

004931

**FARO DOWN VALLEY TAILINGS
RESEARCH PROGRAM
REPORT: TAILINGS REPROCESSING**

DRAFT

**May 28, 1993
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Vice President, Metallurgy**

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INTRODUCTION

The Faro Down Valley Tailing Ponds (see map and section) have a contained, gross metal value of more than a billion dollars. A research proposal for the development of an economical reprocessing method for the recovery of this resource, which would create jobs and eliminate an environmental liability, was approved for co-funding by the Government of the Yukon, Department of Economic Development (Canada/Yukon Economic Development Agreement). We thank them for their understanding and support. This ambitious and diligent research program involved Canmet (Mineral Sciences Laboratories), Lakefield Research, Normet and Curragh Inc.

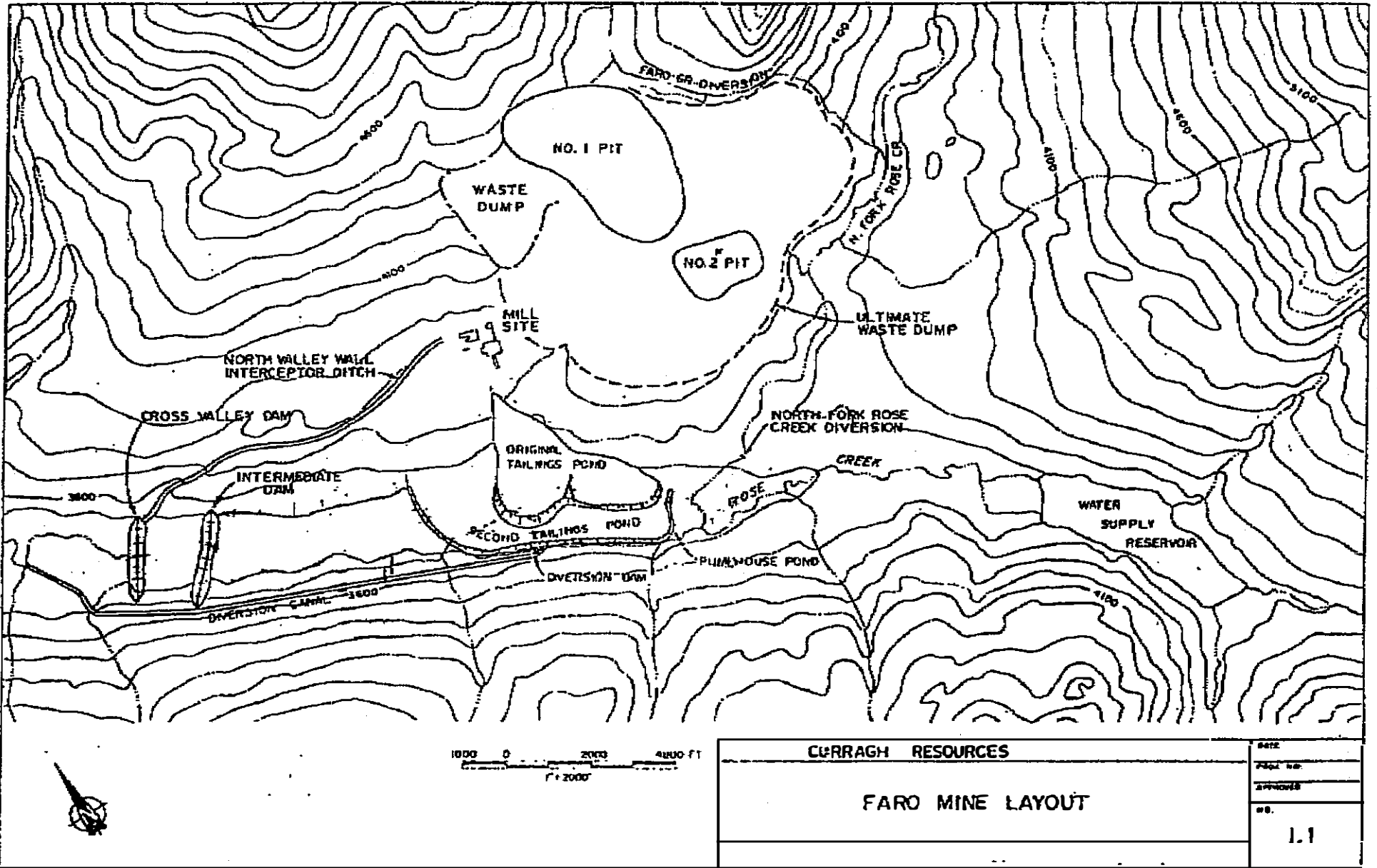
The Laboratory test results from the initial research programs are very encouraging with the production of a marketable bulk concentrate of 50% lead plus zinc metal content at a zinc metal recovery of 58%. There is considerable confidence in the Faro Down Valley Tailings reprocessing approach because of the metallurgical results attained, the implementation of proven new technology equipment, the use of current reagents and the availability of the Faro Mill (low capital requirement) when the known, economic ore reserves are depleted.

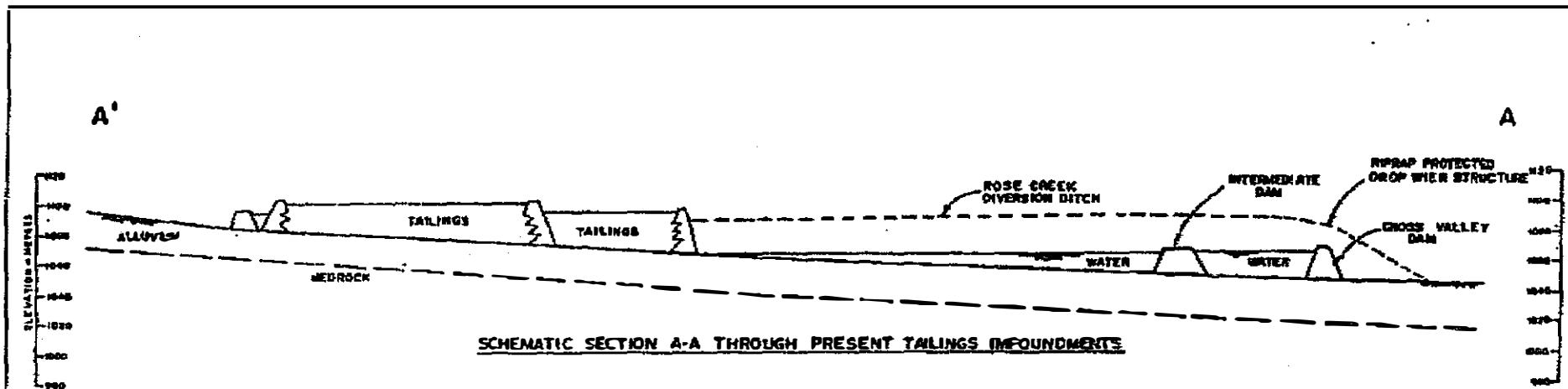
CONCLUSION

The research programs run at Canmet (Mineral Sciences Laboratories), Lakefield Research and Normet on Faro Down Valley Tailing composites indicate a technical success with the production of a marketable bulk sulphide concentrate at a respectable recovery.

Testwork Composite	Product	Assay		Recovery	
		Pb%	Zn%	Pb%	Zn%
pH >7	Final Bulk Conc	10.2	37.4	25.4	58.2
	Rghr Bulk Conc	2.88	6.1	59.4	78.6
	Calc. Headgrade	0.70	1.12	100.0	100.0
pH <7	Final Bulk Conc	5.13	31.2	15.8	57.9
	Rghr Bulk Conc	1.73	3.81	61.4	81.2
	Calc. Headgrade	0.62	1.03	100.0	100.0

The research programs of each laboratory were scoped to develop a reprocessing flowsheet for the Down Valley Tailings. Although the Canmet and Normet laboratories did not attain the same metallurgical results as Lakefield Research, an extrapolation of their test results would indicate very similar overall metallurgical results.





