SCOMM

#50:10

PRESENT VALUE DETERMINATION
RED DOG TAXES AND TRANSFERS
(millions $)

Year Project Begins	Assumed annual transfer amount (real $)	Present value of the transfers	Estimated annual taxes (real $)	Present value of the taxes	Total present value of taxes and transfers
1	2.1	2.04	2.06	2.00	4.04
2	2.1	1.98	2.06	1.94	3.92
3	2.1	1.92	2.06	1.89	3.81
4	2.1	1.87	2.89	2.57	4.43
5	2.1	1.81	8.84	7.63	9.44
6	2.1	1.76	10.23	8.57	10.33
7	2.1	1.71	10.23	8.32	10.03
8	2.1	1.66	10.23	8.08	9.73
9	2.1	1.61	10.23	7.84	9.45
10	2.1	1.56	10.23	7.61	9.17
11	2.1	1.52	10.23	7.39	8.91
12	2.1	1.47	10.23	7.18	8.65
13	2.1	1.43	10.23	6.97	8.40
14	2.1	1.39	10.23	6.76	8.15
15	2.1	1.35	10.23	6.57	7.91
16	2.1	1.31	10.23	6.37	7.68
17	2.1	1.27	10.23	6.19	7.46
18	2.1	1.23	10.23	6.01	7.24
19	2.1	1.20	10.23	5.83	7.03
20	2.1	1.16	10.23	5.66	6.83
21	2.1	1.13	10.23	5.50	6.63
22	2.1	1.10	10.23	5.34	6.43
23	2.1	1.06	10.23	5.18	6.25
24	2.1	1.03	10.23	5.03	6.07
25	2.1	1.00	10.23	4.89	5.89
26	2.1	0.97	10.23	4.74	5.72
27	2.1	0.95	10.23	4.61	5.55
28	2.1	0.92	10.23	4.47	5.39
29	2.1	0.89	10.23	4.34	5.23
30	2.1	0.87	10.23	4.21	5.08
Total		41.16		169.68	210.84

Present value based on long term real rate of return of 3%
since all dollar values are in real terms

Paul Engelman 03/27/85

Rep. Rick Uehling.

STATISTICS ON DCED LOAN PROGRAMS
(Thousands of Dollars)

January 31, 1985

	Veterans	Small Business	Commercial Fish	Tourism	Bulk Fuel	Child Care	Hist Dist	Mining	Alternate Energy	Resid. Energy	Fish Enhance	Power Dev.	Water Resource	Total
Commitments														
Total No. Loans Committed FY '72-85	7,718	1,338	2,657	59	148	42	9	65	2,691	2,173	97	3	5	17,005
Total Dollar Amount Committed FY '72-85	371,795.2	202,529.3	154,396.7	29,874.7	5,482.6	1,320.4	667.7	28,160.0	17,140.9	8,151.2	37,084.1	191,165.0	2,500.0	1,050,267.8
Total No. Loans Committed FY '85	-0-	-0-	110	-0-	28	6	-0-	2	183	159	9	3	-0-	500
Total Dollar Amount Committed FY '85	-0-	-0-	6,148.1	-0-	962.9	276.2	-0-	1,128.1	1,394.2	404.4	3,780.1	191,165.0	-0-	205,259.0
Appropriations														
FY '83	-0-	-0-	9,400.0	-0-	1,000.0	400.0	500.0	15,000.0	4,000.0	4,500.0	22,000.0 [1]	N/A	-0-	56,800.0
FY '84	-0-	-0-	9,091.0	-0-	-0-	869.5	500.0	-0-	2,400.0	3,123.4	6,500.0	N/A	-0-	22,483.9
FY '85	-0-	-0-	3,500.0	-0-	-0-	-0-	-0-	-0-	1,000.0	-0-	5,000.0	210,000.0	-0-	219,500.0
Loans Outstanding														
Owned by Fund														
Number of Loans Outstanding	135	268	999	5	49	25	3	48	1,944	1,571	81	3	1	5,132
Principal Amount Outstanding	6,129.4	33,835.6	48,402.5	3,258.2	1,257.0	867.0	339.9	18,833.6	12,051.7	4,966.0	31,116.2	191,165.0	909.8	353,131.9
Average Loan Amount Outstanding	45.5	201.4	48.5	651.6	25.7	34.7	113.9	392.4	6.2	3.2	38.5	63,721.7	909.8	68.8
Serviced for the Dept. of Revenue														
Number of Loans Outstanding	1,841	225	764	14	N/A	3	3	N/A	N/A	N/A	14	N/A	N/A	2,864
Principal Amount Outstanding	83,241.0	18,587.5	30,215.1	2,578.9		16.9	124.3				6,604.2			141,367.9
Average Loan Amount Outstanding	45.2	82.6	39.5	184.2		5.6	41.4				471.7			49.4
Summary														
Total No. of Loans Outstanding	1,976	493	1,763	19	49	28	6	48	1,944	1,571	95	3	1	7,996
Total Principal Amount Outstanding	89,370.4	52,423.1	78,617.6	5,837.1	1,257.0	883.9	464.2	18,833.6	12,051.7	4,966.0	37,720.4	191,165.0	909.8	494,499.8
Delinquency Rates (includes defaults)														
Number of Loans %	18.3%	32.8% [2]	14.9% [3]	10.5% [2]	20.4%	14.8%	-0-	47.9%	16.6%	15.8%	N/A	N/A	-0-	17.8%
Outstanding Balance %	19.2%	34.1%	18.5%	3.5%	11.1%	13.9%	-0-	56.3%	15.8%	16.0%	N/A	N/A	-0-	24.0%

33-million
15-20 million

1 See Ch 114, Sec 5 and Ch 141, Sec 242 SLA 1982, and Ch 106 Sec 11 SLA 1983.
2 Adjusted for Bank Participation system inaccuracies
3 Adjusted for approved extension requests

Prepared by: Division of Accounting and Collections, 465-2555

2/25/85

DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

LOAN PROGRAM RECAP

PROGRAMS WITH CASH AVAILABLE	DATE OF ENACTMENT OF PROGRAM	STAT MAXIMUM	STAT TERM	AVER TERM	STAT RATE	DATE RATE EFFECTIVE	NOTES:	DELINQUENCY INFO. 1/31/85 DEFAULT	 DELINQUENCY INCL. DEFAULT
WW II Veterans RLF AS 26.15.010-170	04-03-46	$125,000			9.5% Fed VA rate 8.0% 6.0% 5.0%	06-01-79 05-27-71 05-07-69 10-07-67 04-08-65	No new loans being made although statutory authority still exists for personal loans ($10,000) and multi-family loans ($110,000), with the total amount loaned per veteran not to exceed $125,000.	1.4%	19.2%
Mining RLF AS 27.09.010-060	06-21-80	$5,000,000	15 yrs.		10.0%	06-21-80	Purpose: advanced mineral exploration, development or mining. Collateral may be deed of trust, mortgage secured by assignment of the leasehold interest in the mining claim or security interest in machinery and equipment.	15.2%	56.3%
Child Care Facilities RLF AS 44.33.240-275	07-01-76	$ 50,000	20 yrs.		7.0% 6.0%	07-01-79 06-10-76	Purpose: construction, renovation or the purchase of equipment for a child care facility; not for interim financing.	0.0%	13.9%
Residential Energy Cons. RLF AS 45.89.010-500	07-01-80	$ 5,000	10 yrs.	5 yrs.	Mkt-tied (11.0%) 5.0%	01-01-84 07-01-80	Purpose: energy conservation improvements in existing buildings only.	.3%	16.0%
Historical District RLF AS 45.98.010-070	09-16-77	$250,000	30 yrs.	30 yrs.	7.5% 6.5%	06-01-79 09-16-77	Purpose: restoration, improvement, rehabilitation, maintenance of historical buildings. Any individual, firm, business or municipality may apply. Project must be approved by a local Historical District Commission and by the Historic Sites Advisory Committee.	0.0%	0.0%
Power Development RLF AS 44.33.600-630	07-14-84	No Max.	50 yrs.	35 yrs.	Mkt. rate of int. and est. costs of alternative sources of power (8% to date)	07-14-84	Purpose: financing of a power project acquired or constructed under the energy program for Alaska for: (1) Cost of final design, acquisition and construction of a power project. (2) Defeasance or payment of bonds or notes . . . issued for a power project. (3) Establishment of a reserve fund. (4) Other project related expenses.		

OTHER PROGRAMS	DATE OF ENACTMENT OF PROGRAM	STAT MAXIMUM	STAT TERM	AVER TERM	STAT RATE	DATE RATE EFFECTIVE	NOTES:	DELINQUENCY INFO. 1/31/85 DEFAULT	DELINQUENCY INCL. DEFAULT
Small Business RLF AS 45.95.010 - .080	05-27-71	$500,000	15 yrs.	10 yrs.	9.5% 8.0%	06-01-79 05-27-71	Purpose: loans to acquire, finance, re-finance or equip businesses. [Repealed S71 Ch 106, SLA 1980 7/1/81]	4.2%	34.1%
Commercial Fishing RLF AS 16.10.300 - .370	06-21-72	$300,000 Type A $100,000 Type B, C	15 yrs.	10 yrs.	10.5% 9.5% 7.0%	06-25-82 06-01-79 06-21-72	Purpose: loans to promote rehabilitation of the State's fisheries, the development of a predominantly resident fishery and continued maintenance of commercial fishing gear and vessels . . . by means of long-term, low interest loans.	2.0%	18.5%
Tourism RLF AS 45.90.010 - .040	07-07-72	$3,000,000	20 yrs.	14 yrs.	9.5% 8.0%	06-01-79 07-07-72	Purpose: loans to individuals or businesses directly involved in the tourism industry to provide goods or services to the tourist. [Repealed S71 Ch 106, SLA 1980 7/1/81]	1.4%	3.5%
Bulk Fuel RLF AS 45.87.010 - 030; .500	06-13-80	$ 50,000	1 yr.		0% 1st loan, 5% 2nd loan, municipal bond rate for 3rd or more	06-13-80	Purpose: loans to help rural communities purchase bulk fuel oil.	0%	11.1%
Alternative Technology and Energy RLF AS 45.88.010 - .040, .500	07-13-78	$ 30,000	20 yrs.	10 yrs.	5% on $15,000 15% on $15-30,000	07-13-78	Purpose: loans for the purchase, construction and installation of alternative energy systems and for the development and implementation of more efficient, less costly, less energy intensive and more appropriate technology.	.7%	14.4%
Fisheries Enhancement RLF AS 16.10.500 - .620	06-19-76	$10,000,000	30 yrs.	25 yrs.	9.5% 8.0%	06-01-79 06-19-76	Purpose: loans to qualified regional associations or nonprofit corporations, for planning and implementation of fisheries enhancement and rehabilitation activities.	N/A	N/A
Water Resources RLF AS 45.86.010 - .060	07-03-75	No Max.	50 yrs.	30 yrs.	3-5%		Purpose: loans for capital construction projects for hydroelectric generation and potable water supply. [Repealed S44 Ch 83, SLA 1980 6/13/80]	0%	0%

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

Loan Commitments (FY '72-'85)
(Thousands of Dollars)

Programs With Cash Available	FY 72-73	FY 74-75	FY 76-77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85 thru 1/31/85	Total
WW II Veterans[1]	15,446.4[2]	17,515.5[2]	98,150.5	95,513.6	91,640.5	5,447.4	2,136.8[3]					325,850.7
Mining							9,935.2	6,933.5	6,300.0	3,863.1	1,128.2	28,160.0
Child Care			34.2	34.0	30.0	35.8	9.0	297.7	211.9	391.6	276.2	1,320.4
Resid. Energy Conser.							601.8	2,446.7	3,418.4	1,279.9	404.4	8,151.2
Historical District	-	-	-	-	78.7	214.0	-	200.0	75.0	100.0	-	667.7
Power Development											191,165.0	191,165.0
SUBTOTAL	15,446.4[2]	17,515.5[2]	98,184.7	95,547.6	91,749.2	5,697.2	12,682.8	9,877.9	10,005.3	5,634.6	192,973.8	555,315.0
Other Programs												
Small Business	685.9	4,864.5	7,020.6	22,369.1	42,096.4	78,531.2	46,961.6					202,529.3
Commercial Fish	11.5	3,460.5	9,419.1	13,044.3	29,733.6	32,548.1	21,205.6	9,054.3	2,282.2			120,759.2
Fisherman's Mort. & Note								1,797.6				1,797.6
Comm. Fish - Type A									5,914.9	6,527.0	2,613.4	15,055.3
- Type B									5,743.7	7,371.2	3,534.7	16,649.6
- Type C									118.4	16.5	-	134.9
Tourism	2,251.2	7,205.1	3,846.9	4,194.0	4,230.5	3,828.2	4,318.8					29,874.7
Bulk Fuel							50.0	804.8	1,685.2	1,979.6	963.0	5,482.6
Alternative Energy						10.0	2,243.2	5,392.2	4,591.8	3,509.5	1,394.2	17,140.9
Fish Enhancement			965.0	2,865.0	945.7	2,210.1	4,733.5	7,830.7	6,978.1	6,775.9	3,780.1	37,084.1
Water Resources			450.0	2,050.0								2,500.0
SUBTOTAL	2,948.6	15,530.1	21,701.6	44,522.4	77,006.2	117,127.6	79,512.7	24,879.6	27,314.3	26,179.7	12,285.4	449,008.2
TOTAL	18,395.0	33,045.6	119,886.3	140,070.0	168,755.4	122,824.8	92,195.5	34,757.5	37,319.6	31,814.3	205,259.2	1,004,323.2

[1] Statistics are provided on loans closed rather than loans committed.
[2] Estimated.
[3] Loans were committed in FY '80 and not closed until FY '81.

Prepared by: Division of Accounting and Collections - 465-2555

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

Loan Commitments (FY '72-'85)
Number of Loans

Programs With Cash Available	FY 72-73	FY 74-75	FY 76-77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85 thru 1/31/85	Total
WW II Veterans[1]	630[2]	474[2]	2,095	1,707	1,574	78	35[3]					6,593
Mining							14	16	19	14	2	65
Child Care			4	4	1	2	1	7	6	11	6	42
Resid. Energy Conser.							159	653	880	322	159	2,173
Historical District					1	3	-	3	1	1	-	9
Power Development											3	3
SUBTOTAL	630[2]	474[2]	2,099	1,711	1,576	83	209	679	906	348	170	8,885
Other Programs												
Small Business	17	84	94	138	237	470	298					1,338
Commercial Fish	2	87	211	234	357	555	352	197	11			2,006
Fishermen's Mort. & Note								31				31
Comm. Fish - Type A									147	95	34	276
- Type B									121	144	76	341
- Type C									2	1	-	3
Tourism	7	17	10	3	8	10	4					59
Bulk Fuel							1	23	45	51	28	148
Alternative Energy						1	440	1,172	503	392	183	2,691
Fish Enhancement			3	2	4	11	20	18	12	18	9	97
Water Resources			1	4								5
SUBTOTAL	26	188	319	381	606	1,047	1,115	1,441	841	701	330	6,995
TOTAL	656	662	2,418	2,092	2,182	1,130	1,324	2,120	1,747	1,049	500	15,880

1 Statistics are provided on loans closed rather than loans committed.
2 Estimated.
3 Loans were committed in FY '80 and not closed until FY '81.

Prepared by: Division of Accounting and Collections - 465-2555

sa0619s

Department of Commerce & Economic Development
Division of Accounting and Collections
Loan Program Funding Summary
(in thousands of dollars)

March 14, 1985

			WWII Veterans	Small Business	Commercial Fish	Tourism	Bulk Fuel	Child Care	Historical District	Mining	Alternative Technology & Energy	Residential Energy	Fisheries Enhance.	Water Resources	Residential Care	Fisherman's Mtg & Note	Power Develop.	Line Total
		Established	SLA 1946 Ch 27	SLA 1971 Ch 108 § 1	SLA 1972 Ch 134 § 1	SLA 1972 Ch 171 § 1	SLA 1980 Ch 83 § 41	SLA 1976 Ch 253 § 9	SLA 1977 Ch 139 § 3	SLA 1980 Ch 106 § 35	SLA 1980 Ch 29 § 1	SLA 1980 Ch 83 § 35	SLA 1976 Ch 190 § 1	SLA 1975 Ch 218 § 1	SLA 1978 Ch 153 § 6	SLA 1980 Ch 106 § 9	SLA 1984 Ch 169	
		Repealed		SLA 1980 Ch 106 § 71		SLA 1980 Ch 106 § 71								SLA 1980 Ch 83	SLA 1982 Ch 113 § 72	SLA 1982 Ch 113 § 72		
SLA 55	Ch 5		1,000.0															1,000.0
SLA 60	Ch 136		1,200.0															1,200.0
SLA 72	Ch 109				1,000.0													1,000.0
SLA 72	Ch 158					1,000.0												1,000.0
SLA 72	Ch 34			135.4														135.4
SLA 76	Ch 237													2,500.0				2,500.0
SLA 77	Ch 153	Vetoed																
SLA 80	Ch 120	Sec 6		36,500.0	24,000.0	6,500.0		300.0			600.0		6,000.0		400.0	6,500.0		80,800.0
SLA 80	Ch 120	Sec 7								10,000.0								10,000.0
SLA 80	Ch 120	Sec 52					1,500.0					1,600.0						3,100.0
RP 08-81-	258X	(JV 81-2222)		11,000.0	[3,000.0]	[5,000.0]										[3,000.0]		0.0
RP 08-81-	292X	(JV 81-2436)									1,000.0					[1,000.0]		0.0
RP 08-81-	486X	(JV 81-13626)		[1,700.0]							1,700.0							0.0
SLA 81	Ch 82	Sec 13			4,500.0		1,000.0	180.0	200.0	20,000.0	500.0	500.0	8,000.0		120.0	1,800.0		36,800.0
SLA 81	Ch 72	Sec 1 (FY 82 only)								10,000.0								10,000.0
SLA 81	Ch 90	Sec 36									3,750.0	3,750.0						7,500.0
SLA 81	Ch 90	Sec 37									1,250.0	1,250.0						2,500.0
RP 08-81-	635X	(JV 81-14253)				1,739.0										[1,739.0]		0.0
RP 08-81-	664X	(JV 82-0062)		886.8		1,079.8		[291.0]			[914.6]		354.1		[354.1]	[761.0]		0.0
SLA 82	Ch 141	Sec 257 Repealed Ch 90 Sec 37 SLA 81									[1,250.0]	[1,250.0]						[2,500.0]
SLA 82	Ch 114	Sec 5			9,400.0		1,000.0	400.0	500.0	15,000.0	4,000.0	4,500.0	17,000.0					51,800.0
SLA 82	Ch 141	Sec 242											6,350.0					6,350.0
RP 08-82-	472X	(JV 82-4742)			5,000.0					[5,000.0]								0.0
RP 08-82-	524X	(JV 82-4836)						120.0							[120.0]			0.0
RP 08-82-	634X	(JV 82-5378)									1,000.0	[1,000.0]						0.0
SLA 83	Ch 107	Sec 22			9,091.0			869.5	500.0		2,400.0	3,123.4	6,500.0					22,483.9
SLA 83	Ch 106	Sec 11 (See Ch 141 Sec 242 SLA 82)											[1,350.0]					[1,350.0]
SLA 83	Ch 107	Sec 17 and 18		[16,800.0]		[2,700.0]												[19,500.0]
SLA 83	Ch 106	Sec 265		[1,000.0]														[1,000.0]
SLA 84	Ch 171	Sec 306			3,500.0						1,000.0		5,000.0					9,500.0
SLA 84	Ch 171	Sec 313															210,000.0	210,000.0
SLA 84	Ch 156	Sec 3 and 4		[Annual Receipts]		[Annual Receipts]												[Annual Receipts]

1/30/85

MEMORANDUM

TO: Rep. John Sund
FROM: J. Hartle, AA JH

RE: Red Dog Mine

Here are some questions, issues, and comments relating to the Red Dog mine.

According to its annual report, Cominco had an operating loss of $39.3 million in 1983 and $49.3 million in 1982. What was the loss for 1984 and what is it anticipated to be this year?

The Dept. of Commerce & Economic Development report on Red Dog states that government spending (especially the U.S. Federal Government) is a major fraction of the world zinc market. The outlook for increased (or even level) spending by the government is not good for the next few years. What will this mean in terms of zinc prices?

World market price? World market price? World market price? World market price? World market price? World market price? World market price? World market price? World market price? World market price?

What is the status of the plan of finance required by AIDA statutes before any of this money can be spent? When will it be done? What will it say?

What happened to last year's appropriation of $3.~~5~~4 million?

Is the price of labor too high in Northwest Alaska to profit from mining? (especially considering the last question above)

What happens to Cominco's guarantees (tarriff, loan payback, etc) if the state does not meet the proposed payment schedule of $18 million this year, $50 M next year, $50 M the next year, and $30+ M the year after that?

What assets are Cominco willing to put up to guarantee payback (note that if the mine is not developed, then, of course, the minerals aren't worth much as a guarantee, either!)

With the North American mining industry losing so much money how will the bond market look at a bond issue guaranteed by tarriffs on a mining road?

What is the level of Cominco's current debt? Their percentage of debt to capitalization? (According to the annual report it is very high - do they need a large new debt? Can they afford to pay interest?)

Will the strength of the U.S. dollar make it too expensive for Cominco to invest in an American mine?

Demand/prices Demand/prices Demand/prices Demand/prices
Demand/prices Demand/prices Demand/prices Demand/prices
NEED TO SEE LOTS OF CHARTS AND GRAPHS
AND THEY BETTER LOOK GOOD

Comincio has a mine in South Africa. Would they be willing to get rid of it? How would it look for the State of Alaska to be working with a company that has investments in a country with one of the most repressive governments in the world?

Cominco has a zinc discovery in Australia with very high-grade ore - 20% zinc and silver 6 oz/ton. Will this compete with Red Dog? Will it come on line sooner than Red Dog? Cominco also has found new zinc in the Yukon Territory.

After we purchase the port and road with the General Fund - then the mine? (work our way uphill so to speak?)

What is the status of access through the park for the road - the proposed land swap with Nana needed for the whole project to go?

Will this $18 million be like the Susitna continuing appropriation that supposedly could not be spent until some decision was reached on Susitna that now the APA is able to spend?

Is this another Alpetco?

Background Materials on the Dedication Clause

Prepared by

Philip S. Barnett, Law Associate, Sierra Club
Legal Defense Fund, Inc.

April 16, 1985

Article IX, § 7, of the Alaska Constitution, the dedicated funds clause, provides as follows:

> The proceeds of any state tax or license shall not be dedicated to any special purpose, except as provided in section 15 of this article or when required by the federal government for state participation in federal programs. This provision shall not prohibit the continuance of any dedication for special purposes existing upon the date of ratification of this section by the people of Alaska.

In State v. Alex, 646 P.2d 203 (Alaska 1982), the Alaska Supreme Court held that the application of the clause should not be limited to taxes and licenses. The Court observed that in a draft at the Constitutional Convention, the prohibition against dedication was applied to "all revenues." After a review of the history of the Convention, the Court held that the change from the draft to the final version was not intended to have significant consequences. Rather, "the purpose of the proposed amendment was to allow for the setting up of certain special funds." Id. at 210. All other dedications were intended to be prohibited.

The "certain special funds" mentioned in Alex are easily identified, for they were expressly referred to during the Constitutional Convention. Specifically, they are pension contributions, proceeds from bond issues, sinking fund receipts, revolving fund receipts, contributions from local government units for state-local cooperative programs, and tax receipts which the state might collect on behalf of local government units. See 1982 Alaska Op. Atty. Gen. No. 13 at 10-11.

The loans that will be used to capitalize the road and port do not fit within one of the exempt "certain special funds." Therefore, they cannot be dedicated.

APPENDIX B

GENERAL GUIDELINES OF STATE/COMINCO RELATIONSHIP

SHOULD STATE INVEST IN THE PROJECT

(1) The State of Alaska thru AIDA will own and operate the port and road.

(2) Cominco will enter into an agreement with AIDA for payment of a user fee for operations and maintenance expense, as well as a toll fee for use of the facility.

(3) Additional users will be accommodated upon payment of appropriate fees.

(4) Satisfactory guarantees of total repayment of state expenditures by Cominco in the event the mine does not commence operation and accordingly completion guarantees by AIDA will be required.

(5) NANA will provide the necessary leases and rights-of-way for the land required.

3/26/85

MEMORANDUM CONFIDENTIAL

TO: Rep. John Sund

FROM: John Hartle, AA

RE: Questions for agencies on Red Dog Mine

What we are looking for in this hearing is for the Administration to come forward and say: "this is the plan" but as of this morning, there seems to be no plan or perhaps it is secret....

1. AIDA: What is the status the finance plan? New contractor? Delay? When will we have a draft? When will we have the final? Are we going to be expected to commit state money to this project without a plan of finance? (The finance plan is mandated by statute) What is SRI's credibility now? Is it hopelessly compromised? Will the adiministrative appeal of the RFP award delay the whole plan?

2. AIDA: [see AIDA financing proposals] Which of the four plans looks most feasible? Which requires the least General Fund commitment from the state? Which provides for the best return on the state's investment (not including all the claimed tax benefits)?

3. Revenue: What will the true tax benefits be of this project? Will Cominco actually pay any taxes, considering that the Mining License Tax has a 3½-year moratorium on payments for new projects and the newly-enacted Investment Tax Credit will shelter Cominco from the Corporate Income Tax to a large extent and under the 7(i) provisions the royalty share that Nana receives will be distributed 13 ways?

4. Commerce: The update of your project analysis still shows a very optomistic projection for the price of zinc over the long term. Is this the case even though the price looks flat? What happens to the projections if the timing on the project slips by a year? Two years? (Cominco says that the timing has already slipped two years from where they want to be).

5. AIDA: Why do you think that your first experience in the construction business will be any better than that of the APA? Why shouldn't the construction schedule slip (like the dams) and why shouldn't the project have cost overruns (like the dams)?

6. AIDA: The Finance Committee Chairmen have announced that there will be a major reduction in loan program funding. Can you take a cut like the other loan programs?

7. Commerce: Are you willing to see other Commerce loan programs cut to include this $18 million?

8. AIDA/Commerce: Now (Monday at Senate Resources) AIDA is proposing that $100 million be appropriated in existing loans (with interest) to AIDA for the project. Is the Governor going to submit a bill to do this? If so, when? If not, why not? Are the specific loans identified? What is the difference between this and general fund? Are the loan proceeds to be used to repay the state? Does this make sense? (we already own those loans!!)

10. C&RA: You predict an increase in the need for state programs in the Nana region based on the influx of workers; Cominco and DCED has made a big deal of the reduction of transfer payments to the region. Who is right and how much money are we talking about?

11. AIDA: Why do so many of your scenarios show no provision for return of the state's investment? We want you to drive a hard bargain with Cominco; (at least as hard a bargain as they are offerering!!) Why doesn't it look like you are doing so?

12. AIDA: all assumptions about bonding assume tax exampt financing will be available for this project - will it?

13. DCED: Status of land trade for right of way - Congressional action expected soon?

14. DCRA: Status of moving project out of North Slope Borough? Is this still a critical decision point as indicated by Cominco President Bill Wilson?

15. AIDA: Present value of subsidy to Cominco under each of the four financing scenarios?

14. AIDA: (Again) Why must we appropriate funds this year? (Despite the lack of the statutorily-mandated plan of finance) Can we put a late effective date on the appropriation? Tie it to conditions?

15. AIDA: Can private lenders provide the funds needed by Cominco for building the road? (Bill Wilson says yes) If so, at what rate? If not, why not? If not, why should we? Monday in Senate Resources Bert Wagnon said that Cominco could not afford to pay back $150 million with interest. Why not?

ALASKA PUBLIC INTEREST RESEARCH GROUP
Post Office Box 1093/Anchorage, Alaska 99510/(907) 278-3661

April 25, 1985

Alaska Senate
Alaska House of Representatives
Pouch V
Juneau, AK 99811

Dear Legislator:

The Alaska Public Interest Research Group is very supportive of development of the Red Dog lead and zinc mine in northwest Alaska. The project will bring needed employment and earnings to the area, and the benefits of the multiplier effect will be felt in the NANA region and throughout the state.

We have several very serious reservations concerning the $175 million appropriation ($33 million in direct appropriations and $142 million in loan appropriations) and additional $175 million bond authorization planned this year for the Red Dog Road and Port Project:

•If the project is pursued as most-recently planned, the State will divert $435 million from the General Fund to the Road and Port Facility over the next 30 years in the form of a direct state subsidy. The Alaska Industrial Development Authority (AIDA) intends to issue $175 million in bonds early next year. Over 30 years, our liabilities to bondholders will mount to $662 million. Cominco Alaska has agreed in principal to contribute a total of $260 million over 30 years in the form of toll fees. The balance, $402 million, will be picked up by AIDA.

To this figure must be added the $33 million in direct appropriations ($15 million now available for reappropriation within AIDA which will be redirected to the Red Dog project, and $18 million in principal and interest which will accrue to AIDA's Economic Development Fund rather than to the Dept. of Commerce as a result of the transfer of the $142 million loan portfolio) for a total subsidy of $435 million over 30 years.

We anticipate that a major portion of the state subsidy will come from interest and principal payments on the $142 million loan portfolio. The Dept. of Revenue estimates that these payments will total only $207.5 million over 25 years. However, the difference between the $435 million in outstanding obligations and the $207 million in diverted General Funds ($228 million) may have to come from future General Fund appropriations to AIDA.

Nothing in HB 105 or SB 280 (the bond authorization bills with accompanying commitments) requires AIDA to cover the difference between its bond obligations without resorting to future General Fund appropriations through increased assessments to road and port users. Without this insurance, the state is not protected from a major revenue drain in the future.

*According to the statute authorizing AIDA's Economic Development Fund, AIDA must "submit a finance plan prepared under this section <AS 44.88.172> to the state bond committee, the governor, and the legislature before issuing bonds or otherwise incurring debt for the project." The finance plan "must identify the method of financing that minimizes the cost to the state." Clearly, the intent of this section was to ensure that the legislature and administration had sufficient background information to make an informed, rational funding decision.

The Finance Plan for the Red Dog Road and Port Project will not be available until August 15th, at the earliest, according to AIDA. In the meantime, you are being asked to make a $662 million decision based on "financing options" hastily assembled and constantly changing. Those options, one of which is embodied in the appropriation and authorization bills before you, may be dramatically different from the Finance Plan "that minimizes the cost to the state" finally developed by SRI in August. On the other hand, the Finance Plan may be a rubber stamp of that developed in late March, and less-expensive options may not be fully examined.

*Finally, although the end of the session is only 3 short weeks away, many of the details of the Red Dog package are still murky: the Administration says it no longer needs a direct appropriation of $18 million (still in the budget) but rather a reappropriation of $12 million (not yet in the budget). HB 105 and SB 280 both authorize a $175 million bond issue, yet AIDA says it needs only $135 million. The $142 million in loans is scheduled to be transferred from DCED to AIDA, yet Commerce officials say only $136 is available. The actual cost of construction on the project has increased 55% since February, 1984 (from $135 million to $208 million). Even those following the project most carefully do not know exactly what is being appropriated or to what extent the State is committing itself over the long term.

We urge you to wait until these issues are resolved before voting for funding for the project. Under the current scenario, each of the 347 jobs anticipated for Alaskans at the Red Dog mine will entail a $1.2 million state subsidy. Is Red Dog a good deal in that light?

Sincerely,

Maureen Kennedy

Maureen Kennedy
Director

ALASKA PUBLIC INTEREST RESEARCH GROUP
Post Office Box 1093/Anchorage, Alaska 99510/(907) 278-3661

The Red Dog Road and Port Project

THE PROPOSAL: Cominco/NANA have formed a joint venture to develop the Red Dog zinc/lead deposit just north of Kotzebue near the mouth of the Noatak River. The deposit is 55 miles from tidewater. With Administration support, Cominco /NANA is pushing the State to build a port facility and road from the deposit to tidewater for transportation to smelters in British Columbia and Japan.

Though majoir components of the plan have changed several times in the last 2 months, the most recent plan is for the State to transfer $142 million of the State's loan portfolio to the Alaska Industrial Development Authority's (AIDA) Economic Development Fund. The loan principal and interest would form collateral for a $175 bond issue for construction of the road and port. Some portion of construction costs would be paid by facilities users over the life of the project.

Until today, an $18 million appropriation to AIDA for the project was in the governor's budget. In February, 1984, the total cost of the project was anticipated at $135 million. That figure increased to $150 million in February, 1985, to $165 million in March, 1985 and $193 million in late March, 1985.

Varying moratoria on repayments, low-interest or no-interest loan terms, term repayment schedules and outright grants have been discussed by state policymakers and Cominco. The value of direct subsidy on the part of the State has varied from $40.1 million in February, 1984 to $65 million in February, 1985 to a high of $90 million in March, 1985.

NANA and Cominco have worked out a detailed agreement covering shared profits, local hire goals, efforts to minimize the adverse impacts of the project on the NANA region, etc.

Once the infrastructure is in place, the State and Cominco/NANA anticipate that other deposits in the area will be exploited as development costs go down. GCO, Inc. owns rights to the Lik deposit 10 miles from Red Dog, and Cominco has control of the nearby Su deposit.

COST/BENEFIT OF PROJECT: The State projects a 5.3/1 (down from 6.2/1) cost-benefit ratio for the port and road project. (Assumes .60/lb. price for zinc, 15% return on investment for Cominco/NANA, $40.1 million subsidy, $169 million in direct returns to the State in taxes or transfer payment savings.)

"The ratio is high because it appears the project would not be viable without State support. Under the foregoing assumptions, the minimum level of investment the State can make in the project and have any expectation of immediate development is estimated to be $40.1 million. Higher involvement by the State through larger amounts of subsidy will increase expected rates of return to Cominco .... The State could subsidize the project up to $245.0 million and still have a benefit/cost ratio greater than 1 .... If the zinc price is lowered from .60 to .55 per pound (the low side of our estimated future price), the rate of return to Cominco would also fall. At the .55 price, to get the return to Cominco up to 15% the State might have to put up a subsidy of $158.0 million in the project. Because of the lower price, the taxes are also lower; this, coupled with the higher level of subsidy, reduces the benefit/cost ratio to 1.25 in comparison to the 6.2 figure generated by a .60 price." (Red Dog Project Analysis, February, 1984.)

At .63/lb., the project is expected to be viable without state investment. The current price of zinc is .45/lb.; of lead, .19/lb.

OTHER ISSUES: In addition to state sponsorship of the project, a few other issues must be resolved. The road route preferred by Cominco/NANA, the southern route, is less environmentally damaging. However, it runs through the Cape Krusenstern National Monument. The joint venture has applied for a land exchange and right of way from the Dept. of Interior. Congress is considering a bill approving the land exchange.

Just as difficult is the conflict between NANA and the North Slope Borough over jurisdiction over the Red Dog deposit. After ANCSA, the Arctic Slope Native Assoc. formed a borough which included a strip of land (the Red Dog deposit) which now is part of the NANA regional corporation. The borough and regional corporation boundaries should be roughly contiguous, but the processes were completed out of synch with each other and thus the important discrepancy occurred.

Without the tax base represented by the Red Dog mine, a proposed NANA area borough will not have enough revenues to function. Since the disputed area is not populated (and a simple vote cannot be taken), a complicated detachment process is underway. Various technicalities preempt the Legislature from signing off on any agreement until the '86 legislative session. NANA has indicated that if the boundary dispute is not settled, and tax policy is not clear, the mine will not be developed.

COST/BENEFIT OF THE MINE ITSELF: The Red Dog Project Analysis anticipates the following costs and benefits of the mine:

Employment:

Direct:	143 jobs during construction (40% NANA residents) 375 jobs during production (50-75% NANA residents)
Indirect:	92 during construction (23 in NANA villages) 226 during production (106 in villages)

Income:

Direct:	$8.8 million/yr during construction ($3.5 million to NANA residents) $12 million/yr during production ($7.5 million to NANA residents)
Indirect:	$2.3 million/yr during construction ($.575 million/yr in villages) $5.7 million/yr during production ($2.7 million/yr in villages)

Jobs for previously unemployed people:

During Construction: 38-- 12 in villages, 7 outside AK
During Production: 93--51 in villages, 10 outside AK

Tax revenues :

(Corporate income tax and mining license tax, based on probable price of zinc at .60/lb)
Cominco:
\$2 million per year through 1992, \$8 million in 1993, average \$10 million per year through 2008.
NANA:
\$2.36 million per year through 1991, \$6.68 million after 1991.

Last year's investment tax credit grants the joint venture nearly \$15 million in tax breaks through 1994.

ZINC OUTLOOK: Today's zinc price is .45 lb., lead price is .20/lb. The State's analysis of the Red Dog project assumes 20 year real prices for zinc and lead to average .60/lb and .35/lb respectively. Today's low prices are supposedly reflective of low recessionary demand and high supply of metals. Developing technology should bring about some product substitution for lead, little for zinc.

Business Week's 12/17/84 issue featured a cover story, "The Death of Mining." In it, the authors lump zinc and lead in with copper, nickel and moly markets and envision bad times ahead for the long term future. Cominco has reflected worldwide difficulties: it lost \$31 million in 1982 and \$39 million 1983. Analusts anticipate that lead and zinc demand will increase by 1-2% in the next ten years. The State is assuming a 2.5% increase in demand annually. The article does emphasize that third world mines are coming on line rapidly and are far superior to American mines as far as recovery technology goes. The Red Dog mne is analogous to a third world mine in this sense, except that transportation costs as a proportion of production costs are higher (40%) than average (10%).

Brad Tuck of the Institute for Social and Economic Research, wrote a chapter on mining in Alaska Resource Development last year. He anticipates that world metal prices will not increase significantly (prices would have to increase by 35% to reach the probable price of .60/lb in the state analysis). "The State will at best derive only modest revenues from non-fuel mineral and coal development. Annual revenues by the mid 1990s from Red Dog, Eagle, Greens Creek and Quartz Hill will be less than $10 million."

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RED DOG ROAD AND PORT FACTSHEET

The Alaska Industrial Development Authority (AIDA) with the support of the Administration, is pushing for an $18 million appropriation to AIDA's Economic Development Fund, along with a commitment of the interest and principal on $142 million of the State's loan portfolio. This commitment will become collateral for a bond issue of $175 million for actual road and port construction.

Over the past year, the estimated cost of the project has risen from $135 million to $193 million, an increase of 42%. The level of direct state subsidy increase from $40.1 milliion to $65 million between February, 1984 and February, 1985. Current options include direct subsidies of up to $90 million. If no appropriation is made, the State will provide a $15 million subsidy to the project through tax breaks already on the books.

When the legislature gave AIDA authority to develop and own projects such as the proposed road and port, it required that AIDA produce a Finance Plan for the legislature and the governor, laying out financing options. AIDA is specifically required to seriously consider those options requiring the least state involvement.

Although the legislature is being pressed to fund the project now, before the money runs out, the conclusions of the Finance Plan will not be available until next August at the earliest. In the meantime, the legislature is considering a $142 million loan appropriation and $175 million bond authorization based on a series of "finance options" assembled in less than 24 hours.

The Alaska Public Interest Research Group feels that the DeLong Mountain Regional Road and Port Facility is a poorly planned project, based on inadequate financial backup and nonexistent investment criteria. Given the State's other pressing needs and declining revenues, the project should not be funded this year.

If the legislature chooses to invest in the Red Dog road and port project, it should protect Alaskans' interests by:

*Limiting the extent of the State's direct subsidy to the initial appropriation of $18 million;

*Requiring Cominco/NANA and any other future users to repay the principal and interest of a market value state loan from AIDA;

*Requiring Cominco/NANA and any other future users to cover operation and maintenance costs of the project;

*Requiring AIDA to return to the General Fund any toll payments beyond those necessary to repay the debt service and secure outstanding bonds;

*Putting a time limit on the project: if conditions are not met by March 15, 1986, the bond authorization lapses.

Introduced: 1/23/85
Referred: Transportation and Finance

Terry Elder Draft
AKPIRG comments

IN THE HOUSE **BY THE RULES COMMITTEE BY REQUEST OF THE GOVERNOR**

HOUSE BILL NO. 105

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the international airports revenue bonds authorization, and to the authorization of bonds or notes for the DeLong Mountain transportation project and the establishment of conditions under which the bonds or notes for the DeLong Mountain transportation project may be issued; and providing for an effective date."

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

* Section 1. AS 37.15.410 is amended to read:

Sec. 37.15.410. BOND AUTHORIZATION. For the purpose of providing part or all of the money to be used, with or without any grants or other money which may become available, the issuance and sale of revenue bonds of the state in the total principal sum of not to exceed $86,525,000 [$62,825,000] is authorized to acquire, equip, construct, and install the additions, improvements, extensions, and facilities authorized in AS 37.15.510. The principal of and interest on these bonds shall be paid out of and secured by the gross revenues derived by the state from the ownership, lease, use, and operation of the airports, and of all the facilities of them and out of any other revenues or money which the state legislature may provide exclusive of any state tax or license.

* Sec. 2. The Alaska Industrial Development Authority is authorized to issue bonds or notes in a principal amount not to exceed $175,000,000 to provide financing for the DeLong Mountain transportation project.

* Sec. 3. Prior to the issuance and sale of any bonds or notes authorized in Sec. 2 the board of directors of the Alaska Industrial Development Authority to the extent feasible shall incorporate into the final finance plan substantially the following terms and conditions:

subject to legal interpretation??

(1) Cominco, Ltd. agrees in writing that

(A) Cominco, Ltd. will pay for all or a portion of the operation and maintenance of facilities constructed as part of the project, based on the use Cominco, Ltd. makes of the facilities compared to the use made by others;

(B) if Cominco Alaska ceases to develop the Red Dog mine after expenditures on the road or port have commenced, Cominco, Ltd. will repay all expenditures by the Alaska Industrial Development Authority on the DeLong Mountain transportation project;

good — respon. on parent.

(C) toll fees by Cominco, Ltd. to the Alaska Industrial Development Authority may be adjusted if the price of zinc rises above a level, agreed upon with the Authority, which yields a return of investment commensurate with the risk;

(2) land in the Cape Krusenstern National Monument is conveyed to NANA Regional Corporation by the United States Department of the Interior;

(3) NANA Regional Corporation agrees in writing to make available to the Alaska Industrial Development Authority, at no more than fair market value, land needed for the port and road constructed as part of the DeLong Mountain transportation project, and land needed for future expansion of the road and port;

make available at no cost — long term lease

(4) The Alaska Industrial Development Authority shall maximize the use of tax exempt financing;

(5) The Alaska Industrial Development Authority establishes a toll schedule for use of facilities constructed as part of the DeLong ~~Mountain transportation~~ project that ensures a reasonable return on the state's investment commensurate with project viability and future usage, and guarantees equitable access to the facilities by all users; the toll schedule may be periodically adjusted.

We're further away from the original stur. language re: repay expenditures

* Sec. 4. The Alaska Industrial Development Authority reports in writing to the legislative budget and audit committee that the conditions under (1) - (5) of Section 3 of this act have been met.

* Sec. 5. Notwithstanding limitations on the establishment of a capital reserve fund under AS 44.88.105, the authority may covenant and agree with the trustee or holders of the bonds or notes authorized under Sec. 2 of this act that the authority will establish a capital reserve fund for the purpose of securing the bonds or notes, that the chairman of the authority will, by January 2 of each year, certify in writing to the governor and the legislature the amount

AIDA should be able to agree ~~to~~ that the "combined" users will pay fees that will at a minimum cover the P+I, without risking ~~tax~~ tax exempt status required to restore the capital reserve fund to the capital reserve fund requirement, and that the legislature may appropriate to the authority the amount certified by the chairman. Nothing in this section creates a debt or liability of the state.

* Sec. 6. This act takes effect immediately in accordance with AS 01.10.070(c).

Missing: AIDA assures that Cominco & future users will cover O+M (as opposed to just requiring Cominco to cover its proportion).

The bond authorization lapses if the bonds aren't issued by mid '86 - if we will miss the "window of opportunity," then the State ought not be involved. Even Cominco agrees it will not be feasible.

ALASKA PUBLIC INTEREST RESEARCH GROUP
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Proposed Amendments to SB 280

Section 1. (1) (c) Cominco, Ltd. will repay all expenditures (market rate interest and principal) by the State for the project through toll fees paid beginning the year of project completion for the use of facilities constructed as part of the project; (and other payments;)

Section 1. (2) The United States Congress approves the Cape Krusenstern National Monument land exchange between NANA Regional Corporation and the United States Dept. of Interior or a right of way as authorized by Title 11 of ANILCA;

Section 1. (3) NANA Regional Corporation agrees in writing to convey to the Alaska Industrial Development Authority, (at no more than fair market value,) at no cost, land needed for the port and road constructed as part of the DeLong Mountain transportation project and land needed for future expansion of the road and port;

Section 1. (5) the Alaska Industrial Development Authority obtains a ruling from the Internal Revenue Service that all bonds or notes issued under this section will qualify for tax exempt status; (and;)

Section 1. (6) the Alaska Industrial Development Authority establishes a toll schedule for use of facilities constructed as part of the DeLong Mountain transportation project that minimizes the cost to the State of (ensures the greatest return on the state's investment in) the project and guarantees equitable access to the facilities by all users; the toll schedule may be periodically adjusted.

Section 1. (7) the Alaska Industrial Development Authority ensures that Cominco and any other future users will pay all operation and maintenance of facilities constructed as part of the project, on a pro rata basis;

Section 1. (8) the Alaska Industrial Development Authority agrees to limit the present value of the direct subsidy to the project to $18 million;

Section 1. (9) the Alaska Industrial Development Authority agrees to turn over any funds not necessary for bond security or construction of the authorized project to the general fund as they become available;

Section (2). If the Alaska Industrial Development Authority does not issue bonds for the project by March 15th, 1986, this bond authorization lapses.

MAR 11 1985

ALASKA PUBLIC INTEREST RESEARCH GROUP
Post Office Box 1093/Anchorage, Alaska 99510/(907) 278-3661

March 6, 1985

Sen. Arliss Sturgulewski
Pouch V
Juneau, AK 99811

Dear Sen. Sturgulewski:

Thanks very much for meeting with me last week to discuss issues. I wanted to get back in touch with you to point out some areas of the Red Dog Project Analysis that should be updated by staff before the Resources Committee examines the Delong Road and Port Project more seriously.

1. The analysis does not include the impact of the Investment Tax Credit which the legislature passed last year. The lost revenues will be very substantial as the new law provides a 100% tax credit on both mining license tax and state corporate tax payments on the first $50 million in investment, an 80% tax break on the next $50 million and so on up to $250 million for up to 10 years. I'm also unclear whether the tax exemption would apply to the $150 million in road and port construction as well as the $400 million in mine development--if the State is acting as bank, wouldn't Cominco/NANA be eligible for the credit on the $150 million too?

2. We are also unclear on how the new mining license tax regs will impact the project. The regs were not in existence at the time of the analysis; now proposed regs are available and can be used to evaluate the revenue potential (or loss).

3. Although savings in regional shipping costs are touted as a major justification for state investment in the project, the projected savings are small and OMB did not have time to check 4 of 6 issues factored into the estimate. Are the other assumptions and the total estimated savings correct?

4. What discount rate is Cominco using in its proposal, and what rate of return will it require before committing to the project? The company provided this information to Canadian provinces when negotiating state assistance with infrastructure there; why does

the State have to make assumptions about these critical factors, basically making major fiscal decisions in a dark room?

5. While project benefits have been outlined extensively in the Analysis, costs have not been delineated because "time constraints have prevented analysis." and "no attempt is made here to place a dollar value on the increase in social service delivery." Costs should be fleshed out to the same degree as have benefits.

6. Shouldn't the royalty payments to NANA ($658 million) be included in the cost-benefit analysis, since according to Cominco, development and therefore royalties, would not come through if the State does not invest in the project?

7. How is the dramatic difference in estimated tax payments cited at $205.69 million on p. IV-2 of the Analysis and $420 million on pp. V-66 and V-68 explained (these final figures are extrapolated from the "probable" figures listed on those pages, multiplied by a conservative 20-year mine life).

8. Does the State or legislature have any recent indications as to the likelihood of a detachment agreement between the NSB and the potential NANA borough?

9. Since AIDA has recently decided to scrap its contract for geotechnical studies with Cominco, will that $3 million be available to the project as the first installment of an $18 million appropriation, reducing this year's appropriation down to $15 million?

As I expressed to you during our meeting, AkPIRG is very supportive of the development of the Red Dog Mine in NW Alaska; we are, however, concerned that the State go into negotiations with accurate information and a full hand. Given that the session is nearly half over, that a proposal is still not on the table, that Cominco has said it cannot agree to develop the mine unless certain commitments are ironed out, and since these difficulties are very likely NOT to be ironed out before May 15th, we have strong reservations about the manner in which the state seems to be rushing headlong into a commitment.

I hope you will ask your staff to include these issues as part of its updated analysis of the project.

Sincerely,

Maureen Kennedy

Maureen Kennedy
Director

To: AkPIRG Board CONFIDENTIAL
From: Maureen
Re: Red Dog Mine road and port proposal
Date: 2/5/85

As agreed at our last Board meeting, I have done extensive research on the Delong Mt. Port and Road Project. Please read this memo so we can make a decision on our involvement in the issue at the next Board meeting. Things are moving fast, so we must make SOME decision on the 13th.

THE PROPOSAL:

Cominco/NANA have formed a joint venture to develop the Red Dog zinc/lead/molybdenum deposit just north of Kotzebue near the mouth of the Noatak River. The deposit is 55 miles from tidewater. With Administration support, Cominco/NANA is pushing the State to build a port facility and road from the deposit to tidewater for transportation to smelters in BC and Japan.

Though few details have been worked out, the most often-cited plan is for the State to loan the venture $135 million plus inflation and cost overruns to build the project, with repayment based on road and port user fees. Though facilities users would pay for the project, the State would actually own it. Eighteen million dollars is scheduled for appropriation to the Alaska Industrial Development Authority this year, which in turn will be lent to C/N, $50 million next year, $50 million in '87/'88 and $18 million plus inflation and overruns in the final year to round out the project. The most-often considered proposal includes forgiving $28 million of this total. C/N have asked for a ten year moratorium on repayments; a 6 year moratorium seems more popular at this time. Interest rates, collateral, repayment schedules, etc. are all up in the air.

NANA and Cominco have worked out a detailed agreement covering shared profits, local hire goals, efforts to minimize the adverse impacts of the project on the NANA region, etc. With the exception of local hire provisions (targets, not commitments; NANA is responsible for training of workers), NANA seems to be getting a good deal.

Once the infrastructure is in place, the State and C/N anticipate that other deposits in the area will be exploited as development costs go down. GCO owns rights to the Lik deposit 10 miles away, and Cominco also has control of the nearby Su deposit.

This whole proposal originated with Cominco; the State has gone through and tried to test the assumptions, costs, and cost/benefits suggested by Cominco. It has been a difficult task however, since Cominco has not been willing to turn over much of the critical metals price forecasts, or information about its corporate decisionmaking (necessary rate of return, etc...

COST/BENEFIT OF PROJECT:

The State projects a 6.2:1 cost benefit ratio for the port and road project. (Assumes .60/lb price for zinc, 15% return on investment, $40.1 million necessary state subsidy, $246.85 million in direct returns to the State in taxes or transfer payment savings.)

> "The ratio is high because it appears the project would not be viable without State support. Under the foregoing assumptions, the minimum level of investment the State can make in the project and have any expectation of immediate development is estimates to be $40.1 million. Higher involvement by the State through larger amounts of subsidy will increase expected rates of return to Cominco . . . . The State could subsidize the project up to $245.0 million and still have a benefit/cost ratio greater than 1 . . . . If the zinc price is lowered from .60 to .55 per pound (the low side of our estimated future price), the rate of return to Cominco would also fall. At the .55 price, to get the return to Cominco up to 15% the State might have to put a subsidy of $158.0 million in the project. Because of the lower price, the taxes are also lower; this, coupled with the higher level of subsidy, reduces the benefit cost ratio to 1.25 in comparison to the 6.2 figure generated by a .60 price."

At .63/lb., the project is expected to be viable without state investment.

COMPLICATIONS:

In addition to state sponsorship of the project, a few other things may impede the whole project. The road route preferred by C/N, the southern route, is less environmentally damaging. However, it runs through the Cape Krusenstern National Monument. C/N have applied for a right-of-way permit from the DOI; the Sierra Club is opposing it. A land swap between NANA and the Monument has also been proposed.

Just as difficult is the conflict between NANA and the North Slope Borough over jurisdiction over the Red Dog deposit. After ANCSA, the Arctic Slope Native Association formed a borough which included a strip of land which now is part of the NANA regional corporation. The borough and regional corp. boundaries should be roughly contiguous, but the processes were completed out of synch with each other and thus the important discrepancy occurred. Without the tax base represented by the Red Dog Mine, a proposed NANA area borough would not have enough revenues to function. Since the disputed area is not populated (and a simple vote cannot be taken), a complicated detachment process is underway. Various technicalities preempt the Legislature from signing off on any agreement until the '86 legislative session. Cominco has indicated that if the boundary dispute is not settled, and tax policy not clear, the company is unlikely to move forward with the mine project.

COST/BENEFIT OF THE MINE ITSELF:

I think it is crucial to be clear that our interest is in the road and port project, not the promotion of NANA/Cominco pursuing a private development project on private land. Nevertheless, the feasibility of the mine impacts the likelihood that the State will actually get repaid for its investment, and influences the need for any state involvement at all.

The Red Dog Project Analysis estimated the following costs and benefits of the project:

<u>Employment</u>:

Direct:	143 jobs during construction (40% NANA residents) 375 jobs during production (50-75% NANA residents)
Indirect:	92 during construction (23 in NANA villages) 226 during production (106 in villages)

<u>Income</u>:

Direct:	$8.8 million/yr during construction ($3.5 million to NANA residents) $12 million/yr during production ($7.5 million to NANA residents)
Indirect:	$2.3 million/yr during construction ($.575 million/yr in villages) $5.7 million/yr during production ($2.7 million/yr in villages)

<u>Jobs for Previously Unemployed People</u>:

During Construction: 33, 12 in villages, 7 outside of AK
During Production: 93, 51 in villages, 10 outside AK

<u>Supposed savings in Shipping Costs to Kotzebue Area</u>:

(Very uncertain because of Jones Act restrictions, etc)
$2-3 million annually

<u>Tax Revenues to AK mining tax and corp. tax</u>:

Cominco estimate based on
probable price of zinc at .60/lb: $10.21 million/yr
(Note--Project is exempt from mining
license tax for first 3 1/2 yrs. of
production)

NANA taxes, same assumptions: $2.[illegible] million/yr '88-91
$5.75 million/yr '91-

Population Increases:

During construction: [illegible] Kotzebue.
During Production: [illegible] 125 in [illegible].
(NB: with the exception of [illegible], which [illegible] capacity right now, the State does not anticipate any additional costs based on population increase.)

Road and Port Project [illegible]:

See attached tables. IMPORTANT: [illegible] interest free loan with [illegible] year deferred payment [illegible] present [illegible] of \$28-45 million to the State, representing a direct [illegible] of \$90-107 million on the project. An 3% loan with a 5 year moratorium, has [illegible] present value of \$57-91 million, representing a \$44-78 million cost to the State. BIG DIFFERENCE.

THE BIG PICTURE, OR MAUREEN'S THUMBNAIL SKETCH OF THE FUTURE OF WORLDWIDE ZINC PRICES:

Since 85% of the revenues of Red Dog will be based on zinc concentrate sales, and since loan repayment is based on a successful mine project, this is an important issue.

Today's zinc price is .43/lb., lead price is .23/lb. The State's analysis of the Red Dog Project assumes 20 year real prices for zinc and lead to average .60/lb and .35/lb respectively. Today's low prices are supposedly reflective of low recessionary demand and high supply of metals. Developing technology should bring about some product substitution for lead, little for zinc.

Business Week's 12/17/85 issue featured a cover story, "The Death of Mining." In it, the authors lump zinc in with the copper, nickel, lead and moly markets and envision bad times ahead for the ling term future. Cominco has reflected worldwide difficulties--it lost \$91 million in 1982 and \$39 million in 1985. (through Sept. 84, things were on the rebound: Akt income was \$29 million). Analysts anticipate that lead and zinc demand will increase by 1-2% in the next ten years. The State is assuming a 2.5% increase in demand annually. The article does emphasize that third world mines are coming on line rapidly and are far superior to American mines as far as recovery technology goes. The Red Dog mine is analogous to a third world mine in this sense, except that transportation costs as a proportion of production costs are higher (40%) than average (10%).

Brad Tuck of the Institute for Social and Economic Research, wrote a chapter on mining in Alaska Resource Development last year. He anticipates that world metal prices will not increase significantly (price would have to increase by 50% to reach probable price of .60/lb in State analysis). "The State will at best derive only modest revenue from [illegible] minerals and [illegible] development. Annual revenues [illegible] the mid 1990s from Red Dog, Eagle, Green Creek and [illegible] will be less than $1 million."

Cominco anticipates an increase in demand of [illegible]% per year for zinc and 1% for lead.

World supplies for zinc and lead [illegible] to decline over the next 10 years. Smelters, including those owned by Cominco, will be looking for new sources of concentrate. The most [illegible] competition for Red Dog will be from [illegible] sources.

POLITICS:

1. The deal has to go through House and Senate Resources, Finance and the House Special Committee on Loans. These are chaired by Herrmann/Schultz, Sturgulewski, Adams, Faiks/Sackett and Sund. Because the project is in his district, Adams is very attached to it. Adams, Ferguson, Sackett, and Willie Hensley are committed to pushing the project through.

2. The Governor is behind the project. Both John Shaffer and John Shively have connections with NANA.

3. The House minority and the Senate majority have expressed opposition or concerns about the propriety of state involvement.

4. The State analysis of the project includes a list of other potential mine projects and necessary infrastructure--the state could conceivably receive $1.9 billion in requests for state aid on other roads, railroad spurs and ports just for the mining industry. Equity question.

5. Cominco agrees that Red Dog will be developed at some point, it's just a question of when. With State involvement, it'll happen that much sooner.

6. Impact on ACAP.

7. No one else is willing to enter the discussion with our viewpoint. Ann Cony couldn't get anyone to go on record with concerns, much less opposition to the investment when the News did its analysis piece on Red Dog.

8. Sheffield can be fairly criticized for ignoring the local unemployment problem in Bush Alaska (less than 5% of the Red Dog area population is "fully employed"). The road and port project will produce construction jobs and facilitate production jobs.

9. John Hartle, John Sund's staffperson on the loans committee, says the approval is wired.

10. The State hasn't promulgated mining license tax regs yet.

RECOMMENDATION:

I suggest that we go ahead and involve ourselves in the issue. Adams et al. will have plenty to be ticked off at us about already and this is exactly the type of boondoggle appropriation we should be known for influencing. I think we could be successful in changing certain aspects of the deal such as interest rates, moratorium, payback terms, collateral on the loan, tax deferments, etc. Cominco agrees that it will be mining the richest portion of the deposit first, yet that is the time that payments to the state might be [illegible] or delayed, and when any mining taxes might be for[illegible].

At the Pine Point mine in Canada, Cominco engineered an agreement for the State to build a railway spur with payments based on tons shipped, with an overall cap on total annual payments. (Should payments be based on value or volume?) In the first couple of years, the mine was unexpectedly successful, yet Cominco's annual payments were limited by the cap.

We will enhance our credibility with the public. With every additional point of interest charged, the people save roughly $5 million 1983 dollars. Getting rid of the 6 year deferment saves roughly $40 million. Alot's at stake.

With the paranoia about declining revenues, legislators might see the light and realize that subsidies on the project must be scaled back and we would win out.

TABLE D-4

COST TO THE STATE

OF NO-INTEREST LOAN OF $135 MILLION

WITH VARYING PAYBACK PERIODS*

(Millions--1983 Dollars)

Payback Deferment Options	Present Value to State of Payback @ OCC =			Direct State Costs (-NPV) OCC =		
	8%	10%	12%	8%	10%	12%
10 Years	$30	$22	$16	$105	$113	$119
5 Years	45	35	28	90	100	107
No Deferment	67	58	51	68	77	84

OCC = Opportunity cost of capital for the State.
-NPV = Negative net present value.

* Loan is to be paid back in equal installments over a 20-year period, with different deferment periods as shown.

NB: Estimates based on overnight construction costs, (i.e., initial loan is made at a single point in time, after which the deferment period or repayment period begins).

Source: Office of Management and Budget, State of Alaska

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TABLE D-5

REPAYMENT OPTIONS AND STATE COSTS FOR $135 MILLION LOAN
(1983 Dollars, In Millions)

REPAYMENT OPTIONS:

Present Value

Interest Rate	Deferment	PV OF Payback	Direct Costs To State
0%	10 yr	$16-30	$105-119
	5 yr	28-45	90-107
	none	51-67	68-84
5%	10 yr	25-48	87-110
	5 yr	45-72	63-90
	none	81-107	28-54
8%	10 yr	31-61	74-104
	5 yr	57-91	44-78
	none	103-135	0-32
10%	10 yr	36-71	64-99
	5 yr	66-105	30-69
	none	0-118	0-17
12%	10 yr	41-80	55-94
	5 yr	75-120	15-60
	none	0-135	-0-

Source: Office of Management and Budget, State of Alaska

11/1368

ALASKA PUBLIC INTEREST RESEARCH GROUP
Post Office Box 1093/Anchorage, Alaska 99510/(907) 278-3661

April 26, 1985

Terry Elder
Dept. of Commerce and Economic Development
Pouch D
Juneau, AK 99811

Dear Terry:

I understand you have some questions concerning the assumptions we used in quantifying the subsidy involved in the Red Dog Road and Port Project. Before explaining our figures, I would like to make a few points.

Jobs: The jobs generated by state investment in the Red Dog project are 5 year jobs. Cominco officials have said time and time again that the Red Dog project will be developed with or without state help--the only question is timing. In atesting to the value of the Red Dog deposit, Cominco lobbyists have told us that the mine would be developed 5-8 years later than the proposed schedule without this year's $175 million appropriation and $175 million bond authorization. By funding Red Dog this year, the legislature is simply bringing those jobs on line 5 years sooner, at a nominal cost of $1.2 million over 5 years.

Taxes and Avoided Transfer Payments: You would be correct in saying that our subsidy estimate did not include increased future state revenues in the form of taxes and avoided transfer payments only if these payments would not accrue without state investment in the project. As we pointed out above, Red Dog will be developed and the benefits will accrue--starting in 1989 with state investment or 5-8 years later without. Since the State will receive the $169 million in taxes and transfer payment savings in any event, these cannot be counted as a benefit of the project.

"Finance Plan": You are correct in saying that an official Finance Plan is not yet in place. This has been a source of great concern to us. In the meantime, the Dept. of Commerce and AIDA have proffered a finance "option" and have based legislative requests on it. All our estimates are based on the "option" discussed in the numerous letters DCED, DoR and AIDA have written in response to Committee questions. *Our assumptions are, in fact your assumptions*, and I have referenced them in the footnotes below.

As you know, I have asked many times over the past months for an Administration estimate of the subsidy to Red Dog similar to the one given in the *Red Dog Project Analysis*. No one has answered. If you do not agree with our estimate, I would be very interested in hearing your figure.

THE SUBSIDY LEDGER

Nominal Costs:	Benefits:
$175 million bond issue-- annuitized sinking fund payment of $22.09 mil. per year for 30 years will cover state debt. $22.09 million x 30 =	$10 million in payments over 30 years in toll fees from Cominco, capped at--
$662 million(1)	$260 million(4)
Available in AIDA for re-appropriation but now to be directed to Red Dog--	
$ 15 million(2)	
FY 86 P+I on loan portfolio transferred from DCED to AIDA	
$ 18 million(3)	

COST: $625 million BENEFITS: $260 million

Difference (subsidy) = $435 million

(1) Assumes $175 million bond issue (SB 280), tax exempt rate of 10.5% (AIDA letter to Sturgulewski, 3/19/85, page 9 <unnumbered> of Appendix A, Case IV), taxable rate of 13.5% (3% margin between tax exempt and taxable), port costs (ibid., p. 9) are tax exempt, $12 million in bonds called 1990 (ibid., p. 9), 30 year term (ibid., page 2).

(2) $3 million in FY 85 app. to AIDA for DeLong Mountain Regional Port and Road available for reappropriation (AIDA letter to Sturgulewski, 4/9/85, p. 2), $12 million in multifamily housing funds to be reappropriated to the project (committee testimony, 4/16/85).

(3) Dept. of Revenue letter to Sturgulewski, 4/15/85, p. 2).

(4) AIDA letter to Sturgulewski, 3/19/85, p. 9. Assumes 4 year moratorium on payments (conversations with Cominco, Red Dog Project Analysis options, p. V-72, explicit cap at $260 million rather than $300 million over 30 years).

Real Costs:	Real Benefits:
Present Value of construction (value of bond issue)--	PV of $260 million over 30 years beginning year 5--
$175 million	$67.82 million

PV of net subsidy--$107.2 million* or 61% of total project cost.

*Same assumptions as above

I would be happy to answer any questions you may have on these figures.

Sincerely,

Maureen Kennedy

Maureen Kennedy
Director

Post Office Box 10937 Anchorage, Alaska 99510/(907) 278-5661

Proposed Amendments to SB 280

Section 1. (1) (c) Cominco, Ltd. will repay all expenditures (market rate interest and principal) by the State for the project through toll fees paid beginning the year of project completion for the use of facilities constructed as part of the project; (and other payments;)

Section 1. (2) The United States Congress approves the Cape Krusenstern National Monument land exchange between NANA Regional Corporation and the United States Dept. of Interior or a right of way as authorized by Title 11 of ANILCA;

Section 1. (3) NANA Regional Corporation agrees in writing to convey to the Alaska Industrial Development Authority, (at no more than fair market value,) at no cost, land needed for the port and road constructed as part of the DeLong Mountain transportation project and land needed for future expansion of the road and port;

Section 1. (5) the Alaska Industrial Development Authority obtains a ruling from the Internal Revenue Service that all bonds or notes issued under this section will qualify for tax exempt status; (and;)

Section 1. (6) the Alaska Industrial Development Authority establishes a toll schedule for use of facilities constructed as part of the DeLong Mountain transportation project that minimizes the cost to the State of (ensures the greatest return on the state's investment in) the project and guarantees equitable access to the facilities by all users; the toll schedule may be periodically adjusted.

Section 1. (7) the Alaska Industrial Development Authority ensures that Cominco and any other future users will pay all operation and maintenance of facilities constructed as part of the project, on a pro rata basis;

Section 1. (8) the Alaska Industrial Development Authority agrees to limit the present value of the direct subsidy to the project to $18 million;

Section 1. (9) the Alaska Industrial Development Authority agrees to turn over any funds not necessary for bond security or construction of the authorized project to the general fund as they become available;

Section (2). If the Alaska Industrial Development Authority does not issue bonds for the project by March 15th, 1986, this bond authorization lapses.

Cominco's Red Dog plan masks subsidy

A few weeks ago, three representatives from Cominco, a Canadian-based mining company, argued their case for the Red Dog zinc mine before the Fairbanks Chamber of Commerce.

It was quite a presentation. There was a film and a slide show to boot. The inescapable conclusion seemed to be that the mine was of great benefit to the state. People would get jobs during the construction phase and, for a lucky 400, there would be permanent employment at the mine itself.

NANA, the Kotzebue-based regional corporation, owns the prospective minesite, for which it expects to receive hefty royalties. Because of some peculiar provisions of the Alaska Native Claims Settlement Act, all the other regional corporations will share in the profits. It sounded like a good deal for everybody.

Cominco's arguments were persuasive, except for just one item. The whole project was said to depend on the expenditure of $150 million by the state to build a road for hauling the ore and a port facility for shipping it out. Only then could the company put its financing package together for the rest of the operation.

With all the free-market advocates in the room, you'd have thought somebody might at least twitch or moan softly over that part of the deal. Nobody did, though. Apparently that kind of state spending is universally acceptable in Alaska these days.

In fairness, the Cominco people thought that the $150 million was not really a subsidy. Besides being the kind of "infrastructure" that the state is supposed to provide, the road and port would generate a user fee of $10 million every year for 30 years, thereby doubling the state's money.

The trouble with the "infrastructure" argument is that the facilities aren't being built for public use, but for private profit. And if you do your math, you'll find that $150 million paid back over 30 years at $10 million a year amounts to a loan at a very low interest rate.

If a low-interest loan isn't a subsidy, why can't you get one to buy a computer, or a front-end loader, or an addition to your house? Of course the state's contribution to Red Dog is a subsidy; furthermore, it raises important questions of policy in Alaska.

If the state's arrangements with Cominco and NANA are approved,

Steve Cowper

Views expressed here do not necessarily represent those of the Daily News-Miner

you can bet it won't be the last such request. In fact, it will be a signal for all sorts of proposals to "create jobs" and to "diversify the economy."

Who is going to get these subsidies? The ones who promise campaign contributions? Those in the districts who deliver the votes to the right people? Furthermore, who is to control where the subsidies go? The legislature? The governor? A council of wizards? A dart board?

Down in Ketchikan, U. S. Borax is waiting for better market conditions before developing their molybdenum mine some miles away. To Borax's credit, they've never asked for a state subsidy, but after Red Dog, why shouldn't they? Jobs are hard to come by in Ketchikan, and more people live and vote there than in Northwest Alaska.

In case you hadn't noticed, there aren't any rules any more about public spending. Nothing is out of bounds. The money's free (meaning it comes from the oil companies), so there isn't any reason to watch the till. Plenty more where that came from, right?

Wrong. The downward drift in worldwide oil prices has created a massive treasure hunt in Juneau. They're looking for money everywhere, but they won't find much. The next thing you know, they'll be looking at our wallets.

So we'd better make some kind of informed judgment as to whether we really want to subsidize industries in Alaska, and if so, which ones. If we decide that government participation in private business ventures is a good thing, then we need to decide what standards will apply to such activities so that things won't get out of hand.

Government participation in the marketplace is not new. All sorts of countries have tried it: Great Britain, Brazil, Nigeria, Poland. None of them could figure out how to make it work, though, for in the end the government does not respond to the market. It responds instead to political pressure.

According to the available evidence, the wisest course for Alaska to take is to forget subsidies to industry. We can help to encourage entrepreneurship in a lot of intelligent ways - providing useful information, a sensible regulatory structure, low taxes - but all the indications are that the laws of the marketplace ought to determine whether natural resource extraction can be profitable.

None of this is an indication of hostility towards the Red Dog project. I hope the world suddenly discovers thousands of new uses for zinc. I hope Cominco and NANA are able to put it together and that everybody involved gets rich. I wish them all the success they can achieve, as long as they don't use my tax money.

In the meantime, here's some more math. If we invested the $150 million at 11 percent, the $16.5 million in annual interest would be enough to give each one of those 400 Red Dog employees $41,250 a year forever, and none of them would even have to pick up a shovel.

Of course math is the same thing as logic, and we all know how much logic has to do with it.

Steve Cowper, a former state legislator representing Fairbanks, is a lawyer now engaged in professional arbitration.

... as part of a science project for a ... for high school student.

Junkie didn't do well. He slowed down, got fat and dropped dead. Healthnut stayed healthy and learned to speed through the maze. And Lori Demond, a student at Wasilla Junior High School, concluded in her project that diet had affected her pets' performance.

Junkie did not die in vain. He was a participant in one of the 213 experiments that packed West High ... the International Science and Engineering Fair on May 11.

Some of the projects were simple; others were startling in their sophistication. And some were just plain fun.

There were the banana batteries, created by amateur scientist Bill Norton. The student plugged zinc and copper plugs into fruit and measured the trickles of power produced by chemical changes inside. The banana wasn't too great, Norton wrote. The judges plenty of consumer tips. Youths determined that a "new and improved" brand of gum tasted no better than its unimproved ancestor. The students also tested shampoos, toothpastes and the teeth-staining power of various soft drinks.

"Some of these projects are really something," said fair director Robert Pawlowski.

While science fairs have been held here for decades, the sophistication of the projects have been increasing ... said. Curiosity and tenacity provided the winning combination for the 11 first-place winners.

The grand-prize winner, Jeff Morgheim, won a trip to the International Fair for his elaborate experiment on the effects of ultraviolet light on some forms of plant hormones. Other first-place winners studied the effects of aloe vera on rabbit injuries; the effects of cold tempera-

See Page B3, SCIENCE

... tigator and one of the mission astronauts, Don Lind, a magnetospheric physicist, with information about expected auroral activity.

"It's really going to be up to Don. There will be so much aurora, and he will make the decision about which to videotape and when. He spent a year at UAF as a visiting professor, so he has a good idea of what I'd be considering."

Clocksin urges close look at Cominco ties to S. Africa

By ROBB FULCHER
United Press International

JUNEAU — An international mining firm's plan to develop a huge zinc deposit in northwest Alaska should be carefully scrutinized, because the firm has a joint venture diamond mine in South Africa, the House majority leader said Friday.

"I have always been cautious about the Red Dog Mine project because of the amount of state money involved, and the fact that they have interests in South Africa does not make them look any better," Rep. Don Clocksin, D-Anchorage, said.

Clocksin has co-sponsored a resolution calling for the state of Alaska to sever its business ties with South Africa until racial oppression in that country is ended.

South Africa's apartheid system of racial separation, which sharply curtails the liberties of the country's 22 million blacks and does not recognize them as citizens, is drawing increasing criticism in the United States.

