

**Morrison Project Flotation Testwork Report
as a Part of the Feasibility Study**

prepared for

PACIFIC BOOKER MINERALS INC.

Project 11474-001 – Report #2
December 12, 2007

NOTE:

This report refers to the samples as received.

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Executive Summary

This report is submitted by SGS Minerals Services to Pacific Booker Minerals Inc. as part of the requirements for a feasibility study for grinding, flotation and circuit design on the Morrison property.

SGS Minerals Services, Lakefield site, received 82 drill core samples for testwork and characterisation. The principle components of the testwork involved, comminution studies, flotation testwork, grinding and flotation circuit design (CEET and FLEET).

An average Bond Ball Mill Work Index of 16.1kWh/t was observed for the 82 samples tested. This is indicative of medium-hard ore. Various composites were assembled from the 82 samples for development and confirmatory flotation testwork. These included 2 Master composites, 4 lithology composites, and 4 grade variability composites. The Master composites prepared from the 82 variability samples had a head grade given in the below table.

Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)	Fe (%)	S (%)
0.45	0.21	1.4	0.006	3.53	0.89

A mineralogical investigation of the Master composite indicated that the major Cu mineral is chalcopyrite with minor amounts of bornite. Analysis of particle liberation shows that Cu-sulphides are generally not well liberated above 150µm and that liberation significantly improves between 150 and 75µm. Liberation of Cu-sulphides is best in the -38µm range. Based on this mineralogy, target primary grind size should be much finer than 150µm and target regrind size should be in the range of 30µm. The mineralogy is typical of other porphyry systems tested at SGS, but is considered marginally finer grained.

Flotation testing outlined a conventional flowsheet targeting a primary grind size K_{80} of ~130µm for natural pH rougher flotation using standard collectors PEX and AERO 3302 and MIBC as frother. The rougher concentrate is then reground to a K_{80} of ~25µm and cleaned in two stages at pH 11.5 to 11.8, adjusted with lime to depress pyrite, with small additions of CMC to control floatable non-sulphide gangue. These conditions were used in locked cycle testing using recycled effluent water from lab testing. An average over two Master Composite locked cycle tests and four Grade Variability composites resulted in the following metallurgical projections:

Product	Mass %	Assays, %, g/t				% Distribution			
		Cu	Mo	Au	Ag*	Cu	Mo	Au	Ag*
3rd Cleaner Conc	1.51	25.1	0.28	8.37	65.3	84.4	79.0	59.4	55.6
Combined Tail	98.5	0.071	0.001	0.10	0.67	15.6	21.0	46.3	44.4
Head (calc)	100.0	0.45	0.005	0.21	1.48	100.0	100.0	100.0	100.0

* Based on Master Comp tests only

The majority of the samples tested showed a good relationship between Cu head grade and recovery, and Au head grade and recovery. Flotation testing on the lithology Composites has lead to the conclusion that composite ZS-QZSE performed much poorer than the other lithology Composites. It is recommended that the impact of grind size on Cu recovery be investigated for this lithology.

While not all ore samples tested contained significant amounts of molybdenum, when present, it recovered well into a bulk cleaner concentrate. Limited molybdenum flotation testing on bulk cleaner concentrate demonstrated that Mo concentrates in excess of 50% Mo could be achieved with reasonably high stage recovery.

Introduction

On November 3rd 2006, SGS Minerals Services was engaged by Pacific Booker Minerals Inc. to conduct a feasibility level grinding and flotation testwork and circuit design on ore from the Morrison Copper/Gold Project in Central British Columbia. The testwork is to form part of the basis for a feasibility study. The objective of the project was to conduct a series of grinding and flotation tests that would provide metallurgical targets and predictions and would lead to circuit design in support of a feasibility study.

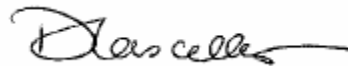
The program involved sample preparation/characterization, mineralogy, comminution studies, flotation testwork, grinding and flotation circuit design (CEET, JK SimMet and FLEET). A representative sample of the material had head grades of 0.45% Cu, 0.21 g/t Au, 1.40 g/t Ag, 0.006% Mo, 3.53% Fe and 0.89% S. Nine composites were used to perform ore characterisation tests, including batch flotation test development and confirmation, full QEMSCANTM for mineralogical analysis, flotation calibration testwork (including flotation locked cycle test and cleaner MFTs) as well as the general comminution testwork (including the SPI, ModBond work index tests, BWi tests, MinnoveEX crusher index Ci for grinding circuit design). A portion of each drill core sample was used to perform variability testwork that produced the information needed for the CEET and FLEET simulations, used for grinding and flotation circuit design.

Flotation testing took the form of batch testwork (that investigated the flowsheet development), Cu-Mo separation testwork, testing on four lithology and four grade-variability composites, locked cycle testing using recycle water to provide metallurgical projections and flotation confirmation which investigated the metallurgical response of four variability composites with a range of Cu head grades.

Results were discussed with Mr. Konigsmann of KVK Consulting and communicated with Mr. Tornquist of Pacific Booker and Mr. Ghaffari of Wardrop Engineering throughout the test program.



Rachel Bridge, MGeol., MSc., MCSM.,
Junior Metallurgist



Dominique Lascelles, M.Eng.
Senior Metallurgist

*Experimental work by: Rory Guest, Charlene Caza and Rachel Bridge
Report preparation by: Rachel Bridge, Dominique Lascelles*

Testwork Summary

1. Sample Description and Characterisation

1.1. Sample Preparation

SGS Mineral Services received 82 drill core samples from Morrison Copper on November 23rd 2006, weighing approximately 2663 kg. The samples were spatially representative of different areas in the deposit, and ranged in weight from approximately 6 to 20 kg each. The samples were first crushed to -3/4 mesh for SPI tests, the reject material from the SPI tests was crushed to -6 mesh for Bond testing. The remaining sample was crushed to -10 mesh.

From each of the 82 samples, various composites were generated for the test program. These included the following:

- Master Composite. A sub-sample of 0.5-1.0 kg was removed from each of the 82 samples.
- Master Composites 2. Portions of the majority of the 82 samples were combined at a later date to formulate this composite.
- Four lithology composites. These were generated based on client-geological observations reported on each of the 82 samples. The lithology composites included:
 - Biotite Feldspar Porphyry with a Clay-Sericite alteration (BFP-ARSE)
 - Biotite Feldspar Porphyry with a Potassic alteration (BFP-KH)
 - Sandstone (SS)
 - Siltstone with a Quartz-Sericite alteration (ZS-QZSE)
- High Mo Composite. A limited number of samples were combined to specifically generate a composite containing a high level of molybdenum.
- Grade Variability Composites. Various combinations of the 82 samples were assembled to generate four composites having varying levels of copper content.

Full details for the make-up of these various composites are provided in Appendix 1. The remaining material from each of the 82 samples was split into 2 kg test charges for variability testing.

1.2. Chemical Analysis

The various test composite direct head analyses are given in the Table 1. Each of the 82 individual samples was also submitted for analysis. The results of these individual samples are

given in Appendix 1 and the average, maximum, minimum and standard deviation is tabulated in Table 1. The Master composite and average over the 82 samples showed excellent agreement averaging about 0.45% Cu, 0.006% Mo and 0.21 g/t Au. The other direct composite assays were as expected, based on the individual assays. The approximate chalcopyrite to pyrite ratio across the samples was 1:0.7 based on Cu:S ratio. The sequential copper assays suggest that there is very little oxide or secondary copper mineralisation.

Table 1: Composite Head Assays

Composite	Head Assay								
	Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)	Fe (%)	S (%)	Cu seq H ₂ SO ₄ (%)	Cu seq. NaCN (%)	Cu seq. A/R (%)
Master	0.45	0.21	1.4	0.006	3.53	0.89	0.009	0.024	0.39
Master 2	0.40	0.21	1.5	0.004		0.83			
ZS-QZSE	0.29	0.09	1.8	0.007	2.66	0.77	0.007	0.012	0.27
SS	0.30	0.14	0.7	0.002	2.62	0.52	0.004	0.018	0.26
BFP-ARSE	0.54	0.25	2.3	0.005	4.67	1.07	0.010	0.013	0.52
BFP-KH	0.45	0.23	1.9	0.004	3.57	0.83	0.009	0.032	0.41
High Mo	0.54	0.21	2.8	0.016		1.15			
Comp 1	0.26	0.10		0.003		0.73			
Comp 2	0.41	0.15		0.008		0.77			
Comp 3	0.55	0.30		0.001		1.07			
Comp 4	0.70	0.34		0.003		0.94			
82 Individual Samples									
Average	0.44	0.19	1.63	0.006	3.53	0.86			
Max	1.05	0.56	6.2	0.096	7.74	2.48			
Min	0.17	0.05	0.5	0.001	1.32	0.24			
Stdev	0.18	0.12	1.04	0.013	1.15	0.38			

1.3. Mineralogy

A QEMSCANTM mineralogical study was conducted on the Master Composite and lithology composites BFP-ARSE, BFP-KH, ZS-QZSE and SS. The detailed mineralogy report is included in the Appendix. A brief summary of the findings are presented here.

The main value mineral present in all of the samples is chalcopyrite, which is most abundant in composite BFP-ARSE (2.1 wt% of the overall mineral mass) and least abundant in composite SS (1.0 wt%). Bornite is present in minor amounts in the Master, the BFP-KH, and the SS composites. Specific Mineral Search (SMS) analyses also detected trace amounts of covellite, chalcocite, enargite, stannite and tetrahedrite amongst the samples. Quartz and feldspar minerals are the most abundant gangue minerals present in all samples.

Figure 1 presents the chalcopyrite association for each of the five composites. In all samples, un-liberated Cu-sulphide primarily occurs in complex particles, i.e. those particles containing Cu-sulphide and two or more other mineral groups. The majority of these complexes were composed of non-sulphides (quartz-feldspar, mica-clays, and calcite) with lesser occurrences of pyrite.

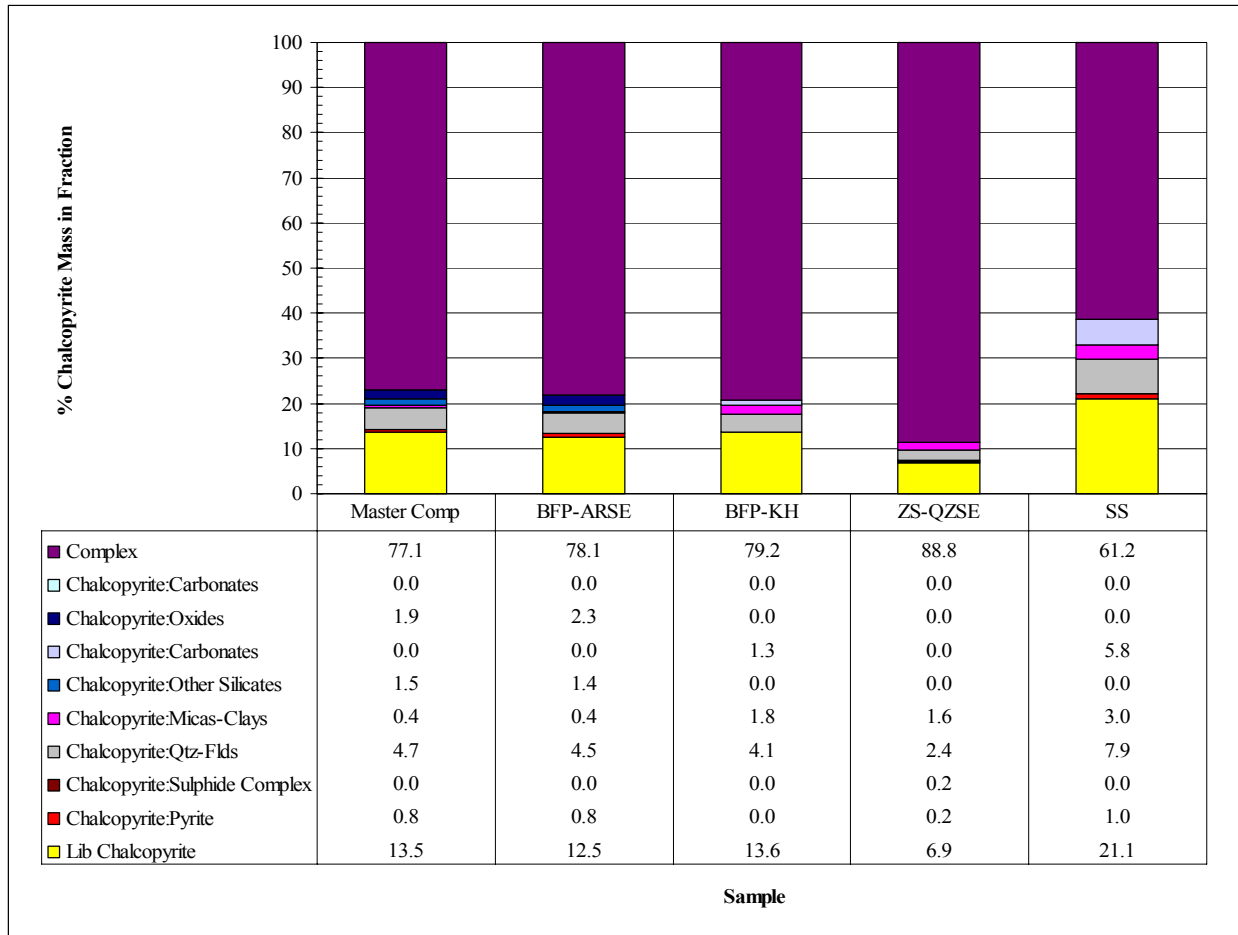


Figure 1: Summary of Chalcopyrite Association by Sample

The chalcopyrite mineral release curves for the Master and lithology composites are presented in Figure 2. Primary grind and regrind requirements can generally be extracted from these curves. Logically, the primary grind would be located at the bottom inflection point, where the particles start to show liberation (a good rule of thumb is to use the 10% liberation point) which occurs close to 120-130µm for most of the composites. Similarly, the regrind size is taken at the upper inflection point, where 70-80% of the chalcopyrite is liberated, approximately 30µm in this case.

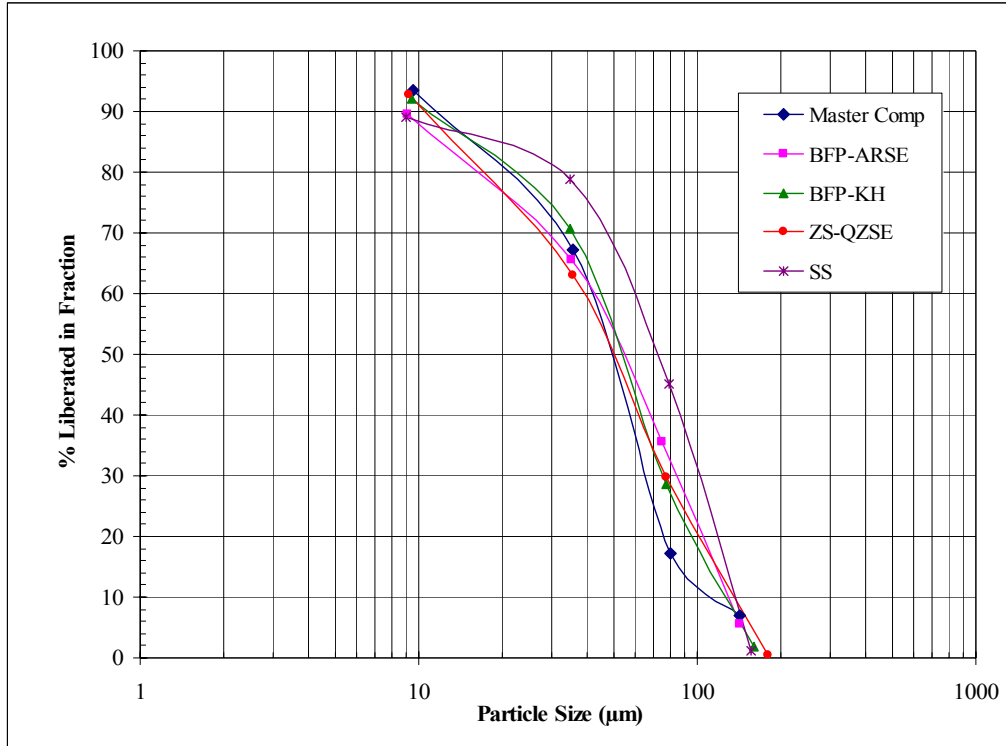


Figure 2: Mineral Release Curves for the Master and Lithology Composites

2. Comminution Testwork

Comminution testwork was undertaken on the 82 variability composites. Results of the comminution testwork are reported in 11474-001 Report #1, dated July 20, 2007. The Bond Ball Mill Work Indices (BWI), at a closing size of 100mesh (150µm), ranged from 10.8 kWh/t, which is considered soft, to 23.5 kWh/t, which is considered very hard, with an average BWI of 16.1 kWh/t, which is considered medium-hard ore when compared to the SGS database.

3. Master Composite Flotation Testwork

3.1. Batch Testing on Master Composites

Batch flotation testwork was initiated with 11 rougher kinetics tests that looked at the effect of primary grind, reagents and rougher pH on the Master Composite. Following the rougher stage of testwork, 26 cleaner tests were performed.

3.1.1. Effect of Grind

In the rougher circuit, three different primary grind sizes were investigated: 200 μ m, 140 μ m and 120 μ m. The results can be seen in Table 2 and Figure 3. A grind size between 140 μ m and 120 μ m yielded rougher recovery improvements of 6-8% for Cu over 200 μ m. Similar results were observed for Ag, with a lesser impact of grind size observed for Mo and Au.

Table 2: Summary of Primary Grind Size Tests

Test #	Product	Wt. (%)	Assays (% g/t)					Distribution (%)				
			Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F1 K80 ~140 μ m PEX/3418A/pH 7.7	Rougher 1-7	6.80	5.01	0.050	9.88	1.97	14.8	88.2	64.4	82.8	67.2	68.3
	Rougher Tail	93.2	0.05	0.002	0.15	0.07	0.50	11.8	35.6	17.2	32.8	31.7
	Head (calc)	100.0	0.39	0.005	0.81	0.20	1.47	100.0	100.0	100.0	100.0	100.0
F5 K80 = 119 μ m PEX/3418A	Rougher 1-7	5.76	5.71	0.065	12.5	2.14	16.8	90.2	66.5	84.5	68.5	67.3
	Rougher Tail	94.2	0.04	0.002	0.14	0.06	0.50	9.82	33.5	15.5	31.5	32.7
	Head (calc)	100.0	0.36	0.006	0.85	0.18	1.44	100.0	100.0	100.0	100.0	100.0
F6 K80 = 206 μ m PEX/3418A	Rougher 1-7	6.31	4.78	0.051	10.9	1.87	13.7	82.4	63.1	77.8	64.2	56.8
	Rougher Tail	93.7	0.07	0.002	0.21	0.07	0.70	17.6	36.9	22.2	35.8	43.2
	Head (calc)	100.0	0.37	0.005	0.89	0.18	1.52	100.0	100.0	100.0	100.0	100.0

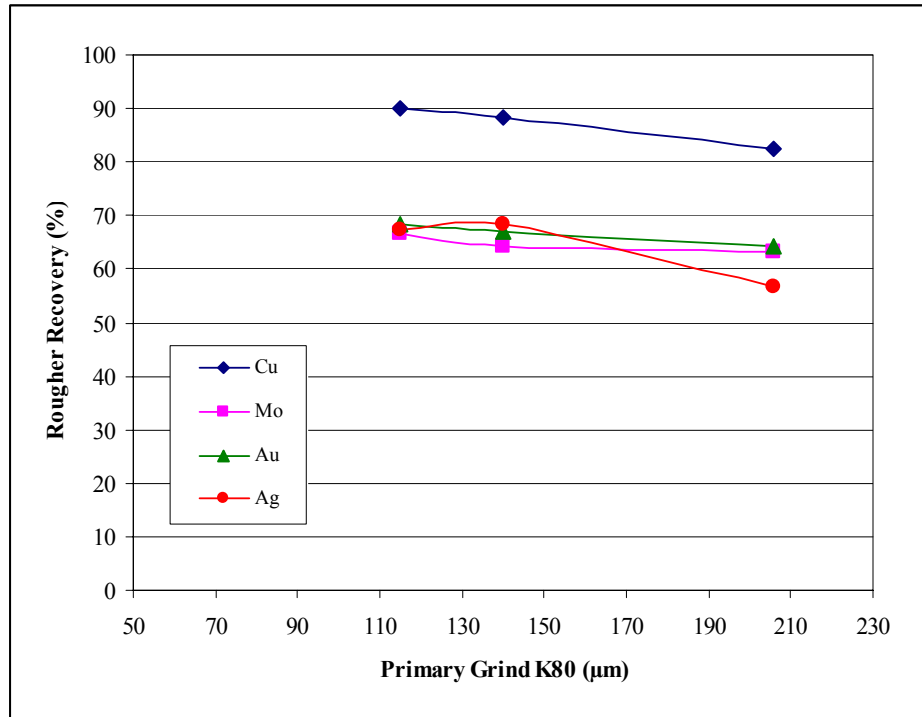


Figure 3: Effect of Primary Grind Size on Rougher Recovery

The effect of regrind was tested in Tests F11, F17, F18, F20 and F21. Table 4 shows the test conditions and results. Figures 4 and 5 show the effect of regrind size on Cu, Mo, Au and Ag grade and recovery (respectively).

The trends in Figure 4 for all of the cleaner stage minerals show a decreasing grade with increasing regrind size. In Figure 5, both Mo and Au recovery increase with increasing regrind size and the stage recovery of Cu and Ag both decrease with coarser grind size. The poor Mo recovery at finer regrind sizes could be due to insufficient collector in the cleaning stages.

Table 3: Summary of Regrind Size Tests

Test # / Conditions	Grind Size (µm)	Product	Weight (%)	Grade (% g/t)					Recovery (%)				
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F11 50g/t PEX 15g/t 3302 pH 11-11.5	Primary 140	Cu 2nd Cleaner Conc	1.16	26.5	0.450	29.8	8.39	67.7	77.5	74.8	42.2	46.7	41.8
		Rougher Conc	8.93	3.80	0.068	7.47	1.53	11.9	85.1	87.0	81.2	65.2	56.5
	Regrind ~22	Combined Tail	98.3	0.072	0.001	0.39	0.10	1.02	17.8	15.1	46.8	47.6	53.4
		Rougher Tail	91.1	0.065	0.001	0.17	0.08	0.90	14.9	13.0	18.8	34.8	43.5
	Head (calc.)	100.0	0.40	0.007	0.82	0.21	1.89	100.0	100.0	100.0	100.0	100.0	100.0
F17 55g/t PEX 15g/t 3302 pH 11-11.5	Primary 158	Cu 2nd Cleaner Conc	1.49	21.4	0.62	27.9	7.78	57.8	78.9	80.1	51.4	49.1	55.5
		Rougher Conc	11.7	2.97	0.091	5.69	1.34	9.48	86.3	92.4	82.6	66.4	71.6
	Regrind 29	Combined Tail	97.4	0.070	0.001	0.25	0.11	0.59	16.9	10.8	29.9	43.6	37.2
		Rougher Tail	88.3	0.063	0.001	0.16	0.09	0.50	13.7	7.64	17.4	33.6	28.4
	Head (calc.)	100.0	0.40	0.012	0.81	0.24	1.55	100.0	100.0	100.0	100.0	100.0	100.0
F18 55g/t PEX 15g/t 3302 pH 11-11.5	Primary 155	Cu 2nd Cleaner Conc	2.12	15.6	0.27	26.1	5.34	40.0	80.2	81.8	66.6	56.5	56.5
		Rougher Conc	13.5	2.68	0.045	5.12	1.10	7.91	87.8	87.6	83.3	74.0	71.1
	Regrind 35	Combined Tail	96.6	0.068	0.001	0.20	0.08	0.56	15.9	15.3	23.1	36.5	36.3
		Rougher Tail	86.5	0.058	0.001	0.16	0.06	0.50	12.2	12.4	16.7	26.0	28.9
	Head (calc.)	100.0	0.41	0.007	0.83	0.20	1.50	100.0	100.0	100.0	100.0	100.0	100.0
F20 55g/t PEX 15g/t 3302 pH 11-11.5	Primary 147	Cu 2nd Cleaner Conc	2.81	11.1	0.20	21.3	4.12	29.9	76.0	81.5	69.5	54.5	56.1
		Rougher Conc	10.1	3.46	0.059	6.82	1.39	10.4	85.5	87.0	80.2	66.2	70.0
	No Regrind 92	Combined Tail	96.2	0.077	0.001	0.21	0.09	0.57	18.2	14.9	23.7	39.1	36.3
		Rougher Tail	89.9	0.066	0.001	0.19	0.08	0.50	14.5	13.0	19.8	33.8	30.0
	Head (calc.)	100.0	0.41	0.007	0.86	0.21	1.50	100.0	100.0	100.0	100.0	100.0	100.0
F21 55g/t PEX 15g/t 3302 pH 11-11.5	Primary 147	Cu 2nd Cleaner Conc	1.44	22.0	0.35	31.7	6.66	60.6	79.4	80.2	52.9	49.1	56.8
		Combined Tails	97.8	0.067	0.001	0.32	0.09	0.57	16.4	15.5	35.6	44.1	36.4
	Regrind 31	Pyrite Tails	35.7	0.083	0.001	0.62	0.12	0.70	7.40	5.67	25.6	21.9	16.2
		Low 'S' Tail	62.1	0.058	0.001	0.14	0.07	0.50	9.00	9.86	10.1	22.2	20.2
	Head (calc.)	100.0	0.40	0.006	0.86	0.20	1.54	100.0	100.0	100.0	100.0	100.0	100.0

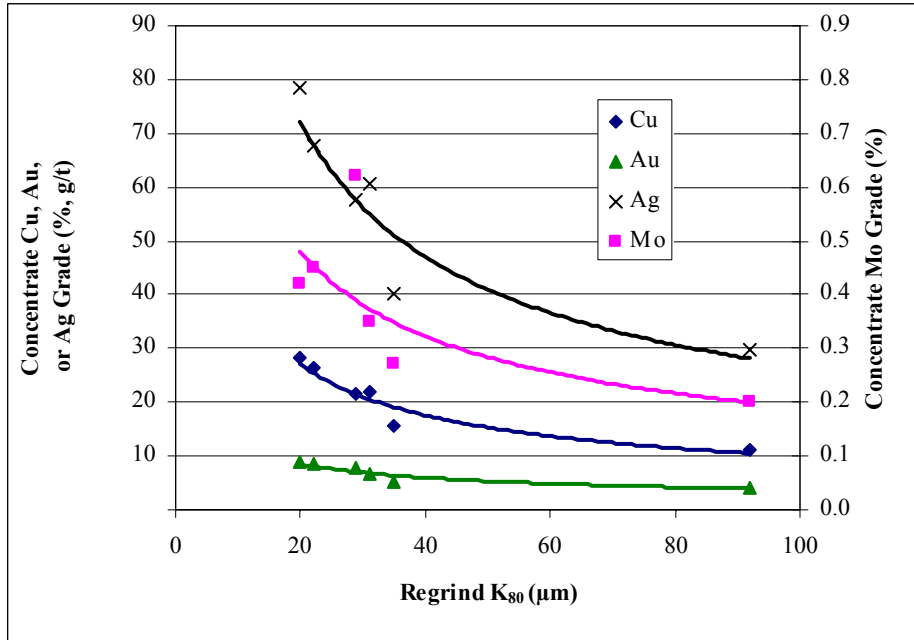


Figure 4: Effect of Regrind Size on Concentrate Cleaner Grade

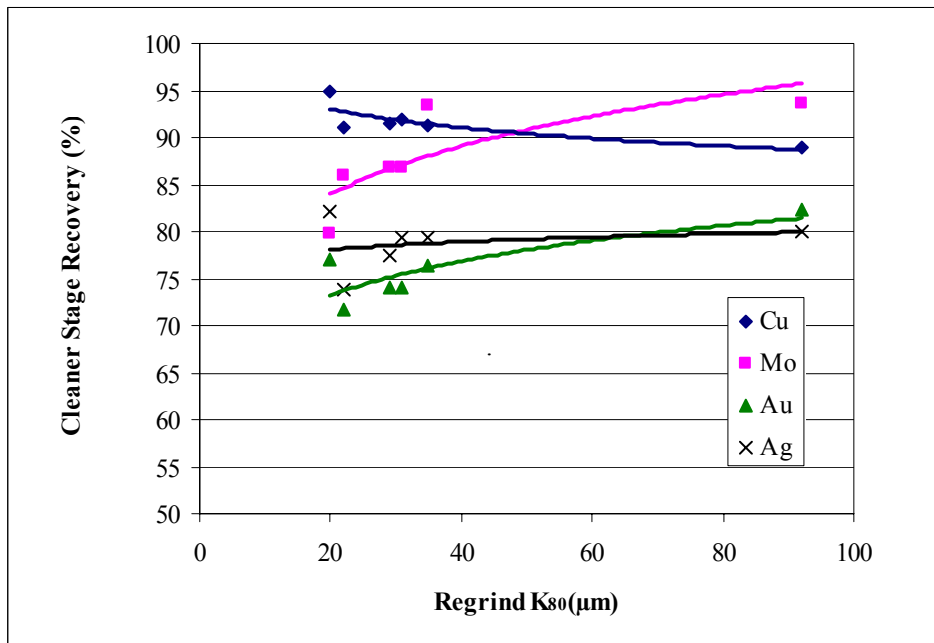


Figure 5: Effect of Regrind Size on Concentrate Cleaner Recovery

These results indicate that there is better Mo/Au recovery at a coarser regrind size whereas Cu/Ag requires increased liberation and therefore a finer grind size. A regrind size of between 20-40µm would be the optimal range to get a high recovery of all four minerals without significantly compromising the grade; these conclusions are reflected in the mineral liberation analysis of the mineralogical data.

3.1.2. Rougher pH

The effect of rougher pH was tested at three different pHs, 7.7 (natural), 9.0 and 10.0 in Tests F1, F7 and F8. The results are shown in Table 4 and in Figure 6.

Table 4: Summary of Rougher pH Tests

Test #	Product	Wt. (%)	Assays (% , g/t)					Distribution (%)				
			Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F1 K80 ~140 µm PEX/3418A/pH 7.7	Rougher 1-7	6.80	5.01	0.050	9.88	1.97	14.8	88.2	64.4	82.8	67.2	68.3
	Rougher Tail	93.2	0.05	0.002	0.15	0.07	0.50	11.8	35.6	17.2	32.8	31.7
	Head (calc)	100.0	0.39	0.005	0.81	0.20	1.47	100.0	100.0	100.0	100.0	100.0
F7 K80 ~ 140µm PEX/3418A/pH 9	Rougher 1-7	6.43	5.16	0.062	11.3	1.90	15.6	85.5	68.0	82.1	72.4	51.7
	Rougher Tail	93.6	0.06	0.002	0.17	0.05	1.00	14.5	32.0	17.9	27.6	48.3
	Head (calc)	100.0	0.39	0.006	0.89	0.17	1.94	100.0	100.0	100.0	100.0	100.0
F8 K80 ~ 140µm PEX/3418A/pH 10	Rougher 1-7	6.48	5.18	0.054	11.5	2.26	15.9	86.9	55.4	83.3	72.3	45.9
	Rougher Tail	93.5	0.05	0.003	0.16	0.06	1.30	13.1	44.6	16.7	27.7	54.1
	Head (calc)	100.0	0.39	0.006	0.89	0.20	2.25	100.0	100.0	100.0	100.0	100.0

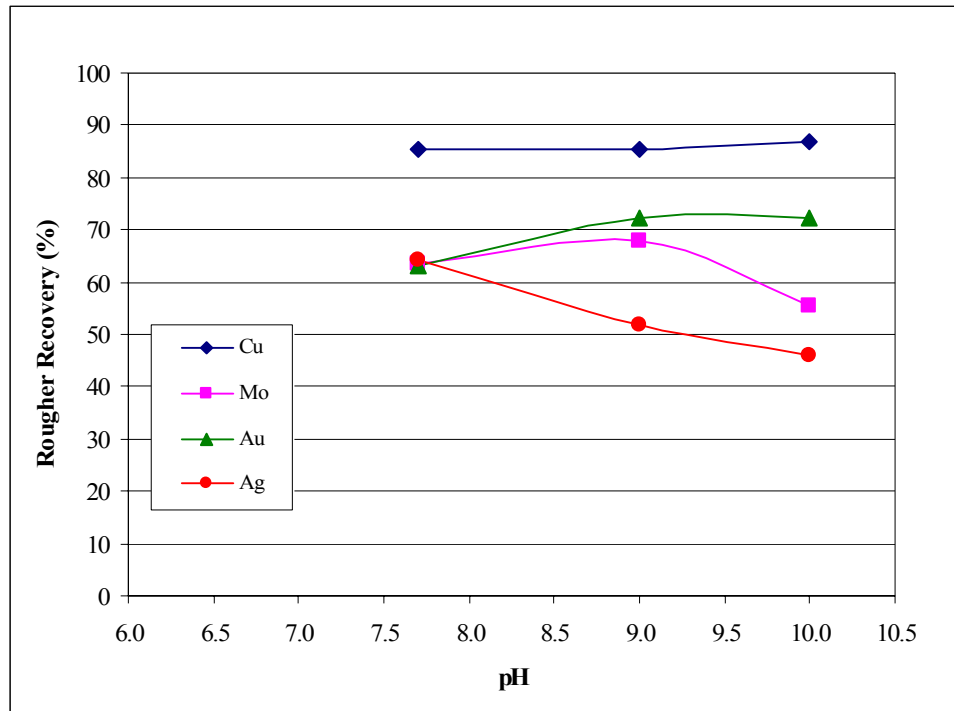


Figure 6: Effect of Rougher pH on Recovery

Contrary to expectation, Cu recovery was the least affected by rougher pH. The results show only slightly higher Cu recoveries at pH 10.0, while Au recovery increased by approximately 10%. The worst Mo and Ag recoveries were observed at pH 10.0. The best recoveries for Mo and Ag occurred at pH 9.0 and 7.7, respectively. A natural pH was adopted for the rougher stage of the flowsheet.

3.1.3. Effect of Alternate Collector Schemes

The effect of collectors in the rougher circuits was tested in Tests F1-F4, F9, F11 and F15-16. Potassium ethyl xanthate PEX was added in combination with a dithiophosphate (3418A), a thionocarbamate (3894), a xanthate ester (3302), or fuel oil. Table 5 and Figures 7-10 show the effect of the different collector combinations tested.

Table 5: Summary of Collector Optimization Tests

Test #	Product	Wt. (%)	Assays (% , g/t)					Distribution (%)				
			Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F1 K80 ~140 µm PEX/3418A/pH 7.7	Rougher 1-7	6.80	5.01	0.050	9.88	1.97	14.8	88.2	64.4	82.8	67.2	68.3
	Rougher Tail	93.2	0.05	0.002	0.15	0.07	0.50	11.8	35.6	17.2	32.8	31.7
	Head (calc)	100.0	0.39	0.005	0.81	0.20	1.47	100.0	100.0	100.0	100.0	100.0
F2 K80 ~140 µm PEX/3894	Rougher 1-7	6.85	4.99	0.055	9.67	1.96	15.0	88.9	66.9	85.6	67.4	68.8
	Rougher Tail	93.1	0.05	0.002	0.12	0.07	0.50	11.1	33.1	14.4	32.6	31.2
	Head (calc)	100.0	0.38	0.006	0.77	0.20	1.49	100.0	100.0	100.0	100.0	100.0
F3 K80 ~140 µm PEX/3302	Rougher 1-7	6.32	5.31	0.076	10.7	2.20	16.8	87.8	83.6	85.8	71.2	69.4
	Rougher Tail	93.7	0.05	0.001	0.12	0.06	0.50	12.2	16.4	14.2	28.8	30.6
	Head (calc)	100.0	0.38	0.006	0.79	0.20	1.53	100.0	100.0	100.0	100.0	100.0
F4 K80 = 141µm PEX/Fuel oil	Rougher 1-7	6.30	5.03	0.068	11.4	2.02	15.4	88.2	82.0	83.6	69.4	63.3
	Rougher Tail	93.7	0.05	0.001	0.15	0.06	0.60	11.8	18.0	16.4	30.6	36.7
	Head (calc)	100.0	0.36	0.005	0.86	0.18	1.53	100.0	100.0	100.0	100.0	100.0
F9 K80 ~140 µm PEX/incr. 3302	Rougher 1-7	7.90	4.57	0.068	9.35	1.95	14.1	90.3	85.3	87.0	77.0	70.8
	Rougher Tail	92.1	0.04	0.001	0.12	0.05	0.50	9.67	14.7	13.0	23.0	29.2
	Head (calc)	100.0	0.40	0.006	0.85	0.20	1.57	100.0	100.0	100.0	100.0	100.0
F11 K80 140 µm/22µm PEX/3302	Rougher Conc	8.93	3.80	0.068	7.47	1.53	11.9	85.1	87.0	81.2	65.2	56.5
	Combined Tail	98.3	0.072	0.001	0.39	0.10	1.0	17.8	15.1	46.8	47.6	53.4
	Rougher Tail	91.1	0.065	0.001	0.17	0.08	0.9	14.9	13.0	18.8	34.8	43.5
	Head (calc.)	100.0	0.40	0.007	0.82	0.21	1.9	100.0	100.0	100.0	100.0	100.0

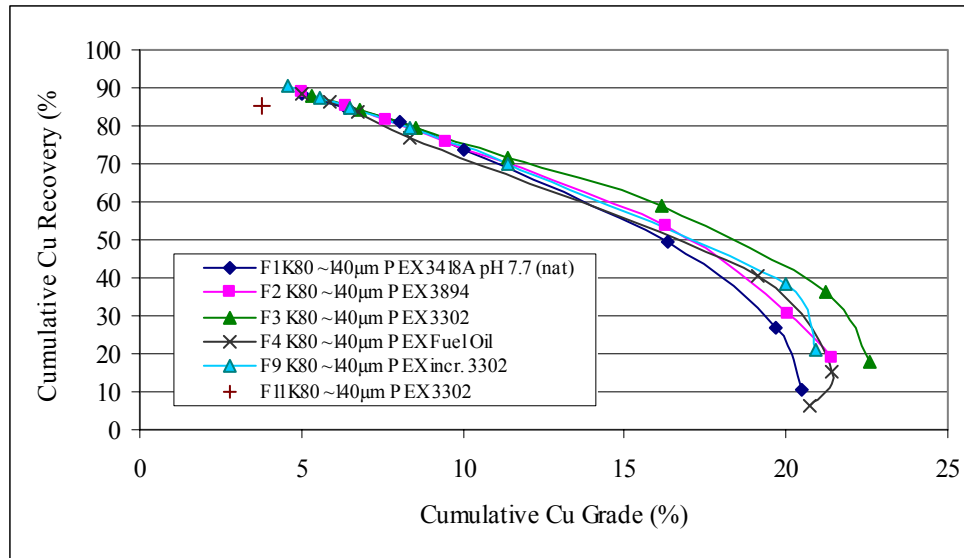


Figure 7: Effect of Collector Combination on Cu Metallurgy

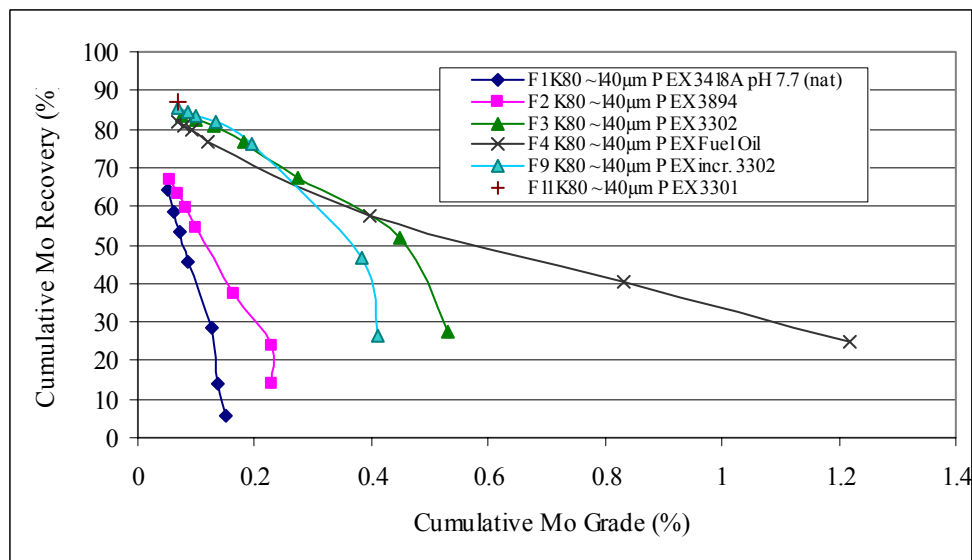


Figure 8: Effect of Collector Combination on Mo Metallurgy

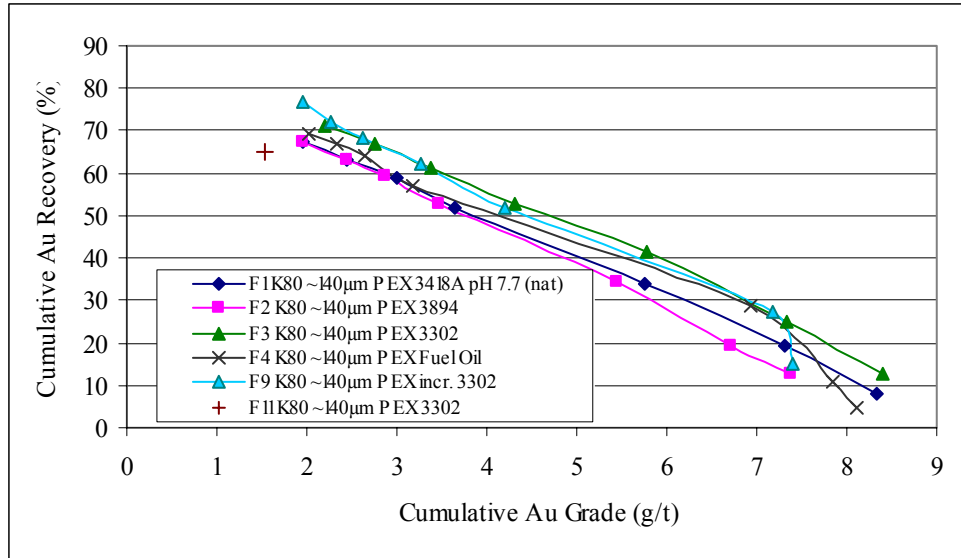


Figure 9: Effect of Collector Combination on Au Metallurgy

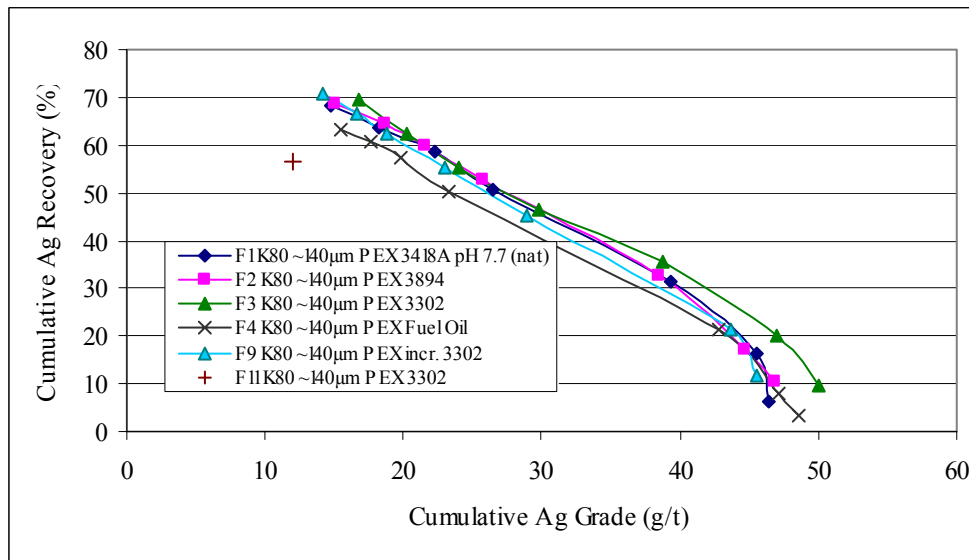


Figure 10: Effect of Collector Combination on Ag Metallurgy

A combination of PEX and Cytec's 3302, a xanthate ester, proved to produce the best grades at higher recoveries for all of the minerals consistently and was consequently used in the cleaner tests. The use of PEX and fuel oil gave equivalent results for Cu and Mo, but resulted in slightly lower Au and Ag recoveries.

The effects of PEX, PAX and SIPX were investigated in Tests F11, F15 and F16. The results are presented in Table 6 and Figures 11. The use of PEX resulted in a higher Cu grade and recovery.

Low Cu concentrate grades (20 – 21% Cu) were achieved with SIPX and PAX due to increased pyrite recovery to the rougher concentrate and poor pyrite rejection in the cleaning circuit.