SCHEMATIC SECTION A-A THROUGH PRESENT TAILINGS IMPOUNDMENTS

CURRIGH RESOURCES		DATE
FARO ABANDONMENT PLAN EVALUATION		PROJ. NO.
LONG SECTION THROUGH EXISTING IMPOUNDMENTS		DATE
STEFFEN ROBERTSON & KRISTEN, Consulting Engineers		1.2

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The research testwork must continue as there is more information needed for the final reprocessing flowsheet. Larger volume laboratory bench testwork is needed to determine the high intensity conditioner equipment design criteria, bulk rougher concentrate regrind requirements and bulk cleaner concentrate flotation tests.

PURPOSE OF THE RESEARCH

All of the flotation tailings from the Faro mill, from start up in July 1969 through to August 1992, have been impounded in the Rose Creek Valley area. Subsequent tailings are pumped to the mined-out Faro Open Pit. There are 51,926,452 tonnes of tailings assaying 0.8% Pb, 1.3% Zn, 0.12% Cu, 30 g/t Ag placed in this Down Valley area behind water/solids impervious dams. At current metal prices, the gross value of these tailings is over a billion dollars.

A major factor in the design, cost estimating and implementation of the Faro Decommissioning plan is this large quantity of AMD tailings. Many decommissioning scenarios have been discussed, plans developed to a preliminary engineering status and costs estimated. These decommissioning scenarios varied from complete water flooding of the entire Down Valley Tailing Impoundment area by the construction of a high Cross Valley Dam (at an estimation capital cost of \$ million) to placing a composite dry cover over the exposed tailing with permanent water cover of the remaining tailings behind the structurally modified existing Cross Valley Dam (at an estimated capital cost of \$ million).

It is apparent that these estimated decommissioning costs are excessive so a further search and/or development of new technology is imperative. Since sufficient space would be available in the mined-out Faro Pit for final deposition of the reprocessed Down Valley tailing, the question is "Can the tailings be reprocessed, economically?". There will be many positive spin offs of a successful reprocessing approach: site jobs for more operating years, a more complete usage of the natural resource and an integral part of a better decommissioning plan for Faro (all processed tailing would be water flooded thereby eliminating acid mine drainage).

RESEARCH PROPOSAL AND MDA YUKON FUNDING

In 1990-91, Denhurst Limited in Australia developed a laboratory flowsheet for the recovery of a bulk, mineral sulphide concentrate from the impounded tailings at their Woodlawn Mine. This successful laboratory program culminated in the design, construction and commissioning of a production tailings reprocessing mill in 1991. Their process flowsheet was kept secret, however, they were willing to give a Faro Down Valley tailings sample a preliminary evaluation. Their laboratory test (1992) produced better metallurgical results than previous testwork run on a similar sample.

Discussions were held with Ms. L. Walton, MDA Co-ordinator (Government of the Yukon, Department of Economic Development), Mr. M.C. Campbell, Manager (Canmet, Resource Utilization Laboratories), Mr. S. Bulatovic, Consulting Metallurgist (Lakefield Research) and Mr. I. Pattison, Executive Director (Denhurst Limited) re: Reprocessing Faro Down Valley tailing to produce a bulk, mineral sulphide concentrate (at least 50% lead and zinc metal) - program, schedule and cost.

Subsequently each party prepared a research proposal that had a very limited overlap of the testwork. Curragh Inc. would co-ordinate the program and be responsible for the project report. The program must be complete by March 31, 1993. The cost estimate for the proposed research is as follows:

<u>Sub Contractor</u>	<u>Type of Work</u>	<u>Original Budget</u>
Canmet	Laboratory Flotation Mineralogy	\$120,000
Curragh Inc.	Sample Acquisition Sample Analysis Project Management	\$ 45,000
Lakefield Research	Laboratory Flotation	\$ 20,000
Denhurst Limited (Normet Pty Ltd)	Laboratory Flotation	<u>\$ 40,000</u>
TOTAL		\$225,000

The co-funded program cost was distributed as follows:

<u>Co-Funders</u>	<u>Original Budget</u>
Curragh Inc.	\$ 80,000
MDA	<u>\$145,000</u>
TOTAL	\$225,000

We want to take this opportunity to thank Ms. L. Walton and the management of the Government of Yukon, Department of Economic Development for the approval of this research program and the co-operation extended throughout the life of the program. The research program commenced on schedule on October 28, 1992.

RESEARCH PROGRAM

The research program was divided into two phases. Phase One, was sample acquisition and sample analysis. Phase Two, was the laboratory testwork with metallurgical balance results.

PHASE ONE

1.0 Sample Acquisition

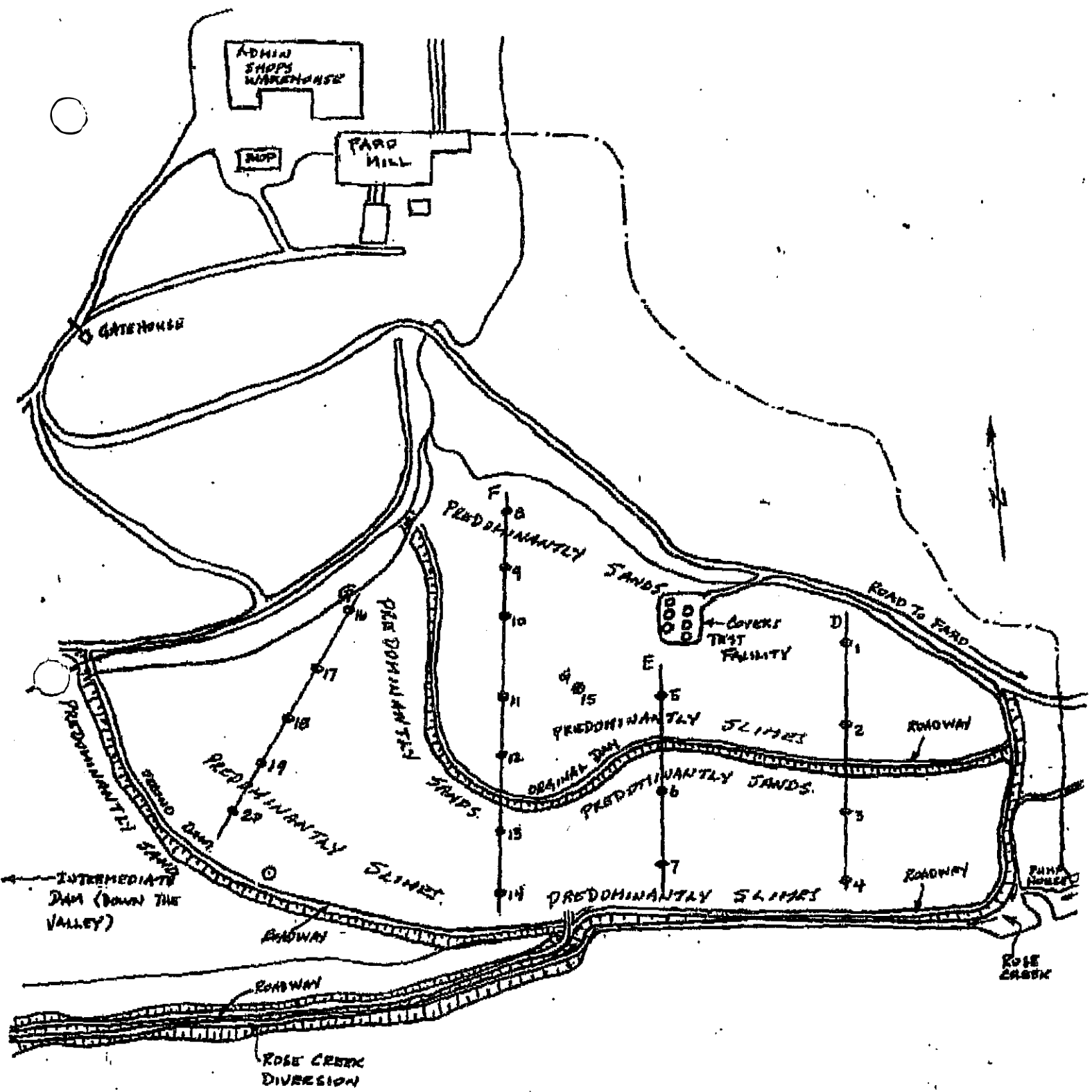
The geological department of Curragh Inc. reviewed available historical data (pre-1983) and site maps to best identify the spigot points of the mill flotation tailing within the two upper tailing pond areas. They recommended four section lines (letters) and the collar location of twenty drill holes (numbers) so the drill hole, core samples should best represent the stored tailing. The tailing drill hole locations are shown in figure no. 1.