Cominco Ltd., a Vancouver, British Columbia-based mining firm, wants to develop a vast zinc deposit northwest of Kotzebue, in cooperation with the NANA Native regional corp., which owns the land over the mineral deposit.

The Sheffield administration has supported the development, and has announced plans to pump $150 million into the project, although officials have not made it clear how the money would be made available.

Legislation has been introduced in the House and Senate that would make $175 million available for the project in the form of bonds and grants to fund the construction of a road and port to service the mine.

Under plans by the legislature and the administration, the state would recover its investment in the mine through tolls and user fees from the road and port.

Clocksin said the Cominco project should be looked at closely because of the amount of state money involved, and the South African connection makes the project even more questionable.

"South Africa would not be a deciding factor in my decision on whether to support the project, but it is one of the considerations," Clocksin said.

Cominco has been taking part since 1978 in a small, joint venture diamond mine north of Cape Town, South Africa, and maintains an exploration office in Johannesburg, company spokeswoman Lisa Parker said.

There are 120 employees, almost all of them black South Africans, at the mine, and nine employees at the exploration office, Parker said.

Cominco officials stressed that the South Africa employees are paid at least 50 percent above the prevailing South African minimum wage, and they have benefits such as a pension plan, death and disability benefits and a minimum 18 days paid vacation each year.

The mine employees work a five-day, 51-hour week and are paid room and board in addition to their wages, Parker said.

See Page B-3, COMINCO

Spotlight on libraries — something you can make book on

April 15, An Daily News

satch carlson

It's going up, this wonderfully huge building that looks like an assemblage of Quaker Oats boxes: the new state headquarters library, which probably is to be called the Loussac Library, but which I would just as soon name after Wilda Marston. On my list of civic priorities, I have to admit I put libraries at the top, even ahead of performing arts centers and limited-access freeways. I am, I suppose, a library junkie.

I am not the only one.

There is in fact a group called Friends of the Library, which sounds like a pretty good group to belong to if you are a joiner. Libraries need all the help ... ets.

Besides, if it weren't for libraries, I wouldn't be what I am today. Whatever that is.

I don't remember how it was that I came to be familiar with the Washoe County Library as a child; it was a somber, gothic place (since replaced with the most wonderful library in the Western Hemisphere — but that's another story), with a special section for children, one of which I was stuck as at the time. But it didn't seem to bother the librarians if I wandered out of the children's section into the Big Time, the REAL stacks. (Not that the ... strongly influenced by H. Allen Smith. Twenty years later, on rereading him, I was astounded at the similarities in our writing styles — and I can't think of a way to claim that his was derived from mine.)

The first time I checked out books from the real stacks, of course, I was terrified, but the librarians didn't bat an eye; they didn't care if I was corrupting my morals by reading humorists, as long as I got the books back on time. For my part, I was enchanted and grateful to live in a place that provided books, all kinds of books, that I could read for free.

Hill's project started with a tankful of dead fish and a mystery. The fish were floating in an aquarium near the blackboard in a Dillingham High School classroom. The mystery was what killed them.

Hill, a sophomore, spent months chasing the fish killer — which she now suspects was dust left by newfangled blackboard pens. Those pens, Hill said, contained kentone solvents which can lead to skin irritation and are suspected of causing respiratory and nervous damage.

"We thought that the dust from the pens may have fallen into the tank," she said. "Once we put a cover over the fish, they stopped dying."

Hill's work garnered her $50 in cash, a blue ribbon and a blender.

But while she won, she said she wants to know a lot more about the pens which are now commonly used in Alaska schools. She wrote to several pen manufactures asking them for information on their ink. There were no replies, she said.

"I still haven't figured out exactly what's in them," Hill said of the suspect pens. "The manufacturers don't give away that kind of information."

...since.

Today there are 129 international students at UAF. Canadians (32) still dominate, but there is a smorgasboard of global representation.

Most students have made their way here without a formal exchange program and without financial assistance. Many are older, graduate students.

"Homesickness is of more importance with them because they are quite a bit farther from their homes," says Greg Snoddy, head resident at Nerland Hall, where many of the foreign students live. "The important thing is to keep them busy, get them in with the crowd, try to introduce them to people, activities, on campus."

Toward that end, Nerland Hall is the scene of international dinners, speakers, student programs on their home countries and slide shows. "We ...directors or deans to allow the students to enter the university even though their English is not up to par," Snoddy says. "That's a major problem. We need to set a straight policy on English language ability for the students."

Arna Isacsson is from Sweden. Her English is easily understood, with only a faint accent.

"I wanted to see a wildlife management program in the states. Since I'm from up north in Sweden, I wanted something similar (geographically)," she says. "We don't have wildlife programs in universities like they have here."

Isacsson wants to return to Sweden to work with wildlife in the Laplands, specifically wolves. There are only eight, but even with such a small population, "the wolf question in Sweden is as hot as it is here," she says, referring to predation conflicts.

Swedish children study English in ... they watch TV."

Isacsson says she's had problems because she insists on doing independent study and taking higher level courses. But lectures are the tough part.

"It's so fast all the time. You're listening with your pen. So many words I didn't know how to spell."

She'd write those down, guessing at the spelling, "and I couldn't figure out what I meant" later, she says.

"I have found the people that are most open to me are the people from other countries," says Isacsson. "They yield more. They open up more, to learn what I have to say from my culture, while Americans say, 'This is not Sweden. You have to adapt.' "

Masumi Tsurumi is on exchange from Nagoya Gakuin University in Japan, studying economics. Her English does not come easy, although it was required at junior and senior ... and reading comprehension learned, Tsurumi says speaking English is another matter.

"We have an English handicap listen to lecture in my case, sometimes I can't understand what instructor say. Sometimes I need transfer from English to Japanese," she explains.

Vahid Hashemi, an Iranian, had head start. He went to high school in America, and started at a junior college in California before coming to UAF to major in electrical engineering.

He was surprised to find many things in Alaska are less expensive than Outside.

"The food is not cheaper, definitely, but the overall living on campus comes out cheaper than the Lower 48," he says.

But what he likes best about Alaska is that people are "friendly, very friendly. When I was in the Lower 48 they were friendly, but there was distance," he says.

Cominco ties questioned

Continued from Page B-1

The employees get a three-day weekend and free travel home to their villages once each month, Parker said.

The South African government maintains that the country's blacks are not citizens of South Africa but are instead citizens of black-only villages, and they are allowed to live permanently on only 13 percnet of the country's land.

Cominco spokesman Don Townson said Cominco is in compliance with the Canadian Code of Conduct Concerning the Employment Practices of Canadian Companies Operating in South Africa.

The code, established by the Canadian government, directs companies to pay equal wages for equal work, to pay at least 50 percent above South Africa's minimum wage, and to allow workers to form unions.

Manslaughter conviction upheld

The Associated Press

The conviction and sentence of Stephan J. Dresnek of Anchorage for manslaughter and assault in connection with a drunken driving case were upheld Friday by the Alaska Court of Appeals.

A two-ton pickup driven by Dresnek collided with a

State contract delayed on Red Dog mine study

By ANN CONY
Daily News reporter

JUNEAU — Work on a 267,000 state contract to study options for financing Cominco Ltd.'s proposed Red Dog mine has been delayed by a conflict of interest within the company chosen to do the study.

The conflict, involving SRI International of Menlo Park, Calif., was revealed earlier this month when state officials learned that the SRI project manager was a retired Cominco officer. The man draws a monthly pension from Cominco, according to Bert Wagnon, executive director of the Alaska Industrial Development Authority, which is overseeing the study.

SRI has since named a new

See Back Page, RED DOG

Red Dog Mine study delayed

Continued from Page A-1

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AIDA plans to negotiate with Cominco the terms of proposed state financing after the SRI study is completed. The study is to include recommendations on financing terms and conditions.

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Cominco, an international mining company based in Canada, plans to develop the Red Dog zinc deposit in partnership with Nana Regional Corp., a Kotzebue-based Native corporation that owns the land.

Cominco and the Sheffield administration have asked the legislature to appropriate the first $18 million of the loan this year, though terms and conditions for state financing of the port and road will not be nailed down before the legislative session ends.

Department of Administration Commissioner Lisa Rudd on Wednesday cleared the way for AIDA to enter into a contract with SRI by rejecting as too late a protest filed Monday by an SRI competitor.

Arthur Young & Co., whose proposal had been rated second-best, argued that the state should re-evaluate the top proposals for the financing study because SRI's proposal relied heavily on the experience of A. Olaf Wolff, a former vice president of Cominco, whom SRI originally designated as the project manager.

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The AIDA evaluation team reviewed Thiers' resume and judged his qualifications to be equal to or better than Wolff's, and the AIDA board of directors concurred, Wagnon said.

AIDA had planned to submit a first draft of the Red Dog financing plan to the legislature in mid-April.

Anc Daily News 3/21/85 p.1

Cominco closing may rescue zinc

by Olav Svela

When Cominco Ltd. announced a month-long closure starting mid-December of the Polaris zinc-lead mine and the Black Angel mine in Greenland, it was thought its European customers' appetite for concentrates had been sated.

That is true. The European smelters and refiners of Cominco zinc concentrates are sitting with seasonally high inventories.

But the real reason for the closing of two profitable mines could be quite different than what is generally accepted, says Raymond Goldie, mining analyst with Richardson Greenshields.

At the time of the announcement, Cominco and its overseas customers, who rely on the company for nearly one-quarter of zinc metal production, were in the midst of negotiations. In the absence of new agreements, the Europeans could be sitting with near-empty warehouses by the spring of 1985.

Mr. Goldie believes Cominco is prepared to extend the shutdowns to prove a point — if the Europeans still demand discounts from the posted $US900-per-tonne price, then Cominco will not be shipping concentrates.

"Cominco's actions appear to carry an implicit threat that, if zinc prices don't improve, Cominco will extend the shutdowns," Mr. Goldie said.

There is also the possibility the company, fed up with the braying for discounts by its traditional buyers, could strike a deal with Japanese smelters.

Nor does Cominco seem overly concerned about losing market share, Mr. Goldie noted. Marginal suppliers only reopened mines about a year ago when prices improved. With tags again at lower levels, these producers might be loathe to boost production until solid price gains have been made.

Besides, Mr. Goldie observed, any expansions would require six months to complete.

So Cominco is taking the lead in showing discipline.

"It demonstrates that at least one producer is willing to make a stand when it believes that it is not getting a fair price for its product," the analyst said.

The implication for the price of zinc? Obviously, less concentrates should translate into a tighter market. It hasn't happened so far with free market prices (London Metal Exchange) having slipped nearly a cent to 39.1¢ (US) since the Cominco move.

But Mr. Goldie is confident that with supply and demand in fairly close balance even before Cominco's actions, prices will respond.

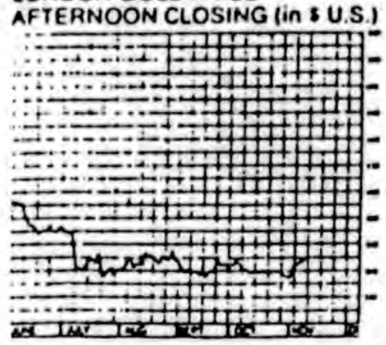
Cominco itself projects world shortages.

"Cominco and the smelters both have their eyes on the long term. Cominco wants to take full advantage of a major world shortage of zinc concentrates which, it expects, will develop by the late 1980s," Mr. Goldie said.

The strength of the yellow metal, meanwhile, continues. At presstime the second London fix (Nov. 13) was $US350.45 while the key December contract on Comex was trading at $350.90.

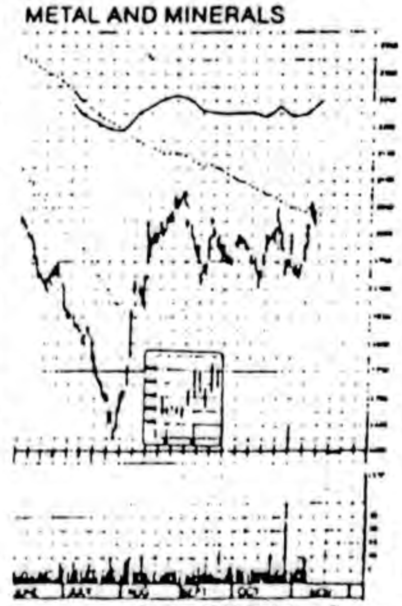
Richardson Greenshields analyst David R. James, noting "the much more positive tone to the gold market," said he expects a "ragged, slow erosion" of the American dollar if newly-re-elected President Ronald Reagan keeps his promise to try to lower interest rates.

LONDON GOLD PRICE — AFTERNOON CLOSING (in $ U.S.)



LONDON SILVER PRICE (in $ U.S.)

METAL AND MINERALS



Courtesy: GPS Publishing, Toronto

DEC 1984

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ALASKA OIL AND GAS NEWS
DECEMBER 1984

Closure of Polaris mine proof of Cominco's Red Dog commitment

By BERT TARRANT

There's more than meets the eye in Cominco Ltd. of Canada's recent announcement of a month-long closure (which began Dec. 1) of its Polaris lead-zinc mine in northern Canada.

When word of the closure was announced, the fact was jumped on by the Anchorage media as if it were proof positive that any efforts by the state to help Cominco Alaska and partner, NANA Regional Corp., develop the Red Dog lead-zinc project would be throwing so much money down a rat hole.

Cominco and NANA, the Kotzebue-based Native regional corporation, are seeking help from the state to take the edge off the steep front-end infrastructure costs (road and port) the joint venture faces if it is to develop what is considered the richest lead-zinc deposit in the world.

NANA and Cominco had made notable progress in pleading their case and demonstrating the benefits of the project (especially in local hire in unemployment-plagued northwest Alaska) for state help when the Polaris closure (and one in Greenland) was announced.

Tactically, the announcement came at an inopportune time. The knee-jerk reaction from the media and some state-help opponents was that the closures indicated Red Dog wasn't all it was cracked up to be.

But mining industry analysts of international repute are taking an entirely different view of the closures.

When Cominco announced closure of the Polaris mine and the Black Angel mine in Greenland, it was thought its European customers' appetites for concentrates had been sated.

That is true, according to industry observers in Canada. The European smelters and refiners of Cominco zinc concentrates are sitting on seasonally high inventories.

But the real reason for the closure of the two profitable mines could be quite different than what is generally accepted, says Raymond Goldie, mining analyst with Richardson Greenshields.

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See COMINCO, Page 18

• Cominco's mine move shows spine

Continued from Page 1

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Besides, Goldie said, any expansions would take six months to complete. So Cominco is taking the lead in showing discipline.

"It demonstrates that at least one producer is willing to make a stand when it beieves it is not getting a fair price for its product," the analyst said.

Although it hasn't happened so far, that should translate into a tighter market and higher prices and Goldie is confident, with supply and demand in fairly close balance even before Cominco's actions, prices will respond.

Cominco itself projects world shortages. "Cominco and the smelters both have their eyes on the long term. Cominco wants to take full advantage of a world shortage of zinc concentrates which it expects will develop by the late 1980s," Goldie said.

And the late 1980s, incidentally, is when Cominco and NANA would like to bring the Red Dog project on line.

Natives, U.S., Audubon ba

By BETTY MILLS
Daily News correspondent

WASHINGTON — Reagan administration officials, Native leaders and representatives of two national environmental groups Monday endorsed legislation to ratify a land exchange that would allow development of a major lead and zinc mine in Northwest Alaska.

Environmentalists from three national groups opposed the bill, which would allow construction of a road across land that is now within the Cape Krusenstern National Monument. The road would allow the NANA Regional Corporation to gain access to its claim at the Red Dog mine, located 82 miles north of Kotzebue.

The testimony came at a Senate Energy subcommittee hearing chaired by Alaska Republican Frank Murkowski.

The bill was introduced by the Alaska delegation to implement the land exchange negotiated by NANA and the Interior Department. Under the deal, the Natives would receive 64,000 acres of land in the northern part of the monument and would relinquish 102,000 acres the corporation selected on the eastern side of the monument.

NANA and Cominco Alaska have joined forces to develop the mine and want to build an access road in what is now the northwest corner of the monument. The route was determined to be environmentally preferred and ec-onomically acc environmental ment issued las

Bill Horn, secretary of th partment, said change "preser tial integrity ar purposes of Ca National Monu not significantl istence uses and

Roger Conto gional director al Park Service swap would be

Red Dog mine draws widespread support

Continued from Page C-1

Anchorage. The city's utility headquarters are in additional buildings and would not be included in a consolidation of city offices.

But the city is quickly running out of room for its workers and will need to lease more space for the 2,868 employees expected to be on the city payroll by 2005.

Mann and his staff looked at six options for future city office space, including purchasing the Hill Building, leasing a large office building to consolidate city offices and continuing the current practice of leasing several buildings throughout town.

But Mann said Monday the best deal for the city is to construct a new building with about 180,000 square feet of office space. A low-interest, tax-exempt loan could be used to finance the project, he said.

If work beg now on finding a site, arranging financing and designing a building, Mann said the new city hall could be ready in three years.

Any new leases in the next five years should include a clause that would allow it to be canceled when the new facility is completed, Mann said.

The city now pays about $957,000 a year in rent to Zamarello's Olympic Inc. If the lease is extended through 1990, the rent would rise to about $1.07 million a year.

The city pays about 89 cents a square foot in the Hill Building, well below current market rate for downtown office space, Mann said.

The $8.7 million asking price for the building could be a bargain. The property was appraised at $13.7 million by city assessors.

Red Dog mine

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neficial to resident or migratory wildlife of the monument" and would enhance fishery protection.

Willie Hensley, vice president of NANA, stressed the importance of the Red Dog project as a means of employing Natives in the area.

"For our shareholders, Red Dog means approximately 400 year-round jobs. These jobs and the economic survival of our people are what is at stake," he said.

The mineral prospect, located in the DeLong Mountains of the western Brooks Range, represents one of the largest lead/zinc/silver deposits in the world, according to Henry Giegerich, president of Cominco Alaska. The deposit has known reserves of 85 million tons and the proposed mine has a projected life of 50 years, he said. The mining claim is not in the monument.

Murkowski said the land swap would benefit the Na-

See Page C-3, RED DOG

State contract delayed on Red Dog mine study

By ANN CONY
Daily News reporter

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The conflict, involving SRI International of Menlo Park, Calif., was revealed earlier this month when state officials learned that the SRI project manager was a retired Cominco officer. The man draws a monthly pension from Cominco, according to Bert Wagnon, executive director of the Alaska Industrial Development Authority, which is overseeing the study.

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Red Dog Mine study delayed

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SRI officials could not be reached for comment Wednesday evening.

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Anc Daily News 3/21/85 P.1

Rec'd 12/18/85
KH

REPRESENTATIVE TONY VASKA

Alaska State Legislature
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NAPASKIAK
NEWTOK
NIGHTMUTE
NUNAPITCHUK
OSCARVILLE
PLATINUM
QUINHAGAK
TOKSOOK BAY
TUNTUTULIAK
TUNUNAK

December 19, 1984

Dear House and Senate Resource Committee Members:

I am enclosing a copy of an article titled "The Death of Mining," which appeared in the December 17, 1984, edition of Business Week. I hope that you will read this article, as it contains information which should be useful to you in deciding whether to spend state money to support the mining industry.

The article displays that the mining industry in this country is in serious trouble. The article says that:

> "The recovery of 1983-1984 largely by-passed producers of copper, iron ore, nickel, lead, zinc and molybdenum. Now, after a prolonger period of painful losses, these companies are reeling from what are clearly chronic problems: shrinking markets, huge debt, and depressed prices. Three or four major metals producers may even be forced out of the business over the next few years. In a very real sense the industry is dying."

As you know, the state does not receive tax revenues from the mining industry. Therefore, I fear that spending large amounts of money to support the mining industry would have little benefit to the state. There is a very real chance that even with this state financial support mining industries could not survive.

Sincerely,

Tony

Representative Tony Vaska

Encl.

ANV/krh

Cover Story

THE DEATH OF MINING

AMERICA IS LOSING ONE OF ITS MOST BASIC INDUSTRIES

Just south of Tucson, a two-lane highway rolls through the desert to Mexico. Along one 26-mi. stretch, it skirts five open-pit copper mines amid the saguaro cactus, mesquite, and ironwood. This is U. S. 89, known as *el camino de la muerte*—"road of death"—for the toll it has taken on drivers zooming north from a hard-drinking night in the border town of Nogales. But the macabre name might just as easily refer to the mines that line this lonely road. Once the workplaces of thousands, they are now either closed or up for sale—a stark reminder of the sad state not only of U. S. copper companies, but of most of the rest of the North American metals mining industry.

The recovery of 1983-84 largely bypassed producers of copper, iron ore, nickel, lead, zinc, and molybdenum. Now, after a prolonged period of painful losses, these companies are reeling f what are clearly chronic proble shrinking markets, huge debt, and pressed prices. Three or four major r als producers may even be forced ou the business over the next few years a very real sense the industry is dyi

The pangs of mining are the lat example of what may be an indust megatrend: the inexorable shift of production and processing of all b

(TOP) JACK RENDULICH (BOTTOM) JEFFREY HAMILTON materials from the industrial countries to the Third World. Like steelmaking, metals mining is vulnerable to some fundamental forces. It is an industrial activity in which, these days, the developing nations have an almost unbeatable pair of economic advantages: cheap labor plus very-low-cost reserves.

The industry's plight ripples far beyond the dozen or so companies that dominate metals mining in North America. Just four years ago, metals mining in the U. S. was an $8.9 billion enterprise. By 1983 it had shrunk to just $5.9 billion. Mining employment, already down to 44,800 at the start of this year from 109,000 in 1981, could fall a further 30% over the next two to three years. The contraction is already creating modern-day ghost towns (page 68) in mining regions of the country. And while lower metals prices do mean at least a short-term benefit for manufacturers and consumers, some observers are concerned that the industry's problems may one day put national security at risk. "We need a copper industry, for defense purposes if nothing else," asserts Representative Morris K. Udall (D-Ariz.), chairman of the House Interior Committee.

REAL DANGER. For all these reasons, metals mining could become the next *cause célèbre* in Washington's continuing debate over industrial policy. Many officials within the Commerce, Defense, and Interior Depts., as well as in Congress, now believe the U. S. may soon have to choose between forgoing major segments of its minerals-producing capability and subsidizing them. "We are in real danger of losing 75% of our copper industry and 40% to 50% of our iron-ore industry," warns Robert C. Horton, head of the Bureau of Mines. All across the mining spectrum the signs are plain:

□ The largest copper producers—Kennecott, Asarco, and Phelps Dodge—are deep in the red again this year. Phelps Dodge lost $50 million in the first nine months. Kennecott Corp.'s $41 million operating loss in metals during the third quarter brings its total loss in the business since 1981 to $488 million. Asarco Inc., which suffered a net loss of $70 million in the first nine months of 1984, had to cancel its fourth-quarter dividend.

□ The major oil companies—which once rushed into metals as the next best thing to oil—are already giving up. Last month, Pennzoil Co. took a hefty $100 million write-off to reflect the decreased value of Duval Corp., its copper and molybdenum mining subsidiary. Three months earlier, Atlantic Richfield Co. took a $785 million write-off on Anaconda Minerals Co., a copper and metals fabricator it purchased in 1977 for $680 million. Both companies have put their metals operations on the block.

□ In iron ore, U. S. Steel, Hanna Mining, and Pickands Mather announced in November yet another round of temporary mine closings that will shut down most of Minnesota's iron-ore Mesabi Range this winter. Days later, Canadian steelmaker Stelco Inc. announced that it was permanently closing its Griffith Iron Ore Mine. That added a further 1.5 million tons of ore-producing capacity to the 25 million that has been shut down for good in the U. S. and Canada since 1980.

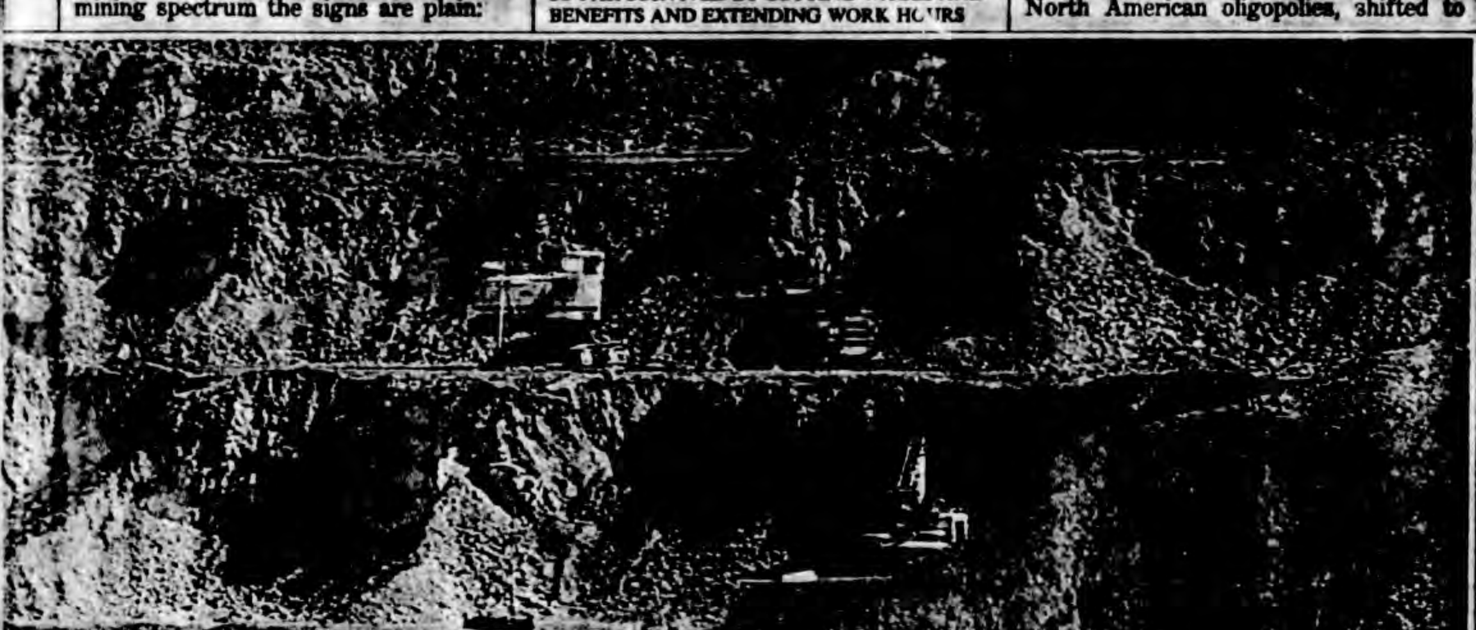
□ In nickel, zinc, and lead, the scene is much the same. Toronto-based Inco Ltd., a giant nickel producer, has posted 13 consecutive quarters of operating deficits. Noranda Inc., a major zinc and lead producer, lost $38 million in the third quarter, wiping out its first-half profit.

A series of factors accounts for mining's malaise. The industry is hobbled by a worldwide excess of capacity that shows no sign of abating. Despite disappointing demand for most metals, Third World countries, eager to exploit more of their natural resources, keep opening giant new mines that incorporate the latest recovery techniques. The strong dollar makes their low-cost products particularly appealing to U. S. buyers. Underlying all this is a weakening geological base: Many of the richest domestic base-metal reserves are coming close to depletion, while the low-grade ore that remains is becoming too costly to recover.

In their day, North American mining companies ranked among the world's industrial elite. Amax, Anaconda, Asarco, Kennecott, or their forerunners helped settle the West. Huge family fortunes derived from mining, including the Hearsts' and the Guggenheims'. Mining companies were among the first U. S. multinationals, dominating world markets during the boom that followed World War II. Amax Inc. once held 50% of the Free World market for molybdenum, a metal used in everything from light bulbs to jet engines. Inco once supplied 90% of the world's nickel.

WILD FLUCTUATIONS. Things began to change in the 1970s. Copper and iron-ore mines in South America and Africa were expropriated. The North American industry was hit with large environmental expenditures. New competitors from the Third World appeared, many of them state-owned and blessed with abundant reserves.

Price-setting, once the province of the North American oligopolies, shifted to



PENNZOIL'S SIERRITA COPPER MINE IN ARIZONA: THOUGH UP FOR SALE, IT HAS SO FAR SURVIVED BY CUTTING WAGES AND BENEFITS AND EXTENDING WORK HOURS the floors of the world's commodities exchanges, chiefly the London Metal Exchange. Steady prices yielded to the wild fluctuations now the norm in the business. Demand for iron ore, nickel, and molybdenum started to wobble as the biggest customer for all three metals—the U. S. steel industry—faltered.

But the most devastating blows came with the recession of 1981-82. After hitting record, or near record, levels in 1979 and 1980, earnings of the North American producers collapsed. From 1982 through this year's third quarter, 10 of the largest independent North American mining companies reported net losses totaling $1.8 billion. At the start of 1981, their debt amounted to 36% of their capitalization; by the end of this year's third quarter, it was close to 41%—at least 10 percentage points above the average for U. S. industry. Return on shareholders' equity, which stood at 18% five years ago, is likely to end up this year at minus 1%. On average, the shares of the U. S. metals mining companies in the group sell for 36% below book value.

The situation has grown so grim that Interior Secretary William P. Clark, who last fall tried to win import relief for copper producers, is now publicly voicing his alarm. Worried about U. S. dependence on foreign minerals, Clark has appointed a 25-member task force to search for ways to preserve the nation's remaining mines. In mid-November, the panel, headed by retired Rear Admiral William C. Mott, issued its first substantive proposal. It called for the U. S. strategic metals stockpile to be placed in the hands of a Comsat-type, quasi-government corporation instead of several agencies. A single entity presumably could make decisions more smoothly than the present mix of overseers can.

ROCKS IN WATER. The industry's most visible problem is prices, which have lately had all the buoyancy of rocks in water. Even though strikes have curtailed 63% of U. S. lead mining capacity since summer, lead has nonetheless fallen an additional 5¢ a lb. since July. Although inventories of copper on the London and New York exchanges have dropped 50% since January and world demand for the metal may hit a record 8.3 million tons this year, copper is now 61¢ a lb.—9¢ below its price last April.

"These are not normal economics as we have known them," says Asarco President Richard de J. Osborne. "Based on the fundamentals and on historic precedent, we should now be several quarters into a price recovery." Yet, in real terms, the price of copper is lower now than at any time in this century except during the trough of

Industry executives h
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WHY CHILE IS THE KING OF COPPER

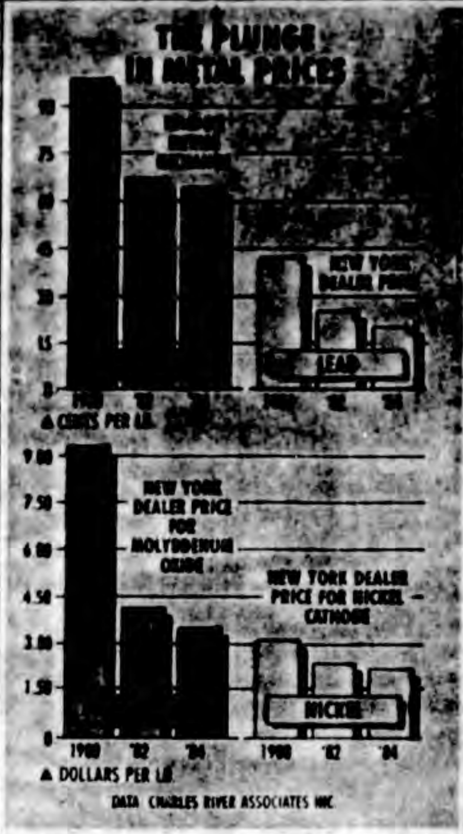
ABBAS/MAGNUM

CHEAPER LABOR: CODELCO MINERS' WAGES ARE HIGH BY CHILEAN STANDARDS—BUT ONLY A TENTH OF WHAT U. S. MINE he thinks they will more likely languish near present levels. He predicts that copper will sell for less than 90¢ a lb., in constant dollars, through the rest of the century and that nickel and lead prices will stagnate into the 1990s. The price of molybdenum, he predicts, will remain weak through 1987.

A significant increase in volume also seems far off. Metals experts almost all agree that demand will hold steady, or at best grow modestly, over the next decade. Cleveland-based Hanna Mining Co. is forecasting that North American consumption of iron-ore pellets will average no more than 74 million tons a year through 1990—a far cry from the 109 million tons consumed in the peak year of 1979. Demand for copper, nickel, lead, and zinc is seen increasing by only 1% to 2% for the next 10 years.

A host of factors is curbing growth. New materials, such as plastics and optic fibers, are replacing metals in many product lines. Katrak estimates that, by 2000, technological advances will enable manufacturers to use only two-thirds as much copper per unit of output as they do today. Lead is being banished from gasoline, its second-biggest market, while longer-lasting, lighter batteries are slowing consumption in its primary market. More and more metals recycling is occurring almost everywhere.

In the few markets where demand



DATA: CHARLES RIVER ASSOCIATES INC.

continues to grow respectably, supplies keep growing as fast or faster. According to Katrak, world molybdenum consumption may increase 3.5% a year through 1990. But so many new molybdenum mines have opened up during the past five years that annual capacity is now 69% greater than the 166 million lb. expected to be consumed next year.

For many struggling producers of North America, the telling factor is the decline in the grade of their ore. "The high-grade, easily accessible deposits have been mined out" in the U.S., says John W. Goth, Amax's senior executive vice-president. Most of the richest deposits now are in developing countries. That is a major reason why the giant Corporacion Nacional del Cobre de Chile (CODELCO) is now the world's foremost producer of copper (below).

Similarly, Cia. Vale do Rio Doce, the Brazilian state-owned mining company, will be the world's premier iron-ore producer when its giant Carajás mine comes on stream next year. Not only does Carajás contain 20 billion tons of the world's richest iron ore, but Brazilian labor costs are 78% lower than those at U.S. mines. By 1988, output could hit 35 million tons a year—nearly as much as the entire U.S. produced last year.

'UNCONSCIONABLE' LOAN. It is unlikely that Carajás ore will flood the U.S., since domestic steelmakers have a huge investment in North American iron-ore mines and processing facilities. But Japanese and European steelmakers have signed long-term contracts that should allow them to buy Carajás ore for even

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If Chile is the Saudi Arabia of copper, Corporacion Nacional del Cobre de Chile (CODELCO) is the Petromin of Chile. Formed as the successor to five mining companies nationalized in 1971, this state-owned giant is blessed with more than 25% of the world's known copper reserves. Its gargantuan Chuquicamata mining and processing complex yields ores with 1.65% copper—2½ times what a typical U.S. deposit contains. At 44¢ per lb., CODELCO's production costs are the world's lowest. Not surprisingly, it accounted for 16% of all copper mined by non-Communist countries last year.

While sheer size gives CODELCO operational advantages, its rock-bottom labor costs are what make competitors weep. Although its 26,000 workers earn only a tenth of what U.S. copper companies pay, their wages are much higher than average for Chile, where 25% of the work force is idle.

In 1983, while the North American mining industry was deep in the red, CODELCO netted a respectable $220.6 million on sales of $1.8 billion. This year, in spite of severely depressed copper prices, it is expected to earn $140 million. Profits would be even higher were it not for a government decree that diverts 10% of copper revenues to the Chilean armed forces.

As U.S. copper producers see it, CODELCO's success comes mainly at their expense. Last year the company shipped a record 330,000 tons to the U.S.—46% of copper imports and 15% of all the copper used by U.S. manufacturers. Clearly, the strong dollar was a factor. But U.S. companies say CODELCO's refusal to scale back despite bulging world inventories is the prime reason world copper prices are so low. While U.S. mines are typically operating at 40% of capacity, CODELCO continues to run flat out. Douglas J. Bourne, chairman of Duval Corp., Pennzoil Co.'s mining subsidiary, charges that this is a deliberate attempt to drive U.S. companies out of the business.

RADICAL BREAK? CODELCO officials respond that their operation is the chief prop under a teetering economy. Chile depends on CODELCO for 46% of its foreign exchange. The government's 1983 interest payments on $20 billion in debts consumed all of the $678.5 million the company handed over to the state in taxes that year. Chile's military strongman, Augusto Pinochet, is likely to impose additional unpopular austerity measures to maintain debt payments, so the pressure will remain on CODELCO to keep production and exports high. The company is authorized to spend $1.4 billion by 1986 to expand its mines. Outsiders estimate that by 1990 it could be mining 40% more copper than the 1.1 million tons it now produces a year.

Simon D. Strauss, a former Asarco Inc. vice-chairman who is now a consultant, concedes that the Chilean government has monumental problems. But he believes that both CODELCO and Chile would be better off in the long run if they cut copper production to raise prices. That would ultimately bring in more foreign revenue, he says, while slowing the depletion of Chile's most important resource.

Chilean officials point out that for such a strategy to work, CODELCO would have to move in concert with other Third World producers, who are also spewing out copper at an accelerating rate. Given the developing world's plight, such cooperation is questionable. And that sort of planning would mark a radical break with Santiago's 11-year reliance on the free market. Some CODELCO executives even argue that copper's reign as a key metal is limited, so Chile should sell all it can before the market shrinks.

By John O'Brien in Santiago and Patrick Houston in Toronto

CHART BY BRIAN McDONALD

less than this year's Brazilian price of $17 per dry metric ton, and that will pressure U.S. producers to make even more drastic cost cuts. Says Robert McInnes, president of Cleveland's Pickands Mather & Co.: "Importation of subsidized or low-cost foreign ore is, without question, one of the gravest threats our industry faces." Equally ominous, the cheap Carajás ore will cut the production costs of some foreign-made steel, which already claims more than 20% of the U.S. market.

The Carajás mine project particularly galls U.S. executives because its $5.1 billion price tag was underwritten with a $500 million loan from the World Bank. "The world did not need Carajás," snaps Hanna Chairman Robert F. Anderson. Adds S.K. Scovil, chairman of Cleveland-Cliffs Iron Co.: "It was unconscionable [that] they made that loan."

Given so many adverse forces, it seems only a matter of time before the North American metals mining industry suffers a major casualty. Analysts contend that Phelps Dodge Corp., the second-largest U.S. copper producer, is especially vulnerable because it relies on copper for almost all its revenues. The

THERE'S NOT MUCH JOY IN LEADVILLE

For more than a century, Leadville, Colo., has mirrored the ups and downs of the mining industry. The town, then called Ore City, was devastated in 1865 when its gold mines played out. Twenty-eight years later, it was racked by the great silver crash, which turned local kings into paupers overnight. Now molybdenum has dealt Leadville a cruel blow.

Four years ago, Amax Inc.'s Climax mine employed 3,000 and had a payroll of more than $80 million. Then demand for molybdenum plummeted. Amax closed the mine, and Leadville's unemployment rate leaped to 40%. Although Climax has since reopened with some 800 employees, the company has made it plain that the mine will never again employ thousands.

So residents of historic Leadville are now courting tourists and small businesses. This, the town hopes, will open up 2,500 jobs in 5 to 10 years. If it does, Leadville could provide a prototype for other withering mining towns.

BAWDY HOUSES. Leadville has a wealth of Old West lore. Molly Brown got rich on its gold; Oscar Wilde outdrank the miners at a local silver mine. Once known as "the wickedest town in the West" because of the bawdy houses that lined Stillborn Alley, it still boasts unspoiled gingerbread cottages and Victorian commercial buildings.

After Amax shut down Climax, Leadville hired a full-timer to head its Chamber of Commerce, launched a series of summer events that included gold panning and a 100-mi. ultramarathon along the Continental Divide, and invested $40,000 in a multimedia presentation ballyhooing its assets. By yearend the town will have spent $100,000 marketing itself, and its merchants have approved a $900,000 bond to upgrade the sidewalks and lighting.

As a result, says Elaine Kochevar, executive director of the Chamber of Commerce, tourism jumped 75% last summer, and revenues from the local sales tax rose nearly 25%. She expects

BARRY STAVER

THE TOWN—BETRAYED BY GOLD, SILVER, AND MOLYBDENUM—IS TURNING TO TOURISM

more of the same this winter. With an $850,000 grant from the state, Leadville's ski area, Ski Cooper, has expanded. This year it will offer lift tickets at $12 a day—half the price at nearby Vail. Visitors are invariably reminded that a three-bedroom house in Leadville—just two hours from Denver—typically costs $45,000, a fraction of the price at other Colorado ski resorts.

Big investors have taken notice. Dallas' Trace Investment Inc. plans to purchase six buildings, including the 1885 Vendome Hotel, where President Benjamin Harrison once trod a lobby floor inlaid with silver dollars. The company will pay about $1.5 million for all six buildings and intends to spend $10 million restoring and converting them to modern hotels or condominiums.

Revving up tourism may prove easier, however, than attracting new businesses. One reason: Two-mile-high Leadville, situated just below the timberline, seems desolate to many outsiders. Winters are so long that the locals quip that Leadville has only two seasons—this winter and last.

The days are gone in Leadville when the Guggenheims could build a fortune starting with one small smelter, or a David May could launch a nationwide department-store chain. "We're not going to land a Sperry Rand," admits Kochevar. Still, she adds, small manufacturers and distributors could be drawn to Leadville, with its ready labor and easy access to a railroad, airport, and interstate highway.

MELTDOWN. Eight new enterprises have started up in the past two years. To draw still more, the town has formed the Leadville Improvement Group with $50,000 in state assistance. This office is now applying for a $250,000 grant from the U.S. Housing & Urban Development Dept. To be matched by local banks, the money would finance low-cost loans to new businesses.

Compared with some previous schemes for reviving Leadville, the current plan looks eminently workable. Following the depression of 1893, for example, the town built a three-acre ice palace, complete with ballroom. It did a booming business—until a warm spell began melting its ice blocks.

By Sandra Atchison in Denver

company has lost $187 million since 1982, and "unless the world copper price improves very sharply throughout the rest of the decade, it is difficult to see how the company can survive," says William G. Siedenburg, an analyst with Smith Barney, Harris Upham & Co.

GETTING TOUGH. The day of reckoning also may be nearing for Kennecott, the copper mining giant acquired by Standard Oil Co. (Ohio) three years ago for $1.8 billion. Sohio has been mulling over a proposed $1 billion modernization for Kennecott's huge Bingham Canyon mine in Utah but has not approved the expenditure. That mine "is not something you'd lightly turn your back on," says Sohio Chairman Alton W. Whitehouse Jr. "But we just aren't going to take [Kennecott's] losses indefinitely."

As Big Oil backs out of metals mining, the independents are struggling to survive. While some are closing down high-cost operations, others can't even find the money to meet the steep severance and shutdown costs without eating into the cash they need to pay their debts. Corporate staffs are being cut. Falconbridge Ltd., a Canadian nickel producer, has slashed white-collar employment so much that top management now occupies one floor instead of three in its Toronto headquarters. Chairman William James even shares a secretary.

Mining companies are also getting tough with their unions. The most dramatic example is Phelps Dodge, which in July, 1983, accepted a strike at its Arizona mines and smelters rather than settle for the terms other copper producers agreed to. The company has replaced the strikers with nonunion workers and now awaits court rulings on decertification votes. In October, Pennzoil's Duval subsidiary unilaterally imposed a new labor contract on workers at its Sierrita (Ariz.) mine, cutting wages 15%, dropping cost-of-living adjustments, and increasing work time for all employees by two shifts a month.

These cost-cutting measures have resulted in impressive productivity gains. The cost of producing copper in the U. S. has dropped 25% in the past three years. Inco has lowered its breakeven point for nickel 12% this year alone, to $2.30 a lb., and Chairman Baird's goal is to get down to $2 next year.

NO FAT. More gains are needed. "We've reduced costs, but not at the same precipitous rates as metals prices have declined," says Kennecott President G. Frank Joklik. But making further headway will be tough. "The mining companies don't have any more fat to shave off," says Canadian consultant Felske.

Because they see diversification as a way out of their troubles, some base-metals mining companies are rushing into gold—so many, in fact, that North American gold production is expected to jump 50% by 1989. "The only thing worth developing now is a good-grade precious metals deposit," says Alfred Powis, chairman of Noranda. His company is spending $230 million to develop its Hemlo stake in Northern Ontario, a gold vein that eventually could add $38 million to the company's annual profits.

Other companies are looking further afield. Newmont Mining Corp. intends to add a "fourth leg" to its copper, gold, and energy businesses, says Chairman Plato Malozemoff. Hanna is on the diversification trail too, but it will be cautious: It has been burned by bad moves in the past. Some 85% of its $28.8 million loss last year resulted from energy businesses it acquired in the late 1970s.

Amax, which had eight separate metals divisions, is restructuring all its mining operations to make them more market-responsive. The company also wants to expand into more specialized products such as molybdenum chemicals, ceramics, and plastic composites. "That's the only way," says Chester O. Ensign Jr., who heads the company's strategic planning and development group, "to make sure Amax doesn't perish."

Consultants agree such changes are necessary. "Metals companies have got to become more market-driven," says Frank Schwab Jr., president of Fenvessy & Schwab Inc., a management consulting firm in New York. He also urges companies to get more involved in commodities trading to help offset the volatility of their business. Finally, Schwab advises his North American clients to enter joint ventures, especially with foreign partners. "Somehow," he says, "our companies have to develop a workable program to finance the development of ore reserves outside the U. S."

Here and there, mining companies are beginning to embrace such strategies. But even insiders acknowledge that the industry as a whole is changing too slowly, because of what some see as an anomaly in the thinking of many metals mining executives: While they are rarely averse to the risks of developing new ore deposits, that same spirit usually does not extend into the marketing and financial aspects of their business. "The industry is dominated by guys who bring things to the surface," says consultant Felske. "They have to become more sophisticated in the commercial side of the business."

REDEMPTION? Some believe that redemption may be found in high technology. The Colorado School of Mines has launched what could become a $25 million research effort to adapt automated factory techniques to mining. In October, Inco created a separate equipment company to develop machinery for continuously mining and transporting ore, now done in batches. But the potential of such innovations is limited. Concludes Noranda Chairman Powis: "There's not going to be one technology that will change the economics of this industry."

The chance of getting much government help is dim. Mining companies lack political clout because their constituency is relatively small and they have been unable to put together a unified lobby. Moreover, a growing chorus of voices argues that a shortfall in U. S. metals production is not necessarily a problem. After all, notes John A. Cordes, head of the Mineral Economics Dept. at the Colorado School of Mines, "countries like Japan and West Germany have very, very strong economies with very low levels of metals self-sufficiency."

The U. S. is rapidly heading in their direction. Indeed, if another broad-based recession were to hit the U. S. in 1985 or 1986, it would probably sound the death knell for an industry that is already permanently bedridden.

By Patrick Houston in Toronto, Zachary Schiller in Cleveland, Sandra D. Atchison in Denver, Mark Crawford in Washington, James R. Norman in Houston, and Jeffrey Ryser in São Paulo

THE SAD STATE OF METALS MINING

Composite figures for 10 leading independent metals mining companies: Amax, Asarco, Cleveland-Cliffs, Cominco, Falconbridge, Hanna, Inco, Newmont, Noranda, and Phelps Dodge

	1979	1980	1981	1982	[illegible]
			Millions of dollars		
NET EARNINGS	$1,770	$1,872	$539	$ –963	$ –778
TOTAL DEBT	5,086	5,814	6,773	7,876	7,744
			Percent		
DEBT AS A PERCENT OF CAPITALIZATION	34%	34%	36%	42%	[illegible]
RETURN ON EQUITY	18	16	5	–9	[illegible]

DATA: COMPANY FINANCIAL REPORTS

Alaska Environmental Lobby, Inc.

204 N. Franklin Street, Suite 3 Juneau, Alaska 99801 907-586-2345

State Financing For the Red Dog Lead Zinc Mine
(Delong Mountain Transportation System)

The Alaska Environmental Lobby, a coalition of 19 groups within the State, has followed and testified on legislation involving the Red Dog mine for the last three years. The issue is important to us for four reasons. First, we are interested in all legislation affecting natural resource conservation and development. Because of its size alone, the Red Dog project deserves special attention. Second, the mine and transportation corridor are in an undeveloped part of the state, and we want the development to be sensible and environmentally responsible. Third, the proposed state subisidies to this project are huge. In effect, the state is going into the mining business without public debate or approval. Fourth, the state is delegating enormous power to a state authority, the Alaska Industrial Development Authority (AIDA). The history of the Alaska Power Authority shows that the state should be much more cautious with giving power to AIDA.

The Red Dog Mine. The world's largest producer of lead and zinc, Cominco, has entered into a partnership with NANA Regional Native Corporation to develop a mine in Northwest Alaska, about 90 miles from Kotzebue. It will be on NANA Corporation land. At full production, it could be the world's largest zinc mine. The ore body is extremely rich and easy to remove. Hank Giergerich, the president of Cominco Alaska, has stated that once the mine is developed, the operating costs will be lower than 90% of the world's zinc mines.

Development Costs. The promoters of this impressive mine say that they need financial aid from the state of Alaska before they can develop the project. Strange as it sounds, they say that Cominco, a large healthy multinational corporation, cannot raise the needed funds from private sources. They go on to say that help from the state will make the difference between stop and go.

It is certain that the development costs for the mine will be high. The site is in a roadless area, and the most direct route to tidewater is 55 miles. There is no port facility at tidewater, and shallows will prevent ocean freighters from getting close to shore. The most direct route to tidewater requires Congressional approval. The alternatives are longer and more expensive.

The crucial question is whether the high development costs of the mine will be paid off in the long run by the profits from the mine. The profits will vary tremendously with changes in the world price of lead and zinc. These prices are very hard to predict. The prices for lead and zinc went into a slump at the last recession, and so far they have not recovered.

State Participation. The state is being asked to build a road and port facility for the use of the Red Dog mine, as well as other mines which may or may not be developed in the same area. If the state built the port and road, it would help Cominco, because Cominco would not have to raise and repay so much money to get the project started. The project would be financed with revenue bonds issued by the state. Cominco and any other mines would pay tolls for the use of the road. According to current Department of Commerce projections, the tolls would pay only part of the costs of the road and port facility.

The difference between the tolls that Cominco pays and the repayments on the bonds that the state makes would be a subsidy of the mining road and port. The magnitude of the subsidy would depend on the tolls negotiated with Cominco. The lower the tolls, the higher the subsidy. Interest rates for bonds also are a factor. If bond interest rates were high at the time of the bond sale, the state would have to pay more. The bond sale will be before construction, but tolls will be collected only after construction, or possibly later. The longer the interval without toll payments from Cominco, the greater the state contribution to the project.

The Economic Development Fund. Last year the Legislature created the "Economic Development Fund" within the Alaska Industrial Development Authority. This was the result of a late night last minute maneuver on the House side that also authorized a revenue bond sale for the Knik Arm Crossing. The economic development fund would provide the difference between low toll payments and high bond payments. The current plan for subisidy would have the state dedicate $18 million dollars and a bond portfolio worth $112 million to the fund. This amounts to a blank check for the Red Dog project with an upper limit of $140 million, if precise restrictions on not placed on the use of the fund.

The Bond Issue. The state plans a sale of $175 million dollars to build the road and port facility. This is a revenue bond sale, and so does not require voter approval, as would state guaranteed "general obligation bonds", such as school bonds. The revenue bond issue will be backed up by the tolls on the road and port, and the $140 million in the economic development fund mentioned above. To further reassure investors in the bonds, the authorization of the bond issue will also have "moral obligation" language, which instructs AIDA to notify the legislature and the Governor if the economic development fund is depleted and there is danger that the bondholders will not be paid. Thus the backing of the state is not guaranteed, but it is suggested.

Legislation has been introduced on both sides of the Capital to set up the bond issue and economic development fund. They are HB 369, HB 370, SB 279 and SB 280. Draft legislation, which may be amended to HB105, Anchorage Airport Bonds, does the same thing, but with fewer restrictions.

Hasty Decisions. Incredibly, this legislation is being considered before the state has an accurate view of the profitability of the mine. They do not know if the road and port subsidy is really needed to help the mine, or if Cominco is just trying to mine the state for extra dollars. If a subsidy is needed, they do not know the magnitude of it. A detailed finance plan is being prepared by Stanford Research Institute under contract to the State of Alaska. But it will not be ready in final form until August. Draft versions may be ready before the Legislature adjourns. Only after the finance plan is ready will the state have an idea of how much of the $18 million in cash and $112 million in bonds is really needed to get the mine started.

RED DOG

RECOMENDATIONS OF THE ALASKA ENVIRONMENTAL LOBBY

1.) The State should not subsidize mining ventures. Mining is a complicated and speculative business. The estimation and assumption of risks in mining development should be left to the private sector. If the world's largest producer of lead and zinc can't find investors to develop the Red Dog mine, the state should not try to second guess the market.

2.) If Legislators are determined to subsidize mining ventures, they should have an overall plan for subsidizing mining ventures. Is Red Dog the best mine to subsidize? Will the next mine to come along receive such generous treatment?

3.) The State is being hurried into a blind commitment to Red Dog. The legislature should wait until the Stanford Research Institute financial plan is completed, and until affected agencies have a chance to respond to questions from Legislators about the subsidy plan.

STATE OF ALASKA

DEPARTMENT OF COMMERCE &
ECONOMIC DEVELOPMENT

OFFICE OF THE COMMISSIONER

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RESOLUTION OF INTENT

WHEREAS, the State of Alaska encourages the diversification of the Alaska economic base through the development of mineral resources; and

WHEREAS, the State of Alaska supports economic development in Alaska and the expansion of regional job opportunities; and

WHEREAS, the State of Alaska recognizes that the lack of transportation facilities in Northwest Alaska poses an economic barrier to the attainment of economic development; and

WHEREAS, the Alaska Department of Commerce and Economic Development is the principal state department responsible for facilitating economic development in all regions of the state; and

WHEREAS, Cominco, Alaska, a division of Cominco, American is considering the development of the Red Dog mineral deposit in the DeLong Mountains area; and

WHEREAS, other mineral resources have been identified in the area near the Red Dog mineral deposits; and

WHEREAS, the Alaska Department of Commerce and Economic Development, in a report entitled Red Dog Project Analysis, identified substantial regional benefits in the event that the DeLong Mountains transportation project is developed; and

WHEREAS, the projected cost of the development of the Red Dog mineral site, excluding the cost of developing transportation facilities, is estimated to be $290 million (in 1985 dollars); and

WHEREAS, the projected cost of the transportation facilities is estimated to be $152 million (in 1985 d[illegible]ars); and

WHEREAS, the lack of available transportation facilities near the mineral deposit may substantially delay private development of the Red Dog mineral deposit; and

WHEREAS, it is contrary to the best interests of the state for there to be a substantial delay in the development of the DeLong Mountains mineral resources and, in particular, in the development of the Red Dog mineral deposit; and

WHEREAS, the transportation facilities which, among other public purposes, would be used in conjunction with the development of the Red Dog mineral deposit are collectively referred to as the Delong Mountains transportation project; and

WHEREAS, the Alaska Industrial Development Authority (AIDA), a public corporation of the State of Alaska has authority under Alaska Statutes Title 44, Chapter 88, to participate, either independently or in conjunction with a private developer, in the financing and development of public transportation facilities such as the DeLong Mountains transportation project;

NOW THEREFORE BE IT RESOLVED that Cominco, Alaska and the Alaska Department of Commerce and Economic Development, on behalf of the State of Alaska, agree to the following STATEMENTS OF INTENT:

1. The State of Alaska supports ongoing efforts by the Alaska Industrial Development Authority to examine the feasibility of AIDA financing of the DeLong Mountains regional transportation project.

2. The parties recognize and support AIDA's intent to promptly execute all necessary professional services contracts, including a contract with a firm nationally recognized in the field of financial planning, to assist in the preparation of the financial plan required pursuant to AS 44.88.173.

3. If AIDA participates in the financing of the DeLong Mountain transportation project, the parties agree that AIDA and Cominco, Alaska will enter into an agreement which will provide, inter alia, for the establishment of equitable user fees payable to AIDA in an amount sufficient to enable AIDA to repay amounts loaned by the state to AIDA; and for the refunding of certain state expenditures in the event that Cominco, Alaska decides not to proceed with the development of the Red Dog mineral deposit.

4. The State of Alaska states its intent to submit appropriate funding requests to the Alaska legislature in support of the DeLong Mountain transportation project.

5. The State of Alaska and Cominco, Alaska recognize that this Resolution of Intent does not limit or otherwise affect AIDA's Board of Directors' independent judgment with respect to AIDA's participation in the DeLong Mountain transportation project, nor does this Resolution of Intent limit or otherwise affect the independent judgment of the Alaska legislature upon its consideration of funding requests.

Date: Dec 18/1984

H M Giegerich

H. M. Giegerich, President
Cominco, Alaska

Date: Dec 17, 1984

DALyon

Richard A. Lyon, Commissioner
Department of Commerce and
Economic Development

I. BACKGROUND

To help understand the Alaska Industrial Development Authority's (AIDA) potential role in the DeLong Mountains transportation project, some history is useful. Prior to 1984, AIDA could not have participated in projects such as that contemplated for the DeLong Mountains, in that State law did not permit AIDA to own projects, except in cases of default. Rather, what AIDA could do then, and still does now, is to issue tax exempt industrial development bonds to assist private investors in the financing of a variety of projects. AIDA has been very successful in this role, having issued over $700 million worth of tax exempt revenue bonds during the past few years. However, despite this success AIDA still could only play a passive role, in that AIDA could neither initiate or own projects.

During the 1984 legislative session, both the Governor and the Legislature decided that a more active State participant was needed for certain economic development projects. Many proposed developments are likely to be of a joint public-private nature, because of resource ownership, access, and so forth, hence an active state representative is needed. This is especially true if it appears that the State will become involved financially. For instance, in many situations, new infrastructure facilities have to be constructed before development can proceed. Although these facilities are, by and large, the responsibility of developers as a group, they are not necessarily the responsibility of any single developer. And, if the cost of providing the required infrastructure facilities has to be borne by one developer, it may be that these costs, in addition to the developer's other costs, are simply too much for the proposed project to bear, so the development does not proceed. In such cases, it may be appropriate for a governmental entity to construct the necessary infrastructure facilities, and then charge fees to all users to pay for the facilities. Furthermore, if the State decides to participate financially in providing these infrastructure facilities, it is much easier to do so via a governmental entity as opposed to directly with a private developer.

Of course, State government should not get involved in a development project simply because it is difficult for the developer to pay for some costs. Rather, State involvement should be based upon the benefits of the project to all Alaskans. In light of the State's almost singular dependence upon the petroleum industry, development of new, non-petroleum based or dependent industries is of critical importance. Further, when evaluating a proposed new development, it is important to keep in mind the total impact of that project or development. Generally the project is being evaluated during its start-up phase, where costs are significant and revenues are, at best, just starting. Since the State is concerned with the future economic situation, as well as the present, the benefits to the State over the long term must be given adequate weight, rather than focusing strictly on short term return.

II. WHY IS AIDA INVOLVED

The question remains, why did the Governor and the Legislature decide AIDA should have the ability to actively become involved in infrastructure projects such as discussed above. Although there may be other reasons, at least some of the major factors were:

(1) AIDA is a known, existing entity that has an independent legal existence from the State, but is still controlled by the State.

(2) AIDA can (and does) issue debt that is separate and distinct from the State.

(3) AIDA has experience with complex projects.

(4) AIDA has extensive experience with financing and bonding, particularly tax exempt bonding.

As a result, in 1984 the Legislature passed Chapter 162, which broadened AIDA's ability to participate in economic development projects. As well as expanding AIDA's powers, Chapter 162 also established a new fund in AIDA, the Economic Development fund, that is legally and financially separate from the Authority's existing fund. It is through this new fund that AIDA can exercise its new powers to:

(1) own and operate certain types of projects;

(2) charge user fees for these projects;

(3) issue debt for these projects; and

(4) accept state loans or grants for these projects

III. AIDA AND THE DELONG MOUNTAINS TRANSPORTATION PROJECT

Because of AIDA's newly acquired abilities, the decision was made to involve the Authority in the DeLong Mountains transportation project. The transportation project itself consists of a port and a 55 mile road in the western DeLong Mountains area, near Kivalina. The cost of the port is estimated at $65 million, and the cost of the road is estimated at $85 million, for a total estimated cost of $150 million for the project, with all figures in 1985 dollars. Although this region is a heavily mineralized area, only one mine site is presently close to going into production. This is the Red Dog deposit, a zinc, lead and silver deposit being jointly developed by Cominco Alaska and the NANA Regional Corporation. Other major deposits are known, such as GCO Mineral's Lik deposit, but development of these are thought to be five years or more behind Red Dog.

What is being considered at this time is to have AIDA construct the transportation project, and then charge fees (or tolls) to all users. At first, it is expected that Cominco Alaska would be the only significant user, but eventually other users are expected.

At this time, AIDA's continued involvement and eventual completion of the project looks favorable, however, no final "go-no go" decision has yet been made. Prior to making a final decision, the Authority has to prepare a Finance Plan, as prescribed by AS 44.88.173.

The Finance Plan has to identify the operational and capital costs of the project, and identify where all revenues will come from to pay these costs. The Finance Plan will offer a variety of financing options, with at least one of the options being that approach which minimizes any cost to the State. In preparing a Finance Plan, AIDA has identified the following guidelines:

(1) attempt to minimize the total costs of the project;

(2) minimize any State General Funds required;

(3) make maximum use of tax-exempt financing;

(4) design a plan that has the optimum chance of completing the project as expeditiously as possible; and

(5) never allow the State or AIDA to be in the position of having a completed project without a user, unless the State and AIDA are reimbursed for their investments.

IV. WHAT HAS OCCURRED TO DATE

Since AIDA became involved with the transportation project in the summer of 1984, a number of activities have occurred.

(1) A Resolution of Intent has been executed between the Department of Commerce and Economic Development and Cominco Alaska (Appendix A).

(2) An RFP for the Finance Plan (required by 44.88.173) has been prepared and distributed (Appendix B). A draft report is due this session of the Legislature. The statute requires that a Finance Plan be prepared and presented to the Legislature, the Governor and the State Bond Committee before issuing bonds or otherwise incurring debt for the project. It also mandates, among other things, that if a project requires financial assistance from the State, the state financial assistance must be available before bonds are issued for the project.

(3) An RFP for civil engineering services to verify cost figures for the road and port has been prepared and distributed.

(4) The Authority has assembled a team of legal and financial experts to assist with the project.

(5) Much attention has been focused on how to finance the project. For AIDA to build the project, it will need to have \$150 million to pay for construction. These funds can come from a variety of sources, with the most likely ones being tax exempt revenue bonds, state loans to AIDA, and possibly state grants. A number of differing financial scenarios have been considered, all of which have indicated the need for some initial state financial involvement, for instance loans to AIDA.

(6) Last year the Legislature appropriated \$3.4 million to AIDA for the project. To date, it has been used for the following items:

(1) Finance Plan costs of between \$250,000 - \$300,000
(2) Engineering services of \$50,000 - \$100,000
(3) Miscellaneous AIDA expenses of approximately \$10,000

The remainder is available for various aspects of the DeLong Mountains transportation project consistent with the appropriation and finance plan.

(7) An additional $18 million request for a state loan to AIDA has been included in the Governor's FY86 Budget Request. As noted above, all analysis to date indicates the need for state loans, and this would constitute the initial capitalization.

V. WHAT IS PLANNED FOR THE FUTURE

The goal of this project is to allow development and production of the mineral resources of the western DeLong Mountains, along with the new employment and new economic activity that would result. Since this is a new (non-petroleum dependent) industry that will provide economic benefits to Alaskan citizens and State government over a long period, AIDA is eager to proceed with the project, assuming a suitable financial arrangement can be achieved. Although, of course, no results from the Finance Plan RFP are available yet, both the Department of Commerce and Economic Development and AIDA have made some initial calculations with respect to financing and costs and revenues associated with the transportation project. At this stage, under a range of different assumptions and alternatives, it is inevitably the case that State financial assistance is required, at least initially, if the transportation project and mineral development are to occur in the near future. The details of how much assistance would be required, and under what terms, will be provided in the Finance Plan. AIDA is continuing to meet with Cominco Alaska and NANA to devise an approach that minimizes any required financial assistance from the State, but still allows the project to proceed in an expeditious manner.

In closing, one seeming inconsistency needs to be discussed. The transportation project is being acclaimed as being part of a new self-supporting economic development project that will bring jobs, tax revenues, and increased economic activity to Alaska, yet a major part of this, and other discussions on the project center on the need for State financial assistance. While it is true that the project definitely appears to need State assistance, at least initially, to fairly appraise the true impact and value of the project, one must consider both the broad geographic and duration of the project. This infrastructure project will facilitate development of not just Red Dog, but also other mineral resources in the area. Further its benefits are by no means short term, but rather should go on for decades. So although there appears to be an initial financial need, when viewed in this broader perspective, available information suggests that the State may receive its initial investment back many times over. Indeed, the State's ultimate decision regarding financial involvement should consider all of these broadly based factors, and then proceed only if, in this broad perspective, it is a "good deal" for the people of Alaska.

APPENDIX A

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

OFFICE OF THE COMMISSIONER

7TH FLOOR FRONTIER BLDG.
3601 C STREET, SUITE 722
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-2728

RESOLUTION OF INTENT

WHEREAS, the State of Alaska encourages the diversification of the Alaska economic base through the development of mineral resources; and

WHEREAS, the State of Alaska supports economic development in Alaska and the expansion of regional job opportunities; and

WHEREAS, the State of Alaska recognizes that the lack of transportation facilities in Northwest Alaska poses an economic barrier to the attainment of economic development; and

WHEREAS, the Alaska Department of Commerce and Economic Development is the principal state department responsible for facilitating econom development in all regions of the state; and

WHEREAS, Cominco, Alaska, a division of Cominco, American is considering the development of the Red Dog mineral deposit in the DeLong Mountains area; and

WHEREAS, other mineral resources have been identified in the area near the Red Dog mineral deposits; and

WHEREAS, the Alaska Department of Commerce and Economic Development, in a report entitled Red Dog Project Analysis, identified substantial regional benefits in the event that the DeLong Mountains transportation project is developed; and

WHEREAS, the projected cost of the development of the Red Dog mineral site, excluding the cost of developing transportation facilities, is estimated to be $290 million (in 1985 dollars); and

WHEREAS, the projected cost of the transportation facilities is estimated to be $152 million (in 1985 dollars); and

WHEREAS, the lack of available transportation facilities near the mineral deposit may substantially delay private development of the Red Dog mineral deposit; and

WHEREAS, it is contrary to the best interests of the state for there to be a substantial delay in the development of the DeLong Mountains mineral resources and, in particular, in the development of the Red Dog mineral deposit; and

WHEREAS, the transportation facilities which, among other public purposes, would be used in conjunction with the development of the Red Dog mineral deposit are collectively referred to as the Delong Mountains transportation project; and

WHEREAS, the Alaska Industrial Development Authority (AIDA), a public corporation of the State of Alaska has authority under Alaska Statutes Title 44, Chapter 88, to participate, either independently or in conjunction with a private developer, in the financing and development of public transportation facilities such as the DeLong Mountains transportation project;

NOW THEREFORE BE IT RESOLVED that Cominco, Alaska and the Alaska Department of Commerce and Economic Development, on behalf of the State of Alaska, agree to the following STATEMENTS OF INTENT:

1. The State of Alaska supports ongoing efforts by the Alaska Industrial Development Authority to examine the feasibility of AIDA financing of the DeLong Mountains regional transportation project.

2. The parties recognize and support AIDA's intent to promptly execute all necessary professional services contracts, including a contract with a firm nationally recognized in the field of financial planning, to assist in the preparation of the financial plan required pursuant to AS 44.88.173.

3. If AIDA participates in the financing of the DeLong Mountain transportation project, the parties agree that AIDA and Cominco, Alaska will enter into an agreement which will provide, inter alia, for the establishment of equitable user fees payable to AIDA in an amount sufficient to enable AIDA to repay amounts loaned by the state to AIDA; and for the refunding of certain state expenditures in the event that Cominco, Alaska decides not to proceed with the development of the Red Dog mineral deposit.

4. The State of Alaska states its intent to submit appropriate funding requests to the Alaska legislature in support of the DeLong Mountain transportation project.

5. The State of Alaska and Cominco, Alaska recognize that this Resolution of Intent does not limit or otherwise affect AIDA's Board of Directors' independent judgment with respect to AIDA's participation in the DeLong Mountain transportation project, nor does this Resolution of Intent limit or otherwise affect the independent judgment of the Alaska legislature upon its consideration of funding requests.

Date: Dec 18/1984

H. M. Giegerich

H. M. Giegerich, President
Cominco, Alaska

Date: Dec 17, 1984

Richard A. Lyon, Commissioner
Department of Commerce and
Economic Development

REQUEST FOR PROPOSAL FOR FINANCE PLAN

The Alaska Industrial Development Authority is inviting proposals to assist in preparation of a finance plan for a proposed transportation project in the DeLong Mountains area.

This RFP does not in any way obligate the Authority to reimburse recipients of this RFP for any costs incurred in the preparation of a proposal. The Authority reserves the right to reject all proposals. The Authority may request some or all respondents to clarify or supplement their proposals through additional written submission. All respondents will be notified in writing of the acceptance or rejection of their proposal.

I. Introduction and Explanation of Project

A. Alaska Industrial Development Authority:

The Authority was created by the Alaska Legislature in 1967. The purpose of the Authority, as stated in the Act, is to promote, develop and advance the general prosperity and economic welfare of the people of the State of Alaska, and to relieve problems of unemployment. In 1982, the Authority's enabling legislation was amended to add to its purpose the promotion, development and maintenance of an adequate supply of multi-family housing projects. Under legislation enacted in 1984, the Authority may acquire, manage and operate certain types of projects which the Authority considers necessary or appropriate to serve a public purpose. Under the newly enacted statutory authority, the Authority is presently reviewing the possibility of financing and constructing a transportation project in the DeLong Mountains area.

B. The Proposed Transportation Project

The proposed transportation project (sometimes also referred to herein as "the project") consists of two components; (1) a 55 mile segment of road, commencing near the Red Dog mine site and going to tidewater, and (2) a port, including shore facilities. The intent of the transportation project is to provide the necessary infrastructure to encourage mining development and regional port in the western DeLong Mountains area, in northwest Alaska.

The entire western DeLong Mountains is believed to be heavily mineralized. One mine site in particular has been extensively explored, and it is understood that this particular mine would be the initial user of the proposed transportation project. This mine would be based upon the Red Dog zinc, lead, and silver deposit. The Red Dog deposit is one of the richest in the world, having indicated reserves of 85 million tons of ore with an average grade of 17.1% zinc, 5.0% lead, and 2.4 ounces per ton silver. The mine would be developed as a joint project involving Cominco Alaska and the NANA Regional Corporation. The mine site itself would be developed by Cominco Alaska without any state involvement.

The transportation project would be owned and operated by AIDA. Users, such as Cominco Alaska would be charged a fee for use of this transportation system.

C. The Finance Plan

Before AIDA can proceed with a project which it intends to own and operate, it must first prepare a finance plan. The requirements of the finance plan are listed in AS 44.88.173, which is reproduced below. The purpose of this RFP is to fulfill the requirements of AS 44.88.173.

Sec. 44.88.173. Finance plan.

(a) Before approving a project financed under AS 44.88.172, the authority shall prepare a finance plan. The finance plan must include an estimate of the total cost of the project, and a description of the sources of money that will be used to finance the total cost of the project. The finance plan must also include an estimate of the operational costs of the completed project, as well as a description of the source of the money that is to be used to pay the operational costs.

(b) The authority shall give preference to a project that does not require financial assistance from the state. If the authority determines that a project requires state financial assistance, and if the authority further determines that it is desirable to finance the project, the authority shall recommend a method of financing that minimizes cost to the state. A finance plan required under (a) of this section must identify the method of financing that minimizes the cost to the state.

(c) The authority shall submit a finance plan prepared under this section to the state bond committee, the governor, and the legislature before issuing bonds or otherwise incurring debt for the project. If a project requires financial assistance from the state, the state financial assistance must be available before bonds are issued for the project. (¶ 8 ch 162 SLA 1984)

II. Terms & Conditions of Performance

A. Your proposal should be submitted with the understanding that it may form a material part of any subsequent contract. Your proposal should be complete as to all terms and conditions. After the contractor is selected the Authority may negotiate a contract with conditions considered in the best interest of the Authority. All terms and conditions must remain a firm offer for a period of not less than 60 days.

The proposal is due by February 15, 1985 (see Submission of Proposal section for details). The Authority expects to select a successful contractor by February 22, 1985. A complete first draft that is available and suitable for public distribution and comment must be completed by April 15, 1985.

Please note that the contract will not take effect until approved by the Commissioner of the Department of Administration pursuant to Alaska Statutes 36.98.040 (c).

B. Preparation of the finance plan requires the use of certain cost figures. In general estimates of these cost figures should be available from Cominco Alaska via the Authority. Some of these estimates will have been verified by the State Department of Transportation and Public Facilities, and/or by an independent contractor. It is not the intention of the Authority that a contractor employed as a result of this RFP prepare totally independent estimates of germane cost figures. Rather, a contractor should verify that cost estimates provided are reasonable, or make any modifications which the contractor believes are appropriate.

III. Scope of Services

A. Costs of the Project

1. Capital Costs: The contractor should provide an estimate of the capital costs of the project, broken down by major component.

2. Operational & Maintenance Costs: The contractor should provide an estimate of the Operational & Maintenance costs of the project, including an estimate of cost sensitivity to different use factors.

3. All estimates should be provided in 1985 dollars, and relevant cost escalators should be provided so that cost figures can also be estimated in future years dollars.