Table 6: Summary of Cleaner Collector Addition Test Variables

Test # / Conditions	Grind Size (µm)	Product	Weight (%)	Grade (% , g/t)					Recovery (%)				
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F14 50g/t PEX 15g/t 3302 pH 10-10.5	Primary 162	Cu 2nd Cl Conc	1.62	20.0	0.30	30.5	6.17	58.5	76.3	79.5	61.0	53.1	58.7
		Rougher Conc	12.3	2.86	0.043	5.52	1.10	9.6	82.7	85.7	83.8	72.1	72.9
	Regrind 22	Combined Tail	97.1	0.090	0.001	0.19	0.07	0.6	20.6	15.9	23.1	37.9	34.7
		Rougher Tail	87.7	0.084	0.001	0.15	0.06	0.5	17.3	14.3	16.2	27.9	27.1
	Head (calc.)	100.0	0.43	0.006	0.81	0.19	1.6	100.0	100.0	100.0	100.0	100.0	
F15 50g/t SIPX 15g/t 3302 pH 10-10.5	Primary 170	Cu 2nd Cl Conc	1.58	20.3	0.30	31.9	7.22	52.6	77.2	77.4	61.1	58.6	57.8
		Rougher Conc	11.8	2.98	0.045	5.96	1.35	8.5	84.3	85.6	85.0	81.9	69.4
	Regrind 23	Combined Tail	97.1	0.080	0.001	0.17	0.06	0.5	18.7	15.8	20.2	32.2	33.7
		Rougher Tail	88.2	0.074	0.001	0.14	0.04	0.5	15.7	14.4	15.0	18.1	30.6
	Head (calc.)	100.0	0.42	0.006	0.83	0.19	1.4	100.0	100.0	100.0	100.0	100.0	
F16 50g/t PAX 15g/t 3302 pH 10-10.5	Primary 155	Cu 2nd Cl Conc	1.45	21.4	0.37	28.3	6.38	52.9	77.1	77.0	50.8	49.6	52.5
		Rougher Conc	12.9	2.76	0.047	5.44	1.04	7.9	88.5	87.5	87.0	71.9	70.1
	Regrind 26	Combined Tail	96.3	0.060	0.001	0.17	0.07	0.5	14.5	15.2	20.0	37.4	34.3
		Rougher Tail	87.1	0.053	0.001	0.12	0.06	0.5	11.5	12.5	13.0	28.1	29.9
	Head (calc.)	100.0	0.40	0.007	0.81	0.19	1.5	100.0	100.0	100.0	100.0	100.0	

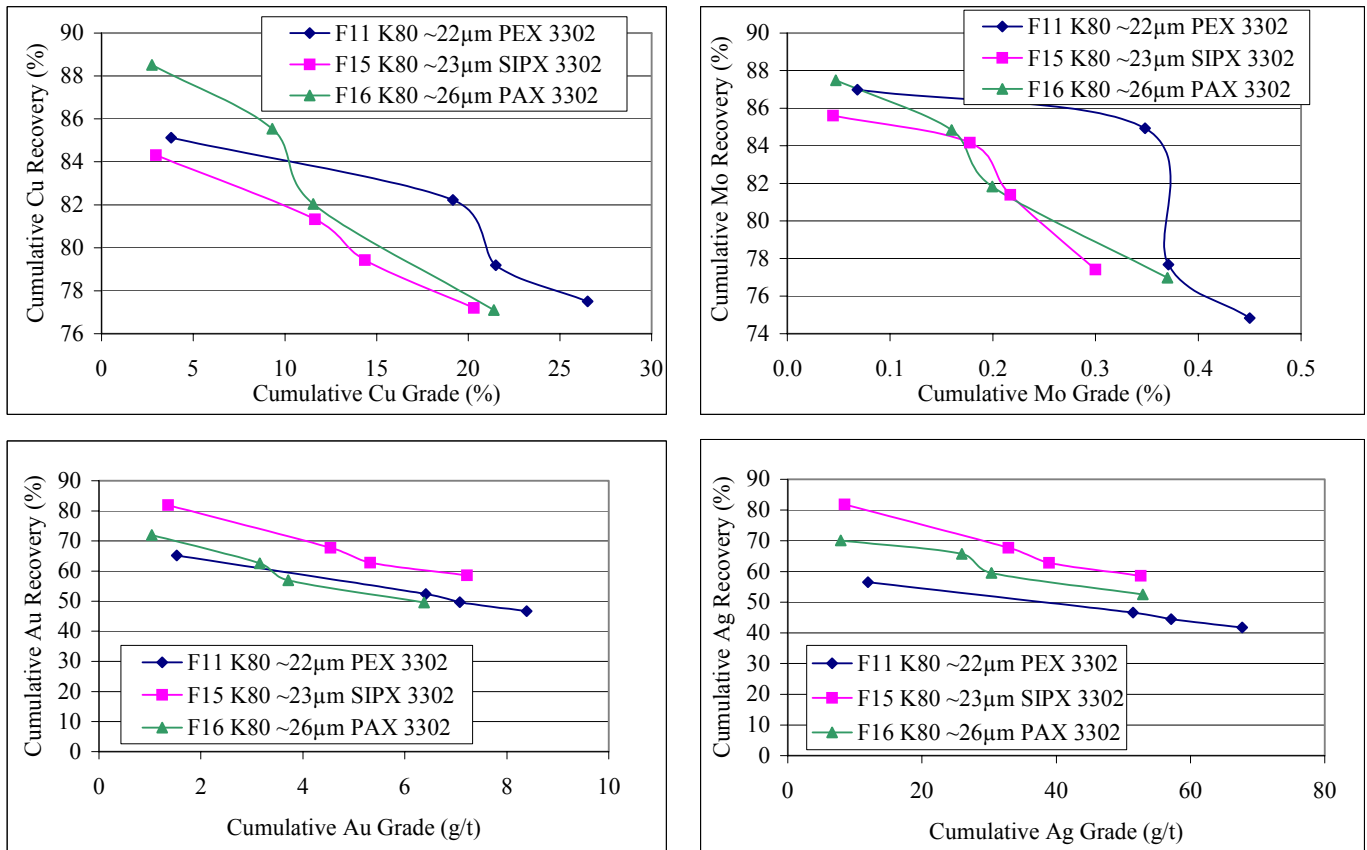


Figure 11: Effect of Xanthate Chain Length on Metallurgy

3.1.4. Flowsheet Options

During the course of the testwork some other flowsheet options were tested. These included flash flotation, Test F19 (Table 7), and production of a low-sulphur and a high sulphur tailings stream, Test F21 (Table 8).

Table 7: Flash Flotation Summary

Test # / Conditions	Grind Size (µm)	Product	Weight (%)	Grade (% g/t)					Recovery (%)				
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F19 55g/t PEX 17.5g/t 3302 pH 11-11.5 Flash	Flash	Flash Cl Conc	0.53	16.5	0.440	34.1	6.54	35.6	21.3	33.3	20.6	17.5	12.6
	685	Flash Cl + 2nd Cl Conc	1.73	18.2	0.315	31.7	6.40	43.9	77.0	78.1	62.6	56.0	51.0
	Primary	Flash Cl + 1st Cl Conc	2.25	14.3	0.253	26.2	5.20	36.2	78.6	81.5	67.5	59.3	54.9
	147	Flash Cl + 1st Cl + Scav Conc	2.69	12.2	0.217	23.7	4.59	32.3	80.1	83.6	72.9	62.6	58.5
	Regrind	Flash Cl + Ro Conc	11.2	3.03	0.054	6.34	1.28	9.25	83.3	87.2	81.7	73.0	70.1
	22	Rougher Tail	88.8	0.08	0.001	0.18	0.06	0.50	16.7	12.8	18.3	27.0	29.9
		Head (calc.)	100.0	0.41	0.007	0.87	0.20	1.48	100.0	100.0	100.0	100.0	100.0

Test F19 resulted in low combined flash cleaner and 2nd cleaner concentrate grades, indicating that flash flotation is not a potential option for the upstream recovery of Cu, Au, and Mo. The low flash cleaner concentrate grades are likely due to poor liberation at the 685µm flash flotation grind size.

Table 8: Desliming Flotation Summary

Test # / Conditions	Grind Size (µm)	Product	Weight (%)	Grade (% g/t)					Recovery (%)				
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
F17 55g/t PEX 15g/t 3302 pH 11-11.5	Primary 158 Regrind 29	Cu 2nd Cleaner Conc	1.49	21.4	0.62	27.9	7.78	57.8	78.9	80.1	51.4	49.1	55.5
		Cu 1st Cleaner Conc	2.16	15.2	0.46	23.4	5.84	43.0	81.4	86.5	62.5	53.4	59.9
		Cu 1st Cl Conc + Scav Conc	2.64	12.7	0.39	21.5	5.04	37.0	83.1	89.2	70.1	56.4	62.8
		Rougher Conc	11.7	2.97	0.091	5.69	1.34	9.5	86.3	92.4	82.6	66.4	71.6
		Combined Tail	97.4	0.070	0.001	0.25	0.11	0.6	16.9	10.8	29.9	43.6	37.2
		Rougher Tail	88.3	0.063	0.001	0.16	0.09	0.5	13.7	7.6	17.4	33.6	28.4
		Head (calc.)	100.0	0.40	0.012	0.81	0.24	1.6	100.0	100.0	100.0	100.0	100.0
F21 55g/t PEX 15g/t 3302 pH 11-11.5	Primary 147 Regrind 31	Cu 2nd Cleaner Conc	1.44	22.0	0.350	31.7	6.66	60.6	79.4	80.2	52.9	49.1	56.8
		Cu 1st Cleaner Conc	1.91	17.2	0.274	26.7	5.44	49.1	82.0	83.0	59.0	53.1	60.9
		Cu 1st Cleaner Conc + Scav Conc	2.22	15.1	0.240	25.1	4.93	44.2	83.6	84.5	64.4	55.9	63.6
		Combined Tails	97.8	0.07	0.001	0.32	0.09	0.6	16.4	15.5	35.6	44.1	36.4
		Pyrite Tails	35.7	0.08	0.001	0.62	0.12	0.7	7.40	5.67	25.6	21.9	16.2
		Low 'S' Tail	62.1	0.06	0.001	0.14	0.07	0.5	9.00	9.86	10.1	22.2	20.2
		Head (calc.)	100.0	0.40	0.006	0.86	0.20	1.5	100.0	100.0	100.0	100.0	100.0

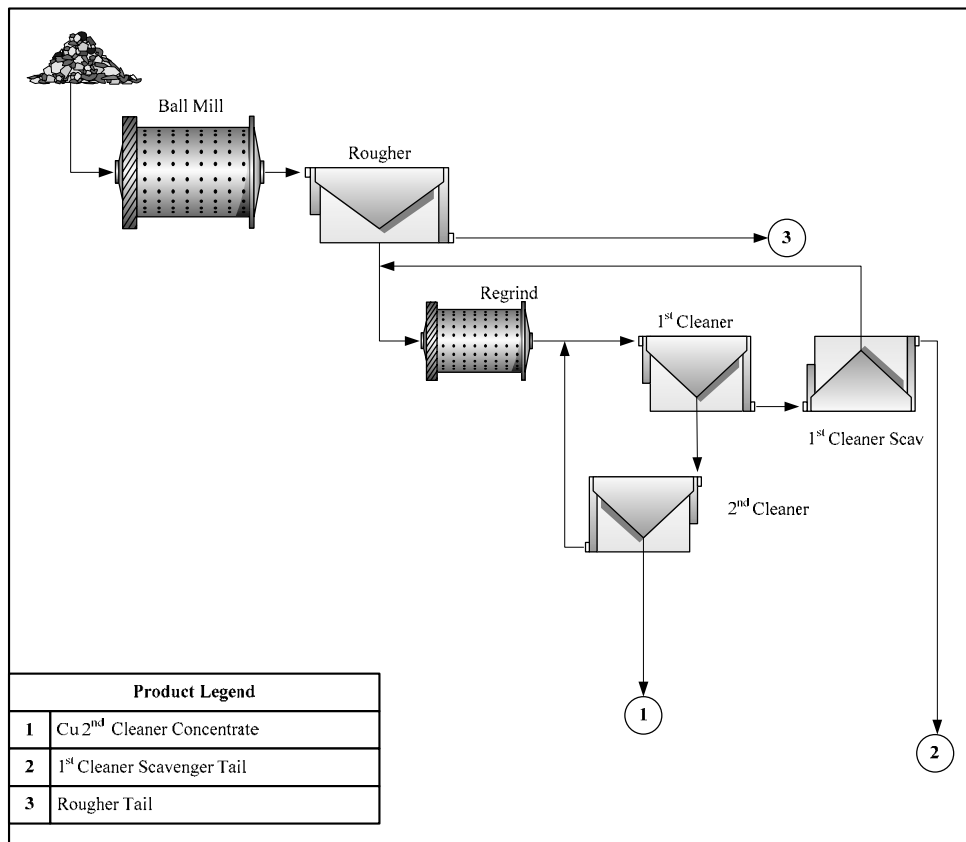
Test F21 involved the hydrocyclone separation of the coarse tailings sands from the combined 1st cleaner scavenger tail and the rougher tail. Any pyrite reporting to the coarse fraction was recovered through flotation and combined with the cyclone slimes. The modified ABA results for tests F17 and F21 are compared in Table 9. Generally, a NP/AP value above 4 indicates that the sample is not acid generating. The removal of pyrite from the tailings increased the NP/AP ratio from 6.7 for the combined tailings to 38.1 for the low 'S' tails (cyclone sands). Although both tailings were neutral, in this case, the proposed tailings processing scheme would ensure that the low 'S' tailings generated are never acid generating regardless of the flotation feed pyrite content.

Table 9. Comparison of Tailings Treatment Options

Sample ID		Test F17 Comb Tailings	Test F21 Low 'S' Tails - Cyclone Sands
NP	t CaCO ₃ /1000t	50.0	47.7
AP	t CaCO ₃ /1000t	7.5	1.25
Net NP	t CaCO ₃ /1000t	42.5	46.4
NP/AP	ratio	6.7	38.1
S	%	0.26	0.13
S ²⁻	%	0.24	0.04
SO ₄	%	< 0.4	< 0.4
C	%	0.907	0.832
CO ₃	%	1.54	2.25

3.2. Locked Cycle Testing on Master Composites

A series of six-cycle locked cycle tests were performed on the Master Composite. Figure 12 gives the flowsheet followed for the tests.

**Figure 12: Locked Cycle Test Flowsheet**

The locked cycle tests (LCT) used conditions optimized in the earlier batch testwork. Primary and regrind K₈₀'s of 130µm and 25µm were used for most of the tests, although some alternative grind targets were tested. Collectors PEX and 3302 were used at a natural pH (~7.7) in the roughing stage while a pH of 11.5-11.8 was used in the cleaning stages. Recycled water was used in the primary grinds for all the tests. Tests LCT 1 and LCT 10 were performed on the Master composite while LCTs 6-9 were performed on Master composite 2. Test LCT 7 was a repeat of LCT 6 at a finer grind and LCT 8 was a repeat of the LCT 6 conditions. Tests LCT 9 and LCT 10 were conducted at a coarser grind. Table 10 shows the metallurgical projections for each of the Master locked cycle tests performed.

Table 10: Master Composite LCT Metallurgical Projections C-F

	Test #	Product	Weight %	Assays, %, g/t					% Distribution				
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Master Comp	LCT-1	2nd Cleaner Conc	1.40	25.7	0.390	28.5	8.80	72.2	83.5	80.3	45.2	58.0	60.8
	Ro Tl ~131µm	1st Cleaner Scavenger Tail	8.43	0.11	0.005	4.08	0.31	1.56	2.11	6.42	39.1	12.2	7.93
	Cu Conc ~25µm	Rougher Tail	90.2	0.07	0.001	0.15	0.07	0.58	14.4	13.3	15.6	29.8	31.3
	PEX/3302	Combined Tail	98.6	0.07	0.001	0.49	0.09	0.66	16.5	19.7	54.8	42.0	39.2
		Head (calc)	100.0	0.43	0.007	0.88	0.21	1.66	100.0	100.0	100.0	100.0	100.0
Master Comp 2	LCT-6	2nd Cleaner Conc	1.13	27.5	0.360	29.2	8.05	56.8	84.1	76.9	42.6	52.2	49.1
	Ro Tl ~130µm	1st Cleaner Scavenger Tail	5.91	0.22	0.005	5.46	0.47	3.40	3.47	5.55	41.7	15.9	15.4
	Cu Conc ~25µm	Rougher Tail	93.0	0.05	0.001	0.13	0.06	0.50	12.4	17.6	15.6	32.0	35.5
	PEX/3302	Combined Tail	98.9	0.06	0.001	0.45	0.08	0.67	15.9	23.1	57.4	47.8	50.9
		Head (calc)	100.0	0.37	0.005	0.77	0.17	1.31	100.0	100.0	100.0	100.0	100.0
Master Comp 2	LCT-7	2nd Cleaner Conc	1.36	24.3	0.306	30.7	7.76	57.8	85.2	78.7	52.9	53.6	56.6
	Ro Tl ~68µm	1st Cleaner Scavenger Tail	7.21	0.19	0.003	3.71	0.46	1.99	3.53	4.09	34.0	16.9	10.4
	Cu Conc ~29µm	Rougher Tail	91.4	0.05	0.001	0.11	0.06	0.50	11.2	17.3	13.1	29.5	33.0
	PEX/3302	Combined Tail	98.6	0.06	0.001	0.38	0.09	0.61	14.8	21.3	47.1	46.4	43.4
		Head (calc)	100.0	0.39	0.005	0.79	0.20	1.39	100.0	100.0	100.0	100.0	100.0
Master Comp 2	LCT-8	2nd Cleaner Conc	1.03	29.1	0.357	30.7	8.59	67.1	79.2	72.8	39.1	50.3	51.2
	Ro Tl ~133µm	1st Cleaner Scavenger Tail	5.43	0.29	0.008	6.53	0.53	3.55	4.18	8.82	43.7	16.5	14.2
	Cu Conc ~24µm	Rougher Tail	93.5	0.07	0.001	0.15	0.06	0.50	16.6	18.4	17.3	33.2	34.5
	PEX/3302	Combined Tail	99.0	0.08	0.001	0.50	0.09	0.67	20.8	27.2	60.9	49.7	48.8
		Head (calc)	100.0	0.38	0.005	0.81	0.18	1.35	100.0	100.0	100.0	100.0	100.0
Master Comp 2	LCT-9	2nd Cleaner Conc	1.02	29.2	0.362	30.6	8.95	76.0	78.8	74.6	39.3	46.1	54.9
	Ro Tl ~144µm	1st Cleaner Scavenger Tail	4.61	0.28	0.007	7.29	0.62	3.65	3.36	6.48	42.2	14.4	11.9
	Cu Conc ~25µm	Rougher Tail	94.4	0.07	0.001	0.16	0.08	0.50	17.8	19.0	18.5	39.5	33.2
	PEX/3302	Combined Tail	99.0	0.08	0.001	0.49	0.11	0.64	21.2	25.4	60.7	53.9	45.1
		Head (calc)	100.0	0.38	0.005	0.80	0.20	1.42	100.0	100.0	100.0	100.0	100.0
Master Comp	LCT-10	2nd Cleaner Conc	1.36	25.9	0.376	28.2	8.52	65.4	80.8	79.5	44.0	55.9	57.6
	Ro Tl ~149µm	1st Cleaner Scavenger Tail	8.20	0.19	0.005	4.23	0.42	2.46	3.58	6.37	39.8	16.5	13.1
	Cu Conc ~25µm	Rougher Tail	90.4	0.07	0.001	0.16	0.06	0.50	15.6	14.1	16.2	27.6	29.3
	PEX/3302	Combined Tail	98.6	0.08	0.001	0.50	0.09	0.66	19.2	20.5	56.0	44.1	42.4
		Head (calc)	100.0	0.44	0.006	0.87	0.21	1.54	100.0	100.0	100.0	100.0	100.0

The locked cycle tests performed on the Master Composites at a 130µm target yielded average metallurgical projections (based on LCTs 1 and 6) of 83.8% Cu recovery at a grade of 26.5%, 78.6% Mo recovery at a grade of 0.38%, 55.1 % Au recovery at a grade of 8.46 g/t and 54.9% Ag recovery at a grade of 65.3 g/t.

3.3. Copper-Molybdenum Separation

The Cu-Mo separation tests were run on the High Mo composite (Test F25) and lithology composite 2, BFP-KH, (Test F26). Table 11 provides a summary of the two tests.

Table 11: Summary of the Cu-Mo Separation Tests

Test # / Composite	Product	Overall Weight %	Assays (% , g/t)		Overall Distribution (%)		Stage Distribution (%)	
			Cu	Mo	Cu	Mo	Cu	Mo
F25 High-Mo	Mo 2nd Cl Conc	0.013	0.83	53.6	0.020	51.6	0.02	69.3
	Combined Cu Conc	1.76	25.2	0.11	82.3	14.0	99.7	18.7
	Cu/Mo Conc	1.78	24.9	0.56	82.6	74.5	100.0	100.0
F26 BFP-KH	Mo 2nd Cl Conc	0.001	1.50	46.3	0.001	23.6	0.01	42.3
	Combined Cu Conc	2.17	18.5	0.07	86.8	31.8	99.7	56.9
	Cu/Mo Conc	2.18	18.5	0.13	87.1	55.9	100.0	100.0

The High Mo composite, as expected, produced the best results for Mo recovery and grade and Cu rejection to a Cu concentrate. The poor Cu concentrate grade observed in test F26 was a direct result of the poor grade obtained in the Cu/Mo cleaner concentrate. The quality of the final Cu concentrate from Cu/Mo separation is dependant on the grade of the concentrate feeding that circuit and care will have to be taken to obtain a Cu grade in the Cu/Mo cleaner concentrate that is close to the grade desired for final concentrate.

These results demonstrate that Mo concentrates in excess of 50% Mo can be achieved with reasonably high stage recovery.

4. Lithology Composite Testing

Tests LC-F1 to LC-F8 were conducted on the four lithology composites. Tests LC-F1 to LC-F4 tested the Cu cleaner at a pH of 10-10.5, Tests LC-F5 to LC-F8 were a repeat of the first tests with the Cu cleaner at a higher pH of 11-11.5. A summary of the results can be seen in Table 12.

Table 12: Summary of the Lithology Composite Testwork

	Test #	Product	Wt. (%)	Assays (% , g/t)					Distribution (%)					
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
BFP-ARSE	LC-F1	Cu 2nd Cleaner Conc	2.07	20.6	0.160	35.4	6.8	67.0	84.5	74.9	65.9	55.8	66.6	
	K80 ~119µm	Cu 1st Cleaner Conc	2.72	15.9	0.125	29.5	5.48	53.6	85.9	77.3	72.2	59.2	70.1	
	K80 ~23µm	Cu 1st Cleaner Conc + Scav Conc	3.06	14.3	0.112	27.7	5.08	49.4	87.2	78.0	76.5	61.8	72.8	
	PEX	Rougher Conc	12.0	3.77	0.029	7.64	1.47	13.7	89.9	80.1	82.6	69.9	78.9	
	3302	Rougher Tail	88.0	0.06	0.001	0.22	0.09	0.50	10.1	19.9	17.4	30.1	21.1	
		Head (calc)	100.0	0.50	0.004	1.11	0.25	2.08	100.0	100.0	100.0	100.0	100.0	
	LC-F5	Cu 2nd Cleaner Conc	1.93	23.5	0.170	31.1	7.38	74.1	84.6	72.9	55.5	51.4	65.0	
	K80 ~104µm	Cu 1st Cleaner Conc	2.85	16.2	0.121	23.5	5.33	53.3	86.1	76.8	61.9	54.8	69.0	
	K80 ~23µm	Cu 1st Cleaner Conc + Scav Conc	3.58	13.2	0.099	20.8	4.58	44.8	87.9	78.6	68.9	59.2	72.9	
	PEX	Rougher Conc	16.3	2.99	0.022	5.65	1.18	10.9	91.3	81.4	85.3	69.8	81.0	
	3302	Rougher Tail	83.7	0.06	0.001	0.19	0.10	0.50	8.74	18.6	14.7	30.2	19.0	
		Head (calc)	100.0	0.54	0.005	1.08	0.28	2.20	100.0	100.0	100.0	100.0	100.0	
	BFP-KH	LC-F2	Cu 2nd Cleaner Conc	1.76	20.7	0.240	33.4	8.37	51.7	89.4	79.7	78.6	60.6	54.1
		K80 ~100µm	Cu 1st Cleaner Conc	2.26	16.3	0.190	27.9	6.82	42.3	90.7	81.1	84.7	63.6	57.1
K80 ~20µm		Cu 1st Cleaner Conc + Scav Conc	2.56	14.5	0.169	25.7	6.20	38.6	91.4	81.6	88.1	65.4	58.8	
PEX		Rougher Conc	10.67	3.53	0.041	6.41	1.66	10.7	92.7	83.1	91.6	73.1	68.0	
3302		Rougher Tail	89.3	0.03	0.001	0.07	0.07	0.60	7.26	16.9	8.38	26.9	32.0	
		Head (calc)	100.0	0.41	0.005	0.75	0.24	1.68	100.0	100.0	100.0	100.0	100.0	
LC-F6		Cu 2nd Cleaner Conc	1.40	27.4	0.320	30.2	9.72	66.2	88.3	78.8	53.6	54.8	57.9	
K80 ~96µm		Cu 1st Cleaner Conc	1.91	20.4	0.243	24.3	7.56	51.1	89.8	81.7	58.9	58.2	61.0	
K80 ~21µm		Cu 1st Cleaner Conc + Scav Conc	2.28	17.3	0.206	22.1	6.69	44.6	91.2	82.8	64.0	61.5	63.7	
PEX		Rougher Conc	12.4	3.25	0.039	5.76	1.43	9.31	93.3	84.6	91.1	71.7	72.6	
3302		Rougher Tail	87.6	0.03	0.001	0.08	0.08	0.50	6.66	15.4	8.90	28.3	27.4	
		Head (calc)	100.0	0.43	0.006	0.79	0.25	1.60	100.0	100.0	100.0	100.0	100.0	
SS		LC-F3	Cu 2nd Cleaner Conc	1.05	21.9	0.130	34.0	7.56	39.7	88.6	57.4	75.0	60.7	41.2
		K80 ~100µm	Cu 1st Cleaner Conc	1.34	17.4	0.104	27.9	6.18	32.6	89.4	58.2	78.2	63.0	42.8
	K80 ~20µm	Cu 1st Cleaner Conc + Scav Conc	1.50	15.7	0.093	25.7	5.72	29.9	90.2	58.7	80.6	65.4	44.1	
	PEX	Rougher Conc	7.70	3.10	0.019	5.48	1.23	7.18	91.8	61.3	88.4	72.5	54.5	
	3302	Rougher Tail	92.3	0.02	0.001	0.06	0.04	0.50	8.16	38.7	11.6	27.5	45.5	
		Head (calc)	100.0	0.26	0.002	0.48	0.13	1.01	100.0	100.0	100.0	100.0	100.0	
	LC-F7	Cu 2nd Cleaner Conc	0.87	28.9	0.150	31.9	8.94	54.0	89.3	55.1	47.2	52.2	45.8	
	K80 ~97µm	Cu 1st Cleaner Conc	1.18	21.6	0.115	25.3	6.97	41.6	90.4	57.4	50.9	55.3	47.9	
	K80 ~15µm	Cu 1st Cleaner Conc + Scav Conc	1.32	19.4	0.105	23.7	6.59	38.1	91.1	58.4	53.3	58.6	49.1	
	PEX	Rougher Conc	8.62	3.04	0.017	6.09	1.20	6.61	92.9	61.5	89.1	69.3	55.5	
	3302	Rougher Tail	91.4	0.02	0.001	0.07	0.05	0.50	7.13	38.5	10.9	30.7	44.5	
		Head (calc)	100.0	0.28	0.002	0.59	0.15	1.03	100.0	100.0	100.0	100.0	100.0	
	ZS-QZSE	LC-F4	Cu 2nd Cleaner Conc	1.19	15.8	0.420	33.8	3.52	51.4	73.3	80.6	58.6	40.8	48.3
		K80 ~100µm	Cu 1st Cleaner Conc	1.68	11.5	0.303	26.7	2.71	39.0	75.5	82.3	65.5	44.5	52.0
K80 ~20µm		Cu 1st Cleaner Conc + Scav Conc	1.94	10.1	0.264	24.4	2.47	35.3	76.8	83.0	69.3	46.9	54.3	
PEX		Rougher Conc	9.17	2.25	0.058	5.79	0.64	8.82	80.5	85.3	77.5	57.5	64.0	
3302		Rougher Tail	90.8	0.06	0.001	0.17	0.05	0.50	19.5	14.7	22.5	42.5	36.0	
		Head (calc)	100.0	0.26	0.006	0.69	0.10	1.26	100.0	100.0	100.0	100.0	100.0	
LC-F8		Cu 2nd Cleaner Conc	0.84	23.2	0.610	30.1	4.42	69.0	71.5	78.1	33.7	32.0	45.5	
K80 ~147µm		Cu 1st Cleaner Conc	1.45	13.9	0.372	20.9	2.91	44.1	74.3	82.6	40.5	36.5	50.4	
K80 ~16µm		Cu 1st Cleaner Conc + Scav Conc	1.78	11.6	0.308	19.3	3.02	37.8	75.8	83.7	45.9	46.4	52.9	
PEX		Rougher Conc	10.4	2.10	0.054	5.65	0.68	7.90	80.3	86.3	78.5	61.3	64.8	
3302		Rougher Tail	89.6	0.06	0.001	0.18	0.05	0.50	19.7	13.7	21.5	38.7	35.2	
		Head (calc)	100.0	0.27	0.007	0.75	0.12	1.27	100.0	100.0	100.0	100.0	100.0	

The recoveries between each pair of tests are similar to one another for Cu, Mo, Au and Ag. The concentrate grades however, benefited from the higher Cu cleaner pH. Composite ZS-QZSE had poor recovery for both tests. This could be a factor of the primary grind size, since the mineralogy indicates that only 29.6% of the chalcopyrite is liberated/free in the -150µm/+75µm fraction.

A locked cycle test, LCTs 2-5, was performed on each of the lithology composites; the results of which are summarized in Table 13.

Table 13: Lithology Composite LCT Metallurgical Projections C-F

	Test #	Product	Weight %	Assays, %, g/t					% Distribution				
				Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
BFP-ARSE	LCT-2	2nd Cleaner Conc	1.56	27.4	0.173	29.9	8.62	80.2	81.6	66.7	43.9	46.7	62.5
	Ro Tl ~142µm	1st Cleaner Scavenger Tail	8.49	0.24	0.005	4.38	0.51	3.04	3.95	11.0	35.0	15.1	12.9
	Cu Conc ~25µm	Rougher Tail	89.9	0.08	0.001	0.25	0.12	0.55	14.4	22.3	21.1	38.2	24.7
	PEX/3302	Combined Tail	98.4	0.10	0.001	0.61	0.16	0.76	18.4	33.3	56.1	53.3	37.5
		Head (calc)	100.0	0.52	0.004	1.06	0.29	2.01	100.0	100.0	100.0	100.0	100.0
BFP-KH	LCT-3	2nd Cleaner Conc	1.15	29.2	0.326	29.7	10.3	70.0	80.2	75.1	43.8	49.6	54.0
	Ro Tl ~139µm	1st Cleaner Scavenger Tail	6.23	0.22	0.005	5.06	0.53	2.99	3.25	6.48	40.3	13.8	12.5
	Cu Conc ~25µm	Rougher Tail	92.6	0.07	0.001	0.13	0.09	0.54	16.5	18.5	15.9	36.6	33.6
	PEX/3302	Combined Tail	98.8	0.08	0.001	0.45	0.12	0.70	19.8	24.9	56.2	50.4	46.0
		Head (calc)	100.0	0.42	0.005	0.78	0.24	1.49	100.0	100.0	100.0	100.0	100.0
SS	LCT-4	2nd Cleaner Conc	0.85	25.5	0.171	29.6	7.59	40.3	85.9	55.3	50.7	54.9	38.5
	Ro Tl ~126µm	1st Cleaner Scavenger Tail	4.46	0.16	0.007	4.05	0.35	1.98	2.83	12.1	36.6	13.5	9.99
	Cu Conc ~25µm	Rougher Tail	94.7	0.03	0.001	0.07	0.04	0.48	11.2	32.6	12.7	31.6	51.5
	PEX/3302	Combined Tail	99.2	0.04	0.001	0.25	0.05	0.55	14.1	44.7	49.3	45.1	61.5
		Head (calc)	100.0	0.25	0.003	0.49	0.12	0.88	100.0	100.0	100.0	100.0	100.0
ZS-QZSE	LCT-5	2nd Cleaner Conc	0.77	25.0	0.655	31.2	5.30	78.8	67.3	73.1	32.4	27.7	43.4
	Ro Tl ~161µm	1st Cleaner Scavenger Tail	6.50	0.20	0.007	5.28	0.33	2.92	4.50	6.88	46.2	14.4	13.6
	Cu Conc ~25µm	Rougher Tail	92.7	0.09	0.001	0.17	0.09	0.65	28.2	20.1	21.5	57.9	43.0
	PEX/3302	Combined Tail	99.2	0.09	0.002	0.51	0.11	0.80	32.7	26.9	67.6	72.3	56.6
		Head (calc)	100.0	0.29	0.007	0.74	0.15	1.40	100.0	100.0	100.0	100.0	100.0

The results indicate that lithology composite SS achieved the best recoveries for Cu, 85.9%, and Au, 54.9%, at grades of 25.5% and 7.59 g/t, respectively. Lithology composite ZS-QZSE achieved the worst recoveries for Cu, 67.3% at a grade of 25.0%, Au, 27.7% at a grade of 5.30 g/t, and Ag, 43.4% at a grade of 78.8g/t. However, a high Mo recovery of 73.1% was obtained for this composite, at a grade of 0.66%.

5. Flotation Variability

The effect of variability was tested, a series of modified cleaner tests were conducted on each of 81 variability samples submitted for creation of a dataset for flowsheet simulation using FLEET (Flotation Economic Evaluation Tool). The results of these tests will be presented in a separate FLEET report.

6. Flotation Confirmation

A series of tests were conducted in order to confirm the metallurgical response of four grade-variability composites. The four composites were made from the 82 samples to cover a range in Cu head grades. Tests F28-F31 tested the effect of LCT conditions on the composites; the results can be seen in Table 14. Tests F32-F35 aimed to optimize Cu, Mo and Au recovery. Tests F36-F39 repeated these tests but using recycled water in the primary grinds. All of the tests used very small amounts of carboxyl methyl cellulose (CMC) in the cleaner circuit.

Table 14: Flotation Confirmation Summary

	Test #	Product	Weight (%)	Assays (% g/t)				Distribution (%)			
				Cu	Mo	S	Au	Cu	Mo	S	Au
Comp 1	F28	Cu 2nd Cleaner Conc	0.62	25.2	0.340	25.6	6.64	57.5	64.3	18.6	40.7
	K80 ~282µm	Rougher Conc	5.74	2.89	0.040	9.79	1.09	61.5	71.0	66.5	62.4
	K80 ~24µm	Rougher Tail	94.3	0.11	0.001	0.30	0.04	38.5	29.0	33.5	37.6
	PEX/3302	Head (calc)	100.0	0.27	0.003	0.84	0.10	100.0	100.0	100.0	100.0
	F32	Cu 2nd Cleaner Conc	0.80	25.0	0.320		6.03	77.2	33.9		49.0
	K80 ~120µm	Rougher Conc	6.63	3.21	0.043		1.06	82.3	37.9		71.4
	K80 ~22µm	Rougher Tail	93.4	0.05	0.005		0.03	17.7	62.1		28.6
	PEX/3302	Head (calc)	100.0	0.26	0.008		0.10	100.0	100.0		100.0
	F36	Cu 2nd Cleaner Conc	0.88	23.1	0.310		5.68	78.0	69.5		41.6
	K80 ~126µm	Rougher Conc	6.93	3.11	0.043		1.05	83.1	76.2		61.1
	K80 ~21µm	Rougher Tail	93.1	0.05	0.001		0.05	16.9	23.8		38.9
	PEX/3302	Head (calc)	100.0	0.26	0.004		0.12	100.0	100.0		100.0
Comp 2	F29	Cu 2nd Cleaner Conc	1.15	27.4	0.670	29.8	6.62	82.2	76.8	42.8	53.1
	K80 ~166µm	Rougher Conc	7.39	4.42	0.111	8.84	1.32	85.0	81.5	81.5	67.7
	K80 ~29µm	Rougher Tail	92.6	0.06	0.002	0.16	0.05	15.0	18.5	18.5	32.3
	PEX/3302	Head (calc)	100.0	0.38	0.010	0.80	0.14	100.0	100.0	100.0	100.0
	F33	Cu 2nd Cleaner Conc	1.19	28.1	0.670		6.76	86.5	75.8		50.3
	K80 ~119µm	Rougher Conc	7.45	4.65	0.117		1.40	89.5	82.4		65.3
	K80 ~21µm	Rougher Tail	92.5	0.04	0.002		0.06	10.5	17.6		34.7
	PEX/3302	Head (calc)	100.0	0.39	0.011		0.16	100.0	100.0		100.0
	F37	Cu 2nd Cleaner Conc	1.30	26.6	0.620		6.49	86.3	83.2		48.1
	K80 ~121µm	Rougher Conc	7.75	4.65	0.113		1.43	89.9	90.5		63.2
	K80 ~22µm	Rougher Tail	92.3	0.04	0.001		0.07	10.1	9.52		36.8
	PEX/3302	Head (calc)	100.0	0.40	0.010		0.18	100.0	100.0		100.0
Comp 3	F30	Cu 2nd Cleaner Conc	1.58	27.0	0.100	26.5	10.3	81.2	42.8	45.9	49.1
	K80 ~145µm	Rougher Conc	8.48	5.28	0.022	9.13	2.50	85.3	50.3	84.9	64.1
	K80 ~29µm	Rougher Tail	91.5	0.08	0.002	0.15	0.13	14.7	49.7	15.1	35.9
	PEX/3302	Head (calc)	100.0	0.52	0.004	0.91	0.33	100.0	100.0	100.0	100.0
	F34	Cu 2nd Cleaner Conc	1.64	26.7	0.094		10.2	85.0	58.1		53.8
	K80 ~127µm	Rougher Conc	8.29	5.55	0.021		2.65	89.2	65.5		70.5
	K80 ~30µm	Rougher Tail	91.7	0.06	0.001		0.10	10.8	34.5		29.5
	PEX/3302	Head (calc)	100.0	0.52	0.003		0.31	100.0	100.0		100.0
	F38	Cu 2nd Cleaner Conc	1.67	26.4	0.095		9.76	84.1	59.3		49.0
	K80 ~128µm	Rougher Conc	8.48	5.43	0.021		2.52	88.0	65.8		64.3
	K80 ~28µm	Rougher Tail	91.5	0.07	0.001		0.13	12.0	34.2		35.7
	PEX/3302	Head (calc)	100.0	0.52	0.003		0.33	100.0	100.0		100.0
Comp 4	F31	Cu 2nd Cleaner Conc	2.27	26.5	0.100	27.1	7.58	89.3	28.0	65.4	58.2
	K80 ~104µm	Rougher Conc	9.52	6.55	0.028	8.93	2.44	92.6	32.9	90.4	78.6
	K80 ~31µm	Rougher Tail	90.5	0.06	0.006	0.10	0.07	7.4	67.1	9.6	21.4
	PEX/3302	Head (calc)	100.0	0.67	0.008	0.94	0.30	100.0	100.0	100.0	100.0
	F35	Cu 2nd Cleaner Conc	2.09	25.7	0.110		7.40	85.3	67.9		52.2
	K80 ~135µm	Rougher Conc	9.45	5.91	0.026		2.27	88.8	73.2		72.4
	K80 ~32µm	Rougher Tail	90.6	0.08	0.001		0.09	11.2	26.8		27.6
	PEX/3302	Head (calc)	100.0	0.63	0.003		0.30	100.0	100.0		100.0
	F39	Cu 2nd Cleaner Conc	2.43	24.5	0.099		7.77	86.4	69.3		54.3
	K80 ~141µm	Rougher Conc	9.80	6.28	0.026		2.54	89.3	74.1		71.5
	K80 ~38µm	Rougher Tail	90.2	0.08	0.001		0.11	10.7	25.9		28.5
	PEX/3302	Head (calc)	100.0	0.69	0.003		0.35	100.0	100.0		100.0

Figures 13-15 show the combined tailings compared with head grade for Cu, Mo and Au. The trends indicate that there is a strong correlation between the Cu and Au head grades and their respective tailings. Only a weak correlation is seen between the Mo head grade and tailings.

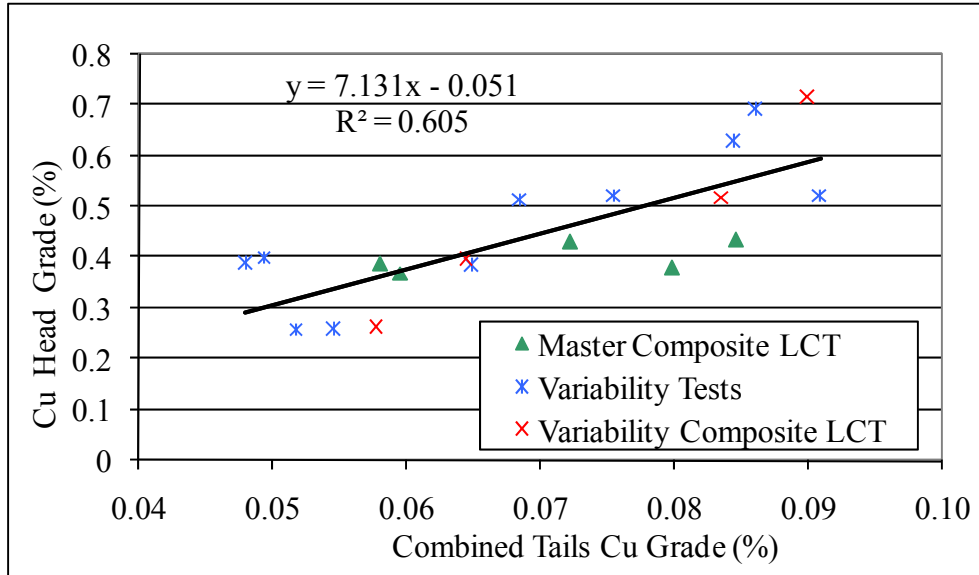


Figure 13: Cu Tailings Grade vs. Cu Head Grade of the Confirmation Composites

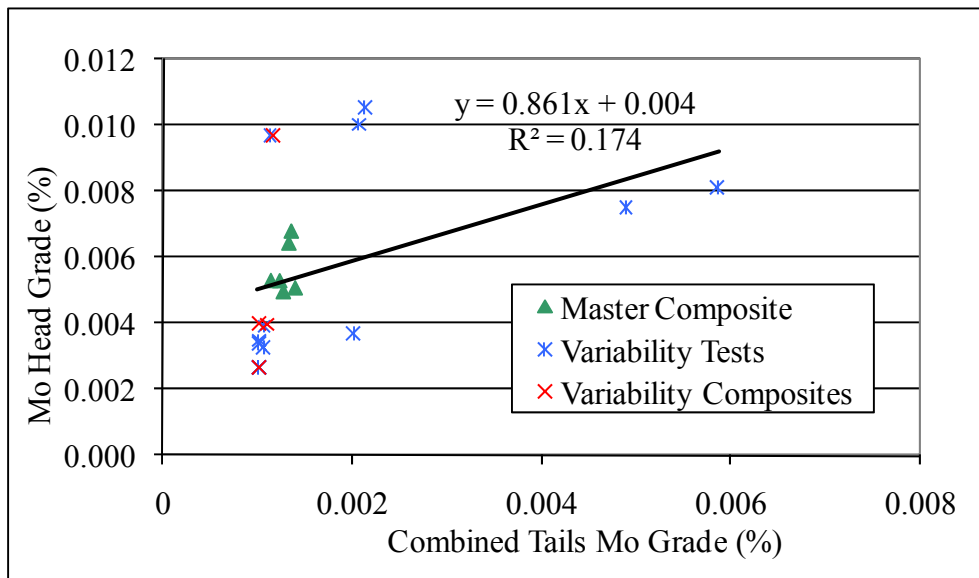


Figure 14: Mo Tailings Grade vs. Mo Head Grade of the Confirmation Composites

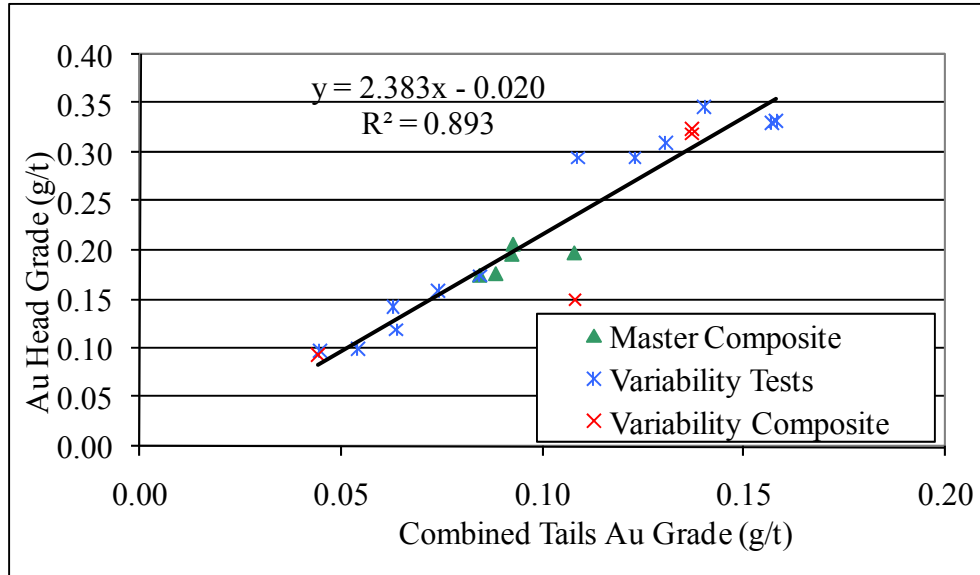


Figure 15: Au Tailings Grade vs. Au Head Grade of the Confirmation Composites

Tests LCT 11-14 were performed on the four variability composites. The flowsheet was altered from the previous cycle test with the addition of a third cleaner to the flowsheet. A summary of the tests is presented in Table 15.