A vibro core drill was selected as the preferred equipment to drill the tailing ponds. It was light weight and readily mobile; it had a special "shoe" attachment that will lock the core in the rods (NQ rods with no core barrel - 2 3/8") on retrieval so no sample is lost. No air, water, etc. is added to the drilling face thereby preventing sample mixing or dilution during the drilling program. Ace Drilling from Surrey, B.C. was the closest available vibro core driller and they did a good job.

The drilling program was designed to recover all core from the tailing pond's surface to the valley floor or an impregnable subsurface. The drill hole, core sample was composited in one meter increments which were numbered from the surface downward in consecutive order. Each drill hole core, sample composite was subjected to the following procedure:

- a) weighed (wet weight) and recorded (254 core composites)
- b) paste pH read and recorded (254 core composites)
- c) observed degree of moisture content and recorded
- d) screen analysis (200 and 325 mesh screen) and size distribution recorded (762 screen fractions)
- e) each sample composite was cut into four, one kilogram portions for metallurgical testwork, identified as I, II, III, and IV.
- f) chemical analysis (lead, zinc, copper, iron) run on each screen fraction and a metal balance recorded (4064 chemical analyses).

The mean metal content of the drill hole, core increments was 0.72% lead, 1.26% zinc, 0.12% copper and 29.9% iron. A condensed copy of each reporting sheet is shown in figure no. 2; while the complete sample increment analyses for this program is reported in Addendum I.



CURRAGH INC
 FARD DOWN VALLEY AREA

- ORIGINAL POND
- SECOND POND
- INTERMEDIATE POND

VIBRO CORE DRILL HOLE ROW LETTER
 AND HOLE No.

FIGURE No.1.

FARO DOWN VALLEY TAILING SAMPLING PROGRAM (1992)

BRO CORE DRILLING

DATE: _____

METER SAMPLE INCREMENT LENGTH

SAMPLE NO.	TOP NO.	INSTRUMENT NO.	CORRECTION FACTOR	FEED RATE	TEST WORKS COMPOSITE					SCREENING ANALYSIS (%)	REMARKS
					I	II	III	IV	EXTRA		

SAMPLE #	DEGREE OF MOISTURE CONTENT				WATER CLAIRITY	
	LOW 1	MODER 2	VERY 3	EXTREME 4	CLEAR 1	MUDDY 2

SCREEN DISTRIBUTION AND METAL ANALYSIS

SAMPLE NO.	TOP NO.	SCREEN SIZE	ANALYSIS					DISTRIBUTION	
			As	Fe	Pb	Cd	Cu	Gravel	Sand

INCREMENT METAL ANALYSIS

ROW NUMBER	TOP NO.	INCREMENT NO.	ANALYSIS			
			Pb	As	Cd	Cu

FIGURE No.2

2.0 Laboratory Testwork Composites

Individual drill hole, core sample increments, sealed in plastic bags and identified with Roman Numerals, were gathered into "testwork composite" lots and shipped to designated research laboratories. In turn, they were instructed to keep the sample and subsequent composite factions: sealed, moist and in cold storage when not in use. The following "weight of samples" were shipped to:

Lakefield Research	- 50 kilograms
Denhurst Ltd. (Normet)	- 75 kilograms
Canmet	- 250 kilograms

PHASE TWO

1.0 Laboratory Research Programs

a) Lakefield Research

The laboratory testwork program was quite focused - prefloat conditioning and reagents. The individual drill hole, core sample increments were composited into two testwork composites. One testwork composite contained increments with paste pH's <7 and the other testwork composite contained increments with paste pH's >7. The testwork program evaluated flotation responses following prefloat conditioning (conventional conditioning, a short grind or high intensity conditioning, a Lakefield specialization). This program also evaluated reagents (pH modifiers, pyrite depressants and collectors) to produce a high recovery, bulk rougher concentrate. At optimum bulk rougher concentrate recovery conditions, several cleaner flotation tests were run to determine concentrate upgrade.

(b) Denhurst Limited (Normet)

The laboratory testwork program was quite focused - Denhurst flowsheet evaluation and modified flowsheet evaluation. The drill hole, core sample increments were combined to make one testwork composite and then subjected to the Denhurst established pre-float conditioning and reagent scheme to produce a bulk concentrate (special emphasis on the zinc content). This work was followed with several flotation tests in which the slurry was oxygenated during prefloat conditioning and another series of flotation tests in which the prefloat conditioning step was eliminated.

(c) Canmet

The scope of this laboratory testwork program was a broad baseline - mineralogy, bulk rougher prefloat conditioning bulk concentrate cleaning and reagent evaluations.

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Mineralogy via an optical microscope, an electron microscope and an image analyzer was done on testwork composites from the entire Down Valley drilling program. These composites were assembled at three specific pH levels (< 5, 5 to 7, > 7). Each composite was screened on four sizes and prepared for instrument assisted mineral identification mineral liberation count and mineral particle size.

A second mineralogical program was done to provide information on the surface characteristics that may affect reprocessing. This mineralogical work was done on a Laser Ionization Mass Spectrometer on individual grains of sphalerite and pyrite/marcasite.

The metallurgical program started with a broad baseline search/development approach. The testwork composite, a mix of all the drill hole, core sample increments, was subjected to eleven prefloat and flotation activities/conditions at two levels for the recovery of a bulk sulphide rougher concentrate. The flotation test results were analyzed by a fractional statistical model to determine which activities/conditions provide the highest bulk sulphide rougher concentrate grade and recovery. In turn, the most favourable activities/conditions were run at 3 levels; then another statistical analysis of the test results were done to advance the development of the Down Valley tailings reprocessing flowsheet. Several bulk sulphide cleaner flotation tests as well as some comparative flotation tests were run on Lakefield and Normet testwork procedures/conditions.

2.0

Laboratory Research Results

(a) Lakefield Research

The laboratory flotation test results were very encouraging, a marketable grade bulk sulphide concentrate (31 - 37% Zn, 5 - 10% Pb) was produced at respectable metal recoveries. The Lakefield Research report is attached in Addendum II.

