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28th October, 1985

Our Ref : D50/86

REPORT NUMBER : D50/86

CLIENT : N.T. Department of Mines & Energy

YOUR REFERENCE : 16/85/86

REPORT COMPRISING : Cover Sheet
Pages 1 and 2
Screen sizing analysis sheet
Assay report sheet

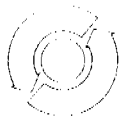
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INTRODUCTION

A sample of mill product concentrate was submitted to AMDEL-NT by the Department of Mines and Energy for Mr. G.E. Casey from GML 120B. Testwork required included an XRD scan to determine minerals present, sizing and amalgamation test and assay for Au, Ag, Fe.

RESULTS

XRD SCAN

The scan revealed that the major minerals present were silica and haematite with a minor phase of lead-tin oxide.

SIZING

The sample was screened over a 1.18mm and a 45 μ m screens. Results are shown on the screen sizing analysis sheet. The material was reasonably coarse with the majority of the sample lying between 1.18mm and 45 μ m. The small amount of -45 μ m fraction was too small for analysis so was re-included in the sample for a head analysis and subsequent amalgamation test.

HEAD ASSAY

Analyses for Au, Ag, Fe on the sample were carried out to determine the grade of extractable Au and Ag and the Fe content. Results are tabulated on the assay report sheet.

AMALGAMATION TEST

After the sizing analysis was completed the fractions were recombined and an amalgamation test carried out. The amalgam was analysed for Au and the residue for Au, Ag, Fe. Results are tabulated on the assay report sheet. After dissolving the mercury with nitric acid, very fine visible gold was observed.

CONCLUSIONS

The poor recovery of the amalgam is probably due to the fact that the gold present is very finely grained and inaccessible to amalgamation without further reduction in size of the concentrates + 45 μ m fraction.



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X-RAY DIFFRACTION SCAN

SAMPLE NO. 1

α Quartz - major phase SiO_2

Hematite - major phase FeO_2

Lead-tin Oxide - minor phase PbSnO_4

METALLURGICAL TEST

SCREEN SIZING ANALYSIS

Sample No. D50/86

Location

Clients Reference

Aperture in microns	Weight g	%	CUM. %	ASSAYS			DISTRIBUTIONS		
1.18mm	0.0	0.0							
45µm	316.3	97.3							
-45µm	8.8	2.7							
TOTAL: ASSAYED	325.1								

REMARKS:

FORM 38

ANALYSIS

45740

larger sample required
for sizing

500 micron	
250	"
90	"
45	"