Table 15: Variability Composite LCT Metallurgical Projections C-F

	Test #	Product	Weight %	Assays, %, g/t			% Distribution		
				Cu	Mo	Au	Cu	Mo	Au
Comp 1	LCT-11	3rd Cleaner Conc	0.95	21.5	0.305	5.19	78.2	72.9	53.1
	Ro Tl ~127µm	1st Cleaner Scavenger Tail	8.88	0.12	0.002	0.19	4.08	4.46	17.8
	Cu Conc ~18µm	Rougher Tail	90.2	0.05	0.001	0.03	17.8	22.7	29.1
	PEX/3302	Combined Tail	99.0	0.06	0.001	0.04	21.8	27.1	46.9
		Head (calc)	100.0	0.26	0.004	0.09	100.0	100.0	100.0
Comp 2	LCT-12	3rd Cleaner Conc	1.31	25.4	0.655	8.95	84.0	88.2	54.0
	Ro Tl ~127µm	1st Cleaner Scavenger Tail	7.84	0.11	0.003	0.62	2.27	2.42	13.1
	Cu Conc ~21µm	Rougher Tail	90.9	0.06	0.001	0.08	13.8	9.35	32.9
	PEX/3302	Combined Tail	98.7	0.06	0.001	0.11	16.0	11.8	46.0
		Head (calc)	100.0	0.40	0.010	0.15	100.0	100.0	100.0
Comp 3	LCT-13	3rd Cleaner Conc	1.81	24.2	0.092	10.2	84.2	63.0	58.0
	Ro Tl ~133µm	1st Cleaner Scavenger Tail	8.67	0.17	0.001	0.52	2.78	3.27	14.0
	Cu Conc ~28µm	Rougher Tail	89.5	0.08	0.001	0.10	13.0	33.7	28.0
	PEX/3302	Combined Tail	98.2	0.08	0.001	0.14	15.8	37.0	42.0
		Head (calc)	100.0	0.52	0.003	0.32	100.0	100.0	100.0
Comp 4	LCT-14	3rd Cleaner Conc	2.45	25.5	0.110	7.82	87.7	73.4	58.9
	Ro Tl ~124µm	1st Cleaner Scavenger Tail	9.80	0.16	0.001	0.51	2.16	2.67	15.4
	Cu Conc ~38µm	Rougher Tail	87.7	0.08	0.001	0.10	10.1	23.9	25.7
	PEX/3302	Combined Tail	97.5	0.09	0.001	0.14	12.3	26.6	41.1
		Head (calc)	100.0	0.71	0.004	0.33	100.0	100.0	100.0

The results for the four grade variability composites followed the trends expected by the composite head grades. Composite 4, having the highest Cu head grade achieved recoveries for Cu and Au of 87.7% and 58.9% at grades of 25.5% and 7.82 g/t, respectively. The best Mo results for grade and recovery were achieved with variability composite 2 (which had the highest Mo head grade) with 88.2% recovery and 0.66% grade. Having similar Au head grades, composites 3 and 4 had the highest Au recoveries at 58.0 and 58.9%, respectively. The average grades and recoveries of the four LCTs were 24.2% Cu at 83.5% recovery, 0.29% Mo at 74.4% recovery, and 8.05g/t Au at 56.0% recovery.

7. Summary of Flotation Metallurgy

The flotation metallurgy can be summarized in the following tables and figures. Projected results from the two Master composite tests and the four grade variability tests conducted under the optimized conditions are provided in Table 16. The average results over these six tests are given in Table 17. The lithology composites have not been included because conditions were not optimized specific to each of the composites.

Table 16: Summary of Locked Cycle Test Results

Composite	Test No.	Cu Conc Grade, %	Recovery, %			Combined Tails Grade		Head, %, g/t		
			Cu	Mo	Au	Cu, %	Au, g/t	Cu	Mo	Au
Master	LCT 1	25.7	83.5	80.3	58.0	0.072	0.090	0.43	0.007	0.21
Master 2	LCT 6	27.5	84.1	76.9	52.2	0.059	0.084	0.37	0.005	0.17
Comp 1	LCT 11	21.5	78.2	72.9	53.1	0.058	0.044	0.26	0.004	0.09
Comp 2	LCT 12	25.4	84.0	88.2	54.0	0.064	0.108	0.40	0.010	0.15
Comp 3	LCT 13	24.2	84.2	63.0	58.0	0.084	0.137	0.52	0.003	0.32
Comp 4	LCT 14	25.5	87.7	73.4	58.9	0.090	0.137	0.71	0.004	0.33

Table 17: Average Locked Cycle Test Performance

Product	Mass %	Assays, %, g/t				% Distribution			
		Cu	Mo	Au	Ag*	Cu	Mo	Au	Ag*
3rd Cleaner Conc	1.51	25.1	0.28	8.37	65.3	84.4	79.0	59.4	55.6
1st Cleaner Scav Tail	8.3	0.14	0.003	0.43	2.32	2.7	4.1	16.7	11.2
Rougher Tail	90.2	0.064	0.001	0.07	0.54	13.0	16.9	30.9	33.2
Combined Tail	98.5	0.071	0.001	0.10	0.67	15.6	21.0	46.3	44.4
Head (calc)	100.0	0.45	0.005	0.21	1.48	100.0	100.0	100.0	100.0

* Based on Master Comp tests only

Figure 16 plots the concentrate performance from the optimized locked cycle tests. The graph demonstrates a range of cleaner concentrate copper recovery from 78 – 87%. Grade varies from 21% Cu on low head grade material to 28% Cu for an average of 25% Cu. The molybdenum recovery average is just under 80%. Plots of tails grade as a function of head grade are given in Figure 17. The chart confirms the previous graphs with a solid relationship correlating increased tails grade to increased head grade.

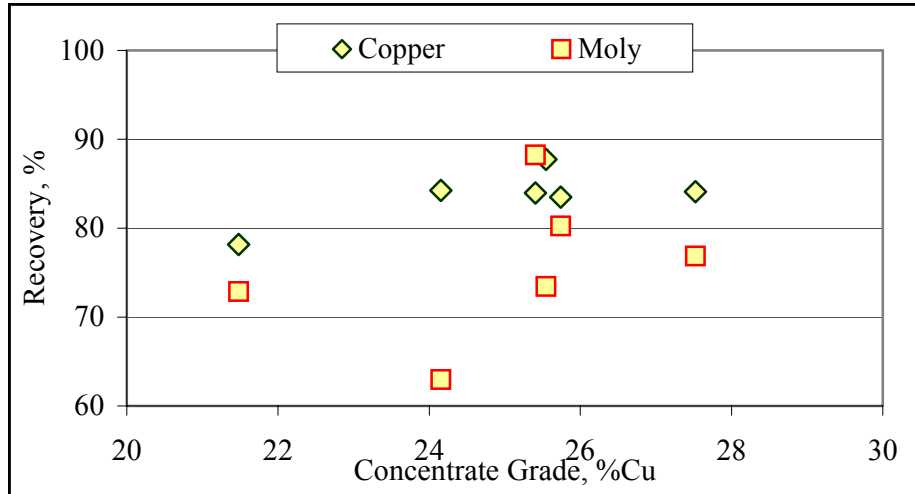


Figure 16: Grade versus Recovery for Optimized Locked Cycle Tests

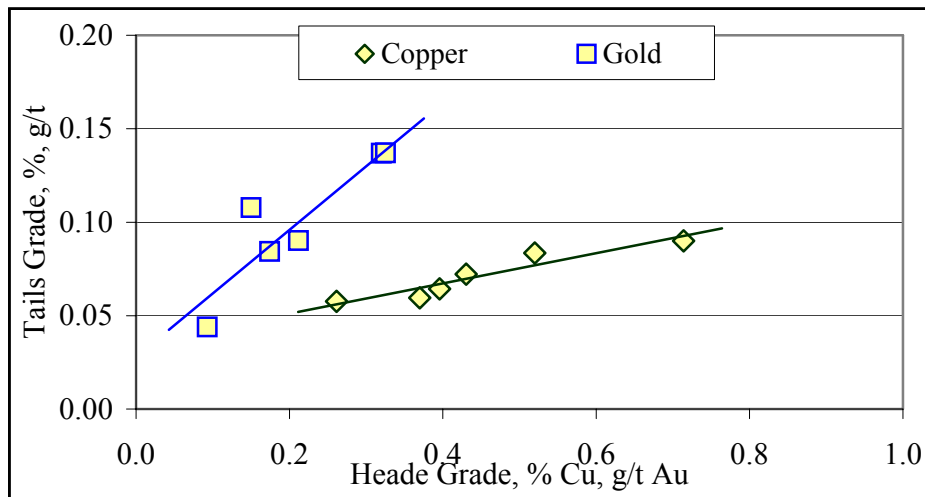


Figure 17: Locked Cycle Test Tails Grade as a Function of Head Grade

Conclusions and Recommendations

Eighty-two drill core samples representative of the Morrison Copper deposit were received at the SGS Lakefield site. Using the samples, two Master Composites, a high-Mo composite, four lithology composites, four variability composites and individual variability samples were characterized and tested.

Initial flotation testwork on the Master Composite established a rougher-cleaner flowsheet with a primary grind of ~130µm and a regrind size of ~25µm using the reagents PEX and Cytec's 3302. The rougher stage of the circuit was floated at a natural pH (~7.7) with the two cleaning stages at a pH of 11.5-11.8.

The average locked cycle performance over six optimized locked cycle tests was as indicated in the below table.

Product	Mass %	Assays, %, g/t				% Distribution			
		Cu	Mo	Au	Ag*	Cu	Mo	Au	Ag*
3rd Cleaner Conc	1.51	25.1	0.28	8.37	65.3	84.4	79.0	59.4	55.6
1st Cleaner Scav Tail	8.3	0.14	0.003	0.43	2.32	2.7	4.1	16.7	11.2
Rougher Tail	90.2	0.064	0.001	0.07	0.54	13.0	16.9	30.9	33.2
Combined Tail	98.5	0.071	0.001	0.10	0.67	15.6	21.0	46.3	44.4
Head (calc)	100.0	0.45	0.005	0.21	1.48	100.0	100.0	100.0	100.0

* Based on Master Comp tests only

Testing on the lithology composites indicated that composite ZS-QZSE performed considerably poorer than the other lithology composites which could be an effect of the primary grind size, indicating that the target primary grind may need to be lower than 130µm. If the ZS-QZSE lithology is prevalent in the deposit, then it may be necessary to evaluate the impact of grind size on Cu rougher recovery for this lithology.

Variability and Master Composite testing has also indicated that there is a good relationship between Cu head grade and recovery, and Au head grade and recovery.

While not all ore samples tested contained significant amounts of molybdenum, it recovered well into a bulk cleaner concentrate. Limited molybdenum flotation testing on bulk cleaner concentrate demonstrated that Mo concentrates in excess of 50% Mo could be achieved with reasonably high stage recovery.

Appendix A: Sample Preparation and Chemical Characterisation

Composite Make Up

Sample ID	SPI #	Master Comp (kg)	Master Comp 2 (kg)	High-Mo Comp (kg)	BFP-ARSE	BFP-KH	SS	ZS-QZSE	Var Comp 1	Var Comp 2	Var Comp 3	Var Comp 4
MO-01-46, 7.62 - 13.72m	1-950	1.00	0.48	4.00					2.00			
MO-01-46, 13.72 - 19.81m	1-951	1.00	0.48	2.00								
MO-01-59, 4.57 - 10.67m	1-952	1.00	0.74	4.00						2.00		
MO-01-59, 25.91 - 32.00m	1-953	1.00	0.74	2.00				6.00		4.00		
MO-01-59, 50.29 - 56.39m	1-954	1.00	1.28	4.00		2.00					2.00	
MO-01-59, 96.01 - 102.11m	1-955	1.00	1.64									2.00
MO-02-67, 26.52 - 32.00m	1-956	1.00	1.31									2.00
MO-02-67, 38.10 - 44.20m	1-957	1.00	0.30					4.00				
MO-02-67, 89.92 - 96.01m	1-958	0.50			0.36							
MO-02-67, 105.16 - 111.25m	1-959	1.00			1.07					2.00		
MO-02-67, 117.35 - 123.44m	1-960	1.00			1.07							
MO-02-68, 24.38 - 30.48m	1-961	1.00			1.92							
MO-02-68, 36.58 - 42.67m	1-962	0.50			0.00							
MO-02-68, 48.77 - 54.86m	1-963	0.50	0.70									
MO-02-74, 24.38 - 30.48m	1-964	1.00	1.27									
MO-02-74, 36.38 - 42.67m	1-965	1.00	1.30			2.00						
MO-02-74, 57.91 - 64.01m	1-966	1.00	1.30					6.00				
MO-02-74, 88.39 - 94.49m	1-967	1.00	0.66									
MO-02-74, 103.63 - 109.73m	1-968	1.00	1.11			2.00						
MO-02-75, 4.57 - 10.67m	1-969	1.00	0.99					6.00				
MO-02-75, 38.10 - 44.20m	1-970	1.00	0.28					6.00				
MO-02-75, 65.53 - 71.63m	1-971	1.00	1.13			2.00			4.00			
MO-02-75, 83.82 - 89.92m	1-972	1.00	1.32					6.00	2.00			
MO-02-76, 4.57 - 10.67m	1-973	1.00	0.03					4.00				
MO-02-76, 13.72 - 19.81m	1-974	1.00	0.95						2.00			
MO-02-76, 44.20 - 50.29m	1-975	1.00	0.45					6.00	4.00			
MO-02-76, 80.77 - 86.87m	1-976	1.00	1.26									
MO-02-76, 129.54 - 135.64m	1-977	1.00	0.51			2.00						
MO-02-76, 160.02 - 166.12m	1-978	1.00	0.13			2.00						
MO-02-76, 184.40 - 190.50m	1-979	1.00	1.91			2.00						
MO-02-76, 205.74 - 211.84m	1-980	1.00	0.25			2.00						
MO-02-76, 239.27 - 245.36m	1-981	1.00	1.53				3.50					
MO-02-79, 53.42 - 59.44m	1-982	1.00			2.00						2.00	
MO-02-79, 65.53 - 71.63m	1-983	1.00			5.63						2.00	
MO-02-79, 86.87 - 92.96m	1-984	1.00			4.00						6.00	
MO-02-79, 102.11 - 108.20m	1-985	1.00	0.48			2.00					6.00	
MO-02-79, 120.40 - 126.49m	1-986	1.00	1.31			2.00					4.00	
MO-02-79, 135.64 - 141.73m	1-987	1.00	1.05			2.00						6.00
MO-02-79, 153.92 - 160.02m	1-988	1.00	0.47			2.00					6.00	
MO-02-79, 190.50 - 196.60m	1-989	1.00										
MO-02-79, 224.03 - 227.08m	1-990	1.00	0.20									
MO-02-79, 251.51 - 257.56m	1-991	1.00	0.13	2.00		2.00						2.00
MO-02-80, 13.72 - 19.81m	1-992	0.00										
MO-02-80, 25.91 - 32.00m	1-993	1.00	0.84			2.00						
MO-02-80, 44.20 - 50.20m	1-994	1.00	1.88			2.00					2.00	
MO-02-80, 68.58 - 74.68m	1-995	1.00	0.11							2.00		
MO-02-80, 80.77 - 86.87m	1-996	1.00	1.31			2.00						
MO-02-80, 96.01 - 102.11m	1-997	1.00	1.17			2.00				4.00		
MO-02-80, 114.30 - 120.40m	1-998	1.00	0.39			2.00						4.00
MO-02-80, 135.64 - 141.73m	1-999	1.00			0.79							
MO-02-80, 147.83 - 153.92m	1-1000	1.00	0.58			2.00						
MO-02-80, 156.97 - 163.07m	1-1001	1.00	1.45			2.00						
MO-02-81, 19.81 - 25.91m	1-1002	1.00	1.98			2.00			4.00			
MO-02-81, 44.20 - 50.29m	1-1003	1.00	1.95			2.00						
MO-02-81, 56.39 - 62.48m	1-1004	1.00	0.93			2.00						
MO-02-81, 86.87 - 92.96m	1-1005	1.00	0.23				4.00					
MO-02-81, 117.35 - 123.44m	1-1006	1.00	1.58				6.00					
MO-02-81, 138.68 - 144.78m	1-1007	1.00	1.46				4.00		2.00			
MO-02-81, 156.97 - 163.07m	1-1008	1.00	1.78						6.00			

Sample ID	SPI #	Master Comp (kg)	Master Comp 2 (kg)	High-Mo Comp (kg)	BFP-ARSE	BFP-KH	SS	ZS-QZSE	Var Comp 1	Var Comp 2	Var Comp 3	Var Comp 4
MO-02-81, 187.45 - 193.55m	1-1009	1.00	1.63			2.00				2.00		
MO-02-82, 82.30 - 88.39m	1-1010	1.00	0.26			2.00						
MO-02-82, 94.49 - 100.58m	1-1011	1.00				2.00					4.00	
MO-02-82, 106.68 - 112.78m	1-1012	1.00	0.61			2.00						
MO-02-82, 121.92 - 128.02m	1-1013	1.00	1.02			2.00						
MO-02-82, 152.40 - 158.50m	1-1014	1.00	0.99			2.00						
MO-02-82, 173.74 - 179.83m	1-1015	1.00	1.51							4.00		
MO-02-82, 195.07 - 201.19m	1-1016	1.00	0.41			2.00						6.00
MO-03-83, 13.72 - 19.81m	1-1017	1.00	0.19			2.00						
MO-03-83, 28.96 - 35.05m	1-1018	1.00	0.21			2.00				2.00	8.00	
MO-03-83, 47.24 - 53.34m	1-1019	1.00	0.54			2.00				6.00		
MO-03-83, 62.48 - 68.58m	1-1020	1.00	0.97					4.00		2.00		
MO-03-83, 80.77 - 86.87m	1-1021	1.00			7.26						2.00	
MO-03-83, 102.11 - 108.20m	1-1022	1.00			0.38							
MO-03-83, 123.44 - 129.54m	1-1023	1.00	1.14			2.00						4.00
MO-03-83, 144.78 - 150.88m	1-1024	1.00			3.91							2.00
MO-03-83, 169.16 - 175.26m	1-1025	1.00	0.93			2.00						6.00
MO-03-83, 193.55 - 199.64m	1-1026	1.00	0.49	6.00		2.00						2.00
MO-03-89, 74.68 - 80.77m	1-1027	1.00	0.84			2.00						
MO-03-89, 102.11 - 108.20m	1-1028	1.00			1.26							
MO-03-89, 129.54 - 135.64m	1-1029	1.00	0.88			2.00				1.00		
MO-03-89, 147.83 - 153.92m	1-1030	1.00	0.68									2.00
MO-03-89, 193.55 - 199.64m	1-1031	1.00	0.43									

Head Assays of Individual Drill Cores

Sample ID	SPI Number	Cu (%)	Mo (%)	S (%)	Au (g/t)	Ag (g/t)	Fe (%)	Cu seq H ₂ SO ₄ (%)	Cu seq. NaCN (%)	Cu seq. A/R (%)
MO-01-46, 7.62 - 13.72m	1-950	0.35	0.017	0.77	0.10	2.40	2.15	0.028	0.023	0.27
MO-01-46, 13.72 - 19.81m	1-951	0.28	0.073	1.21	0.09	3.20	2.21	0.005	0.009	0.26
MO-01-59, 4.57 - 10.67m	1-952	0.37	0.014	1.20	0.11	1.00	2.92	0.008	0.015	0.34
MO-01-59, 25.91 - 32.00m	1-953	0.46	0.018	1.25	0.13	1.00	2.43	0.005	0.011	0.43
MO-01-59, 50.29 - 56.39m	1-954	0.52	0.010	1.38	0.15	2.70	3.17	0.007	0.017	0.48
MO-01-59, 96.01 - 102.11m	1-955	0.22	0.016	0.67	0.07	0.90	2.91	0.004	0.013	0.20
MO-02-67, 26.52 - 32.00m	1-956	0.59	0.003	0.96	0.17	1.50	5.41	0.009	0.020	0.55
MO-02-67, 38.10 - 44.20m	1-957	0.53	0.005	1.37	0.18	2.60	3.88	0.006	0.029	0.48
MO-02-67, 89.92 - 96.01m	1-958	0.54	<0.001	1.15	0.30	3.10	6.97	0.008	0.028	0.47
MO-02-67, 105.16 - 111.25m	1-959	0.46	<0.001	1.35	0.28	3.10	6.24	0.008	0.023	0.42
MO-02-67, 117.35 - 123.44m	1-960	1.05	<0.001	1.44	0.06	6.20	6.52	0.008	0.025	0.96
MO-02-68, 24.38 - 30.48m	1-961	0.36	0.021	2.48	0.12	4.30	7.74	0.005	0.018	0.31
MO-02-68, 36.58 - 42.67m	1-962	0.22	0.006	1.41	0.05	0.80	6.29	0.005	0.016	0.19
MO-02-68, 48.77 - 54.86m	1-963	0.35	0.003	1.59	0.11	2.00	3.87	0.010	0.036	0.29
MO-02-74, 24.38 - 30.48m	1-964	0.22	0.008	0.42	0.06	1.00	2.03	0.003	0.008	0.21
MO-02-74, 36.38 - 42.67m	1-965	0.24	0.009	0.61	0.05	1.10	2.68	0.003	0.008	0.22
MO-02-74, 57.91 - 64.01m	1-966	0.25	0.005	0.65	0.06	1.40	2.22	0.003	0.010	0.22
MO-02-74, 88.39 - 94.49m	1-967	0.28	0.010	1.05	0.07	1.40	3.48	0.004	0.014	0.27
MO-02-74, 103.63 - 109.73m	1-968	0.24	0.002	0.52	0.11	0.60	2.84	0.005	0.014	0.21
MO-02-75, 4.57 - 10.67m	1-969	0.22	0.007	0.37	0.05	2.80	2.03	0.008	0.010	0.18
MO-02-75, 38.10 - 44.20m	1-970	0.17	0.003	0.34	0.06	0.80	3.01	0.003	0.010	0.16
MO-02-75, 65.53 - 71.63m	1-971	0.22	<0.001	0.90	0.07	1.20	4.31	0.003	0.007	0.21
MO-02-75, 83.82 - 89.92m	1-972	0.24	0.004	1.07	0.07	1.10	2.42	0.005	0.013	0.21
MO-02-76, 4.57 - 10.67m	1-973	0.25	0.004	0.50	0.06	0.60	2.88	0.033	0.022	0.18
MO-02-76, 13.72 - 19.81m	1-974	0.26	0.004	0.67	0.08	0.50	2.86	0.009	0.019	0.23
MO-02-76, 44.20 - 50.29m	1-975	0.33	0.002	0.86	0.12	2.40	2.60	0.004	0.014	0.29
MO-02-76, 80.77 - 86.87m	1-976	0.30	0.005	1.14	0.09	1.20	3.14	0.003	0.010	0.25
MO-02-76, 129.54 - 135.64m	1-977	0.28	<0.001	0.74	0.09	0.50	3.52	0.004	0.011	0.26
MO-02-76, 160.02 - 166.12m	1-978	0.24	0.005	0.86	0.06	0.50	1.85	0.004	0.008	0.21
MO-02-76, 184.40 - 190.50m	1-979	0.41	0.002	0.63	0.15	0.80	2.81	0.008	0.039	0.37
MO-02-76, 205.74 - 211.84m	1-980	0.50	0.002	0.45	0.18	1.10	2.62	0.016	0.083	0.37
MO-02-76, 239.27 - 245.36m	1-981	0.35	<0.001	0.52	0.14	2.20	2.96	0.003	0.027	0.30
MO-02-79, 53.42 - 59.44m	1-982	0.52	<0.001	0.80	0.36	2.20	4.24	0.008	0.016	0.44
MO-02-79, 65.53 - 71.63m	1-983	0.50	<0.001	0.72	0.26	1.90	4.24	0.006	0.013	0.44
MO-02-79, 86.87 - 92.96m	1-984	0.57	<0.001	0.81	0.45	2.70	4.38	0.011	0.038	0.51
MO-02-79, 102.11 - 108.20m	1-985	0.57	<0.001	0.62	0.41	1.80	4.39	0.012	0.053	0.46
MO-02-79, 120.40 - 126.49m	1-986	0.56	<0.001	1.07	0.52	2.20	5.27	0.010	0.040	0.44
MO-02-79, 135.64 - 141.73m	1-987	0.70	<0.001	0.90	0.48	1.80	4.43	0.009	0.038	0.62
MO-02-79, 153.92 - 160.02m	1-988	0.59	0.001	0.68	0.33	1.70	3.69	0.006	0.017	0.50
MO-02-79, 190.50 - 196.60m	1-989	0.34	0.006	0.56	0.16	1.30	2.21	0.003	0.009	0.32
MO-02-79, 224.03 - 227.08m	1-990	0.69	0.002	0.80	0.25	2.30	3.24	0.006	0.016	0.60

Sample ID	SPI Number	Cu (%)	Mo (%)	S (%)	Au (g/t)	Ag (g/t)	Fe (%)	Cu seq H ₂ SO ₄ (%)	Cu seq. NaCN (%)	Cu seq. A/R (%)
MO-02-79, 251.51 - 257.56m	1-991	0.64	0.004	0.91	0.24	2.00	2.39	0.003	0.015	0.61
MO-02-80, 13.72 - 19.81m	1-992	0.62	0.001	0.91	0.26	0.70	1.93	0.007	0.013	0.57
MO-02-80, 25.91 - 32.00m	1-993	0.46	<0.001	0.66	0.32	0.80	3.19	0.006	0.020	0.39
MO-02-80, 44.20 - 50.20m	1-994	0.53	0.001	0.64	0.21	1.10	2.89	0.006	0.019	0.44
MO-02-80, 68.58 - 74.68m	1-995	0.47	0.002	0.61	0.22	0.80	2.55	0.007	0.017	0.42
MO-02-80, 80.77 - 86.87m	1-996	0.28	0.002	0.35	0.11	1.00	2.67	0.004	0.016	0.24
MO-02-80, 96.01 - 102.11m	1-997	0.43	<0.001	0.37	0.16	0.80	2.89	0.006	0.034	0.39
MO-02-80, 114.30 - 120.40m	1-998	0.63	0.001	1.21	0.23	1.10	3.61	0.006	0.014	0.61
MO-02-80, 135.64 - 141.73m	1-999	0.56	0.001	0.78	0.24	1.20	3.59	0.021	0.057	0.45
MO-02-80, 147.83 - 153.92m	1-1000	0.49	<0.001	0.56	0.22	1.10	3.59	0.016	0.052	0.37
MO-02-80, 156.97 - 163.07m	1-1001	0.33	<0.001	0.67	0.19	2.30	3.66	0.015	0.059	0.23
MO-02-81, 19.81 - 25.91m	1-1002	0.17	0.003	0.56	0.08	1.60	3.97	0.005	0.007	0.16
MO-02-81, 44.20 - 50.29m	1-1003	0.32	<0.001	0.39	0.31	1.30	4.31	0.014	0.046	0.25
MO-02-81, 56.39 - 62.48m	1-1004	0.21	<0.001	0.60	0.13	1.20	3.86	0.009	0.026	0.17
MO-02-81, 86.87 - 92.96m	1-1005	0.27	<0.001	0.57	0.17	1.20	3.01	0.005	0.032	0.24
MO-02-81, 117.35 - 123.44m	1-1006	0.26	0.001	0.46	0.13	0.50	2.84	0.004	0.023	0.23
MO-02-81, 138.68 - 144.78m	1-1007	0.33	0.004	0.64	0.11	0.50	1.32	0.003	0.021	0.28
MO-02-81, 156.97 - 163.07m	1-1008	0.24	0.002	0.24	0.07	0.50	3.20	0.004	0.026	0.21
MO-02-81, 187.45 - 193.55m	1-1009	0.45	0.004	1.13	0.12	1.20	3.53	0.003	0.024	0.39
MO-02-82, 82.30 - 88.39m	1-1010	0.66	<0.001	0.74	0.56	2.10	4.48	0.044	0.190	0.41
MO-02-82, 94.49 - 100.58m	1-1011	0.57	<0.001	0.78	0.44	2.80	3.83	0.019	0.093	0.43
MO-02-82, 106.68 - 112.78m	1-1012	0.54	<0.001	0.44	0.37	1.10	3.74	0.014	0.096	0.39
MO-02-82, 121.92 - 128.02m	1-1013	0.55	<0.001	0.70	0.27	1.00	3.51	0.014	0.079	0.44
MO-02-82, 152.40 - 158.50m	1-1014	0.29	<0.001	0.31	0.18	0.50	3.28	0.005	0.040	0.22
MO-02-82, 173.74 - 179.83m	1-1015	0.47	0.005	0.58	0.19	0.70	2.81	0.006	0.036	0.35
MO-02-82, 195.07 - 201.19m	1-1016	0.67	0.003	0.66	0.24	0.80	3.62	0.005	0.029	0.59
MO-03-83, 13.72 - 19.81m	1-1017	0.51	0.005	1.37	0.15	1.70	3.96	0.008	0.016	0.44
MO-03-83, 28.96 - 35.05m	1-1018	0.47	0.005	1.18	0.17	1.20	3.83	0.005	0.012	0.43
MO-03-83, 47.24 - 53.34m	1-1019	0.41	0.007	0.68	0.12	1.10	3.31	0.006	0.018	0.37
MO-03-83, 62.48 - 68.58m	1-1020	0.32	0.006	0.71	0.08	0.90	2.87	0.010	0.010	0.30
MO-03-83, 80.77 - 86.87m	1-1021	0.59	0.004	0.97	0.12	1.40	4.20	0.014	0.011	0.54
MO-03-83, 102.11 - 108.20m	1-1022	0.77	0.001	0.97	0.25	2.90	4.78	0.014	0.009	0.70
MO-03-83, 123.44 - 129.54m	1-1023	0.86	0.004	1.10	0.30	3.30	3.95	0.007	0.016	0.77
MO-03-83, 144.78 - 150.88m	1-1024	0.75	0.005	0.94	0.25	2.50	3.77	0.010	0.014	0.66
MO-03-83, 169.16 - 175.26m	1-1025	0.69	0.003	1.07	0.42	4.50	4.23	0.008	0.020	0.65
MO-03-83, 193.55 - 199.64m	1-1026	0.74	0.010	0.98	0.33	3.70	3.52	0.005	0.022	0.68
MO-03-89, 74.68 - 80.77m	1-1027	0.23	0.016	1.86	0.06	0.70	4.36	0.002	0.005	0.23
MO-03-89, 102.11 - 108.20m	1-1028	0.34	0.096	1.24	0.07	1.40	3.65	0.003	0.009	0.33
MO-03-89, 129.54 - 135.64m	1-1029	0.45	0.012	1.40	0.10	1.50	3.20	0.003	0.009	0.40
MO-03-89, 147.83 - 153.92m	1-1030	0.74	0.010	1.13	0.20	1.70	3.01	0.007	0.013	0.68
MO-03-89, 193.55 - 199.64m	1-1031	0.45	0.008	0.75	0.11	1.70	3.17	0.006	0.012	0.41
Calc Head		0.44	0.006	0.85	0.19	1.64	3.50	0.008	0.026	0.38
Max		1.05	0.096	2.48	0.56	6.20	7.74	0.044	0.190	0.96
Min		0.17	0.001	0.24	0.05	0.50	1.32	0.002	0.005	0.16
Average		0.44	0.006	0.86	0.19	1.63	3.53	0.008	0.026	0.38
Stdev		0.18	0.013	0.38	0.12	1.04	1.15	0.007	0.026	0.16

Appendix B: High Definition Mineralogy Report

An Investigation by High-Definition Mineralogy into
THE MINERALOGICAL CHARACTERISTICS OF FIVE
MORRISON COMPOSITE SAMPLES

prepared for

PACIFIC BOOKER-WARDROP

CALR-11474-001, MI5019-MAR07 – Report No. 1
October 10, 2007

NOTE:

This report refers to the samples as received.

The practice of this Company in issuing reports of this nature is to require the recipient not to publish the report or any part thereof without the written consent of SGS Minerals Services.

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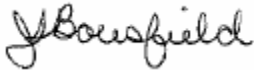
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Introduction

This summary report describes a high definition mineralogy test program using QEMSCAN™ technology (Quantitative Evaluation of Materials by Scanning Electron Microscopy), conducted on one Master Composite sample and four composite samples labelled BFP-ARSE, BFP-KH, ZS-QZSE, and SS. The samples were from the Morrison Copper project, and were submitted by Pacific Booker Minerals Inc. The purpose of this test program was to identify mineralogical characteristics of these samples, with a focus on the liberation and association characteristics of copper-bearing minerals.



Rob Pooler, B.Sc (Hons.)
Junior Mineralogist – Advanced Mineralogy Facility



Johanna Bousfield, B.Sc.
Project Mineralogist – Advanced Mineralogy Facility



Roch Marion, B.Sc. C. Chem.
Operations Manager – Advanced Mineralogy Facility

Sample Preparation by: J. Glover, K. Fleury-Frenette
QEMSCAN™ Operation by: N. Morton
Data Processing by: R. Pooler
Report preparation by: R. Pooler

Testwork Summary

1. Sample Receipt and Description

Five ground composite samples, labelled Master Composite, BFP-ARSE, BFP-KH, ZS-QZSE, and SS were received by the mineralogy department and assigned the LIMS number MI5019-MAR07. A sub-sample was screened to form four size fractions, -600/+150, -150/+75, -75/+20, and -20/+3 μm . A portion of each fraction was submitted for Cu, S and whole rock chemical analyses for data validation purposes. These results are presented in the assay reconciliation portion of this report. A Certificate of Chemical Analysis is appended.

A total of twenty-five graphite impregnated polished epoxy grain mounts were prepared: duplicate polished sections of the -600/+150 μm fraction and single polished sections for each of the four finer fractions. All polished sections were submitted for analysis by QEMSCANTM technology.

2. Operational Modes and Quality Control

Bulk Mineral Analyses (BMA) and Specific Mineral Search Analyses (SMS) were performed on each of the submitted polished sections. Bulk Mineral Analysis uses the linear intercept method and provides a robust data set for determination of the bulk mineralogy, with mineral identities and proportions, along with grain size measurements. Specific Mineral Search is a modified particle mapping routine aimed at resolving liberation and locking characteristics of a set of particles, specifically a phase that reports as a low-grade constituent. For this project, SMS analyses were conducted for sulphide minerals. The main copper-bearing mineral observed was chalcopyrite. However, moderate (<10 >0.25 wt%) to trace (<0.25 wt%) amounts of bornite and trace amounts of covellite, chalcocite, enargite, tetrahedrite and stannite were also detected by SMS analyses.

Each polished section prepared from the five Morrison Copper composite samples was also analysed using the Particle Mineral Analysis (PMA) method in order to ensure that all copper-bearing minerals, including non-sulphide minerals, were characterized. This method of analysis

is used to fully map particles which allows for complete mineralogical analysis of the sample. Like the BMA, it is used to provide a robust determination of the bulk mineralogy, with mineral identities and proportions, along with average grain size measurements. The PMA mode also provides an analysis of the spatial characteristics of minerals, including liberation and association characteristics. A full description of these methods is appended.

The BMA, PMA and SMS analyses for the five composite samples generated adequate statistics, giving confidence to the mineralogical characteristics interpreted from the data. A full summary of the operation statistics for all measurement types is presented in Table 1 below.

Table 1. Summary of Operational Statistics

Batch ID		M15019-MAR07								
SIP ID		TONO								
Analysis Type		BMA					PMA			
Sample	Fraction µm	Sections No.	Pixel Size (µm)	Intercept No.	Intercept Length (µm)	Points No.	Sections No.	Pixel Size (µm)	Particle No.	Points No.
Master Comp	-600/+150µm	2	4.0	9,192.0	860,838.5	215,948	-	-	-	-
	-150/+75µm	1	3.0	9,583.0	509,265.9	163,967	-	-	-	-
	-75/+20µm	1	3.0	16,253.0	384,097.8	140,382	-	-	-	-
	-20/+3µm	-	-	-	-	-	1	2.0	20,054	435,364
BFP-ARSE	-600/+150µm	2	4.0	11,033.0	1,035,540.1	264,567	-	-	-	-
	-150/+75µm	1	3.0	11,708.0	577,281.9	197,182	-	-	-	-
	-75/+20µm	1	3.0	16,425.0	387,002.3	145,252	-	-	-	-
	-20/+3µm	-	-	-	-	-	1	2.0	20,002	240,429
BFP-KH	-600/+150µm	2	4.0	9,768.0	1,034,686.0	264,684	-	-	-	-
	-150/+75µm	1	3.0	10,381.0	530,216.3	173,820	-	-	-	-
	-75/+20µm	1	3.0	16,587.0	383,343.0	139,728	-	-	-	-
	-20/+3µm	-	-	-	-	-	1	2.0	20,044	270,886
ZS-QZSE	-600/+150µm	2	4.0	10,301.0	1,222,218.1	312,261	-	-	-	-
	-150/+75µm	1	3.0	11,674.0	601,422.0	200,319	-	-	-	-
	-75/+20µm	1	3.0	16,278.0	385,776.8	141,288	-	-	-	-
	-20/+3µm	-	-	-	-	-	1	2.0	20,069	230,992
SS	-600/+150µm	2	4.0	10,707.0	1,108,823.3	281,864	-	-	-	-
	-150/+75µm	1	3.0	11,512.0	603,132.7	200,226	-	-	-	-
	-75/+20µm	1	3.0	17,242.0	399,598.7	146,087	-	-	-	-
	-20/+3µm	-	-	-	-	-	1	2.0	20,030	341,344
Total		20				2,987,575	5		100,199	1,519,015

Batch ID		M15019-MAR07				
SIP ID		TONO				
Analysis Type		SMS				
Sample	Fraction µm	Sections No.	Pixel Size (µm)	Particle No.	Points No.	
Master Comp	-600/+150µm	2	4.0	599	2,495,594	
	-150/+75µm	1	3.0	503	989,286	
	-75/+20µm	1	3.0	1,092	333,306	
	-20/+3µm	1	2.0	678	70,238	
BFP-ARSE	-600/+150µm	2	4.0	784	3,729,562	
	-150/+75µm	1	3.0	1,013	1,832,785	
	-75/+20µm	1	3.0	2,061	658,788	
	-20/+3µm	1	2.0	1,289	91,628	
BFP-KH	-600/+150µm	2	4.0	741	3,833,289	
	-150/+75µm	1	3.0	575	1,059,848	
	-75/+20µm	1	3.0	1,170	341,525	
	-20/+3µm	1	2.0	2,827	170,928	
ZS-QZSE	-600/+150µm	2	4.5	600	3,255,583	
	-150/+75µm	1	3.0	663	1,286,999	
	-75/+20µm	1	3.0	1,069	347,560	
	-20/+3µm	1	2.0	1,123	82,121	
SS	-600/+150µm	2	4.5	411	1,884,632	
	-150/+75µm	1	3.0	492	951,099	
	-75/+20µm	1	3.0	849	240,344	
	-20/+3µm	1	2.0	1,641	115,066	
Total		25		20,180	23,770,181	

Key QEMSCANTM mineralogical assays have been regressed with the chemical assays and this is presented in Figure 1. Overall correlation, as measured by R-squared criteria was 0.9563.

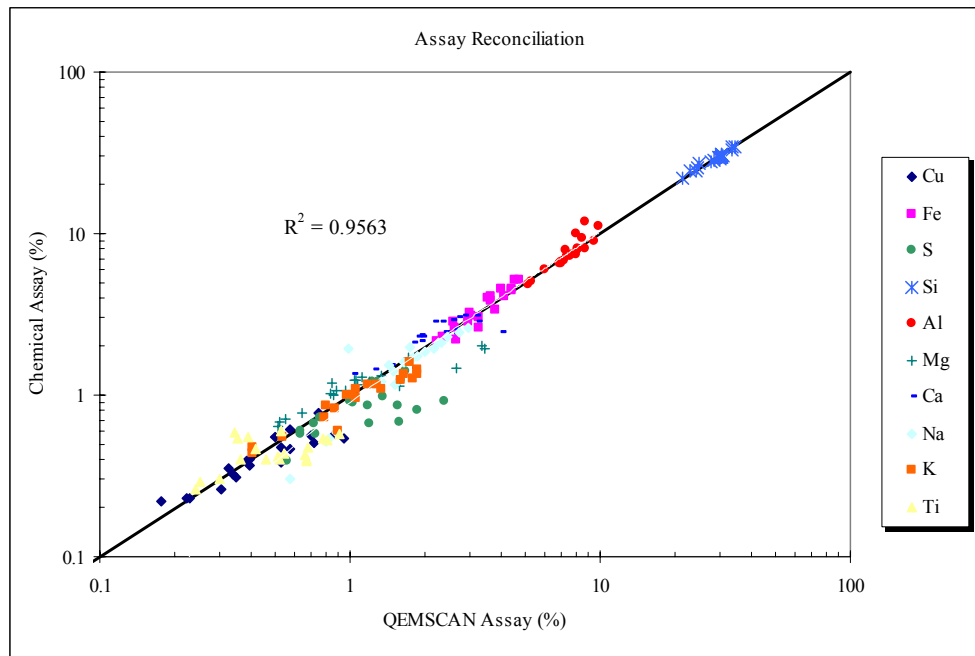


Figure 1. QEMSCAN and Direct Assay Reconciliation

3. Modal Analyses, Copper Department and Grain Size Distributions

3.1. Modal Analyses

The main value mineral present in all samples is chalcopyrite. Chalcopyrite is most abundant in the BFP-ARSE sample (2.1 wt% of the overall mineral mass) and least abundant in the SS sample (1.0 wt%).

Quartz and feldspars are the most abundant silicate phases detected in all five composite samples. Quartz is most abundant in the SS sample (41.7 wt%) and least abundant in the BFP-KH sample (24.3 wt%), whereas feldspar is most abundant in the BFP-KH (40.6 wt%) sample and least abundant in BFP-ARSE (17.1 wt%).

Mica and clay minerals are present in variable, but often significant proportions in the five composite samples. The quantity of micas varies from 5.3 wt% in BFP-ARSE, to 13.7 wt% in the ZS-QZSE composite sample. The proportion of clay minerals amongst the samples is relatively more variable, with the highest proportion of clays in the BFP-ARSE sample (22.3 wt%) and the lowest proportion in the SS sample (4.7 wt%).

Carbonates are present in minor proportions in all samples, varying from 3.1 wt% (ZS-QZSE) to 7.5 wt% (BFP-ARSE).

A complete summary of the bulk modal analyses of all five composite samples, illustrating mineral distributions by both sample and fraction, is presented in Table 2.