The two Down Valley Tailings testwork composites (pH < 7, pH > 7) were subjected to similar laboratory development tests:

- (i) Preflotation Conditioning
 - standard conditioner (single and multi stage)
 - high intensity conditioner (single and multi stage)
 - grinding (varying time duration)

- (ii) Reagent Balance
 - types of pyrite depressants
 - sphalerite activation
 - galena/sphalerite collectors
 - pH modifiers

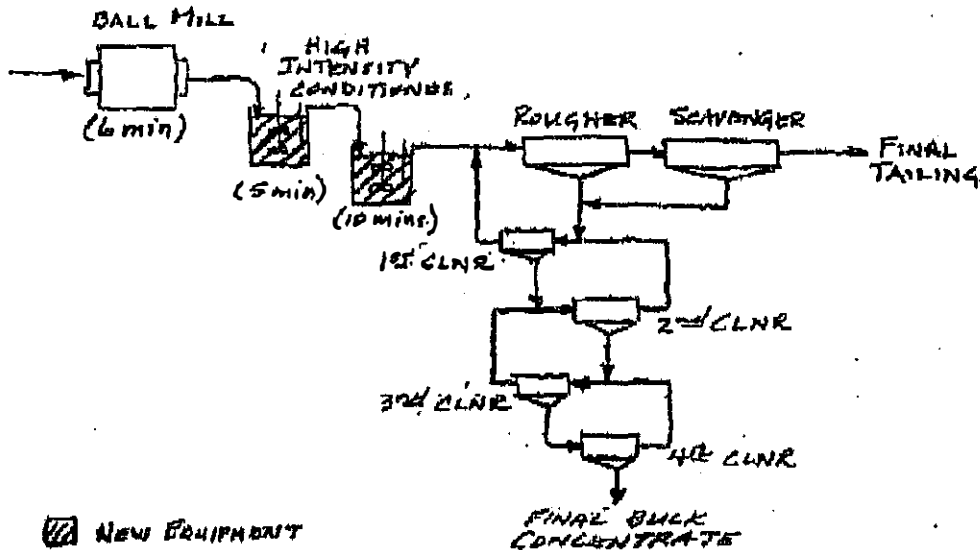
The laboratory program on each testwork composite did develop a reprocessing flowsheet and conventional reagent scheme. The following metallurgical balances were calculated from laboratory batch flotation tests which do not include the metal that would be recovered in the final concentrate by recycling the cleaner tailing, as occurs in the mill operation. Therefore, the mill will have slightly higher metal recoveries.

Testwork Composite	Product	Assay		Recovery	
		Pb%	Zn%	Pb%	Zn%
pH >7	Final Bulk Conc	10.2	37.4	25.4	58.2
	Rghr Bulk Conc	2.88	6.1	59.4	78.6
	Calc. Headgrade	0.70	1.12	100.0	100.0
pH <7	Final Bulk Conc	5.13	31.2	15.8	57.9
	Rghr Bulk Conc	1.73	3.81	61.4	81.2
	Calc. Headgrade	0.62	1.03	100.0	100.0

A Release Analysis Plot (see figure 3) of the laboratory batch flotation test results (roughing and for stages of cleaning) on Testwork Composites pH < 7 and pH >7, illustrates the family of Bulk Concentrates grades and recoveries. The overlap of metallurgical performances for the composites indicates an upside potential and in higher overall recoveries in a mill operation.

The laboratory developed, reagent scheme is very conventional; it uses lime for the pH modifier, copper sulphate for the sphalerite activator, xanthate and M2030 for the galena/sphalerite collector and MIBC for the frothed.

The laboratory developed flowsheet is as follows:



Faro - Down Valley Tailings Reprocessing

Release Analysis Curves

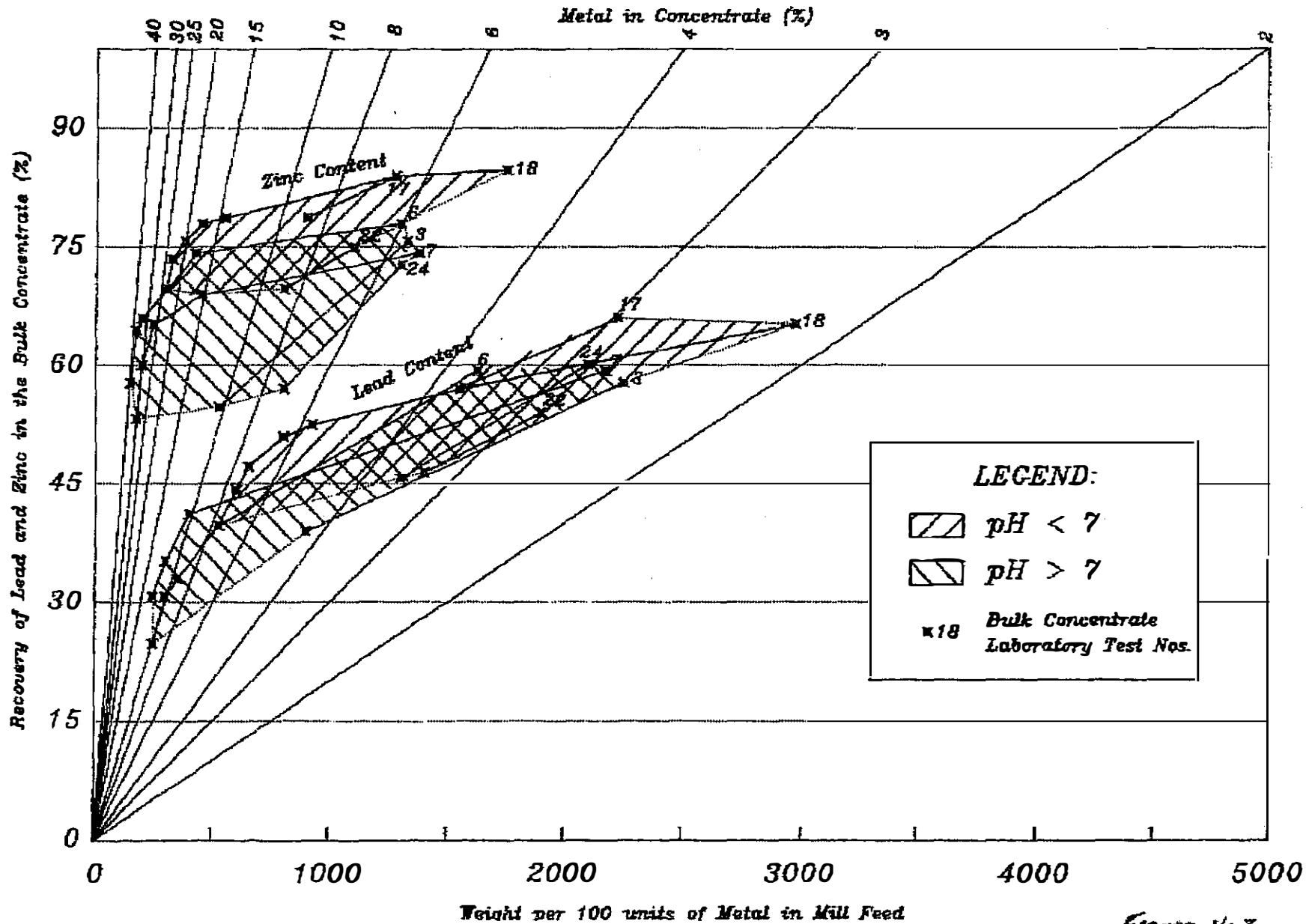


Figure No. 3

(b) Normet

The laboratory flotation test results confirm and improve upon the metallurgical response reported on preliminary Down Valley tailings flotation testwork done in 1992 by Denhurst. The Normet testwork was done on a Testwork Composite comprising samples from twelve drill holes that give a good cross-section of the Down Valley tailings area. The Normet report is attached in Addendum III.

Nine of twelve laboratory flotation tests were run on a flowsheet which included bulk sulphide roughing and three stages of cleaning. The laboratory testwork evaluated the following flowsheet configurations:

- (i) Prefloat Conditioning
 - without oxygenation
 - with oxygenation*
- (ii) No Prefloat Conditioning

* oxygenation (Oxygen gas is bubbled into the slurry during conditioning to ensure replacement of the oxygen that was consumed through chemical reaction with the mineral surfaces and the flotation reagents.)

