent terminology used for solids in Standard Methods (APHA, 1971) is total suspended matter for suspended solids, settleable matter for settleable solids, volatile suspended matter for volatile solids and fixed suspended matter for fixed suspended solids. The term "solids" is used in this discussion because of its more common use in the water pollution control literature.

RATIONALE:

Suspended solids and turbidity are important parameters in both municipal and industrial water supply practices. Finished drinking waters have a maximum limit of 1 turbidity unit where the water enters the distribution system. This limit is based on health considerations as it relates to effective chlorine disinfection. Suspended matter provides areas where micro-organisms do not come into contact with the chlorine disinfectant (NAS, 1974). The ability of common water treatment processes (i.e., coagulation, sedimentation, filtration and chlorination) to remove suspended matter to achieve acceptable

final turbidities is a function of the composition of the material as well as its concentration. Because of the variability of such removal efficiency, it is not possible to delineate a general raw water criterion for these uses.

Turbid water interferes with recreational use and aesthetic enjoyment of water. Turbid waters can be dangerous for swimming, especially if diving facilities are provided because of the possibility of unseen submerged hazards and the difficulty in locating swimmers in danger of drowning (NAS, 1974). The less turbid the water the more desirable it becomes for swimming and other water contact sports. Other recreational pursuits such as boating and fishing will be adequately protected by suspended solids criteria developed for protection of fish and other aquatic life.

Fish and other aquatic life requirements concerning suspended solids can be divided into those whose effect occurs in the water column and those whose effect occurs following sedimentation to the bottom of the water body. Noted effects are similar for both fresh and marine waters.

The effects of suspended solids on fish have been reviewed by the European Inland Fisheries Advisory Commission (EIFAC, 1965). This review identified four effects on the fish and fish food populations, namely:

> "(1) by acting directly on the fish swimming in water in which solids are suspended, and either killing them or reducing their growth rate, resistance to disease, etc.;
>
> (2) by preventing the successful development of fish eggs and larvae;
>
> (3) by modifying natural movements and migrations of fish;
>
> (4) by reducing the abundance of food available to the fish; . . ."

mit

Settleable materials which blanket the bottom of water bodies damage the invertebrate populations, block gravel spawning beds, and if organic, remove dissolved oxygen from overlying waters (EIFAC, 1965; Edberg and Hofsten, 1973). In a study downstream from the discharge of a rock quarry where inert suspended solids were increased to 80 mg/l, the density of macroinvertebrates decreased by 60 percent while in areas of sediment accumulation benthic invertebrate populations also decreased by 60 percent regardless of the suspended solid concentrations (Gammon, 1970). Similar effects have been reported downstream from an area which was intensively logged. Major increases in stream suspended solids (25 ppm turbidity upstream vs. 390 ppm downstream) caused smothering of bottom invertebrates reducing organism density to only 7.3 per square foot versus 25.5 per square foot upstream (Tebo, 1955).

When settleable solids block gravel spawning beds which contain eggs, high mortalities result although there is evidence that some species of salmonids will not spawn in such areas (EIFAC, 1965).

It has been postulated that silt attached to the eggs prevents sufficient exchange of oxygen and carbon dioxide between the egg and the overlying water. The important variables are particle size, stream velocity and degree of turbulence (EIFAC, 1965).

Deposition of organic materials to the bottom sediments can cause imbalances in stream biota by increasing bottom animal density, principally worm populations, and diversity is reduced as pollution sensitive forms disappear (Mackenthun, 1973). Algae likewise flourish in such nutrient rich areas although forms may become less desirable (Tarzwell and Gaufin, 1953).

Plankton and inorganic suspended materials reduce light penetration into the water body reducing the depth of the photic zone. This reduces primary production and decreases fish food. The NAS committee recommended that the depth of light penetration not be reduced by more than 10 percent (NAS, 1974). Additionally, the near surface waters are heated because of the greater heat absorbency of the particulate material which tends to stabilize the water column and prevents vertical mixing (NAS, 1974). Such mixing reductions decrease the dispersion of dissolved oxygen and nutrients to lower portions of the water body.