Table 2. Modal Analyses for Morrison Copper Composite Samples

Survey	Name Id Name	Morrison Copper M15019-MAR07																	
		Master Comp					BFP-ARSE												
		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm	
	Mass Size Dist. (%)	100	15.7		28.0		28.2		28.1		100	23.5		25.5		22.0		29.0	
	Average Particle Size (µm)	25	141		80		36		10		22	141		74		35		9	
Mineral Mass (%)		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm	
		Sample	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Fraction
	Pyrite	1.2	0.2	0.7	0.4	1.0	0.1	0.7	0.3	1.0	1.3	1.0	0.5	1.8	0.3	1.5	0.4	1.5	0.3
	Pyrrhotite	0.2	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.2	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	Chalcopyrite	1.8	0.2	1.0	0.3	1.0	0.2	1.0	0.3	1.0	2.1	1.5	0.9	3.3	0.4	1.6	0.5	2.1	0.5
	Molybdenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sphalerite	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
	Other Sulphides	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sulphates	1.2	0.0	0.3	0.1	0.5	0.0	0.3	0.2	0.5	1.7	0.5	0.9	3.1	0.1	0.5	0.2	0.6	0.2
	Quartz	28.6	4.9	30.7	10.0	34.5	4.8	30.7	9.6	34.5	33.7	33.0	4.8	17.3	9.8	41.7	10.6	41.6	7.9
	Feldspar	32.4	5.3	35.3	8.8	33.3	5.5	35.3	9.3	33.3	17.1	32.5	8.4	29.9	3.3	14.2	3.6	14.0	3.8
	Amphibole	2.5	0.3	2.0	0.6	1.9	0.3	2.0	0.5	1.9	2.0	2.0	1.1	4.0	0.5	2.1	0.4	1.6	0.4
	Diopside/Salite	0.1	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
	Other Hard Gangue	0.6	0.0	0.6	0.1	0.6	0.1	0.6	0.2	0.6	1.3	0.6	0.2	0.6	0.4	1.5	0.4	1.6	0.3
	Carbonates	4.0	0.5	3.2	0.9	3.2	0.5	3.2	0.9	3.2	7.5	4.2	1.4	5.0	1.4	6.1	1.4	5.7	1.6
	Chlorite	1.7	0.2	1.2	0.3	1.1	0.2	1.2	0.3	1.1	0.8	1.4	0.9	3.0	0.2	0.7	0.2	0.7	0.2
	Micas	12.1	1.7	10.1	2.5	8.5	1.6	10.1	2.4	8.5	5.3	10.0	5.4	19.1	0.7	2.9	0.8	3.2	1.0
	Clays	10.2	1.9	11.9	3.1	11.2	1.9	11.9	3.1	11.2	22.3	9.3	2.6	9.2	5.4	22.9	5.7	22.4	4.5
	Other Soft Gangue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Fe-Oxides	1.2	0.2	1.1	0.4	0.9	0.2	1.1	0.3	0.9	2.0	1.4	0.3	1.2	0.4	1.9	0.5	2.0	0.5
	Ti Oxides	1.3	0.2	1.3	0.3	1.2	0.2	1.3	0.3	1.2	1.7	1.3	0.4	1.4	0.4	1.7	0.4	1.7	0.4
	Apatite	0.7	0.1	0.3	0.1	0.5	0.1	0.3	0.2	0.5	0.9	1.0	0.2	0.7	0.1	0.5	0.2	0.9	0.3
	Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
	Total	100.0	15.7	100.0	28.0	100.0	15.7	100.0	28.0	100.0	100.0	100.0	28.1	100.0	23.5	100.0	25.5	100.0	22.0
Mean Grain Size (µm)			34		31		21		7			43		34		22		6	
	Pyrite		34		31		21		7			43		34		22		6	
	Pyrrhotite		33		19		17		5			6		4		7		3	
	Chalcopyrite		26		26		25		10			29		28		25		7	
	Molybdenite		7		11		8		4			10		4		9		3	
	Sphalerite		11		19		11		11			11		19		12		4	
	Other Sulphides		6		7		26		3			21		12		9		3	
	Sulphates		10		12		9		5			9		7		7		5	
	Quartz		32		30		20		10			37		29		18		8	
	Feldspar		29		24		19		7			22		17		14		5	
	Amphibole		11		9		8		6			9		6		6		4	
	Diopside/Salite		6		6		6		6			6		5		5		3	
	Other Hard Gangue		7		7		6		5			7		5		6		4	
	Carbonates		20		17		17		8			20		18		16		8	
	Chlorite		11		8		9		5			7		6		6		4	
	Micas		14		11		12		7			12		10		11		7	
	Clays		17		14		12		7			26		21		17		8	
	Other Soft Gangue		18		5		4		3			6		6		10		0	
	Fe-Oxides		19		13		14		9			15		13		12		7	
	Ti Oxides		11		9		10		7			11		9		9		5	
	Apatite		29		29		33		10			28		32		30		7	
	Other		6		5		4		6			6		5		5		3	

Table 2 continued. Modal Analyses for Morrison Copper Composite Samples continued

Survey	Name Id																				
		Sample Fraction	Name Name	BFP-KH					ZS-QZSE												
				Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm	
		Mass Size Dist. (%)	100	33.2		24.4		23.5		18.9		100	40.0		18.8		18.4		22.8		
		Average Particle Size (µm)	30	160		77		35		9		28	178		77		36		9		
Mineral Mass (%)		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm			
		Sample	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Fraction		
	Pyrite	0.9	0.3	1.0	0.2	0.7	0.2	1.0	0.2	1.0	1.1	0.8	0.3	0.7	0.3	1.5	0.3	1.4	0.2		
	Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Chalcopyrite	1.5	0.7	2.5	0.3	1.0	0.3	1.1	0.4	1.7	1.1	2.8	0.3	0.7	0.2	0.9	0.2	1.2	0.4		
	Molybdenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0		
	Sphalerite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Other Sulphides	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0		
	Sulphates	0.9	1.2	4.2	0.1	0.4	0.1	0.6	0.2	0.7	1.1	2.1	0.1	0.4	0.1	0.4	0.1	0.8	0.7		
	Quartz	24.3	5.4	18.5	8.9	26.8	7.1	28.9	6.1	26.0	30.4	11.6	12.2	30.4	6.5	34.5	6.8	37.0	4.9		
	Feldspar	40.6	6.4	21.9	14.6	43.8	10.1	41.6	9.1	38.8	26.8	36.2	11.3	28.3	4.5	24.0	4.3	23.5	6.7		
	Amphibole	3.0	0.7	2.4	0.8	2.3	0.6	2.3	0.7	2.9	1.3	5.0	0.5	1.2	0.2	1.3	0.3	1.5	0.4		
	Diopside/Salite	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0		
	Other Hard Gangue	0.6	0.2	0.8	0.2	0.7	0.1	0.6	0.1	0.6	0.6	0.3	0.3	0.7	0.1	0.7	0.1	0.6	0.1		
	Carbonates	3.5	3.0	10.2	0.9	2.7	0.8	3.4	0.9	4.0	3.1	4.5	0.8	2.1	0.5	2.9	0.7	3.6	1.1		
	Chlorite	2.2	0.3	1.0	0.5	1.5	0.4	1.5	0.5	2.1	0.8	4.6	0.3	0.8	0.1	0.8	0.1	0.6	0.2		
	Micas	12.2	2.7	9.4	3.2	9.6	2.3	9.3	3.0	12.6	13.7	20.2	5.2	13.0	2.3	12.5	2.1	11.2	4.1		
	Clays	7.5	6.7	23.1	2.7	8.0	1.8	7.3	1.5	6.3	16.8	8.3	7.4	18.6	3.3	17.3	2.8	15.4	3.2		
	Other Soft Gangue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0		
	Fe-Oxides	0.9	0.6	1.9	0.2	0.6	0.2	0.9	0.3	1.2	0.7	1.2	0.2	0.4	0.1	0.7	0.2	0.8	0.2		
	Ti Oxides	1.0	0.6	1.9	0.4	1.1	0.2	0.9	0.2	1.0	2.0	1.2	0.9	2.2	0.4	1.9	0.3	1.8	0.4		
	Apatite	0.7	0.3	0.9	0.1	0.4	0.1	0.4	0.2	1.1	0.2	1.1	0.1	0.1	0.0	0.3	0.0	0.2	0.1		
	Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Total	100.0	29.0	100.0	33.2	100.0	24.4	100.0	23.5	100.0	100.0	100.0	40.0	100.0	18.8	100.0	18.4	100.0	22.8		
Mean Grain Size (µm)	Pyrite		40		43		32		6			37		42		23		6			
	Pyrrhotite		6		13		0		3			6		9		16		0			
	Chalcopyrite		28		25		25		9			21		24		23		8			
	Molybdenite		6		4		5		5			19		51		25		6			
	Sphalerite		9		7		6		4			23		23		4		6			
	Other Sulphides		6		4		4		3			7		5		13		0			
	Sulphates		11		11		10		5			10		7		8		5			
	Quartz		38		30		19		9			26		24		18		9			
	Feldspar		40		30		22		7			19		15		12		5			
	Amphibole		13		10		10		5			8		6		6		4			
	Diopside/Salite		6		5		5		3			6		5		5		4			
	Other Hard Gangue		8		6		6		4			6		5		5		4			
	Carbonates		23		17		16		7			15		16		14		8			
	Chlorite		12		10		9		5			8		7		6		4			
	Micas		17		14		14		7			12		10		9		6			
	Clays		16		14		11		7			16		14		12		6			
	Other Soft Gangue		6		5		8		3			71		13		6		0			
	Fe-Oxides		16		15		16		9			11		11		10		6			
	Ti Oxides		13		9		10		6			9		9		9		6			
	Apatite		33		36		31		10			15		19		19		9			
	Other		6		5		4		3			7		5		4		3			

Table 2 continued. Modal Analyses for Morrison Copper Composite Samples continued

Survey Sample Fraction	Name Id Name Name									
		SS								
		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm	
	Mass Size Dist. (%)	100	32.8		26.1		25.6		15.5	
	Average Particle Size (µm)	35	156		79		35		10	
Mineral Mass (%)		Combined	-600/+150µm		-150/+75µm		-75/+20µm		-20/+3µm	
		Sample	Sample	Fraction	Sample	Fraction	Sample	Fraction	Sample	Fraction
	Pyrite	0.6	0.2	0.6	0.2	0.7	0.1	0.6	0.1	0.6
	Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Chalcopyrite	1.0	0.2	0.5	0.2	0.7	0.3	1.2	0.3	2.0
	Molybdenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sphalerite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Other Sulphides	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sulphates	0.6	0.1	0.4	0.1	0.4	0.1	0.4	0.3	2.0
	Quartz	41.7	14.0	42.6	12.8	48.9	12.0	46.9	3.0	19.0
	Feldspar	30.3	10.8	33.0	7.3	28.1	7.0	27.3	5.1	33.2
	Amphibole	4.3	1.3	4.1	0.8	3.2	1.0	3.8	1.2	7.5
	Diopside/Salite	0.2	0.1	0.3	0.0	0.2	0.0	0.1	0.0	0.0
	Other Hard Gangue	0.3	0.1	0.3	0.1	0.2	0.0	0.2	0.1	0.4
	Carbonates	3.4	0.9	2.6	0.7	2.9	0.8	3.2	1.0	6.4
	Chlorite	1.7	0.4	1.2	0.3	1.0	0.3	1.4	0.7	4.3
	Micas	9.5	2.5	7.6	2.0	7.6	2.4	9.2	2.7	17.5
	Clays	4.7	1.7	5.2	1.2	4.6	1.0	4.0	0.7	4.8
	Other Soft Gangue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Fe-Oxides	0.6	0.2	0.5	0.1	0.5	0.2	0.7	0.1	0.7
	Ti Oxides	0.7	0.2	0.7	0.2	0.6	0.2	0.6	0.1	0.9
	Apatite	0.4	0.1	0.3	0.1	0.4	0.1	0.5	0.1	0.6
	Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	100.0	32.8	100.0	26.1	100.0	25.6	100.0	15.5	100.0
Mean Grain Size (µm)										
	Pyrite		85		55		28		7	
	Pyrrhotite		6		0		0		3	
	Chalcopyrite		28		27		27		11	
	Molybdenite		17		5		7		3	
	Sphalerite		17		4		17		8	
	Other Sulphides		8		4		4		5	
	Sulphates		19		16		10		6	
	Quartz		56		45		27		10	
	Feldspar		36		27		20		7	
	Amphibole		17		13		12		6	
	Diopside/Salite		6		5		5		4	
	Other Hard Gangue		9		7		7		4	
	Carbonates		19		18		16		8	
	Chlorite		13		10		10		5	
	Micas		16		13		13		7	
	Clays		14		11		10		6	
	Other Soft Gangue		7		7		8		3	
	Fe-Oxides		19		19		20		9	
	Ti Oxides		11		10		8		6	
	Apatite		25		34		29		9	
	Other		6		6		4		3	

3.2. Copper Department

The distribution of elemental copper in the five composite samples is presented in Figures 2 through 6. This data was extrapolated from SMS analyses. In all samples, copper occurs primarily as chalcopyrite (CuFeS_2 , Cp), while minor to trace amounts of bornite (Bn , Cu_5FeS_4), and trace enargite (En , Cu_3AsS_4), stannite (Stn , $\text{Cu}_2\text{FeSnS}_4$), and tetrahedrite (Tet , $(\text{Cu,Fe})_{12}\text{Sb}_4\text{S}_{13}$) were also detected. Trace chalcocite (Cc , Cu_2S) was observed in all samples with the exception of BFP-ARSE and trace covellite (Cv , CuS) was observed in all samples except the Master Composite sample. Due to similarities in flotation behaviour and the low to trace proportions of other copper-bearing minerals, all copper sulphide minerals will be grouped as “Cu-Sulphide” for the remainder of this report.

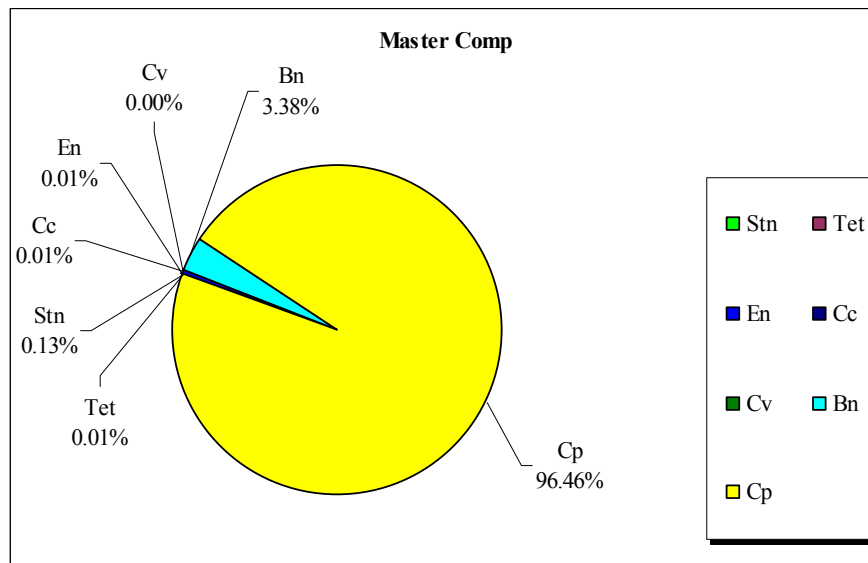


Figure 2. Elemental Cu Occurrence – Master Composite

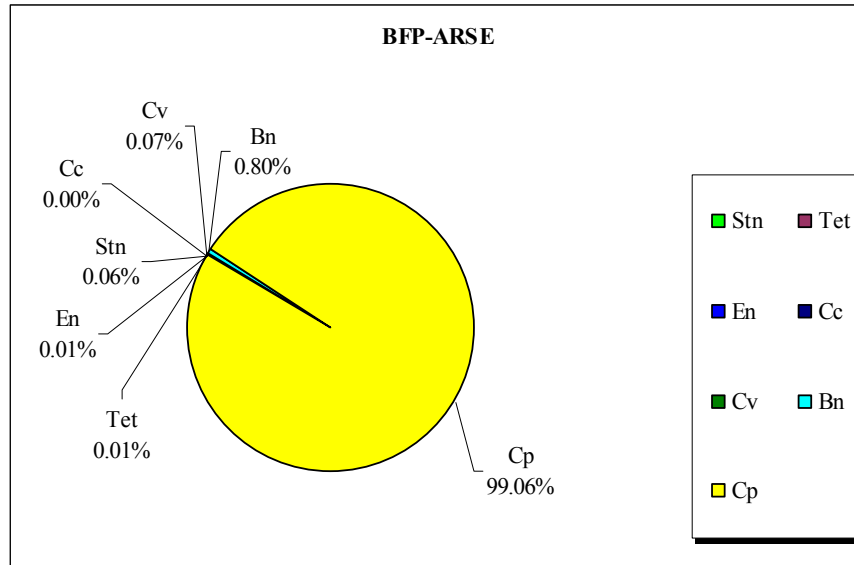


Figure 3. Elemental Cu Occurrence – BFP-ARSE

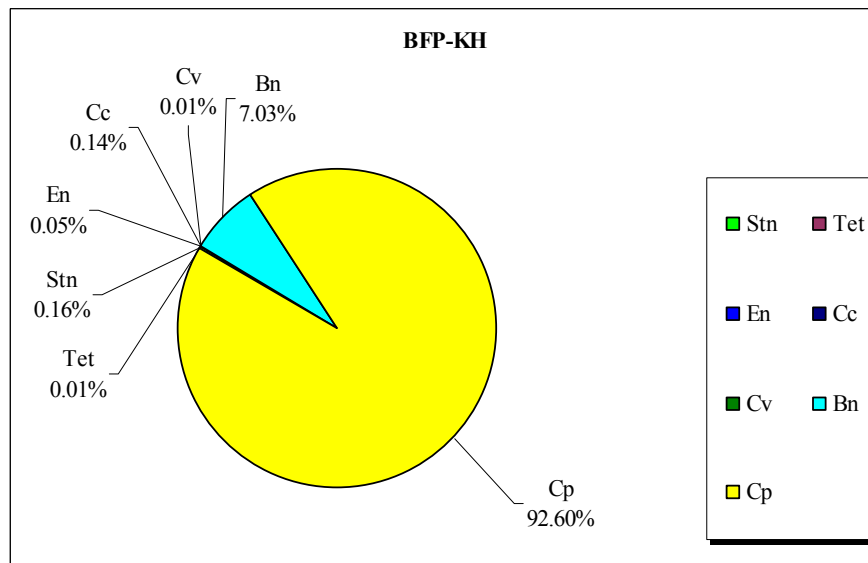


Figure 4. Elemental Cu Occurrence – BFP-KH

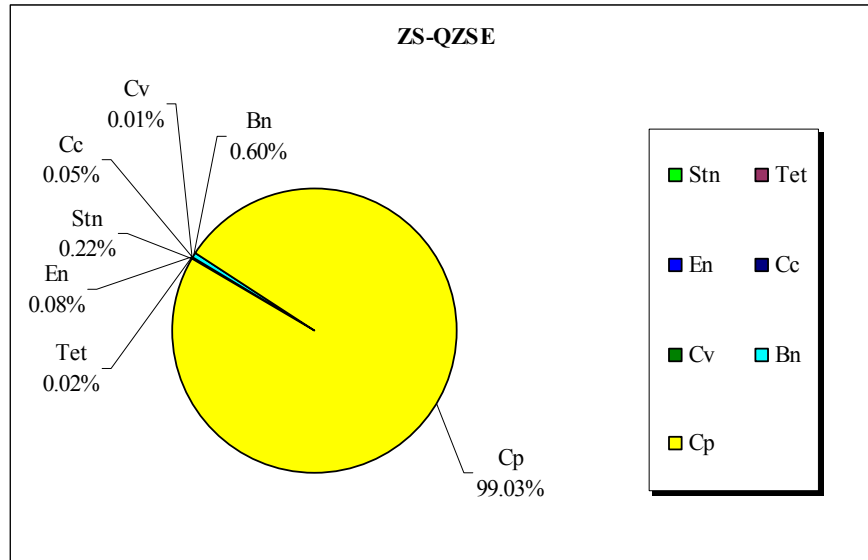


Figure 5. Elemental Cu Occurrence – ZS-QZSE

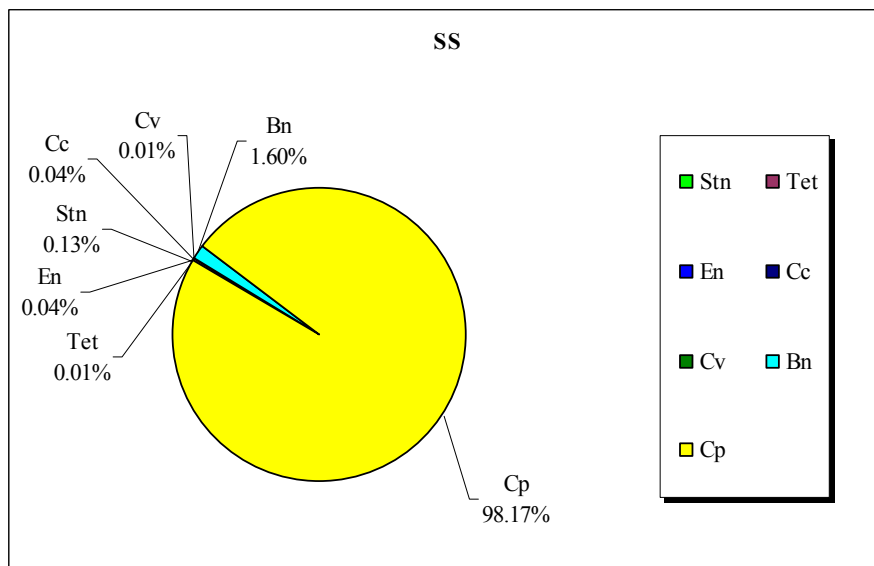


Figure 6. Elemental Cu Occurrence – SS

3.3. Cumulative Grain Size Distribution

The cumulative grain size distributions of Cu-Sulphide, major gangue minerals and groups, and overall particle size for all composite samples are illustrated in Figures 7 through 11. In all composite samples, other major mineral groups have more mass in the coarser grain size ranges than the mass of Cu-Sulphide minerals in the coarser size ranges. However, it is illustrated that Cu-Sulphide and quartz-feldspars have more mineral mass in the <40-50 μm range, relative to other major mineral groups.

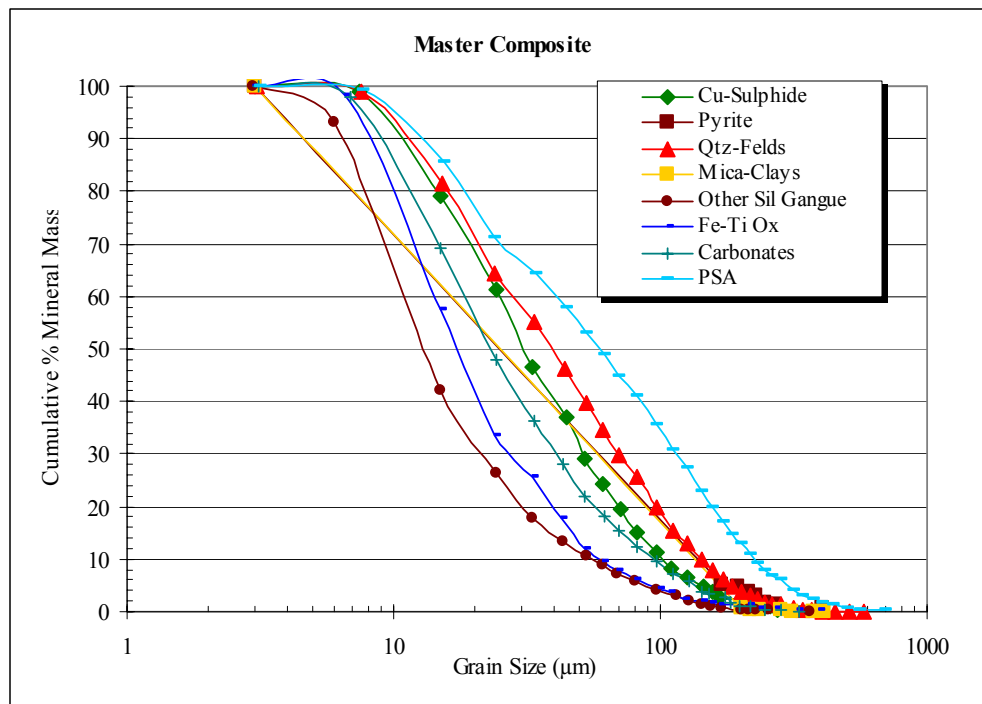


Figure 7. Grain Size vs. Cumulative Mineral Mass- Master Composite

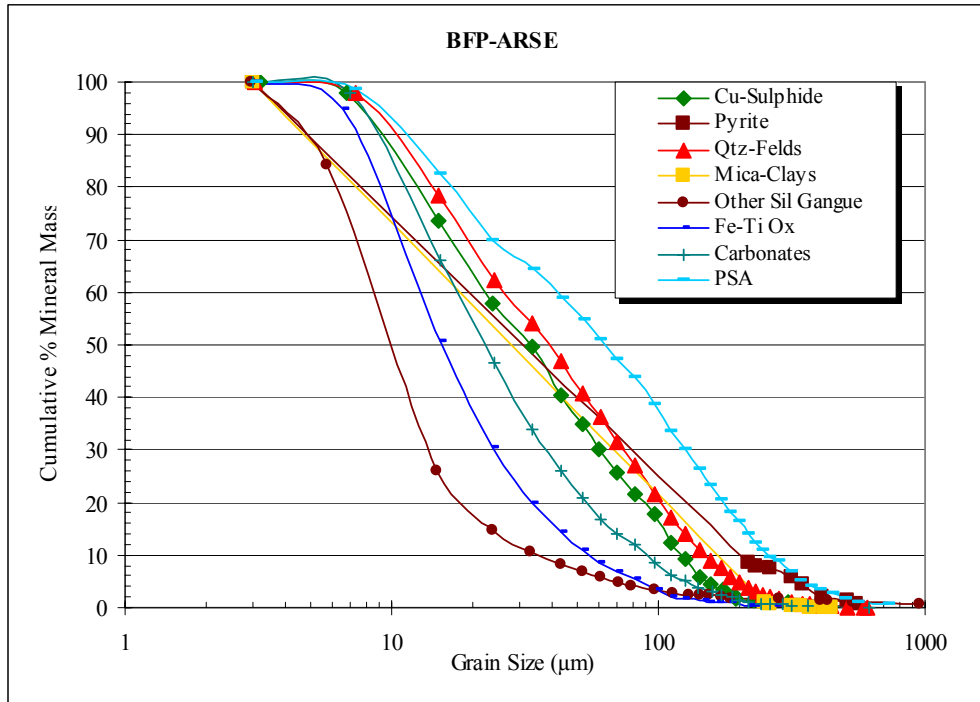


Figure 8. Grain Size vs. Cumulative Mineral Mass- BFP-ARSE

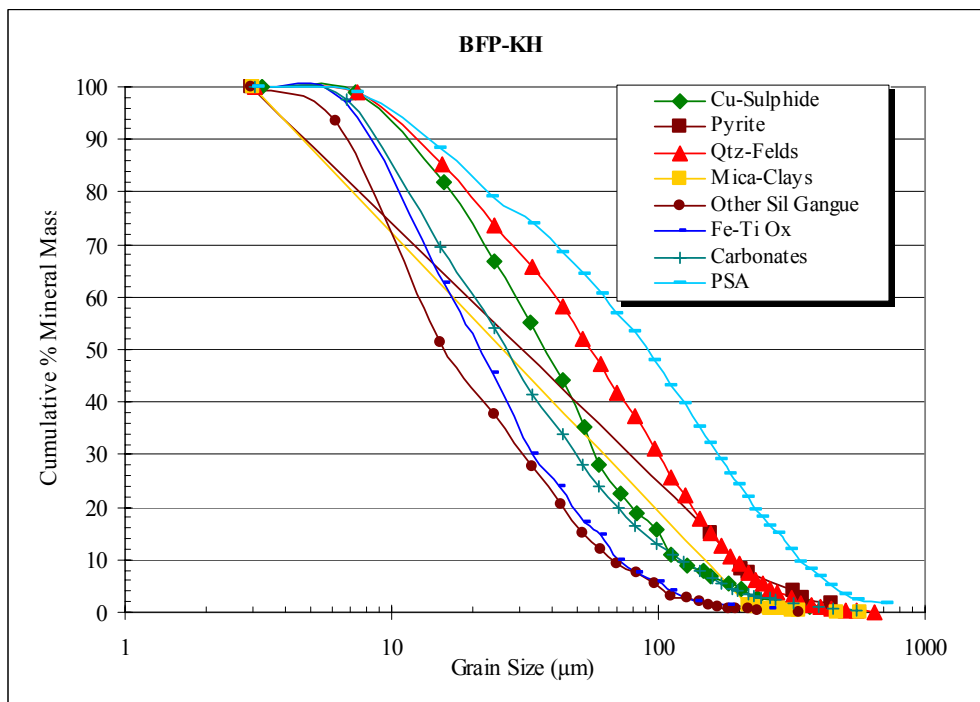


Figure 9. Grain Size vs. Cumulative Mineral Mass- BFP-KH

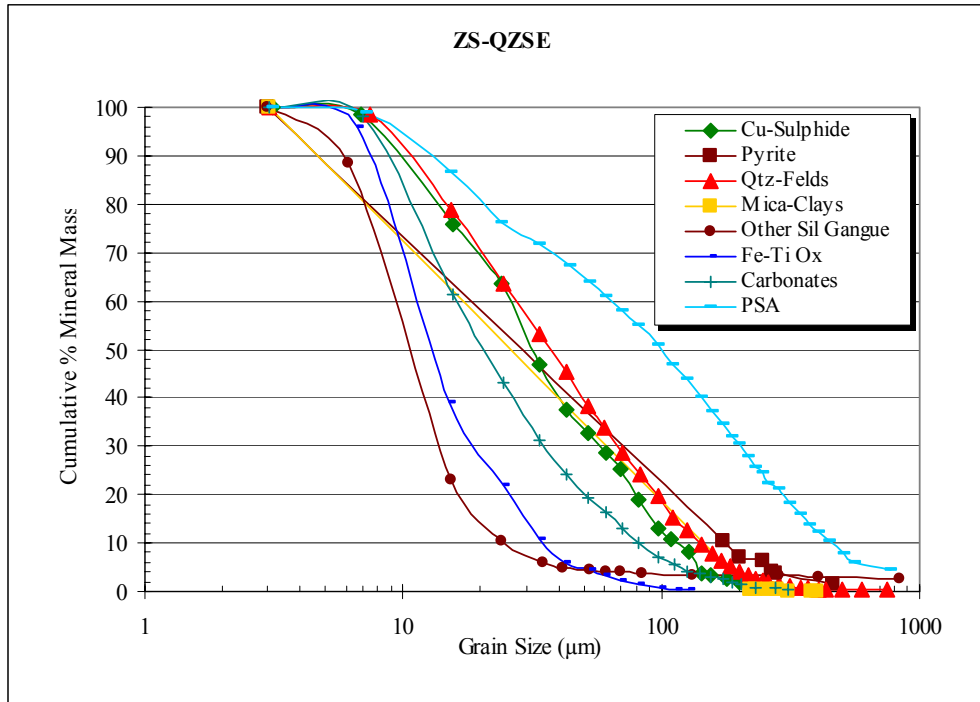


Figure 10. Grain Size vs. Cumulative Mineral Mass- ZS-QZSE

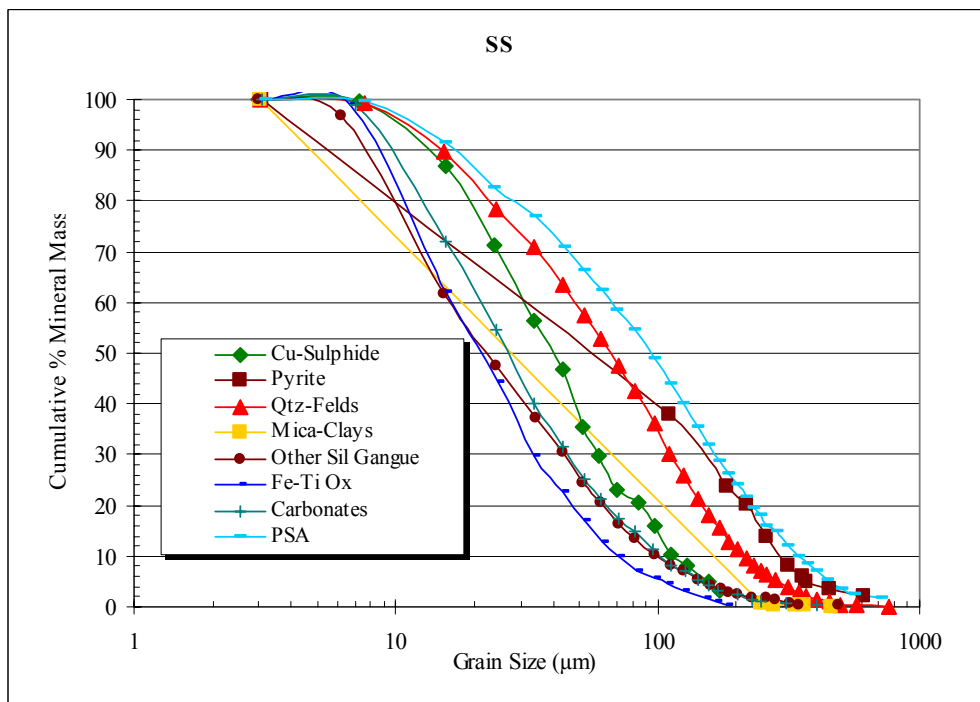


Figure 11. Grain Size vs. Cumulative Mineral Mass- SS

4. Liberation and Association

4.1. *Cu-Sulphide Liberation*

Liberation of Cu-Sulphide minerals in the five composite samples, both globally and by fraction, are presented in Figures 12 through 17 below.

For the purposes of this analysis, particle liberation is defined based on 2D particle area percent. Particles are classified in the following groups (in descending order) based on Cu-Sulphide mineral area percent: free ($\geq 95\%$), liberated ($< 95\%$ and $\geq 80\%$), middling ($< 80\%$ and $\geq 50\%$), sub-middling ($< 50\%$ and $\geq 20\%$) and locked ($< 20\%$). It should be noted that in the $-20\ \mu\text{m}$ fractions, single-pixels represent a large portion of particle area percent, and therefore, the combination of “free” and “liberated” categories should be combined to represent liberated particles in this fraction.

The Master Composite sample shows the highest degree of Cu-Sulphide liberation (78.2 wt% free or liberated), whereas BFP-KH contains the lowest proportion of liberated Cu-Sulphide (74.5 wt% free or liberated), relative to the other samples. Figures 13 through 17 illustrate that in all composite samples; there is an inversely proportional relationship between Cu-Sulphides liberation and particle size fraction, the most drastic example being ZS-QZSE for which liberation increases from 0.6 wt% in the coarsest fraction to 92.6 wt% free or liberated Cu-Sulphide in the finest fraction.

Examples of visual representations of Cu-Sulphide liberation are presented for samples BFP-KH and SS in Figures 18 and 19 below. The Cu-Sulphide-bearing particles are grouped by liberation class and presented by fraction.