The metallurgical balances for batch flotation tests on different flowsheet configurations, are as follows:

Conditioning	Products	Assays		Recover	
		Pb%	Zn%	Pb%	Zn%
Pre Float - No Oxygenation	Final Bulk Conc	2.5	35.7	4.6	37.5
	Rougher Bulk Conc	3.3	17.5	22.0	66.7
	Calc. Headgrade	0.63	1.09	100.0	100.0
Pre Float - With Oxygenation	Final Bulk Conc	n.a.	33.6	n.a.	42.2
	Rougher Bulk Conc	n.a.	12.8	n.a.	65.0
	Calc. Headgrade	n.a.	1.14	n.a.	100.0
No Pre Float	Final Bulk Conc	3.5	44.8	4.6	34.5
	Rougher Bulk Conc	4.1	20.5	21.5	62.0
	Calc. Headgrade	0.68	1.17	100.0	100.0

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The design and operation of the Denhurst/Normet high intensity conditioner is not much different than a conventional conditioner re: comparative metallurgical balance, in previous table, with and without prefloat conditioning. However, the Lakefield design of high intensity conditioner, which will be installed in the Faro mill as part of the Grum ore, process flowsheet modifications and is currently used in other milling operations, provides very vigorous mixing. This cleans the surface of the mineral particles and forces those particles to collide with reagents thereby improving the overall mineral recoveries into the bulk sulphide concentrate.

(c) **Canmet**

The Canmet research program was very thorough and started with an investigation of the physical nature of the flotation feed:

What will be reprocessed?

How is the mineral worth distributed in the feed?

Are there any physical detriments to flotation recovery (liberation, coatings, etc.)?

These questions are best answered in a detailed mineralogical study of the reprocessing feed (Down Valley tailings). This approach is very common when developing or evaluating process flowsheets.

A mineralogical investigation was initiated to determine mineral occurrence, identification, distribution and the degree of liberation, as well as the occurrence of secondary minerals suggesting mineral remobilization. This work involved an optical microscope, an electron microscope, an image analyzer and an X-ray diffraction analyzer and was done on three Testwork Composites (pH < 5, pH 5-7, pH 7). This mineralogical report prepared by Dr. W. Petruk is attached in Addendum IV.

The mineralogical report stated that in the < 75 micron size fraction the sphalerite and chalcopyrite are 40% totally liberated and 60% are 75% liberated. In all screens size fractions the galena showed random liberation. In the > 75 micron size fraction considerable locking of sphalerite, galena and chalcopyrite with pyrite and quartz was observed. Some goethite and iron sulphate was associated with pyrite and some was present as free grains. Pyrite, marcasite and pyrrhotite were observed as liberated and locked particles. Regrinding will be an integral part of the final reprocessing flowsheet in order to upgrade the bulk sulphide concentrate.

The second mineralogical investigation was initiated to look at the surface chemistry of ~~selected~~ sphalerite and pyrite/marcasite particles (grains) to obtain a semi-quantitative analysis in any coatings that have developed on the surface of these particles. This mineralogical report prepared by Dr. L.J. Cabri is attached in Addendum V.

This mineralogical investigation was done on a very special analyzer called the Laser Ionization Mass Spectrometer (located in California) which was equipped with a laser microprobe. This analyzer will determine the composition of the very surface of the particle and by consecutive shots of the laser microprobe on the same spot, gradually penetrates the surface a few angstroms at a time, thereby peeling away the coating while compiling data on the composition of each successive layer through to the original particle mass. This information will be useful in determining if the coating(s) can be removed and if it will be detrimental to the subsequent reprocessing procedure or if the coating(s) have to be removed at all.

The analysis showed that most sphalerite particles have copper coatings (Cu S) a result of previous processing. Selected, liberated sphalerite particles from Testwork Composites pH < 5 and pH 5-7 showed erratic occurrences of lead in their coatings while the liberated sphalerite particles from Testwork Composite pH > 7 showed a dominance of lead in their coatings. Lead and copper coatings on sphalerite should not be detrimental to subsequent reprocessing. No coatings on pyrite/marcasite were mentioned but should be further investigated in samples of bulk sulphide concentrate.

The broad research approach employed on Canmet has developed a lot of data (factorial metallurgical tests - fractional analysis modelling, etc.) and generally is directing the researcher to the flowsheet developed in the Lakefield testwork. This is a good response as it shows that the work done at Lakefield and Normet (Denhurst), on very specific scopes, was indeed correct. The nature of the metallurgical research work at Canmet has been time and sample consuming but they have diligently and expeditiously carried on the testwork. The laboratory metallurgical testwork was done on a Testwork Composite comprising all the drillhole, core samples. The Preliminary Report on this testwork is attached in Addendum VII.

The following eleven prescreening variables at two levels were run to produce a rougher bulk sulphide concentrate only:

	<u>Variable</u>	<u>High Level</u>	<u>Low Level</u>
A.	Agitation Intensity	1800 rpm	700 rpm
B.	Agitation Time	20 min.	5 min.
C.	Slurry Density	40%	35%
D.	Aeration Time	10 min.	5 min.
E.	Alkalinity Agent*	lime	soda ash
F.	Lime/Soda Rate	3000 g/t	750 g/t
G.	Copper Sulphate	300 g/t	150 g/t
H.	Sulphur Dioxide	600 g/t	250 g/t
I.	Sodium Cyanide	100 g/t	50 g/t
K.	Collector Type**	3418A	5AX
L.	Collector Level	35 g/t	20 g/t

* Lime

** Dithiophosphate (3418A)

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The statistical results from the prescreening testwork, in respect to zinc recovery has reduced the number of significant variables to the following:

- Agitator Intensity
- Agitator Time
- Aeration Time
- Level of Soda Ash or Lime
- Level of Sulphur Dioxide

Subsequently each variable was tested at three levels. The statistical analysis is not complete at this time.

In the meantime testwork has been initiated to investigate the following unit functions at the reprocessing flowsheet development:

- Regrinding (at varying pH's) followed by Low Intensity Conditioning
- Different Sphalerite Collectors
- Varying pH's for the Bulk Rougher float
- Some initial Bulk Rougher Concentrate Cleaning

The initial results are encouraging.

A mineralogical examination of two bulk rougher concentrates (one-high recovery and one-low recovery) and two bulk rougher tailings, showed that sphalerite coarser than 53 microns after 5 minutes agitation, did not float whereas 36% of the sphalerite floated after a 20 minute agitation.

RECOMMENDED ON-GOING RESEARCH PROGRAM

The objectives of the on-going research program are:

- a) develop the reprocessing flowsheet
- b) finalize the reagent scheme
- c) prepare equipment design criteria.

