



PLACER DEVELOPMENT LIMITED

MEMORANDUM:

TO: L. Adie/D.N. Hillhouse ✓ Date: October 30, 1984
R. Shklanka, D.C. Rotherham

FROM: C.C. Rennie

RE: OWEN LAKE CLAIMS UNDER AGREEMENT WITH NEW NADINA
MINES LIMITED

Introduction:

This review of the Owen Lake claims was prompted by a letter from G.O.M. Stewart, Director of New Nadina Explorations Ltd., dated May 24, 1984 requesting changes in the 1977 exploration agreement between PDL and New Nadina (copy Appendix I attached).

A check on our exploration files show them to be very incomplete, particularly relative to geophysical surveys, drill logs of the Bradina, Northgate and New Frontier drilling and Bradina production or mine data. The New Nadina agreement requires New Nadina to provide quarterly reports and all factual data, which they have seldom provided. The fact that Placer have not pursued and acquired all this data on a regular basis indicates to me an unstated but widespread (and possibly justified) lack of geologic and exploration interest in the Owen Lake property within Placer's exploration department.

On June 14, 1984 I visited the home office of Ned Reid (New Nadina resident manager - geologist) in Smithers to get copies of maps of recent work on the property and on June 15 visited the surface of the property with Ned Reid but didn't go underground. Several reports were collected and a copy of Reids' assessment report on the 1983-84 drilling that he was just completing, has been sent on in August and also more legible copies of some of the drill logs requested by Reid from Stewart in Greenwood were received in September.

The Bradina drill core stored in racks on the property is in very bad shape and very little of it could be used for geologic appraisal of the property. The 1981-82 New Nadina underground core is stacked and in fair condition, although not well marked. The 1983-84 core is stacked, well marked and presently in good condition.

Ned Reid reports that the underground is in "good shape" but that new timber installed in the 1981 rehabilitation is rapidly deteriorating because it is untreated. Local timber used by Bradina in 1973 also deteriorated quickly.

Property, Location and Access:

Placer Development Ltd. owns 17 Crown Grant mineral claims at Owen Lake as shown on the attached claim map, at 54°05'N 126°43'W and 2600 ft. (793 m) in the Skeena Mining Division. These claims are under option to New Nadina Explorations Ltd. New Nadina own a group of 9 located claims that surround the Crown Grants. Bulkley Silver Mines hold a block of approximately 20 claims to the east of the New Nadina claims covering the Old Cole showings. Placer have no rights over the New Nadina or Bulkley Silver claims.

Placer own surface rights on two of the Crown Grant Claims, Lots 7399 and 7400 that cover the portals and the Bradina mill site and tailings pond.

Access to the property is by 28 miles (45 km) of good gravel road from Houston. Previous mill water was pumped from Owen lake but the pipeline has been removed or deteriorated. There is no power to the property.

Summary, Conclusion & Recommendation

The question of what to do with the Owen Lake claims eventually boils down to exploration philosophy, i.e., whether to retain an interest in mineral lands and reserves without regard to their present economics or whether to dispose of the property and concentrate all efforts on other ventures. I believe that the lack of close follow-up on the Owen Lake property is not a matter of neglect. Rather it is a collective unstated geologic appraisal by many Placer exploration geologists, with varying knowledge of the property and surroundings, who have not recommended any work programs in the area in almost forty years.

The seventeen claims at Owen Lake covering 752.4 acres were acquired by Canadian Exploration Ltd. in 1941, and Crown Granted from 1942 to 1951. Placer were last active on the property in 1946. Surface rights were obtained on Earl 1 and Earl 2 claims totalling 102.3 acres. Total taxes on mineral rights are approximately \$190.00 per year, so holding costs are not onerous.

Placer optioned the claims to Nadina Explorations Ltd. in 1963, who did further exploration and development and involved in sequence Kennecott, Northgate and Bralorne-Canfor. A subsequent agreement was made in 1977 with New Nadina Explorations Ltd. Placer twice waived the right of first refusal to finance the property to production. Neither agreement gave Placer any rights to the surrounding property, held by location by Nadina and New Nadina. (The Wrinch vein system extends eastward to New Nadina claims. 60% of the higher grade gold mineralization below 2600 level indicated by 1981 drilling is off Placer's Crown Grants).