One partially offsetting benefit of suspended inorganic material in water is the sorption of organic materials such as pesticides. Following this sorption process subsequent sedimentation may remove these materials from the water column into the sediments (NAS, 1974).

Identifiable effects of suspended solids on irrigation use of water include the formation of crusts on top of the soil which inhibits water infiltration, plant emergence and impedes soil aeration; the formation of films on plant leaves which blocks sunlight and impedes photosynthesis and which may reduce the marketability of some leafy crops like lettuce; and finally the adverse effect on irrigation reservoir capacity, delivery canals and other distribution equipment (NAS, 1974).

The criteria for freshwater fish and other aquatic life is essentially that proposed by the N.A.S. and the Great Lakes Water Quality Board.

The Back

New version of water quality bill offered

By SAM BISHOP
News-Miner Bureau

JUNEAU—For the fourth time in two years, a bill affecting the state's water quality regulations has been gutted and new language inserted by sponsors.

The latest version would eliminate the state's turbidity standard for water leaving a placer mine or other project. It would also prevent the Alaska Department of Fish and Game from reviewing plans before people go mining.

The legislation was introduced earlier this session as HB 109 in the House by Rep. Mike Miller, R-North Pole, and as SB 98 in the Senate by Sen. Bettye Fahrenkamp, D-Fairbanks.

Both Miller and Fahrenkamp said they felt the latest version, released this week, cuts to the heart of the issue.

"This bill, no matter what we do, is going to cause an uproar. So we might as well really do something," Miller said.

"Instead of beating around the bush, we decided to go after the real problem," Fahrenkamp said.

Dennis Kelso, commissioner of environmental conservation, said Wednesday he had just received the amended bill, so he refrained from specific comments. The attorney general's office has not reviewed the revised bill either.

Kelso said the state's objective is to find a solution that is both legally acceptable under the federal Clean Water Act and acceptable to miners. Whether Miller and Fahrenkamp's bill is the right vehicle hasn't been decided, he said.

Gone from the bill is language from past years that said the state could not require cleaner water to be discharged downstream from a mine than was received upstream. State officials said that was official policy, but still objected to the idea because it could limit enforcement efforts.

Also missing is language inserted this year that said the turbidity standards for water leaving mines and other projects should reflect a range of values, except where the water is used immediately downstream for drinking.

Placer gold miners remove water from a stream, use it to wash gold-bearing gravels through sluices or jigs and return it to the creek. State standards for placer mining and other industries control both the amount of larger dirt grains added to the water (settlable solids) and the degree of murkiness caused by fine material (turbidity).

Techniques have been found that meet the turbidity standard under some conditions, but the majority of miners north of the Alaska Range have problems with the high clay content of soils. Once dissolved, the clay is difficult to separate from the water.

Whether the federal Clean Water Act requires a turbidity standard will likely be a central part of the debate over the latest version of the water quality bill.

In a memo outlining arguments in support of repealing the turbidity standard, Miller and Fahrenkamp quote from the EPA's guidelines, which says "fishing will be adequately protected by suspended solids criteria . . .

"Turbidity is basically an aesthetic standard, important to health only where drinking water enters the distribution system, and not ... the stream itself. These reasons should not be sufficient to cause EPA to overreact to repeal of turbidity as a water quality criteria," the memo from Miller and Fahrenkamp states.

But Gail Gatton, director of the Alaska Environmental Lobby, told the Senate Resources Committee this week that even slight increases in stream turbidity cut down the amount of light in streams, reducing growth of water plants and therefore the availability of food for fish. She quoted from an EPA publication.

She said she was "reasonably certain" that the bill would conflict with the Clean Water Act.

Gatton said she was also surprised at the provisions in the bill that would cut out ADFG's authority to review mining plans and limit damage to fish habitat.

"The fishing community—they should be coming unglued about it," Gatton said.