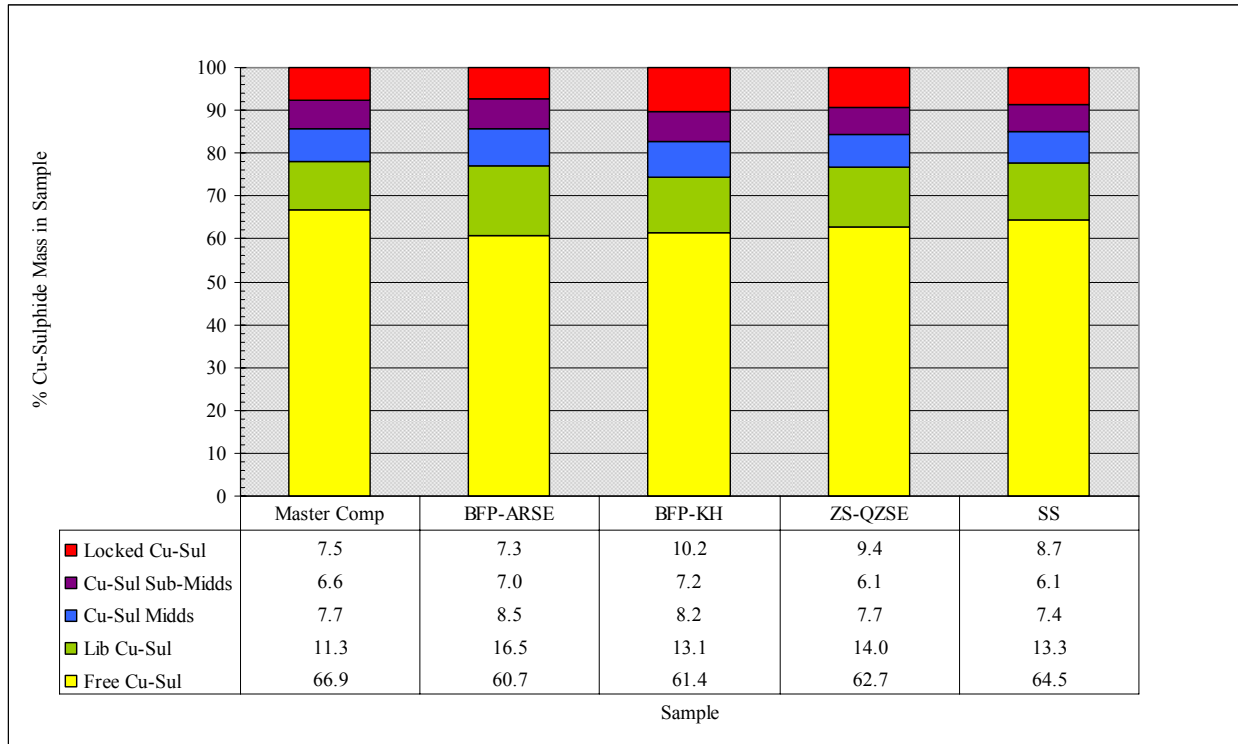


Figure 12. Summary of Cu-Sulphide Liberation by Sample

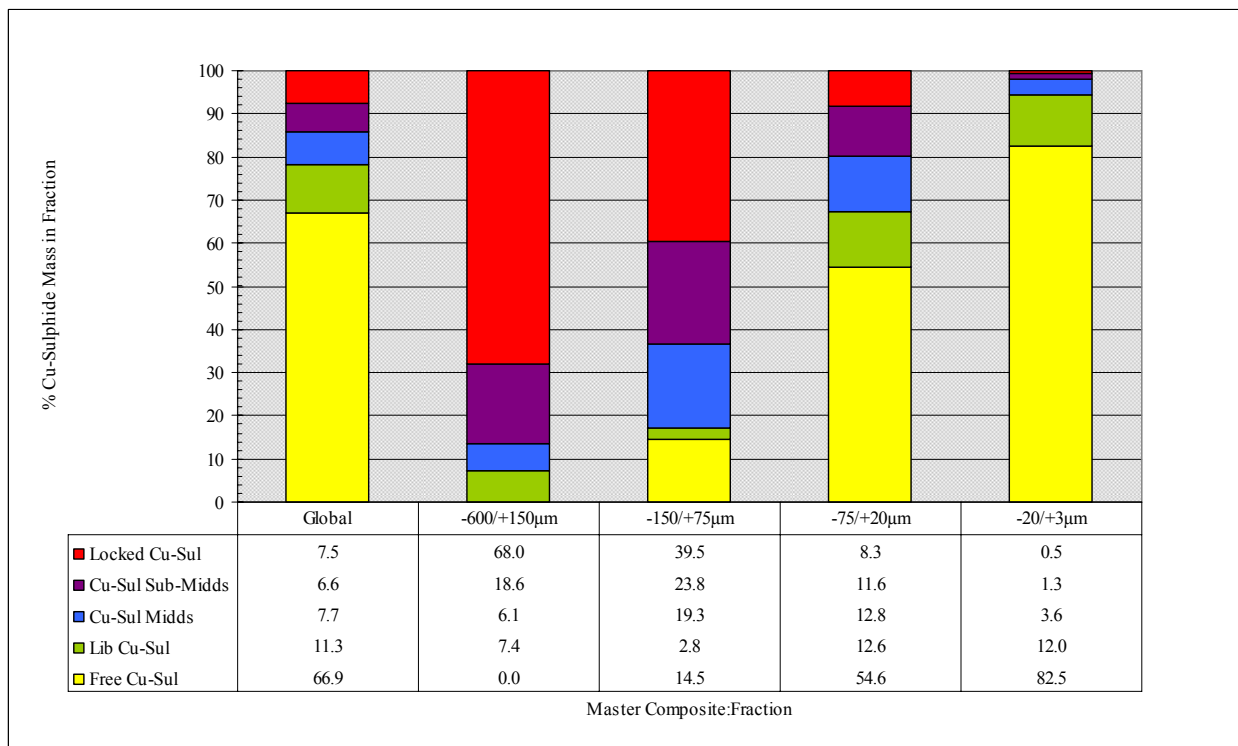


Figure 13. Cu-Sulphide Liberation- Master Composite

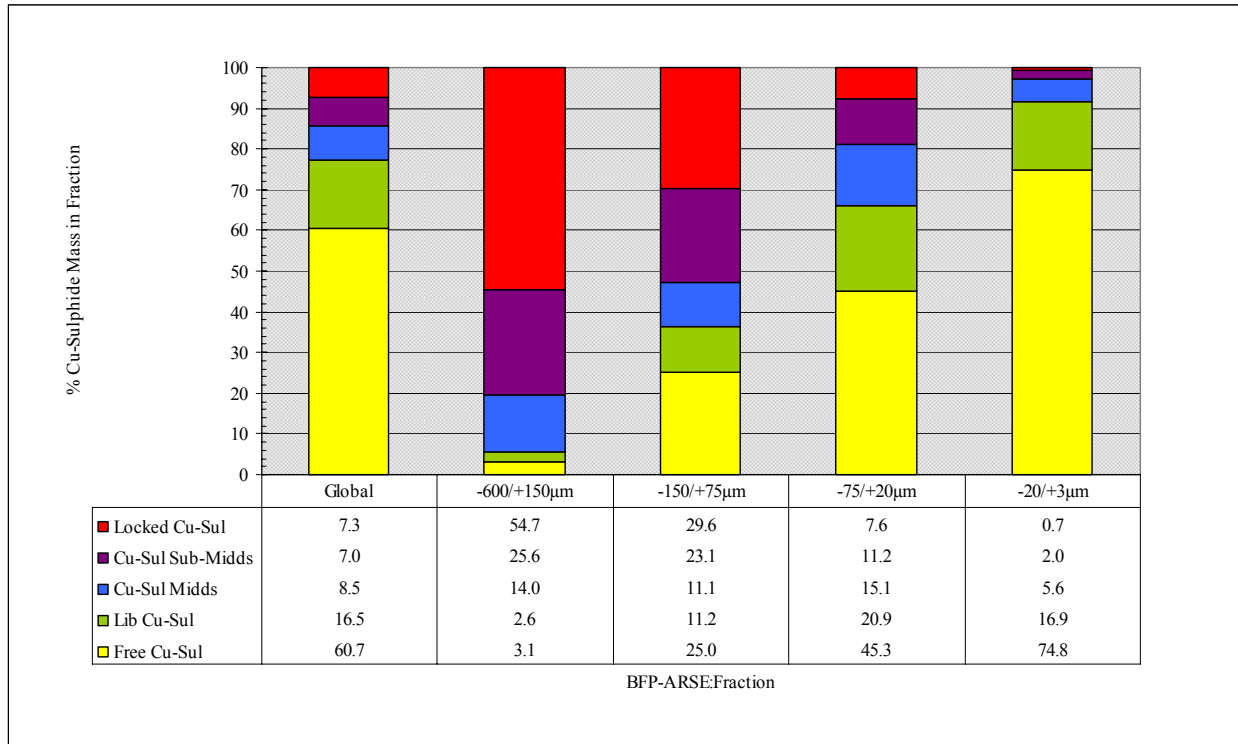


Figure 14. Cu-Sulphide Liberation- BFP-ARSE

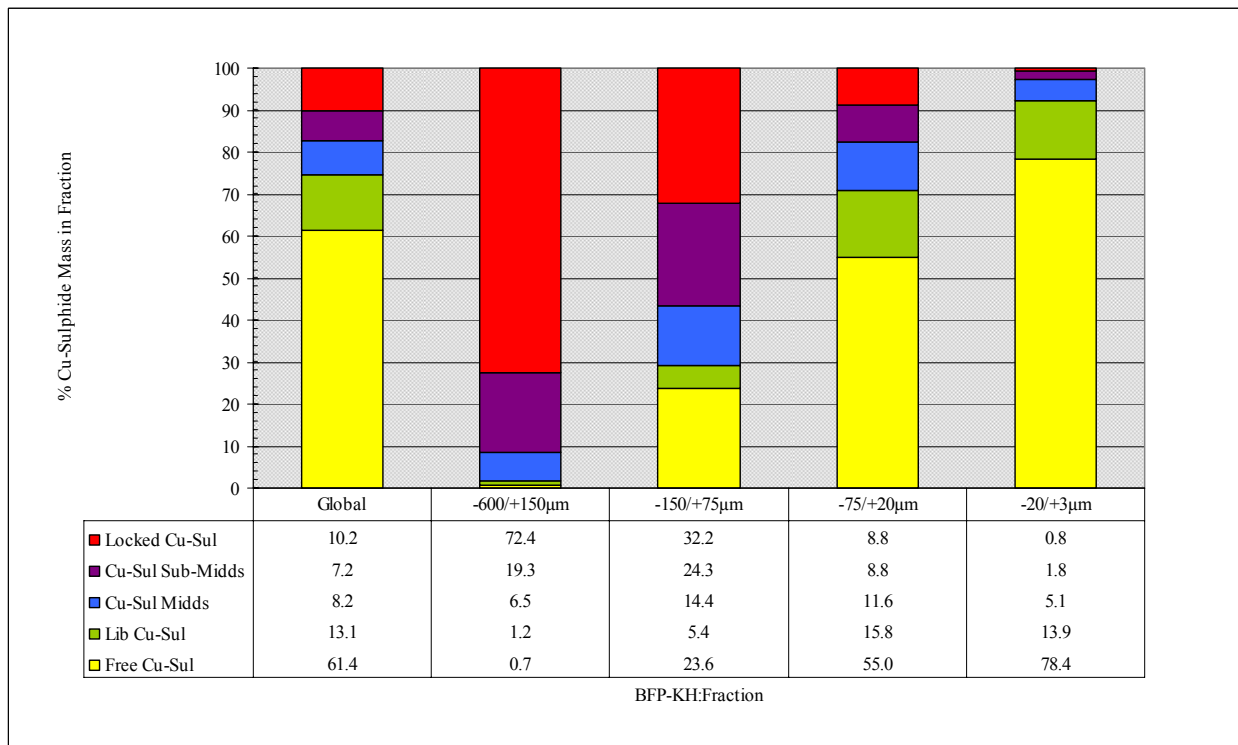


Figure 15. Cu-Sulphide Liberation- BFP-KH

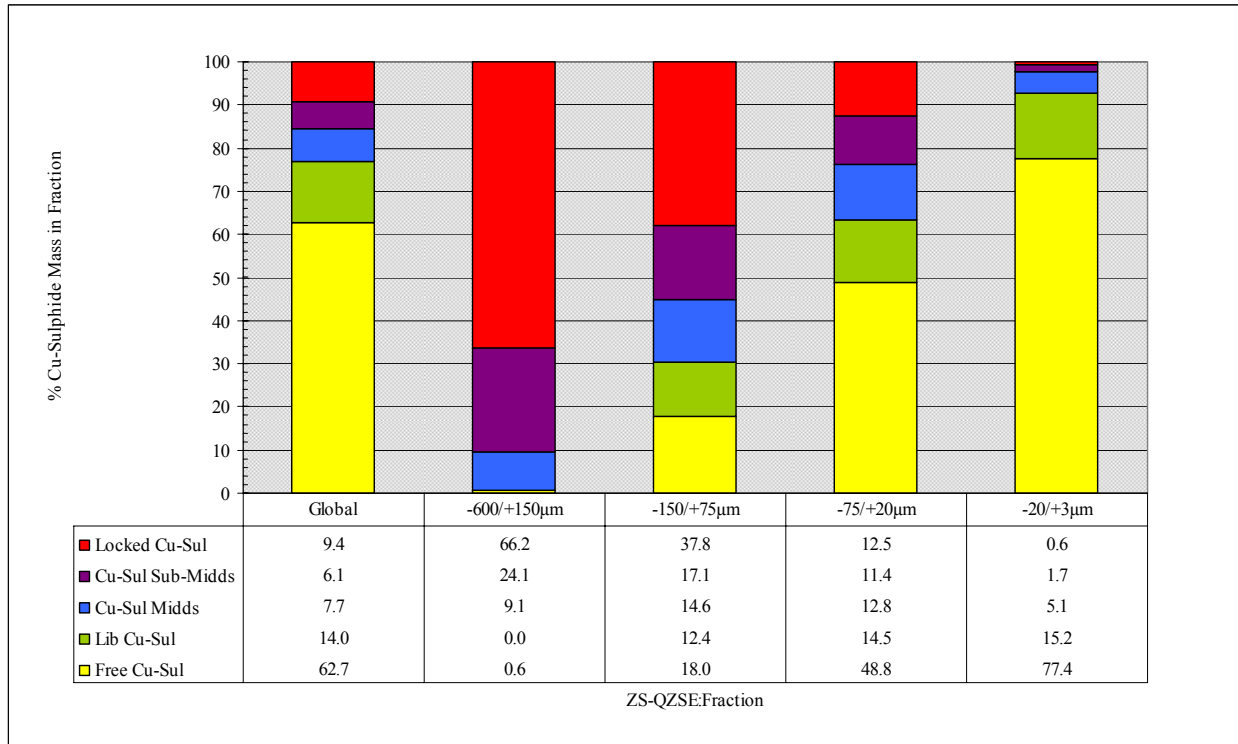


Figure 16. Cu-Sulphide Liberation- ZS-QZSE

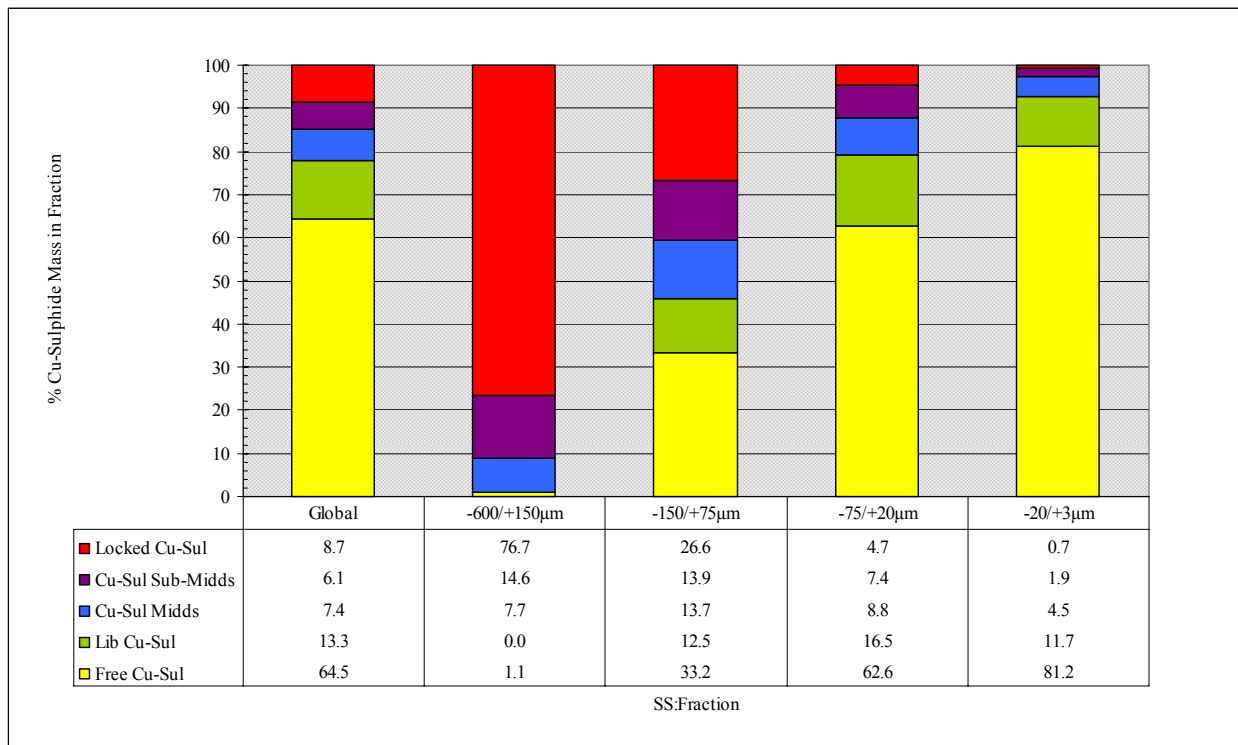


Figure 17. Cu-Sulphide Liberation- SS

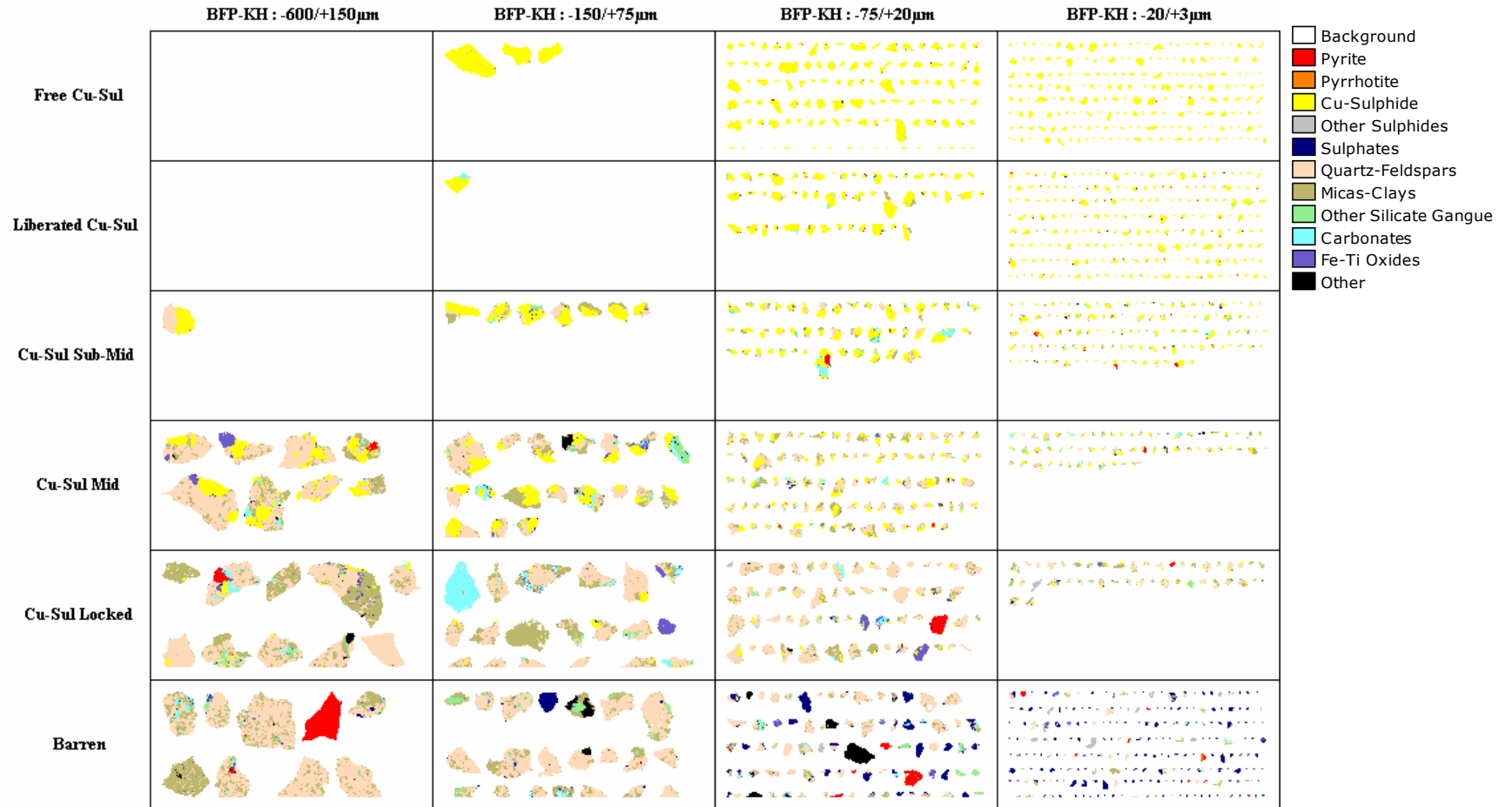


Figure 18. Image Grid of Cu-Sulphide Liberation- BFP-KH

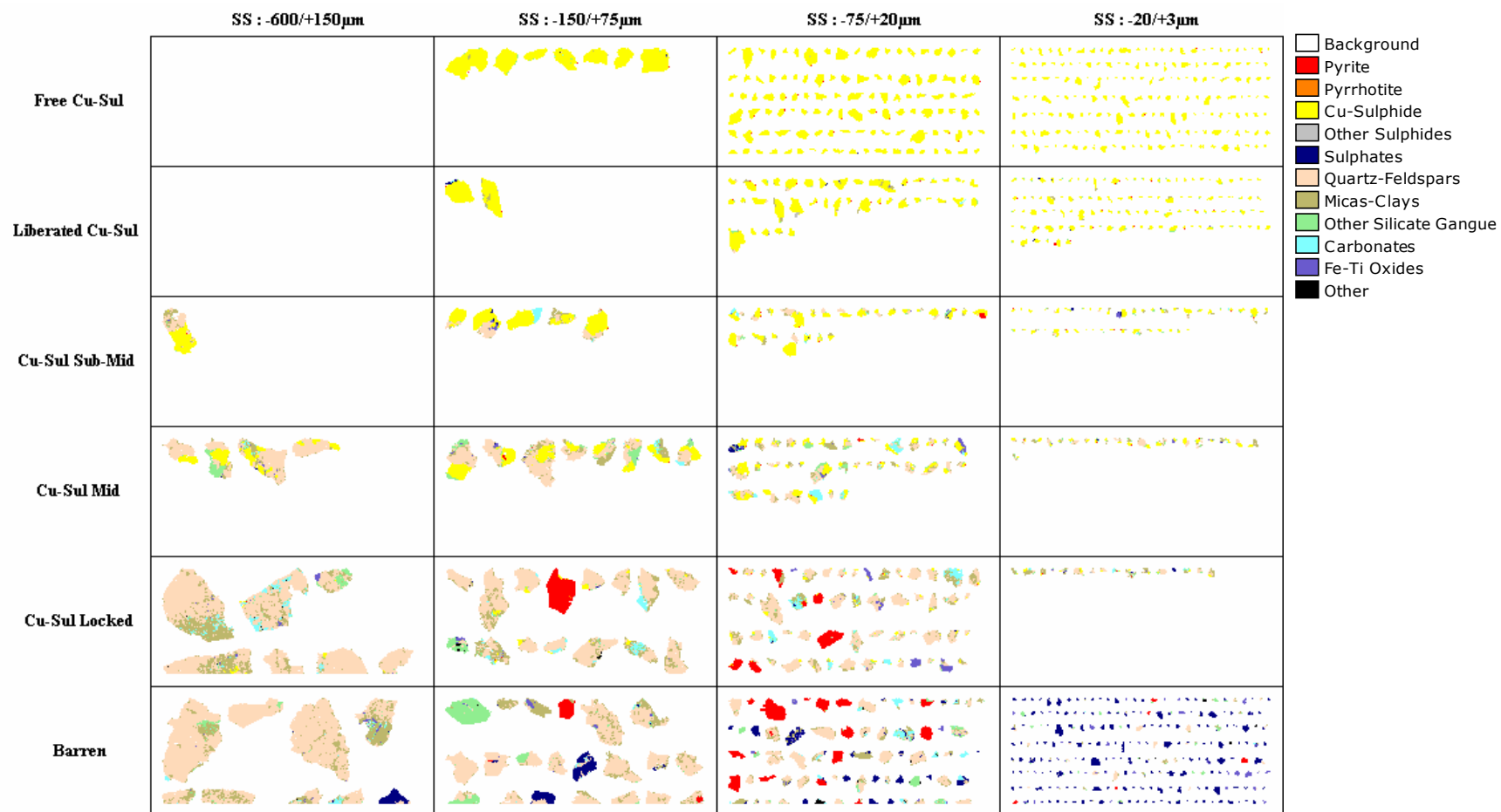


Figure 19. Image Grid of Cu-Sulphide Liberation- SS

4.2. *Pyrite Liberation*

Liberation of pyrite from SMS analyses of the five composite samples are presented both globally and by fraction, in Figures 20 through 25.

For the purposes of this analysis, particle liberation is defined based on 2-D particle area percent, using the same classification scheme as used for Cu-Sulphide in Section 4.1.

The SS sample shows the highest degree of pyrite liberation (84.0 wt%), whereas the Master Composite contains the lowest proportion of liberated pyrite (32.4 wt%), relative to the other samples

In the Master Composite, ZS-QZSE and SS composite samples, pyrite is relatively well liberated in the coarser size fractions. Inspection of pyrite-bearing particles illustrates that most pyrite in these samples occurs as relatively coarse, massive grains. In contrast, the BFP-ARSE and BFP-KH results show that pyrite in these samples occur as both coarser grains and as very finely disseminated, locked pyrite. In the finer size fractions, the finely disseminated (locked) pyrite results in relatively lower liberated pyrite proportions due to the higher grain area to particle area ratio in these size fractions. Detailed images illustrating these textural relationships are displayed in Figures 26 and 27 below. Figure 26 shows that a high proportion of pyrite in the Master Composite sample lies in the -150/+75 μm “liberated” category and there is a relatively low proportion of fine disseminated pyrite in the -20/+3 μm “locked” fraction (Figure 26). In contrast, composite BFP-KH (Figure 27) shows a relatively higher amount of pyrite occurring as disseminated grains, strongly associated with Cu-Sulphide, in the locked category of the -20/+3 μm fraction. Examples of these particles are highlighted below.

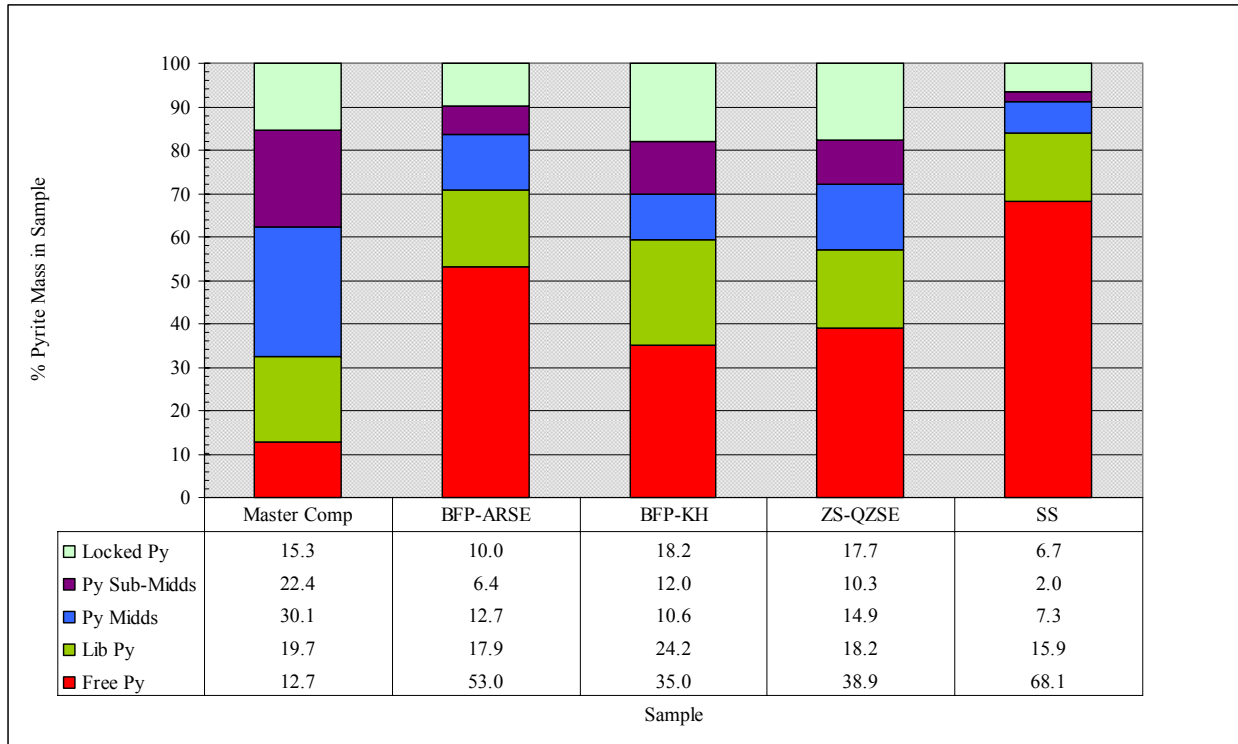


Figure 20. Summary of Pyrite Liberation by Sample

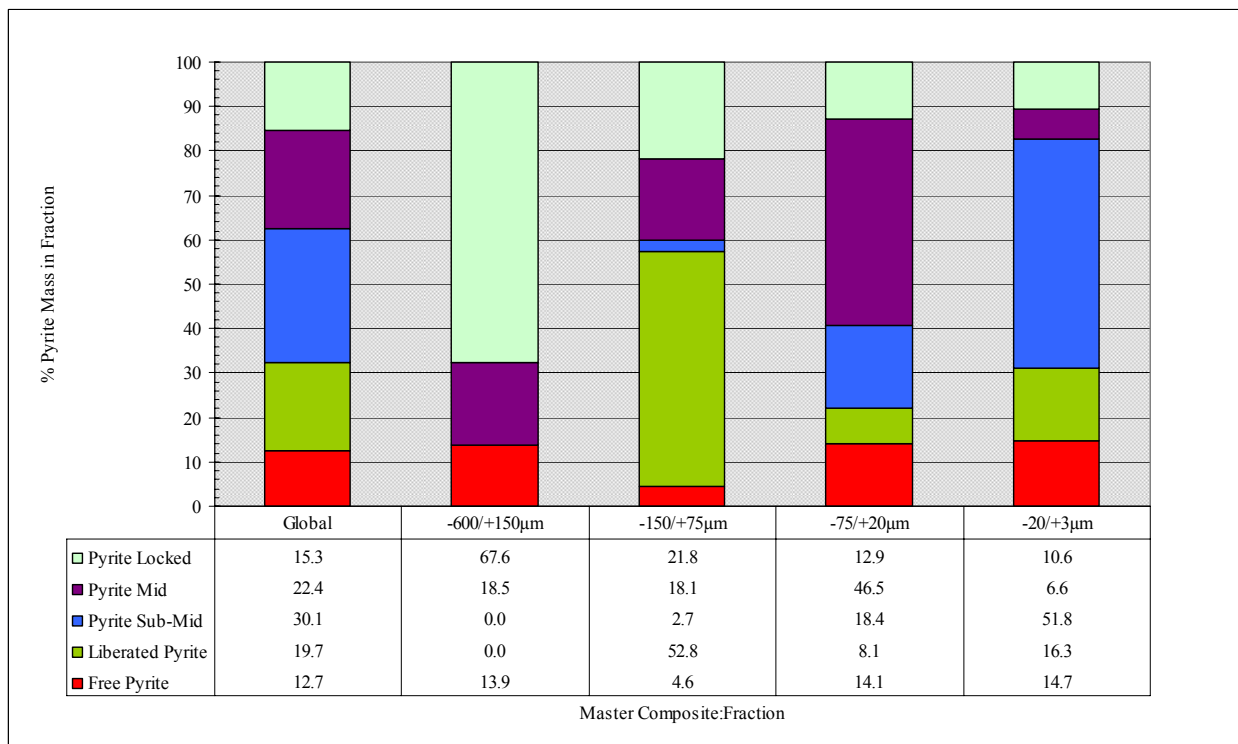


Figure 21. Pyrite Liberation- Master Composite

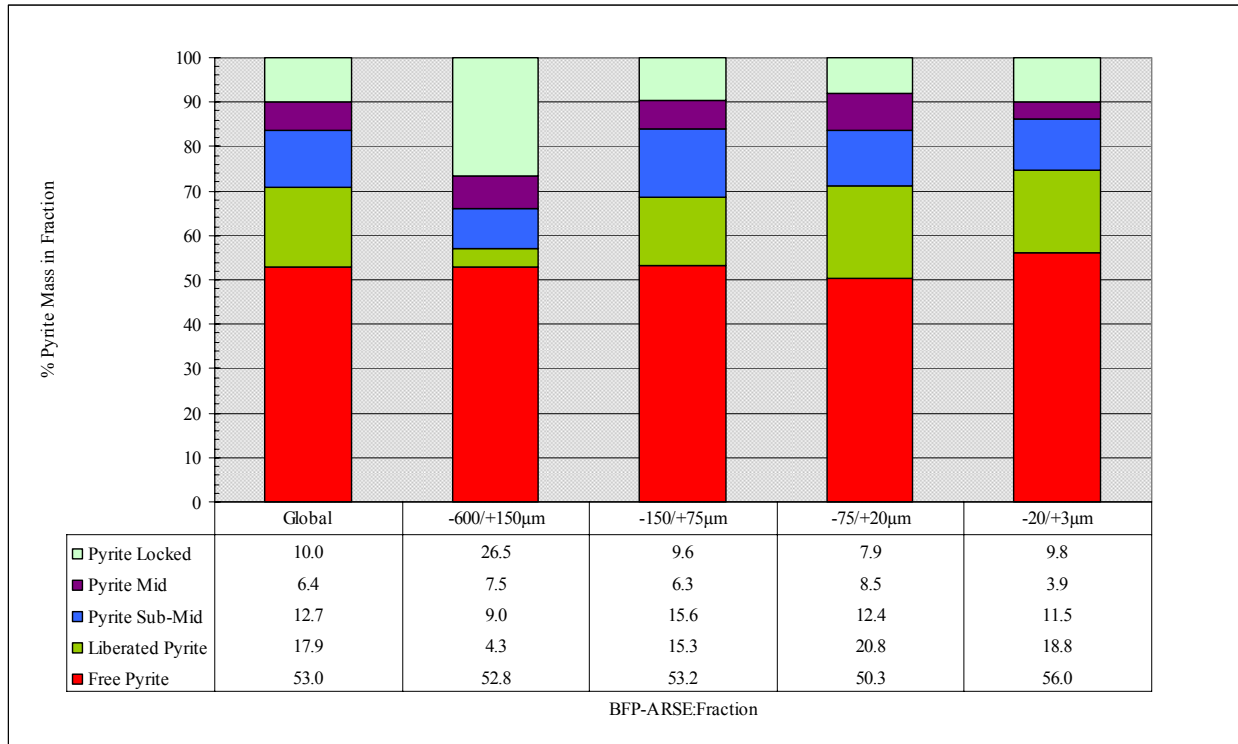


Figure 22. Pyrite Liberation- BFP-ARSE

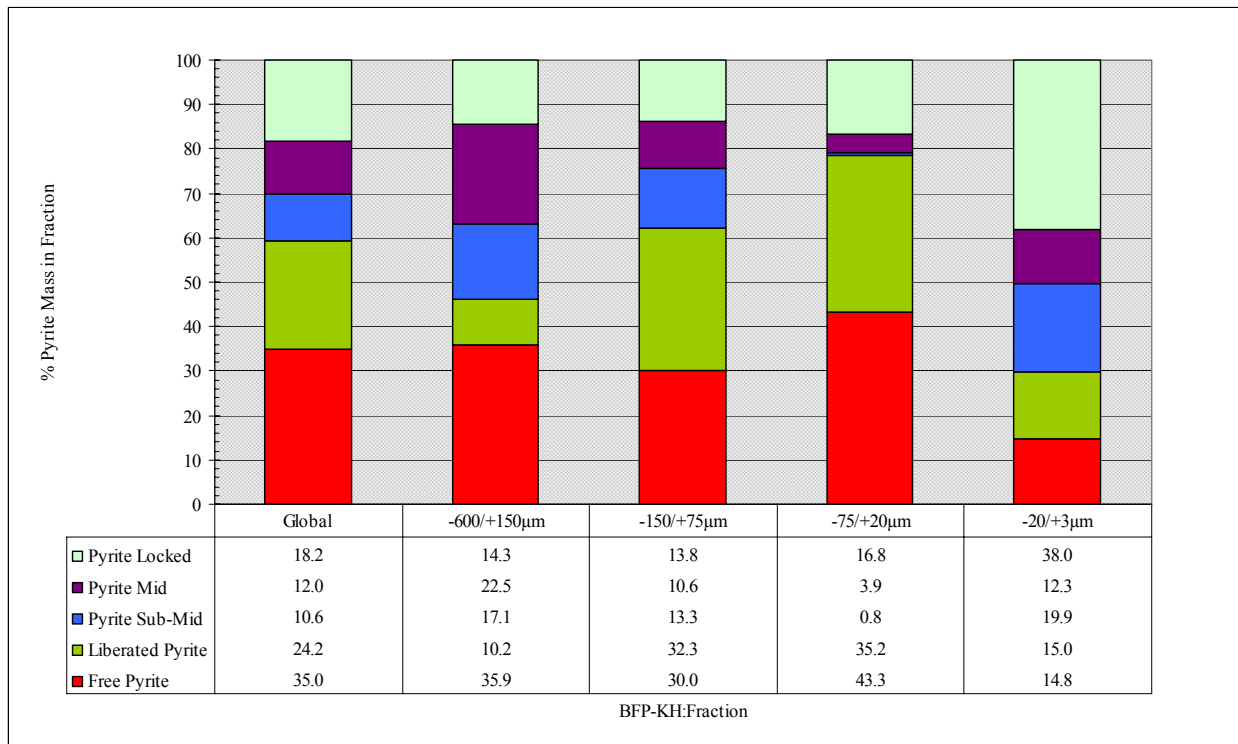


Figure 23. Pyrite Liberation- BFP-KH

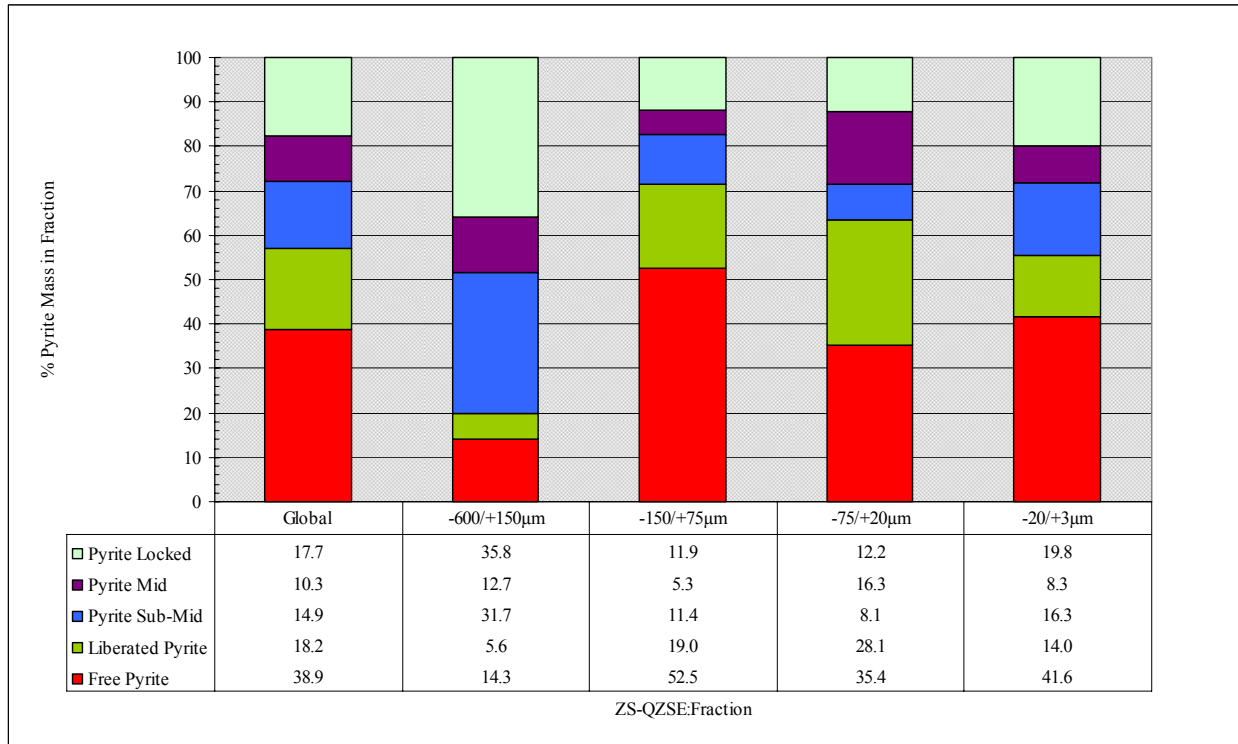


Figure 24. Pyrite Liberation- ZS-QZSE

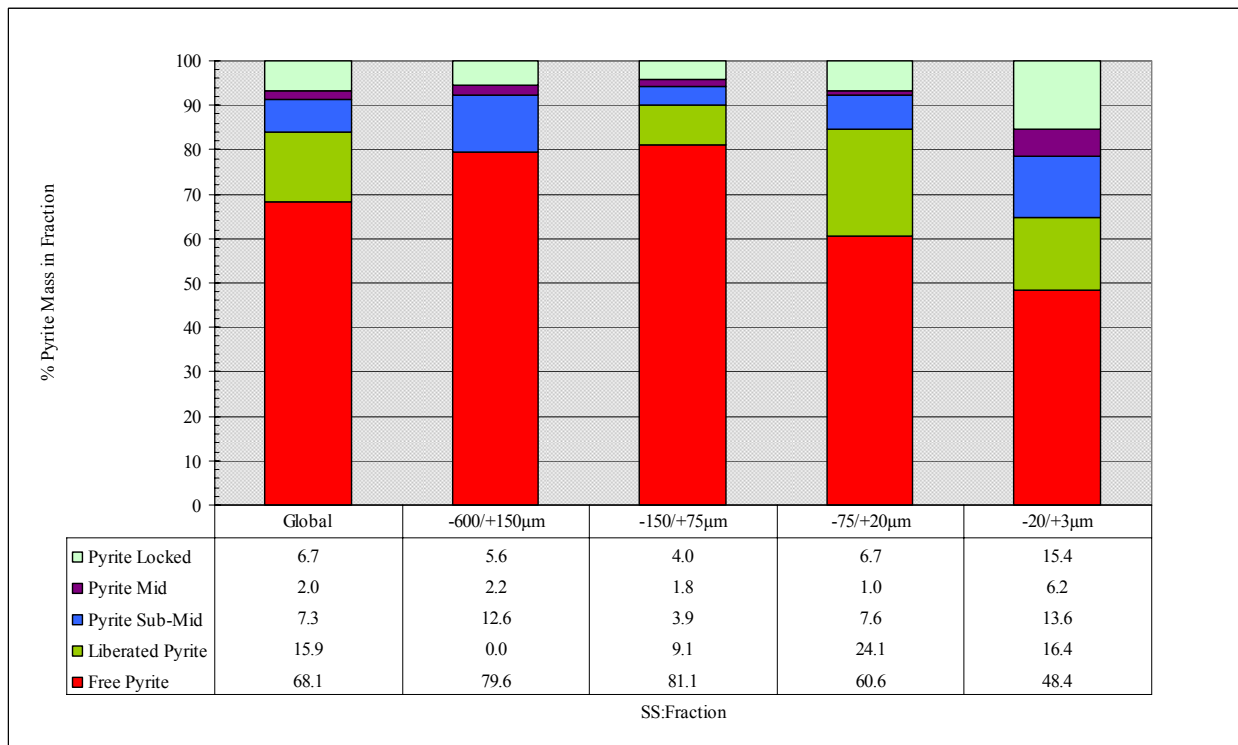


Figure 25. Pyrite Liberation- SS

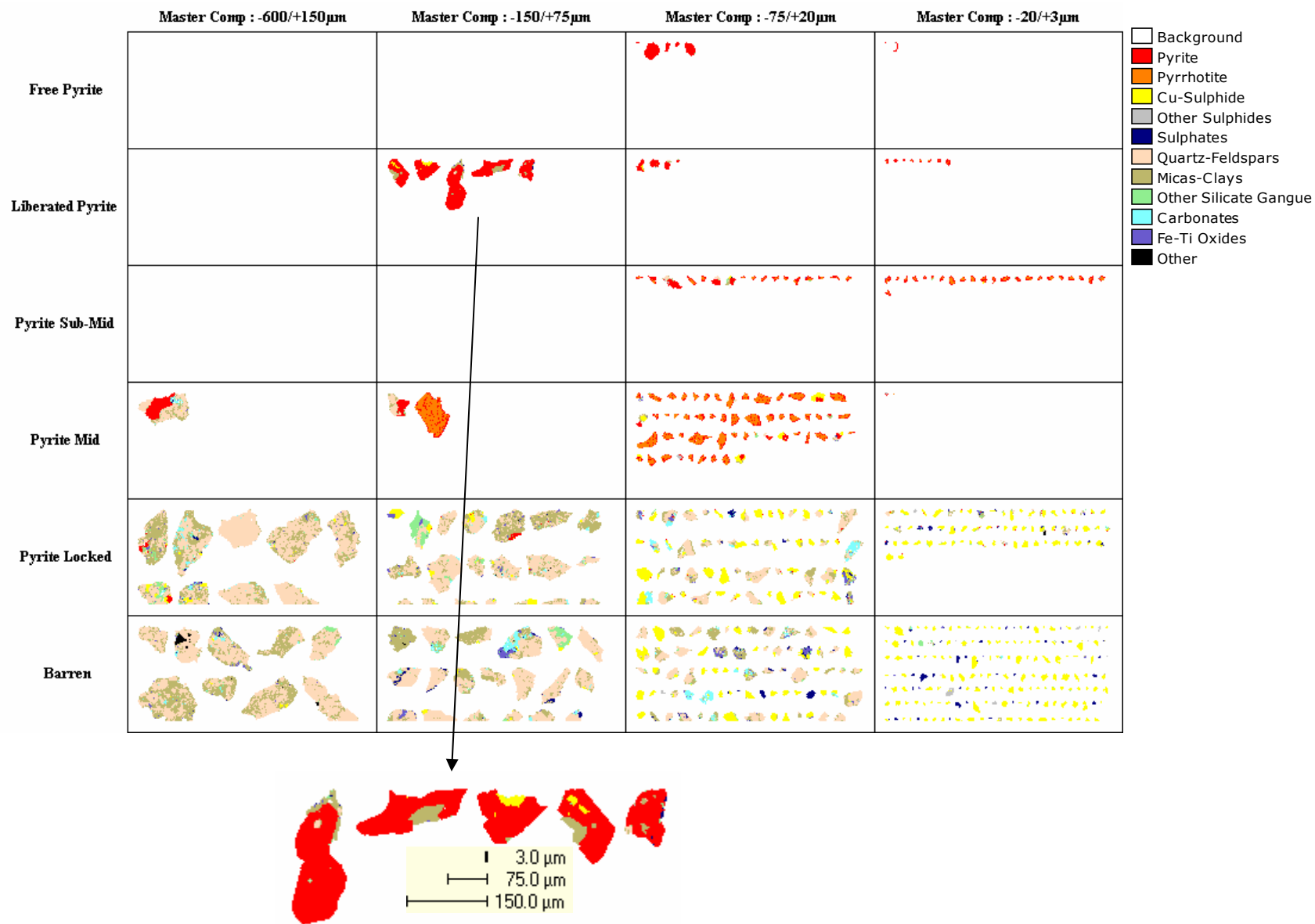


Figure 26. Image grid of pyrite liberation in Master Composite sample

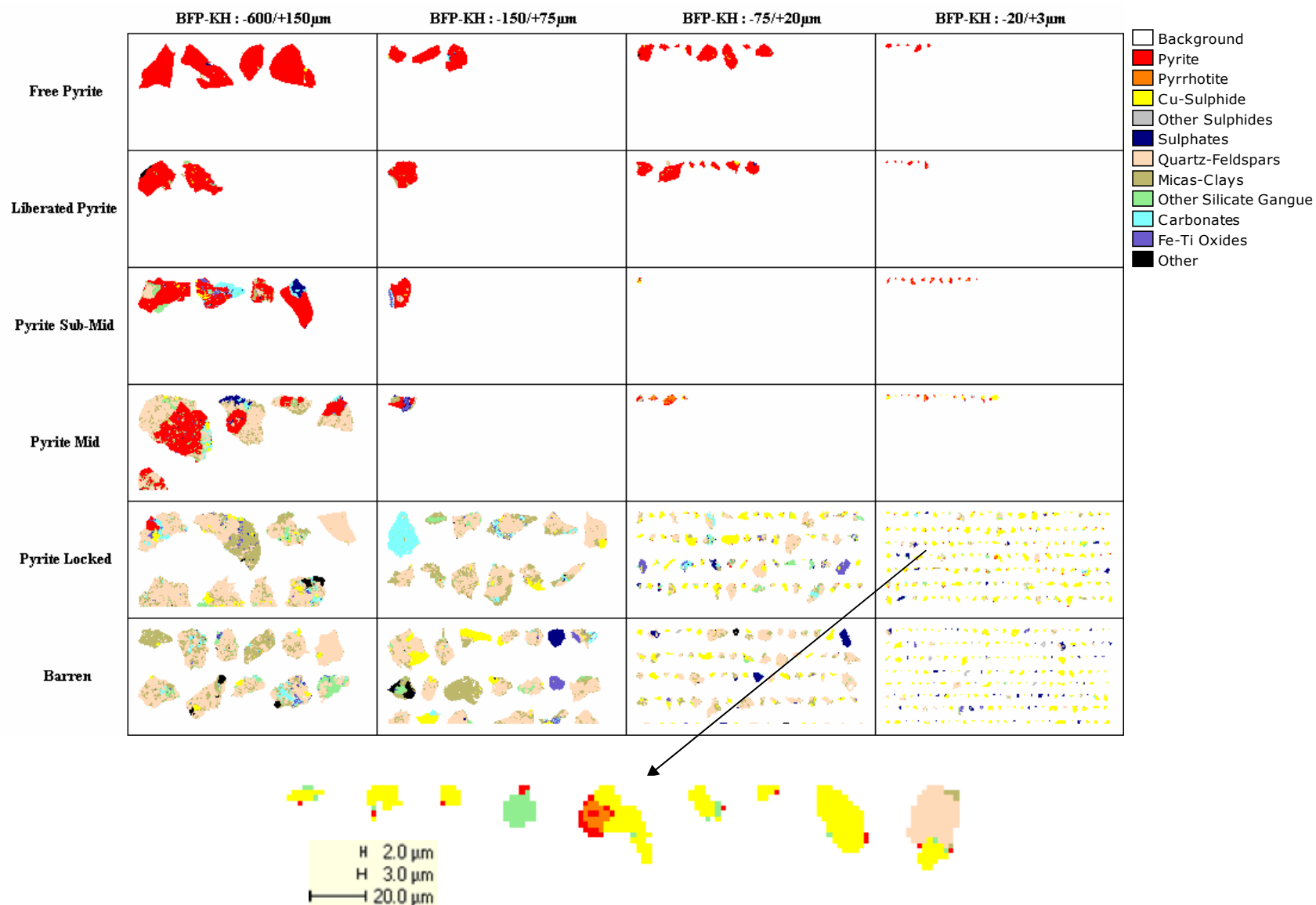


Figure 27. Image grid of pyrite liberation in BFP-KH sample

4.3. Cu-Sulphide Association

Cu-Sulphide association is quantified and presented in Figures 28 through 33. It should be noted that the binary association groups, refer to particle area percent greater than or equal to 95% of the two mineral groups. The complex group refers to particles with a combination of three or more minerals or mineral groups, including Cu-Sulphide minerals. For these Figures, the liberated category includes both liberated and free Cu-Sulphide-bearing particles.

Figures 29 to 33 illustrate that in the five composite samples the proportion of liberated Cu-Sulphide increases and the proportion of complex Cu-Sulphide-bearing particles decreases with increasing particle fineness. Furthermore, all samples show minor associations with micas and clays, the “other silicate minerals” group, and pyrite. All samples show that unliberated Cu-Sulphide in the -20/+3 μm mainly occurs within complex particles, with lesser amounts typically associated with pyrite and other silicates.

It should be noted that the Cu-Sulphide in the BFP-KH and SS samples show a stronger association with carbonate minerals relative to the other three composite samples. Specifically, 2.2 wt% of the Cu-Sulphide in the -150/+75 μm fraction in the BFP-KH sample and 9.1 wt% Cu-Sulphide in the -150/+75 μm fraction in the SS sample are associated with carbonates. Full descriptions of Cu-Sulphide associations for the five composite samples are presented by sample and fraction below.