The price of precious metals have changed considerably since 1946 and even since the Bradina operation of 1972-73. The geologic concepts of bulk silver and micron gold have also developed considerably. To the best of my knowledge the geologic evidence and assay data is lacking to indicate anything more than the vein type mineralization within a reasonable distance of surface on the Crown Grants or elsewhere on the New Nadina claims.

Placer files are incomplete on geophysics, geochemistry and drill logs since 1963 despite the requirement in the Nadina and New Nadina agreements that they provide this information. Minister of Mines Reports and other data indicate that geochemical soil surveys and EM, IP and magnetometer surveys were carried out over much of the property. Geologic mapping was done on 1"=1000' and more detailed in local areas. From 1969 to 1984 some 47,884 feet of surface drilling and 18,171 feet of underground drilling was done on the Crown Grants and surrounding property.

Mineral reserves in the Wrinch vein system were reported by Dolmage & Associates in 1971 to be 551,650 tons of 0.10 oz/t Au, 10.09 oz/t Ag, 0.76% Cu, 2.1% Pb, 6.96% Zn. Production by the Bradina joint venture 1972-73 totalled 192,442 tons of 0.08 oz/t Au, 5.17 oz/T. Ag, 0.43% Cu, 0.95% Pb and 4.50% Zn including dump material. Recoveries averaged approximately 30% of Au, 60% of Ag, 80% of Cu, 70% of Pb and 80-90% of Zn. Productivity averaged from 4 to 7 ton per manshift underground and 2 to 4 ton per manshift overall. Continuity of higher grade material is not predictable and dilution control is a problem both from splaying of mineralized zones and from variable strength walls. Productivity and operating costs are not easy to predict with any accuracy under these conditions.

Campbell Resources calculated the following diluted proven and probable reserve in 1982 for the No. 3 vein (Wrinch) system:

	Tons	Au oz/T	Ag oz/T	Cu%	Pb%	Zn%
Above 2600 level	321,130	.095	7.09	0.58	1.90	5.86
Below 2600 level	256,460	.122	8.04	0.39	0.97	7.30
<u>TOTAL</u>	<u>577,590</u>	<u>.108</u>	<u>7.51</u>	<u>0.49</u>	<u>1.49</u>	<u>6.53</u>

The dilution factor used was an arbitrary 15% which may be low. No factor has been applied for pillar losses.

Metallurgy has been and will continue to be a problem, particularly with regard to the gold values which apparently are tied up in pyrite. The ore is not metallurgically compatible with Equity ore so dumping a small tonnage of Owen Lake ore into Equity mill would give a completely uncontrolled situation. Any ore transported to Equity would essentially require its own mill and therefore would have to justify its own capital expense.

The August 1973 Review of Bradina Joint Venture by H.K. Taylor contains considerable productivity, smelter return and operating cost data. Metal prices of copper, lead and zinc have not increased proportionately with wages since 1973 and although gold and silver prices have increased the low recoveries of gold and silver do not give sufficient increased total values to offset the operating cost increases. Unless selective mining (with increased costs and reduction of reserves) is possible and recoveries of gold and silver can be greatly improved the Owen lake veins are no more attractive to a small mine proposition than in 1973.

In my opinion the vein mineralization on the Owen lake Crown Grant Claims will never make a significant impact on Placer Development's cash flow, either as a wholly owned small mine, or as a royalty or percent of net profits from a mine operated by others.

There may be potential for other types of deposits on the Crown Grants or surrounding New Nadina claims but there is little concrete evidence to pursue in the surveys and drilling that has been done to date. In my opinion, any further search would require refinements of all surveys plus a provision for possibly 30,000 feet of drilling - at least a million dollar budget. I believe if the whole package of data on the New Nadina holdings was presented to us as a joint venture, with a two year free option, Placer would turn it down.

