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1. INTRODUCTION

The Zeehan slag dumps consist of 450,750 tonnes of slag containing 13.4% zinc and minor lead and silver credits. The slag is a residue of silver-lead smelting operations accumulated over three distinct operating phases between 1898 and 1946. Pyrosmelt NL, a wholly owned subsidiary of Dragon Mining NL, has been investigating options for resmelting the slag and producing zinc and or zinc products. In particular the possibility of applying top lance smelting technology owned by Ausmelt Pty Ltd has been under investigation.

The dumps are contained within Retention Licence 9603, held by Pyrosmelt NL ("Pyrosmelt").

2. LOCATION AND ACCESS

Located in the north west of Tasmania, the dumps are readily accessed both from the north and south via State Highway 8 and Dundas Road to Zeehan townsite. RL 9603 straddles the sealed Henty Road approximately 3km south of the Zeehan townsite .

3. PREVIOUS WORK

1990 A report entitled *Preliminary Information for the Office of Environment* was prepared by BHP Engineering and submitted to the Office of Environment

1991 A *Preparation of a Development Proposal and Environmental Management Plan* document was prepared by BHP Engineering (Jan 1991)

Metallurgical and engineering research was commissioned by Pysrosmelt and a report entitled *Preliminary Metallurgical and Engineering Study for Sirosmelt Processing of Zeehan Slags for Pyrosmelt NL* by BR Baldock, (Jan 1991) was prepared.

A pre-feasibility study was undertaken by Dragon Mining NL and a two volume report entitled *Zeehan Slag Dump Re-treatment Project, Pre-Feasibility Study (Jul 1991)* was prepared.

A copy of the pre-feasibility study is currently held by Mineral Resources Tasmania.

4. WORK COMPLETED

Stronger LME zinc prices during 1997 and into 1998 prompted a general review of the Zeehan Slag Dumps Project.

Mining Finance Associates (MFA) was commissioned to assess the project, its bankability and the possibility of it forming the case to a larger project. This work and work by Dragon showed that the zinc dump would be capable of amortising an Ausmelt vessel costing in the range of \$20 – 25 million over a 4 – 5 year period. This prompted the consideration of ways to extend operating life and/or reducing capital costs. A review of other materials on the West Coast capable of extending the life of the project commenced and was ongoing at year end.

Another alternative being considered to overcome the high capital cost of the Zeehan project is possible synergy with the nearby Renison Bell Tin Mine. An Ausmelt vessel has recently been commissioned to treat tin concentrates from the Minsur Mine in Peru. This suggested a scenario where a plant could treat concentrates from Renison with the Zeehan slags as a supplementary feed.

As a means of further reducing costs and commencing production earlier an investigation was also made into the feasibility of purchasing the Mt Isa Mines – AGIP top lance smelter at Radio Hill near Karratha WA with a view to transporting it to Zeehan.

This showed promise indicating that the erected cost in Zeehan could be halved to approximately \$10M. However, the Radio plant would best be suited to retreating Renison concentrates with Zeehan slag servicing as a supplementary feed.

5 CONCLUSIONS AND RECOMMENDATIONS

It has become clear that there are a number of promising economic scenarios for resmelting of the Zeehan zinc slag dumps, but that so far all require the integration of a number of factors to work.

In March 1998, Dragon granted its former managing director, Mr S. Stone an exclusive six month option to purchase its interests in the Zeehan project.

A total of \$34,222 was spent by Dragon alone on the project during the year according to the attached break-down (Table 1).

Table 1 Expenditure on Retention License 9603 for 97-98

Item	\$
Wages and salaries	8,498
Consultants	10,900
Draft and print	54
Legals	742
Travel	13,638
Sample storage	390
<u>Total</u>	<u>34,222</u>