B. Revenues of the Project

1. The revenues of the project will be provided by fees charged to users of the project. All user fees should be in dollars per ton of ore shipped through the project, unless otherwise stated. Since no final user fee structure has been adopted by the Authority, alternative possibilities need to be examined. These alternatives must consider, at a minimum, the cases listed below.

   Some of the alternatives will require information specific to the proposed Red Dog mine. The contractor should assume that Cominco Alaska will, through the Authority, provide estimates of the capital costs and operational costs, including transportation costs, of the proposed mine, as well as estimates of ore production and the resultant concentrate tonnage that would be transported through the proposed road and port. A contractor may use these figures, or provide alternative figures.

2. The first set of alternatives assumes that the State will provide no financial assistance for the project. Since Cominco Alaska will be the initial user, baseline revenue projections should be based on Red Dog mine ore shipments. The contractor should provide estimates of different user fees, based upon: a range of price assumptions for zinc; a range of rates of return on investment to Cominco Alaska; a range of cost of capital to AIDA; other options deemed pertinent by the contractor.

3. The second set of assumptions assumes that the State is willing to make an unspecified amount of subsidy to the project, both to encourage its early completion and to account for its regional benefits. In this case, the contractor should select what it believes to be the "minimum rate of return on investment" required to induce a mining firm such as Cominco Alaska to make a major mining investment such as the Red Dog mine. More than one value may be selected for the "minimum rate of return", if the contractor believes a range of estimates would present a more accurate picture. Given this "minimum rate of return", the contractor is to estimate the amount of subsidy (if any) on the transportation project needed to cause the investment to be made. This should be estimated under a range of alternatives based upon differing assumptions for the: price of zinc; cost of capital for AIDA; other options deemed pertinent by the contractor. For all of the various alternatives estimated above, the contractor should indicate the cash flow to the project and the implied user fee structure of this cash flow. For any given level of subsidy, the contractor should indicate how the rate of return to the mine investor is affected depending upon whether this subsidy is used to offset the construction cost of the transportation project, or is reflected in deferred imposition of user fees on the project, or some combination thereof.

4. A proposal has been made to charge a certain user fee schedule to Cominco Alaska for its use of the proposed transportation project. This proposal will be made available to the successful contractor.

   Using the proposal and using the assumptions of the earlier alternatives with respect to costs and production, the contractor is to estimate: the implied rate of return to Cominco Alaska on its mine investment, and the amount of subsidy, if any, implied in the proposal. The contractor should state specifically what assumptions are being used for key variables (e.g. price of zinc) in this analysis, and further should discuss how sensitive the results are to changes in these key variables.

5. There are potential users of the transportation project other than Cominco Alaska for the Red Dog mine. The contractor should demonstrate how the above results would change if other users were to utilize the transportation system. Estimates of the production volume attributable to other users will be available from AIDA, however an independent estimate should also be made by the contractor.

C. Financing Options

1. The intent of the Finance Plan is to develop a financial plan that will provide adequate resources to enable a project to be undertaken and completed, while at the same time minimizing the costs both to the State and to the proposed project. As such, any proposed plan that will not realistically provide for enough resources to complete the proposed project is, by definition, not a Finance Plan.

2. The contractor should examine the question of debt financing for the project. At a minimum, the following questions should be answered:

- What forms of debt financing are available, and under what conditions?

- From a financial perspective, how much of the proposed project can be debt financed, and under what conditions?

- What types of security will be required for debt financing, and what are the possible interest rates for various types of financing?

3. If State financial assistance is required, it could come in a variety of forms. The contractor should consider different types of State assistance, such as a cash grant, low or deferred interest loans, appropriation of capital reserve funds, and so forth. The attributes of different types of assistance should be discussed, included specific advantages and disadvantages to the State, or to the financial feasibility of the project.

4. The contractor should consider these various financing options for both the construction phase, and the term financing. That is, one type of financing may be more appropriate during construction, whereas a different option may be better for term financing.

D. Presentation of Alternative Finance Plans

1. The contractor is to provide a series of alternative total Finance Plans. The term total Finance Plan refers to including financing during construction as well as term financing. At a minimum, the contractor must include as alternatives: (1) The Finance Plan involving the minimum cost to the State; (2) the option proposed by Cominco Alaska; and (3) an option that utilizes the maximum possible tax exempt bonding. Other options having particularly favorable attributes should also be included, up to a maximum of eight alternative Finance Plans.

2. The advantages and disadvantages of each plan should be discussed. At a minimum, each plan should include the total costs of the project; the costs, if any, to the State; the estimated rate of return to Cominco Alaska; the proposed cash flow and user fee structure; and explicit listing of key assumptions.

3. The models used to develop these alternatives must be available at no additional costs to the Authority. If requested by the Authority, the contractor will make these available in a computer ready manner that can be loaded on the Authority's equipment (see Appendix A).

E. Presentation of Results

An integral part of this study is satisfactory presentation of findings. These presentations would include at a minimum interim reports as requested by the Authority, an initial completed draft report, and a final report. In addition, the contractor must be available to make presentations to the Governor, other members of the administration and to various legislative committees during, and after, the course of the study.

F. Fees

A contractor should provide a fixed price bid for the entire contract. Also, an hourly charge should be provided for any work done at the request of the Authority after the completion of the project described in this R.F.P. The Authority has budgeted approximately $250,000 to $300,000 for this study.

IV. Method of Evaluation

An evaluation system will be utilized to review the proposals. The factors to be considered will consist of:

(i) a work plan which addresses the scope of services set forth in Section III of this RFP

(ii) proposed staff;

(iii) experience of respondent in performing an analysis of the feasibility of comparable capital facilities; and

(iv) availability of respondent to confer with staff of the Authority and to complete the feasibility study within the contemplated time frame.

In addition, the Authority may elect to conduct oral interviews with some or all of the respondents, and if oral interviews are conducted, the interviews will be considered in the award of the contract.

V. Submission of Proposals

Proposals may be submitted by providing 6 copies of your proposal to:

Bertram L. Wagnon, Executive Director
Alaska Industrial Development Authority
1577 "C" Street, Suite 304
Anchorage, Alaska 99501

Proposals must be received at the offices of the Alaska Industrial Development Authority, 1577 "C" Street, Suite 304, Anchorage, Alaska, 99501, no later than 3:00 p.m. on February 15, 1985. The proposer is solely responsible for the delivery of their proposal and proposals received after the above date and time will be rejected.

Each proposal should be clearly marked "Proposal to the Alaska Industrial Development Authority" on its outside cover. All proposals will remain sealed and unopened until after 3:00 p.m. on February 15, 1985.

APPENDIX A

TECHNICAL SPECIFICATIONS

COMPUTERS:	WANG VS 80	with a 308K-Byte Diskette Drive (S.S.,S.D.) and a Phoenix Disk Drive (75M Fixed Disk & 15M removable pack).
	WANG PC	5 1/4 inch, 360KB Diskett Drive, 256 KB or RAM and Asynchronous Serial Communications Port.
MODEMS:	RACAL VACIC	Full Duplex, 0 to 300 BPS, Asynchronous Full Duplex, 1200 BPS, Asynchronous or Synchronous Half Duplex, 2400 BPS, Synchronous
TELECOPIER:	XEROX 295	Group three digital facsimile, 9600 BPS with automatic fall-back to 7200/4800/2400 BPS based on line quality; transmission speed of 25 seconds average.

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

1577 "C" STREET • SUITE 304 ☐ ANCHORAGE, ALASKA 99501-5177 ☐ (907) 274-1651

March 19, 1985

Representative John Sund
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Representative Sund:

As requested, AIDA has compiled four possible financing scenarios as well as a general outline of what Cominco's obligations should be if the State were to invest in this project. These are attached as Appendix A and B. It is perhaps helpful to note that virtually any financing scenario that may work requires at least $18 million in up front state assistance.

Based upon the requirement that the State take some affirmative action this session of the Legislature the most prudent course of action would seem to be:

(1) Appropriate $18 million to the Economic Development Fund for the DeLong Mountains Transportation project.

(2) Capitalize the AIDA Economic Development Fund with approximately $100 million of loans held now by the Department of Commerce & Economic Development.

(3) It will take approximately six months to transfer loans and audit them. No financing could be done during this period. When the Legislature reconvenes in January, they could reappropriate everything back to the General Fund or allow the project to go forward.

(4) Large project financings such as this involve an immense number of variables. Absolute certainty of the financing will occur only when the financing is completed. Neither AIDA, Cominco or anyone else can control these external factors. By taking step one and two the State will have:

    (1) Indicated to Cominco its intent to proceed with the project.

(2) Put Cominco on notice that now they must negotiate and execute appropriate guarantees and use agreements as they have indicated to the Legislature.

(3) Provide AIDA both time and perimeters to attempt to craft a financial transaction to provide the necessary funds for the road and port.

(4) Should the project fail to go forward, all funds would be available for reappropriation. Interest earnings on the $18 million as well as principal and interest on the loans would be retained in the Economic Development Fund and be subject to reappropriation.

Your requested review of the overall economics of the project as pertains to State benefits is being coordinated by Frank Homan and involves an "update" of the Red Dog Project Analysis, a comprehensive work compiled in the fall of 1984.

On Monday, February 25, 1985, the Alaska Industrial Development Authority Board selected SRI, International as the contractor to prepare the finance plan. A first draft was due by mid-April with the final product to be completed by late summer of 1985.

On March 18, 1985, Arthur Young filed a request for an administrative appeal of the award of the contract for the preparation of the finance plan. This appeal may preclude us from executing a timely contract with SRI and may make a draft written report this session of the Legislature doubtful. The Authority feels the capitalization of the Economic Development Fund with both the loans and $18 million is the minimum required under any financing scenario.

Sincerely,

Bertram L. Wagnon
Executive Director

BLW/rg
Enclosures

APPENDIX A

Case I

Summary: Entails large bonding at outset of project. Bonds are used for construction, state appropriations are required to pay interest for bonds during construction, then a large share of bonds are called after project begins operating.

ASSUMPTIONS AND CHARACTERISTICS

1. **Construction draws are assumed to be (in thousands):**

DATE	PORT DRAW	ROAD DRAWS	TOTAL	CUMULATIVE
1/1/86	$ 4,000	$ 1,000	$ 5,000	$ 5,000
1/1/87	3,000	5,000	8,000	13,000
1/1/88	14,000	57,000	71,000	84,000
1/1/89	50,000	33,000	83,000	167,000
1/1/90	4,000	3,000	7,000	174,000
TOTALS	75,000	99,000	174,000	174,000

2. Bonds: Assumes that $155 million in tax exempt bonds are issued on 1/1/86. Of this amount approximately $128 million goes to the construction fund, and $19 million is placed in a debt service reserve fund. As of 1/1/90, adequate funds are available in debt service fund to call $56 million in bonds, leaving $99 million outstanding. Bond interest rate is assumed to be 10.5%.

3. State Assistance: This case assumes that the following general fund appropriations are made to AIDA to pay bond interest during the construction period - also assumes that interest earned on these appropriations stays with AIDA for same purpose:

DATE	G.F. APPROPRIATION (000)
7/1/85	$30,000
7/1/86	$20,000
7/1/87	$20,000
7/1/88	$10,000
7/1/89	$10,000
TOTAL	$90,000

4. After Completion: There are assumed to be $99 million worth of bonds outstanding, with approximately $12 million of this in what is assumed to be a self-supporting capital reserve fund. This leaves approximately $87 million in debt that must be repaid by the revenues of the project. Debt service on this is

assumed to be: interest only 1990 - 1995: debt service $9.1 million; interest and principal 1995 - 2015: debt service $10.7 million. No provision has been made to repay the State contribution of $90 million, but this could happen from tolls collected above those needed to pay debt service, and after 2015.

5. Advantages: Bonds are issued up front, so this provides high likelihood there will be enough funds to construct project. Also, early issuance locks in long term interest rate, and protects against possible changes in federal laws involving tax exempt bonding. Also provides debt service in line with Cominco Alaska's estimate of their ability to pay.

6. Disadvantages: Involves large issuance of bonds and attendant bond issuance cost, plus large risk of interest rate loss if bond proceeds cannot be invested at bond debt service rate prior to use in construction. Unless it can be guaranteed that needed state appropriations will be forthcoming, this is not a legal approach, since AIDA cannot issue debt that requires state assistance, unless the state assistance is already in place. Requires state to appropriate $90 million for project with no specified repayment provisions. It may be that not all of the project is eligible for tax exempt bonding under federal law, and if so, this approach would probably not be feasible.

CASE IIa

Summary: Entails the state being the construction lender for the project. At completion, bonds are issued for a portion of the project cost, and those funds are used to repay state. Remainder of state construction financing is converted to long term loan, or grant.

ASSUMPTIONS AND CHARACTERISTICS

1. Construction draws are assumed to be (in thousands):

DATE	PORT DRAW	ROAD DRAWS	TOTAL	CUMULATIVE
1/1/86	$ 4,000	$ 1,000	$ 5,000	$ 5,000
1/1/87	3,000	5,000	8,000	13,000
1/1/88	14,000	57,000	71,000	84,000
1/1/89	50,000	33,000	83,000	167,000
1/1/90	4,000	3,000	7,000	174,000
TOTALS	75,000	99,000	174,000	174,000

2. Bonds: Assume tax exempt bonds for $84 million are issued at the completion of the project, with an interest rate of 10.5%. Of this amount $75 million would be used to pay back the state for construction financing, and $9 million would be used for a capital reserve fund.

3. State Assistance: State assistance would be in the form of interest free construction financing. The amount needed would be in accord with the construction draws.

4. After completion: After completion, $75 million of the state construction financing is paid back via a tax exempt bond sale. Debt service is assumed to be $9.6 million, with $8.6 million being required from the project, and the remainder from a self-supporting capital reserve fund. The remainder of the state construction financing, $99 million, would be converted to either long term loan or a grant. Repayment could come from tolls collected above that needed for debt service, or after bonds are paid (2015).

5. Advantages: Minimizes amount of external debt financing, and lowers total costs that are attributed to project, because there is no construction period interest to be paid. Maximizes probability that funds will be available for construction. May provide for lower interest rate for bonds, since project is less risky because it would be a completed, functioning project before bonding would occur. Provides relatively low debt service requirements on the bonds, so some "excess" funds may be available to pay back to the state.

6. Disadvantages: Requires major commitment by the state - e.g. $175 million over the five years. If bonds are not issued until, say, 1990, federal laws affecting tax exempt bonding may have changed. Also, there would be considerable uncertainty with respect to what interest rate might be in five years. Any repayment to the state would be over a long period of time.

CASE IIb

Summary: Entails the state being the construction lender for the project. Further it assumes that state will capitalize the Economic Development Fund (the Economic Development Fund is the own-and-operate element of AIDA) with existing state loans. At completion, bonds are issued for a portion of the project cost, and those funds are used to repay the state. Also, the cash flow from the loan capitalization is used to repay the state. The remainder of state construction financing is converted into a long term loan.

ASSUMPTIONS AND CHARACTERISTICS

1. Construction draws are assumed to be (in thousands):

DATE	PORT DRAW	ROAD DRAWS	TOTAL	CUMULATIVE
1/1/86	$ 4,000	$ 1,000	$ 5,000	$ 5,000
1/1/87	3,000	5,000	8,000	13,000
1/1/88	14,000	57,000	71,000	84,000
1/1/89	50,000	33,000	83,000	167,000
1/1/90	4,000	3,000	7,000	174,000
TOTALS	75,000	99,000	174,000	174,000

2. Bonds: Assume tax exempt bonds for $89 million are issued at completion of the project, with an interest rate of 10.5%. Of this amount, $80 million will be used to pay back the state for construction financing and $9 million will be used for a capital reserve fund.

3. State Assistance: This would be in two forms, first as interest free construction financing, and as capitalization of the Economic Development Fund. The construction financing would be in accord with construction draws. The capitalization is estimated to be approximately $100 million par value of existing state loans now held in the treasury.

4. After Completion: At completion, the state would have advanced an estimated $174 million to the project. Of this amount, $80 million would be paid back from the bond issue, approximately $55 million would be paid back from the cash flow of the loan portfolio capitalization, and the remaining $39 million would be converted to a long term loan. The total estimated debt service is $10.2 million, with $9.2 million being required from the project, and the remainder from a self-supporting capital reserve fund. This loan would be repaid with interest off the remaining capitalization and tolls in excess of the debt service, and after bonds are paid off.

5. Advantages: Minimizes amount of external debt financing, and lowers total costs that are attributed to project, because there is no construction period interest to be paid. Maximizes probability that funds will be available for construction. May provide for lower interest rate for bonds, since project is less risky because it would be a completed, functioning project before bonding would occur. Provides relatively low debt service requirements on the bonds, so some "excess" funds may be available to pay back to the state. Allows the state to be repaid most of its construction financing immediately upon initial operation of the project. Allows for good possibility that state will be repaid remaining $39 million within foreseeable future. Should make it easier to sell bonds, because cash flow from remaining capitalization can be used to increase coverage of debt service.

6. Disadvantages: Requires major commitment by the state - e.g. $175 million over the five years. Requires further up front commitment of $100 million in existing state loans. If bonds are not issued until, say, 1990, federal laws affecting tax exempt bonding may have changed. Also, there would be considerable uncertainty with respect to what interest rates might be in five years.

CASE III

Summary: This case uses a combination of funding sources. The funding sources involve state loan appropriations during construction, state capitalization of the Economic Development Fund (the Economic Development Fund is the own-and-operate element of AIDA) with existing state loans held by treasury, and issuance of tax exempt bonds for a major share of the project cost toward the end of the construction period. After completion the project would be financed with a combination of state debt and bond debt.

ASSUMPTIONS AND CHARACTERISTICS

1. Construction draws are assumed to be (in thousands):

DATE	PORT DRAW	ROAD DRAWS	TOTAL	CUMULATIVE
1/1/86	$ 4,000	$ 1,000	$ 5,000	$ 5,000
1/1/87	3,000	5,000	8,000	13,000
1/1/88	14,000	57,000	71,000	84,000
1/1/89	50,000	33,000	83,000	167,000
1/1/90	4,000	3,000	7,000	174,000
TOTALS	75,000	99,000	174,000	174,000

2. Bonds: Assumes that $110 million in tax exempt bonds would be issued to provide funds for construction during the fourth year. Of this, approximately $13 million is for a capital reserve fund, $75 million is for construction costs, and the remainder is for interest during construction and issuance cost. Bond interest rate is assumed to be 10.5%.

3. State Assistance: This would come in two forms. The first would be interest free loan appropriations (including interest earned on the appropriations) according to the following schedule:

DATE	G.F. APPROPRIATION (000)
7/1/85	$18,000
7/1/86	$15,000
7/1/87	$15,000
7/1/88	$15,000
TOTAL	$63,000

The other state assistance would be the capitalization of the Economic Development Fund with existing state loans. The required amount is estimated to be approximately $100 million in par value of loans, however any increases above this amount would lead to more rapid repayment of the state loan appropriations.

4. After Completion: At this point, the project will have $110 million of bond debt and $63 million of state debt, with an estimated $7 million available in a construction/debt service fund available to reduce bonded debt. After this reduction, total bond debt service is estimated at $11.8 million, with $10.5 million required from the project and the remainder from a self-supporting capital reserve fund. The state debt would be repaid from interest off of the remaining capitalization and tolls in excess of the debt service, and after bonds are paid off.

5. Advantages: Allows general fund assistance to be spread over a number of years, and is less in total than many options. Since bonding isn't done until near the end of the project, there is less bond interest during construction, and furthermore the project may appear to be more certain and hence get a lower interest rate. Assuming fourth year appropriation is made concurrent or before the bonding, then state law is satisfied in that AIDA has not incurred debt with state support being in place. Treats state appropriations of $63 million as loan, rather than grant. Should make it easier to sell bonds, because cash flow from remaining capitalization can be used to increase coverage of debt service.

6. Disadvantages: Requires significant commitment by the state, $63 million in general fund loan appropriations and a capitalization of at least $100 million in existing state loans. If bonds are not issued until, say, 1988, federal laws affecting tax exempt bonding may have changed. Also, there would be considerable uncertainty with respect to what interest rates may be in three years. This particular approach is very sensitive to cash flow projections, and further may require writing construction contracts that are subject to future appropriations.

Case IV

Summary: Entails large bonding at outset of project. Also assumes that state will capitalize the Economic Development Fund (the Economic Development Fund is the own-and-operate element of AIDA) with existing state loans. Bonds are used for construction, state appropriations are required to pay interest for bonds during construction. After completion, some bonds are called, and income from capitalization plus project revenues are used to pay for bonds that remain outstanding.

ASSUMPTIONS AND CHARACTERISTICS

1. Construction draws are assumed to be (in thousands):

DATE	PORT DRAW	ROAD DRAWS	TOTAL	CUMULATIVE
1/1/86	$ 4,000	$ 1,000	$ 5,000	$ 5,000
1/1/87	3,000	5,000	8,000	13,000
1/1/88	14,000	57,000	71,000	84,000
1/1/89	50,000	33,000	83,000	167,000
1/1/90	4,000	3,000	7,000	174,000
TOTALS	75,000	99,000	174,000	174,000

2. Bonds: Assumes that $155 million in tax exempt bonds are issued on 1/1/86, with approximately $128 million going into the construction fund. As of 1/1/90 adequate funds are available in the debt service fund to call $12 million in bonds, leaving $143 million outstanding. Bond interest rate is assumed to be 10.5%.

3. State Assistance: This would be in two forms, first as a $30 million appropriation on 7/1/85, and second as capitalization of the Economic Development Fund. The capitalization is estimated to be at least $100 million par value of existing state loans now held in the treasury.

4. After completion: There are assumed to be $143 million worth of bonds outstanding, with approximately $18 million of this in what is assumed to be a self-supporting capital reserve fund. This leaves approximately $125 million worth of debt that must be repaid from available sources. The annual debt service on this $125 million is estimated to be $14.3 million. Assuming the project tolls will generate $10.3 million, then the other $4.0 million is assumed to be derived from the interest from the remaining loans of the original $100 million capitalization of the Economic Development Fund. No provision has been made to repay the state contribution, but this could happen from excess revenues.

5. Advantages: Bonds are issued up front, so this provides high likelihood there will be enough funds to construct project. Also, early issuance locks in long term interest rate, and protects against possible changes in federal laws involving tax exempt bonding. Also provides debt service in line with Cominco Alaska's estimate of their ability to pay. Requires only ~~$30~~ 18 million worth of general fund cash appropriations, which is the least of all suggested options, to date.

6. Disadvantages: Involves large issuance of bonds and attendant bond issuance cost, plus large risk of interest rate loss if bond proceeds cannot be invested at bond debt service prior to use in construction. Assumes that all of the project is eligible for tax exempt financing, and this is not a certainty. This approach is quite sensitive to the construction draw schedule.

APPENDIX B

GENERAL GUIDELINES OF STATE/COMINCO RELATIONSHIP

SHOULD STATE INVEST IN THE PROJECT

(1) The State of Alaska thru AIDA will own and operate the port and road.

(2) Cominco will enter into an agreement with AIDA for payment of a user fee for operations and maintenance expense, as well as a toll fee for use of the facility.

(3) Additional users will be accommodated upon payment of appropriate fees.

(4) Satisfactory guarantees of total repayment of state expenditures by Cominco in the event the mine does not commence operation and accordingly completion guarantees by AIDA will be required.

(5) NANA will provide the necessary leases and rights-of-way for the land required.

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF REVENUE

TREASURY DIVISION

ELEVENTH FLOOR
STATE OFFICE BUILDING
POUCH SB
JUNEAU, ALASKA 99811
PHONE:

April 15, 1985

The Honorable Arliss Sturgulewski
Chairman
Resources Committee
Alaska Senate
Pouch V
Juneau, AK 99811

Dear Senator Sturgulewski:

This letter is in response to the requests contained in your April 1 letter on state loans that may be used in financing the DeLong Mountain Transportation project. The responses are in as much detail as is available at this time.

1. It has been suggested that $142 million in state loans held by the Department of Revenue be transferred to AIDA bonds. I would like to know the make up of those loans. What is the amount of each category (such as veterans, commercial fishing, small business, tourism, fisheries enhancement, child care and historical districts), the interest rates by category and the maturity dates? What is the amount of money by category that returns to a revolving loan fund pool and what amount returns to the general fund? If any revolving loan funds are transferred to AIDA, how does that affect the future ability of those revolving funds to meet the public demand for loans?

   The following amounts of loans are held in the general fund and serviced by the Department of Commerce and Economic Development as of February 28, 1985:

Type	Amount ($ 000)	Average Interest Rate 1/	Average Maturity
Veterans	82,291.4	6.92%	2003
Small Business	18,573.5	8.49	1993
Commercial Fish	29,809.3	7.81	1991
Tourism	2,575.2	8.07	1996
Child Care	18.0	5.83	1989
Historical District	123.7	6.67	1993
Fisheries Enhancement	6,804.2	7.96	N/A
Total	140,195.3	7.39	

1/ Net of .5% service fee on loans serviced by Commerce and an estimated .125% Commerce service fee on loans serviced by banks. The bank services fees are also netted out.

04-D12LH

These loans would be transferred to AIDA with the exception of an estimated $19,873,000 of commercial fish loans which are secured by permits. Only the state is authorized to hold permits as collateral.

To make up for this deficiency, AIDA would take up to $19,873,000 in loans held by the Department of Commerce and Economic Development. Commerce had $48,402,500 of commercial fish loans as of January 31, 1985 of which an estimated $16,118,000 were not backed by permits and would be taken by AIDA.

All of the payments on the general fund loans, both principal and interest, return to the general fund. Transfer of these loans to AIDA will reduce the amount of general funds available for appropriation in FY 86 and future years. It will not affect the ability of the revolving loan funds to meet loan demand.

Even with AIDA taking some Commerce loans, the Department's ability to meet loan demand should not be impaired. The estimated $16,118,000 in Commerce's commercial fish loans taken by AIDA would be replaced with a roughly equivalent amount, the $19,873,000 in estimated general fund commercial fish loans secured by permits, by transferring these loans from the general fund to Commerce.

2. What is the expected cash flow (principal and interest) by year from July 1, 1985 that would return to the state over the term of the loans if they remained in the Department of Revenue?

   See attached table for scheduled cash flow. Actual cash flow may be accelerated due to loan prepayments, resulting in a reduction of total interest from that scheduled.

3. What is the expected financial shortfall in state revenue in FY 86 as a result of transferring these loans to AIDA? Has any adjustment been made to the Administration's budget for FY 86 to reflect this income reduction?

   In our effort to minimize the impact on the FY 86 general fund revenues, the administration believes that no net adjustment will be required to the FY 86 budget by the appropriation of the loans to AIDA. The administration proposes to utilize the $17.8 million cash flow from loans held by the Department of Revenue as a substitute for the appropriation of $18 million in general funds now contained in the Governor's loan budget for this project. This will offset the reduction in general funds available for appropriation arising from the appropriation of the loans. This reduction would be $17.8 million for FY 86 based on the scheduled payments shown in the attached table. This would be composed of approximately $10 million in interest and $7.8 million in principal repayments.

The administration would propose that the cash needed to support the project could be obtained in part by giving AIDA the authority to use $12 million already appropriated to that agency. This would be combined with approximately $3 million of funds available from last year's appropriation for this project.

It should be noted that the amount of cash flow from these loans included in the Executive Budget 1986 as amounts available for appropriation is $31.3 million, composed of $13.3 million interest and $18 million principal repayments. The budget estimate is higher than the scheduled payments for two reasons. One is that prepayments on loans result in greater amounts of principal receipts than scheduled. The other is that this response to your questions has been done in much greater detail than the budget estimates.

A fiscal note for $17.8 million, reflecting the scheduled reduction in FY 86 revenue, will be submitted for the appropriation of the $142 million in loans. The difference between the scheduled payments and the budget estimate, $13.5 million, will be a downward adjustment to the next revenue estimates which will be made in June. This adjustment has not been incorporated in the Administration's FY 86 budget. The Administration does not believe this adjustment materially affects the March revenue forecast.

4. What is the total amount of interest that is expected to be returned to the state from the $142 million over the life of the loans calculated as of July 1, 1985?

   Approximately $71.6 million in interest would be received by the state from July 1, 1985 through 2011 from the loans. The loan balances are estimated to total $135.9 million on July 1, 1985. The amount received by the general fund would be somewhat reduced by service fees retained by Commerce.

5. What is the total amount of interest that the state would expect from the $142 million in loans plus the $18 million in general fund expenditure if this $160 million were not transferred to AIDA?

   Over the period of years to 2015, assuming compounding and an average rate of interest of 10%, total interest would come to $1,984.3 million. The present value of this interest would be $113.7 million at a 10% discount rate.

   Implicit in the question is an assumption that the cash flow from the loans and the $18 million will not be spent if it is not appropriated to AIDA. If it is spent, the state would of course receive no interest on the $18 million and only the $71.6 million on the loans.

6. Will the transfer of the $142 million in loans to AIDA result in increased requests this year or in future years for the various state loan programs since the principal and interest will not flow back to the general fund or a revolving fund as expected?

   Transfer of the $142 million will not generally affect revolving fund cash flow and will not require increased requests for Commerce loan programs in the future. See question #1.

Sincerely,

Mary A. Nordale
Commissioner

MAN/gb
85-57

Enclosure

cc: Hon. Loren Lounsbury, Commissioner DCED
Bert Wagnon, Executive Director, AIDA

General Fund Loans to be Appropriated to AIDA
Estimated Cash Flow (Principal and Interest)
($ 000)

Fiscal Year	Veterans	Small Business	Commercial Fish	Tourism	Child Care	Historical District	Fisheries Enhancement	Total
1986	9,247	2,855	6,105	308	5	22	N/A	18,542
1987	9,034	2,783	5,786	308	4	22		17,937
1988	8,784	2,613	5,409	308	3	22		17,139
1989	8,554	2,404	4,243	308	2	18		15,529
1990	8,379	2,279	3,870	282	1	14		14,825
1991	8,343	2,134	3,233	243		14		13,967
1992	8,042	1,946	2,037	229		14		12,268
1993	7,409	1,551	837	221		14		10,032
1994	6,955	907	214	212		7		8,295
1995	6,851	344	34	208				7,437
1996	6,814	59		201				7,074
1997	6,532			186				6,718
1998	6,174			85				6,259
1999	6,038							6,038
2000	5,998							5,998
2001	5,899							5,899
2002	5,096							5,096
2003	4,254							4,254
2004	4,035							4,035
2005	3,925							3,925
2006	3,865							3,865
2007	3,182							3,182
2008	1,709							1,709
2009	521							521
2010	98							98
2011	20							20
Total	145,758	19,875	31,768	3,099	15	147	6,804 (principal only)	207,466

1. This table represents the cash flow to the Department of Commerce and Economic Development. Cash flow to the general fund would be further reduced by .5% service fee on loans serviced by Commerce and .125% service fee to Commerce on loans serviced by banks.
2. Cash flow has not been adjusted for delinquency or default. Except for commercial fish non-permit loans, the state expects complete recovery on defaults. Thus, delinquency and default merely produce lags in receipts.

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

1577 "C" STREET • SUITE 304 ☐ ANCHORAGE, ALASKA 99501-5177 ☐ (907) 274-1651

April 9, 1985

The Honorable Arliss Sturgulewski
Chairman, Senate Resources Committee
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Sturgulewski:

In response to your letter of April 1, 1985, I am providing the following requested information. Please note that our responses are based upon the estimated net cash flows shown in Attachment I. After adjusting for loans that have paid down or will not be transferred for legal reasons, we estimate that approximately $136 million in loans will be transferred.

It is not possible to provide an unambiguous answer to the first three questions until two things happen. First, we need the results of the Finance Plan project, now being worked on, and second we need to have an agreement reached between AIDA and Cominco with regard to user fees. The best figures that we have at present with respect to revenue generated by the project are those tolls which Cominco has offered to pay. Please be aware that our use of these figures should in no way be taken as evidence that AIDA has agreed to these charges. In any case, utilizing the attached cash flows, and our most current assumptions regarding costs and financing, we estimate that the cash flow of the portfolio would not be directly used after 1995. At that time, the cash flow would be used for coverage for the bonds, and eventually could flow back to the general fund. Any tolls collected above those needed to pay debt service on bonds and provide for coverage on the bonds could also flow back to the general fund.

1. If the $160 million ($142 million in loans plus the $18 million from the general fund) are transferred to the AIDA Economic Development Fund, what is the mechanism for these funds to flow back to the general fund over time?

   At this time, the actual repayment mechanism has not yet been determined. It could be set up as a loan from the Department of Commerce and Economic Development to AIDA, with terms ranging from a fixed amount per year, or "any amount above that required for debt service". Regardless of the mechanism, we recommend that a coverage test be utilized, and only income above that required for the coverage requirement be remitted to the State.

2. Considering that the $160 million will be used to back the sale of AIDA bonds but that toll fees charged to Cominco, LTD. (and perhaps others) as well as interest earned from the fund will be used to retire the bonds, what is the expected balance in the Economic Development Fund at the end of 20 years?

   As noted above, using our most current cost and financing assumptions, we assume all cash flow after 1995 will be available for reinvestment in the Economic Development Fund for purposes of providing coverage for the bonds. Since this also assumes that the only toll fees are from Cominco and that these fees are just enough to pay debt service, the cash flow from the loan portfolio after 1995 and its reinvestment will be the only source of funds to be deposited in the Economic Development Fund. Although these are the best assumptions available today, we believe they are conservative assumptions, especially with regard to other future users. In any case, if we assume the cash flow can be reinvested at a 10% earnings rate, then by 2005 the balance will be $106,433,000.

   These figures are based upon our latest estimates of relevant factors for what presently appears to be the best financing approach. This approach, which was discussed in an earlier memo, aggregates funds from the general fund appropriation, cash flow from the loan portfolio, and proceeds from a tax exempt bond sale. This total collection of funds is then used to pay for construction costs and for interest on the bonds until revenues from the project are sufficient to pay for the bonds.

3. Can you provide us with a projected Economic Development Fund balance by year from July 1, 1985 until the retirement of all of the $175 million in bonds issued for this project?

   Under our latest assumptions, only $135 million in debt will be issued. This reduced amount is possible because cash flows from the loan portfolio appear to be greater than originally estimated. Once again, using all of the assumptions mentioned above, the projected balance of the Economic Development Fund is given in Attachment II.

4. What effect will the additional management requirements of $142 million in loans have on AIDA's personnel requirements?

   We would not anticipate immediately transferring the loan servicing from Commerce to AIDA, but rather using a phase-in process. At the outset, we would request Commerce to continue servicing the portfolio for us. We expect that our servicing costs would be similar to those experienced by the Department of Commerce and Economic Development.

5. Can you provide us with a breakdown of the expenditures made to date and those anticipated from the $3 million appropriation in last years budget for this project?

   To date we have made the following commitments for expenditure: RSA with DOTPF for various engineering and technical assistance $50,000; RSA with Department of Law for specialized legal counsel $50,000; contract with

SRI International for Finance Plan $267,000; contract with R & M Engineering for cost verification and other engineering services $75,000; and other miscellaneous expenditures $15,000. Planned uses for the remainder are associated with getting the projects ready for construction bids, for instance, preparation of final detailed design, preparation of bid packages, and so forth.

6. What is the total amount that could be expected to accrue to the Economic Development Fund in both principal and interest over time if you added together the $18 million from the general fund, the $142 million principal in loans, the interest on the $18 million while in the fund, the interest generated from the $142 million in loans and the interest earned on the earnings of the fund?

   It appears in this question that you simply want us to do a straight forward calculation of a future value of a known income stream. If so, then of course the only real unknown is the assumed rate of return on the reinvestments. For these calculations we will assume it is 10%, and again we will use the cash flow shown in Attachment I. The results, by year, are given in Attachment III. Although the numbers on Attachment III get rather large, I think it is important to put these values in perspective, since what is really being shown on that table is the effects of compound interest. A more relevant number is the net present value of the appropriations being proposed. Assuming that $18 million is appropriated on July 1, 1985, that the loan portfolio can provide the net cash flow shown in Attachment III, and that 10% is the discount rate, then the net present value of these appropriations as of July 1, 1985 is $117.3 million.

Although no direct question was asked regarding the philosophy behind AIDA's involvement in this project, I believe it to be of paramount importance. We approach this project as an investment, both in needed infrastructure and diversification. We believe that, after some initial state assistance, the project will start generating income for the general fund. Eventually, the project should pay for itself many times over, and quite possibly be a major source of state revenue when other sources have dwindled.

Please let me know if you have further questions.

Sincerely,

Bertram L. Wagnon
Executive Director

BLW:ec

Enclosures

cc: Mary Nordale, Commissioner, Department of Revenue
Loren Lounsbury, Commissioner,
Department of Commerce & Economic Development

ATTACHMENT I

Estimated cash flows from Department of Revenue loan portfolio (000)

Year	VETS	Small Bus/Rev	Small (a) Bus/Bank (Estimate, .594)	Comm Fish	Tourism/ Rev.	Tourism/ (b) Bank (Estimate, 1.185)	Child Care	Historic District	Gross (c) Total	Net (d) Total (.95)
86	9247	1791	1064	6105	141	167	5	22	18,542	17,615
87	9034	1746	1037	5786	141	167	4	22	17,937	17,040
88	8784	1639	974	5409	141	167	3	22	17,139	16,282
89	8554	1508	896	4243	141	167	2	18	15,529	14,753
90	8379	1430	849	3870	129	153	1	14	14,825	14,084
91	8343	1339	795	3233	111	132		14	13,967	13,269
92	8042	1221	725	2037	105	124		14	12,268	11,655
93	7409	973	578	837	101	120		14	10,032	9,530
94	6955	569	338	214	97	115		7	8,295	7,880
95	6851	216	128	34	95	113			7,437	7,065
96	6814	37	22		92	109			7,074	6,720
97	6532				85	101			6,718	6,382
98	6174				39	46			6,259	6,042
99	6038								6,038	5,736
2000	5998								5,998	5,698
01	5899								5,899	5,604
02	5096								5,096	4,841
03	4254								4,254	4,041
04	4035								4,035	3,833
05	3925								3,925	3,729
06	3865								3,865	3,672
07	3182								3,182	3,023
08	1709								1,709	1,624
09	521								521	495
10	98								98	93
11	20								20	19

Notes

(a) Cash flow figures available only for Dept. of Commerce serviced loans, of $10,473.7 principal balance. Estimate of cash flow of bank serviced loans of $6,221.3 balance assumed to be proportional to relative principal balances, i.e. 6,221.3 / 10,473.7 = .594

(b) Cash flow figures available only for Dept. of Commerce serviced loans, of $1,097.4 principal balance. Estimate of cash flow of bank serviced loans of $1,300.0 balance assumed to be proportional to relative principal balances, i.e. 1,300.0 / 1,097.4 = 1.185

(c) No cash flow figures are included for Fishery Enhancement loans since they were not available. It is expected that any significant cash flows would be well into the future and hence not available during the critical early years.

(d) Net figures are adjusted to take into account estimated delinquency and defaults as well as servicing costs, assuming net figures are 95% of gross figures.

ATTACHMENT II

Balance in Econonmic Development Fund in response to Question 3. Assumes that funds can be reinvested at a 10% rate of return.

Fiscal Year	Cash Flow from Loans (000)	Fund Balance (000)
1995	7,060	7,060
96	6,720	14,486
97	6,382	22,317
98	6,042	30,590
99	5,736	39,385
2000	5,698	49,022
01	5,604	59,528
02	4,841	70,322
03	4,041	81,395
04	3,833	93,367
05	3,729	106,433
06	3,672	120,749
07	3,023	135,846
08	1,624	151,055
09	495	166,656
10	93	183,414
11	19	201,775
12		221,952
13		244,147
14		268,562
15		295,418

ATTACHMENT III

Calculation of a hypothetical fund balance, based upon cash flows of Attachment I, $18 million on July 1, 1985, and assumed reinvestment rate of 10%.

Fiscal Year	Cash Flow from Loans (000)	Fund Balance (000)
1986	17,615	37,415
87	17,040	58,197
88	16,282	80,298
89	14,753	103,081
90	14,084	127,473
91	13,269	153,489
92	11,655	180,493
93	9,410	207,952
94	7,880	236,628
95	7,065	267,355
96	6,720	300,811
97	6,382	337,274
98	6,042	377,043
99	5,736	420,484
2000	5,698	468,230
01	5,604	520,657
02	4,841	577,564
03	4,041	639,361
04	3,833	707,130
05	3,729	781,572
06	3,672	863,401
07	3,023	952,764
08	1,624	1,049,665
09	495	1,155,126
10	93	1,270,732
11	19	1,397,824
12		1,537,607
13		1,691,367
14		1,860,504
15		2,046,555

2. Considering that the $160 million will be used to back the sale of AIDA bonds but that toll fees charged to Cominco, LTD. (and perhaps others) as well as interest earned from the fund will be used to retire the bonds, what is the expected balance in the Economic Development Fund at the end of 20 years?

   As noted above, using our most current cost and financing assumptions, we assume all cash flow after 1995 will be available for reinvestment in the Economic Development Fund for purposes of providing coverage for the bonds. Since this also assumes that the only toll fees are from Cominco and that these fees are just enough to pay debt service, the cash flow from the loan portfolio after 1995 and its reinvestment will be the only source of funds to be deposited in the Economic Development Fund. Although these are the best assumptions available today, we believe they are conservative assumptions, especially with regard to other future users. In any case, if we assume the cash flow can be reinvested at a 10% earnings rate, then by 2005 the balance will be $106,433,000.

   These figures are based upon our latest estimates of relevant factors for what presently appears to be the best financing approach. This approach, which was discussed in an earlier memo, aggregates funds from the general fund appropriation, cash flow from the loan portfolio, and proceeds from a tax exempt bond sale. This total collection of funds is then used to pay for construction costs and for interest on the bonds until revenues from the project are sufficient to pay for the bonds.

3. Can you provide us with a projected Economic Development Fund balance by year from July 1, 1985 until the retirement of all of the $175 million in bonds issued for this project?

   Under our latest assumptions, only $135 million in debt will be issued. This reduced amount is possible because cash flows from the loan portfolio appear to be greater than originally estimated. Once again, using all of the assumptions mentioned above, the projected balance of the Economic Development Fund is given in Attachment II.

4. What effect will the additional management requirements of $142 million in loans have on AIDA's personnel requirements?

   We would not anticipate immediately transferring the loan servicing from Commerce to AIDA, but rather using a phase-in process. At the outset, we would request Commerce to continue servicing the portfolio for us. We expect that our servicing costs would be similar to those experienced by the Department of Commerce and Economic Development.

5. Can you provide us with a breakdown of the expenditures made to date and those anticipated from the $3 million appropriation in last years budget for this project?

   To date we have made the following commitments for expenditure: RSA with DOTPF for various engineering and technical assistance $50,000; RSA with Department of Law for specialized legal counsel $50,000; contract with

Case IV

Summary: Entails large bonding at outset of project. Also assumes that state will capitalize the Economic Development Fund (the Economic Development Fund is the own-and-operate element of AIDA) with existing state loans. Bonds are used for construction, state appropriations are required to pay interest for bonds during construction. After completion, some bonds are called, and income from capitalization plus project revenues are used to pay for bonds that remain outstanding.

ASSUMPTIONS AND CHARACTERISTICS

1. Construction draws are assumed to be (in thousands):

DATE	PORT DRAW	ROAD DRAWS	TOTAL	CUMULATIVE
1/1/86	$ 4,000	$ 1,000	$ 5,000	$ 5,000
1/1/87	3,000	5,000	8,000	13,000
1/1/88	14,000	57,000	71,000	84,000
1/1/89	50,000	33,000	83,000	167,000
1/1/90	4,000	3,000	7,000	174,000
TOTALS	75,000	99,000	174,000	174,000

2. Bonds: Assumes that $155 million in tax exempt bonds are issued on 1/1/86, with approximately $128 million going into the construction fund. As of 1/1/90 adequate funds are available in the debt service fund to call $12 million in bonds, leaving $143 million outstanding. Bond interest rate is assumed to be 10.5%.

3. State Assistance: This would be in two forms, first as a $30 million appropriation on 7/1/85, and second as capitalization of the Economic Development Fund. The capitalization is estimated to be at least $100 million par value of existing state loans now held in the treasury.

4. After completion: There are assumed to be $143 million worth of bonds outstanding, with approximately $18 million of this in what is assumed to be a self-supporting capital reserve fund. This leaves approximately $125 million worth of debt that must be repaid from available sources. The annual debt service on this $125 million is estimated to be $14.3 million. Assuming the project tolls will generate $10.3 million, then the other $4.0 million is assumed to be derived from the interest from the remaining loans of the original $100 million capitalization of the Economic Development Fund. No provision has been made to repay the state contribution, but this could happen from excess revenues.

Number 170	Mr. Elder answered that they were not all bad loans, just that there is a high delinquency rate.
Number 180	Representative Frank noted a sentence that says no provision has been made to repay the state's contribution but that it might be paid out of excess revenues. He asked how this fits with Cominco's pledge to repay the state.
Number 200	Mr. Elder answered that perhaps it does not fit, and said that he anticipates that the finance plan will reflect all the income that the state will receive.
Number 230	Chairman Sund asked what is the cash flow of the existing loans.
Number 235	Mr. Elder estimated that it is the neighborhood of $15 to $20 million annually. He added that the assets and the cash flow will collateralize the bonds, as well as the user fees. However, cash from user fees will not happen until the mine is in production. The cash flow would be used to meet annual obligations on the debt service in the meantime.
Number 257	Chairman Sund asked Mr. Elder what the legislature has to do in order to implement the plan that he is discussing.
Number 265	Mr. Elder answered that the legislature would have to appropriate $18 million to AIDA, to appropriate the outstanding principal amounts of the loans held by the Department of Revenue to AIDA, and to give AIDA the authority to issue bonds in an amount not to exceed $175 million.
Number 280	Chairman Sund asked if these bonds would go against the state's bonding capacity.
Number 283	Mr. Elder answered no, they would be the obligation of AIDA.
Number 292	Representative Frank asked Mr. Elder why $18 million appropriation plus $141 million in loans is needed in order to proceed on schedule.
Number 298	Mr. Elder answered that they want to proceed with construction in calendar year 1986.

MEMORANDUM

State of Alaska

TO: The Honorable John Sund
Chairman
House Special Loans Committee

DATE: March 26, 1985

FILE NO: 851-170

TELEPHONE NO: 465-3568

FROM: Jack Fargnoli, Senior Analyst
Division of Strategic Planning
Office of Management and Budget

JLF

SUBJECT: Red Dog Mine - Royalty Payment Distribution Likely Under ANCSA 7(i)

This memorandum summarizes information that the Office of Management and Budget (OMB) presented yesterday before the Senate Resources Committee, regarding the effects of Section 7(i) of the Alaska Native Claims Settlement Act (ANCSA) on the distribution of potential Red Dog Mine royalty payments among Alaska Native corporations.

The attached table, "RED DOG MINE ROYALTY PAYMENTS - PROBABLE DISTRIBUTION UNDER ANCSA 7(i)", shows the percentage of total royalty payments from Cominco to NANA that each Native corporation would be likely to receive after redistribution under the allocation provisions of ANCSA 7(i). Section 7(i), as you are aware, requires that any royalty payments to NANA from Cominco due to Red Dog Mine operations would have to be shared with all other regional Native corporations. While the actual dollar amounts likely to be involved in such a distribution are uncertain, as discussed below, OMB feels that the percentage distribution shown in the table is highly probable.

As indicated yesterday in testimony before the Senate Resources Committee, OMB has chosen not to estimate possible ANCSA 7(i) dollar flows for the Red Dog Mine project at this point, because the magnitude of such dollar flows will largely be determined by the extent of any financial participation in the project by the State of Alaska.

That notwithstanding, one level of possible dollar amounts is shown in the attached table, solely to present a reference point for the order of magnitude of royalty payments that could result from Red Dog operations. The amounts shown, which are pre-tax amounts, are based on an estimate provided by Cominco on March 6, 1985, and reflect Cominco's estimate that an average of approximately $30 million per year (1985 dollars) for thirty years will be paid in royalties to NANA, and then subsequently be redistributed to NANA and the other regional Native corporations under ANCSA 7(i). The estimate of $30 million per year in royalty payments itself rests on Cominco's assumption in this scenario that the State would provide $150 million in revenue bonding for the road and port infrastructure, with Cominco repaying the State approximately $260 million (nominal dollars) through user fees over a 30-year period.

If additional information is needed on this or any other topic, please don't hesitate to contact me or Alan Shelly at 465-3568.

cb/85I-170

Attachment

cc: Laurie Herman
Executive Assistant
Office of the Governor

Terry Elder
Deputy Commissioner
Department of Commerce and Economic Development

RED DOG MINE ROYALTY PAYMENTS,
PROBABLE DISTRIBUTION UNDER ANCSA 7(i)

Regional Native Corporation	Probable Share (Percent)	Possible Avg.* Annual Amount (1985 Dollars x 1,000)
Ahtna	1.4%	$ 300.0
Aleut	4.4	923.3
Arctic Slope	5.0	1,050.0
Bering Straits	8.5	1,786.7
Bristol Bay	7.3	1,533.3
Calista	18.0	3,780.0
Chugach	2.6	546.7
Cook Inlet	8.4	1,766.7
Doyon	12.2	2,566.7
Koniag	4.5	946.7
NANA	6.5	1,366.7**
Sealaska	21.1	4,433.3
TOTAL:	99.9%	$21,000.0/yr.(avg.)

* Cominco estimate as of 3/6/85. Amounts shown are before taxes (mining license tax, corporate income tax). Assumes $150 million in revenue bonding by State for infrastructure, and repayment of approximately $260 million (nominal dollars) by Cominco through user fees over 30 years.

** In addition to Cominco estimate of $9 million (1985 dollars) that NANA would receive annually (avg.) as its allowable 30% of gross royalty payments, assuming State participation and Cominco repayment as above.

Source: Office of Management and Budget

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

POUCH D
JUNEAU, ALASKA 99811
PHONE: 465-2500

OFFICE OF THE COMMISSIONER

April 8, 1985

The Honorable Arliss Sturgulewski
Chairman
Senate Committee on Resources
Pouch V
Juneau, Alaska 99811

Dear Senator Sturgulewski:

Re: $142 Million AIDA Transfer

In response to your letter of April 1, 1985, I am providing you with the following requested information.

1. Will the transfer of the $142 million in loans to AIDA affect the personnel requirements of your loan servicing division? In other words, would you anticipate a reduction in staffing?

   There are several factors that are pertinent, assuming the appropriation to AIDA does take place and is effective July 1, 1985.

   (a) AIDA will not service the transferred loans.

   (b) The Division of Accounting and Collections would continue to service the loans after July 1 under contract with AIDA until such time as AIDA and/or the division decide that transfer of servicing to a private bank is appropriate.

   (c) The earliest such a servicing transfer could occur is mid-year FY '86 due to the complexity of the transfer, keeping in mind the transfer may not occur at all if AIDA and the division feel it is not appropriate.

   (d) If the FY '86 budget cuts are as severe as the first draft cut appears, the division may request that AIDA transfer the servicing. If this were to occur, the division would reduce staff after the servicing transfer so that the combined reduction in staff (due to budget cuts and the transfer) would be about 35% - proportionate to the number of loans transferred. Such staff reductions would <u>not</u> free up excess general funds because the transferred loans would be those that currently generate 100% of our "other funds" (service fees) in the divisions' operating budgets (Division of Acccounting and Collections and the Division of Investments). Therefore, while the appropriation of these loans could result in a reduction in staff, it would not be in "General Fund" funded staff, and the staff reduction would come only after the transfer of servicing, not on the effective date of the appropriation.

2. If these loans were transferred to AIDA, do you anticipate that the loan repayment or servicing policies would change?

   No, both organizations expect repayment on a timely basis.

3. What would be the effect on the borrowers if these loans were transferred to another agency?

   While servicing remains under the Division of Accounting and Collections, the effects would be minimal: prior to the effective date of the appropriation, new loan numbers may be required to allow for accurate accounting to the new investor; this would entail a letter and a new supply of payment cards being sent to the borrower. The effort required of division staff to close out one investor and begin servicing a new investor will be substantial; borrowers may notice a slight decline in the quality and timeliness of service as the division copes with the changes.

   If the servicing itself were transferred to a private bank at some point, the following changes would occur:

   (a) Borrowers would receive another new loan number, another set of payment cards, and a series of letters explaining each step of the servicing transfer;

   (b) Service quality and timeliness may vary.

All impacts to borrowers could be summed up as short-term inconveniences which would occur for six months or so during the transition to a new servicer.

4. How would the loss of future income from these loans (both principal and interest) affect the ability of your loan divisions to provide for the public demand for loans in the various categories? Would you anticipate increased funding requests to the Legislature to meet the public need?

There would be virtually no effect on the loan fund balances.

The cash flow from these loans is remitted to the General Fund (through Division of Treasury) on a monthly basis, net of service fees, late fees, NSF fees and application/assumption fees which are retained by the fund. In the case of veterans and commercial fish, these fees then are appropriated by the Legislature to fund operating efforts in the Division of Accounting and Collections and the Division of Investments.

We would not anticipate increased funding requests in the loans budget to meet public loan demand.

5. Does the loss of income from these loans affect your FY '86 budget loan requests if all principal and interest are transferred on the $142 million as of July 1, 1985?

No, the loss of income to the loan funds will be negligible (See #4).

The operating budgets of the Division of Accounting and Collections and the Division of Investments could be impacted mid-year due to loss of service fees if the servicing is transferred prior to year-end FY '86.

Please let me know if you have further questions.

Sincerely,

Loren H. Lounsbury

Loren H. Lounsbury
Commissioner

LHL/mst1748m
040385c

cc: Mary Nordale, Commissioner, Department of Revenue
Bert Wagnon, Executive Director, AIDA

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF COMMERCE &
ECONOMIC DEVELOPMENT

POUCH D
JUNEAU, ALASKA 99811
PHONE: 465-2500

OFFICE OF THE COMMISSIONER

March 26, 1985

Honorable Arliss Sturgulewski
Chairman, Senate Resource Committee
Pouch V
Juneau, Alaska 98111

Dear Senator Sturgulewski:

Red Dog is, by universal acclaim, one of the world's premier ore deposits and will help satisfy an expected shortfall in world zinc supply far into the 21st century. It is estimated that over a 20-year period, the Red Dog Mine will provide in direct revenues to the State over $210 million in net present value in the form of taxes and avoided transfer payments. Additionally, the mine will create 400 direct jobs in the northwest Alaska region which experiences very high levels of unemployment, as well as some 200 jobs state-wide in service and supply sectors of the economy. Regional benefits of the project will include significantly reduced transportation costs and the mine could provide an economic base for the formation of a regional borough.

Investment by the State of Alaska in the construction of a regional port and access road, not only to the Red Dog Mine site, but also the richly mineralized Noatak region is both an opportunity for the State to diversify its economy and, backed up by sound financial analysis, is an appropriate responsibility of the government.

The State of Alaska shares the concerns expressed by the Legislature with regard to protecting State interests since it is, in fact, the State of Alaska that will be the owner of the road and the port.

Both the Administration and the Legislature are in complete agreement with regard to assurances and guarantees to be provided by Cominco and NANA. Such guarantees have already been outlined to the Legislature and consist of the following:

- Cominco will guarantee to pay toll fees that will repay State investment.

- Cominco will guarantee to pay the operation and maintenance costs of the road and port facilities.

- Cominco also will guarantee minimum toll payments and other payments necessary to repay the State's investment if the mine is delayed or if production is suspended after operation commences.

- To the extent that the price of zinc should rise above a level presently contemplated to yield a reasonable profit, the State believes that it should be able to have its investment liquidated at an accelerated rate. This is a provision common to many loan agreements involving sizeable investments.

Additionally, NANA will guarantee to provide necessary land to accommodate reasonable expansion requirements for future users at the port site.

The State intends to hold Cominco and NANA to these guarantees, plus any other appropriate commitments, that may be identified by the contractor, Stanford Research Institute, who will produce the comprehensive financial plan.

With the ironclad assurances and guarantees in place, the Legislature, this session, has the opportunity not only to move the Red Dog Mine project forward in a timely manner but to assure potential consumers of Alaska's exports that the State is serious about developing its natural resources.

Sincerely,

Loren H. Lounsbury

Loren H. Lounsbury
Commissioner

LHL/sa0673s
31685d

cc: Ben Harding, Special Staff Assistant
Office of the Governor
Mary Nordale, Commissioner
Department of Revenue

MEMORANDUM

State of Alaska

TO: The Honorable John Sund
Chairman
House Special Loans Committee

DATE: March 26, 1985

FILE NO: 85I-170

TELEPHONE NO: 465-3568

FROM: JEF
Jack Fargnoli, Senior Analyst
Division of Strategic Planning
Office of Management and Budget

SUBJECT: Red Dog Mine - Royalty Payment Distribution Likely Under ANCSA 7(i)

This memorandum summarizes information that the Office of Management and Budget (OMB) presented yesterday before the Senate Resources Committee, regarding the effects of Section 7(i) of the Alaska Native Claims Settlement Act (ANCSA) on the distribution of potential Red Dog Mine royalty payments among Alaska Native corporations.

The attached table, "RED DOG MINE ROYALTY PAYMENTS - PROBABLE DISTRIBUTION UNDER ANCSA 7(i)", shows the percentage of total royalty payments from Cominco to NANA that each Native corporation would be likely to receive after redistribution under the allocation provisions of ANCSA 7(i). Section 7(i), as you are aware, requires that any royalty payments to NANA from Cominco due to Red Dog Mine operations would have to be shared with all other regional Native corporations. While the actual dollar amounts likely to be involved in such a distribution are uncertain, as discussed below, OMB feels that the percentage distribution shown in the table is highly probable.

As indicated yesterday in testimony before the Senate Resources Committee, OMB has chosen not to estimate possible ANCSA 7(i) dollar flows for the Red Dog Mine project at this point, because the magnitude of such dollar flows will largely be determined by the extent of any financial participation in the project by the State of Alaska.

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If additional information is needed on this or any other topic, please don't hesitate to contact me or Alan Shelly at 465-3568.

cb/85I-170

Attachment

cc: Laurie Herman
Executive Assistant
Office of the Governor

Terry Elder
Deputy Commissioner
Department of Commerce and Economic Development

RED DOG MINE ROYALTY PAYMENTS,
PROBABLE DISTRIBUTION UNDER ANCSA 7(i)

Regional Native Corporation	Probable Share (Percent)	Possible Avg.* Annual Amount (1985 Dollars x 1,000)
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** In addition to Cominco estimate of $9 million (1985 dollars) that NANA would receive annually (avg.) as its allowable 30% of gross royalty payments, assuming State participation and Cominco repayment as above.

Source: Office of Management and Budget

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

1577 "C" STREET • SUITE 304 □ ANCHORAGE, ALASKA 99501-5177 □ (907) 274-1651

March 22, 1985

Senator Arliss Sturgulewski
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Sturgulewski:

You have expressed concern regarding a situation where the Legislature appropriates a considerable amount of resources to AIDA to help finance the DeLong Mountains Transportation project without the Legislature having full knowledge of the total financial picture of the project. Of course, the intent of the Finance Plan contract now underway is to enable the Authority to be able to provide this "full picture" to the Legislature, the Governor and other interested parties. However, since we are requesting an appropriation now, even though the Plan is not yet completed, it is incumbent upon AIDA to provide assurances to the Legislature that no improper or imprudent use will be made of these resources.

Should the Legislature decide to appropriate funds to allow this project to go forward, the State's investment could be protected by restricting the expenditure of such funds by AIDA until both a guaranty agreement and a detailed use agreement are completed and executed.

As envisioned by AIDA, Cominco will be required to enter into a guaranty agreement with AIDA covering such items as total repayment in the event the mine is not operated, guaranteed minimal toll charges, payments in event production is suspended after operation commences, commitment to pay operating and maintenance expenses of the transportation project, as well as appropriate financial provisions to enforce such guarantees. Although we (AIDA) are discussing these matters at present with Cominco and NANA, we will not complete any agreements until we have the results of the Finance Plan.

This would be followed by a detailed "use agreement" between AIDA and Cominco, which would cover all facets of the project in detail. It is anticipated that the use agreement will be a very complex document and take approximately three to four months to finalize.

Because of the time involved to complete both of these agreements, AIDA would not expect any significant expenditure of funds until after the Legislature reconvened in January 1986. If at that time, the Legislature decided to not proceed with state involvement in the project, the Legislature could simply notify AIDA and, with the Governor's concurrence, reappropriate the funds to other uses.

I hope this adequately answers your quite valid concerns. Please remember that all along we have maintained that we only want to pursue this project if it is a 'good deal' for the State.

Sincerely,

Bertram L. Wagnon
Executive Director

BLW/rg

Alaska State Legislature

ARLISS STURGULEWSKI, Chairman
BETTYE FAHRENKAMP, Vice Chairman
JACK COGHILL
DICK ELIASON
VIC FISCHER
RICK HALFORD
FRED ZHAROFF

POUCH V
JUNEAU, ALASKA 99811
(907) 465-4907

Senate
Committee on Resources

M E M O R A N D U M

March 24, 1985

TO: All Members
Senate Resources Committee

FROM: Staff
Senate Resources Committee

RE: Red Dog Project Analysis

Attached are supplemental materials that update the Red Dog Project Analysis done by the various state departments in February, 1984.

1. Section III: Report of the Office of Mineral Development;
2. Section IV: Report of the Division of Finance and Economics, DCED;
3. Section V: Report of the Office of Management and Budget;
4. Section V: Report of the Department of Revenue;
5. Section VI: Report of the Department of Community and Regional Affairs.

You have also received last week a report from Bert Wagnon of AIDA on the outline of several financial plans.

fh:bh

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF REVENUE

ELEVENTH FLOOR
STATE OFFICE BUILDING
POUCH SA
JUNEAU, ALASKA 99811

Summary of Changes to Tax Revenue Forecast

Red Dog Project Analysis - Section V

Prepared By:
Alaska Department of Revenue
March 21, 1985

I. Special Industrial Incentive Investment Tax Credit

The Alaska Legislature passed CCSHB 258 late in the 1984 sesssion instituting a tax credit for new mining and gas processing operations. This legislation was not considered in developing the estimate of taxes to be paid by Cominco. Provisions and limitations of this legislation applicable to Cominco are:

a. The credit is granted to mining operations which begin production after December 31, 1984;

b. Investments in property which are entitled to the federal investment tax credit qualify for the incentive credit;

c. To qualify for the credit, the investment must be made by December 31, 1994;

d. The credit may be applied against the taxpayer's Alaska mining license tax and corporate net income tax liabilities.

e. The credit may not exceed 60 percent of the total tax liability for these two tax types in any given year.

f. Unused credits may be carried forward by federal tax law. However, unused credits may not be carried forward to tax years after December 31, 1999.

g. The credit is in place of the regular investment tax credit granted by AS 43.20.036(b).

h. The amount of investment subject to credit is limited to the first $250 million placed in service in the state; and is further limited to:
1) 100% of the 1st $50 million investment
2) 80% of the 2nd 50 million investment
3) 70% of the 3rd 50 million investment
4) 60% of the 4th 50 million investment
5) 40% of the 5th 50 million investment

i. The amount of credit which may be applied against the tax liability is the amount of credit allowed against federal taxes for the same investment. Currently, the Internal Revenue Code allows a regular credit of 10% of the qualified investment with mandatory reduction in the asset's depreciable basis of one-half of the credit, or an optional 8% rate with no basis adjustment.

j. Exhibit I recalculates the estimated tax liability of Cominco on an annual basis giving the effect of the special incentive credit. This schedule updates the schedule at V-66 of the Red Dog Project Analysis, February 1984 report for the "probable" metal price forecast scenario.

II. Update on Tax Consequence to NANA Development Corporation

a. NANA will be subject to the corporate income tax and the mining license tax on its royalty income from Red Dog.

b. The computation of NANA's mining license tax liability in the February 1984 Red Dog Project Analysis at page V-68 did not consider the depletion deduction. Exhibit II recalculates NANA's total tax exposure given the effect of a 15% depletion deduction from the net proceeds royalties.

c. NANA will not be entitled to a credit under the special incentive investment tax credit provisions of AS 43.20.042.

III. Mining License Tax Regulations

a. Status

The Department of Revenue has drafted proposed mining license tax regulations. Public hearings have been held in Fairbanks, Anchorage and Juneau. Also, a teleconference was held with Nome. The deadline for written comments and testimony concerning the regulations is March 31, 1985.

b. Intent

The current draft of the regulations attempts to interpret the statute and provide rules for its administration. The regulations should have no effect upon the estimate of Cominco or NANA's mining tax liabilities as portrayed in the original report. The draft provides:

1) clarification of who must apply for a mining license and file mining tax returns

2) instructions for obtaining the three and one-half year exemption certificate

3) methods for determining income when mined resources are exported from the state or commingled with non-mining products to form a salable product

4) an explanation of the types of expenses deductible from mining income.

RED DOG MINE

EXHIBIT I

COMINCO'S ESTIMATED ANNUAL TAX PAYMENT
UPDATED TO REFLECT
INCENTIVE INVESTMENT TAX CREDIT

	1989	1990	1991	1992	1993	1994 2008	20 Year TOTALS
MLT "Probable"	Exempt	Exempt	Exempt	$2.13	$5.25	$ 78.75	$ 86.13
CIT "Probable"	$ 4.83	$ 4.83	$ 4.83	4.83	4.83	72.45	96.60
Total Tax Liability	4.83	4.83	4.83	6.96	10.08	151.20	182.73
*Incentive Investment Tax Credit (limited to 60% of tax liability)	(2.90)	(2.90)	(2.90)	(4.20)	(1.76)	-0-	(14.66)
Net Income Tax Liability	$ 1.93	$ 1.93	$ 1.93	$ 2.76	$ 8.32	$151.20	$168.07
MFT "Probable"	.13	.13	.13	.13	.13	2.25	2.90
Total Cominco Estimated Tax Liability	$ 2.06	$ 2.06	$ 2.06	$ 2.89	$ 8.45	$153.45	$170.97

MLT = Mining License Tax
CIT = Corporate Income Tax
MFT = Motor Fuel Tax

*Estimated Investment Qualifying for Credit		$186.0	million
Available Credit:	$50 million x 100% x 10%	5.0	million
	50 million x 80% x 10%	4.0	million
	50 million x 70% x 10%	3.5	million
	36 million x 60% x 10%	2.16	million
	Total Available	$14.66	million

Please note: Many of the figures used herein were provided to Revenue and the Red Dog Project Committee by Cominco. They are not the result of any independent audit activity of this Department.

Prepared by:
Alaska Department of Revenue
Audit Division
March 21, 1985

Exhibit II

NANA AVERAGE ANNUAL STATE TAX LIABILITY
BASED ON ROYALTIES RECEIVED
UPDATED TO MARCH 21, 1985
(Millions of 1983 Dollars)

					CIT and MLT Combined After 1991	
	Average Annual Royalties	Average Annual CIT Due* (Begins In 1988	Average Annual Net Proceeds Royalties***	Average Annual MLT Due** (Begins In Mid-1991)	Annual Taxes Due State During 1988-91	Average Annual Taxes Due State After 1991
"Low"	$15.24	$1.43	$29.72	$2.08	$1.43	$3.51
"Probable"	25.11	2.36	41.28	2.89	2.36	5.25
"High"	33.78	3.18	50.05	3.50	3.18	6.68

CIT=Corporate Income Tax
MLT=Mining License Tax

*Payable on all royalties received over the life of the mine.
**Payable on all net proceeds royalties due (in addition to CIT).
***Net of 15% depletion

Prepared by:
Alaska Department of Revenue
Audit Division
March 21, 1985

Please note: Many of the figures used herein were provided to Revenue and the Red Dog Project Committee by Cominco. They are not the result of any independent audit activity of this Department.

STATE OF ALASKA

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

OFFICE OF THE COMMISSIONER

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Summary of update of Section VI of the Red Dog Report

3/22/85

After a review of Section VI of the Red Dog report of February 1984, and materials provided to the Department in the interim, the Department finds that there is no basis for any substantial change in the conclusions presented at the time of that report.

With regard to the possible detachment of the mine site lands from the North Slope Borough, NANA continues to seriously investigate the feasibility and means of accomplishing this detachment. NANA continues to base the viability of a possible NANA Borough upon the availability of the mine to provide a substantial portion of the new borough's tax base. NANA has performed a feasibility study to this effect which the Department has reviewed. The prospects for detachment remain uncertain.

With regard to the socioeconomic impact assessment of the development on the NANA region, no critical changes have been introduced by way of newly proposed development scenerios or changes in development parameters. A postponement of mine development of several years will not radically alter the region's baseline context (existing population, income, employment levels, etc) as it would be impacted by the mine development. Therefore, the Department stands by its assessment as providing a reasonable estimate of development impacts.

A question has been raised regarding the lack of quantitative measures of certain "costs" of development as compared to the more detailed presentation of the "benefits" of the development. Specifically, the Department's assessment did not attempt to quantify the costs of potentially increased service demands for social, medical and public safety programs which might result from disruptions of lifestyle due to a sudden increase in the region's cash economy.

In general, the Department stands by its decision not to try to provide a dollar value on these potential costs. There is simply no practical basis for establishing such a number. No one can predict with any certitude the response of these particular residents in this particular situation. While there is likely to be some increase in certain social service demands as a result of new affluence, we would assert that the net social service demand in the region is most likely to be reduced as a result of the proposed development, particularly in the long run.

Regarding medical services, it is assumed that the State would experience some reduction in costs as a consequence of the mine's development. The Department of Health and Social Services is working with the NANA region to localize medical services by contracting for service provision with a local entity. A provision of these contracts requires the contracting entity to phase in a user-fee system which could greatly reduce the facility operating costs for the State. Employment increases in the region should have the effect of increasing the number of fee-paying users of the region's medical services.

Regarding public safety, a "worst case" service demand increase might require an additional Village Public Safety Officer in each outlying community and several additional full or part-time police officers in Kotzebue. This case would represent an increase in costs of some $150,000 annually ($100,000 State, $50,000 municipal). It is not expected that new public safety facilities would be required directly as a result of the mine development.

With regard to the utility service demands on Kotzebue, the point is made that the impacts which would arise as a result of the developement represent less than 15% of the impacts which Kotzebue will experience through natural population increases even if the mine is not developed. This 15% value is unlikely, in itself, to trigger the necessity of a major capital project such as a new school, fire hall or power generating station. This assessment is based upon the commitment expressed by NANA/Cominco that the mine development is to be operated as an enclaved development.

MEMORANDUM

State of Alaska

TO: John Sims

DATE: March 22, 1985

FILE NO:

TELEPHONE NO:

FROM: Paul Engelman Paul

SUBJECT: Red Dog Mine Update
Section IV

The changes in the tax return rate and the additional information supplied by the Department of Revenue have changed the original report as follows:

1. Page IV-1 - The present value of the taxes has been reduced to $169.49 million resulting in a decrease in estimated total benefits to the State of $210.65 million when zinc is priced at 60¢ per pound.

2. Page IV-2 - Table I should be revised as follows:

TABLE I

Returns* to the State from
Red Dog Mine Development
(Millions of Dollars)

	Price of Zinc		
	55¢	60¢	65¢
Taxes	129.7	169.49	216.32
Transfers	41.16	41.16	41.16
Total	170.94	210.65	257.48

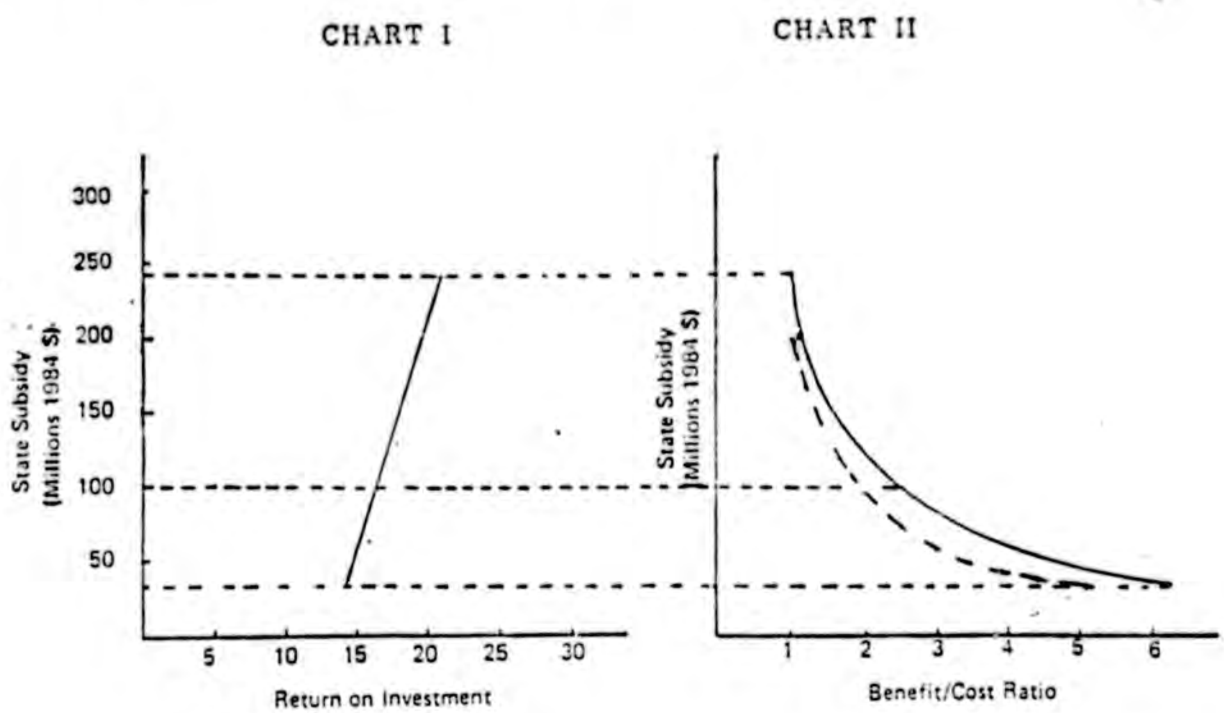
*All returns are given in terms of their present value. Only direct returns to State Government are considered.