My recommendation would be to sell both the mineral rights and surface rights. Valuation of the surface rights should be done by appraisers and real estate agents in the area with some recognition given to the fact that the surface rights are essential to any mining operation. The valuation of the mineral rights is very arbitrary since the economic potential of known reserves is dubious.

In December 1981, Placer agreed to sell their 20% carried interest with right of production financing in the Tinta Hill property to Silver Tusk Mines for \$250,000. This deposit had a speculative reserve of 840,000 tons (Levasseur's report) of .076 oz/t Au, 5.35 oz/t Ag, 0.37% Cu, 4.71% Pb, 6.03% Zn (Tom Tough's grade estimate @ 1875 tons per vertical foot). This deposit is 40 miles west of Carmacks in the Yukon with a tough remote location with no infrastructure nearby. In comparison the Owen Lake claims are better located.

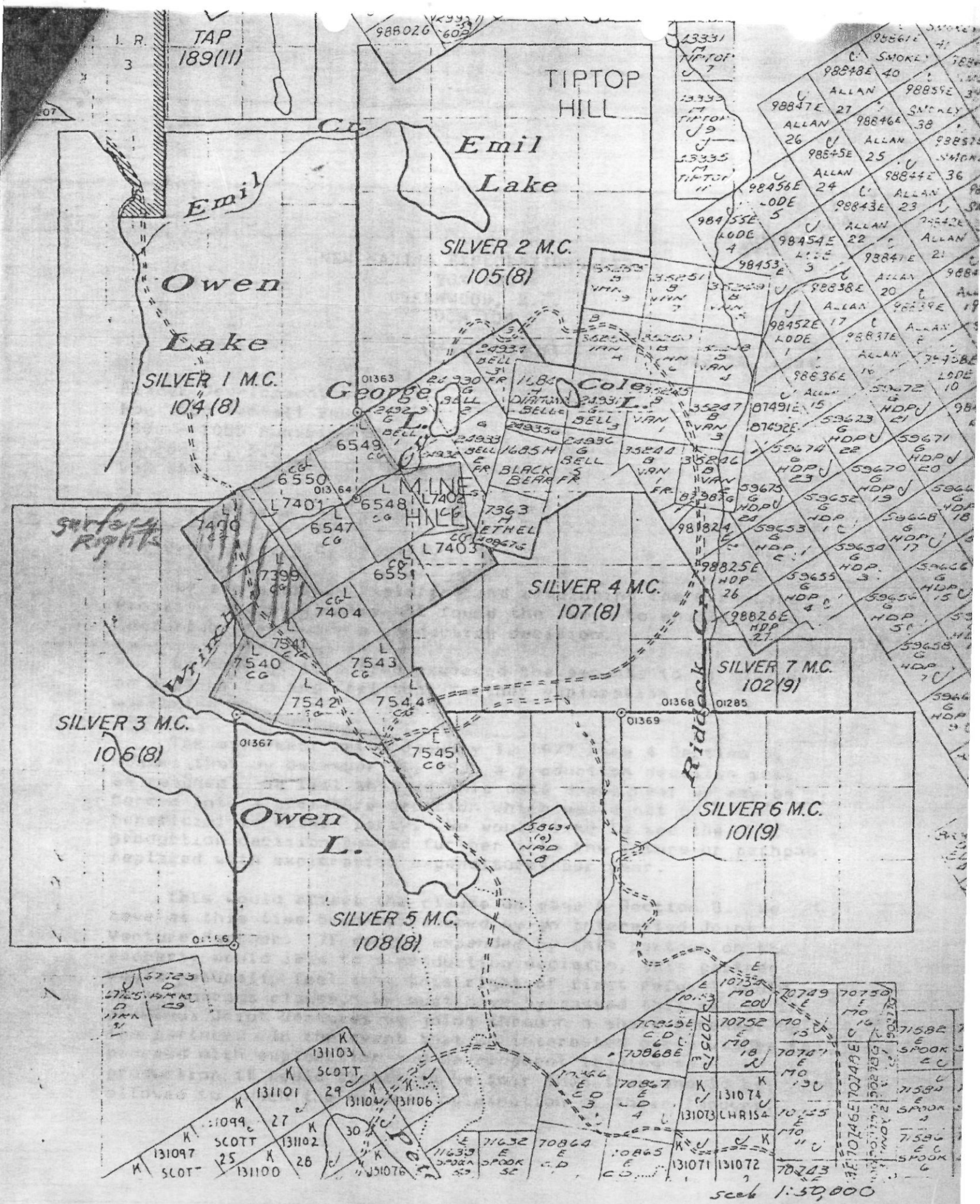
Placer have been attempting to sell the 100% holding in the Restigouche deposit in New Brunswick (which is subject to a 25% carried interest to Gowganda) for \$1,000,000.00. Reserves on this property are in the vicinity of 2.4 million tons of 3.4 oz/T Ag, 5.1% Pb and 6.5% Zn, with no known likelihood of other potential.