The laboratory flotation tests will be run on 20 kilogram tailings samples (current test work used 2 kilogram samples). The higher sample weight per test will produce a higher weight of bulk rougher concentrate which is necessary for regrind testwork, bulk concentrate cleaner testwork and to confirm the reagent scheme. Separate laboratory testwork will be required to optimize the high intensity conditioner(s) equipment design criteria. Locked-cycle laboratory testwork will confirm the reprocessing flowsheet metallurgical performance.

rbw:flr

FARO DOWN VALLEY TAILING SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
- 1 METER SAMPLE INCREMENT LENGTH

DATE: October 23/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
D	1	1	6235	2.45	✓	✓	✓	✓	(#2)	✓	red/yellow stain
		2	1345.9	2.87	✓	✓	✓	✓	(#2)	✓	red/yellow stain
		3	4103	3.34	✓	✓	✓	✓		✓	
		4	14496	4.53	✓	✓	✓	✓	(#2)	✓	
		5	5868	7.08	✓	✓	✓	✓	(#2)	✓	coarse gravel in sample
		6	3847.6	6.98	✓	✓	✓	✓		✓	
		7	11073	6.22	✓	✓	✓	✓	(#4)	✓	(21-32 ft)

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

**TUBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH**

DATE: October 23/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
D	2	1	8142	2.32	✓	✓	✓	✓	(#4)	✓	1½ m. red/yellow stain
		2	3492.3	5.46	✓	✓	✓	✓		✓	free liquid
		3	6099	5.58	✓	✓	✓	✓		✓	free liquid
		4	13555	5.62	✓	✓	✓	✓	(#2)	✓	free liquid
		5	4439	6.16	✓	✓	✓	✓		✓	free liquid
		6	5933	6.56	✓	✓	✓	✓		✓	
		7	5443	7.18	✓	✓	✓	✓		✓	
		8	6646	8.00	✓	✓	✓	✓	(#2)	✓	
		9	6366	7.44	✓	✓	✓	✓		✓	
		10	11821	7.54	✓	✓	✓	✓	(#4)	✓	
		11	5175	7.81	✓	✓	✓	✓		✓	
		12	5267	7.66	✓	✓	✓	✓		✓	
		13	9959	7.62	✓	✓	✓	✓	(#2)	✓	
		14	7307	7.55	✓	✓	✓	✓		✓	
		15	6154	7.68	✓	✓	✓	✓		✓	
		16	7841	7.73	✓	✓	✓	✓	(#2)	✓	
		17	8894	7.54	✓	✓	✓	✓	(#4)	✓	free liquid
		18	6562	8.05	✓	✓	✓	✓		✓	

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

**- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH**

DATE: October 24/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
D	3	1	6074	2.28	✓	✓	✓	✓	(#4)	✓	
		2	3391	3.89	✓	✓	✓	✓		✓	
		3	3088	3.95	✓	✓	✓	✓		✓	
		4	9976	6.11	✓	✓	✓	✓	(#2)	✓	
		5	1419.7	6.41	✓	✓	✓	✓	(#4)	✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: October 24/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg.	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
D	4	1	5056	2.48	✓	✓	✓	✓		✓	
		2	4115	4.19	✓	✓	✓	✓		✓	
		3	5344	4.59	✓	✓	✓	✓		✓	
		4	6924	6.01	✓	✓	✓	✓	(#2)	✓	
		5	5762	8.10	✓	✓	✓	✓		✓	
		6	16127	8.20	✓	✓	✓	✓	(#2)	✓	
		7	8890	6.90	✓	✓	✓	✓	(#1)	✓	
		8	7080	8.66	✓	✓	✓	✓		✓	
		9	8869	9.21	✓	✓	✓	✓	(#4)	✓	
		10	7200	9.24	✓	✓	✓	✓	(#4)	✓	

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

**- VIBRO CORE DRILLING
- 1 METER SAMPLE INCREMENT LENGTH**

DATE: October 24/92

ROW LETTER	HOLE NO.	INCREM NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
E	5	1	6313	4.16	✓	✓	✓	✓	(#3)	✓	
		2	2832.5	6.03	✓	✓	✓	✓		✓	
		3	6078	6.22	✓	✓	✓	✓		✓	
		4	4276	7.83	✓	✓	✓	✓		✓	
		5	7974	7.61	✓	✓	✓	✓		✓	coarse gravel in sample
		6	8158	8.23	✓	✓	✓	✓		✓	
		7	12625	8.36	✓	✓	✓	✓	(#2)	✓	
		8	4409	8.21	✓	✓	✓	✓		✓	
		9	5035	7.94	✓	✓	✓	✓		✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: October 26/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg*		
E	6	1	No sample								
		2	4841	3.41	✓	✓	✓	✓		✓	
		3	4386	4.21	✓	✓	✓	✓		✓	
		4	6151	4.63	✓	✓	✓	✓	(#3)	✓	
		5	6457	4.36	✓	✓	✓	✓		✓	
		6	1698	-	-	-	-	-	(#4)		<i>very small sample.</i>
		7	8513	6.11	✓	✓	✓	✓		✓	
		8	10007	5.67	✓	✓	✓	✓	(#3)	✓	
		9	9333	5.39	✓	✓	✓	✓	(#3)	✓	
		10	11540	5.72	✓	✓	✓	✓	(#3)	✓	
		11	11276	5.21	✓	✓	✓	✓	(#3)	✓	
		12	3429	5.95	✓	✓	✓	✓	(#3)	✓	some rocks in sample

* Pail No. for extra samples

FARO DOWN VALLEY TAILING SAMPLING PROGRAM (1992)

**- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH**

DATE: October 26/92

ROW LETTER	HOLE NO.	INCREM NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
E	7	1	5866	3.19	✓	✓	✓	✓	(#3)	✓	
		2	5204	4.51	✓	✓	✓	✓	(#3)	✓	
		3	4589	4.43	✓	✓	✓	✓		✓	
		4	4750	4.64	✓	✓	✓	✓	(#2)	✓	
		5	1349	-							<i>No Sample.</i>
		6	3437	4.02	✓	✓	✓	✓		✓	
		7	8546	6.64	✓	✓	✓	✓		✓	
		8	7444	7.43	✓	✓	✓	✓		✓	
		9	8027	8.46	✓	✓	✓	✓	(#3)	✓	
		10	9926	8.46	✓	✓	✓	✓	(#3)	✓	
		11	7949	7.83	✓	✓	✓	✓		✓	
		12	6265	8.77	✓	✓	✓	✓		✓	
		13	7531	8.54	✓	✓	✓	✓		✓	
		14	8076	8.78	✓	✓	✓	✓		✓	
		15	6826	8.51	✓	✓	✓	✓	(#3)	✓	
		16	7846	8.46	✓	✓	✓	✓	(#3)	✓	
		17	3887	8.12	✓	✓	✓	✓		✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: November 1/92

ROW LETTER	HOLE NO	INCREM NO	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
F	9	1	4396	2.71	✓	✓	✓	✓		✓	
		2	6759	4.23	✓	✓	✓	✓		✓	
		3	6007	3.90	✓	✓	✓	✓		✓	
		4	6521	5.20	✓	✓	✓	✓		✓	
		5	5501	5.69	✓	✓	✓	✓		✓	
		6	4724	5.95	✓	✓	✓	✓		✓	
		7	5125	6.05	✓	✓	✓	✓		✓	
		8	8855	6.02	✓	✓	✓	✓	(#4)	✓	
		9	8394	5.82	✓	✓	✓	✓	(#4)	✓	
		10	1962.9	5.91	✓	✓				✓	
		11	3227.8	5.55	✓	✓	✓			✓	

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: October 31/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
F	10	1	3584	2.20	✓	✓	✓	✓		✓	
		2	3975	2.67	✓	✓	✓	✓		✓	
		3	5267	4.66	✓	✓	✓	✓		✓	
		4	8158	5.30	✓	✓	✓	✓		✓	
		5	1779	5.24	✓	✓				✓	
		6	4313	6.01	✓	✓	✓	✓		✓	
		7	8190	4.93	✓	✓	✓	✓		✓	
		8	9456	5.65	✓	✓	✓	✓		✓	
		9	6291	5.21	✓	✓	✓	✓		✓	
		10	10348	6.21	✓	✓	✓	✓		✓	
		11	8941	6.47	✓	✓	✓	✓		✓	
		12	9604	7.22	✓	✓	✓	✓		✓	
		13	8088	7.46	✓	✓	✓	✓		✓	
		14	7973	7.79	✓	✓	✓	✓		✓	
		15	8683	6.40	✓	✓	✓	✓		✓	
		16	5981	7.32	✓	✓	✓	✓		✓	
		17	4245	6.94	✓	✓	✓	✓		✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
- 1 METER SAMPLE INCREMENT LENGTH