3. Page IV-2 - The State's benefit ratio from Cominco for the $40.1 million investment is reduced to 5.3:1 since the benefits have been reduced to $210.65 million.

4. Page IV-3 - The State's theoretical maximum subsidy is reduced from $245 million at 60¢ per pound to $210.45 million

02-001A(Rev. 10/79)

5. Page IV-5 - Charts I and II should be modified as follows:



---------------------- adjusted for new tax regulations.

[* Assumes a real price of zinc of 60¢ per pound.]

6. Page IV-6 - The discussion on the required subsidy at different price levels for zinc isn't changed. However the reduction in tax liability should raise the rate of return Cominco receives at every price level since the tax reduction reduces their costs. While it is difficult to determine the exact amount the tax reduction will effect their rate of return, it appears to be about a 1.0% increase when zinc is 60¢ per pound. Charts I and II have not been adjusted to reflect this. The effect would be to shift the line in Chart I to the right indicating a greater rate of return at every level of subsidy.

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MEMORANDUM State of Alaska

TO: John Sims, Director
Office of Mineral Development
Department of Commerce and
Economic Development

THROUGH: Gordon S. Harrison, Associate Director
Office of Management and Budget

DATE: March 15, 1985

FILE NO: 85F-201

TELEPHONE NO: 465-3568

FROM: Alan Shelly, Senior Analyst
Division of Strategic Planning
Office of Management and Budget

ASly

SUBJECT: Update of OMB Portion (Part V) of Red Dog Project Analysis

We have been asked to review several aspects of the Red Dog analysis in light of information currently available. These aspects are economic impacts, ANCSA Section 7(i) distributions, and potential local tax revenues.

Our findings are:

1. Based on figures provided by Cominco and the Office of Mineral Development, there are only slight changes in the plans for the project from what was contemplated in the 1983 study. The start of production is now anticipated for 1989, not 1988, and the initial production estimate is now 1.5 million tons of ore per year, instead of the 1.1 million tons expected in 1983. Neither change should significantly affect the income and employment situation with respect either to the construction or full (not initial) production periods. Since these are the periods emphasized in our part of the 1983 study (pages V-37 through V-62), that analysis remains valid, subject to the limitations and constraints described in the original report.

   Also, since no major changes are suggested in the construction scenario, the limited analysis of shipping costs (pages V-59 to V-60) remains in force.

2. We have examined the figures reported in the Office of Mineral Development's "Supplement to Red Dog Project Analysis Section III-C" for ANCSA Section 7(i) distributions. While much more information from Cominco would be necessary to evaluate the profit figures contained there, we can verify that the percentage distributions to the various Native Corporations appear to be approximately correct.

02-001A(Rev 10/79)

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3. We are unable to provide an estimate of possible local tax revenues, since in addition to the suggested nine or ten mill rate, we should need detailed information on the type and value of the various items of plant and equipment at the Red Dog site. Moreover, the legal limit on the rate of local taxation depends on the amount of State taxes, if any. Thus, we should need to know the assumptions made on State behavior.

AS/dmc

Office of Management and Budget
Office of the Governor
State of Alaska

Final Report on the Red Dog Mine Project
February 21, 1984

SUMMARY

This summary presents the major findings of the Office of Management and Budget's final report on the Red Dog Mine project. The report was prepared for the Interagency Task Force on State Participation in Infrastructure Development, which was assembled for this project. The report's findings, based on assumptions described in the full report, are shown below.

Task 1 - Cominco Corporate Profile

- Cominco Ltd. is an established and sound company with good overall prospects, and is backed by a large and reputable parent corporation.
- The company appears able to provide a solid corporate base for support and development of the Red Dog Mine project.

Task 2 - NANA Corporate Profile

- NANA Regional Corporation appears to be solvent and strongly oriented towards projects which offer long-term employment benefits to its shareholders (principally joint business ventures in Northwestern Alaska).
- The corporation's participation in the Red Dog Mine project appears consistent with its corporate purposes and past activities.

Task 3 - Direct And Indirect Economic Impacts

- No guarantee exists that the project sponsors' projected employment goals or local hire goals will be achieved.
- The project appears likely to create 350-400 permanent jobs at the mine site, constituting approximately \$11-\$13 million per year (1983 dollars) in total direct income.
- NANA region residents may obtain an estimated 220-250 (50%-75%) of the mine jobs, constituting approximately \$7-\$8 million per year (1983 dollars) in direct income for regional residents.

Task 3 (Continued)

- The project may generate an estimated 225 additional jobs within the state due to indirect and secondary employment effects, constituting an estimated $5.7 million per year (1983 dollars) in additional income.

- NANA region residents may obtain an estimated 100-110 (47%) of these additional jobs, constituting approximately $2.7 million per year (1983 dollars) in additional income for regional residents.

- The project's indirect and secondary employment effects may cause approximately 50 previously unemployed persons to be hired within the NANA region, plus an additional 30-60 such persons elsewhere in the state (chiefly in the Anchorage area).

- No basis is available at present for estimating the number of job-seeking in-migrants which the project might attract into the state, though the project sponsors will attempt to minimize such effects through employment advertising.

- Local population increases due to the project itself probably will be moderate, totaling an estimated 280 new residents (including dependents) across the state, exclusive of in-migration. These increases could have significant local consequences within the NANA region, however (e.g., an estimated 70-75 new residents in Kotzebue, exclusive of in-migrants).

Task 4 - Fiscal Impacts

- The total amount of tax revenues that the State is likely to receive from the Red Dog Mine project has been estimated to be approximately $9-$16 million per year during the years 1988-1991, and approximately $12-$20 million per year after 1991 (1983 dollars). This estimate is reasonably made, and is consistent with current Alaska tax statutes. It is necessarily speculative, however, due to the profits-based nature of the main taxes involved, the current absence of mining license tax regulations in Alaska, and the possibility that the project sponsors' actual tax liability may be based on unitary taxation principles in the future.

- An interest-free loan to Cominco of $135 million (with a 10-year deferment of payments, to be followed by a 20-year repayment period), for construction of the mine access road and port facility, could represent a direct net cost to the State of approximately $100-$120 million (1983 dollars).

Task 4 (Continued)

- Increases in State and local program costs due to project-caused population increases could be moderate, though not insignificant at the local level. Such costs would depend largely on the extent to which the project induced speculative in-migration into the state and into the NANA region.

Task 5 - Cominco/NANA Contractual Agreement

- The agreement appears to contain no provisions which would alter this report's assessment of the economic and fiscal impacts of the project.

Task 6 - Effects On State Bonding Capacity

- Industrial development bond (revenue bond) financing of the project infrastructure, including the access road and the port facility, would not in itself adversely affect the State's bonding capacity.

Summary of Substantive Changes in Section III
of the Red Dog Report

1. The U.S. Bureau of Mines reports that Red Dog holds 29% of total U.S. reserves of zinc. Cominco reports that Red Dog holds over one-third of U.S. reserves when only economically recoverable reserves are considered.

2. Cominco has revised its initial start-up production rate from 1.1 million tons per year to 1.5 million tons per year. Figures for concentrate production, daily mill tonnage production, a daily number of truckloads of concentrate shipped to the port facilities and other related figures have been changed to reflect the revised initial production rate.

3. The development time schedule has changed by one year. Assuming construction begins in 1986, start-up is scheduled for 1989.

4. The Environmental Impact Studies are complete and the final EIS was issued in September 1984.

5. NANA has signed an administrative land exchange with the Department of the Interior for the access route through the Krusenstern National Monument and is awaiting congressional approval.

6. Cominco, through sales of stock, sold 18 percent of its interest in the Pine Point Mine to retain a 51 percent ownership, and completely sold its 17 percent interest in the Tara Mine in Ireland.

7. All reserve tonnages, grades, and production figures for Cominco mines and smelters have been updated to 1984.

8. World zinc consumption recovered from 1982 recessionary levels and zinc consumption in automobiles for rust proofing and die casting is increasing, a positive trend in the long term outlook for zinc demand and prices. Short term price movements included rising

prices in the first half of 1984 due to strong demand. U.S. producer prices fell in the second half of 1984 and early 1985 while London Metal Exchange prices (in pounds sterling) reached record highs, indicating the U.S. price was being driven down by the record strength of the dollar.

9. Cominco projects a zinc demand growth rate of 1.7% (compared with the U.S. Bureau of Mines 2.5% projection and foresees a loss of world mine production capacity due to reserve exhaustion of over 500,000 tons of zinc metal by 1990. The demand increase and capacity loss will create the market window for Red Dog.

10. GCO Minerals announced the discovery of an extension of the nearby Lik deposit. The discovery is expected to substantially increase the reserves of the deposit and make it increasingly likely that this deposit will be developed at some future date.

Office of Mineral Development
March 19, 1985

SHORT TERM ZINC, LEAD, AND SILVER PRICES
Supplement to Red Dog Project Analysis
Section III-C

Fluctuations in the prices of zinc, lead and silver between December 1983 and March 1985 are discussed below.

Zinc

Zinc prices, responding to strong demand in late 1983, advanced from 49 cents per pound to a high of 53 cents per pound in March 1984. Zinc consumption in the second half of 1983 was strong, demand forecasts for 1984 were strong, producer stocks were down, and net exports to socialist countries were expected to increase. Zinc consumption in the automotive industry began to climb in 1983 and 1984 as technological advances in die casting and the need for improved rust proofing reversed the trend for substitution by plastic and aluminum.

From mid 1984 to the present, the U.S. zinc producer price fell from a high of 53 cents per pound to February 1985 lows of 43 cents per pound. Reasons cited for the fall of U.S. producer prices include increasing smelter stocks of refined zinc, lower than expected bid prices to the U.S. Mint for use in zinc pennies, and pressure from consumers for discounted prices.

However, since the last quarter of 1984, while U.S. producer prices have fallen from 49 cents to 43 cents, London Metal Exchange (LME) prices have risen from £600 per ton to over £800 per ton suggesting that recent low U.S. prices may have been strongly influenced by the record strength of the dollar against the British pound.

As this report was written, both Cominco and Kidd Creek have announced 2 cent price increases to 45 cents per pound. There is also downward pressure on the dollar which may have the effect of raising U.S. producer prices in the short term. In the near term, Cominco President W. G. Wilson has indicated that a period of lower prices, the result of cyclical economic recession, could occur between now and 1989 when production from Red Dog begins. Wilson feels a period of lower prices may "shake-out" marginal high cost producers, further opening the market for a Red Dog appearance in 1989 or 1990.

Lead

Lead prices over the last fourteen months have ranged from a fairly stable U.S. producer price range of 24-28 cents during the first half of 1984, rising to a high range of between 28 and 34 cents during the third quarter of 1984, and dropping slowly to the present February low of 18-22 cents.

The strongest influence on lead prices during this period was the threat of supply shortages by several real and threatened production stoppages. Strikes of U.S., Australian, and German producers, coupled with threatened Peruvian and Mexican strikes, created buying pressure from consumers. LME lead stocks were drawn down from 170,000 tons in February 1984 to a low of 40,000 tons in November 1984 as consumers bought to establish inventories in the event of long producer disruptions.

As a result of large consumer inventories stockpiled by late summer. the seasonal buying of lead by battery makers was absent in the fall. And coupled with the resolution of U.S. producer strikes, the price has since fallen to its present low.

As with zinc prices, the LME lead price in British pounds rose while U.S. dollar producer prices fell during the last quarter of 1984 and early 1985, generally reflecting the weakening of sterling against the dollar. Strengthening of the pound against the dollar could bring the U.S. producer price back up in the short term. Also, the effect of cold winters in both North America and Europe may keep lead stocks low as the winter's demand for replacement batteries should have been high.

Silver

Silver prices fell from $9 in January 1984 to its present price between $5-$6. Though silver has significant industrial uses, its price is closely tied with the gold price and its recent decline parallels that of gold. The strengthening of European currencies against the dollar is predicted to strengthen gold and silver prices.

No change is foreseen for the 20 year zinc, lead and silver price forecasts included in Section III-C of Red Dog Project Analysis, February 1984. Price changes based on strikes, inventory fluctuations, exchange rates, and the short term vagaries of commodity pricing are not indicative of long term trends.

Office of Mineral Development
Department of Commerce and
Economic Development
March 6, 1985

MEMORANDUM State of Alaska

TO: Hon. Richard Lyon, Commissioner
Dept. of Commerce & Economic Develop.
Chairman, AK Industrial Dev. Auth.
AND
Bert Wagnon, Exec. Dir., AIDA

DATE: September 13, 1984

FILE NO: 366-127-85

TELEPHONE NO: 465-3600

FROM: Norman C. Gorsuch
Attorney General

By: Jonathan B. Rubini
Assistant Attorney General
Governmental Affairs-Juneau

SUBJECT: DeLong Mountain transportation project appropriation

This memorandum identifies alternative methods for the Alaska Industrial Development Authority ("AIDA") to expend the funds appropriated under sec. 319, ch. 171, SLA 1984, p. 53, line 8. That appropriation provides that the sum of $3.4 million is appropriated from the general fund to AIDA for the purpose of "Geotechnical Studies, Routing, Engineering, Design and Acquisition -- DeLong Mountain Regional Port."

We first observe the unique nature of the appropriation and the resultant uncertainty regarding the manner in which the appropriation may be implemented.

The adoption of ch. 162 (HCS CSSB 347(SA) am H), enables AIDA to "own and operate" projects. Whereas AIDA was once only a secondary financing conduit, the expanded statutory powers will necessarily transform the characteristics of AIDA, requiring that the board and staff assume a far more substantial role in the development of projects which AIDA directly finances. The immediate appropriation presents the question of whether AIDA merely responds to "construction ready" proposals, or whether AIDA may initiate or may assist a project proponent to develop whatever preliminary analyses are necessary to assess with the requisite specificity the economic feasibility of a project. If nothing else, the appropriation of $3.4 million to AIDA for the purpose of developing preliminary project information on the DeLong Mountain port and road suggests the legislature's intent that AIDA assume an active, not responsive, role in exercising the "own and operate" powers with respect to the DeLong Mountain transportation project.

AIDA's role in the development of preliminary project information for the DeLong Mountain transportation project is particularly unsettled. While construction of the port and road serves regional purposes, development of the DeLong Mountain transportation project is inextricably linked to the development of the Red Dog mineral deposits. The mineral development is presently under review by Cominco, Alaska, a private corporation which has executed an agreement with the NANA Regional Corporation (NANA) to obtain access to the deposit. Cominco, Alaska is currently expending substantial funds assessing the feasibility of the Red Dog project, and a final production decision is anticipated in 1985. At present, the state's overall role in the Red Dog project is under review, with the possibility that the state -- perhaps through AIDA -- will extend financial assistance toward development of the port and road. AIDA's potential role is further complicated by the fact that the newly-enacted statutory mechanism under which AIDA may participate does not, as yet, provide specific guidance to many of the questions presented. Simply put, many of the questions relating to both the expenditure of the appropriated funds for preliminary project development and the application of other state law are not presently addressed in statute.

Our analysis and recommendations must thus be viewed more as pragmatic proposals to work as well as possible within the existing statutory scheme than as a substitute for specific statutory guidance. If AIDA assumes a continuing role in the development and financing of the DeLong Mountain transportation project, we think it well advised to seek more explicit guidance from the legislature, in particular with respect to the question of the applicability of other state law.

I. DOES EXPENDITURE OF THE FUNDS SATISFY THE "PUBLIC PURPOSE" REQUIREMENT?

Article IX, section 6, of the Alaska Constitution provides that an appropriation of public money may only be made for a public purpose. While all validly enacted appropriations are presumed to satisfy this standard, an executive branch recipient of an appropriation of public funds is responsible for assuring that the public purpose limitation is satisfied.

The appropriation at issue is extended directly to AIDA, yet it is equally clear that expenditure of the funds will indirectly extend a substantial benefit to two private, for-profit corporations, Cominco, Alaska and NANA. Whether or not Cominco, Alaska receives a benefit is not, in our view, the dispositive factor, however. The test instead is whether the expenditure will directly enhance the general welfare of the community. E.g., Wright v. City of Palmer, 468 P.2d 326 (Alaska 1970); Suber v. Alaska State Bond Committee, 414 P.2d 546 (Alaska 1966); Lien v. City of Ketchikan, 383 P.2d 721 (Alaska 1963). In undertaking this inquiry, substantial deference must be extended to the legislature's finding -- as evidenced by the adoption of the appropriation -- that the expenditure of public funds to assist in the development of preliminary site information for the DeLong Mountain Transportation Project serves a valid public purpose. AIDA, as would a court upon review of the appropriation, must therefore find that the legislative public purpose finding was arbitrary or without any reasonable basis in fact before concluding that the expenditure constitutes an impermissible expenditure of public funds. Cf. Wright v. City of Palmer, 468 P.2d 326 (Alaska 1970); DeArmond v. Alaska State Development Corporation, 376 P.2d 717 (Alaska 1962).

The Red Dog Project Analysis, a comprehensive report prepared through the coordinated efforts of several state agencies, offers a detailed analysis of anticipated public benefits which result from the development of the Red Dog project. Even if the appropriation had been directly extended to Cominco, Alaska, 1/ it is our view that the legislature's decision to assist in the development of preliminary information on the development of the support transportation network for the Red Dog project would have been amply supported by the detailed analysis in the Red Dog Report. 2/ That the appropriation was, in fact, extended directly to a public entity provides further assurance that the public purpose limitation is satisfied. Clearly, AIDA must accumulate adequate information before it may reach an informed decision regarding participation in a project as substantial as the DeLong Mountain transportation project. Development of an adequate information base necessarily requires the expenditure of public funds, if only through the commitment of staff resources. Indeed, the information to be developed through expenditure of the appropriation will assist a broad array of state officials, including the legislature, in consideration of the more substantial question of whether more extensive state financial involvement in support of the Red Dog project is appropriate.

1/ Traditionally, appropriations in Alaska have rarely, if ever, been extended directly to a private, for-profit corporation. Appropriations to private, nonprofit corporations are common though, and in one instance, such an appropriation was expressly approved. Lien v. City of Ketchikan, 383 P.2d 721 (Alaska 1963).

2/ Each appropriation must be assessed on a case-by-case basis. We thus express no opinion at this time on whether the expenditure of additional public funds in support of the Red Dog project or any other comparable project raises more substantial "public purpose" concerns.

II. MAY AIDA EXPEND GENERAL ASSETS TO DEVELOP PRELIMINARY PROJECT INFORMATION?

The newly-enacted provisions substantially expand AIDA's "own and operate" powers, in part in an attempt to facilitate coordinated public and private participation in the development of major capital projects. To reiterate, a problem raised by the immediate appropriation is that AIDA's role in the preparatory stages of the "own and operate" process is not defined by statute.

There are two express limitations on AIDA's exercise of its "own and operate" powers through use of assets in the economic development fund (AS 44.88.172) (hereafter "fund"). First, AIDA may not agree to finance a project under AS 44.88.172 without developing a finance plan which includes an estimate of the total cost of the project, a description of financing sources, an estimate of operational cost, and a description of the source of funds to pay operational costs. AS 44.88.173. Second, AIDA may not agree to finance a project which costs in excess of $10 million with assets of the fund without the approval of the local Regional Resource Advisory Council. AS 44.88.175.

It is our view that the prerequisites of a finance plan and of local approval do not apply where AIDA uses general assets to develop or assist in the development of preliminary project information. By the express terms of the statute, local approval is required only where a project which costs in excess of $10 mission is to be financed or developed through use of the assets of the fund. At the same time, AIDA may not use assets of the fund without first developing a finance plan. As the DeLong Mountain transportation project illustrates, development of a finance plan demands a substantial degree of preparatory work. For example, the cost of the road connecting the port and the mineral deposits cannot be ascertained with the required level of specificity until seismic studies have been completed, the route of the road determined, and design work completed. Development of this type of preliminary information through use of general assets of AIDA is authorized by AS 44.88.085(11), which empowers AIDA "to enter into contracts or agreements with respect to the exercise of any of its powers, and do all things necessary or convenient to carry out its corporate purposes and exercise the powers granted in AS 44.88.010 -- 44.88.220." 3/

3/ The use of general assets assumes, of course, that the underlying appropriation of the general assets authorizes expenditure of the funds for such purpose.

III. WHAT PROCEDURES ARE AVAILABLE TO AIDA TO EXPEND THE APPROPRIATION?

Prior appropriations to AIDA supplied funds to undertake general financing programs or to meet general administrative expenses. The present appropriation represents the initial instance of a project-specific appropriation. While the appropriation prescribes the purposes for which the funds may be expended, AIDA enjoys broad discretion in identifying who may perform the work funded by the appropriation. 4/

Before addressing alternative ways to utilize the appropriated funds, we first observe that AIDA may elect to not spend the funds. An appropriation authorizes the expenditure of funds; it does not, except in rare instances, require that the authority to spend be exercised. See Ellis v. City of Valdez, ___ P.2d ___, Op. No. 2844 (Alaska, July 6, 1984). Importantly, the appropriation is for a capital project, and does not lapse in accordance with AS 37.25.020. As a consequence, AIDA may elect to reserve the funds for expenditure in a subsequent fiscal year, presumably at a time when some of the legal and procedural uncertainties have been resolved.

Assuming that AIDA elects to authorize expenditure of the appropriated funds, we believe that the preferred method is to seek authority to directly negotiate a professional services contract with Cominco, Alaska. We discuss below alternative options as we note the basis for this recommendation.

In the typical instance where a state agency, such as AIDA, seeks private assistance to undertake a function, a competitive procurement is required. In large part, the stated purpose for the $3.4 million appropriation is to obtain information available upon performance of functions which constitute "professional services." The procedures to contract for a professional service are prescribed in AS 36.98.010 -- 36.98.080, and we have previously advised that the provisions of AS 36.98 apply to AIDA. Cf. 1982 Inf. Op. Att'y Gen. (Oct. 13; 366-211-83). Under a

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4/ We assume for purposes of this discussion that AIDA employees are not available to perform the functions. In addition, for the reasons which justify a sole-source negotiation discussed in text, we do not address whether other state employees, most notably employees of the Department of Transportation and Public Facilities, would be available under the terms of a reciprocal service agreement ("RSA").

competitive award of a contract for professional services, the statutes require that the agency provide public notice of the contract through circulation of a request for proposals ("RFP"), and that the agency award the contract upon an evaluation of the submitted proposals.

The problem in this instance is the established role of Cominco, Alaska in the development of the Red Dog project. Cominco, Alaska has the exclusive right to develop the mineral deposits under the agreement with the NANA Corporation, the owner of much of the land involved in the entire development. Access to NANA land for purposes of developing the preliminary information may well be restricted to Cominco, Alaska employees or their authorized agents. In addition, Cominco, Alaska has expended a substantial amount of funds toward development of information which relates to the preliminary information to be developed through expenditure of the appropriation. In this context, we question whether a general solicitation would provide a fair and competitive opportunity for other firms.

The law recognizes an exemption from the requirement of a competitive solicitation for precisely this type of situation. AS 36.98.030(d) provides that the commissioner of administration may authorize the contracting entity to negotiate directly with an identified provider if "there is a single source of the expertise or knowledge required or that one person or firm can clearly perform the required tasks more satisfactorily because of the person's or firm's prior work." AS 36.98.030(d). We believe that Cominco, Alaska's contractual relationship with NANA, as well as the extent of Cominco, Alaska's existing involvement in the Red Dog project, supply the requisite basis to seek sole source authorization.

In the event that AIDA seeks approval to negotiate directly with Cominco, Alaska, we offer several brief comments with respect to the scope of the proposed contract. We understand that several of the functions authorized under the appropriation -- such as seismic studies -- are currently being performed by Cominco, Alaska. As a general rule, the "public purpose" doctrine precludes use of public funds to reimburse a recipient for work that has been completed. AIDA may, however, properly purchase the information generated, providing that the cost of the information bears a fair market value. More generally, we recommend that any professional service contract executed between AIDA and Cominco, Alaska be tied to AIDA's statutory obligation to develop a finance plan if it is to participate in the financing of the DeLong Mountain transportation project. Both the information specifically identified in the appropriation and the additional information previously compiled by Cominco, Alaska are essential to the development of a sufficient finance plan.

In short, we suggest that AIDA use the available funds to obtain Cominco, Alaska's acknowledged expertise and assistance in developing a finance plan, in addition to the acquisition of specific information.

A related alternative to a sole-source professional services contract with Cominco, Alaska would be for AIDA to make the funds available to Cominco, Alaska as a grant. While the distinction between a grant and a professional services contract is more illusory than real, we believe a contract allows for more effective oversight of the expenditure. Ultimately, AIDA is accountable for the manner in which the funds are expended, and effective control is thus desirable, if not essential. A more substantive concern is that the appropriation was not structured as a grant, and AIDA, indeed, does not have specific statutory authority to provide grants. Though the general corporate powers of AIDA may well be sufficiently broad to imply authority to provide grants, a more explicit authority is available to contract for the services. Finally, a grant would place in question legal rights to documents produced through expenditure of state funds. Were AIDA to ultimately "own and operate" the port and road, ownership of the material may prove important.

IV. CONCLUSION

In sum, we conclude that the fairest and preferable method to expend the available funds is to request approval from the Department of Administration to negotiate directly with Cominco, Alaska for assistance in development of the finance plan required under AS 44.88.173. Specifically, the contract should minimally require that Cominco, Alaska develop and present to AIDA information relating to the Delong Mountain port and road in sufficient detail to enable AIDA to determine the cost of development. Any geotechnical studies, engineering, or design work developed under the contract would be the property of AIDA, and would be available for use in the event that AIDA ultimately determines to participate in the financing of the project.

JBR/pjg

cc: AIDA board members

Red Dog Project Analysis

February 1984

Lead Agency

Office of Mineral Development
Department of Commerce and Economic Development

Contributing Agencies

Department of Commerce and Economic Development
Department of Community and Regional Affairs
Department of Transportation and Public Facilities
Department of Natural Resources
Office of the Governor

II. Executive Summary

- This section of the report was prepared by the Office of Mineral Development. The contributing agencies have reviewed the Executive Summary for consistency.

A. Summary of Findings

<u>Project Feasibility</u>

- The enormous tonnage and high combined grade of zinc, lead and silver make Red Dog the worlds largest, undeveloped zinc/lead deposit.

- Development costs will be high. However, the deposit can be mined as an open pit with a very low ratio of waste material to ore. Therefore, actual mining costs will be low compared with the majority of world zinc/lead mines. This will give the Red Dog mine competitive advantage and result in reducing the possibility of temporary mine shutdowns in times of world economic recession.

- For the foreseeable future, 70%-80% of mine revenues will be from the sale of zinc concentrates. Zinc is the fourth most widely used industrial metal, and compared with the other base metals (copper and lead), zinc has the greatest potential for growth in terms of world demand and the least potential for being overproduced.

- Without State investment, an average long term zinc price of 63¢ per pound is estimated to provide Cominco a 15% return on investment. A return on investment of 15% is cited for comparison purposes only and should not be interpreted as a decision threshold for Cominco. A 2.5% change in the return on investment is estimated for each 5¢ change in the long-term average zinc price.

- In the long term, much of Red Dog's concentrate production can be refined at Cominco's smelter and refiner in Trail, British Columbia, and will replace concentrates from other depleting Cominco zinc mines. In the near and long term, concentrates from Red Dog will be attractive to Japanese and European processors because of the reliability of the supplier, the longevity of the mine, and the political stability of the United States. The development of Red Dog and other base metal deposits may eventually make the construction of an in-State smelter and refiner feasible.

Permitting and Access

- Conditions at Red Dog will allow the operators to meet the most stringent environmental regulations and environmental permitting should not pose any problems.

- Gaining an access right-of-way from a Chukchi Sea port, across the Krusenstern National Monument to the mine site, poses the single greatest hurdle to mine development.

NANA

- The NANA Regional Corporation is solvent and is strongly oriented towards projects which offer long-term employment benefits to its shareholders, principally in the form of joint ventures within the region.

Cominco

- Cominco is a sound corporation, has good overall prospects, is backed by a large, reputable parent corporation, and appears able to provide a solid corporate base for support and development of the Red Dog mine project.

- Cominco is presently the free worlds largest producer of zinc and lead and has been successfully mining, processing and marketing zinc and lead for over 70 years.

- Cominco has developed and successfully operates four major mines in the North American arctic. Three of these are zinc/lead mines and have been developed within the last 20 years. The senior management for the Red Dog project will include many of the same personnel responsible for building and operating these arctic mines.

State Impacts

- The project will create between 350 and 400 direct, permanent jobs within the State with an annual gross payroll of between \$11.2 and \$12.9 million. Additionally, approximately 225 secondary and indirect jobs will be created. Construction employment will total 143 full time equivalent jobs between 1986 and 1988 with an annual gross payroll of \$8.8 million during those years.

- Revenues to the State from the mine will be derived from the mining license tax and the corporate income tax. As both taxes are based on net profits, annual State revenues range from \$9 to \$20 million in current dollars subject to how repayment of infrastructure costs are treated. The net present value of revenues to the State over 30 years, including estimated reductions in transfer payments, is from $200 million to $300 million based on a zinc price range between 55¢ and 65¢ per pound. Additionally, earnings derived by NANA from the mine will provide revenue to the State. At present, there is no personal income tax so no revenues from employee income can be projected.

- No estimates have been made for the potential demands on State programs from the migration of out-of-state job seekers attracted by the project. Because of the NANA/Cominco agreement requiring preferential local hire, the remoteness of the project, and the lessening of national unemployment, the problem of out-of-state job seekers may not be significant.

- Recent dramatic decreases in the total of state transfer payments to the NANA region have been tentatively linked with permanent fund distributions. This indicates that income derived from mine wages may also have a positive effect on reducing regional transfer payments by the State.

- If State ownership and future control of the transportation corridor and infrastructure facilities are not considered and assuming a 60¢ lb. zinc price an examination of project finances estimates that a direct State subsidy of $40.1 million towards project development costs would assure a 15% rate on investment. This would provide a six-fold net present return on the State's subsidy in the form of tax revenues and transfer payment reductions totaling $270 million. If the State were to completely finance construction of the road and port for an estimated cost of $135 million, the cost/benefit ratio would be reduced to 2:1.

- Industrial development bond financing of the project infrastructure would not adversely affect the State's bonding capacity.

Regional Impacts

- Red Dog will provide approximately 260 full-time jobs for regional residents at mine start-up in 1988, increasing to 400 in 1993. The total regional payroll will total approximately $7.0 million initially and will increase constantly as local employees move into professional and technical positions. Additionally, some 75 secondary jobs will be created after start-up and would mostly be filled by regional residents. At present, 88% of the regional economy is supported by Federal and State revenues, and the existing 1200 full-time equivalent jobs in the region are heavily dependent upon Federal, State and local government employment.

- If the local hire objectives are met, the net effect of the mine on increasing the regional population will not be significant. Some increase in the population of Kotzebue is expected as regional residents relocate to be closer to their jobs. Kotzebue's population increase attributable to the mine represents about 6% of the total increase in Kotzebue's population over the next 20 years. With the possible exception of the water system, existing municipal facilities should not be significantly stressed by population growth attributable to development of the mine.

- Because Red Dog is an enclaved development, no substantial additional demands will be placed upon the region's service delivery. However, an increase in regional affluence is likely to require some increased social service delivery, at least temporarily. Service delivery in Kotzebue will be impacted to some degree if mine workers commute regularly through the city. That impact will depend on the frequency and duration of transient visits.

- The NANA/Cominco agreement requires Cominco, contingent upon the availability of skilled labor, to preferentially hire regional residents, state residents and out-of-state residents in that order. While there is no guarantee of the percentage of local hire, NANA has stated it will assume the responsibility to train regional residents for these jobs.

- The region could benefit from the use of the project's port facilities and backhaul capabilities. Savings on freight costs are estimated by Cominco to be between $1 million and $3 million annually assuming port user fees are not assessed to incoming regional freight.

- NANA is presently seeking to detach Red Dog and other mineral deposits in the area from the North Slope Borough. Successful detachment is seen as a factor in the decision to proceed with the Red Dog project (due to uncertain future taxation policies of the North Slope Borough), and in the creation of a Northwest Alaska Borough.

Infrastructure Costs

- Cominco's route selection and road design are based on sound engineering criteria and the cost estimate of $80 to $90 million for the preferred road through the Krusenstern National Monument is realistic for this stage of the evaluation.

- Cominco's estimates for port costs of $50 to $60 million, based on the proposed, ballasted-tanker design, appear reasonable.

B. Recommendations

Red Dog will become one of the premier zinc/lead mines in the world. While the mine would eventually be developed without assistance, there are several reasons why the State may want to consider participating in the funding of all or part of the costs of building a road and regional port.

- There is little risk that the project will not generate sufficient revenues to amortize infrastructure costs at a modest interest rate.

- In addition to being able to repay any State funding, the project will generate over 400 year-round, permanent jobs; provide direct tax revenues to the State and local governments; and may significantly reduce the amount of regional transfer payments.

- The port facility, tidelands, uplands and right-of-way will service the region as well as the mine, and both the road and the port may stimulate future development of additional mineral deposits in the Noatak area. The road could eventually become part of an integrated transportation system that could link other more distant mineral developments such as the Northern Alaska Coal Field.

- The development of Red Dog will signal Alaska's firm intention to become a world supplier of mineral resources. This will have the effect of establishing Alaska's credibility with international consumers and attracting investment capital for other resource development projects.

If the State is to participate in the funding of the road and port facilities, the following recommendations are suggested.

- Any major State investment in the road and port facilities which will initially service the Red Dog mine should be conditional upon firm agreements with NANA and Cominco which will provide for State interests in the facilities and right-of-way, as well as further guarantee the use of the road and the port to other potential users. This requires that State tidelands, privately owned uplands and the right-of-way be available for expanded development and use, in a reciprocal use agreement among affected landowners and users.

- The maintenance and operating costs of the road and the port should be borne by the users.

- If State funding were to take the form of a loan or appropriation, repayment of the funds should be required and should be spread over a period of 20 years or longer to begin with mine production. Whether repayment is to be made in the form of annual installments, tied to a tonnage user fee or some combination of both, the interest rate attached to the repayment should reflect the State's willingness to share in the project risk and should recognize the total benefits the project will provide, including State interests in the road and port.

- Any agreement between the State and NANA/Cominco should include an equitable mechanism to accommodate other future users into a fee schedule which would incorporate a pro rated share of debt amortization as well as operating and maintenance costs.

Jay Livey

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

1577 "C" STREET • SUITE 304 ANCHORAGE, ALASKA 99501-5177 (907) 274-1651

August 17, 1984

Mr. Jay Livey
House Research Agency
Pouch Y, State Capitol
Juneau, AK 99811

Dear Jay:

As requested by Leslie Longenbaugh, enclosed is updated information on the Authority for your use. Since we are a self-sustaining entity, we do not require funding appropriations for our continued operation.

If any additional information is needed, please give me a call.

Sincerely,

Zane

Zane Jones
Loan Officer

ZJ:ec

Enclosures

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY (AIDA)

AIDA is a public corporation and an instrumentality of the Department of Commerce and Economic Development, with a legal existence separate from and independent of the State.

AS 44.88.010 - AS 44.88.220: enacted in 1967; amended in 1975, 1976, 1977, 1980, 1981, 1982 and 1983.

Purpose

AIDA's statutory purpose is to "promote, develop and advance the general prosperity and economic welfare of the people of Alaska; to relieve problems of unemployment; to create additional employment by providing various means of facilitating the financing of industrial, manufacturing, and business enterprises;" and "to promote, develop and maintain an adequate supply of decent, safe and sanitary multi-family housing projects during times of shortages of such projects, by providing various means of financing and facilitating the financing of multi-family housing projects in the state."

Method

AIDA sponsors six different financing programs, five for business and one for multi-family housing; the programs are used according to the size of the project and the limits of the federal tax code.

Economic Development Umbrella Bond Program. AIDA issues tax-exempt industrial development bonds to finance Alaskan projects of $1 million or less. (The tax-exempt status of the bonds is permitted by Section 103 of the Internal Revenue Code.) AIDA groups qualifying projects together for the bond sales, pledging its full faith and credit for repayment of the bonds. The Authority uses the proceeds of the bond sales to purchase up to 90 percent of each loan (originating lenders must retain 10 percent of the loan). The lower interest rates available through this program often make the difference in a project's fiscal viability.

Consolidated Umbrella Bond Program. The legislature in 1982 amended AIDA's statutes to include financing for projects valued at more than $1 million in a manner similar to that used for the Economic Development Umbrella Bond Program: after grouping several project loans together, AIDA sells tax-exempt bonds. However, for the sale of these bonds, commonly called Consolidated Bonds, AIDA uses the proceeds of bond issues to purchase up to 80 percent of project loans, leaving the remaining 20 percent for the originating lender. AIDA reviews each applicant project carefully to determine its financial viability before purchasing part of the loan. Like the bonds sold for the smaller-project umbrella program, Consolidated Bonds are backed by both the financed project and AIDA's full faith and credit.

Federally Guaranteed Program. Funds within AIDA's Small Enterprise Loan Account may be used to purchase the federally-guaranteed portion of a loan made by a private financial institution (the federal agency that has guaranteed almost all of these loans to date is the Small Business Administration). The loans may be used to finance working capital, inventory, construction, etc.

Revenue Bond Program. Through this program, the Authority acts as a conduit in the sale and issuance of bonds without participating financially or pledging its full faith and credit as security for the bonds. The bonds are sold primarily to financial institutions where they are privately held, and to bond buying houses or investment bankers for resale. Due to market fluctuations and the type of bonds sold, all sales to date have been negotiated. The bonds are secured by the project, special reserves, bank letters of credit, lease and/or revenue assignments, personal guarantees, or liens on other assets.

Multi-Family Housing Loan Account. The legislature in 1982 authorized AIDA to finance multi-family housing. To obtain financing through this program, a borrower applies to a private lending institution for a loan to construct a multi-family dwelling of 5 or more units. AIDA issues tax-exempt bonds, backed by its full faith and credit, to purchase up to 90% of the mortgage; the originating lender retains 10% of the loan. By statute, bonds for such projects must be sold before January 1, 1987.

Taxable Bond Program. As of August, 1984, the Authority is in process of implementing a taxable bond loan program. This program is designed to assist in financing projects that at one time were eligible for tax-exempt bond financing, but have been deleted from eligibility by federal law. It is anticipated that the mechanics and fees of this program will be very similar to the economic development and consolidated tax-exempt programs, but will carry a higher interest rate.

Eligibility

- In general, AIDA may finance any project it approves as long as the project conforms to the Internal Revenue Service guidelines for the use of proceeds of tax-exempt bond sales. Each of the six programs outlined above has eligibility requirements that are too extensive for this brief space.

- For a multi-family housing loan, a borrower must make at least 20% of the financed units available to persons of lower or moderate income.

Terms

Economic Development Umbrella Bond Program

Maximum Amount:	75% of the appraised value of the project
Collateral:	Variable - must be first lien
Interest Rate:	Variable; based on the cost of funds
Fees:	$100 pre-application fee; plus 1.0% of AIDA participation amount for each loan

Consolidated Umbrella Bond Program

Maximum Amount:	75% of the appraised value of the project
Collateral:	Variable - must be first lien
Interest Rate:	Variable; based on the cost of funds
Fees:	$100 pre-application fee; plus 1.0% of AIDA participation amount for each loan

Federally Guaranteed Program

Maximum Amount:	$500,000 is the maximum amount of AIDA's participation in one project
Interest Rate:	Variable; based on the Moody AA Corporate Index;

Revenue Bond Program

Maximum Amount:	Variable
Interest Rate:	Variable; based on the cost of funds
Fees:	$100 pre-application fee; plus 1.0% for the first $1 million, 1/2% for the next $4 million, 1/4% for the next $10 million, and 1/10% for any remaining amount

Multi-Family Housing Loan Account

Maximum Amount:	75% of the appraised value of the project
Collateral:	First lien, minimum
Maximum Term:	30 years, or 75% of the estimated economic life of the project, whichever is less
Interest Rate:	11% (subject to change)
Fees:	2.0% of the amount of AIDA's participation in the loan

Lending Activity, FY 81-82

Fiscal Year	# of Loans Approved	$ Amount of Loans Approved
FY 83	378	$253,329,707
FY 84	338	$208,885,747

Authority Members

The five members of the Authority include: the Commissioners of the Departments of Revenue and Commerce and Economic Development; one other head of a principal executive branch department, appointed by the governor; and two public members appointed by the governor and approved by the legislature for staggered two-year terms.

Jeffrey Hassler

Michael Harper

Mary Nordale (Effective September 1984)
Commissioner, Department of Revenue

Richard Lyon
Commissioner, Department of Commerce and Economic Development

Jim Robison
Commissioner, Department of Labor

Administrative Staff

Bert Wagnon, Executive Director
274-1651

Offices: 1577 "C" Street
Suite 304
Anchorage

Mailing
Address: 1577 "C" Street
Suite 304
Anchorage, Alaska 99501-5177

Alaska State Legislature
House

Official Business

Pouch V
State Capitol
Juneau, Alaska 99811

April 17, 1985

Representative John Sund
Pouch V
Juneau, Alaska 99811

Dear John:

On April 10 I wrote to you about the fact that I had not received a reply from Cominco to questions I had asked for on February 12.

Cominco did reply to my Anchorage address. I have it in hand now and it is enclosed for your information.

Yours truly,

Marco

Marco A. Pignalberi
State Representative

MAP:mk
Enclosure
cc: Senator Tim Kelly
Senator Rick Halford
Senator Fred Zharoff
Senator Arliss Sturgulewski

APR 15 1985

H M Giegerich
President & General Manager

Representative Marco A. Pignalberi
6712 Lunar Drive
Anchorage, Alaska 99504

March 8, 1985

Dear Representative Pignalberi:

I would like to apologize for taking so long to supply the information that you requested during our meeting in Juneau on February 12. My only excuse is press of work and lack of time. I have spent most of the intervening period on airplanes.

We certainly appreciated the opportunity to meet with you and the Anchorage caucus, to discuss our Red Dog Project. I consider that the exchange of views was very worthwhile, and I think that we were able to better appreciate your thoughts and concerns.

During the discussions, I gave you some estimated figures in regard to Cominco's return on investment under different financing alternatives, and I indicated that these would be confirmed. I am now pleased to do this, and will compare these with my estimates, which have turned out to be both optimistic and pessemistic.

The first alternative assumes that Cominco puts up the entire $400 million investment. Using current metal prices, the return on investment (R. O. I.) would be 7.8% (My estimate was 6.0%). With Cominco's forecast prices, the R.O.I. increases to 13% (My estimate was 10%).

If the State finances the $150 million cost of the transportation system, and this financing is repaid as proposed by Cominco, the R. O. I., using current metal prices, increases to 9.6%, and to 16% (My estimate was 18%) with Cominco's forecast prices.

You also requested information in regard to the State's return on its investment. Assuming a State investment of

$150 million, to be repaid by a toll fee of $260 million over 30 years, this is a return on investment (on a discounted cash flow basis) of 4.3%. Adding in the estimated direct taxes to the State of $360 million during the same 30 year period (for a total of $620 million) the R.O.I. is increased to 12.8%. And it should be stressed that these taxes are a direct result of income generated by Red Dog and will be achieved only if Red Dog is put into production.

One further item should be considered. In early 1984, at Governor Sheffield's request, a study of the Red Dog Project was carried out by a Task Force from the key State agencies, including CED, CRA, Revenue, DOT/PF and DNR. One portion of this report studied the economic effect of Red Dog on the State, and identified a significant reduction in transfer payments from the State to the NANA region, amounting to about $1.5 million per year, or more than $40 million over 30 years.

This reduction in State expenditures can also be directly attributed to Red Dog. When this is added to the previous $620 million, the R.O.I. on the State investment of $150 million becomes 13.7%. So it can be seen that the Red Dog transportation system is truly an economic investment for the State.

If there is any other information on Red Dog, or Cominco, that would be of assistance to you, please do not hesitate to contact me.

Yours truly,

H M Giegerich

H. M. Giegerich
President and General Manager

STATE OF ALASKA 1985 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date

REQUEST
Bill/Resolution No: HB 369
Title: Appropriations to AIDA Economic Development Fund
Sponsor: Pignalberi
Requestor: House Transportation
Date of Request: April 15, 1985

FISCAL DETAIL
Agency Affected: General Fund
Program Category Affected:
BRU, Program of Subprogram(s) Affected:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES	-	-	-	-	-	-
200 TRAVEL	-	-	-	-	-	-
300 CONTRACTUAL	-	-	-	-	-	-
400 SUPPLIES	-	-	-	-	-	-
500 EQUIPMENT	-	-	-	-	-	-
600 LANDS & STRUCTURES	-	-	-	-	-	-
700 GRANTS, CLAIMS	-	-	-	-	-	-
800 MISCELLANEOUS	-	-	-	-	-	-
TOTAL OPERATING	-	-	-	-	-	-
CAPITAL	-	-	-	-	-	-
CASH FLOW	-	(17,800)	(17,300)	(16,500)	(14,900)	(14,300)

FUNDING: (Thousands of Dollars)

GENERAL FUND	-	(17,800)	(17,300)	(16,500)	(14,900)	(14,300)
FEDERAL FUNDS	-	-	-	-	-	-
OTHER	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

POSITIONS:

FULL-TIME	-	-	-	-	-	-
PART-TIME	-	-	-	-	-	-
TEMPORARY	-	-	-	-	-	-

ANALYSIS: Attach a separate page for analysis.

Prepared By: Milt Barker MB
Phone: 465-2350
Division: Treasury
Date: April 15, 1985

Approved by Commissioner: [signature]
Date: 4/16/85
Agency: Department of Revenue

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

HB 369
Fiscal Note Analysis

The cash flow figures shown in the fiscal note reflect the reduction in general funds available for appropriation arising from HB 369. These figures are based on the scheduled loan payments shown in the attached Table I after netting out service fees as calculated in Table II. Table II also provides a breakdown of the reduction into interest and principal.

Due to loan prepayments, actual receipts may be greater than scheduled in early years and less than scheduled in later years. This is the main reason why the FY 86 budget actually contains $31.3 million estimated loan cash flow, made up of $13.3 million interest and $18 million principal. The difference between the budget estimate and scheduled cash flow for FY 86, which is $13.5 million, will be a downward adjustment to the next revenue estimates in June.

Table I

General Fund Loans to be Appropriated to AIDA
Estimated Cash Flow (Principal and Interest)
($ 000)

Fiscal Year	Veterans	Small Business	Commercial Fish	Tourism	Child Care	Historical District	Fisheries Enhancement	Total
1986	9,247	2,855	6,105	308	5	22	N/A	18,542
1987	9,034	2,783	5,786	308	4	22		17,937
1988	8,784	2,613	5,409	308	3	22		17,139
1989	8,554	2,404	4,243	308	2	18		15,529
1990	8,379	2,279	3,870	282	1	14		14,825
1991	8,343	2,134	3,233	243		14		13,967
1992	8,042	1,946	2,037	229		14		12,268
1993	7,409	1,551	837	221		14		10,032
1994	6,955	907	214	212		7		8,295
1995	6,851	344	34	208				7,437
1996	6,814	59		201				7,074
1997	6,532			186				6,718
1998	6,174			85				6,259
1999	6,038							6,038
2000	5,998							5,998
2001	5,899							5,899
2002	5,096							5,096
2003	4,254							4,254
2004	4,035							4,035
2005	3,925							3,925
2006	3,865							3,865
2007	3,182							3,182
2008	1,709							1,709
2009	521							521
2010	98							98
2011	20							20
Total	145,758	19,875	31,768	3,099	15	147	6,804 (principal only)	207,466

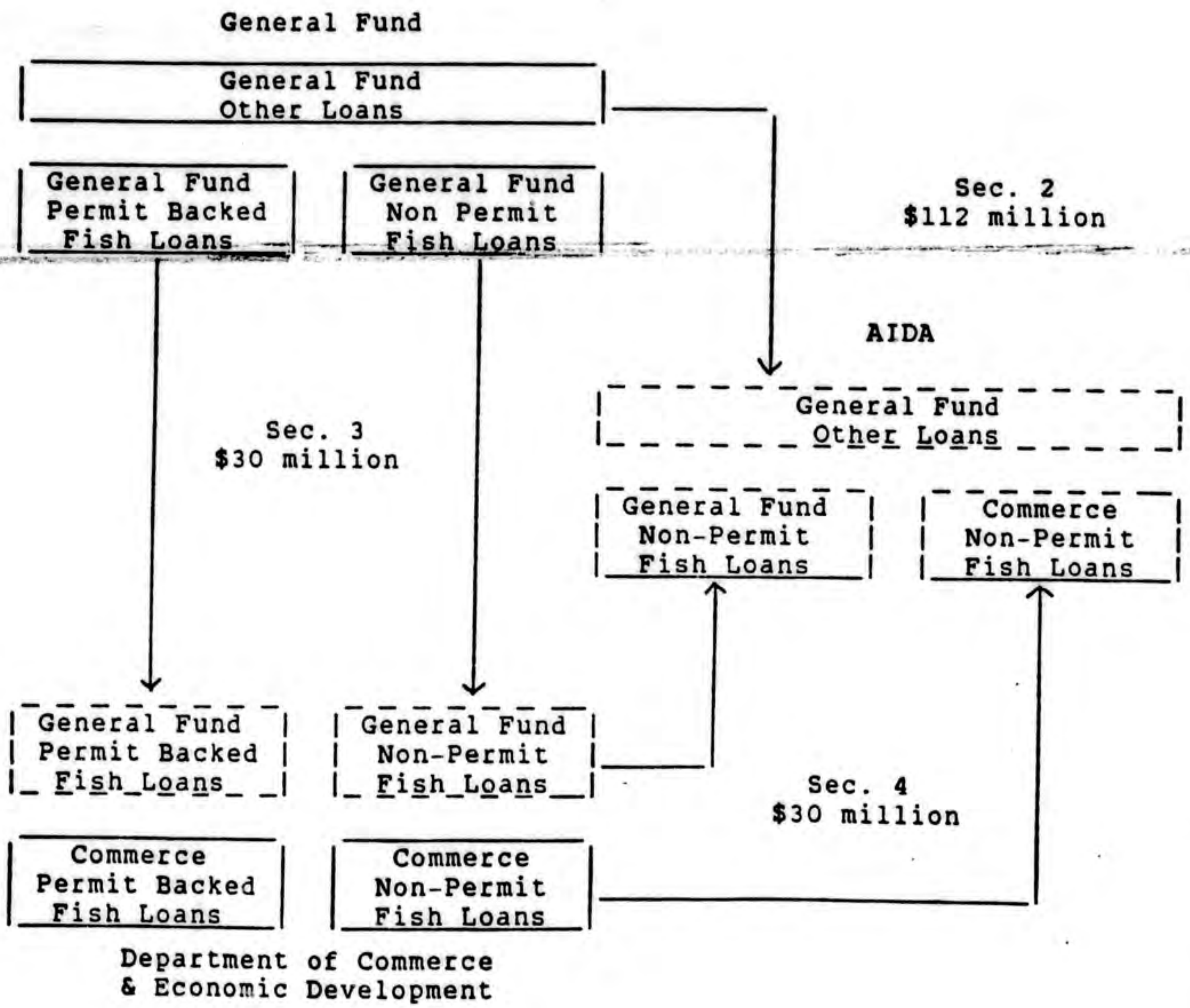
1. This table represents the cash flow to the Department of Commerce and Economic Development. Cash flow to the general fund would be further reduced by .5% service fee on loans serviced by Commerce and .125% service fee to Commerce on loans serviced by banks.
2. Cash flow has not been adjusted for delinquency or default. Except for commercial fish non-permit loans, the state expects complete recovery on defaults. Thus, delinquency and default merely produce lags in receipts.

Table II

Scheduled Cash Flow From State Loans
Held by General Fund
($ Millions)

	FY 86	FY 87	FY 88	FY 89	FY 90
Balance at Start of Year	135.9	128.7	120.9	113.3	106.8
Interest @ 7.89%					
Service Fee to Commerce @ .5%	.7	.6	.6	.6	.5
General Fund Revenue @ 7.39%	10.0	9.5	8.9	8.4	7.9
Total	10.7	10.1	9.5	9.0	8.4
Principal Repayment	7.8	7.8	7.6	6.5	6.4
Balance at End of Year	128.1	120.9	113.3	106.8	100.4

DeLong Mountains Transportation Project
Loan Appropriations
Administration Proposal



NANA REGIONAL CORPORATION, INC.
4706 HARDING DRIVE ANCHORAGE, ALASKA 99503
TELEPHONE (907) 248-3030

March 29, 1985

Mr. John Hartle
Office of Representative John Sund
Alaska State House of Representatives
Pouch V
Juneau, Alaska 99811

Dear John:

As requested I am enclosing a copy of the sections of the agreement between NANA and Cominco pertaining to employment and training.

The agreement requires Cominco to hire employees according to a defined order of preference which begins with Natives of the NANA region and ends with individuals who have resided in Alaska for less than two years or, non-residents. This order of preference is set forth at section 10.1.2 of the enclosed. You will also note this local hire and order of preference provision applies to employment by contractors of Cominco performing work within the State. Finally, I would direct your attention to section 10.2 which requires the development and implementation of a "Training and Employment Plan" for the project.

We believe these provisions of the agreement between NANA and Cominco will result in the most comprehensive major project local hire program ever implemented in Alaska. If you have further questions about this or desire additional information, please let us know.

Sincerely,

Don Argetsinger

Don Argetsinger
Vice President

Enclosures

ARTICLE X

EMPLOYMENT

10.1 Employment Goals and Policy.

10.1.1. Beginning in calendar year 1982, as many as possible of the employees required by Operator or any contractor or subcontractor in connection with any activities under this Agreement to be undertaken in Alaska shall be Natives of the NANA Region, including employees for Exploration Work, development and production activities and supervisory and managerial positions. It is the goal of NANA and Cominco that by not later than twelve years after commencement of production from the first Mine on the Red Dog Property, to the extent feasible, one hundred percent (100%) of such employees shall be Natives of the NANA Region. To that end, whenever employees are hired for jobs relating to any activities to be undertaken in Alaska under this Agreement, such employment shall be offered first to available Natives of the NANA Region who are qualified for the job or, if none are qualified and except as otherwise provided in Section 10.1.3, to those who meet job-related standards of fitness and ability which indicate that with a reasonable amount of on-the-job training as outlined in the Employment Plan the person could satisfactorily perform the job.

10.1.2 If Natives of the NANA Region are unavailable as provided above, then Operator shall, to the extent permitted by law, give preference to qualified job applicants in the following order of priority:

(a) individuals who have been residents of the NANA Region for at least two years;

(b) individuals who have been residents of Northwest Alaska for at least two years;

(c) individuals who have been residents of Alaska for at least two years;

(d) any other job applicant.

10.1.3. If there are no Natives of the NANA Region qualified and available for nonrecurring jobs with a duration of two months or less after inquiry to NANA in the manner prescribed by the Employment Plan for the names of such available and qualified Natives, the Operator may hire persons qualified for such jobs without regard to the requirements of Section 10.1.1 and 10.1.2 for reasons of essential and/or expeditious performance. It is recognized that emergency situations may arise where it is necessary for Operator to bring in specialists from outside of the NANA Region and the State of Alaska without regard to the requirements of this Article X if a breakdown of equipment, metallurgical and/or water treatment process problem, structural failure or some similarly serious problem occurs. This emergency power will be detailed in the Employment Plan. Operator need not provide training for jobs described in this Section 10.1.3, unless otherwise required by the Employment Plan.

10.2 <u>Training and Employment Plan.</u>

In furtherance of the goals and policies described in Section 10.1, NANA and Operator shall with due diligence, working in

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conjunction with the Management Committee, develop a mutually satisfactory plan for the training and employment of Natives of the NANA Region (the "Employment Plan"). NANA and Operator will attempt to secure State and/or Federal funding to cover as much as possible of the cost of the Employment Plan. The Employment Plan shall, among other things, provide that:

(a) A personnel officer (the "Personnel Officer") be appointed and be responsible for implementing, supervising and managing the Employment Plan. Until the Personnel Officer is appointed NANA will perform the functions of the Personnel Officer as requested by Operator. If no Personnel Officer is appointed within thirty (30) days after the Production Decision, NANA shall thereafter be reimbursed by Operator for any salary and other expenses it incurs in performing the functions of the Personnel Officer requested by the Operator, the amount of any such reimbursement to be a cost of the Project. The Personnel Officer shall be someone selected by NANA; provided, that Operator may submit nominees for NANA's consideration and shall have the right to veto any selection made by NANA and to terminate the employment of any Personnel Officer for cause. Operator shall give NANA a written explanation of the basis for any such veto or termination;

(b) NANA shall be responsible for providing Operator, any contractors or subcontractors, and the Personnel Officer, on a continuing basis, with the names of any Natives in the NANA Region eligible for preference employment pursuant to Section 10.1.1, their employment status, preferred type of employment, training, experience, education and availability;

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(c) The type and scope of training will take into account the type and number of jobs expected to be available, the estimated number of available Natives of the NANA Region eligible for training and employment hereunder, the qualification level of such persons and the experience requirements of various job categories.

10.3 Wages and Benefits.

There shall be no discrimination in the amount or rate of wages and fringe benefits paid to employees on the basis of race, color, religion, sex, national origin, age, physical or mental handicaps, or status as a disabled veteran.

10.4 Unions.

If Operator should have a collective bargaining relationship with one or more unions representing employees employed in connection with the Project, it shall not enter into any agreement which prevents the full compliance with this Article X. Non-Operator shall be notified of and be afforded the opportunity to have a representative attend and observe any negotiations Operator may have with a union, it being agreed that Operator will control any such negotiations.

10.5 Compliance with Applicable Laws.

Nothing in this Agreement shall require NANA or Cominco, or any contractors or subcontractors, to violate Title VII of the Civil Rights Act of 1964, as amended, Executive Order 11246, as amended, the National Labor Relations Act, ANCSA, or any other law or regulation relating to employment.

10.6 Scholarships.

Operator shall provide up to Thirty Thousand Dollars ($30,000) each calendar year for a scholarship program for the Natives of the NANA Region. The scope and focus of the program, giving due consideration to the need to develop mining and geological expertise in the NANA Region, and the method of awarding scholarships shall be determined by the Management Committee; provided, that Operator may assist NANA in selecting recipients of scholarships and the recipients selected will be agreeable to both NANA and Operator if the Operator chooses to participate in the selection process; provided further, that it is the intent of the parties to award scholarships pursuant to this provision to students who meet the eligibility requirements of the program and both parties will make a good faith effort to fulfill this intent.

MEMORANDUM OF UNDERSTANDING

BETWEEN THE ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY
AND
COMINCO, LTD.

FOR THE DELONG MOUNTAINS TRANSPORTATION SYSTEM

The Alaska Industrial Development Authority's (AIDA) Negotiation Committee and the Cominco Negotiation Committee (Cominco) agree in principle to the following terms and conditions for the purposes of establishing a contractual relationship to secure project financing on the DeLong Mountains Transportation System ("The System") and outlining the terms under which Cominco shall be entitled to use The System:

1. All parties agree to adopt the SRI methodology for calculating the Minimum Annual Assessment and the Rate of Return. The Minimum Annual Assessment and the Rate of Return will be calculated over a fifty (50) year period.

   The parties agree to a Minimum Annual Assessment which results in an annual return on the State's total investment of 6 1/2%.

   This agreement is contingent upon the results produced by the SRI model being substantially arithmetically correct.

2. AIDA agrees that no interest will be imputed on its equity infusion prior to the date that The System is placed in service. Furthermore, AIDA agrees, that subject to U.S. Treasury laws and regulations and bond covenants related thereto, to apply its equity first to the project for purposes of calculating the Minimum Annual Assessment.

3. Cominco's first quarterly installment payment on the Minimum Annual Assessment is due three months after the date the facility is placed in service for transportation and storing Red Dog concentrates. However, in any event, the first quarterly payment may not be due before January 1, 1990 nor later than July 1, 1990.

4. Maintenance and Operating, and Sustaining Capital Costs will be carried as separate line items and not be considered in calculating the Minimum Annual Assessment or the State's Rate of Return.

5. Cominco agrees that all the facilities being financed with AIDA bond proceeds and equity are multi-user facilities and accommodation of third party users may be necessary provided that capacity is available.

6. The parties agree that expenditures before July 1, 1985 for project development tasks attributed to The System, will be reimbursed in payments over a five-year period in equal quarterly installments coinciding with receipt of the first quarterly payment from Cominco with interest thereon at 6 1/2% from the earlier of the placed-in-service date or July 1, 1990.

Started neg for 10 years.

7. AIDA and Cominco will approach financial institutions jointly to obtain acceptable credit enhancement on the bonds and on the first 10 Minimum Annual Assessments. AIDA agrees to pay .5% of the par amount outstanding of the bond issue or that amount allocable to the credit enhancement for the bonds whichever is greater.

Cominco will be responsible for the reimbursement agreement with respect to the Minimum Annual Assessment enhancement.

8. During the 50 years that Cominco is paying the Minimum Annual Assessment, the parties agree that Cominco's total toll fee, when calculated on a unit basis, will not exceed that of other users shipping comparable products.

9. Toll fees from future users will accrue 100% to the State except as noted in item 12.

10. Prior to the in service date, should Cominco cease to develop the Red Dog Mine after costs have been incurred by AIDA for the project, Cominco Ltd. will pay the Authority for those costs together with interest from the date the costs were incurred.

11. Using a five-year moving average beginning in the year in which annual payments are due (1990), AIDA will receive 5% of the price increase above 50¢ per pound (in 1985 $ using the GNP deflator) times the number of pounds of zinc contained in the zinc concentrate shipped. The price will be the average of the European and U.S. Producers price as reported in <u>Metals Week</u> in U.S. cents per pound.

    The payment received as a result of the Zinc Price Escalator described above may not exceed 50% of the Minimum Annual Assessment. The Zinc Price Escalator will be in effect until the retirement of outstanding bonds or 35 years whichever is earlier.

12. **Cominco will sign a take-or-pay Minimum Annual Assessment contract covering a fifty year period. For that portion of the fifty year period following the retirement of all outstanding bonds issued to construct the project or 35 years from bond issuance whichever is earlier, the Minimum Annual Assessment may be reduced in the event of certain force majeure events that prevent Cominco from shipping the agreed to amount of concentrate during any 12 month period.**

    Force Majeure events include strikes, boycotts, labor disputes, embargoes, acts of God, acts of public enemy, acts of superior governmental authority, riots, rebellions, and sabotage.

    If, after the bonds have been retired or 35 years from bond issuance whichever is earlier, AIDA has obtained at least 6 1/2% Rate of Return from user fees including all fees from Cominco but excluding M & O and 50% of the fees from third parties, then Cominco is required to pay the Minimum Annual Assessment pro rated by the tonnage produced in that year relative to the original mill capacity. If AIDA has received less than the 6 1/2% Rate of Return as calculated above, then Cominco will pay a Minimum Annual Assessment in any one year equal to the amount necessary to provide AIDA with a 6 1/2% Rate of Return amortized over the balance of the fifty year agreement and allowing for 50% of the user fees paid by third parties in that year.

The Minimum Annual Assessment will give Cominco the right to access the public transportation system to ship the projected tonnage related to original mill throughput ("Allowable Base") plus an additional 10% in any 12 month period. The Allowable Base will be cumulative during the 50 year period of this agreement so that shipments in one year that are less than the Allowable Base may be made up in subsequent years in order to achieve the cumulative Allowable Base. The additional 10% of shipments will be annual and will not be cumulative. Should Cominco desire to ship an amount of concentrate in excess of the cumulative Allowable Base plus the allowed overage, Cominco will pay a tonnage fee on the excess at the same rate that it pays on the allowable tonnage.

Fees paid on such excess tonnage referred to in the above paragraph and by the zinc price escalator will be deemed to have retired the outstanding bonds at the end of the amortization period.

Bertram L. Wagnon

Nov. 20, 1985

Bertram L. Wagnon, Chairman
Alaska Industrial Development Authority
Negotiating Team

Date

Bob Stone, Chairman
Cominco, Ltd.
Negotiating Team

Date

RED DOG MINING LEASE

THIS RED DOG MINING LEASE (hereinafter referred to as the "Lease") is made and entered into as of the 11th day of October, 1982, by and between NANA REGIONAL CORPORATION, INC., a corporation organized pursuant to the laws of the State of Alaska (hereinafter "Lessor") and COMINCO AMERICAN INCORPORATED, a corporation organized pursuant to the laws of the State of Washington (hereinafter "Lessee"):

W I T N E S S E T H :

WHEREAS, Lessor and Lessee have entered into that certain Development and Operating Agreement dated as of October 11, 1982 (hereinafter referred to as the "Agreement") which calls for the execution of this Lease among other provisions;

NOW, THEREFORE, in consideration of the mutual agreements and covenants contained herein, the execution of the Agreement, the payments of rents for the lands controlled by this Lease as required by the Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Lessor and the Lessee hereby agree and covenant as follows:

1. Definitions.

Except as otherwise specifically set forth in this Lease, the terms defined in the Agreement which are used in this Lease shall have the meanings assigned to them in the Agreement.

2. Grant and Description of Leased Premises.

2.01 Grant. Subject to the terms, conditions, exceptions and reservations contained herein or in the Agreement, the Lessor hereby grants, leases and demises (to the extent the Lessor has or hereafter acquires the right to do so) to the Lessee, its successor and assigns, the exclusive right to the surface and subsurface of the land described in Exhibit A, attached hereto and made a part hereof, (hereinafter

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"Subject Lands") and any and all Minerals located on, in or under the Subject Lands, for the purpose of exploring, prospecting, developing, working, using, mining, milling, and substantially equivalent processes, removing, tranporting, storing, selling, disposing of, managing, and controlling any and all Minerals located on, in, or under the Subject Lands.

2.02 Exceptions and Reservations. The Lessor expressly excepts and reserves the following from the grant set forth in Section 2.01 above, except to the extent the Agreement grants to or makes available to Lessee any of the reserved substances identified in this Section:

(a) All Oil, Gas, and Oil and Gas Associated Substances;

(b) Sand, gravel, and stone;

(c) Geothermal Resources.

2.03 Conditions on Effectiveness. The effectiveness of this Lease and of the grant made hereunder (a) with respect to any land initially covered by this Lease, shall be conditioned upon the occurrence of each and all of the events described in Section 2.3 of the Agreement; and (b) with respect to any land subsequently added to this Lease, shall be conditioned upon the occurrence of each and all of the events described in Article III of the Agreement. This Lease as it relates to any land shall not be recorded until it has become effective as to such land pursuant to the provisions of this Section 2.03.

3. Purposes.

Subject to the terms, conditions, exceptions, and reservations herein contained, the purposes of this Lease are to enable the Lessee:

(a) To explore for, mine, mill, beneficiate, concentrate, extract, leach, mix, convert, or otherwise obtain and dispose of all minerals and materials covered by this Lease and the Agreement and located on, in, or under the Subject Lands described in Exhibit A

B. 7

attached hereto and all products derived therefrom by or for the Lessee;

(b) To develop, reclaim and rehabilitate the Subject Lands in conformance with applicable laws and regulations (including those relating to environmental and ecological standards) and the provisions of this Lease and the Agreement;

(c) To explore the Subject Lands by such means and methods as to the Lessee may appear reasonably necessary or advisable, including without limitation, aerial, surface and subsurface examination and testing by geophysical, geochemical and geological surveys; taking samples of earth, rock and ores for purposes of assay and other testing; drilling; sinking of shafts and driving of adits, tunnels and drifts;

(d) To mine the Subject Lands by such methods and in such manner as the Lessee shall elect, including, but not limited to, stripping, shaft, underground mining, open-cut, open-pit, pit and dredge, block caving, solution, and other methods now or heretofore known or hereafter developed;

(e) In connection with the operations of the Lessee under this Lease and the Agreement, to place and use excavations, openings, shafts, ditches, and drains on or below the surface of the Subject Lands, and to construct, erect, install, maintain, repair, use, replace, or remove roads, buildings, structures, machinery, equipment, and facilities of any nature whatever, both on or below the surface of the Subject Lands, appropriate to the purposes hereof, including, but not limited to, access roads, mine plant, mill, and/or other similar processing plants, water, power, fuel, and communications facilities, trackage, pipelines, roads, airport, railroad and other means of transportation, storage facilities, stockpiles, waste piles, tailings, settling ponds, dams, sump pits, flues and sluices, loadings and shipment facilities, support, ancillary and infrastucture facilities,

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including personnel accommodations, and offices for conduct of the operations hereunder; and

(f) To take any and all other actions which are necessary to enable the Lessee to conduct its operations under this Lease and the Agreement.

4. Agreement.

This Lease is entered into pursuant to and supplemented by the Agreement and all terms and provisions of the Agreement (and modifications thereof) are hereby incorporated in this Lease and made a part hereof to the same extent as if said terms and provisions were fully set forth herein.

5. Term.

This Lease shall remain in full force and effect only so long as the Agreement is also in full force and effect. Any termination of the Agreement shall automatically constitute a termination of this Lease. The consequences of the breach of any provision of this Lease shall be determined in accordance with Article XX of the Agreement.

6. Stockpiling.

Lessee shall have the right at any time during the term of this Lease to stockpile any ores, concentrates or other products mined or produced from the Subject Lands, either on the Subject Lands or at other locations subject to the provisions of the Agreement. The rights and liens of Lessor, if any, in and to any such ores, concentrates or other products stockpiled on land other than that subject to this Lease shall not be divested by the removal thereof from the Subject Lands but shall be the same in all respects as though such ores, concentrates or other products had been stockpiled on the Subject Lands.

7. Protection From Liens.

7.01 Obligations of Lessee. The Lessee shall keep the Subject Lands and every part thereof free and clear of liens for labor done or work performed upon the Subject Lands or materials furnished for the exploration, development, or operation thereof under this Lease and the Agreement. It is understood that Lessee may encumber its interest under this Lease for purposes of financing the Project. The Lessee shall at all times keep conspicuously posted on the land notices that the Lessee is in possession of the Subject Lands and that all work on the Subject Lands is being done by the Lessee and that the Lessor is not responsible for labor, material, or supplies furnished to or used on or in connection with the activities on the Subject Lands, or for claims under the Workmen's Compensation Act. Any such lien upon the Subject Lands shall not constitute a default if the Lessee in good faith disputes the validity or amount of the claim, in which event the existence of the lien shall constitute a default only if the claim is not paid within a reasonable time after the validity and amount of the claim has been finally adjudicated.

7.02 Obligations of Lessor. Subject to the terms, conditions, exceptions and reservations contained herein and the rights reserved and excepted by the Lessor hereunder, the Lessor agrees not to encumber the Subject Lands in any way whatsoever that will interfere with the rights of the Lessee granted pursuant to this Lease or the Agreement.

8. Access.

Subject to the terms and conditions of the Agreement, Lessor agrees to provide Lessee with access or easements to the Subject Land over other lands owned or controlled by Lessor for the undertakings contemplated by the Agreement.

9. Assignment.

No party to this Lease shall assign its rights and obligations under this Lease without assigning a like interest in the Agreement.

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A party may assign rights under this Lease only in the manner and to the extent that the Agreement may by its terms be assigned.

10. Relinquishment and Release of Lands.

At any time during the term of this Lease, Lessee shall have the right to relinquish its right to any part of the Subject Lands. Such relinquishment shall be effective upon the delivery of written notice of such surrender to Lessor. Such relinquishment shall terminate all rights and obligations under this Lease (except those arising prior to any such relinquishment, including reclamation obligations) of either party. Any lands so relinquished shall no longer be Subject Lands for the purpose of this Lease. Lessor shall have the right of access to such relinquished lands across any of the Subject Lands so long as such access does not unreasonably interfere with Lessee's use of the remaining Subject Lands.

Upon the relinquishment of any of Lessee's rights in the lands subject to this Lease and upon the termination of this Lease, Lessee shall provide Lessor with a written document in recordable form satisfactory to Lessor evidencing the relinquishment of any such rights.

11. Notices and Delivery.

11.01 Written Notices. Except as otherwise specified herein, all notices contemplated by this Lease shall be in writing.

11.02 Delivery by Mail. Any notice or other document shall be deemed sufficiently delivered if mailed by United States certified or registered mail, return receipt requested, postage prepaid, and addressed as follows:

(a) If to the Lessor:

NANA Regional Corporation, Inc.
4706 Harding Drive
Anchorage, Alaska 99503
Attn: Vice President, Operations

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with a copy to:

NANA Regiónal Corporation, Inc.
Box 49
Kotzebue, Alaska 99752
Attn: President

(b) If to the Lessee:

Cominco American Incorporated
West 818 Riverside Avenue
P. O. Box 3087
Spokane, Wasington 99220
Attn: Corporate Secretary

with a copy to:

Cominco Alaska
5660 "B" Street
Anchorage, Alaska 99502
Attn: President

Delivery by mail shall be deemed effective and complete and the notice or other document to have been received by the addressee seven (7) days after the date of mailing thereof.