On the basis of the above precedents I would suggest a sale price on the Owen Lake Crown Grants of \$300,000.00, split roughly \$250,000 for mineral rights and \$50,000 for surface rights. Presumably any proceeds are subject to the Hoffman 5% commission agreement (Canex Minutes May 5, 1984) (see Legal File).



C.C. Rennie

CCR/cs
30:10:84



I. R. 3
TAP 189(II)

TIPTOP HILL

Emil Lake

SILVER 2 M.C.
105(8)

Owen Lake
SILVER 1 M.C.
104(8)

George Hill

Cole Hill

SILVER 4 M.C.
107(8)

SILVER 7 M.C.
102(9)

SILVER 3 M.C.
106(8)

Owen L.

SILVER 5 M.C.
108(8)

SILVER 6 M.C.
101(9)

Scale 1:50,000

JUN 1 - 1984

NEW NADINA EXPLORATIONS LTD

BOX 130,
GREENWOOD, B.C.
VOH 1J0

(445-2260)

May 24, 1984

Placer Development Ltd.
Box 1500 Bentall Four,
1600 - 1055 Dunsmuir St.,
Vancouver, B.C.
V6C 1A8

Dear Mr. Adie;

Re: Owen Lake, B.C. Property

We are actively exploring and developing the Owen Lake Property and still have not found the "key" to enable us to comfortably announce a production decision.

We have at this time exceeded the amounts to be expended on exploration and feel that further exploration is warranted.

The agreement dated January 1, 1977 Page 4 Section 5, states that by December 31, 1986 a production decision must be reached. We feel that as this date draws near we may be forced into a premature decision which would not be beneficial to either party. We would like to see the production decision pushed further into the future or perhaps replaced with exploration expenditures per year.

This would effect the clause on page 6 Section 8. We have at this time been approached by an interested Joint Venture Partner. If monies expended by this partner on the property would lead to a production decision, this partner would naturally feel that this right of first refusal would be an onerous clause. We must have by-passed this clause in previous Joint Ventures by going through a share purchase by the partner. In the event that an interested party wishes to proceed with exploration and development leading to production it would appear to be fair that they should be allowed to reach the natural culmination of their labours.



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-2-

Canex would still achieve their profit from the successful operation of the property and a continued program leading to this stage would be in everybody's best interest.

Would Canex be prepared to accept a cash buyout for their interest in the property?

I look forward to your thoughts on these matters.

Yours truly,
New Nadina Explorations Ltd.

George O.M. Stewart,
Director.

On August 1, 1984 I visited the same office of the field (New Nadina) geologist (geologist) in charge of the property and on August 15 visited the surface of the property and on August 22 visited the underground. Several reports were collected and a copy of the assessment report on the 1983 drilling that was completed, had been done in August and also some other reports of the 1983 drilling requested by field staff Stewart in Greenwood were received in September.

The 1983 drilling was aimed in part at the property in order to determine if there was any oil in the area. The 1983 drilling was aimed at the property in order to determine if there was any oil in the area. The 1983 drilling was aimed at the property in order to determine if there was any oil in the area.

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