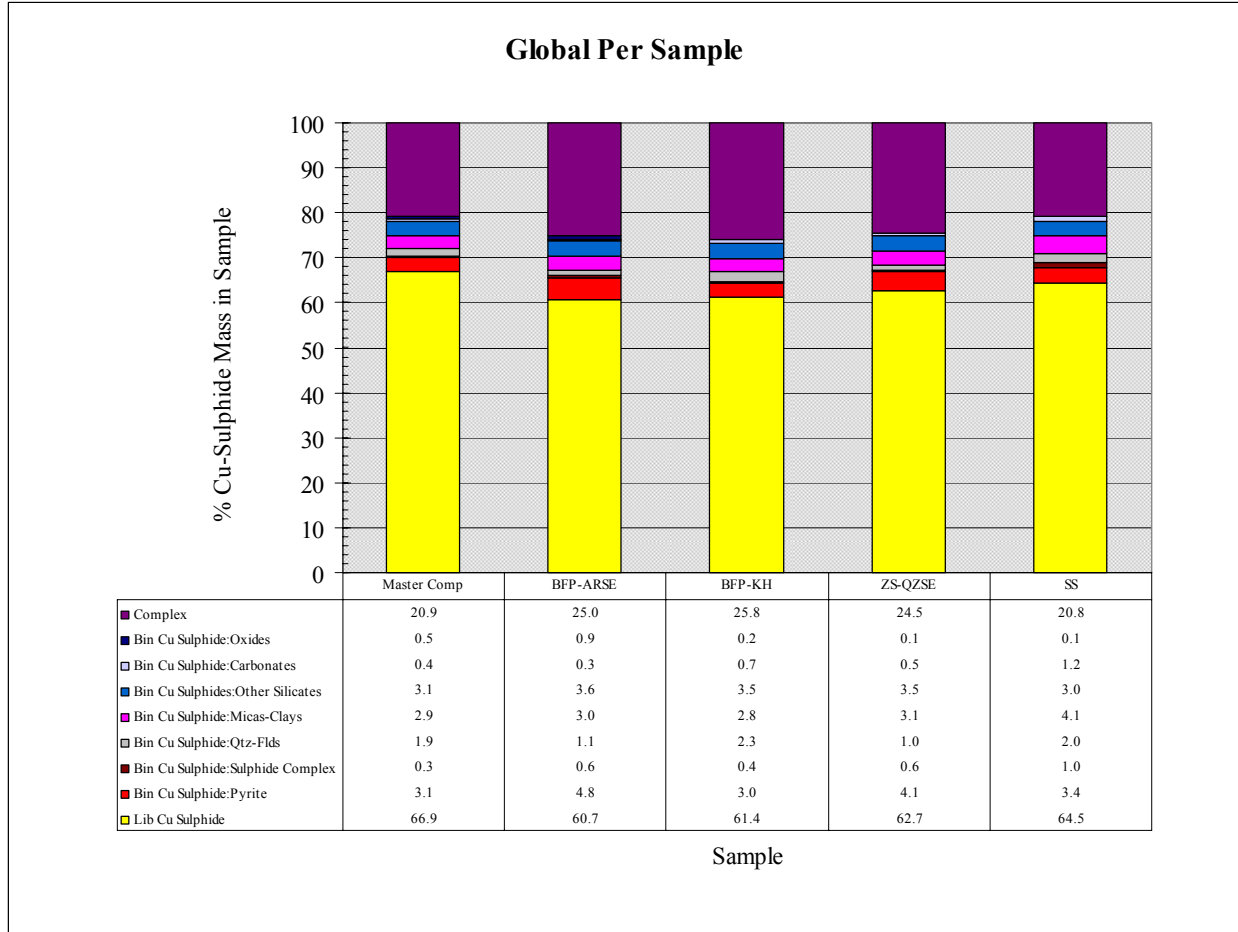


Figure 28. Summary of Cu-Sulphide Association by Sample

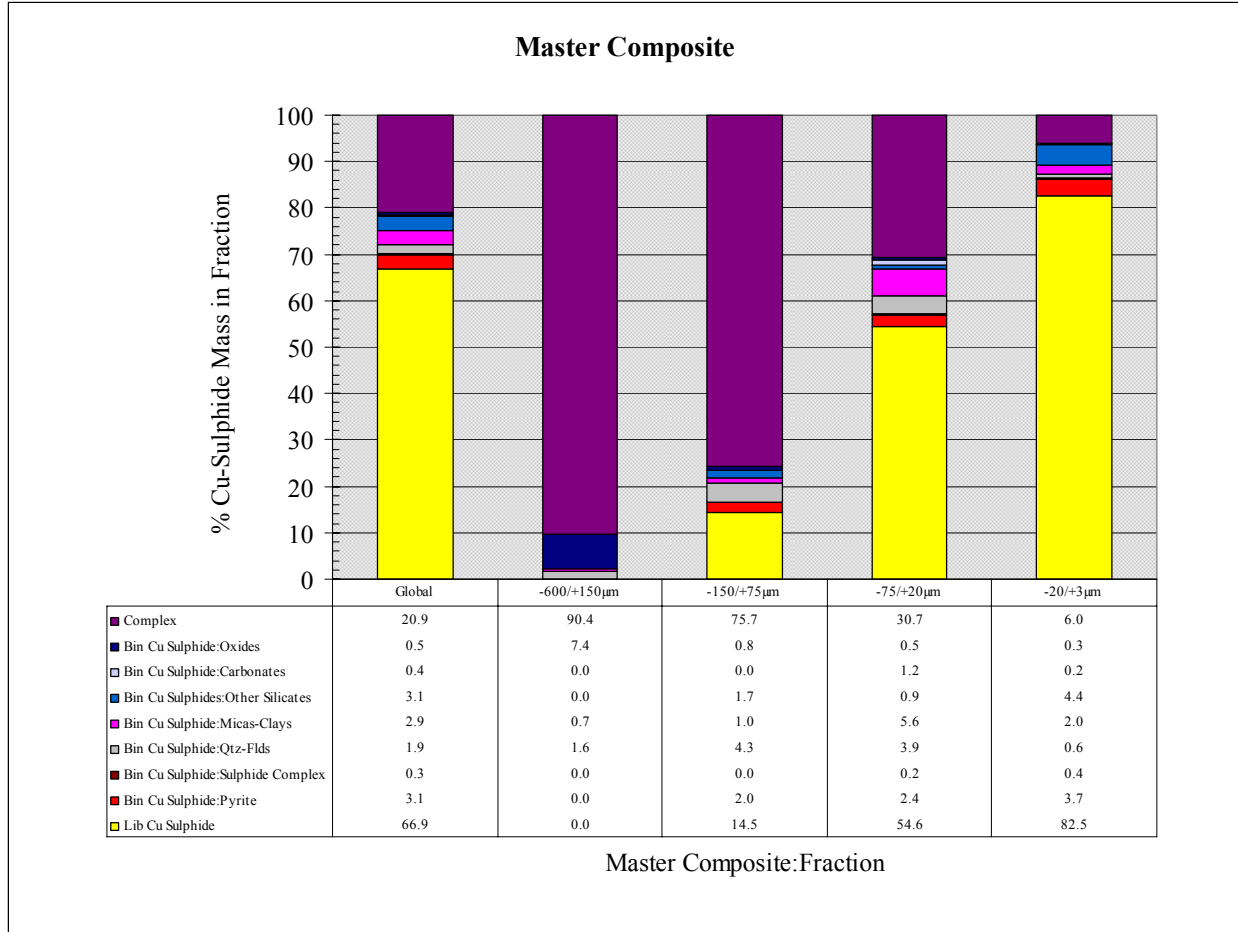


Figure 29. Cu-Sulphide Association- Master Composite

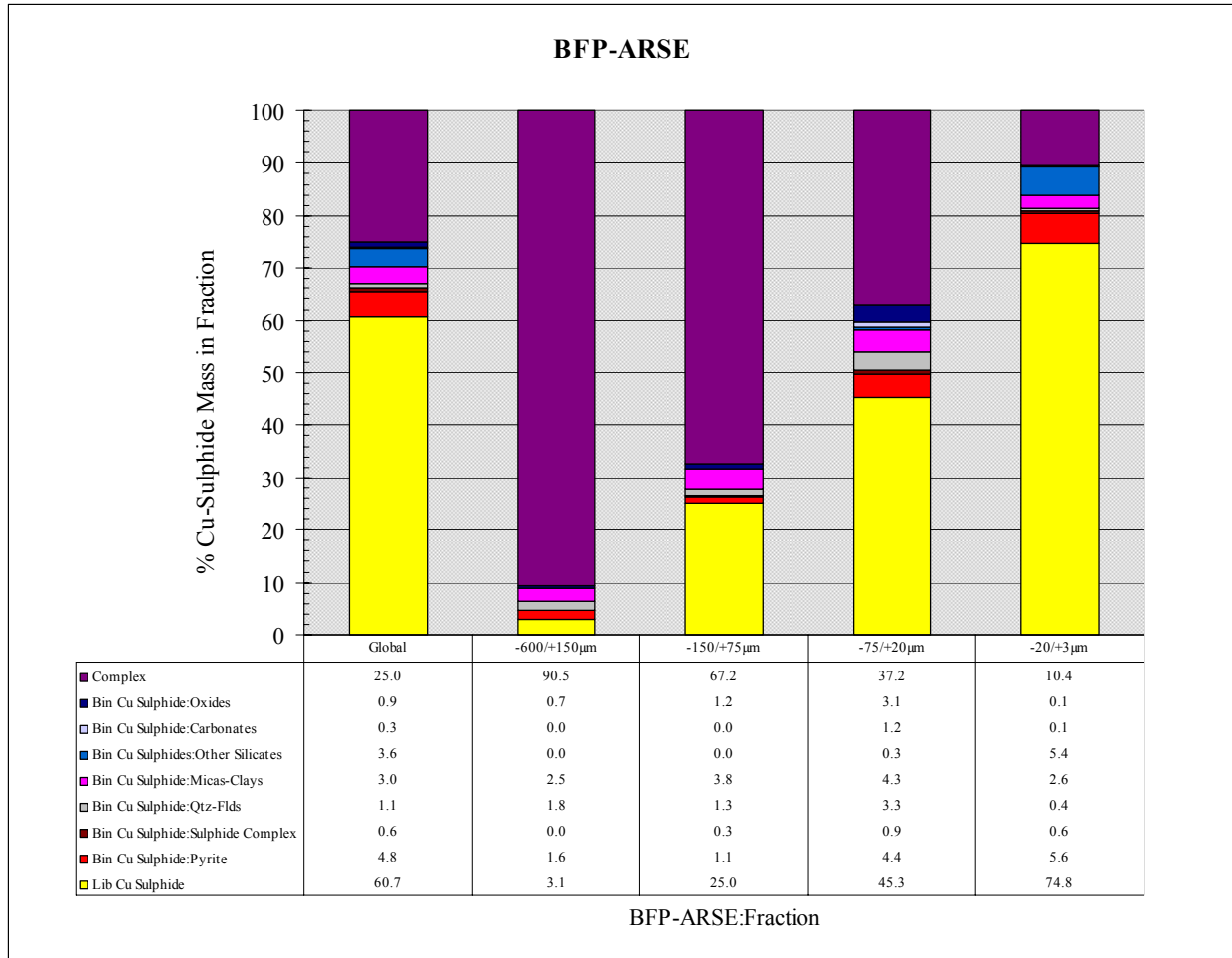


Figure 30. Cu-Sulphide Association- BFP-ARSE

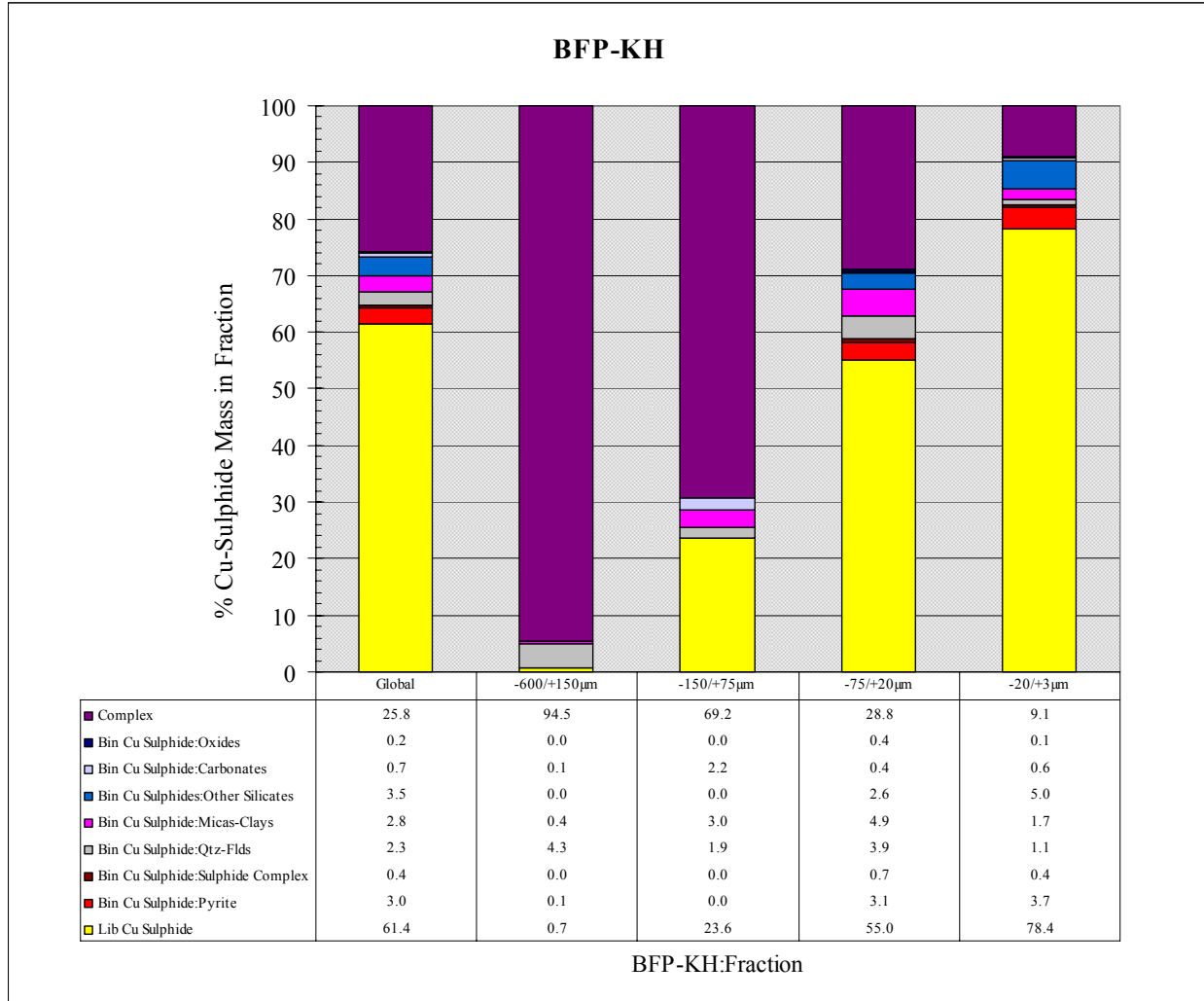


Figure 31. Cu-Sulphide Association - BFP-KH

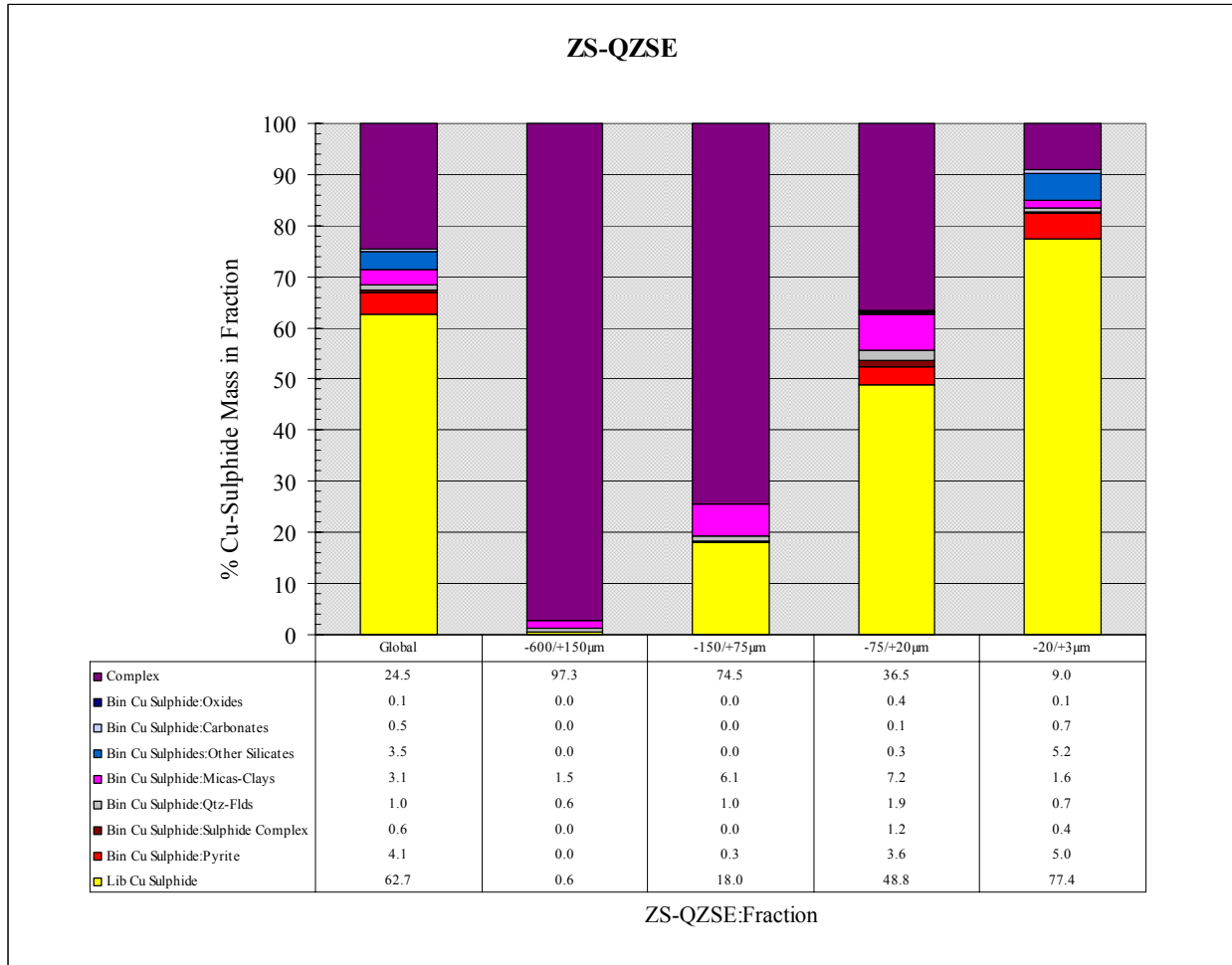


Figure 32. Cu-Sulphide Association - ZS-QZSE

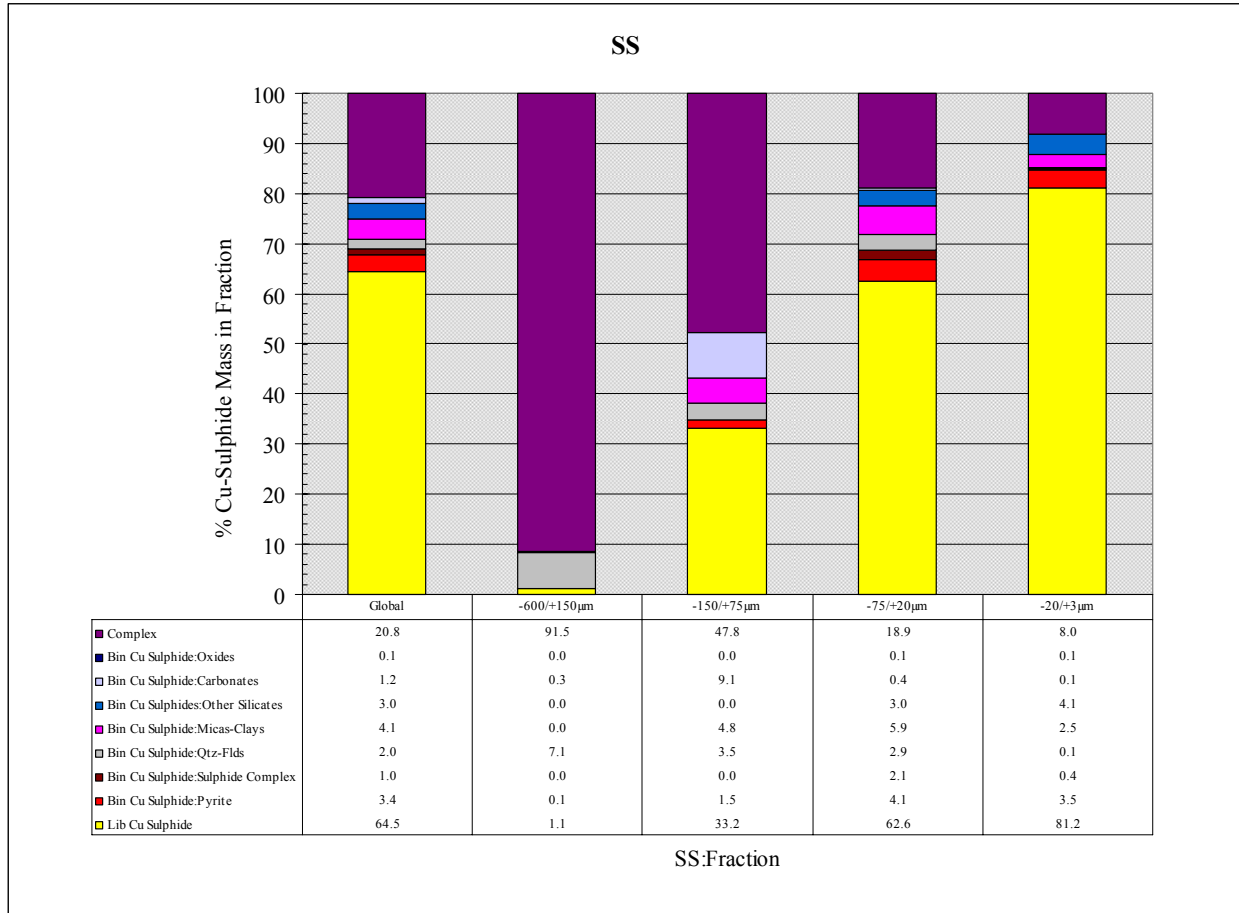


Figure 33. Cu-Sulphide Association - SS

5. Determinative Mineralogy

Figures 34 through 38 illustrate the mineralogically limiting copper grade-recovery curves for the five composite samples, both globally and by fraction. These analyses provide an indication of the maximum achievable Cu grade by recovery by flotation based on individual particle liberation and grade. It is assumed that non-sulphide Cu minerals will not be recovered in this process. These results, of course, do not reflect gangue activation and entrainment or other factors that could occur in the actual metallurgical process.

The mineralogically limiting grade vs. recovery curves for the composite samples show that higher grades and recoveries are achieved in the finer fractions in all samples, relative to the coarsest fractions. Of the five samples, the Master Composite sample shows the highest grade vs. recovery relationship. For the overall Master Composite sample, a grade of 30.9% Cu at 51.4% Cu recovery is theoretically possible. In contrast, the ZS-QZSE sample shows the lowest Cu grade and recovery, with a grade of 30.4% Cu available at a recovery of 38.7% Cu. Full summaries for all samples are presented below.

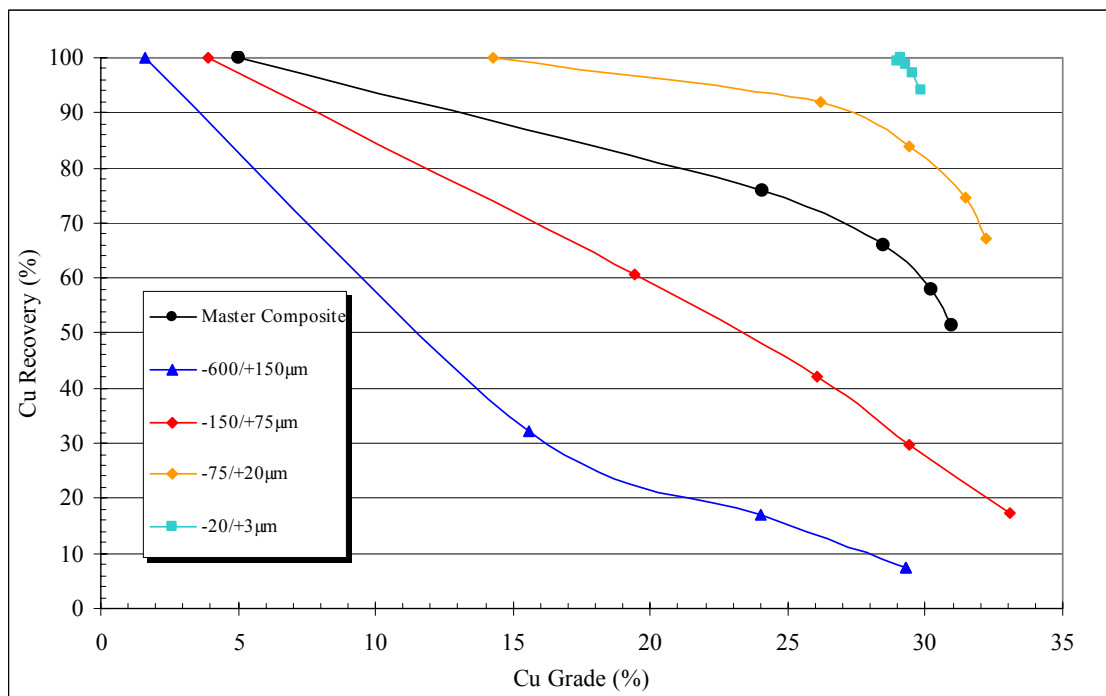


Figure 34. Mineralogically Limiting Cu Grade vs. Cu Recovery- Master Composite

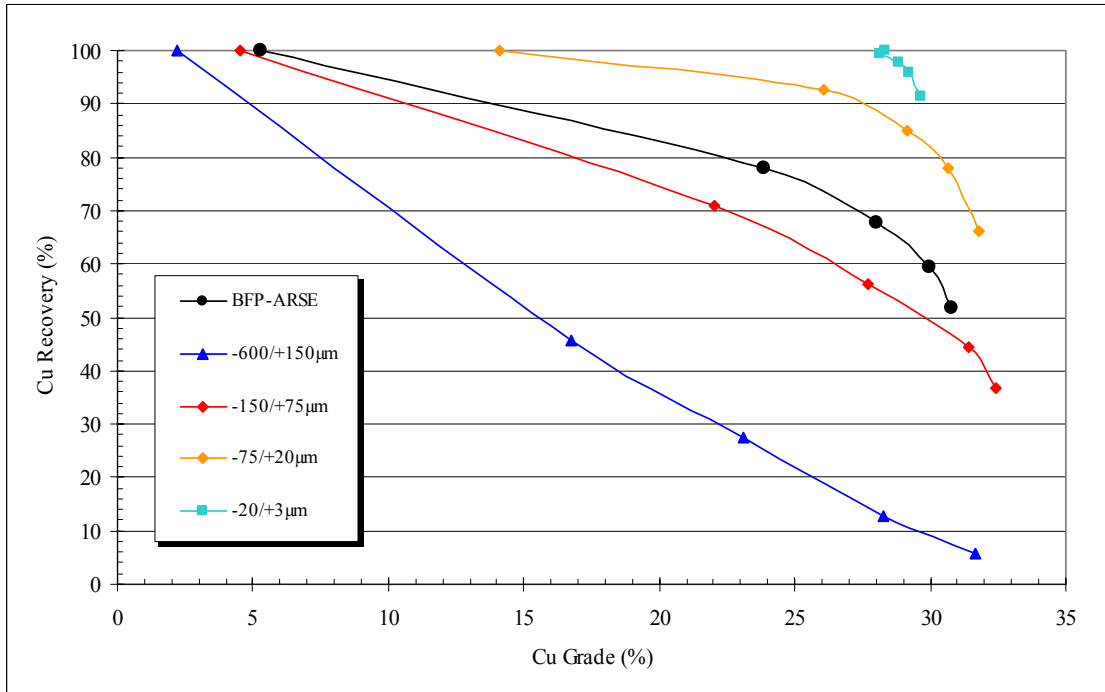


Figure 35. Mineralogically Limiting Cu Grade vs. Cu Recovery- BFP-ARSE

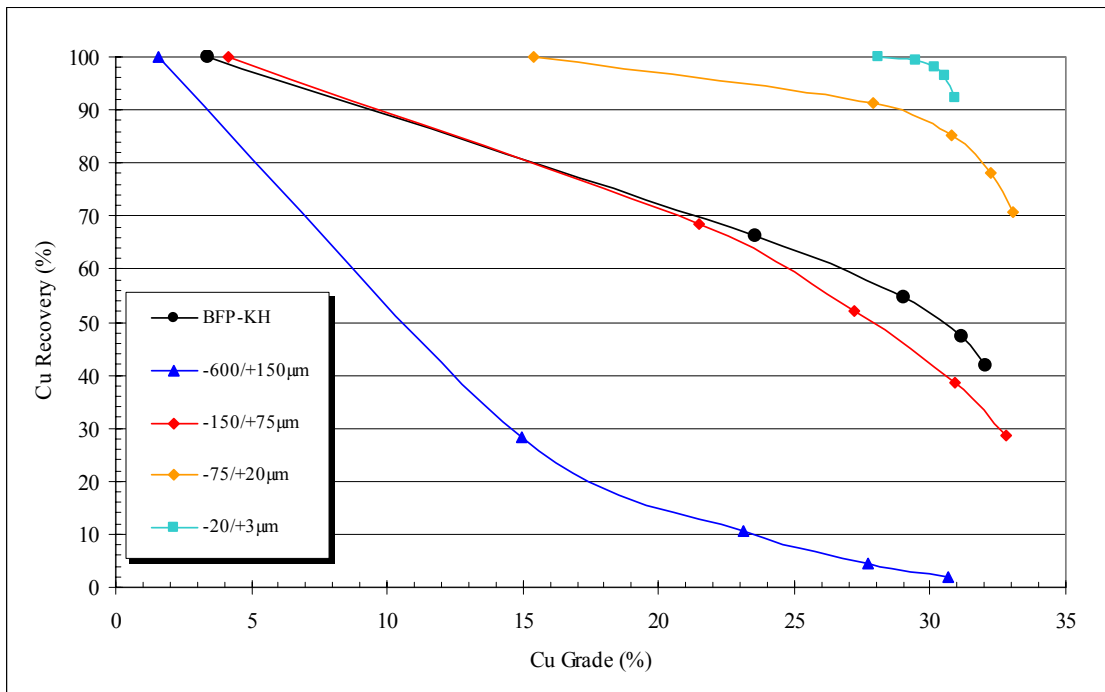


Figure 36. Mineralogically Limiting Cu Grade vs. Cu Recovery- BFP-KH

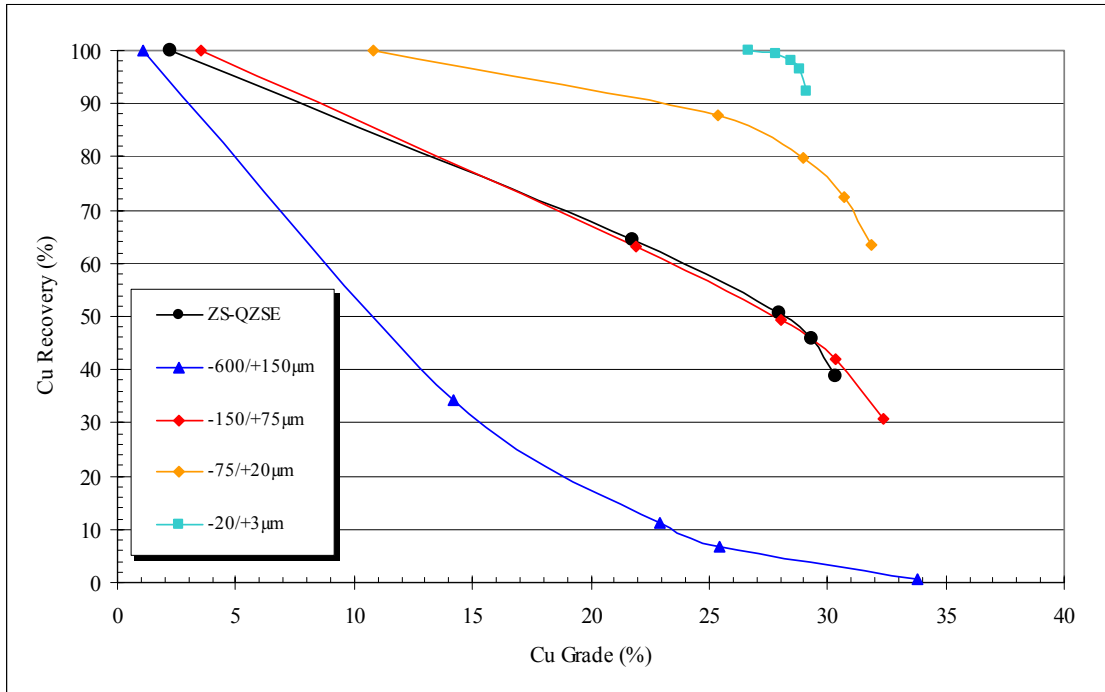


Figure 37. Mineralogically Limiting Cu Grade vs. Cu Recovery- ZS-QZSE

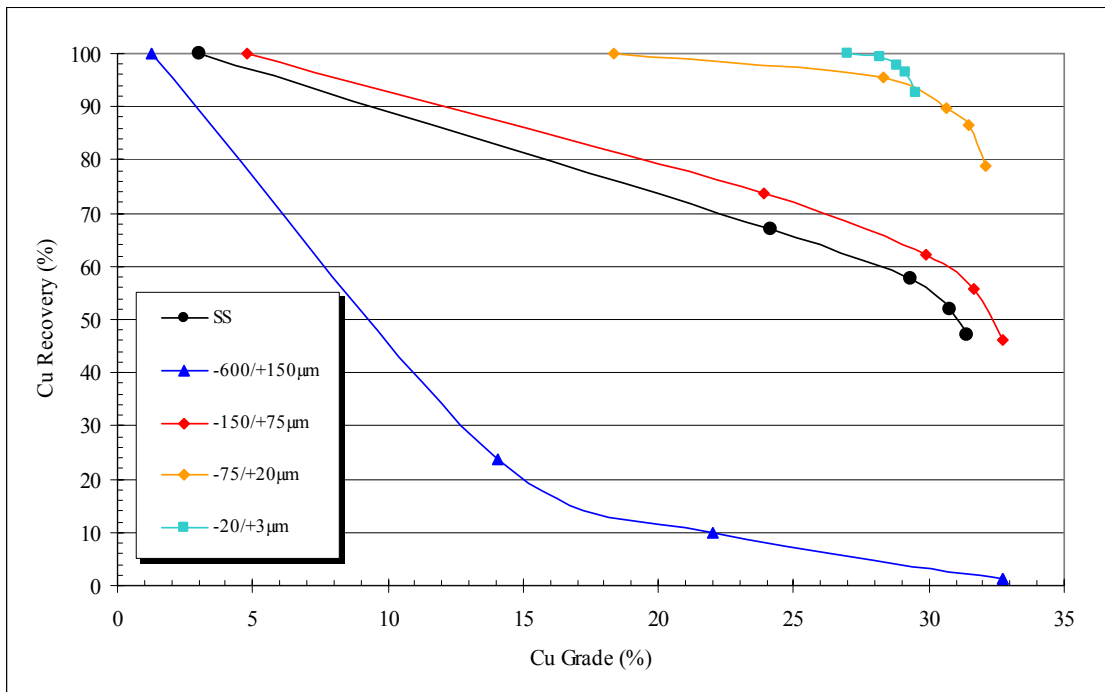


Figure 38. Mineralogically Limiting Cu Grade vs. Cu Recovery- SS

The mineral release curves for Cu-Sulphide and pyrite, which would likely be the most active and problematic gangue mineral, are presented by sample in Figures 39 through 43. The mineral release curve is used to predict the amount of liberated mineral of interest at varying size distributions. This can be an indicator of optimum grind targets for metallurgical processes to achieve the most liberation for the least amount of grind energy. The variation between value and gangue mineral release curves may sometimes be used to enhance separation. For BFP-ARSE, BFP-KH, ZS-QZSE and SS composite samples, significant increases in Cu-Sulphide liberation occur between 150 and ~35 μm . In contrast, the Master Composite sample shows significant liberation beginning at a slightly finer size (~80 μm).

In all samples, pyrite is better liberated than Cu-Sulphide in the coarser particle sizes, but at finer sizes, Cu-Sulphide displays better liberation. The particle size where Cu-Sulphide becomes better liberated than pyrite varies by sample; however for all samples, with the exception of the Master Composite, this occurs at ~30 μm . In the Master Composite sample, this change occurs at ~55 μm .

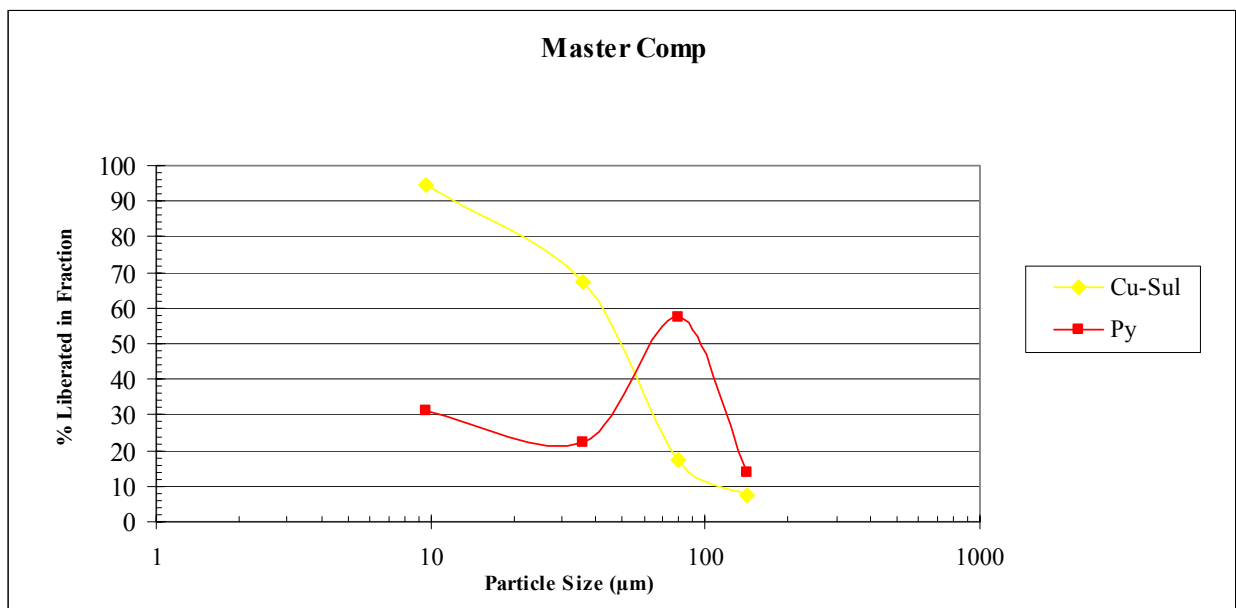


Figure 39. Mineral Release Curves- Master Comp

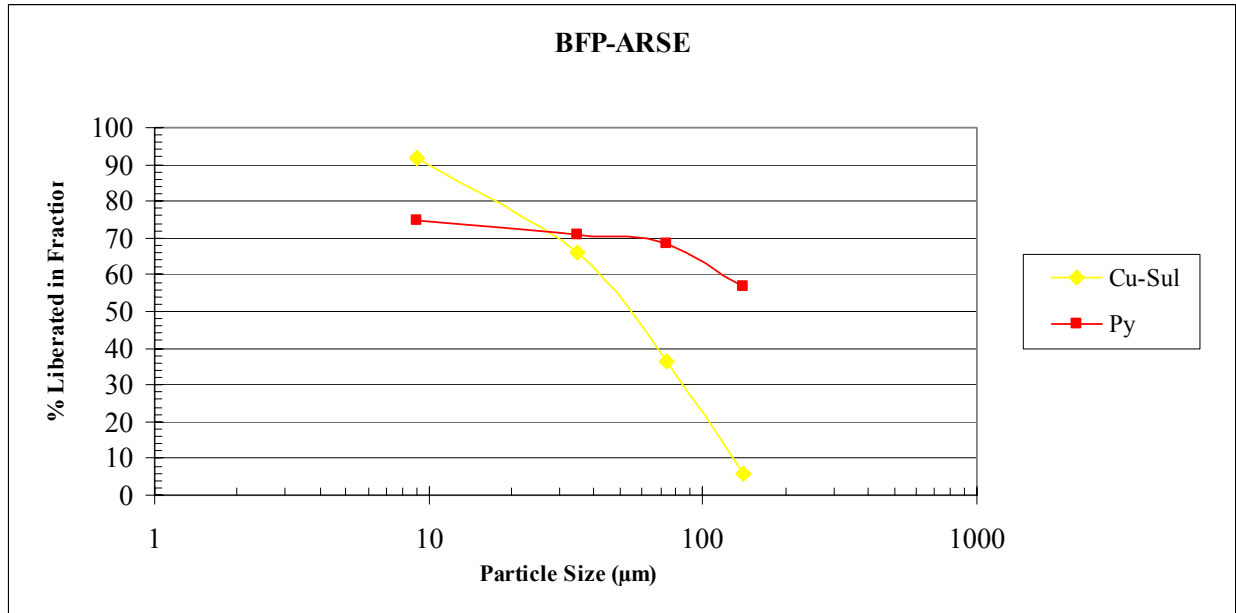


Figure 40. Mineral Release Curves- BFP-ARSE

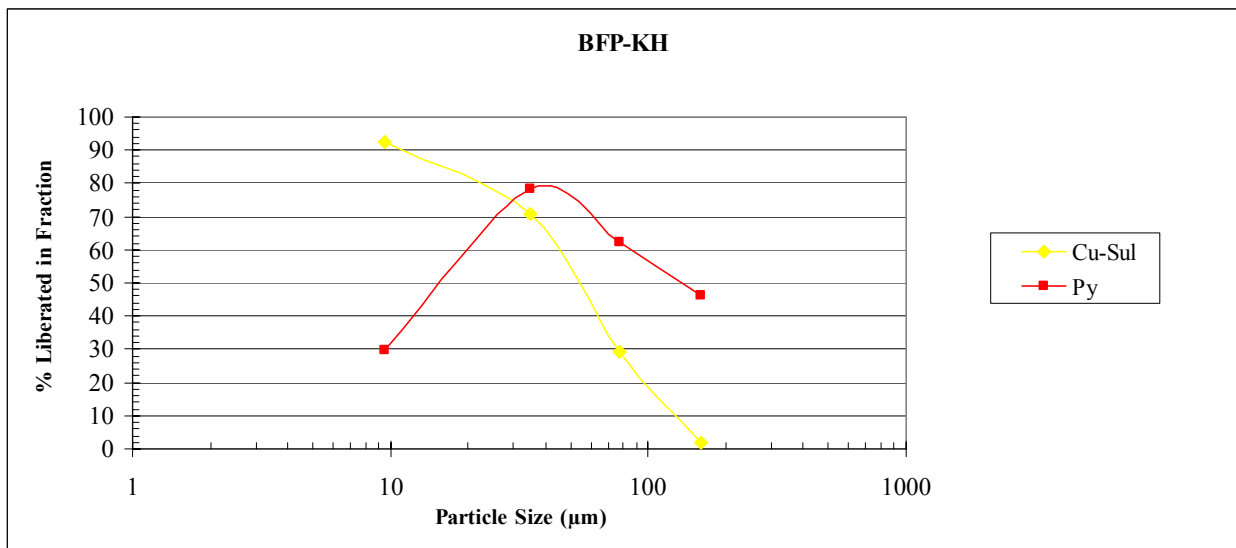


Figure 41. Mineral Release Curves- BFP-KH

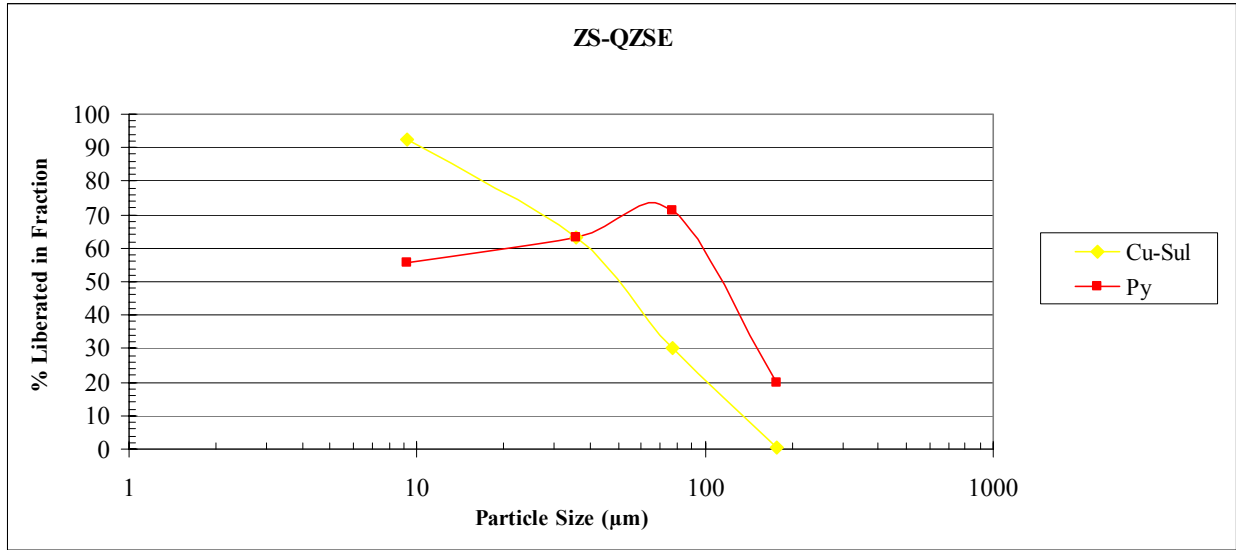


Figure 42. Mineral Release Curves- ZS-QZSE

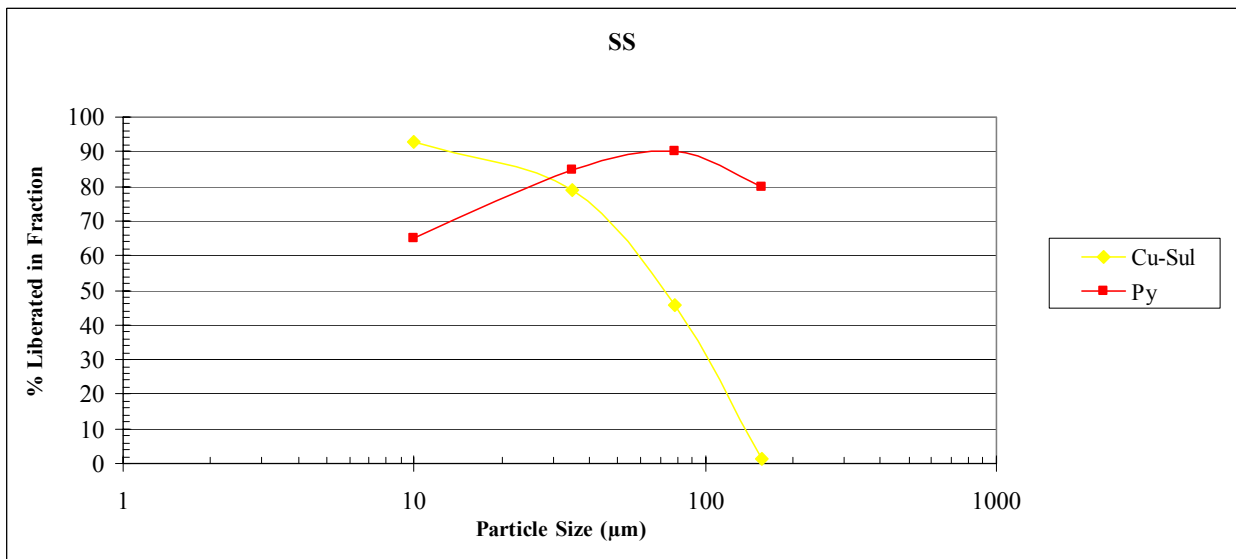


Figure 43. Mineral Release Curves- SS

Summary of Results

The QEMSCANTM mineralogical study of the Master Composite, BFP-ARSE, BFP-KH and SS samples identified the following characteristics:

- The main value mineral present in all samples is chalcopyrite. Chalcopyrite is most abundant in the BFP-ARSE sample (2.1 wt% of the overall mineral mass) and least abundant in the SS sample (1.0 wt%). Bornite is present in minor amounts in the Master Composite, BFP-KH and SS samples. SMS analyses also detected trace amounts of covellite, chalcocite, enargite, stannite and tetrahedrite amongst the samples.
- Quartz and feldspar minerals are the most abundant gangue minerals present in all samples. The abundance of quartz varies from 41.7 wt% in the SS sample, to 24.3 wt% in the BFP-KH sample and feldspar content varies from 40.6 wt% in the BFP-KH sample to 17.1 wt% in the BFP-ARSE sample.
- The Master Composite sample contains the largest proportion of liberated Cu-Sulphide, relative to the other composite samples (78.2 wt% free or liberated). The lowest proportion of liberated Cu-Sulphide is found in the BFP-KH sample (74.5 wt% free or liberated). When presented by size fraction, all samples illustrate that Cu-Sulphide liberation increases as particle size decreases.
- In all samples, unliberated Cu-Sulphide primarily occurs in complex particles, i.e. those particles containing Cu-Sulphide and two or more other mineral groups. The sample with the highest amount of Cu-Sulphide in occurring in complex particles is BFP-KH (25.8 wt% of overall sample). It should also be noted that the BFP-KH and SS samples have higher proportions of Cu-Sulphide that is associated with carbonate minerals (0.7 and 1.2 wt% of overall sample, respectively).
- The SS sample shows the highest amount of liberated pyrite (84.0 wt% free or liberated), whereas the Master Composite contains the lowest proportion (32.4 wt% free or liberated), relative to the other samples. Most liberated pyrite in the Master Composite, ZS-QZSE, and SS samples occurs as relatively coarse and more massive grains, in contrast to the BFP-KH and BFP-ARSE samples, which also contain a significant

proportion of fine, disseminated (locked) pyrite in the finer size fractions. Due to the effect of particle size in finer size fractions, this results in relatively lower proportions of liberated pyrite in these fractions for the BFP-ARSE and BFP-KH samples.