DATE: October 31/92

ROW LETTER	HOLE NO.	INCREM NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
F	11	1	5772	3.32	✓	✓	✓	✓		✓	I
		2	3694	3.41	✓	✓	✓	✓		✓	
		3	6048	5.42	✓	✓	✓	✓		✓	
		4	5712	5.99	✓	✓	✓	✓		✓	
		5	7727	6.86	✓	✓	✓	✓		✓	
		6	7673	8.98	✓	✓	✓	✓		✓	
		7	6963	8.42	✓	✓	✓	✓		✓	
		8	6038	8.84	✓	✓	✓	✓		✓	
		9	5561	8.85	✓	✓	✓	✓		✓	
		10	5643	8.18	✓	✓	✓	✓		✓	
		11	4773	7.94	✓	✓	✓	✓		✓	
		12	9080	8.20	✓	✓	✓	✓		✓	
		13	7480	8.29	✓	✓	✓	✓		✓	
		14	7297	9.08	✓	✓	✓	✓		✓	
		15	9574	8.58	✓	✓	✓	✓		✓	
		16	5487	9.00	✓	✓	✓	✓		✓	
		17	5638	9.03	✓	✓	✓	✓		✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: October 30/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg*		
F	12	1	4999	6.16	✓	✓	✓	✓		✓	
		2	5732	6.14	✓	✓	✓	✓		✓	
		3	9068	6.14	✓	✓	✓	✓		✓	
		4	4260	6.24	✓	✓	✓	✓		✓	
		5	6530	7.16	✓	✓	✓	✓		✓	
		6	6001	8.74	✓	✓	✓	✓		✓	
		7	8417	8.56	✓	✓	✓	✓		✓	
		8	5355	7.99	✓	✓	✓	✓		✓	
		9	7249	8.83	✓	✓	✓	✓		✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: October 30/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg*		
F	13	1	4453	4.92	✓	✓	✓	✓		✓	
		2	3397	4.74	✓	✓	✓			✓	
		3	9200	5.79	✓	✓	✓	✓	(#3)	✓	
		4	6931	5.79	✓	✓	✓	✓		✓	
		5	8470	5.06	✓	✓	✓	✓	(#3)	✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)

- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: October 27/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
F	14	1	3801	3.47	✓	✓	✓			✓	
		2	5385	5.14	✓	✓	✓	✓		✓	
		3	3084	5.27	✓	✓	✓	✓		✓	
		4	8146	5.52	✓	✓	✓	✓	(#3)	✓	
		5	5760	5.88	✓	✓	✓	✓	(#3)	✓	
		6	4705	5.78	✓	✓	✓	✓		✓	free liquid
		7	7636	6.87	✓	✓	✓	✓		✓	free liquid
		8	10259	8.17	✓	✓	✓	✓	(#3)	✓	
		9	8305	7.82	✓	✓	✓	✓	(#3)	✓	
		10	6791	7.49	✓	✓	✓	✓		✓	
		11	No Sample								Bagging number error
		12	6230	7.02	✓	✓	✓	✓		✓	free liquid
		13	8891	6.90	✓	✓	✓	✓	(#3)	✓	
		14	9762	7.17	✓	✓	✓	✓	(#3)	✓	
		15	8746	7.63	✓	✓	✓	✓	(#3)	✓	
		16	8733	8.20	✓	✓	✓	✓	(#3)	✓	free liquid
		17	8897	7.97	✓	✓	✓	✓		✓	free liquid
		18	7774	7.54	✓	✓	✓	✓		✓	
		19	12089	8.48	✓	✓	✓	✓	(#3)	✓	free liquid
		20	7063	9.13	✓	✓	✓	✓		✓	
		21	7342	8.83	✓	✓	✓	✓		✓	

* Pail No. for extra samples

FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (992)

VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH

DATE: November 1/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
G	15	1	3669	2.45	✓	✓	✓	✓		✓	
		2	1898	2.92	✓	✓				✓	
		3	N/S								
		4	3883	3.75	✓	✓	✓	✓		✓	
		5	7493	4.60	✓	✓	✓	✓		✓	
		6	8514	6.24	✓	✓	✓	✓	(5)	✓	
		7	8355	7.61	✓	✓	✓	✓	(5)	✓	
		8	6115	7.82	✓	✓	✓	✓		✓	
		9	10125	8.20	✓	✓	✓	✓	(5)	✓	
		10	6106	8.45	✓	✓	✓	✓		✓	
		11	4376	8.50	✓	✓	✓	✓		✓	
		12	9884	9.01	✓	✓	✓	✓	(5)	✓	
		13	5901	9.30	✓	✓	✓	✓		✓	
		14	4527	9.25	✓	✓	✓	✓		✓	

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

IBRO CORE DRILLING

DATE: October 29/92

-1 METER SAMPLE INCREMENT LENGTH

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg*		
G	16	1	6098	4.25	✓	✓	✓	✓		✓	
		2	7290	4.77	✓	✓	✓	✓		✓	
		3	5069	4.73	✓	✓	✓	✓		✓	
		4	6978	5.13	✓	✓	✓	✓		✓	
		5	5591	6.05	✓	✓	✓	✓		✓	
		6	5755	5.74	✓	✓	✓	✓		✓	
		7	6615	6.34	✓	✓	✓	✓		✓	
		8	4833	5.90	✓	✓	✓	✓		✓	
		9	7791	6.50	✓	✓	✓	✓		✓	
		10	8472	6.51	✓	✓	✓	✓		✓	
		11	10309	6.43	✓	✓	✓	✓		✓	
		12	2907	5.47	✓	✓	✓			✓	
		13	4153	6.43	✓	✓	✓	✓		✓	

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

- VIBRO CORE DRILLING
- 1 METER SAMPLE INCREMENT LENGTH

DATE: October 28, 1992

ROW LETTER	HOLE NO.	INCREM NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I 1 kg	II 1 kg	III 1 kg	IV 1 kg	EXTRA kg		
G	17	1	5147	2.53	✓	✓	✓	✓		✓	
		2	4284	4.03	✓	✓	✓	✓		✓	
		3	6725	3.91	✓	✓	✓	✓		✓	
		4	7201	5.42	✓	✓	✓	✓		✓	
		5	4421	7.29	✓	✓	✓	✓		✓	
		6	6022	7.85	✓	✓	✓	✓		✓	
		7	4953	8.32	✓	✓	✓	✓		✓	
		8	9590	8.75	✓	✓	✓	✓		✓	
		9	2582	6.07	✓	✓	✓	✓		✓	
		10	12869	6.61	✓	✓	✓	✓		✓	
		11	6247	7.91	✓	✓	✓	✓		✓	
		12	5639	8.00	✓	✓	✓	✓		✓	