11.03 Delivery by Personal Service. Any notice or other document may be delivered by personally serving said notice or other document upon the designated agent of the party at the Anchorage address for Lessor and the Spokane address for Lessee. In the event of delivery by personal service, delivery shall be deemed effective and complete on the date of said personal service. The party serving said notice or other document shall also mail a courtesy copy thereof to the party so served at the address indicated in Section 11.02 above that is different than the address at which personal service was made.

11.04 Change of Address. The address to which a party desires that notices and other documents be delivered may be changed at any time by giving notice thereof to the other party in the manner contemplated above.

12. Use of Lands.

12.01 Non-Interference with Rights. The rights reserved to the Lessor under this Lease shall not be utilized by the Lessor to unreasonably interfere with the rights of the Lessee under this

Lease or the Agreement; and the rights granted to the Lessee under this Lease shall not be utilized by the Lessee to unreasonably interfere with the rights reserved to the Lessor under this Lease or the Agreement.

13. Representations and Warranties.

13.01 General. Each party to this Lease represents and warrants that it is a corporation duly incorporated and validly existing in accordance with the laws of the state of its incorporation, that it is in good standing and qualified to do business in the State of Alaska, and that it is empowered, authorized and entitled to enter into this Lease and any and all transactions contemplated hereunder without being in breach of any agreement or other arrangement to which it is a party.

13.02 Land Title. Lessor makes no warranties of title, either expressed or implied, to the Subject Lands except that it has the right to receive title to the Subject Lands pursuant to ANCSA, that it has filed applications to receive title to the Subject Lands pursuant to ANCSA and that it will continue to use its best efforts to receive Conveyance of the Subject Lands.

13.03 Survival of Representations and Warranties. The representations and warranties aforesaid shall survive so long as this Lease remains in full force and effect and after termination thereof in respect of any claims arising prior to termination.

14. Status of Parties.

Nothing herein is intended nor shall ever be construed to create a joint venture, mining partnership or any other type of association between the parties, nor shall either party have the right to act in behalf of or bind the other for any liability, cost, expense or undertaking.

15. General Provisions.

15.01 Modification of Lease. This Lease may only be modified by a document in writing executed by the Lessor and the Lessee.

15.02 Waiver. The failure of any party to this Lease to insist upon the strict performance of any provision of this Lease or to exercise any right, power, or remedy consequent upon a breach thereof shall not constitute a waiver by said party of any such provision, breach, or subsequent breach of the same or any other provision.

15.03 Severability. If any provision of this Lease or any application thereof shall be invalid or unenforceable, the remainder of this Lease and any application of such provision shall not be affected thereby.

15.04 Law Governing. This Lease shall be construed and interpreted in accordance with, and governed and enforced in all respects by, the laws of the State of Alaska.

15.05 Section Headings. The descriptive section headings throughout this Lease are for convenience and reference only, and the words contained therein shall not be held to expand, modify, amplify or aid in the interpretation, construction or meaning of this Lease.

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date first hereinabove set forth.

LESSOR:

NANA REGIONAL CORPORATION, INC.

Don Angstinger
Witness

By
Title: Vice President

COMINCO AMERICAN INCORPORATED

Lyle F. Beaudoin
Witness

By
Title: Vice President, Exploration

S. B.

EXHIBIT A TO THE
RED DOG MINING LEASE
Dated October 11, 1982

Kateel River Meridian, State of Alaska, to-wit:

Township 30 North, Range 18 West, Sections 4, 5, 6, 7, 8 and 9.

Township 30 North, Range 19 West, Sections 1, 2, 11, 12, 13, and 14.

Township 31 North, Range 18 West, Sections 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32 and 33.

Milt Barker

(4) fisheries enhancement loans acquired or made under AS 16.10;

(5) child care loans acquired or made under AS 44.33; and

(6) historical district loans acquired or made under AS 45.98.

* Sec. 3. All right, title, and interest in commercial fishing loans acquired or made under AS 16.10.300 - 16.10.370 ~~that are secured by limited entry permits,~~ and all right, title, and interest in all mortgages, notes and other instruments of security made in connection with those loans, purchased or acquired by the Department of Revenue and held in the general fund on July 1, 1985, are transferred and appropriated from the general fund to the commercial fishing revolving loan fund (AS 16.10.340) for the purposes of AS 16.10.300 - 16.10.370. However, if the amount in unpaid principal of the loans exceeds $30,000,000 as of July 1, 1985, only loans and instruments of security totaling $30,000,000 in unpaid principal are transferred and appropriated under this section.

* Sec. 4. All right, title, and interest in commercial fishing loans that are not secured by limited entry permits, ~~in an amount equal to the principal balance of loans appropriated under sec. 3 of this Act,~~ and all right, title, and interest in all mortgages, notes and other instruments of security made in connection with those loans, are transferred and appropriated from the commercial fishing revolving loan fund (AS 16.10.340) to the economic development fund (AS 44.88.172) of the Alaska Industrial Development Authority for the DeLong Mountain transportation project.

* Sec. 5. The appropriation made by sec. 3 of this Act is for capitalization of a loan fund and does not lapse in accordance with AS 37.25.010.

* Sec. 6. The appropriations made by secs. 1, 2 and 4 of this Act are for a capital project and are subject to AS 37.25.020.

* Sec. 7. This Act takes effect July 1, 1985.

Introduced: 4/12/85
Referred: Transportation, House Special Committee on State Loans and Finance

IN THE HOUSE BY PIGNALBERI

HOUSE BILL NO. 369

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making a special appropriation to the economic development fund of the Alaska Industrial Development Authority, transferring and appropriating certain loans to the economic development fund and the commercial fishing revolving loan fund; and providing for an effective date."

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

* Section 1. The sum of $18,000,000 is appropriated from the general fund to the economic development fund (AS 44.88.172) of the Alaska Industrial Development Authority for the DeLong Mountain transportation project.

* Sec. 2. (a) All right, title, and interest in loans of the type described in (b) of this section, and all right, title, and interest in all mortgages, notes, and other instruments of security made in connection with those loans, purchased or acquired by the Department of Revenue and held in the general fund on July 1, 1985, are transferred and appropriated to the economic development fund (AS 44.88.172) of the Alaska Industrial Development Authority for the DeLong Mountain transportation project. However, if the amount in unpaid principal of the loans exceeds $112,000,000 as of July 1, 1985, only loans and instruments of security totaling $112,000,000 in unpaid principal are transferred and appropriated under this section.

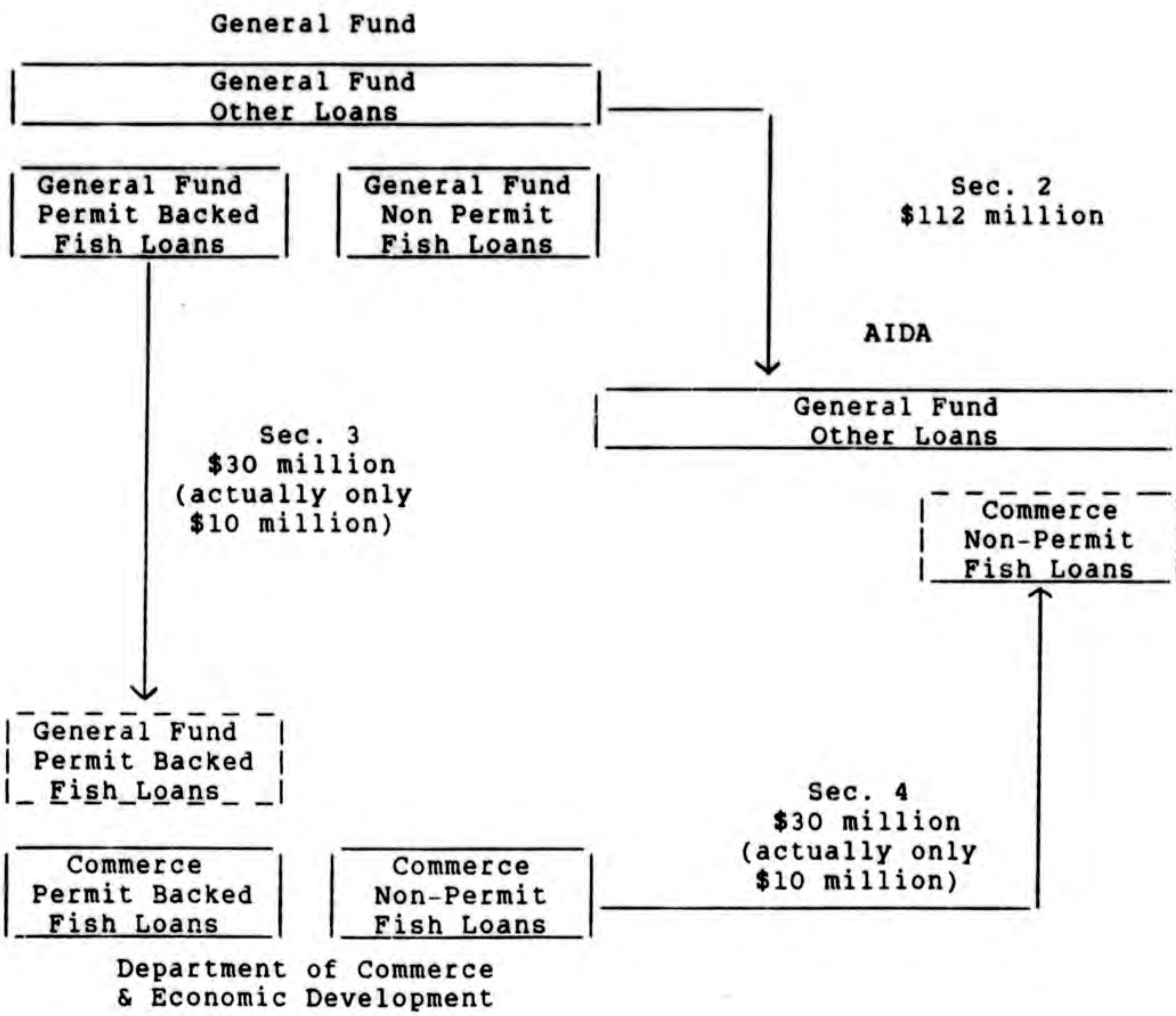
(b) This section transfers and appropriates

(1) veterans loans acquired or made under AS 26.15;

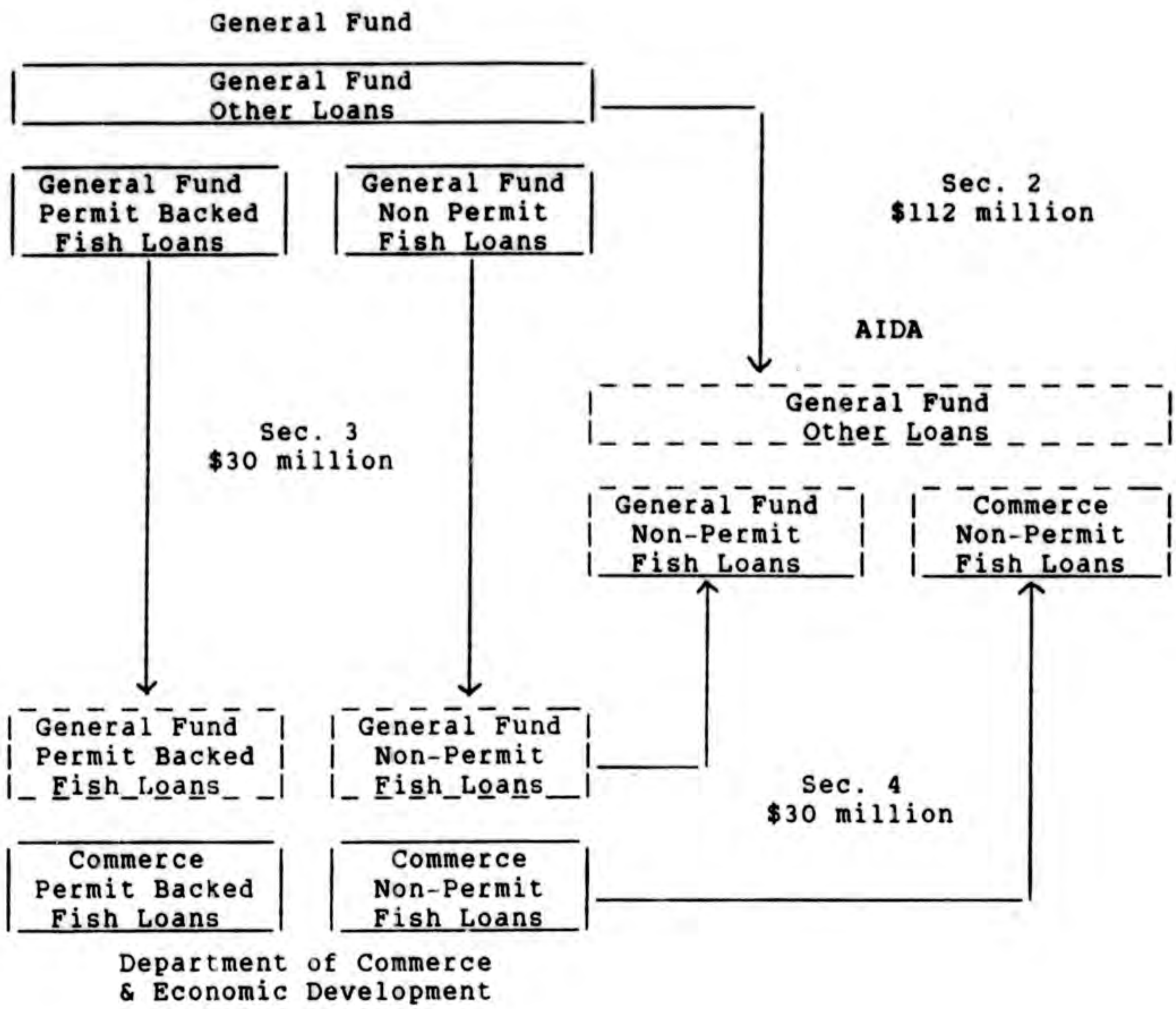
(2) small business loans acquired or made under AS 45.95;

(3) tourism loans acquired or made under AS 45.90;

DeLong Mountains Transportation Project
Loan Appropriations
HB 369 / SB 279



DeLong Mountains Transportation Project
Loan Appropriations
Administration Proposal



PRELIMINARY OFFICIAL STATEMENT DATED APRIL 3, 1985

This PRELIMINARY OFFICIAL STATEMENT and the information contained herein are subject to completion or amendment. These securities may not be sold, nor may an offer to buy be accepted, prior to the time the OFFICIAL STATEMENT is delivered in final form. Under no circumstances shall this PRELIMINARY OFFICIAL STATEMENT constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the securities, in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

NOT A NEW ISSUE

Moody's Rating:
Standard & Poor's Rating:

In the opinion of Bond Counsel interest on the Bonds is exempt from Federal income taxes under existing statutes, rulings and court decisions, except that no opinion is expressed as to the exemption from such taxes of interest on any Bond for any period during which such Bond is held by a person who, within the meaning of Section 103(b) of the Internal Revenue Code of 1954, as amended, is a substantial user of facilities with respect to which the proceeds of the Bonds were used, or a related person.

$11,800,000

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

Economic Development Bonds,
Series 332 through 334
Series 336 through 345
Series 347 through 351

Date of Issue: December 20, 1984
Date of Conversion to Fixed Interest Rates: May 1, 1985

Due: April 1, as shown below

The Bonds, which were sold by private placement, were issued, together with Series 335 and Series 346 Bonds, by the Alaska Industrial Development Authority (the "Authority") on December 20, 1984, as $13,120,000 Floating Demand/Fixed Rate Economic Development Bonds, Series 332 through 351, bearing a floating interest rate and subject to conversion at any time to fixed interest rates at the option of the Authority. The Authority has determined to exercise its option to convert the Bonds to Bonds bearing fixed interest rates effective May 1, 1985. The present holder of the Bonds intends to tender the Bonds for payment on the date of conversion, and the Authority will remarket the Bonds by the sale thereof to the Underwriters.

The Bonds are fully registered bonds without coupons and are in denominations of $5,000 or integral multiples thereof. Principal of and premium, if any, on the Bonds are payable at the principal corporate trust office of the Trustee, Seattle-First National Bank, in Seattle, Washington, or its successor. Upon conversion of the Bonds to Bonds bearing a fixed interest rate, the Bonds will bear interest from May 1, 1985, payable October 1, 1985, and semiannually thereafter on April 1 and October 1 by check or draft mailed to the registered owners of record as of the 15th day of the month next preceding the interest payment date.

The Bonds are subject to certain mandatory and optional provisions for redemption prior to maturity as described herein under the caption "Redemption Provisions."

The Bonds were issued by the Authority to finance the purchase of participations in qualified economic development loans in the State of Alaska, as more fully described herein. The Authority is a public instrumentality of the State of Alaska in the Department of Commerce and Economic Development but with a separate and independent legal existence.

The Bonds constitute general obligations of the Authority, and the full faith and credit of the Authority are pledged to the payment of the principal of, redemption premium, if any, and interest on the Bonds. The Bonds are further secured by the Economic Development Bond Capital Reserve Fund and the monies, properties, assets and revenues described herein. See "Security for the Bonds" herein and the subsections thereunder.

The Authority does not have the power to levy taxes for any purpose. The Bonds do not constitute an indebtedness or liability of the State of Alaska and do not directly, indirectly or contingently obligate the State to apply money from, or levy or pledge, any form of taxation whatever to the payment of the Bonds.

$3,505,000* Serial Bonds

Maturity April 1	Amount*	Rate	Price or Yield	Maturity April 1	Amount*	Rate	Price or Yield
1986	$245,000	%	%	1991	$415,000	%	%
1987	285,000			1992	460,000		
1988	320,000			1993	500,000		
1989	350,000			1994	555,000		
1990	375,000						

$3,105,000* % Term Bonds due April 1, 1999—Price %
$4,490,000* % Term Bonds due April 1, 2004—Price %
$ 700,000* % Term Bonds due April 1, 2009—Price %

(Accrued Interest, if any, to be added)

The Bonds are offered without regard to Series when, as and if received by the Underwriters and subject to the approving legal opinion of Wohlforth & Flint, Bond Counsel, of Anchorage, Alaska, as to validity and the exemption of interest thereon from Federal income taxation. Certain legal matters will be passed upon for the Underwriters by Preston, Thorgrimson, Ellis & Holman of Seattle, Washington.

It is expected the Bonds in definitive form will be available for delivery in New York, New York on or about May 1, 1985.

Prudential-Bache
Securities

Goldman, Sachs & Co.

Dated: April , 1985

* Combined for all Series (see Appendix A for detailed amortization schedules for each Series).

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

1577 "C" Street—Suite 304

Anchorage, Alaska 99501-5177

DIRECTORS

Loren H. Lounsbury	Chairman
Michael G. Harper	Vice Chairman
Jeffrey Hassler	Member
Mary A. Nordale	Member
Jim Robison	Member
Bertram L. Wagnon	Executive Director

BOND COUNSEL

Wohlforth & Flint
900 West Fifth Avenue—Suite 600
Anchorage, Alaska 99501

FINANCIAL ADVISOR

Bear, Stearns & Co.
333 Market Street
San Francisco, California 94105

CERTIFIED PUBLIC ACCOUNTANTS

Peat, Marwick, Mitchell & Co.
601 West Fifth Avenue—Suite 700
Anchorage, Alaska 99501

No dealer, broker, salesman or other person has been authorized by the Alaska Industrial Development Authority or the Underwriters to give any information or make any representations, other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon as having been authorized. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of, the Alaska Industrial Development Authority Economic Development Bonds, Series 332 through 334, Series 336 through 345 and Series 347 through 351, by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale of the securities offered hereby shall under any circumstances create an implication that there has been no change in the affairs of the Authority since the date hereof.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKERT PRICE OF THE BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED, AND IF DISCONTINUED THEN RECOMMENCED, AT ANY TIME.

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SUMMARY STATEMENT

The following summary is subject in all respects to the more complete information contained in the Official Statement and the Appendices thereto.

The Authority The Alaska Industrial Development Authority was created by the Legislature of the State of Alaska in 1967 (AS 44.88, as amended). The purposes of the Authority include the promotion, development and advancement of the general prosperity and economic welfare of the people of the State, the relieving of unemployment problems, and the promotion and development of multi-family housing projects.

The Bonds The Bonds described in this Official Statement are Economic Development Bonds issued under the Authority's general obligation Umbrella Bond Program. Economic Development Bonds are issued to provide funding for industrial and commercial projects in amounts not exceeding $1 million pursuant to Section 103(b)(6)(A) of the Internal Revenue Code of 1954, as amended, and rulings and regulations thereunder. The Umbrella Bond Program also includes (a) Consolidated Bonds issued for multi-family housing projects and, in amounts between $1 million and $10 million, for industrial and commercial projects and (b) Variable Demand/Fixed Rate Bonds, which are special limited obligations of the Authority secured by a direct pay letter of credit and which will become general obligations of the Authority upon their conversion to fixed-rate bonds.

Loan Participations The Authority provides project financing under the Umbrella Bond Program by using bond proceeds to purchase participations in qualified loans originated by Alaska commercial lending institutions. (The Authority does not engage in direct lending activities.) The Authority purchases participations of up to 90% of loans in which the Authority's participation is $1 million or less, and up to 80% of loans in which the Authority's participation is in excess of $1 million. The loan originators service both the originator and Authority portions of the loans. If more than 2% of the outstanding principal balance of Authority participations in the loans originated by an institution are 90 days or more delinquent, that institution is ineligible for future participation in programs of the Authority until such loan delinquencies are reduced to less than the 2% limit.

Security for the Bonds The Bonds constitute general obligations of the Authority, and the full faith and credit of the Authority are pledged to the payment of the principal of, redemption premium, if any, and interest on the Bonds. In addition, the revenues to be derived from the loan participations financed with the proceeds of each Series of Ecomomic Development Bonds are also pledged to the payment of debt service on the respective Series of Bonds. All Economic Development Bonds have an equal claim on the Capital Reserve Fund. (Consolidated Bonds have the support of a separate capital reserve fund and, upon conversion to fixed-rate bonds, Variable Demand/Fixed Rate Bonds will also have the support of a separate capital reserve fund.)

The Authority does not have the power to levy taxes for any purpose. The Bonds do not constitute an indebtedness or liability of the State of Alaska and do not directly, indirectly or contingently obligate the State to apply money from, or levy or pledge, any form of taxation whatever to the payment of the Bonds.

Capital Reserve Fund	The Capital Reserve Fund is funded from available monies of the Authority other than bond proceeds and maintained in an amount equal to the average annual debt service on all of the Authority's outstanding Economic Development Bonds. The Capital Reserve Fund is pledged to the payment of debt service on all outstanding Economic Development Bonds to the extent that other monies of the Authority are not available therefor.
Moral Obligation	AS 44.88 requires the Chairman of the Authority to annually certify to the Governor and to the State Legislature the amount, if any, required to restore the Capital Reserve Fund to its required level. The Legislature may, but is not required to, appropriate monies to make up any such deficiency in the Capital Reserve Fund.
Financial Covenants	The Authority has covenanted that it will not make any loans, incur any General Obligation Indebtedness, or expend any money except for reasonable and necessary operating costs or the payment of principal of and interest on any General Obligation Indebtedness, the effect of which would (a) reduce its estimated Net Income (as defined in the Bond Resolution) at any time to less than 150% of maximum annual debt service requirements on its General Obligation Indebtedness, or (b) cause its unrestricted surplus to be less than $100 million. As of June 30, 1984, the unrestricted surplus of the Authority was $258.9 million, and the 1984 Net Income coverage of maximum annual debt service was 3.36 times.
Financial Information	As of June 30, 1984, the Authority's general assets included $101.5 million of investments in U.S. Government securities and commercial paper and $327.6 million of loans including (1) $105.6 million of loans appropriated to the Authority by the State, (2) $60.2 million of federally guaranteed loans, and (3) $161.8 million of loan participations financed or to be financed from bond sales of the Authority. A portion of the general assets of the Authority are restricted. Loan participations and loans were 95.34% current as of June 30, 1984. Net earnings of the Authority totaled $25.3 million for the year ended June 30, 1984, and $22.6 million for the year ended June 30, 1983. Total assets of the Authority were $435.3 million as of June 30, 1984, and $350.3 million as of June 30, 1983. Total equity of the Authority was $274.8 million as of June 30, 1984, and $248.9 million as of June 30, 1983. Total liabilities of the Authority were $160.5 million (including $155.4 million general obligation debt) as of June 30, 1984, and $101.5 million (including $98.1 million general obligation debt) as of June 30, 1983.
Outstanding Bonds	As of December 31, 1984, there were $131,360,000 Economic Development Bonds (including the $13,120,000 Floating Demand/Fixed Rate Economic Development Bonds, Series 332 through 351), $60,170,000 Consolidated Bonds and $12,200,000 Variable Demand/Fixed Rate Bonds of the Authority outstanding.
Additional Bonds	Additional General Obligation Indebtedness may be issued by the Authority provided certain coverage and other requirements are met, including a requirement that estimated annual Net Income over the term of all General Obligation Indebtedness equals not less than 150% of the annual debt service on such Indebtedness. See "Financial Covenants of the Authority" herein.

$11,800,000

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY
ECONOMIC DEVELOPMENT BONDS

Series 332 through 334
Series 336 through 345
Series 347 through 351

INTRODUCTION

This Official Statement, including the cover page, Summary Statement and Appendices hereto, was prepared to provide information relating to the Alaska Industrial Development Authority (the "Authority") and the Authority's $11,800,000 Economic Development Bonds, Series 332 through 334, Series 336 through 345 and Series 347 through 351 (the "Bonds").

The Bonds were issued on December 20, 1984, as part of $13,120,000 Floating Demand/Fixed Rate Economic Development Bonds, Series 332 through 351 (the "Floating Rate Bonds") bearing a floating interest rate and subject to conversion at any time to fixed interest rates at the option of the Authority. The Authority has determined to exercise its option to convert the Floating Rate Bonds to Bonds bearing fixed interest rates effective May 1, 1985 (the "Conversion Date"). The present holder of the Floating Rate Bonds intends to tender them for payment on the Conversion Date, and the Authority will remarket the Bonds by the sale thereof to the Underwriters except that the $710,000 Series 335, $580,000 Series 346, and $30,000 of the $675,000 Series 338 Floating Rate Bonds will be redeemed and retired prior to the delivery of the Bonds to the Underwriters.

The Bonds were issued as Economic Development Bonds under the Authority's Umbrella Bond Program pursuant to Title 44, Chapter 88, Alaska Statutes, as amended (the "Act") and 20 respective Bond Resolutions, each adopted by the Authority on December 19, 1984 (the "Bond Resolutions"), to provide funds for the purchase by the Authority of participations (the "Participations") in 20 eligible economic development loans (the "Loans") made by Alaska financial institutions (the "Originators") to various borrowers.

Descriptions of the Bonds, the security for the Bonds, the Authority, the programs of the Authority, the Bond Resolutions, the Economic Development Bond Capital Reserve Fund Resolution, and other elements bearing upon the security and legality of the Bonds and their tax exemption under the Internal Revenue Code of 1954, as amended (the "Code"), are contained in this Official Statement. Some terms used herein are defined in the Bond Resolutions (see "Summary of Certain Provisions of Each Bond Resolution and the Economic Development Bond Capital Reserve Fund Resolution"). This Official Statement contains financial information taken or derived from the audited financial statements and other unaudited financial reports of the Authority. All of the financial information taken or derived from the financial statements and reports of the Authority and all of the summaries of resolutions, statutes, agreements and other documents contained herein are made subject to, and are qualified in their entirety by reference to, such financial statements and reports, resolutions, statutes, agreements and documents, copies of which are available for inspection at the office of the Authority, 1577 "C" Street, Suite 304, Anchorage, Alaska 99501; the office of Prudential-Bache Securities Inc., 1111 Third Avenue, Suite 2750, Seattle, Washington 98101; the office of Goldman, Sachs & Co., 85 Broad Street, New York, New York 10004, and the office of Bear, Stearns & Co., 333 Market Street, San Francisco, California 94105.

The information within this Official Statement has been compiled from official and other sources considered reliable and, while not guaranteed as to accuracy, is believed by the Authority to be correct. Any statements herein involving estimates, forecasts or projections are to be construed as such rather than as statements of fact.

THE BONDS

The Bonds are fully registered bonds without coupons, are in denominations of $5,000 each, or integral multiples thereof, are dated as of the date shown on the cover hereof, and mature April 1 of the years and in the amounts set forth on the cover hereof. The Bonds are subject to certain mandatory and optional redemption provisions prior to maturity including the mandatory sinking fund redemption of Bonds of the 1999, 2004, and 2009 Term Bond maturities (see "Redemption Provisions").

The Bonds bear interest from May 1, 1985, payable October 1, 1985, and semiannually thereafter on each April 1 and October 1 by check or draft mailed to the registered owners of the Bonds of record as of the 15th day of the month next preceding the interest payment date. The principal of and premium, if any, on the Bonds is payable at the principal corporate trust office of the Trustee, Seattle-First National Bank, in Seattle, Washington, or its successor.

Redemption Provisions

1. *Mandatory Redemption.* (a) The Bonds of each Series are subject to mandatory redemption on April 1, 1986, in inverse order of maturity and by lot within a maturity, at par plus accrued interest to the date of redemption, from unexpended Bond proceeds remaining on February 1, 1986, in the Loan Participation Fund created by the Bond Resolution for such Series of Bonds. All the Loan Participations financed with proceeds from the December 20, 1984 sale of the Bonds, have been fully funded except that the Loan Participation financed by the sale of the $675,000 Series 338 Floating Rate Bonds was reduced and funded at $645,000. To compensate for this reduction, $30,000 Series 338 Floating Rate Bonds are to be redeemed from the proceeds thereof prior to the conversion of the Floating Rate Bonds to fixed interest rates. Therefore, there will be no unexpended Bond proceeds requiring the implementation of this mandatory redemption provision.

(b) Until conversion to Bonds bearing fixed interest rates and in the year immediately following conversion, the Bonds of each Series are subject to mandatory redemption each October 1 beginning October 1, 1985, at par, plus accrued interest to the date of redemption, in an amount sufficient to ensure that the yield on each Participation acquired with Bond proceeds will not exceed the yield on the respective Bonds by more than the allowable spread under Income Tax Regulation 1.103-13(b)(5), as it is then in effect. However, the Authority expects it will not be necessary to employ this redemption provision at any time after the Conversion Date and that no Bonds will be redeemed on October 1, 1985, or thereafter in order to ensure compliance with the arbitrage restrictions during the floating rate period.

2. *Sinking Fund Redemption.* Of the combined total of $3,105,000 Bonds due April 1, 1999, $2,345,000 Bonds are subject to mandatory redemption in part, by lot, at par plus accrued interest to the date of redemption, from Sinking Fund payments required to be made on April 1 of the years and in the amounts shown in the following schedule:

Year	Amount
1995	$495,000
1996	550,000
1997	615,000
1998	685,000

The remaining $760,000 Bonds of the 1999 maturity will mature April 1, 1999.

Of the combined total of $4,490,000 Bonds due April 1, 2004, $3,390,000 Bonds are subject to mandatory redemption in part, by lot, at par plus accrued interest to the date of redemption, from Sinking Fund payments required to be made on April 1 of the years and in the amounts shown in the following schedule:

Year	Amount
2000	$715,000
2001	800,000
2002	885,000
2003	990,000

The remaining $1,100,000 Bonds of the 2004 maturity will mature April 1, 2004.

Of the combined total of $700,000 Bonds due April 1, 2009, $530,000 Bonds are subject to mandatory redemption in part, by lot, at par plus accrued interest to the date of redemption, from Sinking Fund payments required to be made on April 1 of the years and in the amounts shown in the following schedule:

Year	Amount
2005	$110,000
2006	125,000
2007	140,000
2008	155,000

The remaining $170,000 Bonds of the 2009 maturity will mature April 1, 2009.

3. *Optional Redemption.* On and after April 1, 1994, the Bonds of each Series are subject to redemption, at the option of the Authority, as a whole on any date or in part on any interest payment date, in inverse order of maturity and by lot within a maturity, at the prices (expressed as a percentage of par value) set forth in the following schedule, plus accrued interest to the date of redemption:

Redemption Period	Redemption Price
April 1, 1994 through March 31, 1995	102 %
April 1, 1995 through March 31, 1996	101
April 1, 1996 and thereafter	100

In the event of an optional redemption, the Authority may direct each Series and amount thereof to be redeemed.

4. *Special Optional Redemption.* The Bonds of each Series are subject to redemption, at the option of the Authority, as a whole on any date or in part on any interest payment date, in inverse order of maturity and by lot within a maturity, at par plus accrued interest to the date of redemption, from amounts recovered or received by the Authority as a prepayment of any Loan Participation financed with the proceeds of such Series of Bonds. The Authority may accept Loan prepayments on such terms and conditions as it determines. In each Bond Resolution, the Authority covenants that it will require any prepayments to be in amounts sufficient to redeem a like principal amount of Bonds of such Series at the applicable redemption price. The Authority has also covenanted in each Bond Resolution that prior to the exercise of its election to redeem Bonds, it will use its best efforts to apply monies derived from prepayments to the purchase of investment securities or new loan participations which pay principal and interest sufficient to pay scheduled principal and interest on the applicable Series of Bonds as the same become due.

Notice of Redemption. Thirty days' notice of redemption of any Bond, all or a portion of which is to be redeemed, will be mailed to the registered owner thereof at the owner's last address appearing on the registry books of the Authority kept by the Trustee.

Disposition of Funds Received from Sale of Bonds

The funds received by the Authority from the sale of the Bonds to the Underwriters will be used by the Authority to pay the principal of the tendered Floating Rate Bonds.

Disposition of Proceeds from Issuance of Floating Rate Bonds

Upon the issuance of the Floating Rate Bonds, the proceeds of the Bonds of each Series were deposited by the Authority with the Trustee and deposited by the Trustee in the Loan Participation Accounts within the Loan Participation Fund, except that accrued interest on the Bonds was deposited in the Principal and Interest Account within the Debt Service Fund maintained under each Bond Resolution. Amounts deposited in the Loan Participation Accounts may be expended only (a) to purchase the Participations for which the Bonds were issued or to reimburse the Authority for its prior purchase of such Participations, (b) to pay costs of issuance of the Bonds not otherwise provided for, (c) to pay the principal or redemption price of and interest on the Bonds when due to the extent that amounts in any other Fund or Account are insufficient or unavailable therefor. The amount, if any, remaining in any Loan Participation Account on February 1, 1986, will be transferred to the Redemption Account of the Debt Service Fund.

SECURITY FOR THE BONDS

General

The Bonds constitute general obligations of the Authority, and the full faith and credit of the Authority are pledged to the payment of the principal of, redemption premium, if any, and interest on the Bonds. Each Series of Bonds is further secured by a pledge of certain monies, properties, assets and revenues as described below. The Authority does not have the power to levy taxes for any purpose. The Bonds do not constitute an indebtedness or liability of the State of Alaska (the "State"), and the Bonds do not directly, indirectly or contingently obligate the State to apply money from, or levy or pledge, any form of taxation whatever to the payment of the Bonds. All Economic Development Bonds have an equal claim to monies on deposit in the Capital Reserve Fund (see "Capital Reserve Fund").

Pledge Under Each Bond Resolution

Pursuant to each Bond Resolution, the revenues, including amounts representing payments of principal, to be derived from the Participations financed with the proceeds of each Series of Bonds and all monies and investments in the funds and accounts established thereunder are pledged to pay the principal of, redemption premium, if any, and interest on such Bonds, subject only to the provisions of the Bond Resolution permitting the application or release thereof for or to the purposes and on the terms and conditions therein set forth.

Each Bond Resolution also pledges and assigns the Participations financed thereunder to the Trustee, reserving to the Authority, except in the event of default, the right to administer and enforce the provisions of the documents evidencing the Participations in its own discretion and to enter into amendments with respect thereto, including releases of security and removal of covenants and conditions contained therein.

The Act provides that any pledge made in respect of the Bonds shall be valid and binding from the time when the pledge is made, that the money or property so pledged and received by the Authority shall immediately be subject to the lien of such pledge without any physical delivery or further act and that the lien of any such pledge shall be valid and binding against all parties having claims of any kind in tort, contract or otherwise against the Authority irrespective of whether the parties have notice.

Capital Reserve Fund

On April 13, 1981, the Authority adopted the Economic Development Bond Capital Reserve Fund Resolution under which it covenants and agrees with the holders of Economic Development Bonds to establish and maintain the Capital Reserve Fund in an amount at least equal to the Capital Reserve Fund Requirement (an amount equal to average annual debt service on Economic Development Bonds). The monies on deposit in the Capital Reserve Fund are pledged to the payment of all outstanding Economic Development Bonds of the Authority and may only be used by the Authority for the payment of principal, redemption premium, if any, and interest on Economic Development Bonds, but only when and to the extent that other monies are not available therefor pursuant to the bond resolution under which the Economic Development Bonds were issued. It has never been necessary for the Authority to use funds in the Capital Reserve Fund for this purpose. Any amounts on deposit in the Capital Reserve Fund in excess of the Capital Reserve Fund Requirement will be transferred to the Authority and commingled with other Authority revenues. The calculation of the present Capital Reserve Fund Requirement of $13,360,390 included the effect of an estimated floating interest rate of 15% on the Floating Rate Bonds. Upon the establishment of fixed interest rates on the Bonds, the Capital Reserve Fund Requirement will be $

The Act requires the Chairman of the Authority, at least annually and no later than January 2 of each year, to certify in writing to the Governor and to the State Legislature the amount, if any, required to restore the Capital Reserve Fund to the Capital Reserve Fund Requirement. The Legislature may, but is not obligated to, appropriate to the Authority the amount certified by the Chairman of the Authority. The Authority is required to deposit any monies so appropriated in the Capital Reserve Fund.

In 1982, the State Constitution was amended to impose a limit on the amount of appropriations from the State Treasury in any fiscal year. This amendment may limit the amounts available in future fiscal years for appropriation by the State Legislature to cure any deficiency in the Capital Reserve Fund and other capital reserve funds of the Authority.

General Assets of the Authority

As of June 30, 1984, the Authority's general assets included $101.5 million of investments in United States government obligations and commercial paper and $327.6 million of loans including (1) $105.6 million of loans appropriated to the Authority by the State, (2) $60.2 million of federally guaranteed loans, and (3) $161.8 million of participations in loans financed or to be financed from the proceeds of the Authority's general obligation bonds. As of June 30, 1984, the unrestricted surplus of the Authority was $258.9 million.

In 1980, the State appropriated the sum of $183 million to the Authority to initiate its programs, and in 1981 the State appropriated an additional $8 million for future capital reserve fund purposes. The 1980 appropriation included cash in the amount of $15 million, $166 million principal amount of outstanding loans acquired by the State in connection with State loan programs, and certain other assets. The Authority was authorized to select the specific loans to be included in the appropriation (the "Appropriated Loans") from a total pool of approximately $350 million principal amount of loans.

The Appropriated Loans selected by the Authority included Small Business Loans, Tourism Loans and Commercial Fishing Vessel Loans. *Small Business Loans* have a term of up to 25 years. Approximately 90% are secured by real property, the balance by equipment. The maximum loan in each case did not exceed the lower of 75% of cost or appraised value. *Tourism Loans* have a maximum term of 20 years. The majority were made for hotels and motels within the State. Two loans were made for large tour vessels. Tourism loans required at least a 20% participation by the originating lender. *Commercial Fishing Vessel Loans* have a maximum term of 15 years. All such loans are secured by fishing vessels. The maximum loan in each case did not exceed the lower of 75% of cost or appraised value, and each owner was required to carry insurance on the vessel equal to 110% of the amount of the loan.

Amounts to be received by the Authority from the Appropriated Loans have not been pledged to the payment of any general obligation indebtedness (including the Bonds). As general assets of the Authority, such amounts (if not spent for other purposes) will be available for the payment of the Bonds in the event amounts on deposit under the applicable Bond Resolution and in the Capital Reserve Fund are insufficient for such purpose.

The Authority has created a loan loss reserve (which is not pledged to the Bonds) for the Appropriated Loans which had a balance as of June 30, 1984, of $2,567,000. In the year ended June 30, 1984, $728,332 was charged against the reserve for loan write-downs and charge-offs, but the reserve was restored by a like charge to current earnings.

Financial Covenants of the Authority

Each Bond Resolution (Part II, Section 713) contains the following financial covenants:

(A) The Authority shall not create or permit to be created any pledge, assignment, lien, encumbrance or charge on the Appropriated Loans whether in favor of the Bonds, any Series of Bonds or for any other purpose. The Authority may pay Costs of Issuance of any Series of Bonds and Operating Costs and any charges, and may make deposits into any funds or accounts of the Authority, from Appropriated Loan Receipts or from any source of funds.

(B) The Authority shall not incur any General Obligation Indebtedness unless the Net Income, as estimated in a Certificate of an Authorized Officer delivered at the time of the incurring of the General Obligation Indebtedness, over the term of all General Obligation Indebtedness equals not less than 150% of the General Obligation Annual Debt Service Requirements in each year in which General Obligation Indebtedness is outstanding. Such estimate shall be made after deducting an amount equal to an aggregate of all annual payments thereafter due on all Non-Current Assets. (As defined in the Bond Resolutions, Net Income includes (a) all revenues, including principal and interest receipts, derived from loan participations acquired with the proceeds of (i) Economic Development Bonds and other bonds which are tax exempt under Section 103(b)(6)(A) of the Code and are issued pursuant to a bond resolution with substantially the same general terms and conditions as are contained in the Economic Development Bond Resolutions, (ii) Consolidated Bonds and (iii) Variable Demand/Fixed Rate Bonds, (b) all Appropriated Loan Receipts, and (c) all other revenues or receipts of the Authority, but excluding any proceeds of money borrowed by the Authority, any revenues or receipts specifically pledged or assigned to the payment of any bonds or other indebtedness other than the Bonds or any Series of Bonds, and any amounts appropriated and paid to the Authority by the State, less Service Fees and all Operating Costs of the Authority.)

(C) The Authority shall not make any loans, incur any indebtedness, or expend any money, except for reasonable and necessary Operating Costs or the payment of principal and interest on any General Obligation Indebtedness, the effect of which would (i) reduce its estimated Net Income, estimated in the manner provided in clause (B), at any time to less than 150% of the General Obligation Annual Debt Service Requirements in any year in which General Obligation Indebtedness is Outstanding, or (ii) cause its unrestricted surplus to amount to less than \$100,000,000.

Covenant of the State

Pursuant to the Act, the State has pledged and agreed with the holders of any bonds and notes issued under the Act that the State will not limit or alter the rights vested in the Authority until such obligations, together with the interest thereon, are fully met and discharged, provided nothing shall preclude such limitation or alteration if and when adequate provision shall be made by law for the protection of the holders of such bonds and notes.

THE AUTHORITY

The Authority was created by the State Legislature in 1967 to promote, develop and advance the general prosperity and economic welfare of the people of the State, and to relieve problems of unemployment. In 1982, the Authority's enabling legislation was amended to add to its purpose the promotion, development and maintenance of an adequate supply of multi-family housing projects.

Powers

Under the Act the Authority has the power to adopt regulations; to acquire an interest in a project; to lease projects; to issue bonds; to sell and otherwise convey interests in its properties; to accept gifts, grants and loans; to deposit and invest funds; to enter into contracts; to purchase and insure loans; to make loans; to acquire, manage and operate projects; to assist private lenders to make loans; to facilitate the expansion of a secondary market for the resale of insured loans in Alaska held by financial institutions or by the Alaska Commercial Fishing and Agricultural Bank; and to participate with the Alaska State Housing Authority or municipalities in the financing of multi-family housing projects.

Pursuant to legislation enacted in 1984, the Authority is authorized to acquire, manage and operate projects which the Authority considers necessary or appropriate to serve a public purpose. The 1984 legislation prohibits the use of capital reserve funds to secure bonds of the Authority issued to finance such a project if a majority of the project is to be used, leased, or occupied by the State. In the case of a project acquired, managed or operated by the Authority and which is financed or developed through the use of the assets of the Economic Development Fund established pursuant to AS 44.88.172, the Authority may not pledge or use other assets of the Authority to assist in the financing, development or operation of the project.

Authority Members

The powers of the Authority are vested in its five directors: two members of the general public appointed by the Governor and three ex officio members. The ex officio members are the Commissioner of Commerce and Economic Development, the Commissioner of Revenue, and one other member of the Governor's Cabinet appointed at his discretion. The Commissioner of the State Department of Labor is the Cabinet member selected by the Governor as his discretionary appointee. The current directors of the Authority are:

LOREN H. LOUNSBURY, Chairman, Commissioner of the State Department of Commerce and Economic Development. Mr. Lounsbury was appointed Commissioner in January 1985. Prior to entering government service he was President of Lounsbury and Associates, Inc., a family-owned survey and engineering firm. A 40-year resident of Alaska, he has held leadership positions in both community and professional organizations in Alaska, including that of Honorary Consul, Republic of Korea in Anchorage. Mr. Lounsbury holds a Bachelor of Science degree in civil engineering from Oregon State University.

MICHAEL G. HARPER, Vice Chairman. Mr. Harper currently is Vice President of United Bank Alaska. Previously, he held the positions of Administrative Assistant to the Governor, Deputy Commissioner for the State Department of Community and Regional Affairs and Executive Director of the Rural Alaska Community Action Program. Mr. Harper was appointed as an Authority director in August 1981 and was subsequently reappointed for a term expiring on July 1, 1985.

JEFFREY HASSLER. Mr. Hassler is Executive Vice President of Carr-Gottstein Properties, Inc. and has been affiliated with the company for 15 years. His responsibilities have encompassed all phases of real estate development, from feasibility studies and construction to permanent financing, leasing and property management. Mr. Hassler holds a Bachelors degree in Business Administration and has been an Alaska resident since 1952. He was appointed a director of the Authority in July 1984 for a term expiring July 1, 1986.

MARY A. NORDALE, Commissioner of the State Department of Revenue. Ms. Nordale was appointed Commissioner in September 1984. She is a lifelong resident of Alaska. She holds degrees from Gonzaga and George Washington Universities and was admitted to the Alaska Bar in 1969. Her prior experience includes: Assistant U.S. Attorney (1968-1969), Assistant District Attorney (1969-1970), Branch Counsel for Small Business Administration (1970-1972) and private practice (1972-1984). She is a member of the Alaska, Tanana Valley, Federal and American Bar Associations as well as the District of Columbia Bar.

JIM ROBISON, Commissioner of the State Department of Labor. Mr. Robison was appointed Commissioner in December 1982, was appointed a director of the Authority in April 1984 and was subsequently reappointed to a term expiring July 1, 1986. A 38-year resident of Alaska, he has been engaged in all phases of the construction industry and has served in numerous positions with various labor organizations. Immediately prior to his appointment as Commissioner, Mr. Robison served as

Business Manager and Secretary/Treasurer of the Alaska State District Council of Laborers and then as President of the Alaska State AFL-CIO.

Authority Staff

The Authority's programs are managed by an administrative staff consisting of an Executive Director, three Deputy Directors, two loan officers and eleven other employees.

BERTRAM L. WAGNON is the Authority's Executive Director. Mr. Wagnon was appointed Executive Director in May 1982. Prior to his appointment as Executive Director, Mr. Wagnon served as Assistant Deputy Commissioner of the State Department of Transportation and Public Facilities and as Deputy Commissioner of the State Department of Commerce and Economic Development. Before entering State service, Mr. Wagnon was with an investment banking firm. He holds a degree in Business Administration from the University of Alaska.

Umbrella Bond Program

Under the Act and the regulations of the Authority, the Authority administers the Umbrella Bond Program to purchase participations of up to $10,000,000 in project loans. There are three types of bonds issued under the Umbrella Bond Program: Economic Development Bonds, Consolidated Bonds and Variable Demand/Fixed Rate Bonds. Economic Development Bonds (for issues of $1,000,000 or less for commercial and industrial facilities) are issued pursuant to Section 103(b)(6)(A) of the Code. Consolidated Bonds are issued pursuant to Section 103(b)(4) (residential rental housing and other exempt activities or facilities), Section 103(b)(5) (industrial parks) or Section 103(b)(6)(D) (commercial and industrial facilities) of the Code. Variable Demand/Fixed Rate Bonds may be issued pursuant to any of the above Sections of the Code.

Under the Umbrella Bond Program, the Authority issues commitments to Originators to provide monies to purchase not in excess of 90% interests in permanent loans (80% with respect to loan participations in excess of $1,000,000) for which such institutions have provided interim financing on a taxable basis. Upon completion of a project and satisfaction of all terms of the commitment, the Authority will acquire its participation in the loan for the project. Each Originator has entered into a Loan Participation and Servicing Agreement with the Authority (collectively, the "Agreements") pursuant to which the Originators have agreed to originate and service eligible loans made to borrowers. An Originator may subsequently sell or assign up to 90% of its interest in a loan, but only to regulated financial institutions and qualified pension trusts. A list of the Participations acquired by the Authority with the proceeds of each Series of the Bonds is set forth in Appendix A.

Approximate $53 million principal amount of the Authority's participations in loans made under the Umbrella Bond Program may be prepaid at any time without penalty after 30 days' notice. It is anticipated that some of these loans (and therefore the Authority's participations therein) will be prepaid and that the Authority will reinvest the proceeds of such prepayments by the acquisition of new participations or other permitted investments. The yield on such new participations or permitted investments will be limited by the provisions of Section 103 of the Code.

The Authority maintains a multi-family housing loan security fund which contained approximately $18.3 million of assets as of June 30, 1984. These funds are available to replenish any losses of the Authority on loans or to establish capital reserve funds to secure bonds issued in connection with the financing of multi-family housing projects.

As of December 31, 1984, there were $131,360,0000 Economic Development Bonds (including the $13,120,000 Floating Rate Bonds), $60,170,000 Consolidated Bonds and $12,200,000 Variable Demand/Fixed Rate Bonds outstanding. Economic Development Bonds and Consolidated Bonds are general obligations of the Authority additionally secured by separate capital reserve funds. The amounts required to be on deposit in the Economic Development Bond Capital Reserve Fund ($ upon the conversion of the Floating Rate Bonds to Bonds bearing fixed interest rates) and the Consolidated

Bond Capital Reserve Fund ($6,382,364 as of December 31, 1984) are available as a source of payment of only Economic Development Bonds and Consolidated Bonds, respectively.

The outstanding $12,200,000 Variable Demand/Fixed Rate Bonds are secured by a letter of credit issued by Lloyds Bank International Limited. The Authority's obligation to repay Lloyds Bank for any drawings under its letter of credit will constitute general obligation indebtedness of the Authority. Owners of the Variable Demand/Fixed Rate Bonds may tender their bonds for payment upon seven days' notice. The Authority has reserved the right to convert the Variable Demand/Fixed Rate Bonds to fixed interest rates. After such conversion such fixed rate bonds will be general obligations of the Authority and will be entitled to the benefit of a separate capital reserve fund.

Self-Sustaining Revenue Bond Program

Under the Act and the regulations of the Authority, the Authority administers a "self-sustaining" Revenue Bond Program intended to provide financing to those borrowers not using credit assistance by the Authority. As of December 31, 1984, the Authority had funded 220 projects aggregating $464 million under the Revenue Bond Program for businesses located in various parts of the State. These financings were made possible by the original enabling legislation as well as legislative amendments adopted in 1977 expanding the Authority's purposes to include commercial projects, air and water transportation facilities, pollution control facilities and facilities to furnish gas and electricity.

Bonds issued under the Revenue Bond Program have been and are expected to continue to be secured solely by the revenues to be derived from the project so financed or the private business for which the project is financed. No revenue bonds issued by the Authority do or will enjoy any claim on the capital reserve funds for the Economic Development Bond, Consolidated Bond and Variable Demand/Fixed Rate Bond programs. However, separate capital reserve funds and insurance funds may be established to secure such bond issues and, in the event of deficiencies therein, the Authority may be required to certify the amount of such deficiencies to the Governor and the State Legislature.

Federally Guaranteed Loan Participation Program

The Authority conducts a program of purchasing the guaranteed portion of loans guaranteed by the Small Business Administration and other independent agencies of the Federal government. As of June 30, 1984, the Authority had issued commitments for the purchase of participations in federally guaranteed loans aggregating $100.7 million and had funded $76.9 million of its participation commitments.

Additional Programs

Under the Act, the Authority is also empowered to:

(a) make loans to business enterprises for projects not qualifying for tax-exemption;

(b) establish a loan insurance program;

(c) purchase loans from the Alaska State Housing Authority or municipalities in the State in furtherance of the multi-family housing programs developed by the Alaska State Housing Authority or the municipalities; and

(d) acquire, manage and operate projects which the Authority considers necessary or appropriate to serve a public purpose.

Of these programs only the taxable bond program described in (a) above and certain projects described in (d) above may be financed by the issuance of general obligation bonds of the Authority, subject to the limitations on total outstanding general obligation indebtedness set forth in each Bond Resolution.

Operating Results and Financial Position

The following comparative table sets forth selected information relating to the operating results and financial position of the Authority for the following years ended June 30 (in millions):

	1984	1983	1982	1981
Net Earnings	$ 25.3	$ 22.6	$ 21.0	$ 16.5
Total Assets, as of June 30	$435.3	$350.3	$307.4	$217.6
Liabilities, as of June 30:				
General Obligation Debt	$155.4	$ 98.1	$ 78.4	$ 18.8
Other	5.1	3.4	2.7	1.5
Total Liabilities	$160.5	$101.5	$ 81.1	$ 20.3
Total Equity	$274.8	$248.9	$226.2	$197.2

See the audited Financial Statements with Accountants' Report Thereon attached hereto as Appendix C for further information about the financial condition of the Authority as of June 30, 1984.

The following table sets forth the loan delinquency experience for loans funded from the proceeds of Umbrella Bond Program bond issues.

LOAN DELINQUENCY EXPERIENCE OF UMBRELLA BOND PROGRAM LOANS
(as of December 31, 1984)

	Number of Days Delinquent			
	30	60	90	Total
Percent of Total Number of Loans Delinquent	1.32%	1.32%	1.06%	3.70%
Percent of Total Par Value of Loans Delinquent	0.62%	1.90%	0.46%	2.97%
Total Par Value of Loans Delinquent (millions)	$1.17	$3.56	$0.86	$5.59

The following table sets forth the loan delinquency experience of the Authority's Appropriated Loans portfolio.

LOAN DELINQUENCY EXPERIENCE OF STATE-APPROPRIATED LOANS
(as of December 31, 1984)

	Number of Days Delinquent			
	30	60	90	Total
Percent of Total Number of Loans Delinquent	2.52%	1.78%	5.49%	9.79%
Percent of Total Par Value of Loans Delinquent	1.80%	1.31%	4.72%	7.84%
Total Par Value of Loans Delinquent (millions)	$1.76	$1.28	$4.62	$7.66

The following table sets forth the loan delinquency experience for federally guaranteed loans funded by the Authority.

LOAN DELINQUENCY EXPERIENCE OF FEDERALLY GUARANTEED LOANS
(as of December 31, 1984)

	Number of Days Delinquent			
	30	60	90	Total
Percent of Total Number of Loans Delinquent	8.26%	1.18%	0.29%	9.73%
Percent of Total Par Value of Loans Delinquent	8.25%	1.13%	0.17%	9.55%
Total Par Value of Loans Delinquent (millions)	$5.61	$0.77	$0.11	$6.49

Loan Program Regulations

The Authority's Umbrella Bond Program is administered pursuant to regulations promulgated by the Authority. The Authority's regulations and procedures described herein are derived from the provisions of the Act and regulations of the Authority adopted under the Administrative Procedure Act of Alaska. These regulations and procedures are in all respects subject to amendment or change by the Alaska State Legislature or the Authority and are not covenants with bondholders.

Procedures

A business enterprise which wishes to receive a loan under the Umbrella Bond Program may apply for financing to any Originator. The Originator will then perform an initial review of the proposed use of funds, borrower eligibility and borrower creditworthiness. Thereafter the Originator will submit to the Authority on behalf of the borrower a preliminary application which contains sufficient information to allow the Authority to determine on a preliminary basis whether the proposed project and the applicant are eligible for consideration and whether interest on the Authority's Umbrella Bond Program bonds issued to fund the purchase of a participation in the loan will be tax-exempt under Section 103 of the Code. The preliminary application must be accompanied by a non-refundable $100 fee.

Upon review of a preliminary application by the Executive Director, Bond Counsel and the administrative staff of the Authority, a summary of the application is transmitted to the Authority's Board of Directors for consideration along with the Executive Director's recommendation. If the Authority determines to purchase a participation upon successful completion of the application process and acquisition or construction of the project by the applicant, the Authority adopts a resolution indicating its intent to issue bonds.

After adoption of such a resolution by the Authority, the Originator and borrower may submit an application for Authority participation in the loan. The Authority may require the following in an application:

1. Letter of transmittal.

2. Loan summary.

3. Signed loan application.

4. Current credit report.

5. Current financial statement.

6. Copies of the applicant's Federal income tax returns or audited financial statements for each of the past three years.

7. Copies of earnest money receipt and agreement, option to purchase, contract to purchase or invoice for purchase of (a) land, (b) land and improvements or (c) tangible personal property.

8. Leases for land or improvements related to the project.

9. Plans and specifications for construction of the project and a detailed project description for real or tangible personal property which is to be acquired rather than constructed.

10. Construction cost estimate.

11. For a real estate loan, a narrative appraisal report in a format consistent with standards established by the American Institute of Real Estate Appraisers or the Society of Real Estate Appraisers or, for a tangible personal property loan, an appraisal prepared by an appraiser who is acceptable to the Authority.

12. Copies of leases or binding commitments to lease or renew leases between the applicant and project tenants, including, where appropriate, a list of tenants with lease rates, terms and options.

13. Soil tests.

14. Proof of a business license.

15. Job certification forms.

16. Any other information required by the Authority.

The Authority may also require a financial feasibility study satisfactory to the Authority and, as applicable, require a statement from the borrower that the borrower is in compliance with the capital expenditure restrictions of Section 103(b)(6)(D) of the Code.

The Authority purchases participations in loans originated by Alaska commercial lending institutions (see "Umbrella Bond Program"). The Authority does not engage in direct lending activities. The Originator services both the Originator and the Authority portion of each loan. If more than 2% of the outstanding principal balance of Authority participations originated by any Originator are 90 days or more delinquent, such Originator is ineligible for future participation in Authority programs until the delinquencies on the Loan Participations it originated are reduced to less than the 2% limit. Authority loan participations are funded net of each borrower's share of pro rata costs of issuance and bond discount.

Industrial and Commercial Loan Criteria

Real Property Loans. Loan participation commitments for projects involving the purchase or improvement of interests in real property will be issued in accordance with the following criteria established by the Act and the Authority's regulations:

1. The Authority may loan, through its purchase of a participation in a loan from an Originator, up to $10,000,000 ($1,000,000 for Economic Development Bond issues) to applicants who are principal users or related persons in connection with a facility, provided that the Authority's Umbrella Bond Program bonds issued for that purpose qualify in all respects as tax-exempt obligations under Section 103 of the Code.

2. The loan shall be secured by a mortgage which shall constitute a first lien, subject to permitted encumbrances, on real estate in fee simple or on a leasehold estate.

3. The maximum loan-to-value ratio for the purchase of an existing project is 75% of the lesser of the appraised value or sale price of the project. The maximum loan-to-value ratio for the construction of a new project is the lesser of 75% of the appraised value or 100% of the certified costs approved by the Authority.

4. The rate of interest on the Authority's participation in a loan will be determined after sale of the Authority's Umbrella Bond Program bonds but may not exceed the interest rate paid by the Authority on the Umbrella Bond Program bonds by more than the percentage permitted under Section 103 of the Code and regulations promulgated thereunder. The rate of interest on the Originator's participation in a loan is established by the Originator but may not exceed a market rate.

5. The maximum term of any loan is the lesser of 25 years or 75% of the Authority's estimate of the economic life of the project.

6. The Originator of a loan under the Authority's Umbrella Bond Program must retain at least a 10% (20% for loans involving Authority loan participations in excess of $1,000,000) interest in the loan amount but may subsequently sell or assign up to 90% of its interest, but only to regulated financial institutions and qualified pension trusts. The Authority's participation will be adjusted to the next lower $5,000 increment.

7. Prior to closing, the Authority will require documentation:

(a) by a qualified appraiser that all construction was completed in conformance with the plans and specifications upon which the appraiser relied in formulating the appraisal;

(b) by the appropriate person or persons that the buildings and structures may be legally occupied and that the occupancy of buildings and structures conforms to all requirements of Federal, State and municipal law; and

(c) by a registered architect or professional engineer, if there is no appropriate person available for the purposes described in (b) above or, in any event, if required by the

Authority, that the property offered as security is structurally sound and that any buildings or structures conform to applicable building standards.

8. The terms and conditions of any leasehold estate securing a project are subject to approval by the Authority. The term of any lease must extend at least 10 years beyond the term of the loan, but leases for a shorter term, with options to renew, will be considered by the Authority on a case-by-case basis.

9. Secondary financing by an applicant will be permitted by the Authority on a project to be financed by the Authority on a case-by-case basis when the applicant is able to demonstrate that additional debt can be serviced from the cash flow generated by the real property offered as security for the loan.

10. The Authority may require personal guarantees from partners, joint venturers and substantial corporate stockholders (including those of a parent corporation if the applicant is a subsidiary corporation).

11. The Authority may require prepayment fees on its share in a loan in such amounts as it may determine.

12. Fire, extended coverage, vandalism and optional perils insurance is required for not less than 90% of the value of improvements to the real property, unless waived by the Authority. Natural hazard, including flood and earthquake, insurance may be required, and American Land Title Association type of title insurance coverage is also required.

Borrowers whose loans include funding from the proceeds of Consolidated Bonds issued subject to Section 103(b)(6)(D) of the Code have agreed to specifically limit their own future capital expenditures and those of other principal users and persons related to a principal user. In the event such capital expenditure limitations imposed by the Authority in the loan agreements or other documents are exceeded, the borrower is contingently liable to the Authority for any and all costs of the Authority incurred in the event of a violation of the capital expenditure limitations of Section 103(b)(6)(D) of the Code.

Tangible Personal Property Loans. Loan participation commitments for projects involving the acquisition or fabrication of tangible personal property, whether or not attached to real propery, will be issued in accordance with the following criteria established by the Act and the Authority's regulations.

1. The Authority may loan through its purchase of a participation in a loan from an Originator up to $10,000,000 ($1,000,000 for Economic Development Bond issues) to applicants who are principal users or related persons in connection with a facility, provided that the Authority's Umbrella Bond Program bonds issued for that purpose qualify in all respects as tax-exempt obligations under Section 103 of the Code.

2. The loan shall be secured by a security interest which shall constitute a first lien on the tangible personal property.

3. The maximum loan-to-value ratio is 75% of the lesser of the appraised value or purchase price of the project.

4. The rate of interest on the Authority's participation in a loan will be determined after sale of the Authority's Umbrella Bond Program bonds but may not exceed the interest rate paid by the Authority on the Umbrella Bond Program bonds by more than the percentage permitted under Section 103 of the Code and regulations promulgated thereunder. The rate of interest on the Originator's participation in a loan is established by the Originator but may not exceed a market rate.

5. The maximum term of any loan is the earlier of 15 years or 75% of the Authority's estimate of the economic life of the project.

6. The Originator of a loan under the Authority's Umbrella Bond Program must retain at least a 10% (20% for loans involving Authority loan participations in excess of $1,000,000) interest in the loan amount but may subsequently sell or assign up to 90% of its interest, but only to regulated financial institutions and qualified pension trusts. The Authority's participation will be adjusted to the next lower $5,000 increment.

7. The terms and conditions of any leasehold estate securing a project are subject to approval by the Authority.

8. The Authority may require personal guarantees from partners, joint venturers and substantial corporate stockholders (including those of a parent corporation if the applicant is a subsidiary corporation).

9. The Authority may require prepayment fees on its share in a loan in such amounts as it may determine.

10. Full-coverage insurance is required including, but not limited to, fire, theft, comprehensive, collision and liability in form and amount acceptable to the Authority.

Borrowers whose loans are funded from the proceeds of Consolidated Bonds issued subject to Section 103(b)(6)(D) of the Code have agreed to specifically limit their own future capital expenditures and those of other principal users and persons related to a principal user. In the event such capital expenditure limitations imposed by the Authority in the loan agreements are exceeded, the borrower is contingently liable to the Authority for any and all costs of the Authority incurred in the event of a violation of the capital expenditure limitations of Section 103(b)(6)(D) of the Code.

Housing Loan Criteria

Loan participation commitments for multi-family housing projects involving the purchase or improvement of interests in real property will be issued in accordance with the following criteria established by the Act and the Authority's regulations:

1. A project must contain no fewer than five housing units.

2. The principal amount of a non-federally insured or guaranteed loan may not exceed 75% of the appraised value of the project or 100% of the cost of construction of the project which has been certified by the borrower and Originator and approved by the Authority, whichever is less.

3. A loan, other than a loan referred to in paragraph 6 below, must be secured by a real property mortgage or deed of trust which is a first lien on real property in fee simple or on a leasehold estate. The Authority may, in its discretion, permit further encumbrances against the real property which do not in the Authority's opinion affect the security of the loan.

4. The term of a non-federally insured or guaranteed loan shall not exceed 25 years or 75% of the estimated economic life of the project, as determined by the Authority, whichever is less.

5. A loan shall be in the form and contain, among other things, the terms and provisions with respect to insurance, repairs, alterations, payment of taxes and assessments, default reserves, delinquency charges, default remedies, acceleration of maturity, secondary liens, assumability of the loan, and other matters, as the Authority determines.

6. The Authority may provide for secondary financing of a project in conjunction with a loan purchased by the Authority and secured by a first lien referred to in paragraph 3 above. The secondary loan may contain such terms as the Authority determines necessary to permit the bond financing of the first-lien loan participation including, without limitation, provisions for periodic advances of funds to meet the difference, as determined by the Authority, between principal and interest payments on bonds, the proceeds of which were expended to purchase the first-lien loan participation, and loan repayments net of fees. The secondary loan shall be subordinate to a loan participation purchased with the proceeds of bonds.

7. The loan documents shall contain such deed restrictions, tax-exempt compliance agreements, or other requirements as may be determined by the Authority to be necessary to cause the loan and the bonds issued to finance the purchase of a participation in the loan to comply with the applicable provisions of Section 103(b)(4)(A) of the Code and the regulations and rulings issued or proposed to be issued thereunder, as determined by the Authority.

8. Before funding a loan, the Originator shall obtain a statement in writing from:

(a) the appraiser that construction was substantially completed according to the plans and specifications relied on by the appraiser in making the fair-market-value appraisal required by the Authority;

(b) a registered architect or professional engineer that the property securing the loan is structurally sound or that the buildings or structures thereon conform to applicable building standards, or from an authorized official that the buildings may be occupied and that the occupancy, buildings and structures conform to all applicable requirements of Federal, State and municipal law; and

(c) other persons as directed by the Authority concerning matters which are reasonable and customary in commercial loan transactions.

9. Unless waived by the Authority, the borrower shall obtain fire, extended coverage, vandalism and optional perils insurance for not less than 100% of the value of the improvements on the real property. Natural hazard insurance coverage for flood and earthquake may be required by the Authority. American Land Title Association type of title insurance coverage is also required.

10. The Authority may require a guarantee for repayment of the loan from such persons as the Authority determines.

11. Pursuant to an agreement with the Municipality of Anchorage, multi-family housing projects constructed within Anchorage must comply with the conservation-of-energy and access-for-handicapped requirements of the Municipality.

Loan Commitment

A loan participation commitment is effective upon payment of a non-refundable commitment fee by the borrower. By its commitment the Authority agrees to purchase a participation in a loan to the borrower in an amount and on the terms and conditions described in the loan commitment.

A decision by the Authority's staff not to approve a loan participation application may be appealed by the Originator by filing a written notice of appeal with the Board of Directors of the Authority within 10 days of notification that the loan participation application has not been approved. The Board of Directors is required to issue its decision within 45 days after receipt of the notice of appeal based solely upon the loan application documents originally filed.

Loan Closing and Disbursement of Funds

The Authority issues its bonds in amounts sufficient to provide the necessary funds for the Authority's purchase of its interest in the permanent financing for each project being financed. Upon certification by the Originator and the borrower that all provisions of the loan commitment have been complied with, the loan participation will be scheduled for closing and disbursement of funds to the Originator.

Servicing of Loans

The Authority has entered into a loan servicing agreement with each Originator which:

(a) provides that all servicing be by a regulated financial institution within the State and that the Originator hold at least that portion of the loan minimally required to be held by the

Originator, as previously described herein under "Real Property Loans" and "Tangible Personal Property Loans";

(b) provides the methods whereby delinquent collections will be made and foreclosure or exercise of security rights will be undertaken by the Originator;

(c) provides for periodic reports to the Authority by the Originator; and

(d) requires the Originator to service the loan in accordance with acceptable practices of prudent lending including, but not limited to, the exercising of diligence in collecting amounts due under the Loan.

The Originator must provide a bond deemed sufficient by the Authority to protect the Authority against errors, omissions and fraud.

In the event of any material breach by an Originator of any agreement or covenant contained in the loan servicing agreement which remains uncorrected for 30 days, the Authority may at its option, require the Originator to repurchase the Authority's interest in any loan. Furthermore, the Act requires the Authority to discontinue purchasing participations from any Originator whenever more than 2% of the participations purchased from such Originator are 90 or more days delinquent.

General Provisions

A borrower requesting a loan will, upon receipt of a written request from the Authority, make its books and records available for inspection by the Authority at a reasonable time. As long as any bonds issued by the Authority to finance the purchase of a participation in a loan are outstanding, the Authority may, in its discretion, require an applicant whose financing of a project is approved, or who is the recipient of a loan, to permit and pay the costs of an audit or examination of its books and records by an independent firm of certified public accountants at a reasonable time to determine whether the borrower has complied with the provisions of the bonds.

SUMMARY OF CERTAIN PROVISIONS OF EACH BOND RESOLUTION AND OF THE ECONOMIC DEVELOPMENT BOND CAPITAL RESERVE FUND RESOLUTION

Each Series of the Bonds is issued pursuant to a separate Bond Resolution. The Bonds, together with all other Economic Development Bonds, are entitled to the benefits and security of the Economic Development Bond Capital Reserve Fund Resolution. Reference is made to each Bond Resolution and the Economic Development Bond Capital Reserve Fund Resolution for a full and complete statement of their provisions. The following is a brief summary of certain provisions contained in each Bond Resolution and the Economic Development Bond Capital Reserve Fund Resolution and should not be considered a full statement thereof.

BOND RESOLUTION

Definitions (Section 101)

"Appropriated Loans" means the loans appropriated to the Authority pursuant to Section 9 of Chapter 120, Session Laws of Alaska, 1980, as described in a certificate of an authorized officer on file with the Trustee.

"Appropriated Loan Receipts" shall mean the scheduled payments (representative of principal or interest or proceeds of insurance) called for by any Appropriated Loan and paid to the Authority from any source, including both timely and delinquent payments with late charges, and all amounts received by the Authority as a recovery of the principal amount, including any premium or penalty with respect thereto, on account of (i) the advance payment of amounts to become due pursuant to such Appropriated Loan, (ii) the sale, assignment, endorsement or other disposition thereof, or (iii) the acceleration of payment due thereunder or other remedial proceedings taken in the event of a default thereon, but shall not mean or include any payments with respect to such Appropriated Loans received prior to April 1, 1981, any amount retained by the servicer, if there be one, as service fees, or payments of ground rents, taxes, assessments or mortgage, fire or other hazard insurance premiums or like payments.

"Bond" shall mean one of the bonds to be authenticated and delivered pursuant to the Bond Resolution.

"Capital Reserve Fund" shall mean the fund so entitled established in the Capital Reserve Fund Resolution.

"Capital Reserve Fund Requirement" shall have the meaning ascribed thereto in the Capital Reserve Fund Resolution.

"Capital Reserve Fund Resolution" shall mean the Economic Development Bond Capital Reserve Fund Resolution of the Authority adopted on April 13, 1981, as amended.

"Fiduciary" shall mean the Trustee and any Paying Agent, or any or all of them, as may be appropriate.

"Fiscal Year" shall mean a twelve-month period commencing on the first day of July of any year.

"General Obligation Annual Debt Service Requirements" shall mean the amounts required to be paid in each Fiscal Year as sinking fund installments, or as principal not required to be redeemed through the payment of said sinking fund installments, and interest payable, adjusted for capitalized interest or scheduled redemption through payment of said sinking fund installments on General Obligation Indebtedness, all in accordance with the terms of the General Obligation Indebtedness.

"General Obligation Indebtedness" shall mean all indebtedness, including, without limitation, the Bonds and all Series of Bonds, notes or other forms of indebtedness of the Authority payable from its income and receipts or assets generally, whether or not additionally secured in any manner, but shall not include liabilities or obligations in the nature of accounts payable incurred as Operating Costs of the Authority or amounts loaned by the State subordinate in all respects to General Obligation Indebtedness then outstanding or thereafter issued.