- The theoretical grade-recovery analyses indicate that ~76% of Cu is recoverable in a flotation circuit at a grade of ~24% Cu in the Master Composite sample. This, of course, does not include mechanical effects such as entrainment that are observed in the actual metallurgical process.
- Mineral release curves which compare percent liberation against average particle size for the BFP-ARSE, BFP-KH, ZS-QZSE and SS composite samples suggest that significant increases in Cu-Sulphide liberation occur between the 150 and ~35 μm particle size ranges in these samples. In contrast, the Master Composite sample begins to display significant Cu-Sulphide liberation at ~80 μm .
- For all samples, pyrite is better liberated than Cu-Sulphide in coarser particle sizes, but Cu-Sulphide is better liberated in the finer sizes. For the BFP-KH, BFP-ARSE, ZS-QZSE and SS samples, Cu-Sulphide is better liberated at particle sizes less than ~30 μm , however, for the Master Composite it is better liberated at a slightly coarser size of ~55 μm .

Appendix 1:
Certificates of Analysis



SGS Lakefield Research Limited
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - K0L 2H0
Phone: 705-652-2000 FAX: 705-652-6365

LR Internal Dept 14

Attn : DGL

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Phone: ---
Fax:---

Wednesday, October 10, 2007

Date Rec. : 19 March 2007
LR Report : CA00458-MAR07
Project : CALR-11474-001
Client Ref : Pacific Booker-Wardrop

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Pyro Sulf. Prep	Cu %	Fe %	S %	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum %
1: Master Comp +100 mesh	1	0.31	2.80	0.58	64.2	14.9	4.12	1.77	3.20	2.85	1.38	0.73	0.15	0.05	0.03	0.02	4.54	98.3
2: Master Comp +200 mesh	1	0.35	3.12	0.90	64.7	13.6	4.47	1.89	3.22	2.80	1.15	0.66	0.18	0.08	0.02	0.02	4.35	97.1
3: Master Comp +635 mesh	1	0.55	3.87	1.22	64.1	12.8	5.55	2.01	3.45	2.48	1.19	0.70	0.30	0.07	0.03	0.02	4.08	97.3
4: Master Comp -635 mesh	1	0.54	4.45	0.91	52.8	18.9	6.54	2.44	3.38	2.06	1.52	0.90	0.25	0.08	0.05	0.03	7.58	97.1
5: BFP-ARSE +100 mesh	1	0.47	4.06	0.97	63.6	12.7	5.86	1.66	3.59	0.79	0.57	0.66	0.27	0.08	0.02	0.01	7.87	98.1
6: BFP-ARSE +200 mesh	1	0.56	4.53	1.23	61.9	12.3	6.28	1.95	4.10	0.70	0.53	0.65	0.32	0.08	0.02	0.03	7.79	97.3
7: BFP-ARSE +635 mesh	1	0.77	5.13	1.42	59.6	12.3	7.50	1.94	4.01	0.73	0.66	0.72	0.49	0.11	0.02	0.02	7.75	96.6
8: BFP-ARSE -635 mesh	1	0.51	5.12	0.80	47.3	22.2	7.55	1.88	3.40	0.40	0.72	1.00	0.31	0.10	0.04	0.03	12.2	97.7
9: BFP-KH +100 mesh	1	0.32	2.76	0.66	63.1	15.2	4.18	2.08	3.95	3.54	1.30	0.67	0.18	0.05	0.02	0.01	3.65	98.2
10: BFP-KH +200 mesh	1	0.39	3.16	0.91	63.5	14.0	4.73	2.13	4.00	3.30	1.19	0.66	0.22	0.05	0.02	0.02	3.39	97.6
11: BFP-KH +635 mesh	1	0.61	4.06	1.16	60.9	13.6	5.89	2.80	4.26	3.10	1.39	0.77	0.38	0.05	0.02	0.02	3.26	97.0
12: BFP-KH -635 mesh	1	0.58	4.41	0.87	52.2	17.7	6.65	3.24	4.33	2.66	1.64	0.92	0.31	0.06	0.05	0.03	6.09	96.5
13: ZS-QZSE +100 mesh	1	0.23	2.14	0.58	63.8	17.1	3.26	1.06	1.89	2.30	1.72	0.95	0.10	0.05	0.02	0.02	5.12	97.6
14: ZS-QZSE +200 mesh	1	0.26	2.54	0.66	65.9	15.4	3.83	1.12	2.01	1.89	1.50	0.88	0.11	0.05	0.03	0.02	5.32	98.3
15: ZS-QZSE +635 mesh	1	0.40	3.01	1.21	65.8	13.9	4.44	1.18	2.12	1.64	1.32	0.90	0.14	0.06	0.03	0.02	5.30	97.2

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Page 1 of 2

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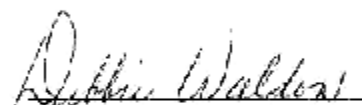
Test method information available upon request.



SGS Lakefield Research Limited
 P.O. Box 4300 - 185 Concession St.
 Lakefield - Ontario - K0L 2H0
 Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA00458-MAR07

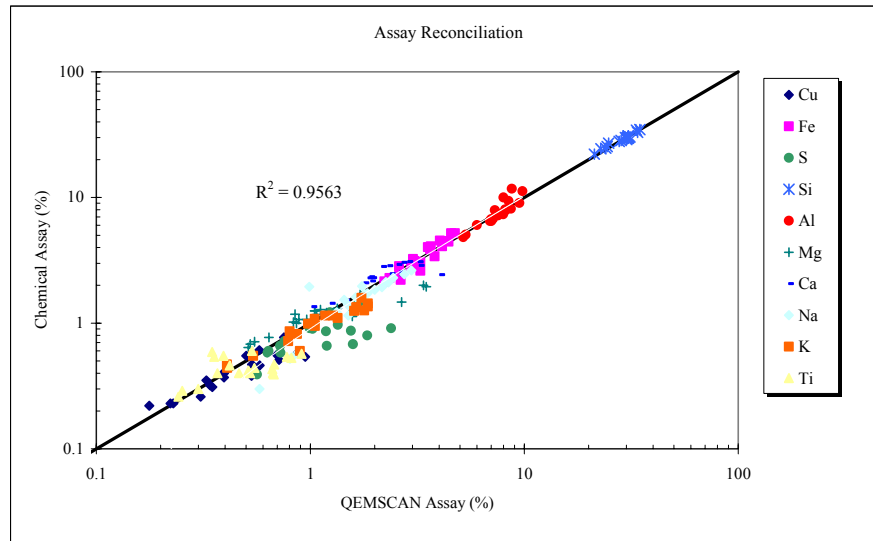
Sample ID	Pyro Sulf. Prep	Cu %	Fe %	S %	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	MgO %	CaO %	Na ₂ O %	K ₂ O %	TiO ₂ %	P ₂ O ₅ %	MnO %	Cr ₂ O ₃ %	V ₂ O ₅ %	LOI %	Sum %
16: ZS-QZSE -635 mesh	1	0.38	3.34	0.68	54.3	21.2	4.94	1.28	2.05	1.55	1.92	0.99	0.14	0.07	0.05	0.04	7.72	96.7
17: SS +100 mesh	1	0.22	2.22	0.39	70.7	11.4	3.36	2.07	3.28	2.86	1.04	0.50	0.13	0.03	0.03	0.01	2.88	98.3
18: SS +200 mesh	1	0.23	2.08	0.60	74.2	9.55	3.18	1.77	2.92	2.33	0.87	0.44	0.13	0.03	0.03	0.02	2.51	98.2
19: SS +635 mesh	1	0.37	2.48	0.72	73.3	9.12	3.87	2.17	3.02	2.17	0.99	0.49	0.19	0.03	0.03	0.02	2.28	98.1
20: SS -635 mesh	1	0.46	3.91	0.66	58.0	15.0	5.89	3.31	4.30	2.63	1.82	0.79	0.24	0.05	0.08	0.03	5.37	97.7


 Debbie Waldon
 Project Coordinator,
 Minerals Services, Analytical

Appendix 2:
QEMSCAN Data

CALR-11474-001
M15019-MAR07
Morrison Copper

Assay Reconciliation



Sample	Fraction	Assays, %									
		Cu		Fe		S		Si		Al	
		QEM	Chem.	QEM	Chem.	QEM	Chem.	QEM	Chem.	QEM	Chem.
Master Comp	-600/+150µm	0.35	0.31	2.96	2.84	0.72	0.58	30.66	30.01	8.18	7.89
	-150/+75µm	0.33	0.35	3.08	3.12	1.02	0.90	31.13	30.24	7.55	7.20
	-75/+20µm	0.50	0.55	3.63	3.87	1.23	1.22	29.67	29.96	7.14	6.77
	-20/+3µm	0.95	0.54	4.41	4.51	2.39	0.91	24.02	24.68	8.00	10.00
BFP-ARSE	-600/+150µm	0.53	0.47	4.14	4.08	1.35	0.97	30.57	29.73	7.00	6.72
	-150/+75µm	0.70	0.56	4.42	4.46	1.59	1.23	30.13	28.93	6.91	6.51
	-75/+20µm	0.75	0.77	4.73	5.19	1.67	1.42	27.79	27.86	7.02	6.51
	-20/+3µm	0.72	0.51	4.56	5.20	1.85	0.80	21.27	22.11	8.75	11.75
BFP-KH	-600/+150µm	0.34	0.32	2.60	2.84	0.72	0.66	30.48	29.50	8.16	8.04
	-150/+75µm	0.39	0.39	3.02	3.24	0.99	0.91	30.28	29.68	7.68	7.41
	-75/+20µm	0.58	0.61	3.65	4.09	1.19	1.16	28.34	28.47	7.38	7.20
	-20/+3µm	0.87	0.58	4.04	4.53	1.55	0.87	22.79	24.40	8.43	9.37
ZS-QZSE	-600/+150µm	0.23	0.23	2.65	2.21	0.63	0.58	30.72	29.82	9.48	9.05
	-150/+75µm	0.31	0.26	3.27	2.61	1.18	0.86	30.68	30.80	8.68	8.15
	-75/+20µm	0.40	0.40	3.27	3.06	1.30	1.21	30.50	30.76	7.98	7.36
	-20/+3µm	0.53	0.38	3.81	3.40	1.58	0.68	24.40	25.38	9.80	11.22
SS	-600/+150µm	0.18	0.22	2.34	2.29	0.56	0.39	33.83	33.05	6.01	6.03
	-150/+75µm	0.22	0.23	2.22	2.15	0.64	0.60	34.71	34.68	5.32	5.05
	-75/+20µm	0.39	0.37	2.61	2.60	0.76	0.72	33.44	34.26	5.19	4.83
	-20/+3µm	0.58	0.46	3.55	4.02	1.19	0.66	24.75	27.11	7.29	7.94

Sample	Fraction	Assays, %									
		Mg		Ca		Na		K		Ti	
		QEM	Chem.	QEM	Chem.	QEM	Chem.	QEM	Chem.	QEM	Chem.
Master Comp	-600/+150µm	0.88	1.07	1.87	2.29	2.31	2.11	1.28	1.15	0.55	0.44
	-150/+75µm	0.83	1.02	1.94	2.30	2.16	1.93	1.05	0.95	0.52	0.40
	-75/+20µm	1.19	1.21	2.37	2.47	2.00	1.84	1.02	0.99	0.51	0.42
	-20/+3µm	2.67	1.47	2.64	2.42	1.44	1.53	1.79	1.26	0.36	0.54
BFP-ARSE	-600/+150µm	0.86	1.00	2.63	2.57	0.88	0.59	0.41	0.47	0.67	0.40
	-150/+75µm	0.85	1.18	2.56	2.93	0.80	0.52	0.41	0.44	0.67	0.39
	-75/+20µm	1.07	1.17	3.24	2.87	0.83	0.54	0.54	0.55	0.66	0.43
	-20/+3µm	1.57	1.13	4.03	2.43	0.58	0.30	0.89	0.60	0.53	0.60
BFP-KH	-600/+150µm	1.05	1.25	2.16	2.82	2.97	2.63	1.05	1.08	0.46	0.40
	-150/+75µm	1.11	1.28	2.31	2.86	2.75	2.45	0.98	0.99	0.37	0.40
	-75/+20µm	1.71	1.69	2.70	3.04	2.44	2.30	1.17	1.15	0.42	0.46
	-20/+3µm	3.48	1.95	2.87	3.09	1.74	1.97	1.86	1.36	0.39	0.55
ZS-QZSE	-600/+150µm	0.51	0.64	1.02	1.35	1.79	1.71	1.86	1.43	0.91	0.57
	-150/+75µm	0.52	0.68	1.24	1.44	1.50	1.40	1.60	1.25	0.81	0.53
	-75/+20µm	0.55	0.71	1.45	1.52	1.33	1.22	1.34	1.10	0.78	0.54
	-20/+3µm	0.64	0.77	1.79	1.47	1.51	1.15	1.74	1.59	0.35	0.59
SS	-600/+150µm	1.05	1.25	1.90	2.34	2.26	2.12	0.80	0.86	0.30	0.30
	-150/+75µm	0.96	1.07	1.79	2.09	1.85	1.73	0.79	0.72	0.24	0.26
	-75/+20µm	1.34	1.31	1.92	2.16	1.63	1.61	0.87	0.82	0.25	0.29
	-20/+3µm	3.38	2.00	3.20	3.07	0.99	1.95	1.64	1.34	0.68	0.47

CALR-11474-001
M15019-MAR07
Morrison Copper

Average Grain Size Distribution - Raw Data

Chalcopyrite	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+540	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+480	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+420	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+390	0.00	0.00	402.15	0.58	0.00	0.00	0.00	0.00	0.00	0.00
+360	0.00	0.00	0.00	0.00	367.68	1.16	0.00	0.00	0.00	0.00
+330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+300	0.00	0.00	304.49	0.44	0.00	0.00	0.00	0.00	0.00	0.00
+270	275.76	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+255	258.53	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+240	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+225	0.00	0.00	229.80	0.33	235.87	1.65	0.00	0.00	0.00	0.00
+210	214.48	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+195	0.00	0.00	195.33	0.28	205.78	1.49	201.08	1.92	0.00	0.00
+180	0.00	0.00	190.77	0.68	183.17	1.32	0.00	0.00	0.00	0.00
+165	167.90	0.80	173.79	0.99	0.00	0.00	178.10	0.86	171.23	3.05
+150	155.93	0.89	157.43	1.24	155.93	1.33	155.93	0.53	155.50	1.83
+135	144.20	1.06	143.09	1.22	146.50	0.89	142.56	0.46	0.00	0.00
+120	125.75	1.59	125.49	3.57	128.31	1.17	127.07	4.47	129.59	3.23
+105	108.99	1.63	111.64	2.84	111.38	1.85	109.49	2.43	111.98	2.02
+90	96.63	3.29	96.68	5.49	98.61	4.88	97.49	2.51	97.74	5.69
+75	81.11	3.84	81.79	3.90	82.80	3.20	81.21	5.75	84.05	4.92
+66	71.55	4.25	70.24	4.00	71.73	3.54	69.88	6.33	70.14	2.33
+57	60.38	4.80	60.29	4.72	59.86	5.54	60.70	3.34	59.80	6.73
+48	52.18	4.83	52.02	4.64	52.49	7.09	52.17	4.15	51.53	5.75
+39	44.27	7.81	43.41	5.49	43.82	9.05	42.89	4.95	43.17	11.10
+30	33.18	9.80	33.62	9.20	33.22	10.87	33.97	9.02	33.96	9.58
+21	24.15	14.68	24.08	8.45	24.36	11.77	24.11	16.84	23.70	14.96
+12	15.09	17.83	14.90	15.46	15.68	15.03	15.66	12.38	15.49	15.60
+4	7.49	19.86	6.82	24.41	7.36	17.05	6.91	22.37	7.24	12.80
-4	3.04	0.92	3.21	2.09	3.27	1.11	3.14	1.67	2.98	0.41
Other										
All Particles Total		100.00		100.00		100.00		100.00		100.00

Pyrite	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	608.97	2.09
+540	0.00	0.00	557.27	0.67	0.00	0.00	0.00	0.00	0.00	0.00
+480	0.00	0.00	511.31	0.56	0.00	0.00	0.00	0.00	0.00	0.00
+420	0.00	0.00	0.00	0.00	448.11	1.67	459.60	1.58	453.86	1.47
+390	407.90	0.71	413.64	0.91	0.00	0.00	0.00	0.00	0.00	0.00
+360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	367.68	1.34
+330	0.00	0.00	344.70	2.36	344.70	1.16	0.00	0.00	356.19	1.14
+300	0.00	0.00	314.06	1.19	321.72	1.11	0.00	0.00	313.10	1.97
+270	270.02	0.59	0.00	1.24	0.00	2.82	275.76	2.00	0.00	4.91
+255	0.00	0.00	262.85	0.50	0.00	0.00	267.30	0.38	258.53	0.86
+240	247.04	0.48	0.00	0.00	0.00	0.00	248.95	2.43	0.00	2.88
+225	229.80	1.19	231.66	0.52	0.00	0.00	0.00	0.00	0.00	2.92
+210	213.84	0.87	218.31	0.58	218.31	0.76	0.00	0.00	218.31	0.73
+195	196.02	0.83	0.00	0.83	204.93	0.69	201.08	0.67	0.00	2.16
+180	0.00	0.00	0.00	0.99	0.00	2.11	0.00	1.51	183.84	1.34
+165	169.29	0.59	0.00	2.33	0.00	3.51	172.35	2.00	0.00	2.67
+150	0.00	0.00	0.00	0.95	158.15	1.21	0.00	1.53	0.00	1.36
+135	0.00	2.28	0.00	1.77	0.00	4.38	0.00	3.61	0.00	4.19
+120	0.00	2.74	0.00	2.80	0.00	3.90	0.00	4.37	0.00	3.74
+105	0.00	3.13	0.00	2.57	0.00	6.33	0.00	2.56	111.38	2.07
+90	0.00	5.77	0.00	4.84	0.00	4.85	0.00	7.24	0.00	5.75
+75	0.00	5.71	0.00	4.17	0.00	5.67	0.00	3.97	0.00	4.42
+66	0.00	5.08	0.00	3.19	0.00	4.19	0.00	4.38	0.00	2.77
+57	0.00	3.60	0.00	3.35	0.00	4.51	0.00	4.78	0.00	6.52
+48	0.00	5.78	0.00	4.61	0.00	5.27	0.00	2.40	0.00	3.45
+39	0.00	6.17	0.00	5.76	0.00	5.73	0.00	5.45	0.00	5.71
+30	0.00	5.73	0.00	5.07	0.00	6.50	0.00	6.55	0.00	6.18
+21	0.00	7.74	0.00	5.76	0.00	3.82	0.00	7.30	0.00	5.71
+12	0.00	12.94	0.00	9.96	0.00	6.32	0.00	11.58	0.00	6.23
+4	0.00	24.91	0.00	25.85	0.00	20.63	0.00	19.52	0.00	12.80
-4	3.03	3.14	3.00	6.64	2.96	2.86	2.98	4.18	3.07	2.61
Other										
All Particles Total		100.00		100.00		100.00		100.00		100.00

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Average Grain Size Distribution - Raw Data

Qtz-Felds	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	608.97	0.02	643.44	0.10	746.85	0.19	768.39	0.16
+540	577.37	0.02	588.86	0.03	552.67	0.08	597.48	0.02	574.50	0.06
+480	511.31	0.02	508.43	0.08	503.01	0.14	502.69	0.07	501.73	0.19
+420	452.71	0.04	446.08	0.21	446.14	0.47	436.62	0.15	451.11	0.65
+390	405.25	0.07	401.71	0.14	404.14	0.32	407.90	0.06	402.87	0.42
+360	370.81	0.12	370.55	0.06	376.01	0.23	371.49	0.14	370.89	0.56
+330	344.13	0.19	347.05	0.21	343.74	0.50	345.30	0.24	344.46	0.71
+300	315.98	0.21	313.90	0.30	314.47	0.81	315.02	0.29	316.28	1.01
+270	282.85	0.55	282.58	0.67	280.61	1.29	284.47	0.43	281.97	1.71
+255	261.49	0.21	260.39	0.26	261.35	0.57	260.68	0.27	261.37	0.73
+240	246.04	0.43	245.74	0.56	246.54	1.02	246.97	0.39	246.71	1.04
+225	231.53	0.39	232.47	0.45	231.83	0.73	232.03	0.36	232.15	0.94
+210	217.85	0.70	218.39	0.87	217.64	1.22	218.22	0.65	217.56	1.37
+195	200.57	0.97	201.33	1.00	200.98	1.68	200.67	0.97	201.00	1.81
+180	187.13	0.87	186.47	0.96	187.36	1.41	186.01	0.87	186.91	1.57
+165	172.81	1.33	172.49	1.57	172.36	2.09	172.00	1.32	172.45	2.50
+150	157.62	1.72	158.07	1.63	157.24	2.35	157.56	1.25	157.65	2.50
+135	142.48	2.04	142.67	2.09	143.11	2.88	142.67	1.92	142.30	3.35
+120	126.48	2.95	126.26	2.98	126.25	4.37	126.23	2.99	126.30	4.73
+105	111.50	2.66	111.48	2.98	111.47	3.53	111.55	2.53	111.33	4.18
+90	97.03	4.28	96.91	4.37	97.13	5.46	96.98	4.41	97.11	5.85
+75	82.31	5.85	81.96	5.64	82.19	5.93	82.27	4.64	82.13	6.56
+66	70.18	4.15	70.33	4.28	70.42	4.77	70.75	4.51	70.49	4.82
+57	60.85	4.94	60.82	4.79	60.71	5.16	60.50	5.07	60.89	5.33
+48	52.44	5.12	52.28	4.71	52.35	4.82	52.10	4.58	52.51	4.83
+39	43.69	6.30	43.47	6.02	43.50	6.30	43.14	7.13	43.74	6.03
+30	33.65	8.94	33.79	7.31	33.76	7.54	33.85	7.75	33.90	7.43
+21	23.86	9.21	24.18	8.03	24.23	7.97	24.52	10.32	24.10	7.53
+12	15.21	17.08	15.01	16.14	15.37	11.37	15.31	15.24	15.32	11.01
+4	7.56	17.51	7.28	19.55	7.43	13.76	7.45	19.63	7.57	9.80
-4	3.06	1.13	3.06	2.09	3.08	1.14	3.05	1.60	3.05	0.64
Other										
All Particles Total	100.00		100.00		100.00		100.00		100.00	

Mica-Clays	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+540	0.00	0.00	0.00	0.00	574.50	0.07	0.00	0.00	0.00	0.00
+480	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+420	0.00	0.00	448.11	0.02	465.35	0.06	0.00	0.00	456.73	0.14
+390	413.64	0.02	419.39	0.02	0.00	0.00	402.15	0.03	0.00	0.00
+360	373.43	0.02	367.68	0.06	0.00	0.00	379.17	0.02	361.94	0.06
+330	0.00	0.00	339.78	0.13	338.96	0.08	0.00	0.00	336.08	0.10
+300	312.53	0.08	315.34	0.15	315.02	0.22	310.23	0.02	0.00	0.00
+270	284.38	0.09	0.00	0.23	285.34	0.31	279.59	0.11	278.06	0.21
+255	0.00	0.00	260.99	0.10	264.27	0.09	258.53	0.03	258.53	0.04
+240	0.00	0.15	249.33	0.20	0.00	0.16	0.00	0.00	249.48	0.06
+225	234.11	0.05	0.00	0.23	231.24	0.11	232.10	0.08	0.00	0.12
+210	219.27	0.07	0.00	0.32	216.98	0.33	222.14	0.04	0.00	0.16
+195	200.12	0.13	0.00	0.45	0.00	0.46	0.00	0.07	0.00	0.15
+180	0.00	0.19	0.00	0.45	0.00	0.38	0.00	0.06	0.00	0.26
+165	0.00	0.24	0.00	0.49	0.00	0.39	0.00	0.14	0.00	0.36
+150	0.00	0.38	0.00	0.71	0.00	0.53	0.00	0.28	0.00	0.48
+135	0.00	0.44	0.00	1.23	0.00	1.00	0.00	0.47	0.00	0.29
+120	0.00	0.74	0.00	1.55	0.00	1.09	0.00	0.55	0.00	0.75
+105	0.00	0.95	0.00	1.54	0.00	1.03	0.00	0.66	0.00	0.93
+90	0.00	1.56	0.00	2.41	0.00	2.33	0.00	1.54	0.00	1.93
+75	0.00	2.07	0.00	3.15	0.00	3.09	0.00	1.97	0.00	2.23
+66	0.00	1.94	0.00	2.57	0.00	2.60	0.00	2.36	0.00	2.42
+57	0.00	2.58	0.00	3.74	0.00	3.70	0.00	3.41	0.00	3.16
+48	0.00	3.19	0.00	3.72	0.00	3.18	0.00	3.26	0.00	3.35
+39	0.00	5.23	0.00	6.02	0.00	6.25	0.00	6.67	0.00	6.15
+30	0.00	7.41	0.00	7.57	0.00	7.39	0.00	7.61	0.00	7.22
+21	0.00	11.57	0.00	10.77	0.00	12.10	0.00	13.73	0.00	12.46
+12	0.00	18.58	0.00	16.95	0.00	16.39	0.00	16.95	0.00	16.64
+4	0.00	38.79	0.00	30.98	0.00	33.17	0.00	35.83	0.00	37.34
-4	3.03	3.54	3.04	4.23	3.02	3.48	3.03	4.10	3.01	3.01
Other										
All Particles Total	100.00		100.00		100.00		100.00		100.00	

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Average Grain Size Distribution - Raw Data

Other Sil Gangue	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	956.54	0.71	0.00	0.00	837.62	2.78	0.00	0.00
+540	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+480	0.00	0.00	534.29	0.20	0.00	0.00	0.00	0.00	494.07	0.19
+420	0.00	0.00	433.75	0.32	0.00	0.00	0.00	0.00	0.00	0.00
+390	0.00	0.00	407.90	0.15	0.00	0.00	407.90	0.28	0.00	0.00
+360	361.94	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+330	0.00	0.00	0.00	0.00	338.96	0.16	0.00	0.00	347.57	0.26
+300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	321.72	0.24
+270	0.00	0.00	283.42	0.32	0.00	0.00	287.25	0.19	282.66	0.63
+255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	260.44	0.30
+240	252.78	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+225	229.80	0.08	0.00	0.00	235.55	0.10	0.00	0.00	228.10	0.25
+210	215.44	0.14	0.00	0.00	218.31	0.32	0.00	0.00	0.00	0.00
+195	201.08	0.07	0.00	0.00	195.33	0.10	0.00	0.00	203.34	0.48
+180	0.00	0.00	186.71	0.14	183.84	0.09	0.00	0.00	186.91	0.53
+165	169.29	0.18	171.08	0.35	166.61	0.23	0.00	0.00	175.93	0.52
+150	153.73	0.22	155.12	0.06	154.27	0.39	0.00	0.00	158.40	0.85
+135	143.67	0.65	143.63	0.06	142.67	0.59	0.00	0.00	141.58	1.08
+120	128.13	0.64	129.49	0.14	127.79	0.61	132.14	0.09	125.72	1.80
+105	114.47	0.80	112.78	0.42	112.02	0.64	0.00	0.00	111.85	1.20
+90	96.47	1.16	96.40	0.72	96.37	2.42	0.00	0.00	96.95	1.95
+75	80.63	1.74	78.91	0.61	83.51	2.02	83.98	0.38	82.26	3.26
+66	69.34	1.24	70.88	0.73	69.93	1.69	69.61	0.20	70.69	2.96
+57	60.67	1.91	60.49	1.01	60.76	2.78	61.28	0.15	60.45	4.18
+48	52.76	1.69	52.12	0.85	52.32	3.06	52.98	0.33	51.99	3.98
+39	43.12	2.53	42.95	1.47	42.98	5.30	41.56	0.61	43.17	5.92
+30	33.03	4.70	33.27	2.20	33.74	7.24	34.58	1.12	34.10	6.84
+21	24.23	8.44	23.85	4.34	24.30	10.01	24.08	4.32	24.13	10.03
+12	15.00	15.84	14.77	11.07	15.19	13.66	15.32	12.76	15.34	14.36
+4	6.02	50.82	5.75	58.35	6.19	42.07	6.10	65.35	6.21	34.89
-4	2.97	6.96	2.96	15.78	2.97	6.52	2.97	11.44	2.99	3.33
Other Total										
All Particles		100.00		100.00		100.00		100.00		100.00

Fe-Ti Ox	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+540	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+480	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+420	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+390	390.66	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+300	327.47	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+270	270.02	0.23	275.76	0.18	0.00	0.00	0.00	0.00	0.00	0.00
+255	0.00	0.00	0.00	0.00	264.27	0.61	0.00	0.00	0.00	0.00
+240	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+225	235.55	0.20	229.80	0.19	0.00	0.00	0.00	0.00	0.00	0.00
+210	214.48	0.54	218.31	0.14	0.00	0.00	0.00	0.00	0.00	0.00
+195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+180	0.00	0.00	185.07	0.37	182.66	0.87	0.00	0.00	183.84	0.38
+165	166.61	0.16	166.61	0.13	0.00	0.00	0.00	0.00	166.61	0.51
+150	155.12	0.12	155.12	0.09	0.00	0.00	0.00	0.00	151.47	1.05
+135	143.63	0.24	147.93	0.42	138.11	0.45	0.00	0.00	0.00	0.00
+120	121.68	0.45	123.88	0.36	0.00	0.00	126.97	0.28	125.47	1.40
+105	108.55	1.41	111.19	0.35	111.65	2.24	114.90	0.14	108.16	1.17
+90	98.13	0.78	98.37	1.36	99.80	1.74	99.58	0.30	97.47	1.32
+75	80.42	1.69	81.39	1.73	82.47	1.79	81.64	0.62	83.54	1.30
+66	68.86	1.63	69.61	1.48	70.57	2.37	69.28	0.93	71.28	2.89
+57	60.90	1.74	60.15	1.93	60.47	4.79	60.14	1.12	61.32	2.57
+48	52.21	2.42	51.82	2.20	52.88	2.42	52.90	1.20	52.76	4.34
+39	42.82	5.73	42.93	3.52	42.60	6.56	42.09	1.48	43.44	5.76
+30	33.37	7.89	33.57	5.40	33.55	6.19	33.77	4.79	33.92	7.20
+21	23.88	8.08	23.97	10.52	23.86	15.60	24.44	11.14	24.55	14.43
+12	14.89	23.92	15.14	20.28	15.58	17.01	15.18	16.85	15.58	17.69
+4	6.59	40.64	6.61	44.33	6.71	34.59	6.69	57.23	6.68	36.93
-4	2.98	1.74	3.07	5.03	3.00	2.75	2.99	3.91	3.05	1.08
Other Total										
All Particles		100.00		100.00		100.00		100.00		100.00

CALR-11474-001
M15019-MAR07
Morrison Copper

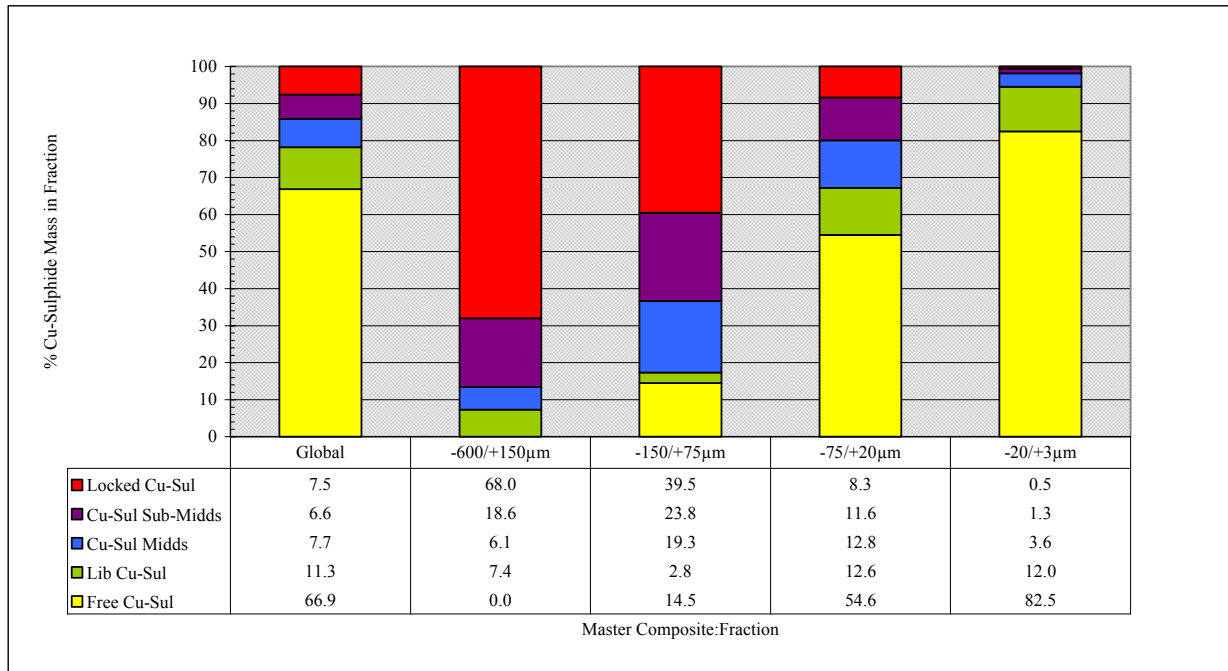
Average Grain Size Distribution - Raw Data

Carbonates	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	0.00	0.00	620.46	0.16	0.00	0.00	0.00	0.00	0.00	0.00
+540	0.00	0.00	0.00	0.00	557.27	0.46	0.00	0.00	0.00	0.00
+480	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+420	0.00	0.00	0.00	0.00	453.86	0.36	0.00	0.00	0.00	0.00
+390	0.00	0.00	0.00	0.00	402.15	0.32	0.00	0.00	407.90	0.33
+360	0.00	0.00	361.94	0.09	0.00	0.00	0.00	0.00	0.00	0.00
+330	333.21	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+300	0.00	0.00	315.98	0.16	321.72	0.53	310.23	0.35	307.36	0.49
+270	281.51	0.11	293.00	0.15	275.76	0.67	275.76	0.31	0.00	0.00
+255	0.00	0.00	261.40	0.14	262.85	0.24	0.00	0.00	0.00	0.00
+240	247.04	0.20	244.16	0.13	241.29	0.20	0.00	0.00	249.91	0.40
+225	0.00	0.00	0.00	0.00	229.80	0.19	231.66	0.17	229.80	0.18
+210	216.01	0.43	218.73	0.29	218.49	0.55	0.00	0.00	0.00	0.00
+195	198.20	0.16	201.90	0.36	197.25	0.48	204.20	0.60	203.32	1.13
+180	184.73	0.52	188.02	0.55	188.26	0.33	188.60	0.43	0.00	0.00
+165	175.52	1.05	172.71	0.37	171.53	1.30	172.61	0.70	170.60	0.72
+150	153.18	0.67	158.87	0.64	159.55	0.73	155.93	0.24	157.37	0.94
+135	144.12	0.52	141.15	0.79	143.69	1.48	141.98	0.79	142.24	1.19
+120	127.66	1.88	126.39	1.21	123.81	1.59	126.74	0.60	127.97	1.74
+105	111.41	1.64	111.07	1.27	112.56	1.58	112.18	1.31	111.98	1.21
+90	97.29	2.42	97.38	2.14	98.62	2.01	96.68	1.59	95.86	2.88
+75	82.05	2.46	82.20	3.38	81.55	3.57	82.17	2.99	81.57	3.52
+66	70.44	3.25	70.23	2.23	71.27	3.43	70.85	2.75	70.40	2.50
+57	61.56	2.54	60.34	2.86	60.10	4.09	60.74	3.44	60.81	3.93
+48	51.96	3.85	51.89	3.90	52.11	4.11	51.93	3.13	52.40	4.13
+39	43.39	6.33	42.94	5.31	43.54	5.66	43.06	4.83	43.27	6.25
+30	33.62	8.08	33.63	7.75	33.62	7.66	33.70	6.89	33.51	8.66
+21	24.18	11.61	24.09	12.78	24.24	12.43	24.34	12.19	24.15	14.35
+12	14.97	21.49	15.24	19.34	15.21	15.64	15.65	17.85	15.42	17.33
+4	6.84	28.71	6.95	31.88	6.79	28.17	7.03	36.88	6.97	27.18
-4	3.12	1.94	3.04	2.12	3.07	2.23	3.04	1.97	3.06	0.92
Other										
All Particles Total		100.00		100.00		100.00		100.00		100.00

PSA	Master Comp		BFP-ARSE		BFP-KH		ZS-QZSE		SS	
	Size	Mass	Size	Mass	Size	Mass	Size	Mass	Size	Mass
+600	697.92	0.26	728.18	0.67	716.35	1.68	778.58	4.58	712.53	1.62
+540	563.38	0.21	563.78	0.38	565.66	0.88	562.96	1.41	565.60	0.70
+480	503.46	0.28	507.36	0.61	502.29	0.96	505.63	1.85	505.57	1.30
+420	447.80	0.51	449.71	0.97	448.62	1.72	448.66	2.55	447.94	1.84
+390	403.70	0.47	404.74	0.81	404.58	1.61	403.97	1.77	404.12	1.47
+360	373.50	0.55	372.61	0.76	372.79	1.36	373.15	1.66	372.32	1.43
+330	343.17	0.74	343.77	1.05	343.54	1.50	344.71	2.02	344.77	1.69
+300	315.64	1.15	315.18	1.51	315.51	2.12	315.24	2.38	315.43	1.96
+270	284.09	1.87	282.82	2.09	283.92	3.21	283.44	2.99	283.82	2.90
+255	261.88	0.70	261.33	0.80	261.67	1.26	261.44	1.10	261.47	1.09
+240	246.46	1.27	247.07	1.43	246.87	1.80	246.55	2.04	247.02	2.01
+225	232.40	1.11	232.37	1.13	231.77	1.54	232.23	1.31	232.39	1.59
+210	218.22	1.68	218.10	1.97	218.04	2.21	217.80	2.13	218.13	1.98
+195	201.75	2.11	201.22	2.14	201.47	2.42	201.20	2.52	201.50	2.50
+180	186.85	1.69	186.42	1.82	186.88	2.26	186.62	1.78	186.72	2.04
+165	172.75	2.38	172.90	2.40	173.08	2.63	172.56	2.64	172.98	2.69
+150	157.51	2.88	158.07	2.73	157.56	3.08	157.75	2.58	157.58	3.19
+135	142.59	3.14	142.93	3.03	143.06	3.17	142.85	2.94	142.60	3.58
+120	126.52	4.23	126.43	3.97	126.31	4.35	126.38	3.71	126.38	4.54
+105	111.18	3.73	111.43	3.44	111.35	3.55	111.45	2.99	111.52	3.79
+90	96.97	4.75	97.13	4.86	97.45	4.79	97.12	3.93	96.95	5.18
+75	82.05	5.42	82.03	5.23	82.09	5.28	82.05	4.19	81.87	5.62
+66	70.24	3.68	70.30	3.48	70.41	3.57	70.57	2.90	70.35	3.80
+57	61.36	4.06	61.21	3.87	61.28	3.78	61.29	3.01	61.31	4.00
+48	52.81	4.15	52.66	3.64	52.90	3.53	52.77	2.98	52.77	3.96
+39	44.33	4.74	44.16	4.10	44.14	4.10	44.24	3.29	44.18	4.46
+30	33.92	6.62	33.99	5.42	33.98	5.72	33.90	4.49	34.00	6.15
+21	23.80	6.92	23.83	5.49	23.82	5.09	24.05	4.49	23.89	5.53
+12	15.39	14.45	15.29	12.83	15.31	9.19	15.44	10.39	15.44	8.83
+4	7.72	13.51	7.28	15.88	7.43	10.75	7.26	12.35	7.63	8.17
-4	3.17	0.74	3.13	1.48	3.15	0.89	3.14	1.03	3.18	0.41
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Particles Total		100.00		100.00		100.00		100.00		100.00

Cu-Sulphide Liberation

CALR-11474-001
 MI5019-MAR07
 Morrison Copper



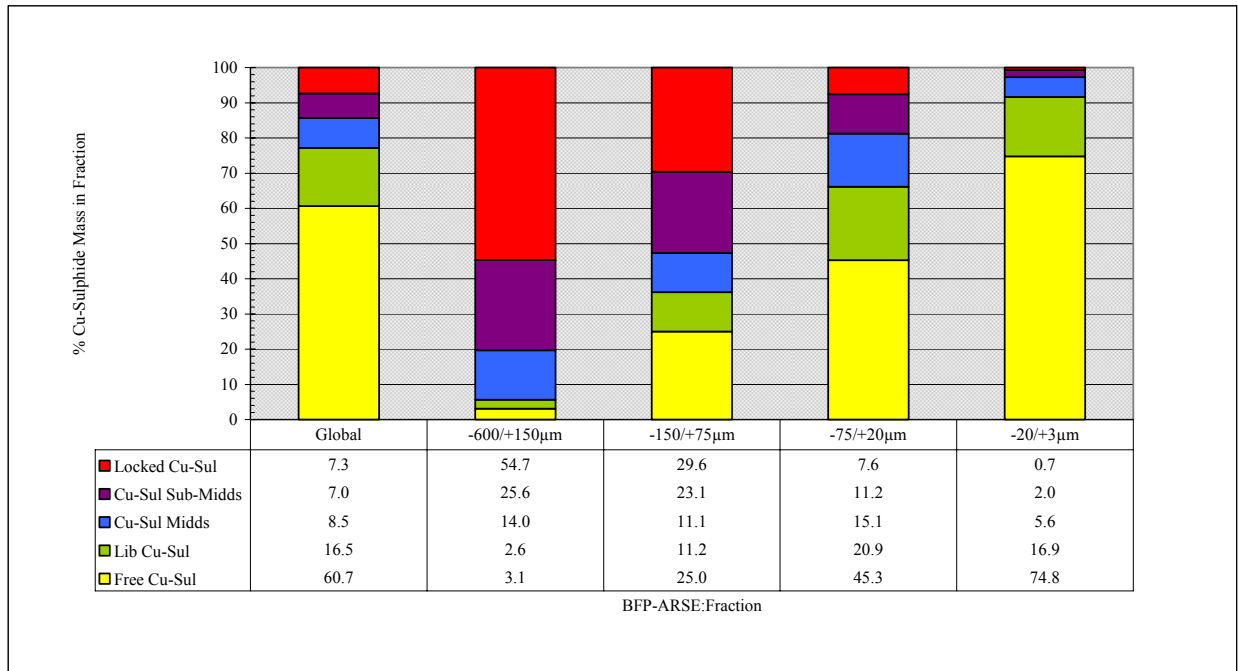
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Mids <80% & >= 50%; Sub-Mids <50% & >= 20%; Locked <20%.