... No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

**- VIBRO CORE DRILLING
- 1 METER SAMPLE INCREMENT LENGTH**

DATE: October 29/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
G	18	1	4685	2.79	✓	✓	✓	✓		✓	
		2	6451	3.85	✓	✓	✓	✓	(#1)	✓	
		3	7888	4.94	✓	✓	✓	✓		✓	
		4	5977	4.98	✓	✓	✓	✓		✓	
		5	2613	5.67	✓	✓				✓	
		6	4704	5.62	✓	✓	✓	✓		✓	
		7	5009	6.25	✓	✓	✓	✓	(#1)	✓	
		8	7832	5.52	✓	✓	✓	✓		✓	
		9	6666	6.18	✓	✓	✓	✓		✓	
		10	7805	8.17	✓	✓	✓	✓		✓	
		11	5747	9.06	✓	✓	✓	✓		✓	
		12	6408	8.43	✓	✓	✓	✓		✓	
		13	8407	8.45	✓	✓	✓	✓		✓	
		14	6710	8.45	✓	✓	✓	✓		✓	
		15	7003	9.38	✓	✓	✓	✓		✓	

ail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

**- VIBRO CORE DRILLING
METER SAMPLE INCREMENT LENGTH**

DATE: October 28/92

ROW LETTER	HOLE NO.	INCREM. NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg *		
G	19	1	3852	2.35	✓	✓	✓			✓	
		2	5891	5.45	✓	✓	✓	✓		✓	
		3	6930	4.39	✓	✓	✓	✓	(#1)	✓	
		4	6502	4.87	✓	✓	✓	✓	(#1)	✓	
		5	6285	5.86	✓	✓	✓	✓		✓	
		6	10837	5.95	✓	✓	✓	✓	(#1)	✓	
		7									bagging no. error
		8	6931	6.18	✓	✓	✓	✓		✓	
		9	3896	5.98	✓	✓	✓			✓	
		10	7000	7.63	✓	✓	✓	✓		✓	
		11	6429	8.62	✓	✓	✓	✓		✓	
		12	7305	9.01	✓	✓	✓	✓		✓	free liquid
		13	8314	9.50	✓	✓	✓	✓	(#1)	✓	free liquid
		14	8142	9.24	✓	✓	✓	✓		✓	free liquid
		15	6997	8.54	✓	✓	✓	✓		✓	
		16	6125	8.66	✓	✓	✓	✓		✓	
		17	7820	8.23	✓	✓	✓	✓	(#1)	✓	free liquid
		18	7250	8.04	✓	✓	✓	✓	(#1)	✓	
		19	7907	8.97	✓	✓	✓	✓	(#1)	✓	
		20	6775	8.88	✓	✓	✓	✓		✓	
		21	6854	8.70	✓	✓	✓	✓		✓	
		22	8076	8.42	✓	✓	✓	✓	(#1)	✓	
		23	6674	8.79	✓	✓	✓	✓		✓	
		24	6771	8.49	✓	✓	✓	✓	(#1)	✓	

* Pail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLING PROGRAM (1992)**

- VIBRO CORE DRILLING
- 1 METER SAMPLE INCREMENT LENGTH

DATE: October 27/92

ROW LETTER	HOLE NO.	INCREM NO.	TOTAL WEIGHT kg	PASTE pH	TESTWORK COMPOSITES					SCREEN & ANALYSIS 0.5 kg	COMMENTS
					I	II	III	IV	EXTRA		
					1 kg	1 kg	1 kg	1 kg	kg		
G	20	1	5341	2.88	✓	✓	✓	✓	(#1)	✓	
		2	8258	5.75	✓	✓	✓	✓	(#1)	✓	
		3	7014	5.99	✓	✓	✓	✓	(#1)	✓	
		4	5843	6.63	✓	✓	✓	✓		✓	
		5	4316	7.21	✓	✓	✓	✓		✓	
		6	4914	7.79	✓	✓	✓	✓		✓	
		7	7032	7.75	✓	✓	✓	✓		✓	
		8	3098	7.71	✓	✓	✓	✓		✓	
		9	3986	8.54	✓	✓	✓	✓		✓	
		10	5657	9.32	✓	✓	✓	✓		✓	
		11	6930	9.25	✓	✓	✓	✓		✓	
		12	6067	9.26	✓	✓	✓	✓		✓	
		13	7556	9.13	✓	✓	✓	✓		✓	
		14	6151	9.07	✓	✓	✓	✓	(#1)	✓	
		15	5994	9.07	✓	✓	✓	✓	(#1)	✓	
		16	8741	8.85	✓	✓	✓	✓		✓	
		17	5218	8.89	✓	✓	✓	✓		✓	
		18	4848	9.12	✓	✓	✓	✓		✓	
		19	8482	9.26	✓	✓	✓	✓	(#1)	✓	
		20	6084	9.05	✓	✓	✓	✓	(#1)	✓	
		21	5646	9.34	✓	✓	✓	✓		✓	

ail No. for extra samples

**FARO DOWN VALLEY TAILING
SAMPLE PROGRAM (1992)
INCREMENT METAL ANALYSIS**

ROW LETTER	HOLE NO.	INCREM. NO.	ANALYSIS			
			Pb %	Zn %	Cu %	Fe %
F	14	1	0.54	1.09	0.11	28.9
		2	0.62	1.05	0.09	28.9
		3	0.67	1.13	0.07	19.6
		4	0.65	1.15	0.10	24.5
		5	0.61	1.12	0.09	24.5
		6	0.65	1.28	0.11	27.3
		7	0.69	0.76	0.12	30.0
		8	0.67	0.89	0.15	32.9
		9	0.68	0.97	0.20	38.0
		10	0.35	0.98	0.14	41.0
		12	0.44	0.98	0.12	31.7
		13	0.34	0.93	0.12	39.3
		14	0.40	1.02	0.11	38.0
		15	0.56	0.93	0.07	36.0
		16	1.10	1.03	0.10	35.1
		17	1.65	1.16	0.15	35.9
		18	0.99	0.77	0.10	35.0
		19	1.05	1.09	0.18	32.3
		20	1.40	1.10	0.18	30.9
		21	0.65	0.96	0.16	28.3

**FARO DOWN VALLEY TAILING
SAMPLE PROGRAM (1992)
INCREMENT METAL ANALYSIS**

ROW LETTER	HOLE NO.	INCREM. NO.	ANALYSIS			
			Pb %	Zn %	Cu %	Fe %
G	19	1	0.65	0.63	0.11	27.8
		2	0.77	1.12	0.11	26.3
		3	0.58	1.04	0.08	22.7
		4	0.72	0.71	0.07	28.2
		5	0.71	1.14	0.08	21.4
		6	0.57	1.51	0.10	30.0
		8	0.79	1.23	0.08	22.1
		9	0.80	1.27	0.10	23.9
		10	0.71	1.08	0.06	23.8
		11	0.73	0.84	0.05	20.0
		12	1.00	0.88	0.07	17.3
		13	0.58	0.93	0.09	29.4
		14	0.69	1.50	0.18	36.3
		15	0.59	1.26	0.19	41.1
		16	0.78	1.29	0.22	30.1
		17	0.58	0.93	0.11	28.5
		18	0.49	0.78	0.11	29.4
		19	0.66	1.49	0.12	25.6
		20	1.02	2.75	0.17	27.7
		21	0.39	0.96	0.20	35.7
		22	0.88	1.39	0.15	30.6
		23	0.84	1.32	0.12	31.4
		24	0.62	1.25	0.09	25.4

**FARO DOWN VALLEY TAILING
SAMPLE PROGRAM (1992)
INCREMENT METAL ANALYSIS**

ROW LETTER	HOLE NO.	INCREM. NO.	ANALYSIS			
			Pb %	Zn %	Cu %	Fe %
G	20	1	0.64	0.84	0.14	29.6
		2	0.98	1.17	0.13	26.0
		3	0.58	0.90	0.09	24.2
		4	1.09	1.49	0.09	26.5
		5	0.89	1.40	0.08	27.5
		6	1.08	1.15	0.15	26.2
		7	0.94	1.14	0.11	23.3
		8	0.60	0.87	0.10	20.5
		9	0.65	0.89	0.05	17.1
		10	0.64	0.92	0.06	19.1
		11	0.54	0.78	0.05	23.0
		12	0.87	0.75	0.08	17.9
		13	0.90	1.30	0.15	23.4
		14	0.64	1.35	0.16	22.4
		15	0.61	1.00	0.13	28.4
		16	0.67	1.04	0.13	27.0
		17	0.59	1.08	0.10	25.4
		18	0.68	0.97	0.10	24.4
		19	0.67	1.20	0.10	24.8
		20	0.67	1.41	0.12	24.9
		21	0.69	1.13	0.10	26.0