"Investment Securities" shall mean and include any of the following obligations, to the extent the same are at the time legal for investment of funds of the Authority:

(1) direct obligations of or obligations guaranteed by the United States of America;

(2) any bond, debenture, note, participation certificate or other similar obligation issued by any of the following agencies: Government National Mortgage Association, Federal Land Banks, Federal Home Loan Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Tennessee Valley Authority, United States Postal Service, Farmers' Home Administration and Export-Import Bank;

(3) any bond, debenture, note, participation certificate or other similar obligation issued by the Federal National Mortgage Association to the extent such obligations are guaranteed by the Government National Mortgage Association or issued by any other Federal agency and backed by the full faith and credit of the United States of America other than as provided in (1) hereof;

(4) any other obligation of the United States of America or any Federal agency which may then be purchased with funds belonging to the State or which are legal investments for savings banks in the State;

(5) Public Housing Bonds issued by public agencies or municipalities and fully secured as to the payment of both principal and interest by a pledge of annual contributions under an annual contributions contract or contracts with the United States of America or temporary notes, preliminary loan notes or project notes issued by public agencies or municipalities, in each case fully secured as to the payment of both principal and interest by a requisition or payment agreement with the United States of America;

(6) direct and general obligations of or obligations guaranteed by the State of Alaska, to the payment of the principal of and interest on which the full faith and credit of the State is pledged;

(7) units of participation in any money market fund constituting an investment trust, the corpus of which is restricted to cash, direct obligations of or obligations guaranteed by the United States of America, or repurchase agreements with respect to such obligations; and

(8) deposits in interest-bearing time or demand deposits, or certificates of deposit, secured by obligations described in clauses (1), (2), (3), (4), (5), or (6) above.

"Net Income" means (a) all revenues, including principal and interest receipts, derived from loan participations acquired with the proceeds of (i) Economic Development Bonds and other bonds which are tax exempt under Section 103(b)(6)(A) of the Code and are issued pursuant to a bond resolution with substantially the same general terms and conditions as are contained in the Economic Development Bond Resolutions, (ii) Consolidated Bonds and (iii) Variable Demand/Fixed Rate Bonds; (b) all Appropriated Loan Receipts; and (c) all other revenues or receipts of the Authority, but excluding any proceeds of money borrowed by the Authority, any revenues or receipts specifically pledged or assigned to the payment of any bonds or other indebtedness other than the Bonds or any Series of Bonds, and any amounts appropriated and paid to the Authority by the State, less Service Fees and all Operating Costs.

"Non-Current Assets" shall mean loans and securities of the Authority, including, without limitation, Appropriated Loans, on which payments of principal or interest are 90 days or more delinquent.

"Operating Costs" shall mean, as of any date, all the Authority's expenses in carrying out and administering its powers, duties and functions under the Act, including service fees on any loan for which there is no servicer, and shall include, without limiting the generality of the foregoing, (a) salaries, supplies, utilities, mailing, labor, materials, office rent, maintenance, furnishings, equipment, machinery and apparatus, and insurance premiums, (b) legal, accounting, management, consulting and banking services and expenses, (c) the fees and expenses of any trustee, depositary or paying agents, (d) costs of issuance not paid from proceeds of a Series of Bonds, (e) payments to pension, retirement, health and hospitalization funds, and (f) any other expenses required or permitted to be paid by the Authority under the Act.

"Pledged Receipts" shall mean (i) the scheduled payments (representative of principal or interest or proceeds of insurance or amounts withdrawn from the Recoveries of Principal Account with respect thereto) called for by any Loan Participation and paid to the Authority from any source, including both timely and delinquent payments with late charges, but shall not include or mean any amount retained by a Loan servicer as Service Fees, or payments of ground rents, taxes, assessments or mortgage, fire or other hazard insurance premiums or like payments, and (ii) all income earned or gain realized in excess of losses suffered on any investment or deposit of monies in Funds or Accounts established and maintained pursuant to the Bond Resolution, other than the Pledged Receipts Account.

"Project Security Contract" shall mean the participation certificate issued to the Authority and evidencing the interest of the Authority in an economic development loan.

"Recoveries of Principal" shall mean all amounts received by the Authority as a recovery of the principal amount disbursed by the Authority in connection with any Loan Participation, including any premium or penalty with respect thereto, on account of (i) the advance payment of amounts to become due pursuant to such Loan Participation, (ii) the sale, assignment, endorsement or other disposition thereof, or (iii) the acceleration of payments due thereunder or other remedial proceedings taken in the event of a default thereon.

"Revenues" shall mean the Pledged Receipts and Recoveries of Principal.

"Series of Bonds" shall mean Bonds and any other series of bonds which are tax exempt under the provisions of Section 103(b)(6)(A) of the Code and which are issued by the Authority pursuant to a bond resolution with substantially the same general terms and conditions as to the bonds as are contained in the Economic Development Bond Resolutions.

"Service Fees" shall mean the reasonable or necessary expenses of servicing any economic development loan participations.

Bond Resolution to Constitute Contract (Section 202)

In consideration of the purchase and acceptance of the Bonds by those who shall hold the same from time to time, the provisions of the Bond Resolution shall constitute a contract with the holders of the Bonds. The pledges contained in the Bond Resolution and the covenants and agreements set forth therein shall be for the equal benefit, protection and security of the holders of any Bonds, without preference, priority or distinction of any Bonds over any other, except as expressly provided in the Bond Resolution.

Obligation of Bonds and Pledge Effected by the Resolution (Sections 204 and 501)

The Bonds are general obligations of the Authority, and the revenues, including amounts representing payments of principal, to be derived from the Participations financed with the proceeds of each Series of Bonds and all amounts in any Fund or Account, including investments thereof, established under the Bond Resolution are pledged to secure the payment of the principal or redemption price of and interest on the Bonds (including the sinking fund payments for the retirement thereof) in accordance with their terms and the provisions of the Bond Resolution, subject only to the provisions of the Bond Resolution permitting the application or release thereof for or to the purposes and on the terms and conditions therein set forth.

The Authority also pledges and assigns the Participations financed under the Bond Resolution to the Trustee, reserving to the Authority, except in the event of default, the right to administer and enforce the provisions of the documents evidencing the Participations in its own discretion and to enter into amendments with respect thereto, including releases of security and removal of covenants and conditions contained therein.

Application of Bond Proceeds and Other Amounts (Article IV)

The Bond Resolution establishes separate Loan Participation Accounts and Recoveries of Principal Accounts for each project within the Loan Participation Fund and the Revenue Fund, respectively. The monies deposited in a Loan Participation Account or a Recoveries of Principal Account may be used for the financing of Loan Participations but only if:

(1) the Authority is of the opinion and determines in accordance with the Act that the Revenues derived from the project to be financed thereby shall be sufficient (i) to pay the principal, as the same becomes due at maturity or upon redemption by application of sinking fund payments, of and interest on the Bonds issued to finance such project, (ii) to establish, increase and maintain any reserves deemed by the Authority to be advisable to secure the payment of the principal of and interest on such Bonds, (iii) unless the person entering into the Project Security Contract is obligated to pay for the maintenance and insurance of the project, to pay the cost of maintaining the project in good repair and keeping it properly insured and (iv) to pay such other costs or taxes on the project as may be required and that such person is found by the Authority to be financially responsible and presumptively able to comply with the terms and conditions of any Project Security Contract with respect to such project;

(2) one or more Project Security Contracts have been executed which, upon the use and application of any monies for such project as permitted in the Bond Resolution, shall evidence the rights of the Authority in a Loan; and

(3) there shall be filed in the records of the Authority an opinion of counsel satisfactory to the Trustee (who may be counsel to the Authority) to the effect that, in the opinion of such counsel, such Project Security Contracts have been duly and validly executed and delivered and

as of the date of delivery thereof constituted valid and binding agreements between the parties thereto enforceable in accordance with their terms, except as the same may be limited by bankruptcy, insolvency or similar laws affecting creditors' rights, but such opinion may be subject to such exceptions and qualifications as an authorized officer shall determine to be reasonable and not to indicate a substantial impairment of the Authority's rights in the project and the Project Security Contracts;

(4) there shall be filed in the records of the Authority a certificate of an authorized officer stating that to the best of his information knowledge and belief:

(a) the costs of the project to be financed were not incurred prior to the approval of the project by the Authority, which may include preliminary approval in accordance with the practice of the Authority;

(b) there are no outstanding obligations described in Section 103 of the Code, the proceeds of which were used with respect to facilities of which the principal user is or will be the same person or two or more related persons and which are located in the same incorporated municipality as the project or the same Borough (but not in any incorporated municipality other than the Borough), or in the Unorganized Borough, or in any other of the project locations specified in Part I of the Bond Resolution and which would cause the aggregate face amount of the Bonds to be treated as exceeding $1,000,000 pursuant to Section 103(b)(6)(A) of the Code;

(c) the proceeds of the Bonds used by the Authority to finance a Loan Participation in respect of the project will be used in their entirety for the acquisition, construction, reconstruction or improvement of land or property of a character subject to depreciation for Federal income tax purposes;

(d) the proceeds of the Bonds used by the Authority to finance a Loan Participation in respect of the project will not be used in any manner which would cause the Bonds to be "arbitrage bonds" within the meaning of Section 103(c) of the Code; and

(e) the average maturity of the Bonds does not exceed 120% of the average reasonably expected economic life of the project in accordance with Section 103(b)(14) of the Code, which shall be accompanied by (i) a certificate of the project occupant stating the average reasonably expected economic life of the project if a substantial portion of the project consists of personal property and (ii) a certificate of the financial advisor to the Authority stating the average maturity of the Bonds, the proceeds of which are expected to be used to finance said project.

Establishment of Funds and Accounts (Section 502)

Each Bond Resolution establishes the following Funds and Accounts, which are to be held in trust by the Trustee and the depositaries selected by the Trustee:

(1) Loan Participation Fund:
    (a) Loan Participation Account

(2) Revenue Fund:
    (a) Pledged Receipts Account
    (b) Recoveries of Principal Account

(3) Debt Service Fund:
    (a) Interest and Principal Account
    (b) Redemption Account

(4) Surplus Reserve Fund

Loan Participation Fund (Section 503)

Amounts in the Loan Participation Fund may be expended only (i) to pay the cost of financing Loan Participations, (ii) to pay the reasonable and necessary costs of issuance of the Bonds, (iii) to the extent that amounts in any other Fund or Account are insufficient or unavailable therefor, to pay the principal or redemption price of and interest on the Bonds when due, but only if there shall have been filed with the Trustee a certificate of an authorized officer of the Authority stating (a) that the Revenues expected to be received thereafter by the Authority together with amounts expected to be made available therefor by the Authority will be sufficient to pay in full the principal or redemption price, if any, of and interest (and any arrears thereof) on all outstanding Bonds when and as the same shall become due, and (b) in reasonable detail, the basis for such certification, or (iv) applied to the redemption of Bonds. Any amount remaining in the Loan Participation Fund on February 1, 1986, shall be applied to redeem Bonds on April 1, 1986.

Revenue Fund (Section 504)

All Pledged Receipts and Recoveries of Principal are to be transmitted to the Trustee regularly or at least semiannually prior to the fifth day preceding any interest payment date and deposited into the Pledged Receipts Account and Recoveries of Principal Account, respectively. On or before the day preceding each interest payment date, the Trustee is required to make payments from the Pledged Receipts Account into the following Funds and Accounts in the following amounts and in the following sequence:

FIRST: Into the Interest and Principal Account, the amount necessary to increase the amount in such Account so that it equals the sum of (i) unpaid interest on the outstanding Bonds accrued and to accrue to such interest payment date and (ii) the principal installments accrued and to accrue to such interest payment date, assuming the accrual of principal installments on the same basis as interest accrues commencing one year prior to the next principal installment date, and with respect only to principal installments on outstanding Bonds due and payable on either of the two next succeeding interest payment dates.

SECOND: Into the Surplus Reserve Fund, the amount remaining.

Amounts on deposit in each Recoveries of Principal Account shall be applied to the redemption of Bonds or (i) invested in Investment Securities sufficient, in the opinion of the Authority, to provide for the payment of the principal of and interest on the Bonds as the same become due or (ii) expended to finance further loan participations, provided that the Authority has been furnished with a counsel's opinion or a ruling of the Internal Revenue Service to the effect that the financing of such further loan participations will not result in the inclusion of interest on any Bond in the gross income of the holder thereof for Federal income tax purposes. The Authority covenants that prior to applying amounts in any Recoveries of Principal Account to the redemption of Bonds, it will use its best efforts to apply such monies to the purchase of Investment Securities or to finance further loan participations.

Debt Service Fund (Section 505)

The Trustee is required to pay out of the Interest and Principal Account to the respective Paying Agents for any of the Bonds, on or before each interest payment date, the amounts required for the payment of interest on the outstanding Bonds due on such date and, on or before the redemption date, or date of purchase, the amounts required for the payment of accrued interest on Bonds redeemed or purchased for retirement (unless the payment of such accrued interest shall be otherwise provided for), and such amounts shall be applied by the Paying Agents to such payments.

The Trustee is required to pay out of the Interest and Principal Account to the respective Paying Agents, on the day preceding each principal installment date for any of the outstanding Bonds, the amounts required for the payment of principal due on such date, and such amounts shall be applied by the Paying Agents to such payments.

The amount accumulated in the Interest and Principal Account for each sinking fund payment may, and if so directed by the Authority shall, be applied (together with amounts accumulated in the Interest and Principal Account with respect to interest on the Bonds for which such sinking fund payment was established) by the Trustee prior to the forty-fifth day preceding the due date of such sinking fund payment as follows:

(1) to the purchase of Bonds for which such sinking fund payment was established, at prices (including any brokerage and other charges) not exceeding the applicable redemption price, plus unpaid interest accrued to the date of purchase, such purchases to be made in such manner as the Trustee shall determine, or

(2) to the redemption, pursuant to the Bond Resolution, of such Bonds, if then redeemable by their terms, at their applicable redemption prices.

Surplus Reserve Fund (Section 506)

Amounts in the Surplus Reserve Fund shall be deposited or transferred by the Trustee to the Interest and Principal Account on the day preceding each interest payment date to provide the amount necessary to increase the amount therein so that it equals (a) the interest due on such date or (b) if such interest payment date is also a principal payment date, the interest and principal, in that order, due on such date. On the day following the day each principal payment is due, the Trustee, upon the direction of the Authority, shall pay to the Authority all amounts in the Surplus Reserve Fund free and clear of any lien or pledge created by or pursuant to the Bond Resolution for expenditure for any lawful purpose of the Authority consistent with Section 706 relating to Tax Covenants.

Deposits (Section 507)

Any amounts held under the Bond Resolution may be deposited in the commercial banking department of the Fiduciary or depositary holding such amounts which may honor checks and drafts thereon as if it were not such Fiduciary or depositary. All amounts so deposited are required to be continuously and fully secured either by lodging Investment Securities with the Trustee as collateral or in such other manner as may then be required by applicable Federal or State laws regarding the deposit of trust funds.

Investment of Certain Funds (Section 508)

Amounts held under the Bond Resolution may be invested in Investment Securities or deposited in interest-bearing time deposits, certificates of deposit or other similar banking arrangements with the Trustee, banks of the Federal Reserve System or banks the deposits of which are insured by the Federal Deposit Insurance Corporation.

Valuation of Investments (Section 509)

In computing the amount in any Fund or Account, obligations purchased as an investment of amounts therein are to be valued at par, if purchased at par, or at amortized value if purchased at other than par. Valuation is to be made at least 30 days before each interest payment date and on any particular date shall include the amount of interest then earned or accrued to such date.

Payment of Bonds (Section 701)

The Authority covenants that it will duly and punctually pay or cause to be paid the principal or redemption price, if any, of every Bond and the interest thereon, at the dates and places and in the manner mentioned in the Bonds according to the true intent and meaning thereof, and shall duly and punctually pay or cause to be paid all sinking fund payments, if any, becoming payable with respect to any Bonds.

Tax Covenants (Section 706)

The Authority covenants not to permit at any time or times any of the proceeds of the Bonds or other funds of the Authority to be used directly or indirectly to acquire any securities or obligations, the acquisition of which would cause any Bond to be an "arbitrage bond" as defined in Section 103(c)(2) of the Code and that it will not permit such proceeds or other funds to be used in a manner which would result in the exclusion of any Bond from the treatment afforded by Section 103(a) of the

Code, except in the case of Bonds held by a "substantial user" or "related person" within the meaning of Section 103(b) of the Code.

Loan Participations (Section 709)

The Authority from time to time shall, with all practical dispatch and in a sound and economical manner consistent in all respects with the Act, with the provisions of the Bond Resolution and with sound banking practices and principles, (i) use and apply the proceeds of the Bonds (to the extent not reasonably or otherwise required for other purposes of the Act) to finance Loan Participations, (ii) do all things necessary to receive and collect Pledged Receipts and, when applicable, Recoveries of Principal, sufficient to pay the principal or redemption price of and interest on the Bonds and (iii) diligently enforce and take all steps reasonably necessary to maintain any insurance on the Loan Participations and the projects related thereto and to enforce all terms, covenants and conditions of the Loan Participations. The Authority covenants not to sell or assign a Loan Participation other than for the purpose of foreclosure or realizing the benefits of insurance with respect thereto or the project relating thereto.

General Obligation Indebtedness (Section 712)

If the Authority authorizes any General Obligation Indebtedness other than the Bonds or a Series of Bonds, it will establish and maintain a capital reserve fund with terms and provisions the same as the terms and provisions contained in the Capital Reserve Fund Resolution.

Negative Covenants (Section 713)

(A) The Authority covenants not to create or permit to be created any pledge, assignment, lien, encumbrance or charge on the Appropriated Loans for any purpose. The Authority may pay costs of issuance of any Series of Bonds and Operating Costs and any charges, and may make deposits into any funds or accounts of the Authority, from Appropriated Loan Receipts or from any source of funds.

(B) The Authority covenants not to incur any General Obligation Indebtedness unless the Net Income as estimated in a certificate of an authorized officer delivered at the time of the incurring of the General Obligation Indebtedness over the term of all General Obligation Indebtedness equals not less than 150% of the General Obligation Annual Debt Service Requirements in each year in which General Obligation Indebtedness is outstanding. Such estimate shall be made after deducting an amount equal to an aggregate of all annual payments thereafter due on all Non-Current Assets.

(C) The Authority covenants not to make any loans, incur any indebtedness, or expend any money except for reasonable and necessary Operating Costs or the payment of principal and interest on any General Obligation Indebtedness the effect of which would (i) reduce its estimated Net Income, estimated in the manner provided in clause (B), at any time to less than 150% of the General Obligation Annual Debt Service Requirements in any year in which General Obligation Indebtedness is outstanding, or (ii) cause its unrestricted surplus to amount to less than $100,000,000.

Events of Default (Section 1001)

Each of the following events is an "Event of Default": (1) the Authority shall default in the payment of the principal or redemption price of any Bond when and as the same shall become due, whether at maturity or upon call for redemption or otherwise; (2) payment of any installment of interest on any of the Bonds shall not be made when the same shall become due; (3) the Authority shall file a petition in bankruptcy or seeking a composition of indebtedness under the Federal bankruptcy laws or under any other applicable law of the United States of America or of the State; (4) the Trustee has been notified by the trustee under the Capital Reserve Fund Resolution that an event of default specified in the Capital Reserve Fund Resolution has occurred; (5) the Authority shall fail or refuse to comply with the provisions of the Bond Resolution, or shall default in the performance or observance of any of the covenants, agreements or conditions contained therein, in any supplemental resolution, or in the Bonds, and such failure, refusal or default shall continue for a period of 45 days after written notice thereof by the Trustee or the holders of not less than 5% in principal amount of the outstanding Bonds.

Remedies (Section 1002)

Upon the happening and continuance of any Event of Default specified in clauses (1) through (3) of Section 1001, the Trustee shall proceed, or upon the happening and continuance of any Event of Default specified in clauses (4) and (5) of Section 1001, the Trustee may proceed, and upon the written request of the holders of not less than 25% in principal amount of the outstanding Bonds is required to proceed, in its own name, subject to the Bond Resolution, to protect and enforce its rights and the rights of the Bondholders by such of the following remedies as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights: (a) by mandamus or other suit, action or proceeding at law or in equity, to enforce all rights of the Bondholders (including the right to require the Authority to receive and collect revenues, including Pledged Receipts and Recoveries of Principal, adequate to carry out the covenants and agreements as to, and assignment of, the Loan Participations) and to require the Authority to carry out any other covenant or agreement with Bondholders and to perform its duties under the Act; (b) by bringing suit upon the Bonds; (c) by action or suit in equity, to require the Authority to account as if it were the trustee of an express trust for the holders of the Bonds; (d) by action or suit in equity, to enjoin any acts or things which may be unlawful or in violation of the rights of the holders of the Bonds; (e) by declaring all Bonds due and payable, and if all defaults shall be cured, then, with the written consent of the holders of not less than 25% in principal amount of the outstanding Bonds, by annulling such declaration and its consequences; or (f) in the event all Bonds are declared due and payable, by selling Loan Participations. Upon commencement of judicial proceedings by the Trustee to enforce the rights of the Bondholders under the Bond Resolution, the Trustee is entitled to cause the appointment of a receiver for the Authority.

Priority of Payments After Default (Section 1003)

If, upon the happening and continuance of any Event of Default, the funds held by the Trustee and Paying Agents are insufficient for the payment of principal or redemption price, if any, and interest then due on the Bonds, such funds (other than funds held for the payment or redemption of particular Bonds which have theretofore become due) and any other amounts received or collected by the Trustee are to be applied as follows, after making provision for the payment of expenses to protect the interests of the holders of the Bonds and of charges, expenses and liabilities incurred and advances made by the Trustee or any Paying Agents in the performance of their respective duties under the Bond Resolution:

1. Unless the principal of all of the Bonds shall have become or have been declared due and payable:

FIRST: To the payment to the persons entitled thereto of all installments of interest then due in the order of maturity, and, if the amount available shall not be sufficient to pay in full any installment, then to the payment thereof ratably to the persons entitled thereto, without any discrimination or preference; and

SECOND: To the payment to the persons entitled thereto of the unpaid principal or redemption price of any Bonds which shall have become due, whether at maturity or by call for redemption, in the order of their due dates and, if the amounts available shall not be sufficient to pay in full all the Bonds due on any date, then to the payment thereof ratably to the persons entitled thereto, without any discrimination or preference.

2. If the principal of all of the Bonds shall have become or have been declared due and payable, to the payment of the principal and interest then due and unpaid upon the Bonds without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, ratably to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds.

ECONOMIC DEVELOPMENT BOND CAPITAL RESERVE FUND RESOLUTION

Definitions (Section 101)

"**Bonds**" shall mean bonds of a Series which are tax exempt under the provisions of Section 103(b)(6)(A) of the Code issued by the Authority pursuant to a bond resolution or bond resolutions with substantially the same terms and conditions as are contained in the Bond Resolution.

"**Bond Trustee**" shall mean the trustee appointed under each resolution securing Bonds and its successor or successors and any other person substituted in its place under said resolution.

"**Capital Reserve Fund**" shall mean the Capital Reserve Fund established pursuant to Section 301.

"**Capital Reserve Fund Requirement**" shall mean, as of any particular date of calculation, the amount of money equal to the average of the amounts of money required to be paid in each future Fiscal Year until the last maturity date of outstanding Bonds for interest payable on Bonds and for the amortization of principal installments, including sinking fund payments.

"**Capital Reserve Fund Trustee**" shall mean the trustee appointed under the Capital Reserve Fund Resolution.

"**Fiduciary**" shall mean the Capital Reserve Fund Trustee, any Bond Trustee and any Paying Agent acting under any resolution securing a Series of Bonds.

"**Fiscal Year**" shall mean a twelve-month period commencing on the first day of July of any year.

"**Interest and Principal Account**" shall mean the Interest and Principal Account established pursuant to a resolution securing a Series of Bonds.

"**Investment Securities**" shall mean and include any of the following obligations, to the extent the same are at the time legal for investment of funds of the Authority under the Act:

(1) direct obligations of or obligations guaranteed by the United States of America;

(2) any bond, debenture, note, participation certificate or other similar obligation issued by any of the following agencies: Government National Mortgage Association, Federal Land Banks, Federal Home Loan Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Tennessee Valley Authority, United States Postal Service, Farmers' Home Administration and Export-Import Bank;

(3) any bond, debenture, note, participation certificate or other similar obligation issued by the Federal National Mortgage Association to the extent such obligations are guaranteed by the Government National Mortgage Association or issued by any other Federal agency and backed by the full faith and credit of the United States of America other than as provided in (1) hereof; and

(4) deposits in interest-bearing time or demand deposits, or certificates of deposit, secured by obligations described in clauses (1), (2), and (3).

"**Series**" shall mean all the Bonds of a series authenticated and delivered as a series of bonds under an authorizing bond resolution.

Resolution to Constitute Contract (Section 202)

In consideration of the purchase and acceptance of the Bonds by those who shall hold the same from time to time, the provisions of the Capital Reserve Fund Resolution shall constitute a contract between the Authority, the Capital Reserve Fund Trustee, the Bond Trustee and the holders from time to time of the Bonds. The pledges contained in the Capital Reserve Fund Resolution and the provisions, covenants and agreements therein set forth shall be for the equal benefit, protection and security of the holders of any and all of such Bonds, all of which shall be of equal rank without preference, priority or distinction of any of such Bonds over any other thereof, except as expressly provided in the Capital Reserve Fund Resolution.

Pledge Effected by Capital Reserve Fund Resolution (Section 301)

The amounts in the Capital Reserve Fund, including the investments thereof, are pledged to secure the payment of the principal or redemption price, if any, of and interest on all Bonds (including the sinking fund payments established by the resolutions securing the Bonds for the retirement thereof) in accordance with their terms and the provisions of said resolutions subject only to the provisions of the Capital Reserve Fund Resolution permitting the application or release thereof for or to the purposes and on the terms and conditions herein and therein set forth.

Operation of Capital Reserve Fund (Section 302)

(A) If on any interest payment date or redemption date for any Bonds the amount in the Interest and Principal Account or a redemption account established under a resolution securing the Bonds shall be less than the amount required for the payment of all principal installments or redemption price and interest on the outstanding Bonds due on such interest payment date, or redemption date, upon notification by the Bond Trustee acting under the resolution securing the Bonds, the Capital Reserve Fund Trustee shall transfer amounts from the Capital Reserve Fund to the Bond Trustee to the extent necessary to make good the deficiency.

(B) If on the first days of January, April, July or October of each year the amount in the Capital Reserve Fund is in excess of the Capital Reserve Fund Requirement, the Capital Reserve Fund Trustee shall transfer at the request of the Authority the amount of such excess to the Authority free and clear of any lien or pledge created by or pursuant to the Capital Reserve Fund Resolution for expenditure by the Authority for any lawful purpose.

(C) The Capital Reserve Fund Trustee shall sell, redeem or transfer Investment Securities to the extent necessary to make any required or permitted payment or transfer and, at the direction of the Authority, shall sell, redeem or transfer Investment Securities as necessary to comply with this section.

Investment of the Capital Reserve Fund (Section 303)

(A) Monies in the Capital Reserve Fund shall be invested in Investment Securities so that the maturity date or date of redemption at the option of the holder thereof shall coincide as nearly as practicable with the times at which monies are needed by the Authority to be so expended. The Investment Securities purchased shall be held by the Capital Reserve Fund Trustee and shall be deemed at all times to be part of the Capital Reserve Fund, and the Capital Reserve Fund Trustee shall keep the Authority advised as to the details of all such investments. The Capital Reserve Fund Trustee shall sell at the best price obtainable, or present for redemption, any Investment Securities purchased by it as an investment whenever it shall be necessary in order to provide monies to meet any payment from the Capital Reserve Fund. The Authority may direct the Capital Reserve Fund Trustee to enter into financial transactions under which Investment Securities are sold under an agreement providing for their repurchase at a future date for a fixed price.

(B) In lieu of such investments the Capital Reserve Fund Trustee shall, at the written direction of an authorized officer of the Authority, deposit amounts or cause amounts to be deposited from the Capital Reserve Fund in interest-bearing time deposits, or certificates of deposit, or shall make other similar banking arrangements, with itself or a member bank or banks of the Federal Reserve System or banks the deposits of which are insured by the Federal Deposit Insurance Corporation. Each such interest-bearing time deposit or certificate of deposit or other similar banking arrangement shall permit the monies so placed to be available for use at the times at which monies are needed by the Authority to be expended. All monies in each such interest-bearing time deposit or certificate of deposit or other similar banking arrangement shall be continuously and fully secured by direct obligations of the United States of America or of the State or obligations the principal and interest of which are guaranteed by the State or the United States of America, of a market value equal at all times to the amount of the deposit, certificate or other similar banking arrangement.

(C) Investment Securities purchased as an investment of monies in the Capital Reserve Fund under the provisions of the Capital Reserve Fund Resolution shall be deemed at all times to be a part of the Capital Reserve Fund until transferred therefrom as permitted by this section.

Maintenance of Capital Reserve Fund (Section 305)

(A) The Authority shall at all times maintain the Capital Reserve Fund in an amount at least equal to the Capital Reserve Fund Requirement and do and perform or cause to be done and performed each and every act and thing with respect to the Capital Reserve Fund required to be done or performed by or on behalf of the Authority or the Capital Reserve Fund Trustee under the terms and provisions of the Capital Reserve Fund Resolution or by or on behalf of the Authority or each Bond Trustee under the terms and provisions of all resolutions securing Bonds or of the Act.

(B) In order to better secure the Bonds and to make such Bonds more marketable and to maintain in the Capital Reserve Fund an amount equal to the Capital Reserve Fund Requirement, and in furtherance of the provisions of the Act, the Authority shall cause its Chairman at least annually, no later than January 2 of each year, to make and deliver to the Governor and to the Legislature his certificate stating the amount, if any, required to restore the Capital Reserve Fund to the Capital Reserve Fund Requirement. All monies received by the Authority from the State in accordance with the provisions of the Act pursuant to any such certification shall be paid to the Capital Reserve Fund Trustee for deposit and credit to the Capital Reserve Fund.

Events of Default (Section 601)

Each of the following is an "Event of Default":

(1) the Authority shall fail or refuse to comply with the provisions of subsection (B) of Section 305; or

(2) the amounts certified pursuant to Section 305 shall not have been paid by the State for deposit in the Capital Reserve Fund within 90 days of the date of such certification; or

(3) the Authority shall fail or refuse to comply with the provisions of the Capital Reserve Fund Resolution, or shall default in the performance or observance of any of the covenants, agreements or conditions on its part contained therein or in any supplemental resolution.

Remedies (Section 602)

Upon the happening and continuance of any Event of Default specified in Section 601, the Capital Reserve Fund Trustee may proceed and, upon the written request of the holders of not less than 25% in principal amount of the outstanding Bonds, shall proceed, in its own name, subject to the provisions of the Capital Reserve Fund Resolution, to protect and enforce the rights of the Bondholders by such of the following remedies as the Capital Reserve Fund Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights:

(1) by mandamus or other suit, action or proceeding at law or in equity, to enforce all rights of the Bondholders, and to require the Authority to carry out any other covenants or agreements with Bondholders and to perform its duties under the Act; or

(2) by action or suit in equity, to enjoin any acts or things which may be unlawful or in violation of the rights of the holders of the Bonds.

ABSENCE OF MATERIAL LITIGATION

The Authority will furnish a certificate, dated the Conversion Date, of an authorized officer of the Authority to the effect that there are no proceedings or litigation of any nature pending or threatened restraining or enjoining the issuance, sale, execution or delivery of the Bonds, or in any way contesting or affecting the validity of the Bonds or any proceedings of the Authority taken with respect to the issuance or sale thereof or the right, power or authority of the Authority with respect to the pledge or application of any monies or securities provided for the payment of the Bonds or the existence or powers of the Authority.

Members of the First Session, Thirteenth Alaska State Legislature have commenced litigation in the Superior Court for the State of Alaska, Third Judicial District, in an action styled *Abood et al. vs. Gorsuch et al.* (Case No. 3 AN 83-5980-CIV) challenging the legality of the proceedings taken during that Session with respect to the confirmation by the Legislature of certain State Commissioners and other State officers appointed by the Governor who are named as defendants in the litigation. Among other things, the plaintiffs seek a declaratory judgment that each defendant is unlawfully holding or exercising a public office. Two of the Commissioners by virtue of their offices served as members of the five-member Board of Directors of the Authority on the date of the issuance of the Floating Rate Bonds. On October 22, 1984, the Superior Court issued an opinion granting the defendants' motion for summary judgment and dismissing the case. The plaintiffs filed notice of appeal of the Superior Court decision to the Supreme Court of Alaska on October 30, 1984. It is the opinion of the Attorney General of the State of Alaska and of Bond Counsel that the confirmation of all Commissioners will ultimately be validated in such judicial proceeding. It is further the opinion of the Attorney General and Bond Counsel that even if the plaintiffs ultimately prevail, actions taken by the Authority in connection with the authorization, issuance, sale or delivery of the Bonds would not be invalidated and that any claim to the contrary is without merit.

FINANCIAL STATEMENTS

The financial statements of the Authority have been examined by Peat, Marwick, Mitchell & Co., Anchorage, Alaska, independent certified public accountants, to the extent and for the periods indicated in their report. Such financial statements have been appended to this Official Statement as Appendix C and are included in reliance upon the report of such firm as experts in accounting and auditing.

BOND RATINGS

Moody's Investors Service, Inc. has assigned the Bonds a rating of . Standard & Poor's Corporation has assigned the Bonds a rating of . The ratings assigned by the rating agencies reflect only the respective views of the rating agencies, and an explanation of the significance of such ratings may be obtained only from the respective rating agencies. The rating agencies have the right to change, suspend or withdraw their ratings at any time, and any such action may have an adverse effect upon the market price of the Bonds.

LEGAL OPINION

The Bonds were issued subject to the opinion of Wohlforth & Flint, Bond Counsel, of Anchorage, Alaska, approving the legality of the issuance thereof. Legal matters incident to the conversion of the Bonds from Bonds bearing a floating interest rate to Bonds bearing fixed interest rates and the sale thereof to the Underwriters are subject to the approval of Bond Counsel. Certain legal matters will be passed upon for the Underwriters by their counsel, Preston, Thorgrimson, Ellis & Holman of Seattle, Washington.

TAX EXEMPTION

In the opinion of Bond Counsel, interest on the Bonds is exempt from Federal income taxes under existing statutes, rulings and court decisions, except that no opinion is expressed as to the exemption from such taxes of interest on any Bond for any period during which such Bond is held by a person who, within the meaning of Section 103(b) of the Code, is a substantial user of facilities with respect to which the proceeds of the Bonds were issued, or a related person.

UNDERWRITING

The Bonds are being purchased by Prudential-Bache Securities Inc. and Goldman, Sachs & Co. as representatives of the Underwriters. The Underwriters have agreed to purchase the Bonds at an aggregate purchase price of $, plus accrued interest. The Underwriters intend to offer the Bonds to the public at the offering prices set forth on the cover page of this Official Statement. The Underwriters may allow concessions from the public offering prices to certain dealers, who may reallow concessions to other dealers. After the initial public offering, the public offering price may be varied from time to time by the Underwriters.

EXECUTION OF OFFICIAL STATEMENT

The execution and delivery of this Official Statement have been authorized by the Authority. This Official Statement is submitted only in connection with the conversion of the interest rates on the Bonds from a floating rate to fixed rates and the sale of the Bonds and may not be reproduced or used in whole or in part for any other purpose.

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

/s/ BERTRAM L. WAGNON
Executive Director

BOND AMORTIZATION SCHEDULES BY SERIES
($000)

Year	Series 332	333	334	336	337	338	339	340	341	342	343	344	345	347	348	349	350	351	Maturity Total
1986	20	10	5	5	10	25	15	10	15	15	10	20	10	35	5	15	5	15	245
1987	20	10	5	10	10	55	15	10	15	15	15	20	10	35	5	15	5	15	285
1988	20	10	10	10	10	60	15	15	20	15	15	25	10	40	5	15	10	15	320
1989	20	10	10	10	15	65	20	15	20	20	15	25	10	45	5	20	10	15	350
1990	25	15	10	10	15	70	20	15	20	20	20	25	10	45	5	20	10	20	375
1991	30	15	10	10	15	80	20	20	25	20	20	30	10	50	10	20	10	20	415
1992	30	15	15	10	20	90	25	20	25	25	20	30	10	55	10	25	10	25	460
1993	35	15	15	10	20	95	25	20	30	25	25	35	15	60	10	25	15	25	500
1994	40	20	15	15	20	105	30	20	35	30	20	40	15	65	10	30	15	30	555
1995	40	25	15	15	25	—	30	25	35	30	30	45	20	75	10	30	15	30	495
1996	45	25	20	15	25	—	35	25	40	35	30	50	20	85	10	35	20	35	550
1997	50	30	20	20	30	—	40	30	45	35	35	55	20	90	15	40	20	40	615
1998	60	30	25	20	35	—	45	30	50	40	40	60	25	105	15	45	20	40	685
1999	65	35	25	25	40	—	50	35	55	45	45	65	25	115	15	50	25	45	760
2000	70	35	30	25	40	—	55	40	60	55	50	75	30	—	20	55	25	50	715
2001	80	45	30	30	45	—	60	45	70	60	55	85	35	—	20	55	30	55	800
2002	90	45	35	30	50	—	65	50	75	65	60	90	40	—	25	65	35	65	885
2003	100	50	40	35	55	—	75	55	85	70	65	100	50	—	25	75	40	70	990
2004	110	60	40	40	60	—	80	60	95	80	75	115	50	—	30	85	40	80	1,100
2005	—	60	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110
2006	—	70	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125
2007	—	80	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140
2008	—	90	65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155
2009	—	100	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	170
	950	900	675	345	540	645	720	540	815	700	645	990	415	900	250	720	360	690	11,800

ESTIMATED AGGREGATE DEBT SERVICE AND COVERAGE SCHEDULE
CONSOLIDATED BONDS AND ECONOMIC DEVELOPMENT BONDS
ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

Year Ending June 30	Combined Debt Service Requirements (1)	Estimated Net Income: Outstanding Loan Rev's (2)	Est. New Loan Rev's (2)	Other Rev (3)	Interest Income (4)	Total Net Income	Est. Cov. (5)	Excess Revenues	Base Plus Cumulative Excess Rev's
1985	$ 26,102,605	$ 24,322,039	$ 669,158	$ 28,207,502	$ 8,959,422	$ 62,158,121	2.38	$36,055,516	$ 102,783,623
1986	25,470,758	24,983,625	1,484,060	27,547,689	11,413,251	65,428,625	2.57	39,957,867	138,839,139
1987	25,093,210	24,430,035	1,484,060	26,190,062	10,172,476	62,276,633	2.48	37,183,423	178,797,006
1988	24,265,366	23,696,125	1,484,060	25,087,961	11,943,786	62,211,932	2.56	37,946,566	215,980,429
1989	23,836,613	23,279,465	1,484,060	22,921,175	13,965,985	61,650,685	2.59	37,814,072	253,926,995
1990	23,704,805	23,173,605	1,484,060	21,523,784	16,045,759	62,227,208	2.63	38,522,403	291,741,067
1991	23,708,624	23,176,825	1,484,060	20,178,405	18,164,491	63,003,781	2.66	39,295,157	330,263,470
1992	23,420,659	22,809,265	1,484,060	18,265,527	20,325,724	62,884,576	2.69	39,463,917	369,558,627
1993	22,947,428	22,445,165	1,484,060	17,114,706	22,496,240	63,540,171	2.77	40,592,743	409,022,544
1994	22,762,694	22,261,575	1,484,060	14,834,361	24,728,841	63,308,837	2.78	40,546,143	449,615,287
1995	22,549,700	22,191,585	1,466,373	16,379,561	26,958,879	66,996,398	2.97	44,446,698	490,161,430
1996	22,542,983	22,231,435	1,466,373	8,220,046	29,403,447	61,321,301	2.72	38,778,318	534,608,128
1997	22,140,689	21,723,975	1,466,373	6,861,950	31,536,255	61,588,553	2.78	39,447,864	573,386,446
1998	21,239,449	20,911,455	1,466,373	6,099,324	33,705,887	62,183,039	2.93	40,943,590	612,834,310
1999	20,897,281	20,562,500	1,466,373	3,993,259	35,957,785	61,979,917	2.97	41,082,636	653,777,900
2000	20,115,793	19,901,894	1,296,320	2,485,431	38,217,329	61,900,974	3.08	41,785,181	694,860,536
2001	20,130,873	19,914,875	1,296,320	2,123,376	40,515,514	63,850,085	3.17	43,719,212	736,645,717
2002	19,626,418	19,374,465	1,296,320	2,000,324	42,920,071	65,591,180	3.34	45,964,762	780,364,929
2003	18,532,440	18,274,865	1,296,320	1,749,874	45,448,133	66,769,192	3.60	48,236,752	826,329,691
2004	18,052,786	17,699,441	1,296,320	1,091,845	48,101,154	68,188,760	3.78	50,135,974	874,566,443
2005	15,385,276	16,644,491	799,336	774,743	50,858,633	69,077,203	4.49	53,691,927	924,702,417
2006	15,343,951	16,020,535	184,392	613,242	53,811,689	70,629,858	4.60	55,285,907	978,394,344
2007	13,997,939	14,470,395	184,392	649,858	56,852,414	72,157,059	5.15	58,159,120	1,033,680,251
2008	9,298,515	9,735,277	184,392	472,246	60,051,165	70,443,080	7.58	61,144,565	1,091,839,371
2009	5,751,476	5,374,013	184,392	153,080	63,414,116	69,125,601	12.02	63,374,125	1,152,983,936
2010	1,637,788	192,974	99,161	0	66,899,693	67,191,828	41.03	65,554,040	1,216,358,061
	$508,556,119	$499,801,899	$29,475,228	$275,539,331	$882,868,139	$1,687,684,597			

(1) Includes (a) the $13,120,000 Floating Demand/Fixed Rate Economic Development Bonds, Series 332 through 351 at actual interest cost to March 1, 1985, and an estimated interest rate of 10% thereafter to the Conversion Date, and (b) the $11,800,000 Bonds at an estimated interest rate of 10% from the Conversion Date.

(2) Revenues are net of all fees and expenses. Schedule assumes that loans are funded on anticipated funding dates. Estimated New Loan Revenues are from Loan Participations funded by proceeds of the Floating Rate Bonds.

(3) Represents revenues from the loans appropriated by the State to the Authority, net of all fees. Principal and interest on loans delinquent more than 90 days are not included. Also includes revenue from certain loans and participations purchased by the Authority, primarily participations in loans guaranteed by the Small Business Administration.

(4) Includes income from investment of certain assets and excess net revenues of the Authority at actual present rates and at an assumed rate of 5.5% compounded annually for periods after present investments mature.

(5) Coverage reflects debt service requirements, including mandatory sinking fund requirements. There are currently outstanding $6,035,000 Economic Development Bonds which may be tendered for payment by the holders thereof commencing April 1, 1987 ($80,000 of which are subject to Mandatory Sinking Fund redemption on April 1, 1987). If all of such bonds were tendered for payment on April 1, 1987, the estimated coverage for the year ending June 30, 1987, would decline from 2.48 to 2.01. The reduction in annual debt service requirements thereafter would result in slightly higher coverage multiples for the years 1988 through 2007 than those shown above.

NOTE: Table does not include the outstanding $12,200,000 Variable Demand/Fixed Rate Bonds, 1984 Series A and B, nor the loan revenues and investment earnings associated therewith because those bonds will not become general obligations of the Authority until such time as they are converted to Fixed Rate Consolidated Bonds.

PEAT MARWICK

Peat, Marwick, Mitchell & Co.
Certified Public Accountants
Alaska Mutual Bank Building
601 West 5th Avenue, Suite 700
Anchorage, Alaska 99501

The Board of Directors
Alaska Industrial Development Authority:

We have examined the balance sheets of Alaska Industrial Development Authority as of June 30, 1984 and 1983, and the related statements of earnings and retained earnings and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned financial statements present fairly the financial position of Alaska Industrial Development Authority at June 30, 1984 and 1983, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Peat, Marwick, Mitchell & Co.

August 3, 1984

APPENDIX C

PEAT MARWICK

Peat, Marwick, Mitchell & Co.
Certified Public Accountants
Alaska Mutual Bank Building
601 West 5th Avenue, Suite 700
Anchorage, Alaska 99501

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Peat, Marwick, Mitchell & Co.

August 3, 1984

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

Balance Sheets

June 30, 1984 and 1983

Assets	1984	1983
Cash	$ 33,271	$ 8,284
Investments, partially restricted (note 3)	101,489,304	88,162,708
Loans (note 4)	327,595,487	257,043,035
Less allowance for possible loan loss	2,567,000	2,567,000
Net loans	325,028,487	254,476,035
Accrued interest receivable	5,445,694	4,289,332
Unamortized bond issue costs	3,247,920	3,351,481
Other	56,120	9,661
	$ 435,300,796	$ 350,297,501

Liabilities and Equity	1984	1983
Notes and bonds payable (note 6)	$ 155,431,775	$ 98,085,736
Accrued interest payable	4,422,171	3,072,556
Deposits from others	574,225	266,650
Other	95,051	32,573
	160,523,222	101,457,515
Equity:		
Contributed capital (note 1)	189,256,532	188,588,332
Retained earnings	85,521,042	60,251,654
Total equity	274,777,574	248,839,986
Commitments (note 9)		
	$ 435,300,796	$ 350,297,501

See accompanying notes to financial statements.

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

Statements of Earnings and Retained Earnings

Years ended June 30, 1984 and 1983

	1984	1983
Revenues:		
Interest, net of servicing fees	$ 41,278,732	$ 33,529,884
Fees (note 7)	1,510,262	1,218,261
Miscellaneous	86,623	26,582
Total revenues	42,875,617	34,774,727
Expenses:		
Interest	15,457,760	10,799,620
Salaries and employee benefits	760,911	677,957
Professional fees	134,023	122,605
Travel	39,089	38,657
Rent	121,850	100,527
Furniture and equipment	125,675	40,801
Amortized bond issue costs	136,291	139,676
Loan loss	728,332	149,157
Other	102,298	129,156
Total expenses	17,606,229	12,198,156
Net earnings	25,269,388	22,576,571
Retained earnings at beginning of year	60,251,654	37,675,083
Retained earnings at end of period	$ 85,521,042	$ 60,251,654

See accompanying notes to financial statements.

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

Statements of Changes in Financial Position

Years ended June 30, 1984 and 1983

	1984	1983
Sources of financial resources:		
Net income	$ 25,269,388	$ 22,576,571
Appropriations from State of Alaska	668,200	-
Repayments on loans	32,458,109	28,744,764
Issuance of notes and bonds payable	62,195,000	23,205,000
Increases in:		
Accrued interest payable	1,349,615	556,682
Deposits from others	307,575	251,850
Other liabilities	62,478	-
Decreases in:		
Cash	-	9,442
Accrued interest receivable	-	811,259
Unamortized bond issue costs	103,561	158,118
	$122,413,926	$ 76,313,686
Uses of financial resources:		
New loans disbursed	$103,010,561	$ 66,003,719
Payments on notes and bonds payable	4,848,961	3,510,000
Increases in:		
Cash	24,987	-
Investments	13,326,596	6,647,461
Accrued interest receivable	1,156,362	-
Other assets	46,459	6,924
Decreases in:		
Deferred revenue	-	25,867
Other liabilities	-	119,715
	$122,413,926	$ 76,313,686

See accompanying notes to financial statements.

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

Notes to Financial Statements

June 30, 1984 and 1983

(1) Historical

The Alaska Industrial Development Authority (Authority) is a public corporation of the State of Alaska, constituting a political subdivision within the Department of Commerce and Economic Development, but with separate and independent legal existence. The Authority's purpose is to promote, develop and advance the general welfare of the people of Alaska by providing permanent, long-term financing for industrial, manufacturing and other business enterprises.

Prior to July 1, 1980, the Authority's sole means of providing financing for business enterprises was through a tax-exempt stand-alone revenue bond program. Funds were provided to qualified applicants by issuance of the Authority's industrial development revenue bonds, which are secured solely by the revenue earned by the applicant's project and the financial credit of the individual applicant.

Since July 1, 1980, the legislature of the State of Alaska has appropriated the following to the Enterprise Development fund of the Authority:

(a) $23,668,200 cash.

(b) All rights, title and interest in loans, with remaining principal balances totaling approximately $166,000,000, held by the State Department of Revenue and State Department of Commerce and Economic Development.

(c) Assets and liabilities of the Alaska State Development Corporation, the Small Business Development Corporation and the Alaska Toll Bridge Authority, with fund balances of $2,554,055.

(Continued)

State of Alaska legislation has also enabled the Authority to significantly expand its financing programs as follows:

(a) A tax-exempt umbrella bond program, under which the Authority's bonds are sold on national markets, was established to provide loans of up to $10,000,000. The proceeds of the sales are used to purchase portions of loans made by financial institutions to their customers. The bonds may be secured by any or all of the following:

- -- The full faith and credit of the Authority.
- -- Principal and interest payments received on the loans.
- -- Collateral held by the Authority on projects financed by the loans.
- -- A Capital Reserve Fund to be established from the State appropriation.
- -- A negative covenant on other commitment of assets.

(b) The tax-exempt stand-alone revenue bond program was also expanded to enable the Authority to issue bonds to provide funds for business enterprises other than those of a manufacturing or industrial nature. Such bonds are not secured by the full faith and credit of the Authority and are not recorded as obligations of the Authority.

(c) The Authority has annual authorization to finance projects totaling $400,000,000 under its bond programs.

(d) Uncommitted funds held in the Enterprise Development Fund may be used to purchase the guaranteed portion of business loans (usually 90% of the loan amount) guaranteed by the Small Business Administration, the National Marine Fisheries Service or the Farmers Home Administration.

(e) On June 24, 1982, legislation was signed into law by the Governor of Alaska providing authorization and funding of a multifamily housing loan program. Under this legislation, $21,000,000 in certificates of deposit were appropriated by the State to the Authority in July 1982 for a multifamily housing loan security fund to provide a loan loss reserve for certain multifamily housing loans. As the legislation excluded the assets of the fund from the general assets of the Authority, the fund and the earnings thereon are not recorded on the financial statements of the Authority.

In July of 1983, the Alaska legislature approved a bill which transferred $5,000,000 of certificates of deposit, held in the multifamily loan security fund, to other State uses and expanded the uses of the remaining funds enabling the Authority to utilize the assets of the fund for capital reserve fund purposes and to provide a loan loss reserve for all multifamily housing loans. The fund balance at June 30, 1984, was $18,345,200 after transferring $668,200 to the Authority for capital reserve purposes.

(Continued)

(2) Summary of Significant Accounting Policies

Basis of Accounting

The Authority uses the accrual basis of accounting, under which revenues are recorded when earned, and expenditures are recorded when liabilities are incurred.

Investments

Investments are recorded at the acquisition cost which approximates market.

Income Taxes

The Internal Revenue Code provides that gross income for tax purposes does not include income accruing to a state or territory, or any political subdivision thereof, which is derived from the exercise of any essential governmental function or from any public utility. According to the Alaska Statutes, the Authority constitutes a political subdivision of Alaska and is therefore exempt from State and Federal taxes.

Tax-Exempt Stand-Alone Revenue Bonds

Tax-exempt stand-alone revenue bonds issued by the Authority are not general obligations of the Authority. They are payable solely out of the revenues derived from the financing of projects. They do not constitute indebtedness of the Authority within the meaning of any provision or limitation of the Constitution or Statutes of the State of Alaska, and they do not constitute or give rise to a pecuniary liability of the Authority or a charge against its general credit.

The repayments of these bonds by the various entities on whose behalf they have been issued are made directly to the trustee for each bond issued and, therefore, are not recorded as revenues and expenses of the Authority.

Allowance for Loan Loss

Management regularly reviews the loan portfolio and determines provision for loss based upon experience and management's estimate of potential loss.

Retirement Plan

All employees of the Authority participated in the State of Alaska Public Employees' Retirement System. The State's policy is to fund pension costs accrued.

(Continued)

Bond Issue Costs

When advanced by the Authority, costs of bond issues, including underwriters' fees and commissions, legal fees, bond insurance and printing, are amortized over the life of the bond issue on the straight-line method and are recovered from the borrowers primarily as a part of the interest rate charged. Current practice is to require borrowers to pay for bond costs at the time of funding.

Furniture and Equipment

Purchases of furniture and equipment are expensed, as such items are the property of the State of Alaska.

(3) Investments

At June 30, 1984, all investments were in United States Government securities or commercial paper, yielding interest at 9.5% to 13.0% and maturing within one year, except $4,899 in United States Treasury Notes maturing in 1990.

At June 30, 1983, all investments were in certificates of deposit, United States Government securities or commercial paper, yielding interest at 8.5% to 15.0%, and maturing within six months, except United States Treasury notes maturing $115,307 in 1984 and $4,899 in 1990.

Certain invested funds are restricted by the terms of the Authority's bond resolution and are held and invested by the trustee. A summary of these investments follows:

Name	Restriction	Amount 1984	Amount 1983
Loan participation funds	Committed loans not closed at June 30	$ 3,210,000	$ 1,600,000
Capital reserve funds	Secure debt service payment - bonds	15,870,477	10,117,508
Debt service funds	Loan repayments and funds held for debt service - bonds	11,707,225	7,761,125
		$ 30,787,702	$ 19,478,633

(Continued)

The Capital Reserve Fund is maintained for the purpose of making principal and interest payments on the bonds payable if monies received by the Authority and available for the payment of bond principal and interest are insufficient to make the required debt service payments. The amounts held in the capital reserve funds are equal to the average of the amounts required to be paid for principal and interest in each future fiscal year until maturity of the outstanding bonds. On the first day of January, April, July and October of each year, the Authority must replenish the capital reserve funds to the required amounts or may withdraw any excess amounts.

(4) Loans

Loans outstanding at June 30, 1984 and 1983 are classified as follows:

	1984		1983	
Loan Type	Number	Amount	Number	Amount
Appropriated	699	$ 105,594,820	763	$ 120,348,684
Federally guaranteed	308	60,202,983	217	39,185,785
Bond sale	365	161,797,684	267	97,508,566
	1,372	$ 327,595,487	1,247	$ 257,043,035

An aging of loans as of June 30, 1984 and 1983 follows:

	1984		1983	
Loan Age	Amount	Percent	Amount	Percent
Current	$ 312,325,338	95.34	$ 242,381,031	94.38%
Past due:				
30-60 days	7,194,844	2.20	7,004,586	2.72
61-90 days	2,555,586	.78	1,680,004	.65
Over 90 days	5,519,719	1.68	5,977,414	2.25
	$ 327,595,487	100.00%	$ 257,043,035	100.00%

(5) Tax-Exempt Stand-Alone Revenue Bonds Issued

At June 30, 1984, the Authority had issued tax-exempt stand-alone revenue bonds totaling $392,138,180 for 176 projects in various parts of Alaska, including $105,432,875 issued for 65 projects during the year ended June 30, 1984.

(Continued)

(6) Notes and Bonds Payable

Notes and bonds payable at June 30, 1984 and 1983 consisted of the following:

	1984	1983
Economic development bonds:		
7-1/2% to 11-3/8%, issued April 1, 1981, maturing between 1982 and 2007	$ 15,725,000	$ 16,590,000
9-3/4% to 13-5/8%, issued October 15, 1981, maturing between 1983 and 2008	52,590,000	55,000,000
12.875%, issued August 15, 1982, maturing between 1984 and 2008	920,000	930,000
10% to 11.25%, issued October 1, 1982, maturing between 1983 and 2008	6,890,000	7,195,000
10% and 11.375%, issued December 1, 1982, maturing between 1984 and 2009	2,905,000	3,335,000
8.5% to 10.5%, issued November 1, 1983, maturing between 1984 and 2009	11,870,000	
7.75% to 10.75%, issued December 1, 1983, maturing between 1984 and 2009	16,395,000	
Consolidated bonds:		
13% and 13.5%, issued April 1, 1982, maturing between 1984 and 2008	2,945,000	2,975,000
9.5% and 10.125%, issued October 1, 1982, maturing between 1984 and 2008	4,420,000	4,465,000
10% and 11.375%, issued December 1, 1982, maturing between 1984 and 2008	6,920,000	7,080,000
6.5% to 10.25%, issued July 1, 1983, maturing between 1985 and 2010	14,445,000	
9.75% to 10.5%, issued November 1, 1983, maturing between 1984 and 2009	11,600,000	
9.25% to 10.75%, issued December 1, 1983, maturing between 1984 and 2009	7,700,000	
2% certificates of deposit originally issued by the Alaska State Development Corporation, due August 1, 1983	106,775	515,736
	$ 155,431,775	$ 98,085,736

The bonds payable are secured by the general assets of the Authority, including loans, loan proceeds and capital reserve funds of $15,870,477 established pursuant to terms of the bond resolutions (note 3).

(Continued)

The principal portions of the bonds payable mature as follows:

Year ending June 30	Total principal maturing
1985	$ 4,385,000
1986	4,285,000
1987	4,210,000
1988	3,805,000
1989	3,790,000
1990-1994	22,910,000
1995-2010	111,940,000
	$ 155,325,000

(7) Fees

At the time tax-exempt stand-alone revenue bonds are issued by the Authority to provide financing for a project of an applicant, the applicant shall pay a financing fee equal to 1% of the first $1,000,000 of the principal amount of the bonds issued, 1/2% of the next $4,000,000 of the principal amount of the bonds issued, 1/4% of the next $10,000,000 of the principal amount of the bonds issued, and 1/10% of the principal amount of the bonds issued in excess of $15,000,000.

The Authority charges borrowers under the tax-exempt umbrella bond program a nonrefundable commitment fee equal to 1% of the Authority's participation in the loan.

The commitment fee for a multifamily housing loan is 2% of the principal amount of the participation of the Authority in the loan and is nonrefundable.

The Authority also charges a preapplication fee of $100 to each applicant under the stand-alone revenue bond program, the umbrella bond program or the multifamily bond program.

Applicants pay the cost of issuing bonds, underwriters' discount, financial advisor fees, bond counsel fees and other costs of the Authority.

(Continued)

(8) Retirement Plan

The Authority participates in the State of Alaska Public Employees' Retirement System. Plan expense for the years ended June 30, 1984 and 1983 were $79,429 and $68,250, respectively.

Information as to accumulated plan benefits and net assets available for plan benefits is not available on an individual agency basis for each State agency which participates in the State of Alaska Public Employees' Retirement System.

(9) Commitments

At June 30, 1984 and 1983, the Authority had entered into loan commitment agreements for loans of $34,637,093 and $59,431,000, respectively.

NORTH SLOPE BOROUGH

OFFICE OF THE MAYOR

P.O. Box 69
Barrow, Alaska 99723

Phone: 907-852-2611

George N. Ahmaogak, Sr., Mayor

December 27, 1985

Representative John Sund
2504 Second Street
Ketchikan, Alaska 99901

Dear Representative Sund:

As you know, the State Department of Community and Regional Affairs filed a petition on November 22, 1985 to detach over 2.1 million acres from the North Slope Borough. This proposed action is contrary to the expressed wishes of the North Slope Borough voters. Further, no provision for compensation to the Borough for loss of tax base is included in the State's petition. Such compensation is required by law.

I am writing to remind you of the limited and rushed schedule of Local Boundary Commission public hearings on this matter. The LBC will hold the following hearings:

1. January 8, 1986
   Anchorage, 10:00 AM
   University Plaza Building
   349 E. 36th Avenue
   Suite 404

2. January 9, 1986
   10:00 AM Noatak School
   7:00 PM Kotzebue Senior Citizens' Center

3. January 10, 1986
   10:00 AM Point Hope High School Library
   7:00 PM Barrow High School Auditorium

4. January 11, 1986
   11:00 AM
   Fairbanks, Alaska

Since it is possible that the entire matter will wind up for action during the first 45 days of the Legislature, I would urge you to come to Barrow for the last meeting of the LBC on January 10. The LBC has already scheduled a decisional meeting the morning after the Barrow hearing in Fairbanks at 11:00 AM January 11, 1986. There are no scheduled flights from Barrow to Fairbanks between the evening Barrow hearing on January 10 and the decision meeting on January 11. Any of our residents who are interested would have to take an expensive charter flight to attend the Fairbanks meeting.

I would encourage you to attend the Barrow or another Local Boundary Commission hearings and experience the local input for yourself. Thank you for your time and consideration.

Sincerely,

George N. Ahmaogak, Sr.
Mayor

TCA [illegible]

UNIVERSITY OF ALASKA, FAIRBANKS
Fairbanks, Alaska 99701

April 3, 1985

Honorable Michael Davis
State of Alaska House of Representatives
Pouch V
Juneau, Alaska 99811

Re: Red Dog Mine: Cominco/Nana Corp. - Financing the 91 km Mine Road

Dear Rep. Davis:

The Red Dog mine has the potential for becoming a world class lead-zinc ore body. Cominco is a well respected multinational corporation with similar deposits in the high Arctic regions and in Spain. As a multinational corporation Cominco views the world as their oyster. Cominco, like any for-profit corporation, must make strategic decisions based upon what is best for the corporation.

Mining locations will be put into production and taken out of production based upon world economic conditions, i.e. the demand for various mineral commodities, technological shifts in their usage in manufacturing, the coming on stream of other lead-zinc producers by the governments of less developed countries and a host of other variables.

The citizens of Alaska and our legislators have been asked to assist in the development of the Red Dog mine and more specifically to build the 91 km access road from Kivalina to the mine site at an estimated cost of $150 million. Various financing schemes have been put forth. One such proposal would have the Alaska Development Authority make a loan of $150 million to Cominco at 4 per cent interest to be repaid by a royalty tonnage tariff.

Suggestion: The State of Alaska is seeking greater revenues for current and future State expenditures. It is clearly appropriate for the State to expect market returns on their investments. Various figures have appeared in the popular press for the total cost of the Red Dog mine development which seems to be approximately $400 million with Cominco putting up $250 million (62.5%) and ADA contributing $150 million (37.5%) of the capital outlay.

(1) Loan: As a viable business deal the State must consider the option of a 20-25 year loan at 1 to 2 percent above the prime interest rate with guaranteed annual payments without regard to tonnage shipped. This is necessary, since Cominco may decide for whatever reason not to operate the mine for a period of time.

(2) Loan with Equity Position: As a venture capitalist we know that Cominco has the $150 million required for the road, but they also have other investment opportunities. Why should Cominco not try for some low cost money through the ADA? No reason if they can get the 4 percent money so much the better.

But let us proceed with the scenario. We, the venture capitalist (State of Alaska) make a counter offer. The State of Alaska puts up the $150 million for 51 per cent voting control until $100 million of the loan is paid back and then take an equity position of 20 percent of the Red Dog Mine for their remaining $50 million loan.

Other considerations would be appropriate representation on the Corporate Board of Directors, oversight control in managerial decision making, but not operating decisions, etc.

Conclusion:

Alaska is unique, not like any other state. Alaska must be an equity participant in its economic development. It can no longer be a donor of monies to every good cause. Alaska must participate as a responsible corporate person for the benefit of all Alaskans.

Two viable options are available to the State: (1) Long-term loan at market rates of interest, repayable on a fixed schedule; (2) Loan with equity position at variable interest rates, generally for mining ventures the loan would command a premium of 1 to 2 percent above the prime rate.

I urge the State to support those economic development projects that are viable on their own merit. It is inappropriate for industrial development projects to be subsidized by state or federal monies.

I wish to thank you for this opportunity to express my personal opinion in this matter.

Sincerely,

Peter G. Biesiot

Peter G. Biesiot, PhD.
Professor of Int'l. Business
School of Management
6th Floor Gruening
University of Alaska
Fairbanks, Alaska 99701
(907) 474-6533

cc: Tom Moyer

Rep. Davis
For your info
Sergie

APR ... 1985

UNIVERSITY OF ALASKA
FAIRBANKS, ALASKA 99701

April 27, 1985

Senator Frank R. Ferguson
Alaska State Senate
Pouch V
State Capitol
Juneau, Alaska 99811

Dear Senator Ferguson:

With 85,000,000 tons of proven lead-zinc reserves and a vast additional resource potential, Alaska's Red Dog Mine could become the largest lead-zinc mine in the world. At a rated annual capacity of 580,000 metric tons, this one mine would produce 8.9% of the total world production.

If the Red Dog Mine were in production, Alaska would rank as the fourth most important source of lead-zinc in the world. The State would only be outranked by the countries of Canada, U.S.S.R. and Australia. It would boost the total U.S. lead-zinc production ahead of Australia's and would reverse the long and continuous decline in U.S. metal production.

More importantly, it would establish Alaska as an important new world source of minerals and would provide a broad spectrum of economic benefits to our State and the nation.

Sincerely,

Leo Mark Anthony

Leo Mark Anthony
Professor of Mining Extension
School of Mineral Engineering

LMA/bg

PLEASE REPLY BY AIRMAIL

March 20, 1985

The Honorable John Sund
Representative
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Representative Sund:

There has been a substantial amount of attention given lately to the proposed Red Dog project in Northwest Alaska. Although far from the villages and cities of Southeastern Alaska many people fail to realize the positive effects this project will have on our region.

Some of the more positive impacts of the Red Dog project will be in diversifying the economy and providing other Alaskan resource developers trade opportunities with Pacific Rim nations, as well as other nations around the world.

This project, once on-line, will also bring revenues to Southeast, in the form of royalty distributions under Section 7(i) of the Alaska Native Claims Settlement Act. The owners of the mineral deposit, NANA Corporation, according to an agreement signed with Cominco Alaska, developers and financiers of the project, will receive a percentage of the net proceeds derived from the sale of lead and zinc concentrates.

Over the first 30 years of the project NANA will receive, on the average, $30 million per year. According to Section 7(i), NANA will retain 30 percent, or $10 million, and the remaining 70 percent, $20 million, will be distributed to all of the regional corporations. Sealaska Corporation will receive over 20 percent of the $20 million, about $4 million per year and over $120 million over the first 30 years of the mine's life. This is indeed a substantial contribution to the economy of Southeastern Alaska.

Support for funding of a road and port which will be utilized by this mine is important this legislative session. I understand Cominco Alaska as agreed to a series of guarantees which eliminate the element of risk to the State of Alaska, if the State agrees to long-term financing for the road and port

SEALASKA CORPORATION ONE Sealaska Plaza, Juneau, Alaska 99801-1276 Phone (907) 586-1512

costs. I believe this project is in the State and people's best interests and hope you will be able to support the necessary funding request.

Sincerely,

SEALASKA CORPORATION

Byron

Byron I. Mallott
President and Chief
Executive Officer

cc: Board of Directors, Sealaska Corporation

A

07049

POM TDA JUNEAU AK 15 05-02 850A ADT

PMS

REP JOHN SUND

JUNEAU

HECK NO TO RED DOG WITHOUT A CITIZEN VOTE.

JOHN MCMULLEN

800 F ST N-4

JUNEAU AK 99801

Table V-4

RED DOG COST MODEL
(Inflated U.S. Dollars)

Ownership: Cominco American
Capacity: 710,000 sdt/y of concentrates
Metal Prices: Base case

Start-up Date: 1989
Capital Investment: $270 million
Production Rate: Full capacity

-Millions of Dollars (Except Prices)-

20 yrs
'90 '09

	1979 to 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
U.S. PRICES															
Zinc - $/lb						.49	.50	.54	.59	.63	.68	.74	.78	.82	.87
Lead - $/lb						.23	.24	.26	.29	.32	.36	.40	.42	.44	.46
Silver - $/lb						7.53	7.87	8.22	8.64	9.07	9.52	10.00	10.50	11.02	11.57
SALES															
Zinc concentrates						83.85	161.33	173.96	190.17	205.48	222.03	239.90	253.18	267.10	281.66
Lead concentrates						9.60	18.85	21.75	24.60	28.00	31.89	36.15	38.10	40.12	42.21
TOTAL SALES						93.45	180.16	195.71	214.78	233.48	253.93	276.05	291.28	307.22	323.87
OPERATING COSTS															
Mine						3.20	6.19	7.34	7.78	8.26	8.76	9.30	9.83	10.40	11.01
Mill						5.60	10.77	12.73	13.46	14.23	15.04	15.91	16.80	17.75	18.74
Maintenance						4.95	9.61	11.39	12.09	12.83	13.62	14.46	15.30	16.19	17.13
Power generation						4.62	8.84	10.43	11.01	11.62	12.27	12.96	13.68	14.44	15.24
Mine and mill overhead						9.50	18.33	21.68	22.94	24.28	25.70	27.20	28.74	30.37	32.09
Additional costs for start-up						10.83	5.29	6.30	.00	.00	.00	.00	.00	.00	.00
Contingency						2.36	4.53	5.34	5.63	5.94	6.27	6.61	6.98	7.36	7.77
TOTAL OPERATING COSTS						41.07	63.56	75.19	72.91	77.16	81.67	86.43	91.33	96.51	101.98
TRANSPORTATION COSTS															
Concentrates to port						1.65	3.19	3.78	4.01	4.26	4.51	4.79	5.06	5.36	5.67
Road and port user fee 372.16						2.66	13.19	13.40	13.65	13.93	16.69	17.04	17.39	17.75	18.10
Barge to ship						6.03	4.58	4.39	4.46	4.57	4.69	4.80	4.93	5.05	5.18
Ocean shipping						8.70	15.63	15.41	15.91	16.55	17.23	17.94	18.60	19.32	20.12
Inland freight						5.64	13.59	13.68	13.90	14.24	14.60	14.96	15.34	15.72	16.11
TOTAL TRANSPORTATION COSTS						24.69	50.17	50.66	51.92	53.55	57.72	59.53	61.32	63.19	65.18
OTHER COSTS															
Corporate overhead						3.74	7.21	7.83	8.59	9.34	10.16	11.04	11.65	12.29	12.95
NANA royalties						3.03	5.73	6.39	7.18	7.94	8.66	31.02	33.07	35.20	37.41
Mining license tax						-	-	-	.60	1.79	4.57	4.02	4.31	4.57	4.84
TOTAL OTHER COSTS						6.77	12.94	14.22	16.38	19.07	23.38	46.08	49.03	52.06	55.20
DEPRECIATION						74.49	36.29	36.50	36.79	37.63	6.94	7.82	8.04	8.97	9.94
DEPLETION						.00	9.87	10.89	19.97	24.80	41.26	40.61	43.32	45.94	48.68
TOTAL COSTS						14[illegible].01	172.82	187.48	197.98	212.22	210.97	240.46	253.04	266.67	280.97
NET INCOME BEFORE TAXES 855.63						-53.56	7.36	8.23	16.80	21.26	42.96	35.59	38.24	40.55	42.90
TAXES 33.09															
State						.00	.27	.29	.54	.67	1.11	1.10	1.17	1.24	1.04
Federal						.00	1.48	1.63	3.00	3.72	6.19	6.09	6.50	6.89	15.85
TOTAL INCOME TAXES						.00	1.75	1.93	3.54	4.39	7.30	7.19	7.67	8.13	16.89
NET INCOME AFTER TAXES						-53.56	5.61	6.31	13.26	16.87	35.66	28.40	30.57	32.42	26.01
CASH FLOW						20.93	51.77	53.70	70.03	79.30	83.86	76.83	81.93	87.33	84.63
CAPITAL INVESTMENTS															
Initial investment	18.35	13.50	42.57	60.55	115.80	18.88	-	-	-	-	-	-	-	-	-
Sustaining capital	-	-	-	-	-	-	1.00	1.05	2.01	13.47	13.94	5.38	2.16	5.86	6.95
Increase in working capital	-	-	-	-	-	43.00	20.09	9.69	-.63	4.23	4.34	2.62	4.65	4.92	5.19
TOTAL CAPITAL INVESTMENTS	18.35	13.50	42.57	60.55	115.80	61.88	21.09	10.74	1.38	17.70	18.28	8.00	6.81	10.78	12.14
NET CASH FLOW	-18.35	-13.50	-42.57	-60.55	-115.80	-40.96	30.68	42.96	68.65	61.61	65.58	68.83	75.12	76.55	72.49

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
U.S. PRICES														
Zinc - $/lb	.92	.97	1.02	1.08	1.13	1.20	1.26	1.33	1.41	1.48	1.56	1.66	1.74	1.84
Lead - $/lb	.49	.52	.55	.58	.61	.64	.68	.71	.75	.79	.84	.88	.93	.98
Silver - $/lb	12.15	12.76	13.40	14.07	14.77	15.51	16.28	17.10	17.95	18.85	19.79	20.78	21.82	22.91
SALES														
Zinc concentrates	296.87	313.38	330.53	348.64	367.73	388.11	409.12	431.76	455.37	480.26	427.17	451.98	475.36	501.21
Lead concentrates	44.36	46.73	49.27	51.88	54.54	57.51	60.52	63.71	67.05	70.55	73.36	77.29	81.39	85.66
TOTAL SALES	341.23	360.10	379.80	400.52	422.26	445.62	469.64	495.47	522.42	550.81	500.53	529.27	556.75	586.87
OPERATING COSTS														
Mine	11.65	12.32	13.04	13.79	14.59	15.44	16.33	17.28	18.29	19.35	20.47	21.66	22.92	24.25
Mill	19.80	20.91	22.08	23.33	24.64	26.02	27.49	29.03	30.67	32.39	34.21	36.14	38.17	40.32
Maintenance	18.13	19.19	20.31	21.49	22.74	24.07	25.47	26.95	28.52	30.19	31.95	33.81	35.78	37.87
Power generation	16.08	16.97	17.91	18.91	19.96	21.06	22.23	23.46	24.77	26.14	27.59	29.12	30.73	32.44
Mine and mill overhead	33.91	35.84	37.87	40.02	42.29	44.69	47.23	49.91	52.74	55.74	58.90	62.25	65.79	69.52
Additional costs for start-up	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Contingency	8.19	8.64	9.12	9.62	10.15	10.71	11.30	11.92	12.57	13.27	14.00	14.77	15.58	16.43
TOTAL OPERATING COSTS	107.76	113.87	120.33	127.16	134.37	141.99	150.05	158.56	167.56	177.07	187.12	197.74	208.96	220.83
TRANSPORTATION COSTS														
Concentrates to port	5.99	6.34	6.71	7.09	7.50	7.94	8.40	8.88	9.40	9.94	10.52	11.12	11.77	12.45
Road and port user fee	18.46	18.88	19.30	19.80	20.22	20.72	21.28	21.85	22.42	23.05	22.38	23.06	23.67	24.40
Barge to ship	5.30	5.44	5.57	5.71	5.86	6.00	6.15	6.31	6.46	6.62	5.87	6.02	6.17	6.32
Ocean shipping	20.96	21.82	22.74	23.68	24.67	25.71	26.79	27.73	28.70	29.72	28.26	29.28	30.34	31.45
Inland freight	16.51	16.93	17.35	17.78	18.23	18.69	19.15	19.63	20.12	20.63	18.01	18.56	19.02	19.50
TOTAL TRANSPORTATION COSTS	67.22	69.41	71.67	74.07	76.49	79.06	81.78	84.40	87.10	89.96	85.04	88.04	90.98	94.13
OTHER COSTS														
Corporate overhead	13.65	14.40	15.19	16.02	16.89	17.82	18.79	19.82	20.90	22.03	20.02	21.17	22.27	23.47
NANA royalties	39.70	50.69	53.85	57.17	60.66	64.42	79.61	84.54	89.70	95.09	75.92	92.55	97.62	103.38
Mining license tax	5.28	5.12	5.48	5.85	6.29	6.28	6.03	6.26	6.99	7.49	5.55	5.27	5.55	5.94
TOTAL OTHER COSTS	58.63	70.22	74.53	79.04	83.85	88.53	104.43	110.61	117.59	124.61	101.50	118.98	125.44	132.8
DEPRECIATION	8.55	9.09	9.21	9.38	8.86	15.22	15.47	18.60	14.81	14.79	10.70	11.29	11.90	11.8
DEPLETION	51.55	52.03	55.48	59.08	62.73	64.41	63.17	66.07	72.39	77.16	62.37	61.13	64.49	68.6
TOTAL COSTS	293.71	314.62	331.22	348.73	366.29	389.21	414.90	438.25	459.44	483.58	446.72	477.19	501.77	528.2
NET INCOME BEFORE TAXES	47.52	45.49	48.58	51.80	55.97	56.41	54.74	57.22	62.97	67.23	53.81	52.08	54.98	58.6
TAXES														
State	1.04	1.10	1.16	1.24	1.30	1.42	1.37	1.45	4.51	6.65	4.42	3.17	2.47	5.3
Federal	18.78	17.28	18.94	20.02	21.89	19.76	20.12	20.35	22.86	23.75	17.10	14.54	16.33	18.3
TOTAL INCOME TAXES	19.82	18.38	20.10	21.26	23.19	21.18	21.48	21.80	27.37	30.40	21.52	17.71	18.80	23.7
NET INCOME AFTER TAXES	27.70	27.11	28.48	30.54	32.78	35.23	33.26	35.43	35.61	36.83	32.30	34.37	36.18	34.9
CASH FLOW	87.80	88.23	93.17	99.00	104.37	114.86	111.91	120.10	122.81	128.78	105.37	106.79	112.57	115.4
CAPITAL INVESTMENTS														
Initial investment	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining capital	2.63	8.10	2.73	6.74	4.35	34.44	9.34	18.38	2.97	4.23	14.00	12.50	24.60	3.9
Increase in working capital	5.46	4.92	6.06	6.40	6.75	7.19	6.37	7.92	8.30	8.81	9.45	8.65	10.35	10.9
TOTAL CAPITAL INVESTMENTS	8.09	13.02	8.79	13.14	11.10	41.63	15.71	26.30	11.27	13.04	23.45	21.15	34.95	14.8
NET CASH FLOW	79.71	75.20	84.37	85.85	93.27	73.22	96.20	93.80	111.53	115.74	81.91	85.64	77.62	100.5

INTERNAL RATE OF RETURN 16.5%

Source: SRI International

Table V-4

RED DOG COST MODEL
(Inflated U.S. Dollars)

Ownership: Cominco American
Capacity: 710,000 sdt/y of concentrates
Metal Prices: Base case

Start-up Date: 1989
Capital Investment: $270 million
Production Rate: Full capacity

Millions of Dollars (Except Prices)

20 yrs '90-'09

	1979 to 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
U.S. PRICES													
Zinc - $/lb						.49	.50	.54	.59	.63	.68	.74	.78
Lead - $/lb						.23	.24	.26	.29	.32	.36	.40	.42
Silver - $/lb						7.53	7.87	8.22	8.64	9.07	9.52	10.00	10.50
SALES													
Zinc concentrates						83.85	161.33	173.96	190.17	205.48	222.03	239.90	253.18
Lead concentrates						9.60	18.85	21.75	24.60	28.00	31.89	36.15	38.10
TOTAL SALES						93.45	180.16	195.71	214.78	233.48	253.93	276.05	291.26
OPERATING COSTS													
Mine						3.20	6.19	7.34	7.78	8.26	8.76	9.30	9.83
Mill						5.60	10.77	12.73	13.46	14.23	15.04	15.91	16.80
Maintenance						4.95	9.61	11.39	12.09	12.83	13.62	14.46	15.30
Power generation						4.62	8.84	10.43	11.01	11.62	12.27	12.96	13.68
Mine and mill overhead						9.50	18.33	21.68	22.94	24.28	25.70	27.20	28.74
Additional costs for start-up						10.83	5.29	6.30	.00	.00	.00	.00	.00
Contingency						2.36	4.53	5.34	5.63	5.94	6.27	6.61	6.98
TOTAL OPERATING COSTS						41.07	63.56	75.19	72.91	77.16	81.67	86.43	91.33
TRANSPORTATION COSTS													
Concentrates to port						1.65	3.19	3.78	4.01	4.26	4.51	4.79	5.06
Road and port user fee 372.16						2.66	13.19	13.40	13.65	13.93	16.69	17.04	17.39
Barge to ship						6.03	4.58	4.39	4.46	4.57	4.69	4.80	4.93
Ocean shipping						8.70	15.63	15.41	15.91	16.55	17.23	17.94	18.60
Inland freight						5.64	13.59	13.68	13.90	14.24	14.60	14.96	15.34
TOTAL TRANSPORTATION COSTS						24.69	50.17	50.66	51.92	53.55	57.72	59.53	61.32
OTHER COSTS													
Corporate overhead						3.74	7.21	7.83	8.59	9.34	10.16	11.04	11.65
NANA royalties						3.03	5.73	6.39	7.18	7.94	8.66	31.02	33.07
Mining license tax						-	-	-	.60	1.79	4.57	4.02	4.31
TOTAL OTHER COSTS						6.77	12.94	14.22	16.38	19.07	23.38	46.08	49.03
DEPRECIATION						74.49	36.29	36.50	36.79	37.63	6.94	7.82	8.04
DEPLETION						.00	9.87	10.89	19.97	24.80	41.26	40.61	43.32
TOTAL COSTS						147.01	172.82	187.48	197.98	212.22	210.97	240.46	253.04
NET INCOME BEFORE TAXES 855.63						-53.56	7.36	8.23	16.80	21.26	42.96	35.59	38.24
TAXES 33.09													
State						.00	.27	.29	.54	.67	1.11	1.10	1.17
Federal						.00	1.48	1.63	3.00	3.72	6.19	6.09	6.50
TOTAL INCOME TAXES						.00	1.75	1.93	3.54	4.39	7.30	7.19	7.67
NET INCOME AFTER TAXES						-53.56	5.61	6.31	13.26	16.87	35.66	28.40	30.57
CASH FLOW						20.93	51.77	53.70	70.03	79.30	83.86	76.83	81.93
CAPITAL INVESTMENTS													
Initial investment	18.35	13.50	42.57	60.55	115.80	18.88	-	-	-	-	-	-	-
Sustaining capital	-	-	-	-	-	-	1.00	1.05	2.01	13.47	13.94	5.38	2.16
Increase in working capital	-	-	-	-	-	43.00	20.09	9.69	-.63	4.23	4.34	2.62	4.65
TOTAL CAPITAL INVESTMENTS	18.35	13.50	42.57	60.55	115.80	61.88	21.09	10.74	1.38	17.70	18.28	8.00	6.81
NET CASH FLOW	-18.35	-13.50	-42.57	-60.55	-115.80	-40.96	30.68	42.96	68.65	61.61	65.58	68.83	75.12
INTERNAL RATE OF RETURN	16.5%												

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
U.S. PRICES																
Zinc - $/lb	.82	.87	.92	.97	1.02	1.08	1.13	1.20	1.26	1.33	1.41	1.48	1.56	1.66	1.74	1.84
Lead - $/lb	.44	.46	.49	.52	.55	.58	.61	.64	.68	.71	.75	.79	.84	.88	.93	.98
Silver - $/lb	11.02	11.57	12.15	12.76	13.40	14.07	14.77	15.51	16.28	17.10	17.95	18.85	19.79	20.78	21.82	22.91
SALES																
Zinc concentrates	267.10	281.66	296.87	313.38	330.53	348.64	367.73	388.11	409.12	431.76	455.37	480.26	427.17	451.98	475.36	501.21
Lead concentrates	40.12	42.21	44.36	46.73	49.27	51.88	54.54	57.51	60.52	63.71	67.05	70.55	73.36	77.29	81.39	85.66
TOTAL SALES	307.22	323.87	341.23	360.10	379.80	400.52	422.26	445.62	469.64	495.47	522.42	550.81	500.53	529.27	556.75	586.87
OPERATING COSTS																
Mine	10.40	11.01	11.65	12.32	13.04	13.79	14.59	15.44	16.33	17.28	18.29	19.35	20.47	21.66	22.92	24.25
Mill	17.75	18.74	19.80	20.91	22.08	23.33	24.64	26.02	27.49	29.03	30.67	32.39	34.21	36.14	38.17	40.32
Maintenance	16.19	17.13	18.13	19.19	20.31	21.49	22.74	24.07	25.47	26.95	28.52	30.19	31.95	33.81	35.78	37.87
Power generation	14.44	15.24	16.08	16.97	17.91	18.91	19.96	21.06	22.23	23.46	24.77	26.14	27.59	29.12	30.73	32.44
Mine and mill overhead	30.37	32.09	33.91	35.84	37.87	40.02	42.29	44.69	47.23	49.91	52.74	55.74	58.90	62.25	65.79	69.52
Additional costs for start-up	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Contingency	7.36	7.77	8.19	8.64	9.12	9.62	10.15	10.71	11.30	11.92	12.57	13.27	14.00	14.77	15.58	16.43
TOTAL OPERATING COSTS	96.51	101.98	107.76	113.87	120.33	127.16	134.37	141.99	150.05	158.56	167.56	177.07	187.12	197.74	208.96	220.83
TRANSPORTATION COSTS																
Concentrates to port	5.36	5.67	5.99	6.34	6.71	7.09	7.50	7.94	8.40	8.88	9.40	9.94	10.52	11.12	11.77	12.45
Road and port user fee	17.75	18.10	18.46	18.88	19.30	19.80	20.22	20.72	21.28	21.85	22.42	23.05	22.38	23.06	23.67	24.40
Barge to ship	5.05	5.18	5.30	5.44	5.57	5.71	5.86	6.00	6.15	6.31	6.46	6.62	5.87	6.02	6.17	6.32
Ocean shipping	19.32	20.12	20.96	21.82	22.74	23.68	24.67	25.71	26.79	27.73	28.70	29.72	28.26	29.28	30.34	31.45
Inland freight	15.72	16.11	16.51	16.93	17.35	17.78	18.23	18.69	19.15	19.63	20.12	20.63	18.01	18.56	19.02	19.50
TOTAL TRANSPORTATION COSTS	63.19	65.18	67.22	69.41	71.67	74.07	76.49	79.06	81.78	84.40	87.10	89.96	85.04	88.04	90.98	94.13
OTHER COSTS																
Corporate overhead	12.29	12.95	13.65	14.40	15.19	16.02	16.89	17.82	18.79	19.82	20.90	22.03	20.02	21.17	22.27	23.47
NANA royalties	35.20	37.41	39.70	50.69	53.85	57.17	60.66	64.42	79.61	84.54	89.70	95.09	75.92	92.55	97.62	103.3
Mining license tax	4.57	4.84	5.28	5.12	5.48	5.85	6.29	6.28	6.03	6.26	6.99	7.49	5.55	5.27	5.55	5.9
TOTAL OTHER COSTS	52.06	55.20	58.63	70.22	74.53	79.04	83.85	88.53	104.43	110.61	117.59	124.61	101.50	118.98	125.44	132.8
DEPRECIATION	8.97	9.94	8.55	9.09	9.21	9.38	8.86	15.22	15.47	18.60	14.81	14.79	10.70	11.29	11.90	11.8
DEPLETION	45.94	48.68	51.55	52.03	55.48	59.08	62.73	64.41	63.17	66.07	72.39	77.16	62.37	61.13	64.49	68.6
TOTAL COSTS	266.67	280.97	293.71	314.62	331.22	348.73	366.29	389.21	414.90	438.25	459.44	483.58	446.72	477.19	501.77	528.2
NET INCOME BEFORE TAXES	40.55	42.90	47.52	45.49	48.58	51.80	55.97	56.41	54.74	57.22	62.97	67.23	53.81	52.08	54.98	58.6
TAXES																
State	1.24	1.04	1.04	1.10	1.16	1.24	1.30	1.42	1.37	1.45	4.51	6.65	4.42	3.17	2.47	5.3
Federal	6.89	15.85	18.78	17.28	18.94	20.02	21.89	19.76	20.12	20.35	22.86	23.75	17.10	14.54	16.33	18.3
TOTAL INCOME TAXES	8.13	16.89	19.82	18.38	20.10	21.26	23.19	21.18	21.48	21.80	27.37	30.40	21.52	17.71	18.80	23.7
NET INCOME AFTER TAXES	32.42	26.01	27.70	27.11	28.48	30.54	32.78	35.23	33.26	35.43	35.61	36.83	32.30	34.37	36.18	34.9
CASH FLOW	87.33	84.63	87.80	88.23	93.17	99.00	104.37	114.86	111.91	120.10	122.81	128.78	105.37	106.79	112.57	115.4
CAPITAL INVESTMENTS																
Initial investment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining capital	5.86	6.95	2.63	8.10	2.73	6.74	4.35	34.44	9.34	18.38	2.97	4.23	14.00	12.50	24.60	3.9
Increase in working capital	4.92	5.19	5.46	4.92	6.06	6.40	6.75	7.19	6.37	7.92	8.30	8.81	9.45	8.65	10.35	10.9
TOTAL CAPITAL INVESTMENTS	10.78	12.14	8.09	13.02	8.79	13.14	11.10	41.63	15.71	26.30	11.27	13.04	23.45	21.15	34.95	14.8
NET CASH FLOW	76.55	72.49	79.71	75.20	84.37	85.85	93.27	73.22	96.20	93.80	111.53	115.74	81.91	85.64	77.62	100.5

Source: SRI International

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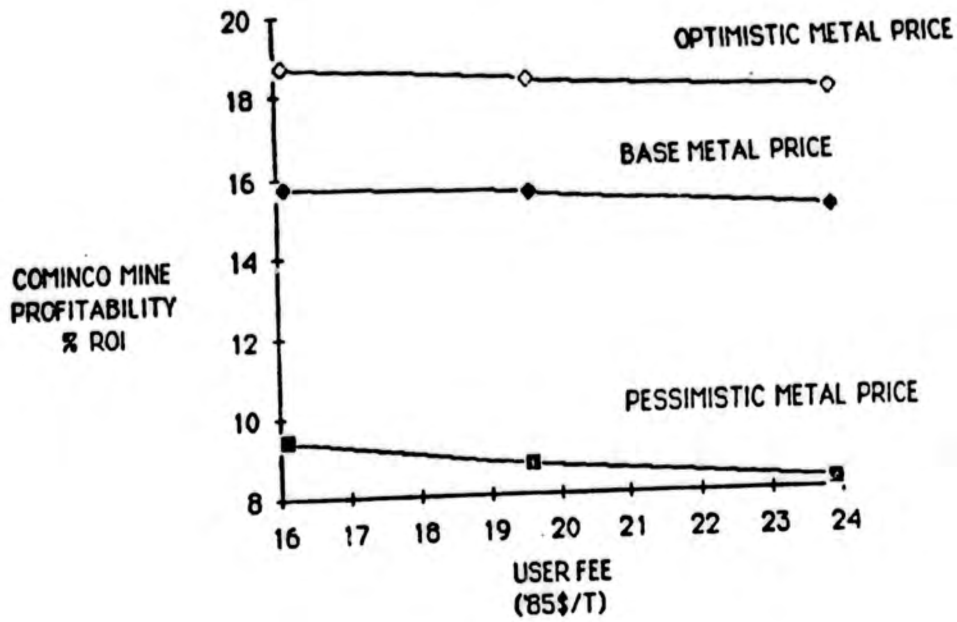
4/30/85

EXHIBIT 8.5: MINING PROFITABILITY VS. USER FEE



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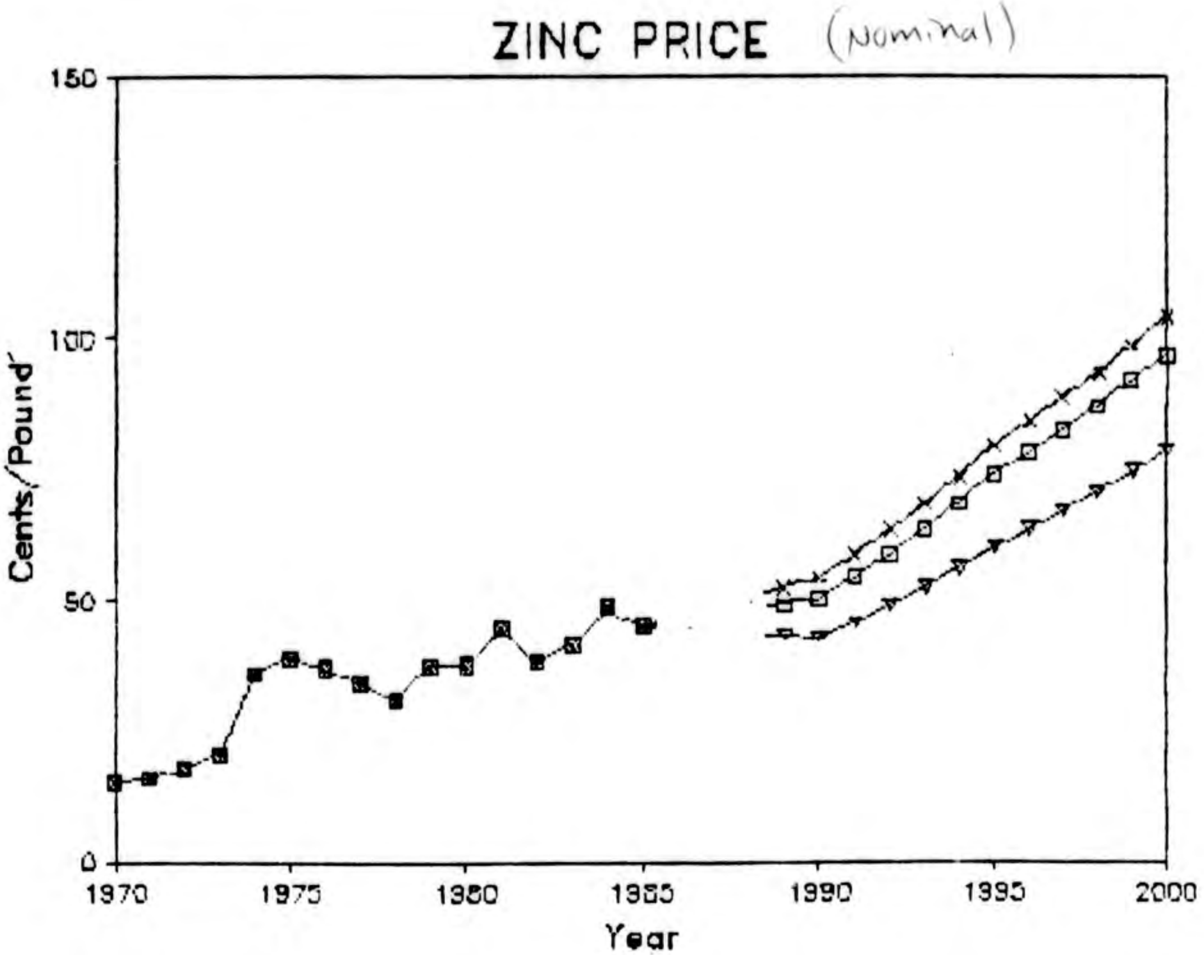
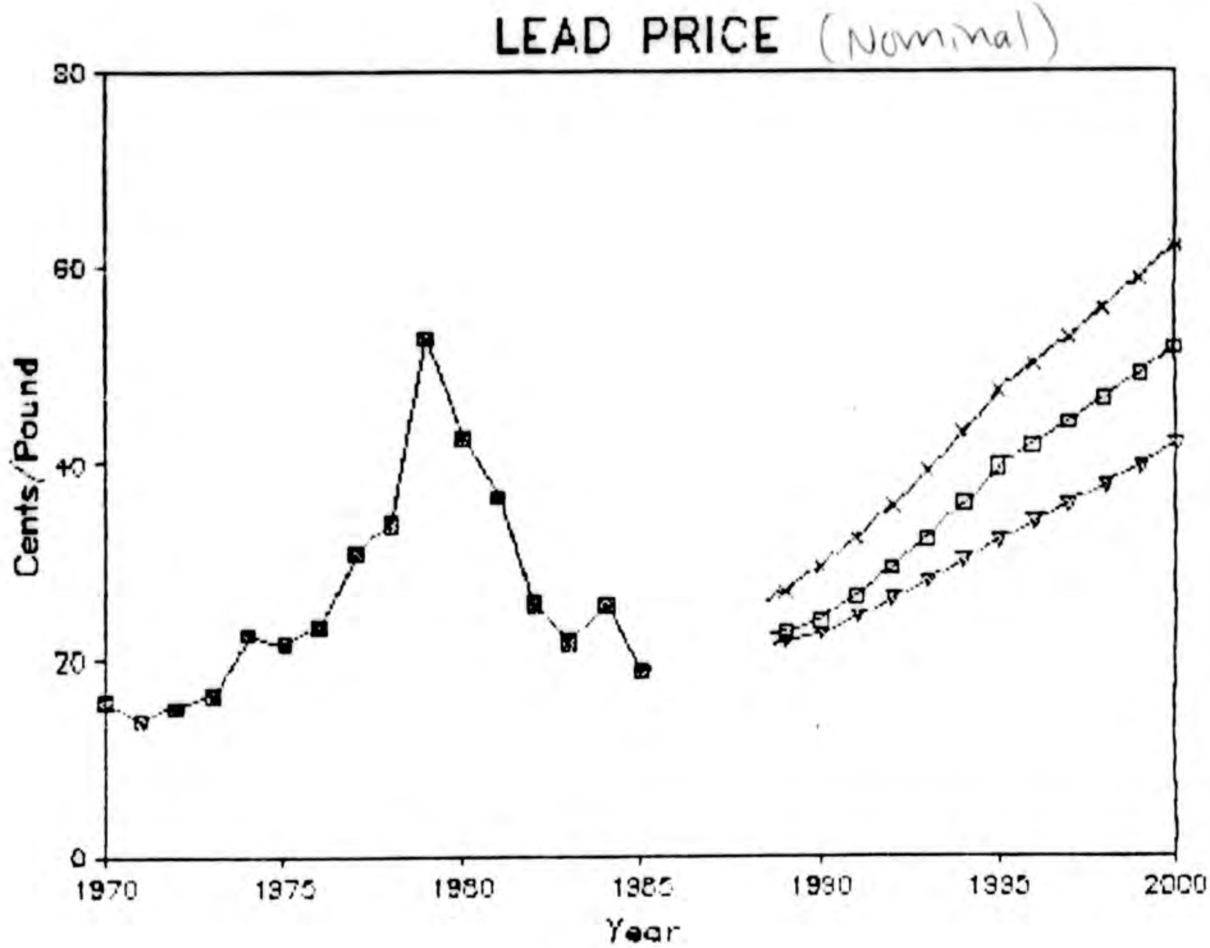
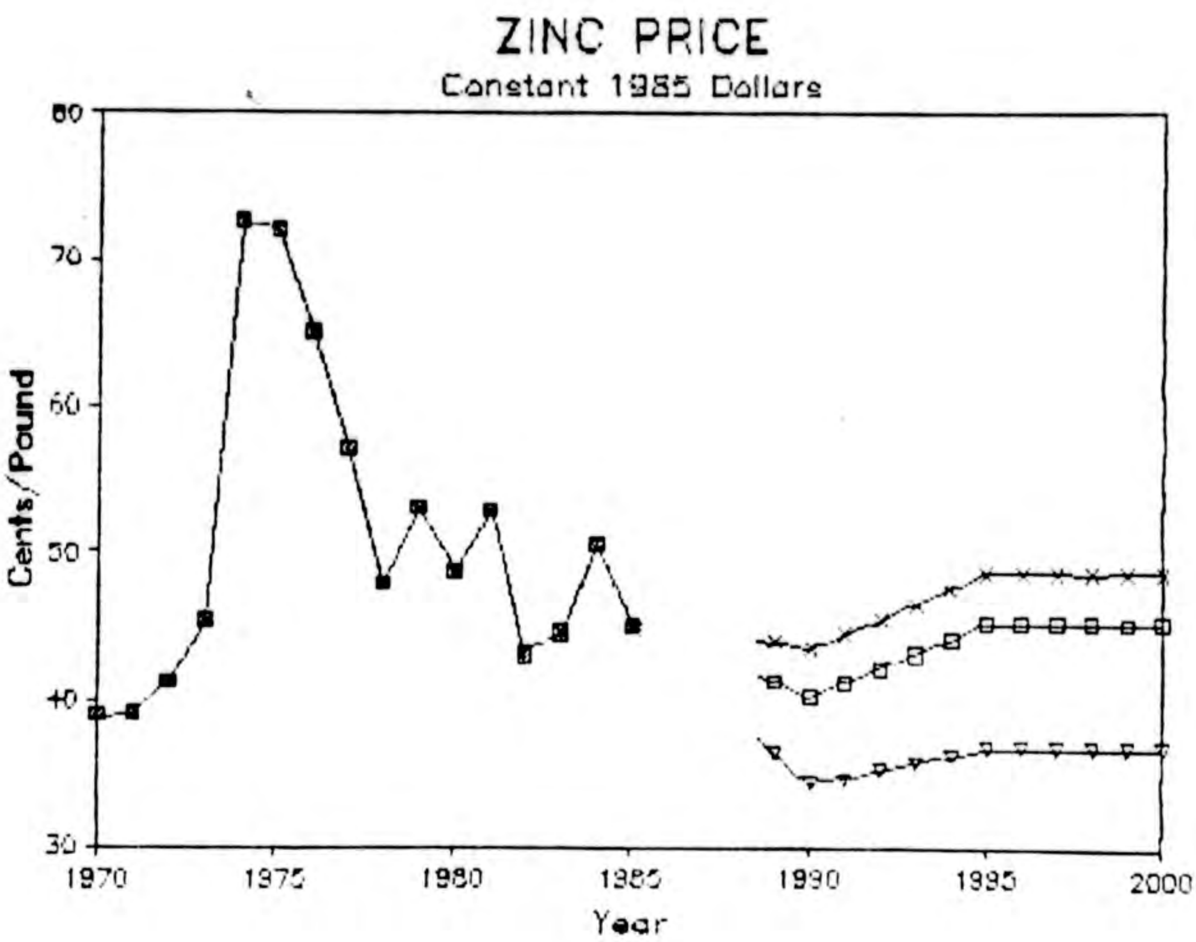

ZINC PRICE (Nominal)
Cents/Pound
150
100
50
0
1970
1975
1980
1985
1990
1995
2000
Year

SRI
4/30/85


LEAD PRICE (Nominal)
Cents/Pound
Year
0
20
40
60
80
1970
1975
1980
1985
1990
1995
2000

SRI
4/30/85



ZINC PRICE
Constant 1985 Dollars
Cents/Pound
80
70
60
50
40
30
1970
1975
1980
1985
1990
1995
2000
Year

SRI
4/30/85

LEAD PRICE

Constant 1985 Dollars

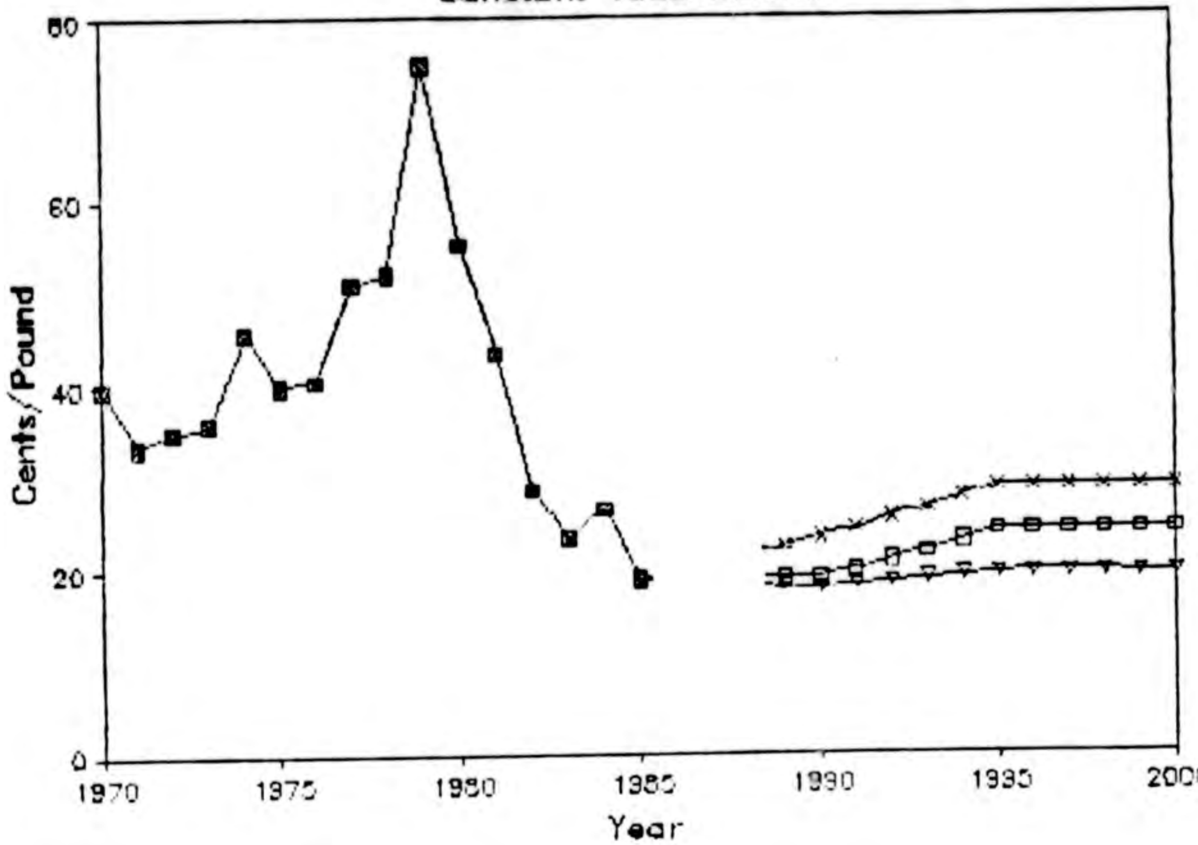
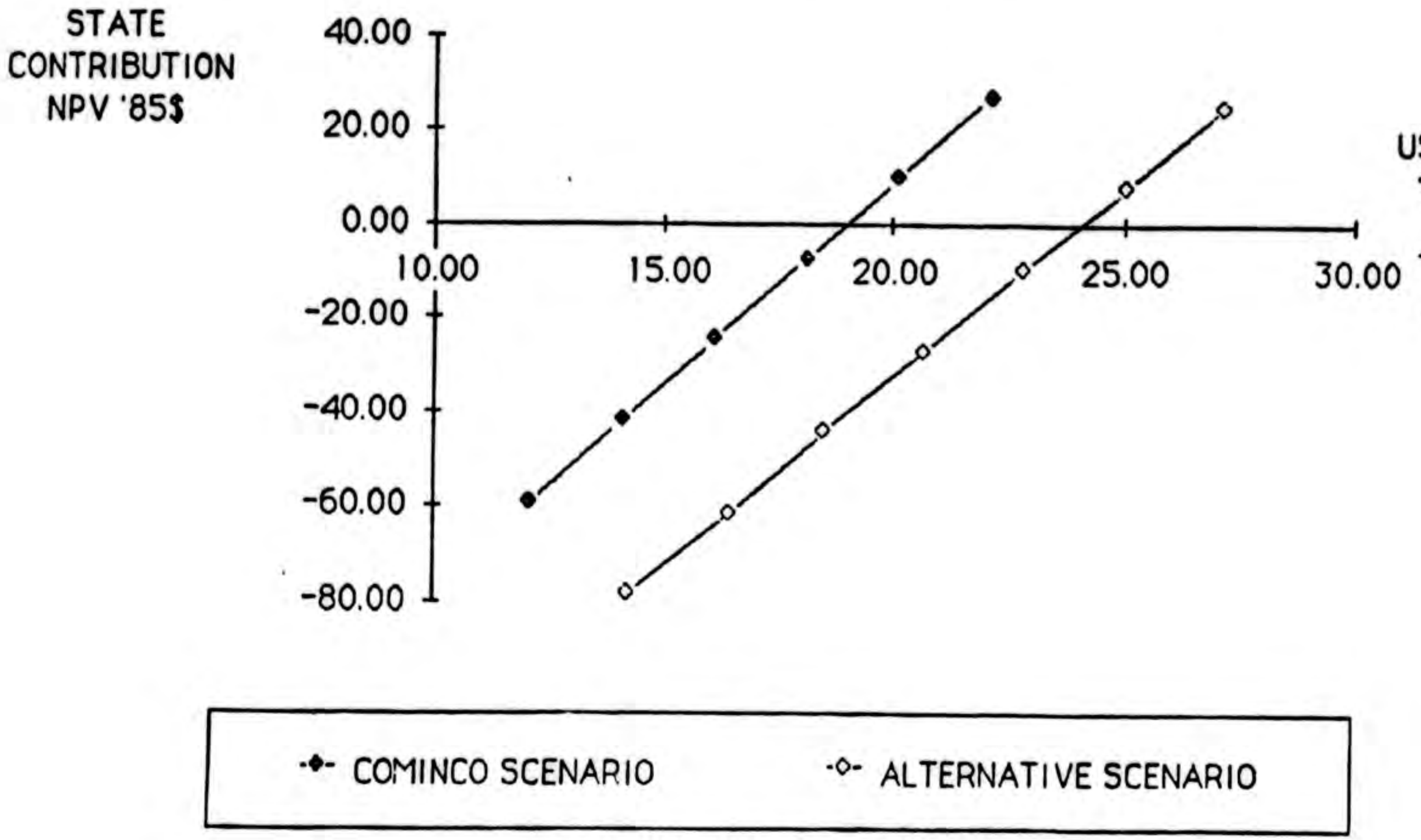


EXHIBIT 8.4: STATE CONTRIBUTION VS. USER FEES
(GENERAL CARGO RATE OF $50/T)



$½ per Ton user fee

PROPOSED ANNUAL ASSESSMENT

SRI 4/30/85

Rep Sund

April 2, 1985

Chairman, Senate Resources Committee
Senator Arliss Sturgulewski
Pouch V
Juneau, AK 99811

Dear Senator Sturgulewski:

Greetings from Dillingham on this cold but sunny day. It is 14 below zero with steam rising from the waters of Bristol Bay.

I am not writing to tell you about our weather but to encourage you and the Senate, the House and the Administration to approve the Red Dog Mine request for funds through the Alaska Industrial Development Authority. This is a project that I believe will send a strong signal that our State has leaders that want to set Alaska on a course of resource diversification and development.

We are relying too heavily on one resource, oil, to meet our short and long term needs. Alaska, much like a developing nation, needs to support and assist diversification in order to move ahead in a manner consistent with the requirements, goals and objectives of our entire state community.

I believe that the people of the NANA Corporation have studied the impact of the mining activity in their area and they have seen that it is time to bring the stated goals of Alaskan resources development and their regional goals together. For the first time, I see an opportunity for our State government and a region of our State to work together to achieve common goals.

These goals are to diversify our economy, bridge the economic gaps between urban and rural Alaska, employ and train Alaskans for a major mining activity and allow a region of our State a chance to engage in a long term project that will not be a financial burden for Alaska in the future.

It would be a major economic development setback if an agreement cannot be struck before this session ends. A delay will send a signal out that will be difficult to override in terms of perception. We Alaskans will be perceived as anti-development on a major scale if the terms needed to proceed cannot be negotiated before the legislature adjourns.

Your request for additonal information on a financing statement is legitimate and should be honored as quickly as possible by the Administration. However, I have never seen a legislature give a blank check to any sitting Governor, nor should you on any project of this magnitude.

I urge you to proceed with dispatch to help our State move toward a future that sees us developing our natural resources in a prudent and equitable manner. This is the time to act and you are capable of dynamic action when you know what your are doing is right!

Thank you for listening.

Very sincerely,

Nels A. Anderson Jr.

Nels A. Anderson, Jr.

cc: Governor Sheffield
Resources Committee Members
Senator Ferguson Rep. Adams
Senator Sackett Rep. Fuller
Rep. Herrmann Rep. Duncan
Rep. Grussendorf

Dillingham, Alaska 99576 • Phone (907) 842-2366

PRESENT VALUE DETERMINATION
RED DOG TAXES AND TRANSFERS
(millions $)

Year Project Begins	Assumed annual transfer amount (real $)	Present value of the transfers	Estimated annual taxes (real $)	Present value of the taxes	Total present value of taxes and transfers
1	2.1	2.04	2.06	2.00	4.04
2	2.1	1.98	2.06	1.94	3.92
3	2.1	1.92	2.06	1.89	3.81
4	2.1	1.87	2.89	2.57	4.43
5	2.1	1.81	8.84	7.63	9.44
6	2.1	1.76	10.23	8.57	10.33
7	2.1	1.71	10.23	8.32	10.03
8	2.1	1.66	10.23	8.08	9.73
9	2.1	1.61	10.23	7.84	9.45
10	2.1	1.56	10.23	7.61	9.17
11	2.1	1.52	10.23	7.39	8.91
12	2.1	1.47	10.23	7.18	8.65
13	2.1	1.43	10.23	6.97	8.40
14	2.1	1.39	10.23	6.76	8.15
15	2.1	1.35	10.23	6.57	7.91
16	2.1	1.31	10.23	6.37	7.68
17	2.1	1.27	10.23	6.19	7.46
18	2.1	1.23	10.23	6.01	7.24
19	2.1	1.20	10.23	5.83	7.03
20	2.1	1.16	10.23	5.66	6.83
21	2.1	1.13	10.23	5.50	6.63
22	2.1	1.10	10.23	5.34	6.43
23	2.1	1.06	10.23	5.18	6.25
24	2.1	1.03	10.23	5.03	6.07
25	2.1	1.00	10.23	4.89	5.89
26	2.1	0.97	10.23	4.74	5.72
27	2.1	0.95	10.23	4.61	5.55
28	2.1	0.92	10.23	4.47	5.39
29	2.1	0.89	10.23	4.34	5.23
30	2.1	0.87	10.23	4.21	5.08
Total		41.16		169.68	210.84

Present value based on long term real rate of return of 3%
since all dollar values are in real terms

Paul Engelman 03/27/85

Rep. Rick Uehling

STATISTICS ON DCED LOAN PROGRAMS
(Thousands of Dollars)

January 31, 1985

	Veterans	Small Business	Commercial Fish	Tourism	Bulk Fuel	Child Care	Hist Dist	Mining	Alternate Energy	Resid. Energy	Fish Enhance	Power Dev.	Water Resource	Total
ommitments														
ital No. Loans Committed FY '72-85	7,718	1,338	2,657	59	148	42	9	65	2,691	2,173	97	3	5	17,005
ital Dollar Amount Committed FY '72-85	371,795.2	202,529.3	154,396.7	29,874.7	5,482.6	1,320.4	667.7	28,160.0	17,140.9	8,151.2	37,084.1	191,165.0	2,500.0	1,050,267.8
ital No. Loans Committed FY '85	-0-	-0-	110	-0-	28	6	-0-	2	183	159	9	3	-0-	500
ital Dollar Amount Committed FY '85	-0-	-0-	6,148.1	-0-	962.9	276.2	-0-	1,128.1	1,394.2	404.4	3,780.1	191,165.0	-0-	205,259.0
ppropriations														
Y '83	-0-	-0-	9,400.0	-0-	1,000.0	400.0	500.0	15,000.0	4,000.0	4,500.0	22,000.0 [1]	N/A	-0-	56,800.0
Y '84	-0-	-0-	9,091.0	-0-	-0-	869.5	500.0	-0-	2,400.0	3,123.4	6,500.0	N/A	-0-	22,483.9
Y '85	-0-	-0-	3,500.0	-0-	-0-	-0-	-0-	-0-	1,000.0	-0-	5,000.0	210,000.0	-0-	219,500.0
oans Outstanding														
wned by Fund														
umber of Loans Outstanding	135	268	999	5	49	25	3	48	1,944	1,571	81	3	1	5,132
rincipal Amount Outstanding	6,129.4	33,835.6	48,402.5	3,258.2	1,257.0	867.0	339.9	18,833.6	12,051.7	4,966.0	31,116.2	191,165.0	909.8	353,131.9
verage Loan Amount Outstanding	45.5	201.4	48.5	651.6	25.7	34.7	113.9	392.4	6.2	3.2	38.5	63,721.7	909.8	68.8
erviced for the Dept. of Revenue														
umber of Loans Outstanding	1,841	225	764	14	N/A	3	3	N/A	N/A	N/A	14	N/A	N/A	2,864
rincipal Amount Outstanding	83,241.0	18,587.5	30,215.1	2,578.9		16.9	124.3				6,604.2			141,367.9
verage Loan Amount Outstanding	45.2	82.6	39.5	184.2		5.6	41.4				471.7			49.4
ummary														
ital No. of Loans Outstanding	1,976	493	1,763	19	49	28	6	48	1,944	1,571	95	3	1	7,996
ital Principal Amount Outstanding	89,370.4	52,423.1	78,617.6	5,837.1	1,257.0	883.9	464.2	18,833.6	12,051.7	4,966.0	37,720.4	191,165.0	909.8	494,499.8
elinquency Rates (includes defaults)														
umber of Loans %	18.3%	32.8% [2]	14.9% [3]	10.5% [2]	20.4%	14.8%	-0-	47.9%	16.6%	15.8%	N/A	N/A	-0-	17.8%
utstanding Balance %	19.2%	34.1%	18.5%	3.5%	11.1%	13.9%	-0-	56.3%	15.8%	16.0%	N/A	N/A	-0-	24.0%

See Ch 114, Sec 5 and Ch 141, Sec 242 SLA 1982, and Ch 106 Sec 11 SLA 1983.

Adjusted for Bank Participation system inaccuracies

Adjusted for approved extension requests

repared by: Division of Accounting and Collections, 465-2555

2/25/85

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY

1577 "C" STREET • SUITE 304 ☐ ANCHORAGE, ALASKA 99501-5177 ☐ (907) 274-1651

May 10, 1985

The Honorable John Sund
Chairman, House Special Loans Committee
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Representative Sund:

As you are aware, the Alaska Industrial Development Authority is actively involved in a proposal to build and operate a transportation system in the DeLong Mountains area. This transportation system, consisting of a 55 mile road and a port, would be used by Cominco Alaska, for its Red Dog Mine, and eventually by other users in this mineral rich area. Prior to incurring any debt on this project, AIDA has to prepare a Finance Plan that accounts for all costs, both operating and capital, and details revenue sources that are adequate to cover all of these costs.

Enclosed is a preliminary draft report, prepared by SRI International, that is being sent to you for your information and comments. When the final version of this report is prepared, it will form the basis of this Financial Plan.

I welcome any comments and suggestions you might have.

Sincerely,

Bertram L. Wagnon
Executive Director

BLW/RDL/rm
Enclosure

SRI International

ECONOMIC EVALUATION OF THE PROPOSED TRANSPORTATION SYSTEM FOR THE RED DOG DEPOSIT

A Preliminary Draft Report

May 3, 1985

Prepared for:

ALASKA INDUSTRIAL DEVELOPMENT AUTHORITY (AIDA)

Prepared by:

Mark Hollyer
Gerard M. Marsh
John W. Moberly
Ann J. Pacey
Claire Starry
Eugene Thiers
Jack E. Van Zandt

SRI International Project No. 8404

333 Ravenswood Ave. • Menlo Park, CA 94025
415 326-6200 • TWX 910-373-2046 • Telex 334-486

I INTRODUCTION

This draft report summarizes the results of SRI International assistance to Alaska Industrial Development Authority (AIDA) in preparing alternative finance plans for the proposed transportation system for Cominco Alaska's Red Dog deposit. The deposit is about 90 miles north of Kotsebue and about 70 miles east-northeast of Kivalina, some 55 miles from the Chukchi Sea.

To assure that the legislative requirements of the State of Alaska (Alaska Statutes Section 44.88.173) are met, the various finance plans, and alternatives include estimates of project capital costs, possible sources of capital funds, anticipated project operating costs and the money sources to meet them, and our comments regarding implied levels of State financial assistance.

In undertaking the work SRI has adopted a multidisciplinary approach, with specialists assigned to the study team for the duration of the program. SRI has consulted multiple sources of information, which are listed in Attachment 1.

Unless otherwise noted, all prices and costs in this report are expressed in inflated dollars (i.e., the inflated dollar values that are likely to prevail in the future), as opposed to dollars expressed in terms of 1985 purchasing power. Such projections are based on assumptions about future levels of inflation, and escalation or deflation factors that apply to cost components like labor, supplies, or energy. Table I-1 summarizes SRI's principal assumptions regarding escalation factors and overall inflation.

Following this introduction is Chapter II, the Executive Summary. Chapter III reviews the information collected, and briefly describes the transportation project and the capital and operating costs associated with the required infrastructure. Chapter IV describes the transport model SRI has used for allocating cargo and user costs. Chapter V deals with the profitability of the Red Dog project (relative to other major zinc/lead suppliers in the Western World). The chapter reviews the capital, operating, and maintenance costs associated with the mine and mill facilities that are currently contemplated. Chapter V also briefly discusses relevant metal prices and describes the model SRI has created to examine Cominco Alaska's profitability under various operating assumptions.

A financial evaluation of Cominco's proposal and the State's investment in the proposed transportation system, including possible alternatives, are discussed in Chapter VI. The importance of such

Table I-1

MISCELLANEOUS ESCALATION FACTORS
(Compound Percent per Year)

	1985	1986	1987	1988	1989	1990	1991	1992-1995	Post-1995
Inflation	4.0	4.0	4.5	4.5	5.0	5.5	6.0	6.5	6.5
Construction/ equipment	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.0
Labor	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	0.5
Energy	-0.5	-0.5	-0.5	-0.5	-0.5	0.0	0.0	0.0	0.0
Materials/supplies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: SRI International

critical parameters as start-up date and construction and capital cost schedules are discussed. Chapter VI also describes the financial model SRI has used to evaluate different proposals and alternatives, and sets forth the principal results modeled. Chapter VII provides a brief discussion of results.

Special effort has been made to make this draft report a succinct document--one that is immediately useful to AIDA and the Alaskan Legislature and other state organizations. Accordingly, certain details pertaining to intermediate steps or methodology are omitted here. Also omitted are Appendix materials, such as tables and figures. These will be included, however, in SRI's final report.

II EXECUTIVE SUMMARY

In general, SRI has identified no serious discrepancies in the review of capital and operating and maintenance (O&M) cost data regarding the proposed road and port facilities that will serve Cominco Alaska's Red Dog operation. The data, which were largely submitted by Cominco Alaska but include those from multiple other sources as well, indicate that the capital investment required will be on the order of $158 million for the road and the port. This estimate, which we have called the "Cominco-Based Scenario," has been adjusted to reflect SRI's views on possible cost contingencies. If all these contingencies are considered, they would raise the total investment contemplated under the Cominco-Based Scenario by about 20%. We refer to this higher capital cost set of assumptions as the Alternative Scenario.

Both the Cominco-Based Scenario and the Alternative Scenario have been used to evaluate the State subsidy implied in Cominco Alaska's proposal outlined in its December 11, 1984, Memorandum of Understanding--representing an offer that has not been officially acknowledged. Our findings indicate that, under the Cominco-Based Scenario, the State would earn a return of about 2% to 3% on its investment in the transportation system and a return of about 1% to 2% under the Alternative Scenario. Assuming that the State's cost of money is about 10%, the implied level of State subsidy would range from about $80 million (in 1985 dollars) to about $95 million (in 1985 dollars). Furthermore, the State's financial exposure can increase significantly if the first shipment of concentrates is delayed after 1989. For example, a 1-year delay in shipments and user charges increases the implied subsidy from about $16 million (in 1985 dollars) under the Cominco-Based Scenario to $20 million (under the Alternative Scenario).

Surprisingly, Cominco's mine profitability (i.e., as a percent of return on investment--%ROI) appears to be relatively insensitive to the total amount of user charges for the transportation system. SRI examined the effect of significantly higher user charges on both the State's return on its transportation system investment and on Cominco Alaska's return on its mine investment. The results indicate a user charge that will allow the State to achieve breakeven on its investment and that will reduce Cominco's rate of return on its mine investment by less than two percentage points compared with its original proposal.

Comparisons with international producers of lead and zinc indicate that Red Dog's operating cash costs should be below the median of those for the western world at any point in the foreseeable future. Furthermore, Cominco, Ltd. will benefit from this mine development through continued high utilization of existing facilities.

We note that debt-financing by Cominco of its mine and mill facilities--as is usual within the industry--would increase the anticipated return on its investment in the Red Dog operation above what is shown by our analysis.

The proposed mine development will also generate handsome royalties for NANA, which owns the resource, as well as distribution to other regional corporations--more than $600 million (in 1985 dollars) under our base price metal forecasts.

We believe that the State, in view of the sizable total economic return expected from developing this mine, should facilitate this commercial development. However, we question the need for a substantial State subsidy in financing the proposed transportation system. We recommend that a reasonable rate of return on this investment be secured in future years through an appropriate schedule of user charges.

III REVIEW OF INFORMATION

Project Description

The proposed transportation system consists of two relatively distinct components:

1. A year-round, 30-foot wide roadway, some 55 miles in length, extending from the proposed Red Dog Mine site (800 to 1500 feet in elevation and 90 air miles north of Kotzebue), southwesterly to the port site on the Chukchi Sea, a few miles south of Ipiavik Lagoon.

2. A sea port facility, which is currently described as a "800 lineal foot, 20 foot (water) depth, 2-dolphin" plan, with support features, including: material-handling equipment; power generation and fuel storage; water and sanitary works; helipad; personnel accommodations; and a barge for "regional" use. Major associated features include a concentrate storage building, fuel tank farm, storage areas for regional supplies (solids) and containers, and a regional supplies (liquid) facility.

The proposed road portion of the transportation system is described in "Geotechnical Report, Alaska Red Dog Mine" (October 1984). For the port, the following preliminary plans were provided to SRI:

- Cominco Alaska Red Dog Project, Seaport Facilities, Scheme 3B, Drawing SKD-GA-09, Rev. B (2-23-85).

- Concentrate Storage Facilities at Seaport, Drawing SKD-GA-10, (2-26-85).

- Cominco Alaska Red Dog Project, Dock Facilities, Drawing SKD-GA-11, Rev. A (3-8-85).

In addition, physical conditions data were also obtained from reports by D&M and from telephone discussions with Arctec, Inc., and Brian J. Watt Associates.

The road is planned for construction over a 2-year period from mid-1986 to mid-1988. This schedule, which includes two winter seasons, allows for road embankments to be constructed on undisturbed tundra in its frozen state, and for necessary embankment repair or grade correction after periods of thaw. Construction of the port facility is also planned to commence in mid-1986; it will extend somewhat beyond mid-1988, however--primarily because of the extensive mechanical-electrical installations required.

Capital Costs

Two key documents on construction costs and their expenditure rates over the planned construction periods were provided to SRI:

- o Road and Port Cost Summaries; Memorandum (March 7, 1985) from T. J. Manning (Red Dog Project Office, Pasadena) to H. M. Giegerich (Cominco Alaska, Anchorage),
- o Port and Road Cash Flow; prepared by RMP (3-15-85), referring to Job No. 6560.

The road's cost summary reflects RMP's audit of the PN&D cost estimates. The cost summary for the port reflects a revised port scope (i.e., the one used here) developed by RMP.

To supplement the limited backup detail provided, SRI held several in-depth telephone discussions with RMP's estimating department during our review of the cost estimates and schedules. These estimates were then partially reordered to take account of transport cost modeling and financial analyses of a public-based transportation system in Alaska, and the scheduled need for in-process construction capital. We refer to these estimates as the "Cominco-based" case.

Given that Cominco Alaska, RMP, PN&D, and others familiar with Alaskan construction cost factors have allotted considerable effort to developing detailed cost estimates, SRI believes its comment on aggregated costs are in order but notes that similar time for conducting detailed checks on economic assessments was unavailable.

Nevertheless, SRI and HLA suggest that if certain construction item costs were in fact higher than originally estimated, their overall cost effect should be considered in the financial analysis. For this purpose, SRI has developed an Alternative Case.

Our review has thus centered on identifying possible geotechnical and Arctic engineering concerns and constraints that might affect project costs. Those identified are discussed below.

Roadway Gradient and Curvature

The PN&D report specifies a maximum grade of 4% and addresses a one-lane road with passing turnouts every 2 miles and a sight distance design speed of 55 miles per hour. We understand, however, that curvature (vertical and horizontal) design criteria have subsequently been relaxed and maximum grades could reach 8% to 10%, although for relatively short distances. For a public highway with similar traffic conditions, such grades and lesser alignment standards, particularly for winter driving in Alaska, may pose a severe safety hazard. For example, these road configurations may compound sight and stopping distance problems. Given the passing turnouts proposed and speeds to 55 miles per hour, this change in alignment criteria may prove to undesirably decrease the margin of operational safety. For the purpose of cost impact analyses in the Alternative Case, the embankment fill quantity has been increased by 50% (i.e., an additional $8.5 million).

Roadway Maintenance and Repair during Construction

Two freeze/thaw cycles will occur during the construction period. The severity and frequency of roadway depressions and/or surface cracking resulting from these conditions are unknown. Along the road's centerline, 15 test borings were drilled, with 9 more drilled at major stream crossings, and 51 at proposed roadway borrow sites. PN&D concludes that subsurface conditions of importance have probably been identified. However, to account for soil problems that may not have been identified and to account for higher than expected roadway reconstruction costs, the Alternative Case doubles the fill quantity provided in the "Cominco-based" case for these purposes for an additional $2.1 million.

Ice Forces on the Port's Causeway

As currently proposed, the causeway consists of a series of cellular sheet pile structures filled with quarry run material. Preliminary plans envision the sheet piles bottoming some 25 feet below mudline. (Bedrock is apparently about 40 feet below the mudline.) To our knowledge, uplift and horizontal ice forces on the proposed structure have not been definitively quantified. Concerns therefore include potential jacking of individual sheet piles because of ice bonding and uplift, or the possible failure of individual sheets or groups of sheets because of large local lateral ice forces, leading to progressive failure of the cell. Accordingly, the Alternative Case assumes that the $6.9 million estimate for the cellular causeway portion be increased by 25% (i.e., an additional $1.7 million) to allow for unexpected additional sheet pile lengths or other required design modifications.

Concentrate Storage Facility and Fuel Tank Farm

The D&M reports provide no conclusions or recommendations in regard to the proposed location of the concentrate ore pile and the fuel tank farm, which is supported on fill pads adjacent to an existing lagoon. No doubt, additional test borings and soils analysis will be conducted before final design decisions are made. In the meantime, however, related concerns about soils stability and settlement, and about lateral loads on the foundations of the concentrate storage building appear worthy of consideration in the Alternative Case. Accordingly, the Site Preparation and Pad Fill item for both the concentrate storage and fuel storage facilities were used as the basis for the Alternative Case. Cost for these items were increased by 100% (i.e., an additional $2.1 million for the concentrate storage facility and $1.6 million for the fuel tank farm).

In summary, although it is problematical whether any or all of the above cost adjustments will in reality occur, their net effect would be to raise the Cominco-based estimates (for direct construction costs) by about 15% for the road and 10% for the port facility. These adjustments serve as the basis for the Alternative Case analysis discussed in subsequent sections.

Operating and Maintenance Costs

Road

The road from the Red Dog mine to the port site is assumed to carry substantially heavier trucks than most other roads in northern Alaska. Therefore, its operating and maintenance (O&M) costs are likely to be higher than comparable roads. From our discussions with the contacts cited in Attachment 1, the O&M items discussed below will be required. Annual costs (in 1985 dollars) associated with these activities are listed in Table VII.1 for the Cominco-based Case and the Alternative Case.

- General and Administrative--Three persons, plus support facilities, are estimated to be required to administer road O&M. They will be in offices at the mine site or the port. Information used to develop this estimate was obtained from discussions with the Alaskan Department of Transportation (ADOT) and the highway consultant cited in Attachment 1

- Maintenance--Maintenance estimates are based on two camps of crew and equipment--one at the mine and one at the port. Each camp will be responsible for servicing approximately 30 miles of road and will be staffed by 4 persons. Maintenance will be year-round, with the possible exception of a shut-down period during thaws. Typical activities include snowplowing and repair of the roadway and structures. The cost estimates for maintenance are based on per-mile costs to maintain the Dalton and Elliott Highways and similar roads in northern Alaska. All labor costs are based on prevailing local wage standards. (Our discussions with state and federal officials indicate that this facility should conform to the provisions of the Davis-Bacon Act.)

- Sustaining Equipment--Sustaining equipment includes snowplows, snowblowers, loaders, bulldozers, graders, trucks, and related equipment. These items will be replaced as needed throughout the life of the road. The costs for acquiring this equipment, which were provided by Cominco, are consistent with estimates provided by ADOT.

- Sustaining Capital--Major repairs to the roadway and structures (e.g., replacement of bridge decking and culverts, and roadway reconstruction) are expected periodically, starting about 5 years after the road is opened. These activities are included in the sustaining capital category. Estimates for these activities were developed from discussions with highway engineers at ADOT and with LCMF, Ltd., a highway consulting organization. Some uncertainties remain about sustaining capital requirements (e.g., major damage to the road from recurring freeze/thaw conditions or from poor quality ground surface or greater sustaining capital costs).

- Right-of-Way--The road will cross land owned by the NANA Corporation and Krusenstern National Monument. Right-of-way costs have not been included in this analysis, because no data are available, but such costs are likely to be assessed.

Port

The methods used to maintain and operate the port serving the Red Dog mine will be like those at other ports with similar climatic conditions and/or cargo operations. From discussions with the contacts noted in Attachment 1, the O&M items listed below will be required. Annual costs (in 1985 dollars) associated with these activities for each of the two cases being analyzed are given in Table III.1.

- General and Administrative--We estimate that four persons, plus support facilities, will be required to administer operations at the port.

- Maintenance--Maintenance estimates are based on data provided by Cominco in its March 27, 1985, letter and have been corroborated by SRI in discussions with officials at similar ports. Cominco estimates are about 15% higher on a per ton basis, than maintenance for other ports but SRI believes these estimates are reasonable given that the port will be open only about 3 to 4 months per year.

- Replacement Parts--Cominco estimates, provided in Appendix 7 of the Red Dog Report, indicate replacement parts to keep the port operating will amount to $250,000 per year (1984 dollars). This figure appears to be reasonable.

Table III.1

ANNUALIZED OPERATING AND MAINTENANCE COSTS FOR ROAD AND PORT
(1985 dollars)

	Cominco-Based Case	Alternative Case
Road		
General and administration	15% of maintenance costs[a]	15% of maintenance costs[a]
O&M	$15,000 per mile[a]	$20,000 per mile[a]
Sustaining equipment	Varies each year[b]	Varies each year[b]
Sustaining capital	$8,500 per mile[c]	$11,300 per mile[c]
Right-of-way	Unknown	Unknown
Port		
General and administrative	15% of O&M costs[a]	15% of O&M costs[a]
O&M	$1.06 million per year[b]	$1.06 million per year[b]
Replacement parts	$250,000 per year[b]	$250,000 per year[b]
Fuel	150,000 gallons per year, at $1.10 per gallon (1985$)[d]	150,000 gallons per year, year, at $1.10 per gallon (1985$)[d]
Sustaining equipment	Varies each year	Varies each year[b]
Sustaining capital	0.5% of the value of port construction[e]	0.5% of the value of port construction[e]
Royalty on port land	Unknown	Unknown

[a] Based on estimates provided by ADOT and LCMF, Ltd.

[b] Cominco, Red Dog Report, Appendix 7.

[c] Costs incurred after about the fifth year of operation, based on information provided to SRI by ADOT.

[d] Letter from T. J. Manning of Cominco to John Moberly of SRI, March 27, 1985.

[e] SRI International, to start about the fifth year of operation.

NOTE: Dollar figures in this table are increased each year by the appropriate inflators throughout the period of analysis.

- Fuel--The cost of fuel to operate the port is based on use figures provided by Cominco in its March 27, 1985, letter. The fuel, Arctic No. 1 Diesel, currently costs $1.10 per gallon. This amount has been inflated by the price escalators in the Introduction.

- Sustaining Equipment--Sustaining equipment includes container chassis, tractors, forklifts, container loading equipment, cranes, trucks, and other items. These items are replaced as needed throughout the life of the port. The costs Cominco stipulated for acquisition of sustaining equipment are reasonable.

- Sustaining Capital--Major periodic rehabilitation and repairs to port facilities are expected (e.g., for ice and wind damage to loading equipment and for rehabilitation of the port structures). Such costs are likely to start about 5 years after the port is opened. These activities are included in the category of sustaining capital. The total cost of these activities is estimated to be about 0.5% of the cost of construction, adjusted for inflation.

- Royalty on Port Land--The port will be situated on land owned by the NANA Corporation. Although annual royalty costs for using the land are not included in this analysis because no data on them have been provided, they are likely to be assessed.

We have not included, in either the port or road costs, the cost of reclaiming the land. The Red Dog Environmental Impact Report indicates that if these facilities are no longer used at the end of the project, the developer will be required to return the area to its natural conditions.

IV THE SRI TRANSPORT MODEL

The SRI Transport Model consists of two parts: The first part evaluates land movement between the port and the Red Dog mine. The second part evaluates the cost of moving concentrate from the port to smelters at various locations around the world. The latter part of the model is not of direct interest to AIDA because the Authority will not be involved in its funding. However, the cost of transporting the concentrate will affect the profitability of the mine and, therefore, Cominco's ability to pay user fees levied by the State for the port and road facilities.

Road and Port Model

The land-side road and port model is a cost-allocation model that determines the annual charges necessary to meet all capital and O&M costs. Costs are allocated to users on the basis of tonnages moved. The sources of capital and O&M data and the inflation rates used to escalate costs throughout the period of construction and operation are given in Attachment 1.

The model has been used to evaluate two cases: The first is the Cominco case, where the capital and O&M costs are, to the extent feasible, those Cominco provided by in its Red Dog Report (the exceptions to those costs are noted). The second case is an alternative that reflects the adjustments SRI has made, as discussed in Chapter III.

Construction Costs

Road

All road construction costs have been allocated to Cominco because it appears unlikely that others in the region (whether other mines or local residents) will be using the road in the near term. The net present value of these costs has been determined, and an equal, annualized, payment has been calculated that allows payback of the construction costs and interest over the 30-year operation period, 1989 to 2018. The discount rate of 10.5% reflects the estimated cost of money to be raised through long-term, tax-exempt bond issues.

Port

Because the port may be used by local residents and others living in the small communities nearby, costs of port construction and operations have been allocated between Cominco and regional users. The communities include Kivalina, Noatak, Kiana, and Kotzebue. Currently, cargoes destined for these communities are barged from Seattle and conveyed via lighter (a type of barge) to shore. The presence of the port for the Red Dog Mine may allow for more efficient transport and unloading of this cargo. Indeed, the Red Dog Mine Port Evaluation report (prepared by Cominco Engineering Services, Ltd., November 1983) contends that the port will reduce freight charges for regional cargo and may help to eliminate one of the greatest handicaps to growth in the region--high freight charges. SRI has found no data to support or refute this assumption. However, because the port may well be used for regional cargoes, such estimates have been incorporated in the analysis based on the Cominco report, which estimates that regional cargoes will total 32,700 to 34,900 tons per year (general cargoes and fuel).

Construction costs have been allocated to Cominco and regional users by identifying project elements that are dedicated to Cominco or region users and those elements that are common to both. Items that are specific to Cominco include the material-handling equipment, fuel storage, and concentrate storage. Items specific to regional users are the dry and wet storage areas, and a barge for local residents' use. All of the other construction costs have been allocated to Cominco or regional users on the basis of the percentage of tonnage moving through the port.

Annual construction costs have been calculated in the same manner as for the road.

Operating Costs

Most of the operating costs for the road and port have been estimated on an annual basis. Sustaining capital costs, however, have been taken from estimates provided by Cominco in its Red Dog Report, Appendix 7, and are not evenly spread throughout the period of operation. To spread these costs evenly over the life of the project, the net present value of purchases required has been calculated, and an equal, annualized payment that pays back the cost of the equipment and interest has been determined.

Operating costs, other than those for sustaining equipment, have first been estimated in 1985 dollars, and then have been escalated to reflect inflation. The costs for sustaining equipment, like those for construction or capital costs, have not been inflated. Rather, the method used to calculate the equal annual payments accounts for the effects of inflation on future purchases of equipment and the related interest costs.

Although the port and road will be in operation from 1988, and will be used for construction supplies for the mine before the export of concentrate, the transport model does not allocate costs until 1989 (i.e., the first year of concentrate shipment). Any operating costs that are incurred in 1988 have been included in the mine cost model and have been assumed to be paid directly by Cominco. Depreciation of capital has been assumed not to begin until 1989.

All O&M costs have been allocated to regional and Cominco cargo on the basis of tonnage. Although the costs of handling and storing different types of cargo are likely to be different, we did not have sufficient information to determine these differences. In addition, from discussions with personnel at various ports and, given the operating conditions expected at the Red Dog port, the differences in overall operating and storage costs for the types of cargo are unlikely to be major.

Traffic

Cominco traffic will dominate port and road uses. Table IV.1 shows the amount of cargo, by type, during the peak use of the road and port--from 1993 to 2007. Concentrate will account for more than 95% of the cargo for the road and about 90% for the port.

About 700,000 short tons of concentrate will be moved each year. In addition, about 10,000 short tons tons of general cargo and about 25,000 short tons of fuel will be imported for use at the mine and port. Regional users have been estimated to move an additional 11,600 short tons of general cargo and 23,300 short tons of fuel through the port each year.

Cost Allocations

Table IV.2 gives the estimated cost allocations for Cominco and regional users for each of the two cases. The port costs could not be broken down by type of cargo because the information available was insufficient for doing so.

The port charges per ton of regional cargo are about 50% higher than for Cominco cargo because of the higher cost per ton of construction for the regional storage facilities (as a result of the small tonnage throughput and the resulting lack of economies of scale) and the barge that serves local residents' needs. Those facilities dedicated to Cominco will be used, on average, more intensively. Of course, no road charges are incurred for regional cargo.

Table IV.1

PEAK LEVEL TRAFFIC FOR THE RED DOG PORT AND ROAD
(Dry Short Tons)

Road	
Cominco	
Zinc concentrate	585,000
Lead concentrate	119,000
General cargo	10,000
Fuel	20,000
Port	
Cominco	
Zinc concentrate	585,000
Lead concentrate	119,000
General cargo	10,000
Fuel	24,380
Regional users	
General cargo	11,600
Fuel	23,300

Source: Cominco Engineering Services, Ltd., Red Dog Port Evaluation Study (November, 1983) and Red Dog Report (July, 1984).

Table IV.2

COST ALLOCATION FOR ROAD AND PORT
COMINCO AND REGIONAL USERS

Cominco Case	1990	2000	2010	2018
Cominco				
Road ($ in millions)	$11.19	$13.44	$16.19	$19.84
Road ($ per ton)	$15.07	$18.32	$25.26	$26.91
Port ($ in millions)	$10.01	$12.25	$15.64	$24.14
Port ($ per ton)	$13.40	$16.59	$24.24	$31.21
Regional				
Port ($ in millions)	$ 0.74	$ 0.91	$ 1.16	$ 1.50
Port ($ per ton)	$22.75	$26.08	$33.30	$42.88
Alternative Case				
Cominco				
Road ($ in millions)	$13.27	$16.26	$19.90	$24.75
Road ($ per ton)	$17.87	$22.15	$31.05	$33.58
Port ($ in millions)	$10.30	$12.61	$16.07	$20.65
Port ($ per ton)	$13.78	$17.07	$24.89	$32.00
Regional				
Port ($ in millions)	$ 0.68	$ 0.83	$ 1.06	$ 1.37
Port ($ per ton)	$20.85	$23.92	$30.49	$39.19

Source: SRI International

Ocean Transport Model

The second part of the transport of concentrate is from the port to various smelters. Because of the shallow depth of the water at the Red Dog port, lightering barges will be required to carry the concentrate to ocean-going vessels about 4 miles off shore. The ocean transport model, therefore, includes the costs of the barges and concentrate carriers, as well as port discharge costs and in-land haulage. There are four probable destination areas: Trail, British Columbia; Japan; Europe; and Eastern Canada.

The information sources used to develop the capital and operating costs for the barges ocean transport, discharge, and in-lana transport costs are given in Attachment 1.

Barge Costs

Two self-propelled concentrate barges are expected to be used to carry the concentrate from the port to the concentrate ships. These barges will be dedicated to Cominco use because it is unlikely any other use will be found for them. The barges will be storea in British Columbia during the winter season. They will be used to bring containerized general cargo to the mine at the beginning of the shipping season in June and to return the containers at the end of the season. The useful life of the barges is expected to be 30 years.

Self-sustaining barges, which have greater maneuverability in the choppy waters in the Chukchi Sea, will be used instead of the more common tug and gage operations. Operations with tug and barge would have to be curtailed more often than those employing a self-sustaining barge.

We have assumed that foreign-flag barges will be used, given Cominco's stated intentions for doing so. There is, however, some concern that U.S.-flag barges may be required by the Jones Act. If so, U.S.-flag barges would cost about 33% to 50% more to purchase and operate. Barge cost estimates are given in Table IV.3.

Vessel Costs

We have developed vessel costs that are based on the use of foreign-flag ships of varying sizes and whose characteristics depend on the water depth at the port of destination and the amount of cargo being shipped and the estimated number of voyages. We have assumed tnat the ships will be chartered on a one-way basis for Europe and Eastern Canada, and on a two-way basis for Japan and Trail. Voyage costs include the time charter rate, bunker fuel, oil costs, and canal charges if any. No delivery charges for initially bringing the ships to Alaska have been included, but we have included the cost of the additional insurance required for operations north of the Arctic Circle. Vessel, port, and in-land haulage cost estimates are given in Table IV.4.

Port and Inland Haulage Costs

Port charges include discharge, storage, and docking fees. Sufficient port facilities currently exist in Eastern Canada ana Europe. Japan's port limitations are related to draft because ports for smelters are located upriver where concentrate is unloaded. Therefore, cost estimates reflect actual charges that would be incurred today. Vancouver is an export port and has few facilities to handle large amounts of in-bound cargo. Vancouver Wharves has indicated that it would be willing to install unloading and storage equipment to handle Cominco concentrates

Table IV-3

ESTIMATED CAPITAL AND OPERATING COSTS FOR TWO SELF-PROPELLED BARGES

	1989	1990	1995	2000	2005	2010	2018
Capital cost(a)	$1,055,221	$1,055,221	$1,055,221	$1,055,221	$1,055,221	$1,055,221	$1,055,221
Operating Costs	450,204	472,714	603,316	770,002	982,739	1,254,252	1,853,101
Total Cost	$1,505,425	$1,527,935	$1,658,537	$1,825,223	$2,037,960	$2,309,473	$2,908,322
Cost for 2 barges	$3,010,850	$3,055,870	$3,317,075	$3,650,445	$4,075,920	$4,618,945	$5,816,643
Dollars per short wet ton	$14.48	$5.98	$6.16	$6.78	$7.57	$10.20	$12.85

(a) Based on a foreign-built barge whose cost is estimated at $7 million (1985 dollars).

Table IV-4

OCEAN TRANSPORTATION COSTS FOR ZINC CONCENTRATE IN 1985 US$

	#1 Vancouver (round trip)	#2 Vancouver (round trip)	Japan (round trip)	Europe (one-way)	Eastern Canada (one-way)
Volume (SDT)	330,000	330,000	120,000	110,000	25,000
One-way distance	2,600	2,600	3,000	10,975	9,335
Ship Data					
DWT, tonnes	37,500	60,000	26,500	60,000	26,750
Cargo capacity, tonnes	36,615	58,906	25,294	58,019	25,163
Draft, ft	35	43	34	43	34
Knots	12	13	14.5	13	14.5
Intermediate fuel consumption, tonnes per day	17	29	35	35	35
Marine diesel consumption, tonnes per day	2.0	2.5	2.0	3.0	2.0
Time charter rate per day, $	$5,130	$9,500	$4,000	$6,000	$4,000
Panama Canal toll	$0	$0	$0	$50,000	$25,000
Port Data					
Destination port water depth, ft	35	45	34	45	45
Loading rate per day, tons	20,000	20,000	20,000	20,000	20,000
Discharging rate per day, tons	10,000	10,000	5,000	10,000	10,000
Fuel oil cost per tonne, $	$185	$185	$185	$185	$185
Diesel oil cost per tonne, $	$275	$275	$275	$275	$275
Port charges, $	*	*	$20,000	$40,000	$15,000
Trip Data					
Loaded cargo (SWT)	35,640	59,400	25,920	59,400	27,000
Loaded cargo (SDT)	33,000	55,000	24,000	55,000	25,000
Voyage steam time	19.5	18.0	18.6	38.0	29.0
Loading time	2.782	3.97	2.296	3.97	2.35
Discharging time	4.564	6.94	6.184	6.94	3.7
Canal transit time	0	0	0	1.5	1.5
Total voyage days	26.8	28.9	27.1	50.4	36.5
Cost Calculations					
Intermediate fuel cost	$61,328	$96,570	$120,569	$245,988	$187,585
Marine diesel fuel cost	$14,765	$19,876	$14,905	$41,580	$20,086
Canal charges	$0	$0	$0	$50,000	$25,000
Port charges	*	*	$20,000	$40,000	$15,000
Time charter cost	$137,720	$274,645	$108,403	$302,402	$146,083
Insurance	$12,000	$25,000	$10,000	$25,000	$10,000
Total voyage cost	$225,813	$416,091	$273,877	$704,970	$403,754
Cost per SWT	$6.34	$7.00	$10.57	$11.87	$14.95
Tranship to smelters	$24.00	$24.00	$5.00	$10.00	$5.00
Vancouver storage/handling*	$12.00	$12.00	$0.00	$0.00	$0.00
Total cost per SWT	$42.34	$43.00	$15.57	$21.87	$19.95

if movement of at least 250,000 tons per year through the port was guaranteed. Vancouver Wharves, however, has a shallow draft and ships requiring greater than 35 feet draft would be tide dependant. An alternative port is Roberts Bank, which could easily handle ships as large as 60,000 dead weight tons (dwt). Unloading and storage facilities would have to be installed at this facility, too, however.

Little inland haulage is anicipated, except for Trail, British Columbia, where the cost of moving the cargo is about $24 per ton. We have assumed that inland haulage will be about $5.00 per ton for Japan and Eastern Canada; and $10 per ton for Europe. Most of the smelters that might be used are relatively close to the port of discharge. Forecasts of these costs are provided in Table IV.5.

Table IV-5

ESTIMATED TRANSPORTATION COST FOR ZINC CONCENTRATE
(per short wet ton)

	1989	1990	1995	2000	2005	2010	2018
Barge capital and operating costs	$14.48	$5.98	$6.16	$6.78	$7.57	$10.20	$12.85
Voyage, storage and handling, and transshipment costs							
Vancouver, B.C.	$48.85	$46.84	$54.43	$63.42	$74.10	$87.62	$110.29
Japan	$21.12	$19.23	$23.80	$29.53	$36.74	$49.22	$70.54
Eastern Canada	$25.47	$26.62	$33.23	$41.57	$52.10	$79.67	$115.54
Europe	$31.31	$32.63	$32.37	$39.63	$48.68	$66.79	$94.33

V MINE ECONOMICS AND PROFITABILITY

The SRI cost model of the Red Dog mine and mill considers individual cost elements. Costs are broken down into the following major categories: operating costs, transportation charges, other costs, depreciation, and depletion. The model calculates an internal rate of return on investment (ROI), after state and federal taxes, that is based on capital costs during the life of the project. Capital investments include the initial investment spent before start-up of the operation, sustaining capital during the years of production, and working capital. The analysis considers the cash flow during the development and construction years, 1979 to 1989, and for a 30-year mine production life, 1989-2018.

The project is considered to be a "stand-alone" operation; corporate overhead costs are included in the overall cost structure. The ROI has been determined on the assumption that the project is financed totally by equity. In practice, a significant share of the initial capital for all mining projects is debt-financed and such an approach could have been selected, and an ROI based on the equity share of the project could have been determined. However, making an initial determination of the profitability and return on mine investment on the basis of the total equity condition is in accordance with standard mining economic practices. (An ROI based on the equity share of a partially debt-financed project generally results in a higher ROI than that of a totally equity-financed project.)

The data used in our cost model have been taken from a variety of sources. The mine and mill capital and operating costs have generally been extracted from various published Cominco reports and submissions to AIDA. These data have been carefully examined and compared with information available to SRI through other sources. SRI has estimated the transportation charges for concentrate shipments from the port to smelters throughout the world. Other costs, including royalties for the Northwest Alaska Native Association (NANA) and the State Mining License Tax, have been calculated by formulas used by Cominco in its profitability determination. Income taxes and the minimum tax paid to the State have been calculated by considering investment tax credits and appropriate depreciation and depletion schedules.

In estimating cash flow profitability and internal rate of return, the major uncertainty is the future flow of revenues, which depends on the projected sales value of the commodity produced--in Red Dog's case, zinc and lead concentrates. The future sales value of these concentrates will be determined by metal--zinc, lead, and silver--prices, less penalties for impurities in the concentrate and treatment charges (i.e., the cost of converting the concentrate to metallic zinc, lead, and silver). Clearly, precise forecasts of commodity prices cannot be made. Instead, we have formulated a base price case, an optimistic price case, and a pessimistic price case for the metals. Our analysis of this major task in the project is summarized below.

Assumptions and Data Sources

Capital Costs

The capital costs for the initial charges spent before start-up of the mine and mill have been based on a Cominco memorandum of March 1, 1985, which was supplied to SRI by Cominco and AIDA. (This memorandum has also been used as the information source for the future production schedule; ore and concentrate grade, market distribution; sales value of the concentrate; and formulas for determining management and selling fees, royalties, investment tax credits, and federal and state taxes). The estimated fixed capital costs for the construction of the mine and mill, development costs, start-up costs, and various other expenses and advance payments are given in Table V-1. The costs have been escalated to account for inflation (discussed in Chapter I) during the years of construction.

The total initial capital costs are estimated to be $270 million for development and construction of the mine, mill, and on-site mine facilities, excluding interest during construction and working capital. Given the estimated future production of 2 million dry short tons per year (dst/y) of ore, the capital cost per ton for the mine and mill complex is $135. This cost per ton compares favorably with other new surface mines and mills now being considered throughout the world. Some of the proposed new South American operations have capital costs in the range of $90 to $115/dst of ore. But given the less expensive labor in South America and the remoteness of the Red Dog project, Cominco's capital cost estimates for its operation in Northern Alaska seem reasonable. (The Cominco Polaris mine in Canada, completed in 1983, was developed at a capital cost of $145/dst.)

Sustaining capital charges incurred over the life of the project vary, depending on the expenditure, from $2 to $8 million/y. (An exception to this range of capital charges occurs in the fourth and fifth years after mine start-up when additional worker accommodations are installed.) The sustaining capital costs are for the mine and mill, and for concentrate haulage from the mine to the port. Sustaining capital costs for road maintenance and port facilities have been included in the costs for the transportation system. (The estimates for sustaining capital were obtained from information provided in the Appendix of Cominco's "Feasibility Report" of July 1984.)

Table V-1

FIXED CAPITAL FOR RED DOG MINE AND MILL
(Millions of Dollars)

Cost Item	Year of Expenditure 1979 to 1984	1985	1986	1987	1988	1989
Exploration	0.62	0.30	0.42	0.56	-	-
Ore delineation	6.02	-	-	-	-	-
Advance NANA royalties	3.53	1.00	1.00	1.00	1.00	-
Airstrip	1.44	0.10	-	0.11	0.47	-
Concentrator	3.78	5.80	21.21	20.48	51.56	7.50
Power plant	0.78	2.10	13.08	10.91	8.26	2.13
Accommodations	0.15	0.60	-	6.01	18.40	-
Mine development	-	1.20	2.11	5.23	19.11	1.00
Mine and surface equipment	0.97	1.70	3.48	11.35	14.39	2.63
Start-up costs	-	-	-	-	-	5.63
Surface buildings	-	0.40	1.16	4.79	2.36	-
Other expenses	1.07	0.30	0.11	0.11	0.24	-
Total[a]	18.35	13.50	42.57	60.55	115.80	18.88

[a]Totals may not add because of rounding.

The estimates of working capital are those of SRI and have been based on accounts receivable, accounts payable, production inventory, and supplies inventory. The initial working capital has been estimated to be about $65 million spent during the first 3 years of mine operation, increasing by $4 to $6 million/y thereafter.

Operating Costs

Detailed operating costs were provided in Cominco's July 1984 Feasibility Report. After examining additional manning tables, salary schedules, fuel consumption, other supplies use, and details about overhead expenditures provided by Cominco, and comparing those data with SRI information of other mines and mills, we have accepted Cominco's operating costs as accurate and reasonable.

The operating costs are listed in the following categories: mining, milling, maintenance, power generation, mine and mill overhead, costs for start-up procedures (lasting 3 years), and cost contingency. These cost categories, except for start-up and contingency, are broken down into labor, fuel, supplies, and other charges. Total operating cost, per ton of ore mined, is about $41/dst in 1989--the initial year of mine operation. (Wet concentrate, containing about 8% moisture, will be the actual product shipped.) The concentrate cost, based on the appropriate ratio of ore mined to concentrate shipped, will be about $106/dst of concentrate. These costs are estimated to decrease to $103/dst of concentrate in 1992 when the operation is in full production and the additional operating costs for start-up are no longer needed.

Transportation Charges

The transportation of the concentrate initially involves moving the concentrate 55 miles from the mine and mill site to the port. This cost will be incurred by Cominco. The rest of the transportation costs will be fees, or charges, to be paid by Cominco to outside contractors. A road and port user-fee will be paid to the State. (This is essentially the revenue the State will collect to cover its capital and operating costs for the transportation system.) Cominco will also have to pay a fee for loading the concentrate at the port and hauling it by barge to oceangoing ships. It will then incur the costs for ocean transportation to ship the concentrate to Vancouver, British Columbia, Eastern Canada, Europe, and Japan. (We have assumed that, depending on the destination, ships in the 26,000 DWT to 60,000 DWT range will be used.) Finally, a rail transportation cost will be imposed at the destinations to transport the concentrate to the smelter sites.

As mentioned, SRI has estimated these costs. In 1992, the total transportation cost is about $73/dst of concentrate, of which the user fee of $19/dst reflects the "Cominco-based" proposal.

Other Costs

We have included corporate overhead (sales, general and administration) costs, NANA royalties, and the Alaska mining license tax in our "other cost" category. We have allocated a Cominco corporate overhead charge at 4% of the concentrate sales. (Although Cominco incurs an actual corporate overhead cost of about 6% on all sales, we have reduced this percentage because we consider the sales expense of Red Dog's concentrate product is likely to be less than Cominco's overall selling expenses.) The NANA royalty and the mining license tax are calculated by formulas defined by the State and NANA. No mining license tax is imposed in the first 3.5 years of the mining operation.

Total "other costs" are about $25 to $30/dst in the initial years of mine operation. They may escalate rapidly, however, depending on the NANA royalty. The royalty, in the initial years of mine operation, is 4.5% of "net smelter return" (i.e., concentrate sales, less selling and distribution expenses). The royalty based on 4.5% of net smelter return will prevail until Cominco recovers nearly all of its previously spent capital and operating funds. Once Cominco has recovered these funds, the NANA royalty increases to a 25% (with further 5% incremental increases every 5 years until 50% is reached) of what is defined as "net proceeds from production"; that is, the net smelter return, less operating costs, management fees, and royalties.

In the years that the "percentage of net proceeds" constitutes the basis of the NANA royalty, this royalty is the largest single cost item incurred by Cominco for the project. Even when the royalty is "only" 25% of net proceeds, it can amount to $40 to $50/dst of concentrate. In years when the royalty reaches 40% to 45%, the royalty that Cominco has to pay can amount to as much as one-half of the total of all the operating costs (e.g., those for mining and milling).

Depreciation and Depletion

Although they are not "cash" costs, depreciation and depletion are critical in any cash flow analysis because they affect the Mining License Tax, state and federal income taxes, and the "minimum" state and federal tax.

Depletion allowances have been determined by standard depletion calculations--using the lesser of 22% of gross income of the operation or 50% of the net income from the mine. Depreciation has been determined by assigning the appropriate depreciation schedule to the various capital assets. We have used either a straight-line 5-year schedule, or and 18-year schedule, depending on the capital item. Rather than expense some of the initial fixed capital costs as they were incurred, we have carried these expenses to the first year of project operation and included them in the first year's depreciation. This results in a high depreciation charge in 1989, but in no way alters the tax calculation.

Production and Sales

The production schedule used is the one proposed in the Cominco memorandum (see Table V-2). We have assumed that sales of concentrates in each year will equal their production in that year. We recognize, however, that in practice a lag will occur before actual sales begin relative to production during the first 2 or 3 years of the mine operation.

The value of the concentrates has been calculated by using formulas defined by Cominco. These are based on the grade of zinc, lead, and silver in the concentrates; the metal prices; and the normal recovery factor in smelting the concentrate. Deductions from the metallic values of the concentrates have been made for iron and other impurities in the concentrates and for the treatment charge (i.e., the cost of smelting the concentrate to metal).

Table V-2

RED DOG PRODUCTION SCHEDULE
(Thousands of Dry Short Tons per Year)

	1989	1990 to 1991	1992 to 2008	2009 to 2018
Ore mined	1,000.0	1,826.0	2,050.0	2,050.0
Zinc concentrate	316.0	585.0	587.5	492.0
Lead concentrate	69.0	127.8	119.6	119.6

Metal Prices and Pricing Mechanisms

This section briefly discusses the assumptions SRI has used to project zinc and lead prices for the anticipated duration of the project. Silver prices, like those for all precious metals, are subject to greater uncertainty than the prices commodity metals. They are influenced by speculation and by the relatively smaller proportion of industrial applications to total consumption. Using a simplifying assumption, SRI has thus assumed that future silver prices will escalate from current levels at a slightly lower rate than inflation.

SRI recognizes that the present strength of the U.S. dollar can distort the relative cost position of international zinc and lead producers. However, in our calculations we have assumed that other major international currencies will gain value with respect to the dollar and, in turn, that international production costs when expressed in dollars will increase accordingly. Zinc and lead prices have been projected under three conditions: a base price case, an optimistic price case and a pessimistic price case. We provide for each case key assumptions and a brief description of our methodology.

For the base price case we have assumed that ideally the economics of supply/demand balance will apply to future zinc and lead producers throughout the Western world. Simply stated, future prices are assumed to be determined by the "marginal" producers; their output is required to meet current demand, and they neither profit nor lose excessively by maintaining operations.

However, in actual practice, a simple balance between supply and demand is not sufficient for analysis for a number of reasons. First, prices are not a simple function of production costs. Speculation, intermaterial substitution, and technical innovations all play different roles, particularly when the market is in balance or demand exceeds supply. Only when supply greatly exceeds demand are operating costs more important than the other factors.

In other words, only when recessionary economic conditions are in effect or when metals are under great pressure from substitutes does economic analysis allow the assessment of likely price movements. Thus, such price assessments can only be undertaken when market conditions are poor; accordingly, prices determined through these methods tend to correspond to what the industry calls "floor prices"-- prices that do not become lower because such price erosion would subtract significant supplies from the market place. "Normal" prices (in fact, a misnomer, because prices either go up or down but seldom remain at a "normal" level) can then be determined by historical relationships between floor and normal (or median) prices.

SRI's procedure in projecting zinc prices entails (1) first estimating future net demand (e.g., demand, less the portion of recycled scrap that contributes to total demand), (2) then identifying the marginal zinc producer that is required to meet such demand, and, (3) ending with price adjustments that reflect normal rather than recessionary conditions. Table V-3 summarizes the results for zinc and lead. Note that the lead figures have not been adjusted to normal conditions because the current contributions of scrap lead should prolong the near-recessionary conditions that primary lead producers are now experiencing for some time.

No provisions have been made in the base price case for profits or for meeting capital-related obligations. Naturally, low-cost producers--those whose operating cash costs are substantially lower than marginal

Table V-3

METAL PRICE OUTLOOK

	Zinc		Lead	
	1990	1995	1990	1995
Demand metal demand (millions of dst/y)	5.37	5.50	4.47	4.54
Scrap use (percent of demand)	7.0	7.0	44.0	44.0
Net metal demand (millions of dst/y)	4.49	5.12	2.51	2.54
Prices ($/lb)				
Base price case	0.503	0.739	0.238	0.395
Optimistic price case	0.544	0.794	0.293	0.473
Pessimistic price case	0.430	0.601	0.225	0.319

Source: SRI International

producers--automatically receive some profits as long as prices allow marginal suppliers to meet operating cash costs. However, the base price case largely excludes the influence of capital charges. In contrast, the optimistic price case includes them and establishes the price levels that potential suppliers require to expand capacity. The implication is that such prices should not only be sufficient to meet depreciation and interest charges, but enough to provide a comfortable return on investment.

In arriving at the optimistic price case, SRI has adopted cash operating costs that correspond to floor price conditions. Then, we have added the cost of depreciation, interest, taxes, and other miscellaneous expenses that, when subtracted from metal revenues, will still provide a net profit. For this purpose, the specific investment requirements for new zinc and lead capacity have been assumed to be in line with that anticipated for the Red Dog deposit.

Unlike the previous two cases, the pessimistic price case takes account of the substantial shift in production from developed to developing countries, particularly at the mine and mill stage, and assigns that shift to the national differences in perceptions regarding what is a profitable operation. The pessimistic price case arbitrarily discounts major cost factors (e.g., labor, or hydro-power) in production in developing countries to reflect the cost perceptions of those countries. In addition, the pessimistic price case assumes that the proportion of secondary zinc and lead that enters into refined metal production will be greater than in the base price case (e.g., secondary lead use increases from 44% to more than 55%).

In SRI's experience, price projections that are based on production economics entail the risk of becoming increasingly less accurate after about 10 years. However, we see no reason to assume further cost escalations in real terms or deflationary influences for the period after 1995 in the many Western countries that supply zinc and lead. Accordingly, SRI's price projections for zinc and lead simply follow long-term inflation (which has been assumed to be about 5.5%) for that period.

Figures illustrating SRI's price projections for zinc and lead in inflated and 1985 dollars are included in Appendix ___.

Mine and Mill Cost Model

Table V-4 gives the cash flow of the Red Dog operation at the base case price projections. The cash flow includes expenditures during the construction years, 1979 through 1989, and the 30-year production period, 1989 through 2018. All numbers in the table are in millions of dollars, except zinc, lead, and silver, which are given in dollars per pound ($/lb).

Table V-4

RED DOG COST MODEL
(Inflated U.S. Dollars)

Ownership: Cominco American
Capacity: 710,000 sdt/y of concentrates
Metal Prices: Base case

Start-up Date: 1989
Capital Investment: $270 million
Production Rate: Full capacity

Millions of Dollars (Except Prices)

	1979 to 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
U.S. PRICES															
Zinc - $/lb						.49	.50	.54	.59	.63	.68	.74	.78	.82	.87
Lead - $/lb						.23	.24	.26	.29	.32	.36	.40	.42	.44	.46
Silver - $/lb						7.53	7.87	8.22	8.64	9.07	9.52	10.00	10.50	11.02	11.57
SALES															
Zinc concentrates						83.85	161.33	173.96	190.17	205.48	222.03	239.90	253.18	267.10	281.66
Lead concentrates						9.60	18.85	21.75	24.60	28.00	31.89	36.15	38.10	40.12	42.21
TOTAL SALES						93.45	180.16	195.71	214.78	233.48	253.93	276.05	291.28	307.22	323.87
OPERATING COSTS															
Mine						3.20	6.19	7.34	7.78	8.26	8.76	9.30	9.83	10.40	11.01
Mill						5.60	10.77	12.73	13.46	14.23	15.04	15.91	16.80	17.75	18.74
Maintenance						4.95	9.61	11.39	12.09	12.83	13.62	14.46	15.30	16.19	17.13
Power generation						4.62	8.84	10.43	11.01	11.62	12.27	12.96	13.68	14.44	15.24
Mine and mill overhead						9.50	18.33	21.68	22.94	24.28	25.70	27.20	28.74	30.37	32.09
Additional costs for start-up						10.83	5.29	6.30	.00	.00	.00	.00	.00	.00	.00
Contingency						2.36	4.53	5.34	5.63	5.94	6.27	6.61	6.98	7.36	7.77
TOTAL OPERATING COSTS						41.07	63.56	75.19	72.91	77.16	81.67	86.43	91.33	96.51	101.98
TRANSPORTATION COSTS															
Concentrates to port						1.65	3.19	3.78	4.01	4.26	4.51	4.79	5.06	5.36	5.67
Road and port user fee						2.66	13.19	13.40	13.65	13.93	16.69	17.04	17.39	17.75	18.10
Barge to ship						6.03	4.58	4.39	4.46	4.57	4.69	4.80	4.93	5.05	5.18
Ocean shipping						8.70	15.63	15.41	15.91	16.55	17.23	17.94	18.60	19.32	20.12
Inland freight						5.64	13.59	13.68	13.90	14.24	14.60	14.96	15.34	15.72	16.11
TOTAL TRANSPORTATION COSTS						24.69	50.17	50.66	51.92	53.55	57.72	59.53	61.32	63.19	65.18
OTHER COSTS															
Corporate overhead						3.74	7.21	7.83	8.59	9.34	10.16	11.04	11.65	12.29	12.95
NANA royalties						3.03	5.73	6.39	7.18	7.94	8.66	31.02	33.07	35.20	37.41
Mining license tax						-	-	-	.60	1.79	4.57	4.02	4.31	4.57	4.84
TOTAL OTHER COSTS						6.77	12.94	14.22	16.38	19.07	23.38	46.08	49.03	52.06	55.20
DEPRECIATION						74.49	36.29	36.50	36.79	37.63	6.94	7.82	8.04	8.97	9.94
DEPLETION						.00	9.87	10.89	19.97	24.80	41.26	40.61	43.32	45.94	48.68
TOTAL COSTS						147.01	172.82	187.48	197.98	212.22	210.97	240.46	253.04	266.67	280.97
NET INCOME BEFORE TAXES						-53.56	7.36	8.23	16.80	21.26	42.96	35.59	38.24	40.55	42.90
TAXES															
State						.00	.27	.29	.54	.67	1.11	1.10	1.17	1.24	1.04
Federal						.00	1.48	1.63	3.00	3.72	6.19	6.09	6.50	6.89	15.85
TOTAL INCOME TAXES						.00	1.75	1.93	3.54	4.39	7.30	7.19	7.67	8.13	16.89
NET INCOME AFTER TAXES						-53.56	5.61	6.31	13.26	16.87	35.66	28.40	30.57	32.42	26.01
CASH FLOW						20.93	51.77	53.70	70.03	79.30	83.86	76.83	81.93	87.33	84.63
CAPITAL INVESTMENTS															
Initial investment	18.35	13.50	42.57	60.55	115.80	18.88	-	-	-	-	-	-	-	-	-
Sustaining capital	-	-	-	-	-	-	1.00	1.05	2.01	13.47	13.94	5.38	2.16	5.86	6.95
Increase in working capital	-	-	-	-	-	43.00	20.09	9.69	-.63	4.23	4.34	2.62	4.65	4.92	5.19
TOTAL CAPITAL INVESTMENTS	18.35	13.50	42.57	60.55	115.80	61.88	21.09	10.74	1.38	17.70	18.28	8.00	6.81	10.78	12.14
NET CASH FLOW	-18.35	-13.50	-42.57	-60.55	-115.80	-40.96	30.68	42.96	68.65	61.61	65.58	68.83	75.12	76.55	72.49

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
U.S. PRICES																				
Zinc - $/lb	.92	.97	1.02	1.08	1.13	1.20	1.26	1.33	1.41	1.46	1.56	1.66	1.74	1.84	1.94	2.04	2.16	2.28	2.40	2.53
Lead - $/lb	.49	.52	.55	.58	.61	.64	.68	.71	.75	.79	.84	.88	.93	.98	1.04	1.09	1.15	1.22	1.28	1.35
Silver - $/lb	12.15	12.76	13.40	14.07	14.77	15.51	16.28	17.10	17.95	18.85	19.79	20.78	21.82	22.91	24.06	25.26	26.52	27.85	29.24	30.70
SALES																				
Zinc concentrates	296.87	313.38	330.53	348.64	367.73	388.11	409.12	431.76	455.37	480.26	427.17	451.98	475.36	501.21	528.70	557.82	588.29	620.66	654.66	690.55
Lead concentrates	44.36	46.73	49.27	51.88	54.54	57.51	60.52	63.71	67.05	70.55	73.36	77.29	81.39	85.66	90.19	94.96	99.96	105.20	110.78	116.70
TOTAL SALES	341.23	360.10	379.80	400.52	422.26	445.62	469.64	495.47	522.42	550.81	500.53	529.27	556.75	586.87	618.89	652.78	688.25	725.86	765.44	807.25
OPERATING COSTS																				
Mine	11.65	12.32	13.04	13.79	14.59	15.44	16.33	17.28	18.29	19.34	20.47	21.66	22.92	24.25	25.65	27.14	28.72	30.39	32.15	34.02
Mill	19.80	20.91	22.08	23.33	24.64	26.02	27.49	29.03	30.67	32.39	34.21	36.14	38.17	40.32	42.59	44.98	47.52	50.19	53.02	56.00
Maintenance	18.13	19.19	20.31	21.49	22.74	24.07	25.47	26.95	28.52	30.19	31.95	33.81	35.78	37.87	40.07	42.41	44.89	47.50	50.28	53.21
Power generation	16.08	16.97	17.91	18.91	19.96	21.06	22.23	23.46	24.77	26.14	27.59	29.12	30.73	32.44	34.24	36.14	38.14	40.26	42.49	44.85
Mine and mill overhead	33.91	35.84	37.87	40.02	42.29	44.69	47.23	49.91	52.74	55.74	58.90	62.25	65.79	69.52	73.47	77.65	82.06	86.72	91.65	96.86
Additional costs for start-up	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Contingency	8.19	8.64	9.12	9.62	10.15	10.71	11.30	11.92	12.57	13.27	14.00	14.77	15.58	16.43	17.34	18.29	19.30	20.36	21.48	22.66
TOTAL OPERATING COSTS	107.76	113.87	120.33	127.16	134.37	141.99	150.05	158.56	167.56	177.07	187.12	197.74	208.96	220.83	233.37	246.62	260.62	275.42	291.07	307.60
TRANSPORTATION COSTS																				
Concentrates to port	5.99	6.34	6.71	7.09	7.50	7.94	8.40	8.88	9.40	9.94	10.52	11.12	11.77	12.45	13.17	13.93	14.74	15.59	16.49	17.45
Road and port user fee	18.46	18.88	19.30	19.80	20.22	20.72	21.28	21.85	22.42	23.05	22.38	23.06	23.67	24.40	25.14	25.87	26.73	18.71	19.63	20.61
Barge to ship	5.30	5.44	5.57	5.71	5.86	6.00	6.15	6.31	6.46	6.62	5.87	6.02	6.17	6.32	6.48	6.64	6.81	6.98	7.15	7.33
Ocean shipping	20.96	21.82	22.74	23.68	24.67	25.71	26.79	27.73	28.70	29.72	28.26	29.28	30.34	31.45	32.61	33.81	35.27	36.80	38.40	40.07
Inland freight	16.51	16.93	17.35	17.78	18.23	18.69	19.15	19.63	20.12	20.63	18.01	18.56	19.02	19.50	19.99	20.37	21.00	21.52	22.06	22.61
TOTAL TRANSPORTATION COSTS	67.22	69.41	71.67	74.07	76.49	79.06	81.76	84.40	87.10	89.96	85.04	88.04	90.98	94.13	97.38	100.62	104.54	99.61	103.74	108.08
OTHER COSTS																				
Corporate overhead	13.65	14.40	15.19	16.02	16.89	17.82	18.79	19.82	20.90	22.03	20.02	21.17	22.27	23.47	24.76	26.11	27.53	29.03	30.62	32.29
NANA royalties	39.70	50.69	53.85	57.17	60.66	64.42	79.61	84.54	89.70	95.09	75.92	92.55	97.62	103.38	109.58	116.22	138.27	150.35	158.85	167.84
Mining license tax	5.28	5.12	5.48	5.85	6.29	6.28	6.03	6.26	6.99	7.49	5.55	5.27	5.55	5.94	6.33	6.71	6.18	6.77	7.20	7.64
TOTAL OTHER COSTS	58.63	70.22	74.53	79.04	83.85	88.53	104.43	110.61	117.59	124.61	101.50	118.98	125.44	132.80	140.66	149.04	171.98	186.16	196.67	207.78
DEPRECIATION	8.55	9.09	9.21	9.38	8.86	15.22	15.47	18.60	4.81	14.79	10.70	11.29	11.90	11.86	12.15	13.10	13.94	15.61	15.87	16.26
DEPLETION	51.55	52.03	55.48	59.08	62.73	64.41	63.17	66.07	72.39	77.16	62.37	61.13	64.49	68.64	72.94	77.26	74.44	80.69	85.54	90.62
TOTAL COSTS	293.71	314.62	331.22	348.73	366.29	389.21	414.90	438.25	459.44	483.58	446.72	477.19	501.77	528.25	556.50	586.64	625.53	657.49	692.89	730.33
NET INCOME BEFORE TAXES	47.52	45.49	48.58	51.80	55.97	56.41	54.74	57.22	62.97	67.23	53.81	52.08	54.98	58.62	62.38	66.14	62.72	68.37	72.54	76.92
TAXES																				
State	1.04	1.10	1.16	1.24	1.30	1.42	1.37	1.45	4.51	6.65	4.42	3.17	2.47	5.36	7.07	6.30	5.09	3.97	7.04	8.69
Federal	18.78	17.28	18.94	20.02	21.89	19.76	20.12	20.35	22.86	23.75	17.10	14.54	16.33	18.36	19.02	19.83	17.88	19.57	21.75	22.54
TOTAL INCOME TAXES	19.82	18.38	20.10	21.26	23.19	21.18	21.48	21.80	27.37	30.40	21.52	17.71	18.80	23.72	26.09	26.13	22.97	23.54	28.79	31.23
NET INCOME AFTER TAXES	27.70	27.11	28.48	30.54	32.78	35.23	33.26	35.43	35.61	36.83	32.30	34.37	36.18	34.91	36.29	40.01	39.76	44.83	43.75	45.69
CASH FLOW	87.80	88.23	93.17	99.00	104.37	114.86	111.91	120.10	122.81	128.78	105.37	106.79	112.57	115.41	121.38	130.37	128.14	141.12	145.16	152.56
CAPITAL INVESTMENTS																				
Initial investment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining capital	2.63	8.10	2.73	6.74	4.35	34.44	9.34	18.38	2.97	4.23	14.00	12.50	24.60	3.97	5.67	18.74	16.73	32.92	5.32	7.58
Increase in working capital	5.46	4.92	6.06	6.40	6.75	7.19	6.37	7.92	8.30	8.81	9.45	8.65	10.35	10.92	11.53	12.18	11.31	13.06	14.28	15.09
TOTAL CAPITAL INVESTMENTS	8.09	13.02	8.79	13.14	11.10	41.63	15.71	26.30	11.27	13.04	23.45	21.15	34.95	14.89	17.20	30.92	28.03	45.98	19.60	22.67
NET CASH FLOW	79.71	75.20	84.37	85.85	93.27	73.22	96.20	93.80	111.53	115.74	81.91	85.64	77.62	100.51	104.18	99.45	100.11	95.14	125.56	129.89

INTERNAL RATE OF RETURN 16.5%

Source: SRI International

In 1989, sales are estimated to be more than $93 million. They double during the next 2 years as production rises from 386,000 to about 710,000 sdt/y and as prices increase modestly. In 1992, when the operation is in full production, sales are estimated to be nearly $215 million. When operating costs stabilize because additional costs for start-up have been eliminated (which also occurs in 1992), operating cost estimates total $72.9 million, transportation costs are $51.9 million, and other costs are $16.5 million. With depreciation at $36.8 million and depletion at $20.0 million, total costs equal $198.0 million, yielding a pretax profit of $16.8 million. Net income after taxes (i.e., after-tax profits) in 1992 are estimated to be $13.3 million.

Table V-4 indicates net income is always positive, except in 1989, when high depreciation charges are incurred because of the items capitalized during the construction period. Depreciation charges substantially decline after 1993 because a major portion of the depreciated capital items are fully depreciated in 5 years. The net cash flow (i.e., net income after taxes, plus depreciation, plus depletion, less capital investments) is also always positive after 1989. The ROI for the "bottom line" cash flow is 16.5%.

The road and port user fee accounts for less than 7% of the total costs in 1992, and continues to decline as a percentage of costs in future years (see the summary in Table V-5). This decrease occurs because the major portion of the user fee is capital recovery, and the capital charge remains nearly constant over the life of the project. The user fee increases to $17.8 million in 1992 and to $19.8 million in 2002. The large increase in cost over this period is accounted for by the increase in the NANA royalty. These trends continue throughout the life of the project.

The major factors in determining the profitability of the project are metal prices. The comparison of ROI resulting from running the cost analysis for the base, optimistic, and pessimistic price scenarios using the "Cominco-based" user fee is given below:

	ROI (percent)
Base price case	16.5
Optimistic price case	19.3
Pessimistic price case	10.3

The detailed cash flows for these alternative price scenarios are included in Appendix C-1. Although the cash flows are significantly different for the three cases, all (even the pessimistic price case with the low ROI) show a positive cash flow after the first year of operation.

Table V-5

COST COMPONENTS OF TOTAL PRODUCTION COSTS
(Percent)

	1992	1997	2002
Operating costs	36.8	36.1	36.6
Transportation costs, less road and port user fees	19.3	17.0	15.6
Road and port user fees	6.8	6.7	5.7
Other costs	8.3	19.5	22.7
Depreciation	18.6	3.4	2.7
Depletion	10.1	17.3	16.9
Total[a]	99.9	100.0	100.2

[a] Totals do not add because of rounding.

The accumulated NANA royalties and accumulated revenues to the State (from the Mining License Tax and State taxes) during during the 30 years of production--1989 to 2018--are shown below:

	Base Price Case	Optimistic Price Case	Pessimistic Price Case
NANA royalties	635.5	813.9	286.6
Mining License tax	53.2	69.5	21.9
State tax	24.4	36.4	10.2

Another factor that has a measurable effect on the return of the operation is the treatment charge, which is deducted from the value of the concentrates. In this analysis we have used Cominco's proposed treatment charge of 40% to 41% of the value of the zinc concentrates. Treatment charges for concentrates vary, depending on concentrate quality, smelter availability (i.e., excess or limited smelter capacity), and smelter location. In addition, for a smelter to use Red Dog concentrates it must store large quantities because they will be shipped only during 4 months each year.

To test the sensitivity of the ROI with a reduced treatment charge, we used charges of 35% to 36% of the value of the zinc concentrates. (A lower treatment charge results in a higher concentrate value, hence a higher overall sales figure.) With the base price case projection, the

1992 total sales increase from $177.8 million to $191.6 million, with the lower treatment charge. Using a lower treatment charge increases the ROI by about 2% for each of the price cases, as shown below:

	ROI (percent)
Base price case	18.4
Optimistic price case	21.2
Pessimistic price case	12.7

VI INVESTMENT EVALUATION AND ALTERNATIVE FINANCE PLANS

The Investment Concept

Our investment evaluation and financing analyses are based on the following points:

- o The State of Alaska, through AIDA, will finance, construct, own, maintain, and operate the proposed DeLong Mountain transportation system.
- o The transportation system comprises a port, cargo-handling equipment, storage facilities, and a 55-mile road that provides tidewater access to mineralized areas in the DeLong Mountains.
- o Cominco Alaska has asked the State to provide the transportation system so that commercial development of the Red Dog mine can proceed.
- o The State's investment in the transportation system will be recovered, in whole or in part, through user fees and annual assessments levied against Cominco Alaska, other mining companies (which may develop claims if the State approves financing of the transportation system), and local residents who may use it to bring in fuel and other supplies.
- o The State wishes to invest the minimum amount of funds at the least possible cost and financial risk, consistent with providing an adequate incentive for Cominco Alaska to develop its Red Dog mine.

SRI has addressed all of these points in evaluating the proposed State investment. However, we have emphasized the last point in developing alternatives for recovering the maximum portion of the State's investment while minimizing its financial exposure and risk.

Cominco Alaska's Proposal

Cominco Alaska, in its "Memorandum of Understanding" of December 11 1984, proposed design, construction, financing, operations management, and user charge terms to cover operating and maintenance (O&M) costs, as well as to contribute towards debt service. We refer to this Memorandum, as well as the estimates of capital costs and O&M costs in other Cominco documents, as "the proposal."

Our analysis has focused on the aspects of the proposal that directly influence the economics and financing of the project. However, other aspects of the proposal must also be carefully considered before reaching a final agreement with Cominco Alaska because they may influence the tax-exempt status of the bond issue. We have assumed that the bond issue will qualify for tax-exempt status in all but the one case, which is presented under "Alternatives to Cominco's Proposal" below.

We emphasize the following aspects of the proposal:

- A estimated capital cost of $157.9 million for the transportation system in as-spent dollars from 1985 to 1989, including some $5 million charged for studies before 1985. This is Cominco's $167.5 million estimate, less a project contingency of $9.6 million that the company does not expect to spend.

- A first shipment of concentrates during 1989, amounting to about one-half of the mine's designed production level, increasing to full output in 1990 and operating at this level thereafter. However, a clause in Cominco's proposal appears to allow delay of this first concentrate shipment by 2 years--to 1991.

- A minimum annual toll charge beginning in 1990, amounting to about $8.5 million, increasing in 1994 to about $11 million, remaining at this level to 2015, and then decreasing to about $2.2 million and remaining at this level to 2018, the end of our analysis period. This toll charge contributes towards fixed annual debt service payments.

- A user fee to cover Cominco's share of the transportation system's annual O&M costs.

- Revenues from other future transportation system users that accrue to Cominco Alaska's benefit (but not the State's) by allowing the company to reduce its annual payments by the corresponding amount of other user fees.

These points in the proposal have the greatest effect on the amount of State subsidy required. The following factors are critical here:

- The total capital costs that the State needs

- The year in which commercial concentrate production begins

- The source of funds to cover all or a part of the bond debt service (i.e., toll charges or a minimum annual assessment).

- The source of funds to cover annual O&M costs (i.e., annual user fees).

- The disposition of additional revenues from other future users of the transportation system.

The level of State subsidy and the ease of financing depend on the assumptions made about each critical factor. Cominco Alaska's assumptions about these factors are collectively referred to as the "Cominco Scenario."

We have also developed a set of assumptions for these factors as alternatives to Cominco's assumptions--an "Alternative Scenario." Our assumptions illustrate the potential effect on the required level of State subsidy and project financing if things do not proceed according to plan. The different assumptions for the two scenarios are illustrated in Figure VI.1, "Scenarios Used to Evaluate the Cominco Proposal."

Economic Evaluation of the Cominco Proposal

Detailed financial projections and our economic analysis are included in Appendix 8 for all the cases evaluated under each scenario. The results of our evaluation and analysis are summarized in Figure VI.2, "Evaluation of the Cominco Proposal." The left portion of the figure shows SRI's estimate of the mine's percent of after-tax return on investment (% ROI) to 2018. The bottom portion of the matrix shows our estimate of the State funds contributed. These are funds that are not recovered during project life (i.e., net present losses in 1985 dollars at a 10% discount factor).

We estimate that the State's subsidy of the transportation project will amount to about $80 million under the Cominco Scenario and about $95 million under the Alternative Scenario. This difference of $15 million is due to an assumed higher project capital cost of $190 million versus $157.9 million in as-spent dollars.

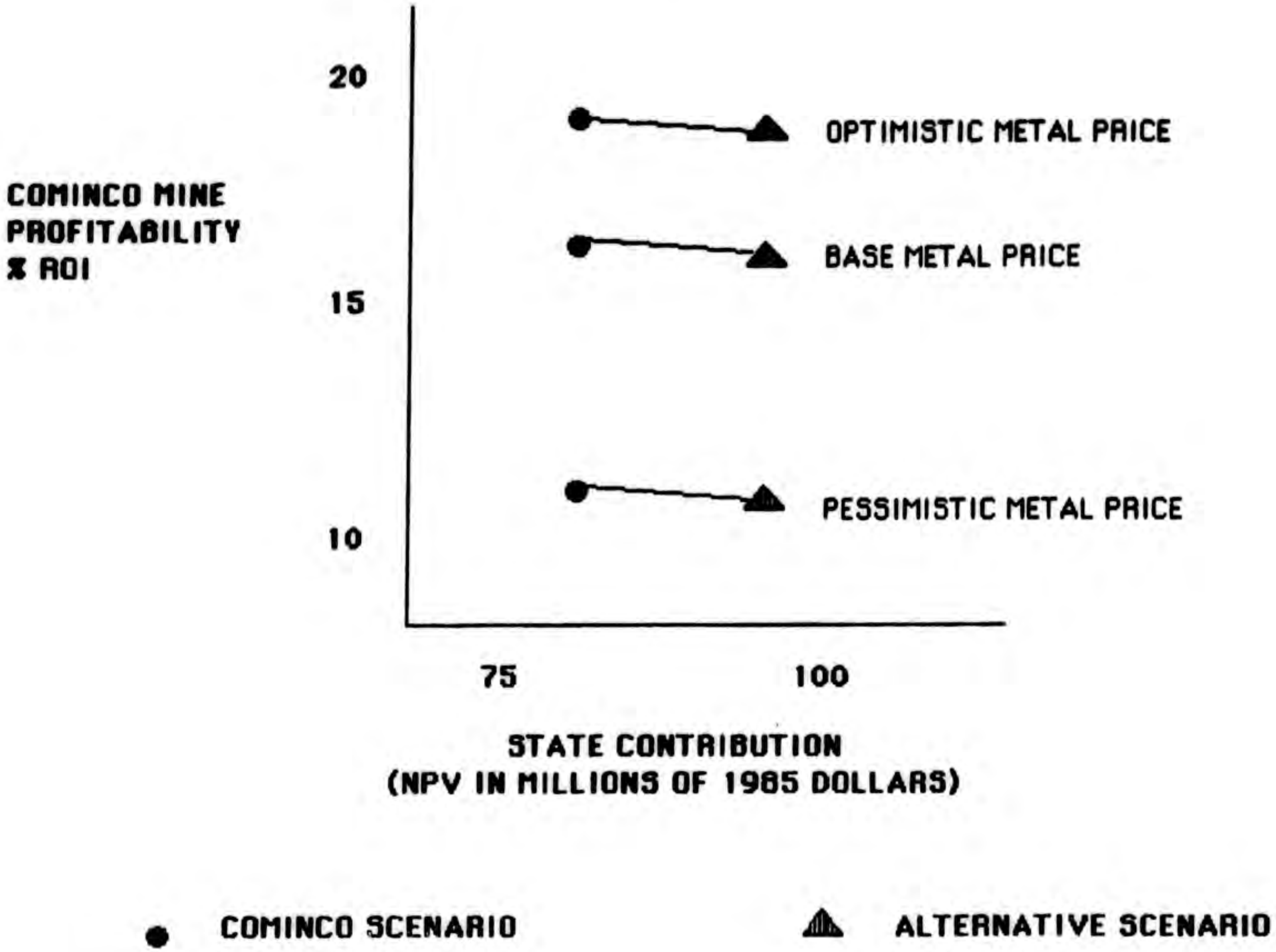
If Cominco Alaska should also delay concentrate shipments by 2 years to 1991, and hence user charges, the State's subsidy would increase by $35 million, to about $130 million (a one year delay would increase the subsidy by $20 million). We refer to this eventuality as the "Alternative, Plus Delay Scenario." This large increase is due to two factors: (1) loss of user charges in 1989 and 1991 and (2) the additional burden of financing the cost of a completed transportation system for 2 more years.

Figure VI.2 also shows the variation in Cominco Alaska's mining profitability for each scenario, given base, optimistic, and pessimistic case metal price assumptions over the 30-year analysis period (1989 to

FIGURE VI.1: SCENARIOS USED TO EVALUATE THE COMINCO PROPOSAL

ASSUMPTIONS	COMINCO SCENARIO	ALTERNATIVE SCENARIO
CARGO TRAFFIC:		
CONCENTRATE SHIPMENTS	PLANNED PRODUCTION LEVEL	PLANNED PRODUCTION LEVEL
FIRST CONCENTRATE SHIPPED	1989	1989
COMINCO INBOUND CARGO	YES	YES
OTHER INBOUND CARGO	YES	YES
OTHER OUTBOUND CARGO	NONE	NONE
USER REVENUES:		
ANNUAL ASSESSMENTS	COMINCO'S TAKE-OR-PAY CONTRACT	INCREASED TO ACCOUNT FOR HIGHER CAPITAL COSTS
USER FEES	COVERS ANNUAL O&M COST	COVERS HIGHER ANNUAL O&M COST
O&M:	COMINCO ESTIMATES	INCREASED MAINTENANCE COST
CAPITAL COST: (INFLATED $)	COMINCO'S $157.9 MILLION (PROJECT CONTINGENCY NOT SPENT)	$190 MILLION TO PROVIDE FOR HIGHER CAPITAL COSTS (PROJECT CONTINGENCY SPENT)
MINING OPERATION:	COMMERCIAL START-UP 1989	COMMERCIAL START-UP 1989

FIGURE VI.2: EVALUATION OF THE COMINCO PROPOSAL



2018). Mining profitability is marginally lower under the Alternative Scenario (for any given metal pricing assumption) because:

- o Higher capital costs result in a higher annual user assessment charge
- o Annual user fees are higher to cover higher O&M costs.

However, as Figure VI.2 shows, these two factors have a negligible effect on mining profitability in comparison with metal prices. Here, changes in metal prices can alter estimated mining profitability from about 10% to 19% after tax.

Financing the Cominco Proposal

The ability to finance the Cominco Proposal will be determined by two sets of constraints:

- o The funds available to AIDA (through the proposed capitalization plan) to finance the project and their annual timing, including: a transfer to AIDA of a loan portfolio (and its annual cash flow) from the Department of Revenue effective July 1, 1985; a cash appropriation to AIDA of some $12 million effective July 1, 1985, which will increase its cash reserves to $15 million; and the issuance of a bond early in 1986.
- o The annual user assessment (i.e., toll charge) proposed by Cominco Alaska, which is not quite large enough to cover the debt service on a 30-year $100 million fixed rate bond at 10.5%.

The three scenarios used in the preceding sections to evaluate Cominco's proposal can be financed within these constraints. We have sized the bond issue to maximize the use of all of AIDA's financial resources in our alternative financial plans. The bond issue size has therefore been set for each scenario at the minimum level necessary to ensure that AIDA would have sufficient funds to cover all construction expense, debt service, and possible operating losses. SRI has chosen the minimum level because smaller bond issues are more marketable than large ones and result in lower financing costs for the State. Our calculations have involved an iterative approach, testing each issue size against the AIDA Fund balance and ascertaining that in the years after 1986 the fund is not overdrawn.

Under fixed-rate financing (FRF), a $100 million bond issue (10.5%, 30 years) will be required to finance the Cominco Scenario. A $140 million FRF bond issue (10.5%, 30 years) will be required to finance the Alternative Scenario, and the Alternative, Plus Delayed Scenario will require a $145 million bond issue. For each of the FRF scenarios, we estimate that a 3% bond issue expense will be required. That fee includes all expenses normally associated with issuing an industrial development bond, and the fee has been deducted from the bond proceed fund at the time of issuance.

Our principal concern with using a $140 or a $145 million bond issue is that the annual debt service payments (about $16 million) exceed Cominco Alaska's proposed annual assessments of about $10 to $13 million (the lower amount pertains to the first 4 full operating years). Thus, the project would not be self-financing after commercial start-up because the net operating income would be less than debt service. AIDA, therefore, would be required to cover the difference on an ongoing basis. Although AIDA has the financial resources to do so, the State may prefer a self-financing situation. Furthermore, the project would not generate enough surplus revenue to accrue reserves to provide for contingencies. However, each finance plan has a debt service reserve with the equivalent of 1 year's debt service payment that is funded from AIDA's cash balances.

We have also developed finance plans for the Cominco proposal that uses variable rate financing (VRF). VRF differs in three potential regards from FRF: (1) lower overall interest charges during construction, which reduces the State's subsidy; (2) the opportunity to issue a smaller bond; and (3) a smaller bond issuance fee of 1.5%. However, this financing approach exposes the State to the risk of higher future interest rates.

Figure VI.3, "Finance Plans--The Cominco Proposal," shows the key elements, assumptions, and results of alternative finance plans. Appendix 8 includes a financing analysis showing the details of each of these alternative finance plans and associated cash flows for each of the three scenarios.

We have measured the State's subsidy by discounting all cash outflows (i.e., all State funds put into the project, including the net interest expense during construction) and all cash inflows (i.e., annual net operating income from the transportation system) at 10% back to the beginning of 1985 (i.e., NPV at 10% in 1985 dollars). If the computed value is zero, the State will achieve a "breakeven" position, recovering all of its investment, plus 10% interest on that investment. If the NPV at 10% is negative, the State will have earned less than 10% on its investment.

Alternatives to Cominco's Proposal

Cominco Alaska's proposal would result in the State providing a permanent subsidy of some $78 million (in 1985 dollars under the Cominco Scenario). That is, the State would invest a total of about $154 million (NPV at 10% in 1985 dollars) in capital and interest during construction, but would only recover about $76 million (NPV at 10% in 1985 dollars)

Figure VI.3

FINANCE PLANS--THE COMINCO PROPOSAL

	Cominco Scenario		Alternative Scenario	Alternative Plus Delay	
	Fixed Rate	Variable Rate	Fixed Rate	Fixed Rate	Variable Rate
User Charges ('85$)					
-Concentrates	____ $4.00/t ____		$4.50 /t	____ $4.50 /t ____	
-General Cargo	____ $ 28 /t ____		$ 28 /t	____ $ 28 /t ____	
-Annual Assessment (MM)	____ $8.5-$11.0 ____		$10.3-$13.3	____ $10.3-$13.3 ____	
Capital Costs (MM)					
-As Spent $	____ 158 ____		190	____ 190 ____	
-1985 $	____ 147 ____		170	____ 170 ____	
Total State Funding (MM)					
-As Spent $	190	178	229	278	246
-NPV @10%	140	131	167	194	174
Bond Issue (MM)					
-Principal (MM$)	100	90	140	145	125
-Interest Rate	10.5%	7%	10.5%	10.5%	7.0%
-Issue expense, (MM$)	3.0	1.35	4.2	4.35	1.89
State Subsidy (NPV @10%)					
-Recovered Invest.	62	62	74	63	63
-Subsidy	78	69	93	131	111
-ROI	2.4%	3.0%	2.5%	1.2%	2.0%

through net operating income over a 30-year period. The other two scenarios result in yet higher State subsidies.

The State would be held to providing these potential subsidies on a permanent basis because of Cominco Alaska's proposal to use revenues from other users to offset its own user charges. Therefore, one alternative for the State to pursue to recover a higher proportion of its investment is having the additional revenues generated by future non-Cominco users accrue to the State's account and not to Cominco Alaska's.

As discussed, the State could encounter significant financial risk should Cominco Alaska delay start-up from 1989 to 1991. This option represents a financial exposure to the State of about $35 million (NPV at 10% in 1985 dollars). In view of the implied level of subsidy in Cominco's proposal, the State needs to consider whether or not it wishes to assume a risk of this magnitude.

The most direct means the State has to reduce the amount of subsidy implied in Cominco's proposal is to charge Cominco Alaska higher user fees. Cominco Alaska's rate of return on its mine investment is not particularly sensitive to the range of user fees suggested here. Yet the level of State subsidy is quite sensitive over this same range of user fees.

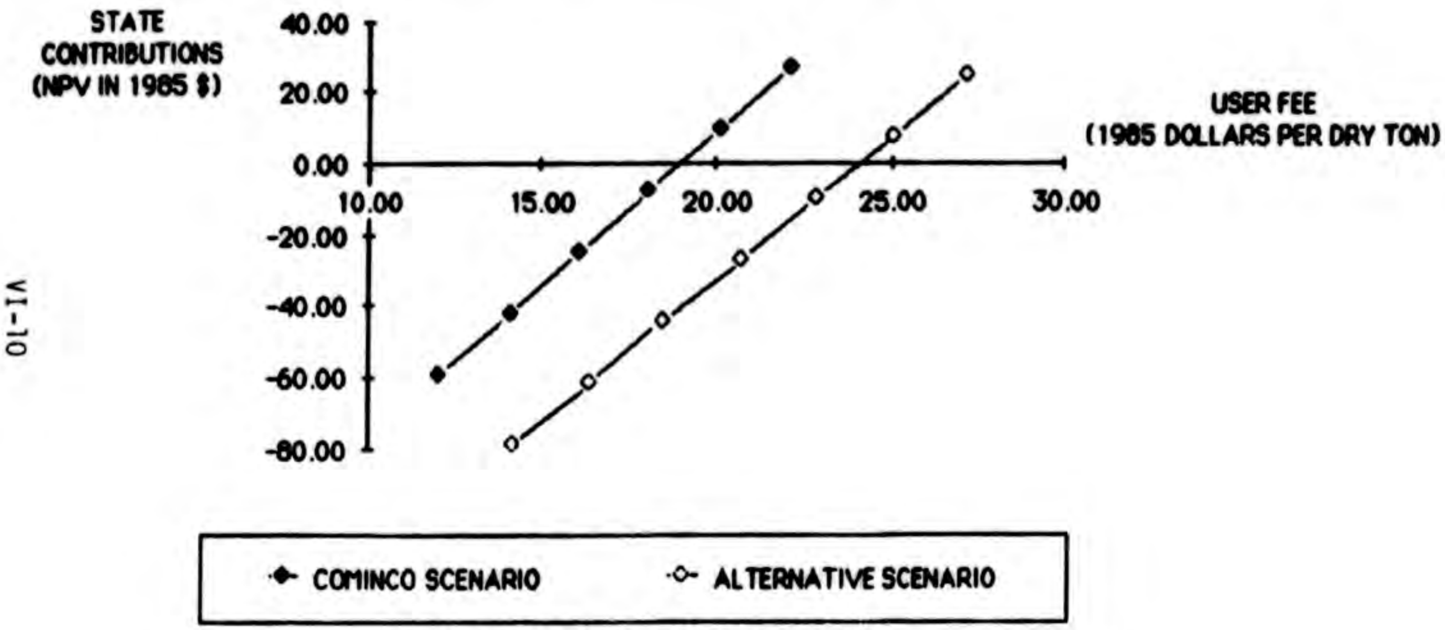
Figure VI.4, "State Contribution versus User Fees," shows the sensitivity of State contributions to variations in user fees. The user fees are expressed as a 30-year average rate in 1985 dollars per ton of concentrate.

The Cominco proposal (under the Cominco Scenario) had an average annual total user charge of about $11/dst of concentrate (in 1985 dollars). Figure VI.4 shows that the State can achieve a breakeven position (i.e., 10% return on its investment) with an average annual total user charge to Cominco Alaska of about $19/dst of concentrate (in 1985 dollars). This would increase Cominco Alaska's total annual user charges by about $10 million--from about $17 million to $27 million during 1995, for example.

Figure VI.5, "Mining Profitability versus User Fees," indicates an implied return on Cominco's mine investment that ranges from about 19% to 8%, depending on the metal price assumption selected (i.e., from pessimistic to optimistic) and average use fee selected. Under any given metal price assumptions, the State can achieve breakeven while reducing Cominco Alaska's profit by less than 2 percentage points compared with the Cominco proposal.

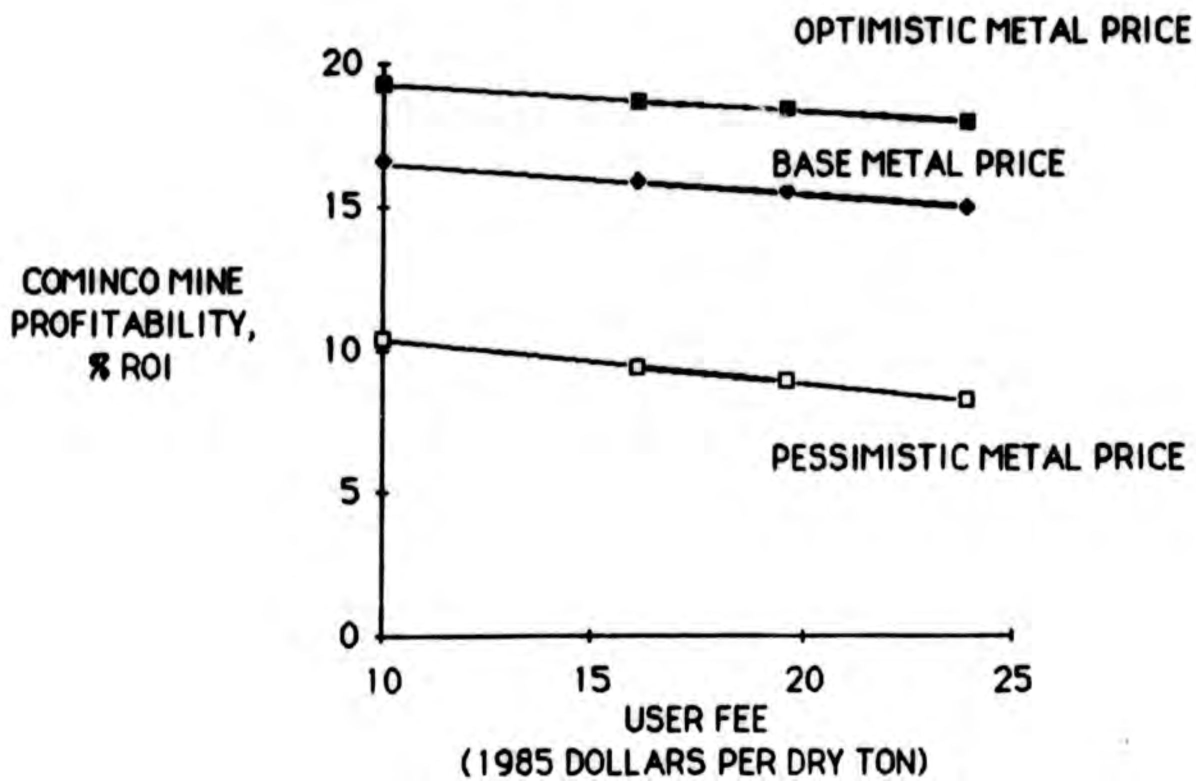
For illustrative purposes, we present a case with a user fee structure and rate that result in a 10% ROI for the State). Apart from the higher user fees (i.e., $6.40/dst of concentrate, $50/t or general cargo, and a flat annual assessment of $17 million), we have used the

FIGURE VI.4: STATE CONTRIBUTION VERSUS USER FEES (GENERAL CARGO RATE OF $50 PER TON)



COMINCO'S PROPOSED ANNUAL ASSESSMENT

FIGURE VI.5: MINING PROFITABILITY VERSUS USER FEE (GENERAL CARGO RATE OF $50 PER TON)



same assumptions as those in the Cominco Scenario. We refer to this new set of assumptions as the Adjusted Cominco Scenario. The detailed economic and financing analysis for this adjusted scenario is found in Appendix 8.

Alternative Financing Plans

We believe the best overall approach to financing the transportation project that will minimize the total cost to the State is by making maximum use of AIDA's funds and to supplement these funds, as necessary, with the least possible amount of bond debt. Our finance plans thus use AIDA money to fund the debt service reserve rather than bond proceeds. This approach would reduce the amount of bond money and will allow the money that would be set aside for debt service reserve to earn interest at a rate higher than the bond interest rate (i.e., it would not be subject to IRS arbitrage restriction).

We would also use AIDA funds rather than bond proceeds, to cover capitalized interest costs during the construction period; doing so would reduce the size of the required bond issue. Furthermore, the AIDA funds will earn interest at a rate higher than the bond rate.

The finance plans we have developed for use in evaluating the Cominco Proposal assume that the associated bond issue will have tax-exempt status. However, AIDA's legal counsel appears to be of the opinion that an advance ruling from IRS will be required to clarify this tax-exempt status issue.

Because tax-exempt financing is not at all certain at this point, we have developed two finance plans for the Adjusted Cominco Scenario: one is based on a fixed rate tax-exempt (FR/TE) bond issue; the other is a fixed-rate partially exempt (FR/PE) bond issue. The latter finance plan assumes that the port will qualify for tax-exempt financing (at 10.5%) and that the road will require taxable financing (at 13%). Therefore we have used a weighted average bond interest rate of 11.9% in this FR/PE version of the finance plan.

The key features of these two finance plans are shown in Figure VI.6, "Finance Plans--the Adjusted Cominco Scenario".

Figure VI.6

FINANCE PLANS--THE ADJUSTED COMINCO SCENARIO

	Tax Exempt Fixed Rate Financing	Partially Tax Exempt Fixed Rate Financing
User Charges ('85$)		
-Concentrates	________ $6.40/t	________
-General Cargo	________ $ 50 /t	________
-Annual Assessment (MM)	________ $ 17.0	________
Capital Costs (MM)		
-As Spent $	________ $ 158	________
-1985 $	________ $ 147	________
Total State Funding (MM)		
-As Spent $	190	194
-NPV @10%	140	142
Bond Issue (MM)		
-Principal (MM$)	100	100
-Interest Rate	10.5%	11.9%
State Subsidy (NPV @10%)		
-Recovered Invest.	140	139
-Subsidy	0	3
-ROI	10.0%	9.8%

VII DISCUSSION

A central question in any decision involving user fees and financing alternatives for the transportation system is the effect of Cominco Alaska's project rate of return. Clearly, this is not an easy question to answer because Cominco Alaska, AIDA, and possibly others will apply different judgmental factors to the problem. SRI's approach has thus been to compare the results of Chapter V (Mine Economics and Profitability) with data for other operations, and to provide comments that qualify our previous conclusions.

The Red Dog mine should thus be a very low cost mine and become one of the most important zinc/lead operations in the world.

SRI has compared the economics of the Red Dog mine with other Western zinc and lead operations. To do so, we have used SRI's proprietary Mine Cost Model--a computerized model that estimates cash operating costs for mines, mills, and smelters in the Western World.

The results are graphically summarized in Figures VII.1 and VII.2, which depict lead and zinc suppliers in the Western World, arranged in ascending order of cash operating costs; the comparative position of the Red Dog mine is shown in each figure. (Cost items considered for Red Dog but not for other operations have been excluded to make for comparability.) In addition, each mine is assumed to be fully integrated into smelting and refining.

A mine's profit potential is related to its operating costs and revenues. The former, which have been discussed in the sections above, generally indicate that the Red Dog operation will be one of the lowest cost zinc/lead mines in the world. The revenues will be related to the realizable price of the metal concentrates that are sold, the "net smelter return"--a quantity that expresses the difference between prevailing metal prices and the amount that smelters charge for smelting and refining concentrates, plus transportation charges and selling expenses.

SRI recognizes that metal concentrates are sold on an individual basis and, therefore, that several factors (not merely one) determine the net smelter return for a mine.

Concluding Recommendations

SRI has examined several factors in terms of their potential effect on the proposed transportation system and its financing potential. Those that are most critical include: (1) the total capital costs of the

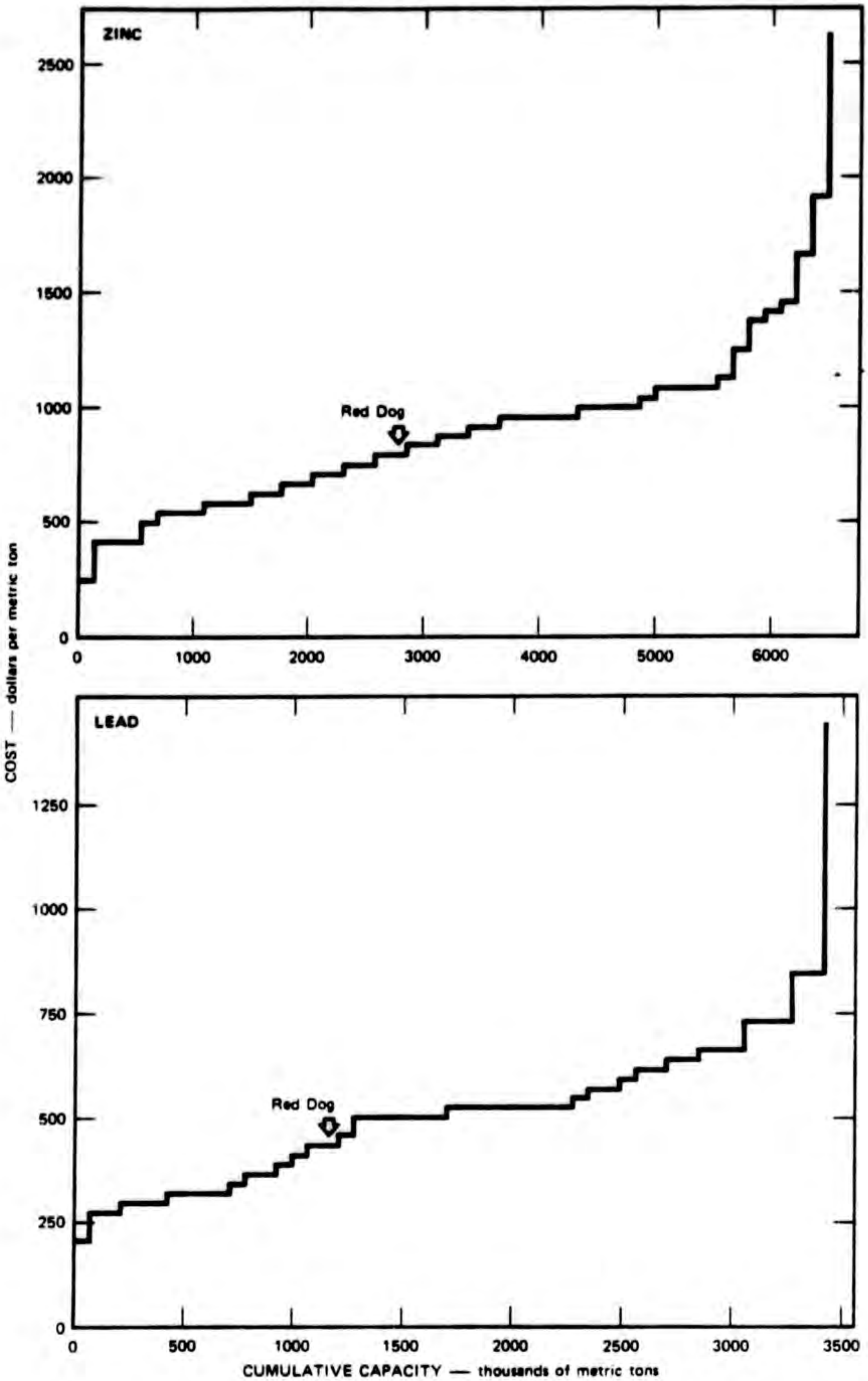


FIGURE VII-1 ZINC AND LEAD PRODUCTION COST CURVE FOR 1990

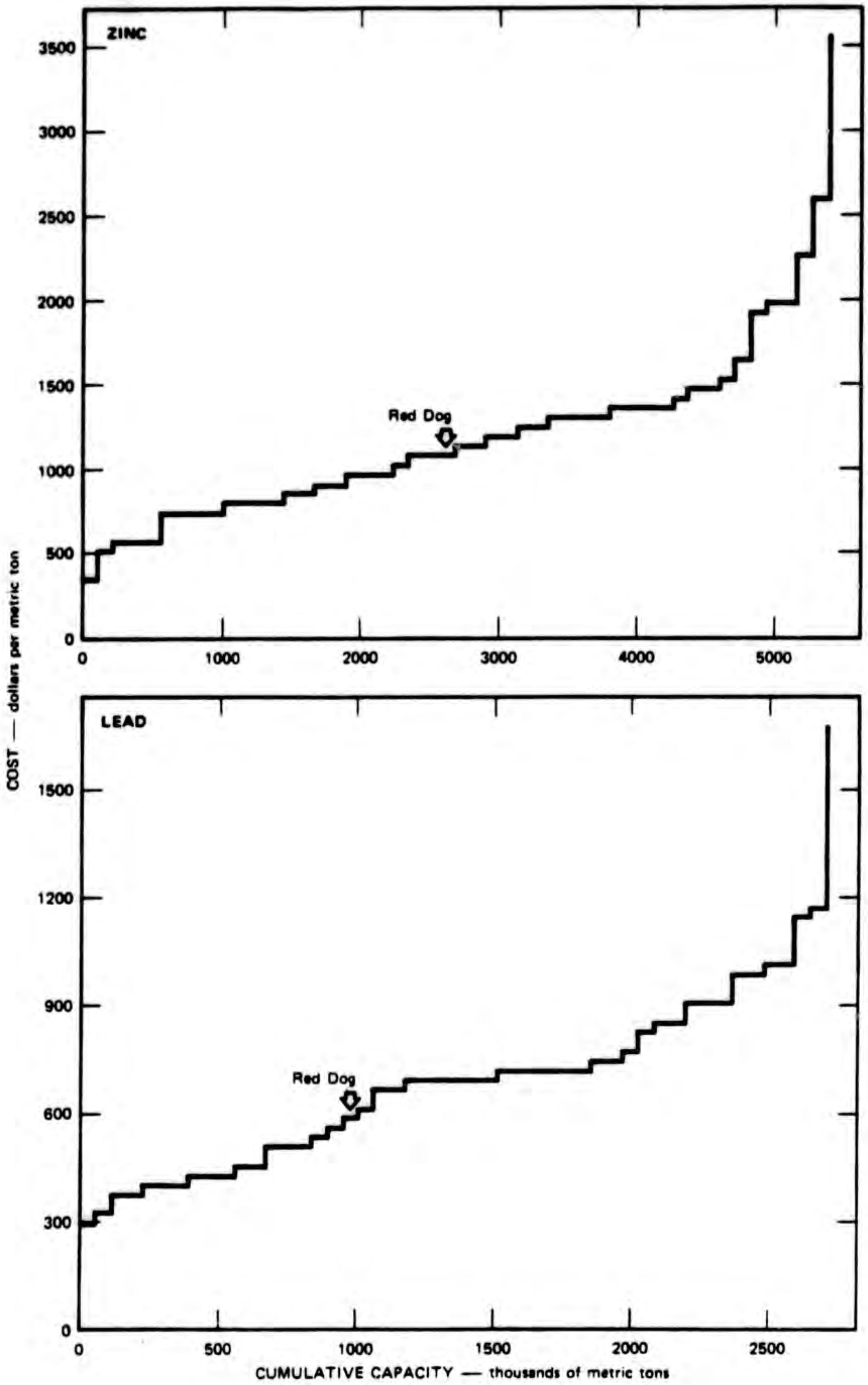


FIGURE VII-2 ZINC AND LEAD PRODUCTION COST CURVE FOR 1995 proposed infrastructure, (2) the date of mine and mill start-up, (3) the source of the funds that will cover all or part of the bond debt service, (4) the source of funds to cover O&M costs, (5) the disposition of possible revenues from other potential users of the transportation system, and (6) the price outlook for zinc, lead, and silver.

From SRI's analyses of these factors and of alternatives to those suggested by Cominco, it is clear that the most critical factor determining Cominco Alaska's return on investment will be the concentrate prices that the Red Dog operation will realize. This factor will depend on prevailing price levels for zinc, lead, and silver; equally important, however, will be the magnitude of smelting and refining charges.

Surprisingly, Cominco Alaska's rate of return appears relatively insensitive to many of the factors pertinent to its proposal (i.e., the broad range of user fees considered and, by extension, the amount of State subsidy required, if any). Potential increases in the amount of capital investment required for the road and port facilities or the possible contribution of other users of the transportation system also appear to have only limited effect on mining return. Instead, the second most important factor, following future concentrate revenues, is a possible delay in the starting date of production. If the delay is 1 year--from 1989 to 1990--for concentrate shipments an addition to the State subsidy of about $20 million would result that would be unrecoverable. For a 2-year delay--to 1991--an additional $35 million would be necessary.

Additional clarification may be gained by elucidating the meaning of ROI in Chapter V calculations. These calculations are based on the assumption that 100% of the required mine and mill investment will in fact be provided by Cominco Alaska's funds. In all likelihood, however, Cominco Alaska would seek debt-financing of a substantial portion of the Alaska investment as is commonly done in the industry. A 40% debt-to-equity ratio would raise Cominco Alaska's profitability because the rate of return is higher than the cost of debt funds.