		Master Composite				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren	0.00	0.00	0.00	0.00	0.00
	Free Cu-Sul	20.23	0.00	0.38	4.74	15.12
	Lib Cu-Sul	3.43	0.05	0.07	1.10	2.21
	Cu-Sul Mids	2.32	0.04	0.50	1.12	0.66
	Cu-Sul Sub-Mids	1.99	0.12	0.62	1.01	0.24
	Locked Cu-Sul	2.28	0.44	1.03	0.72	0.09
	Total	30.25	0.65	2.60	8.69	18.32

Cu-Sulphide Liberation

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 MI5019-MAR07
 Morrison Copper



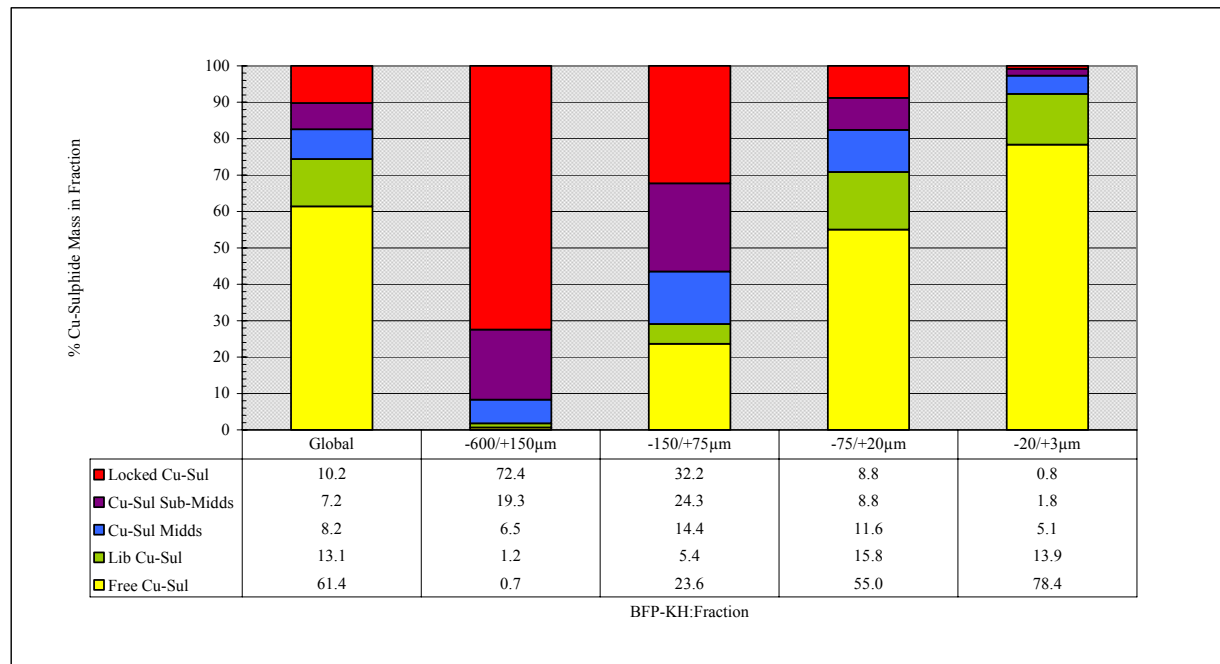
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Mids <80% & >= 50%; Sub-Mids <50% & >=20%; Locked <20%.

		BFP-ARSE				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren	0.00	0.00	0.00	0.00	0.00
	Free Cu-Sul	17.95	0.04	0.67	2.83	14.40
	Lib Cu-Sul	4.89	0.04	0.30	1.31	3.25
	Cu-Sul Mids	2.52	0.20	0.30	0.95	1.08
	Cu-Sul Sub-Mids	2.06	0.36	0.62	0.70	0.39
	Locked Cu-Sul	2.17	0.76	0.79	0.47	0.14
	Total	29.59	1.39	2.68	6.26	19.26

Cu-Sulphide Liberation

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Morrison Copper



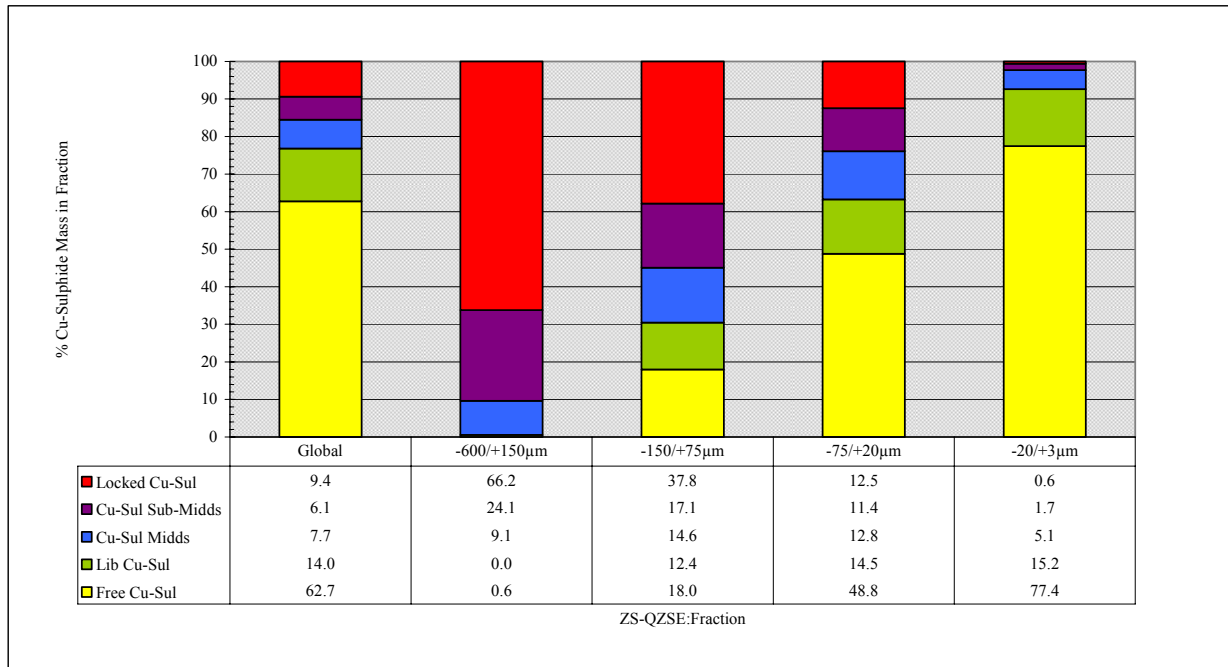
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Mids <80% & >= 50%; Sub-Mids <50% & >= 20%; Locked <20%.

		BFP-KH				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren	0.00	0.00	0.00	0.00	0.00
	Free Cu-Sul	14.31	0.01	0.52	4.26	9.52
	Lib Cu-Sul	3.05	0.01	0.12	1.22	1.69
	Cu-Sul Mids	1.91	0.08	0.32	0.90	0.61
	Cu-Sul Sub-Mids	1.68	0.23	0.54	0.68	0.22
	Locked Cu-Sul	2.38	0.88	0.71	0.68	0.10
Total		23.32	1.22	2.22	7.73	12.15

Cu-Sulphide Liberation

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 MI5019-MAR07
 Morrison Copper



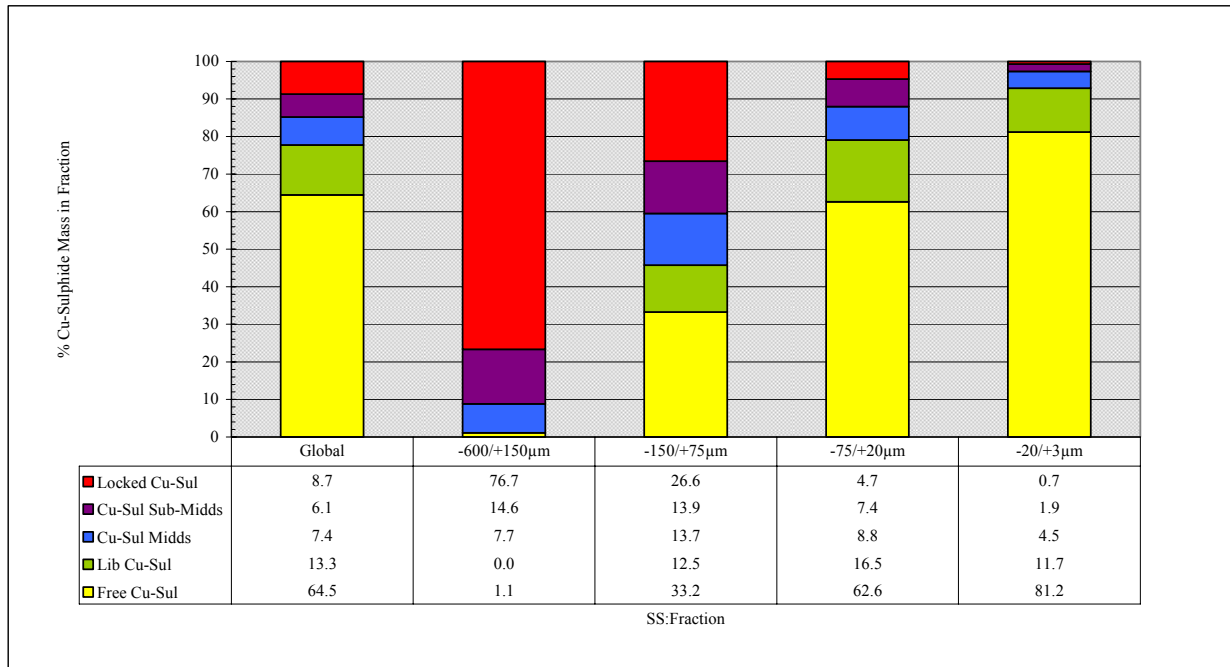
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Mids <80% & >= 50%; Sub-Mids <50% & >=20%; Locked <20%.

		ZS-QZSE				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren	0.00	0.00	0.00	0.00	0.00
	Free Cu-Sul	13.24	0.01	0.27	2.25	10.71
	Lib Cu-Sul	2.96	0.00	0.19	0.67	2.10
	Cu-Sul Mids	1.62	0.10	0.22	0.59	0.71
	Cu-Sul Sub-Mids	1.29	0.27	0.26	0.53	0.23
	Locked Cu-Sul	1.98	0.75	0.58	0.58	0.08
	Total	21.10	1.13	1.53	4.61	13.84

Cu-Sulphide Liberation

CALR-11474-001
 MI5019-MAR07
 Morrison Copper



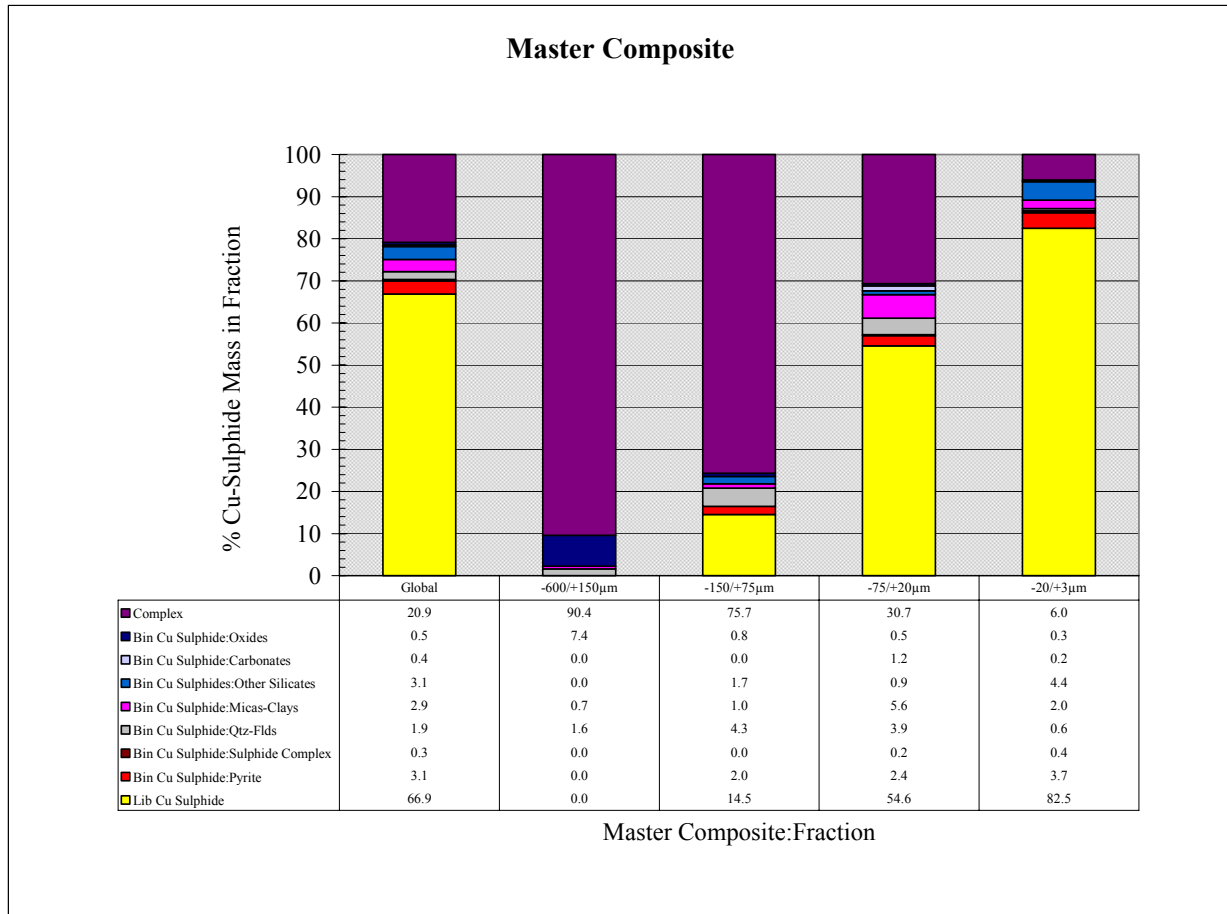
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Mids <80% & >= 50%; Sub-Mids <50% & >=20%; Locked <20%.

		SS				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren	0.00	0.00	0.00	0.00	0.00
	Free Cu-Sul	13.24	0.01	0.27	2.25	10.71
	Lib Cu-Sul	2.96	0.00	0.19	0.67	2.10
	Cu-Sul Mids	1.62	0.10	0.22	0.59	0.71
	Cu-Sul Sub-Mids	1.29	0.27	0.26	0.53	0.23
	Locked Cu-Sul	1.98	0.75	0.58	0.58	0.08
	Total	21.10	1.13	1.53	4.61	13.84

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 MI5019-MAR07
 Morrison Copper

Cu-Sulphide Association

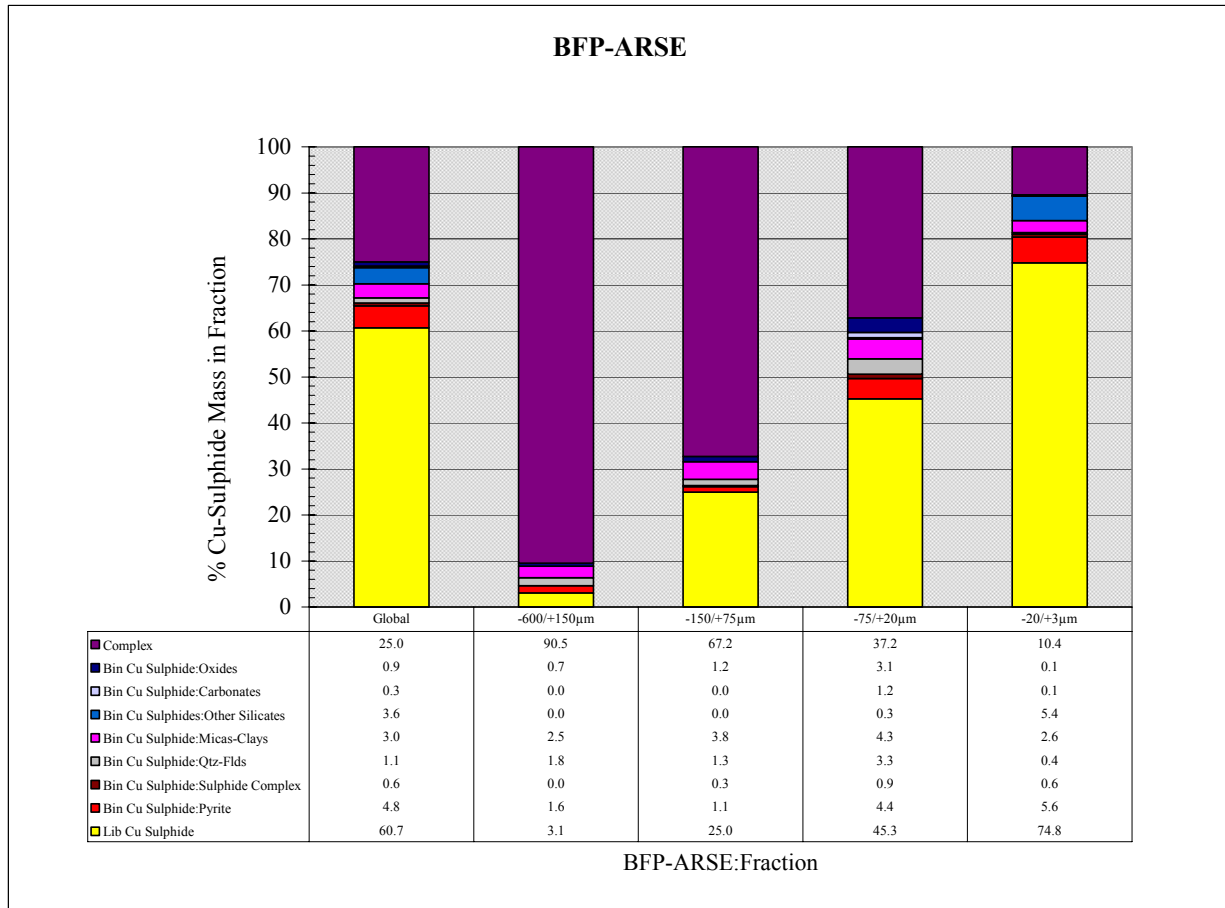


Categories are based on particle area percent:
 Free >= 95%, Binary and complex groups have >= 95% combined area.

		Master Composite				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren Cu Sulphide	0.00	0.00	0.00	0.00	0.00
	Lib Cu Sulphide	20.23	0.00	0.38	4.74	15.12
	Bin Cu Sulphide:Pyrite	0.94	0.00	0.05	0.21	0.68
	Bin Cu Sulphide:Sulphide Complex	0.09	0.00	0.00	0.02	0.07
	Bin Cu Sulphide:Qtz-Flds	0.57	0.01	0.11	0.34	0.11
	Bin Cu Sulphide:Micas-Clays	0.87	0.00	0.03	0.49	0.36
	Bin Cu Sulphides:Other Silicates	0.93	0.00	0.05	0.08	0.80
	Bin Cu Sulphide:Carbonates	0.13	0.00	0.00	0.10	0.03
	Bin Cu Sulphide:Oxides	0.17	0.05	0.02	0.05	0.05
	Complex	6.32	0.58	1.96	2.66	1.11
	Total	30.25	0.65	2.60	8.69	18.32

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MI5019-MAR07
Morrison Copper

Cu-Sulphide Association



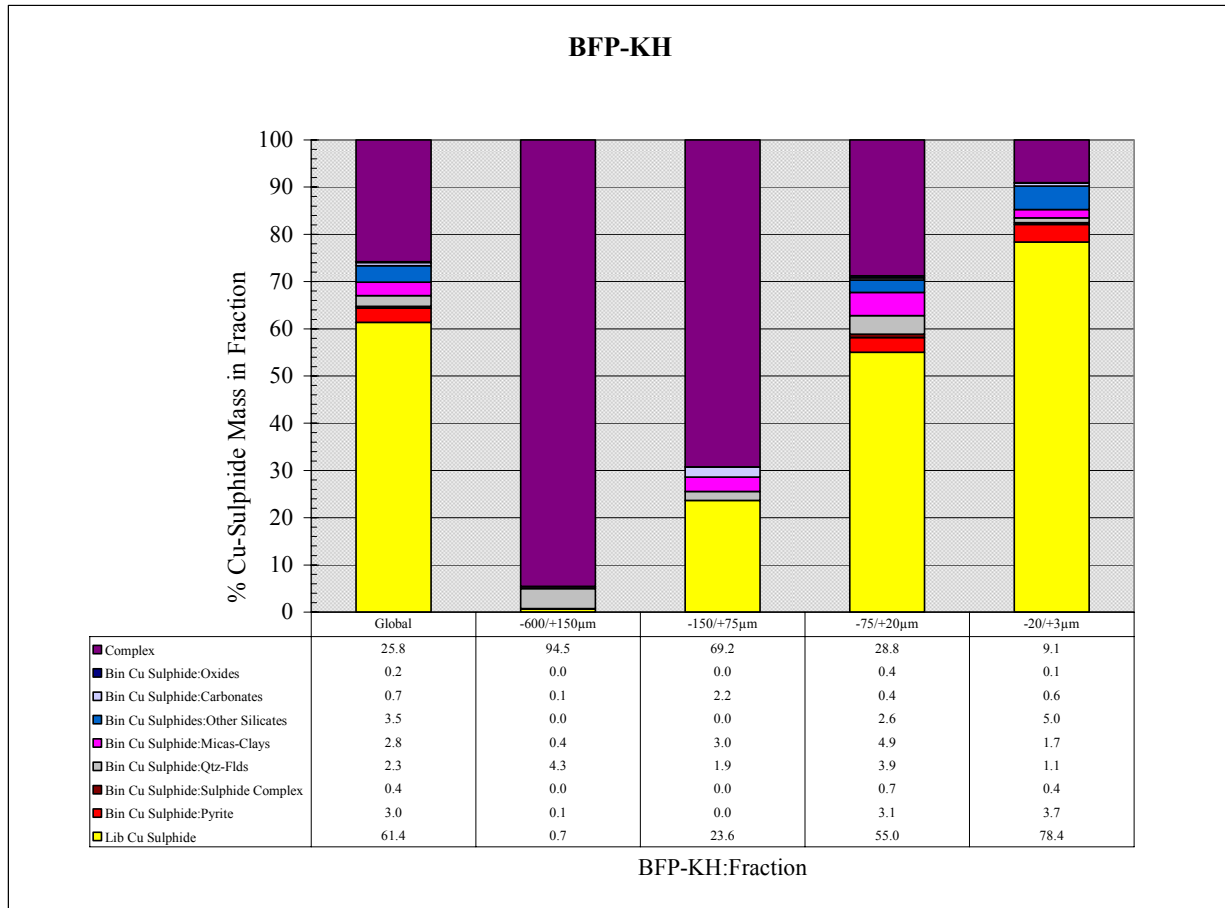
Categories are based on particle area percent:

Free >= 95%, Binary and complex groups have >= 95% combined area.

		BFP-ARSE				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren Cu Sulphide	0.00	0.00	0.00	0.00	0.00
	Lib Cu Sulphide	17.95	0.04	0.67	2.83	14.40
	Bin Cu Sulphide:Pyrite	1.41	0.02	0.03	0.28	1.08
	Bin Cu Sulphide:Sulphide Complex	0.19	0.00	0.01	0.06	0.12
	Bin Cu Sulphide:Qtz-Flds	0.34	0.02	0.04	0.21	0.07
	Bin Cu Sulphide:Micas-Clays	0.90	0.03	0.10	0.27	0.49
	Bin Cu Sulphides:Other Silicates	1.05	0.00	0.00	0.02	1.03
	Bin Cu Sulphide:Carbonates	0.09	0.00	0.00	0.07	0.02
	Bin Cu Sulphide:Oxides	0.27	0.01	0.03	0.20	0.03
	Complex	7.40	1.26	1.80	2.33	2.01
	Total	29.59	1.39	2.68	6.26	19.26

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MI5019-MAR07
Morrison Copper

Cu-Sulphide Association



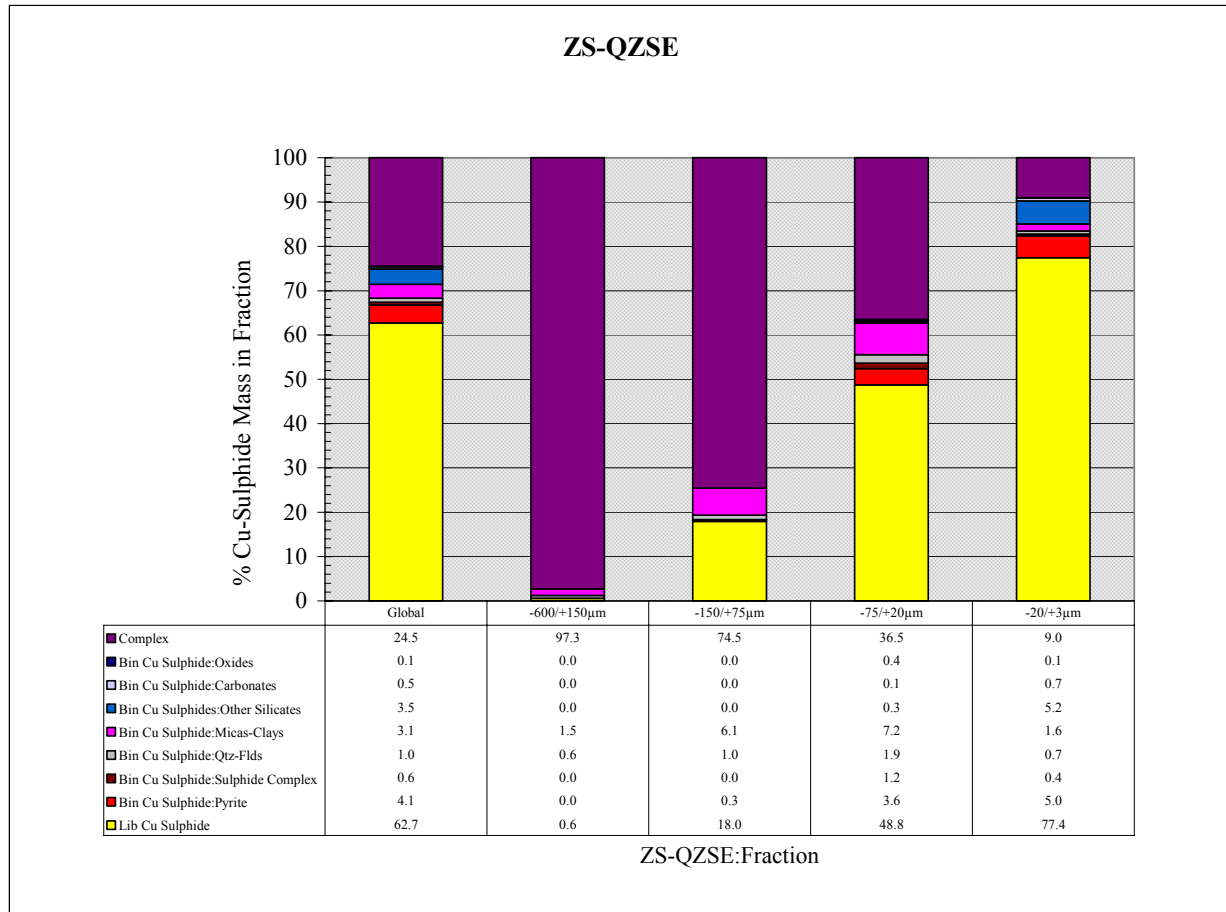
Categories are based on particle area percent:

Free >= 95%, Binary and complex groups have >= 95% combined area.

		BFP-KH				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren Cu Sulphide	0.00	0.00	0.00	0.00	0.00
	Lib Cu Sulphide	14.31	0.01	0.52	4.26	9.52
	Bin Cu Sulphide:Pyrite	0.70	0.00	0.00	0.24	0.45
	Bin Cu Sulphide:Sulphide Complex	0.10	0.00	0.00	0.05	0.04
	Bin Cu Sulphide:Qtz-Flds	0.53	0.05	0.04	0.31	0.13
	Bin Cu Sulphide:Micas-Clays	0.66	0.00	0.07	0.38	0.21
	Bin Cu Sulphides:Other Silicates	0.81	0.00	0.00	0.20	0.61
	Bin Cu Sulphide:Carbonates	0.16	0.00	0.05	0.03	0.08
	Bin Cu Sulphide:Oxides	0.04	0.00	0.00	0.03	0.01
	Complex	6.01	1.15	1.54	2.22	1.10
	Total	23.32	1.22	2.22	7.73	12.15

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Morrison Copper

Cu-Sulphide Association



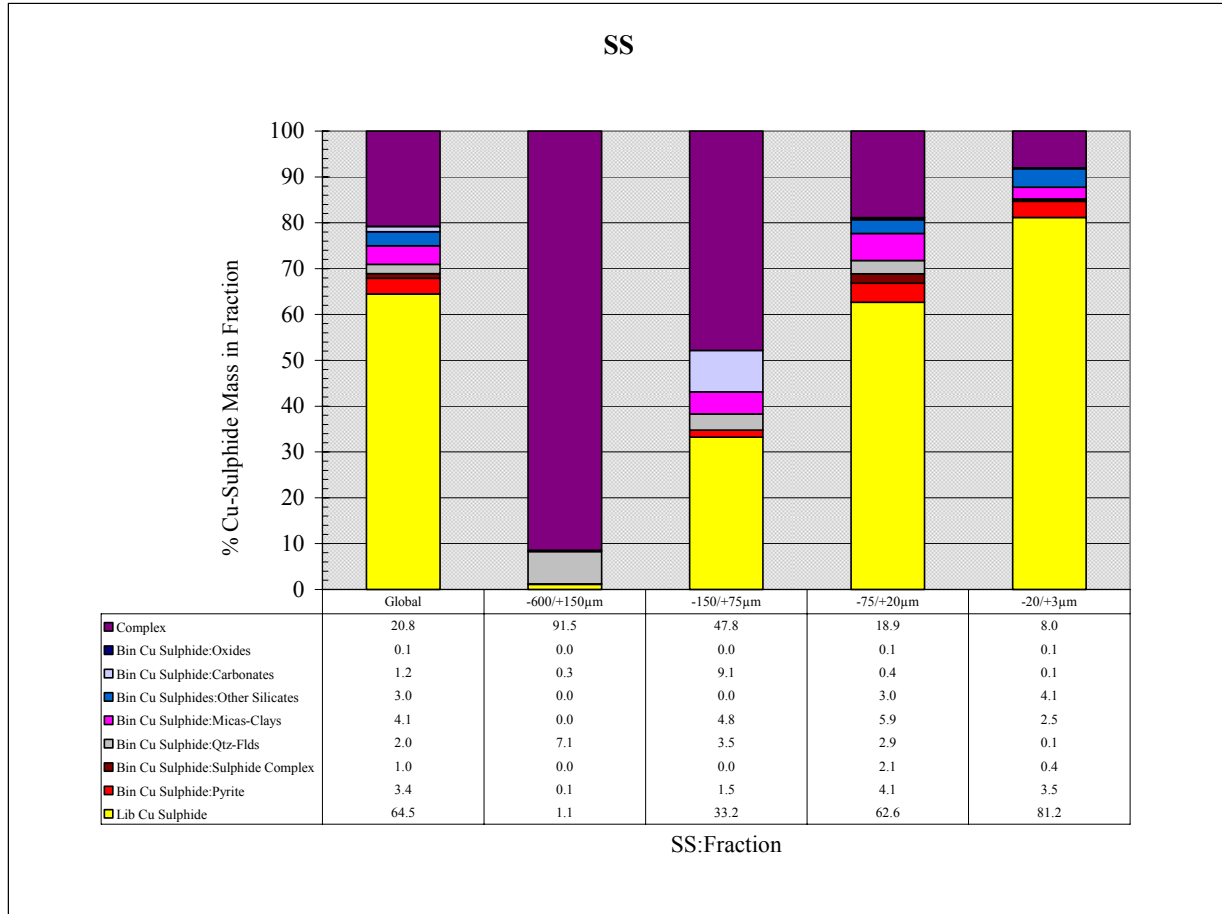
Categories are based on particle area percent:

Free >= 95%, Binary and complex groups have >= 95% combined area.

		ZS-QZSE				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren Cu Sulphide	0.00	0.00	0.00	0.00	0.00
	Lib Cu Sulphide	13.24	0.01	0.27	2.25	10.71
	Bin Cu Sulphide:Pyrite	0.86	0.00	0.01	0.17	0.69
	Bin Cu Sulphide:Sulphide Complex	0.12	0.00	0.00	0.06	0.06
	Bin Cu Sulphide:Qtz-Flds	0.20	0.01	0.02	0.09	0.09
	Bin Cu Sulphide:Micas-Clays	0.66	0.02	0.09	0.33	0.22
	Bin Cu Sulphides:Other Silicates	0.73	0.00	0.00	0.01	0.72
	Bin Cu Sulphide:Carbonates	0.10	0.00	0.00	0.01	0.09
	Bin Cu Sulphide:Oxides	0.03	0.00	0.00	0.02	0.01
	Complex	5.17	1.10	1.14	1.68	1.25
	Total	21.10	1.13	1.53	4.61	13.84

CALR-11474-001
 MI5019-MAR07
 Morrison Copper

Cu-Sulphide Association

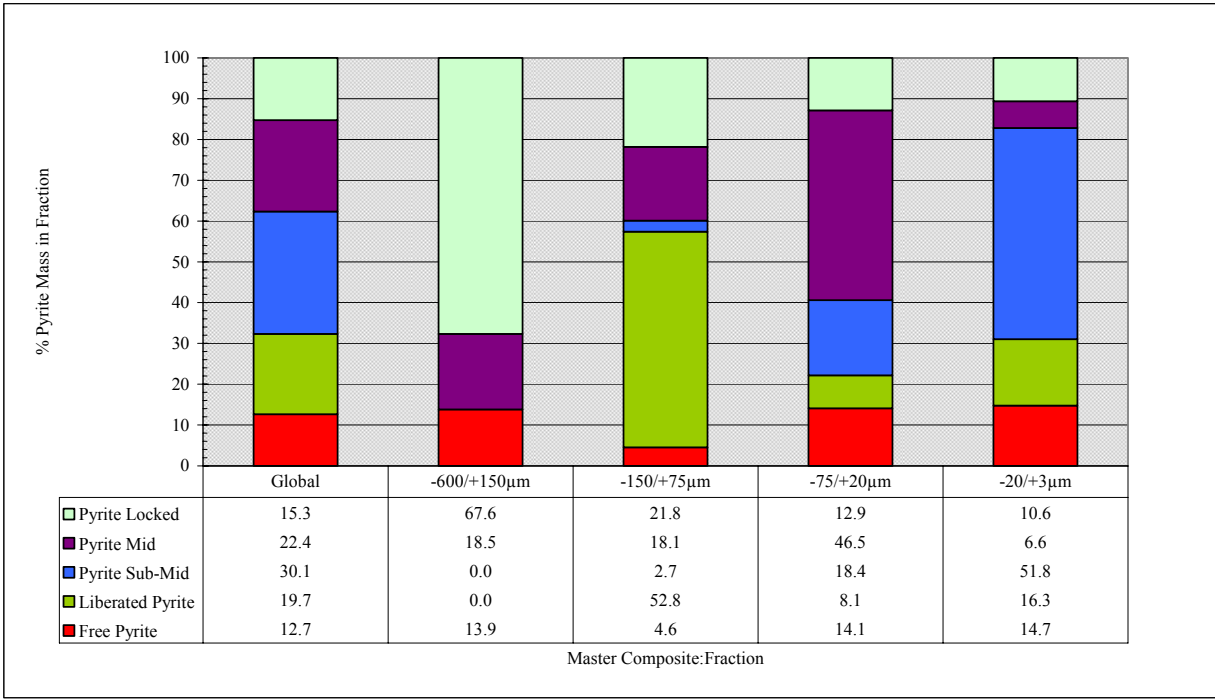


Categories are based on particle area percent:
 Free >= 95%, Binary and complex groups have >= 95% combined area.

		SS				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Cu-Sulphide	Barren Cu Sulphide	0.00	0.00	0.00	0.00	0.00
	Lib Cu Sulphide	14.07	0.01	0.77	5.81	7.49
	Bin Cu Sulphide:Pyrite	0.74	0.00	0.03	0.38	0.32
	Bin Cu Sulphide:Sulphide Complex	0.22	0.00	0.00	0.19	0.03
	Bin Cu Sulphide:Qtz-Flds	0.44	0.07	0.08	0.27	0.01
	Bin Cu Sulphide:Micas-Clays	0.89	0.00	0.11	0.55	0.24
	Bin Cu Sulphides:Other Silicates	0.66	0.00	0.00	0.28	0.38
	Bin Cu Sulphide:Carbonates	0.25	0.00	0.21	0.03	0.01
	Bin Cu Sulphide:Oxides	0.01	0.00	0.00	0.01	0.01
	Complex	4.53	0.94	1.10	1.75	0.74
	Total	21.83	1.03	2.30	9.27	9.22

CALR-11474-001
 MI5019-MAR07
 Morrison Copper

Pyrite Liberation



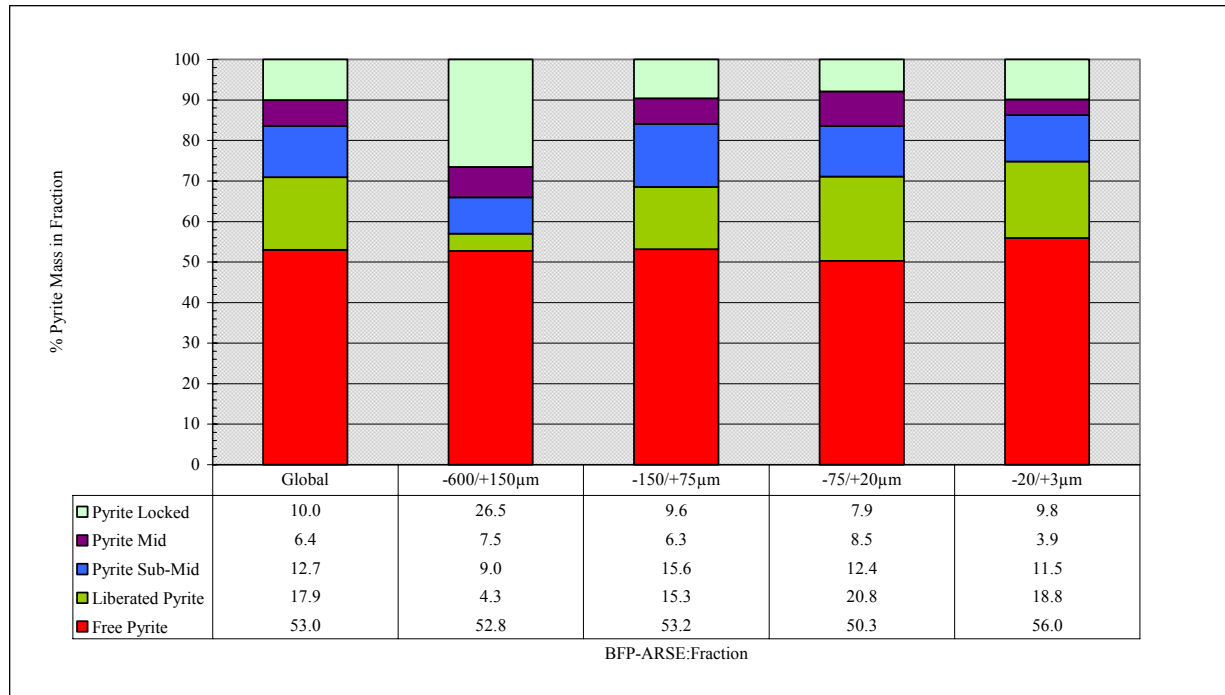
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Midds <80% & >= 50%; Sub-Midds <50% & >=20%; Locked <20%.

		Master Composite				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Pyrite	Barren	0.00	0.00	0.00	0.00	0.00
	Free Pyrite	0.47	0.02	0.03	0.18	0.25
	Liberated Pyrite	0.74	0.00	0.36	0.10	0.28
	Pyrite Sub-Mid	1.13	0.00	0.02	0.23	0.88
	Pyrite Mid	0.84	0.02	0.12	0.58	0.11
	Pyrite Locked	0.57	0.08	0.15	0.16	0.18
	Total	3.75	0.12	0.68	1.25	1.70

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MI5019-MAR07
Morrison Copper

Pyrite Liberation



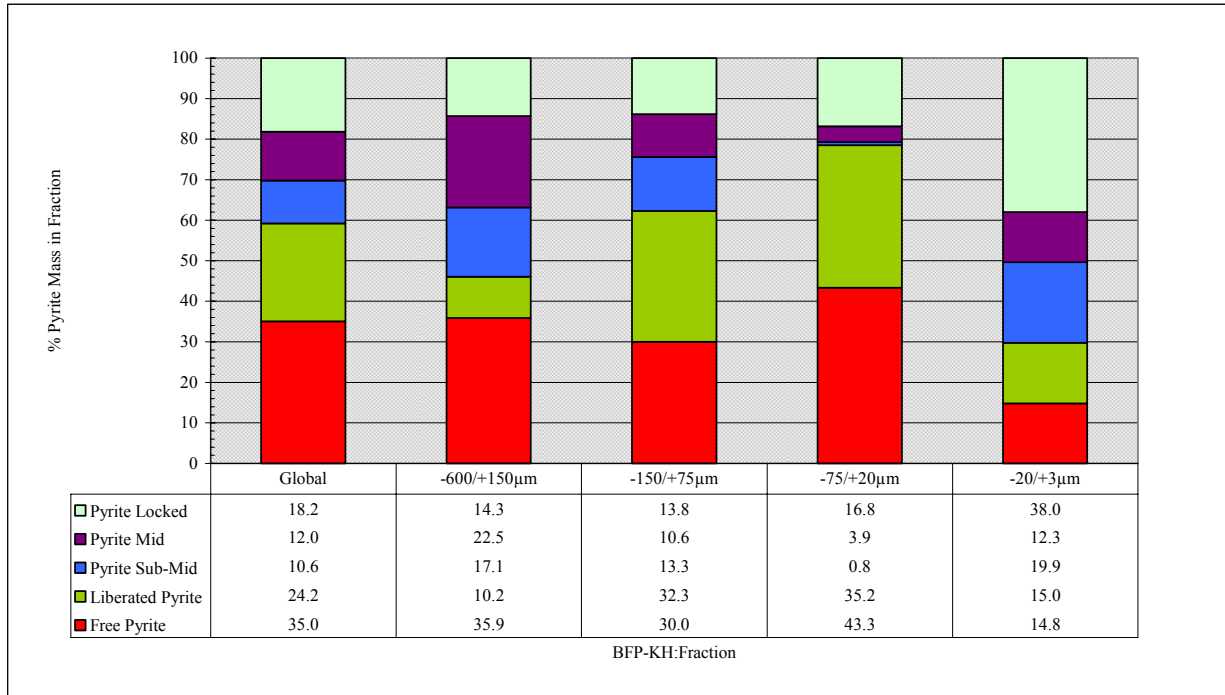
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Midds <80% & >= 50%; Sub-Midds <50% & >=20%; Locked <20%.

		BFP-ARSE				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Pyrite	Barren	0.00	0.00	0.00	0.00	0.00
	Free Pyrite	4.37	0.24	1.05	1.53	1.54
	Liberated Pyrite	1.47	0.02	0.30	0.63	0.52
	Pyrite Sub-Mid	1.04	0.04	0.31	0.38	0.32
	Pyrite Mid	0.53	0.03	0.12	0.26	0.11
	Pyrite Locked	0.82	0.12	0.19	0.24	0.27
	Total	8.23	0.46	1.98	3.03	2.76

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 Morrison Copper

Pyrite Liberation



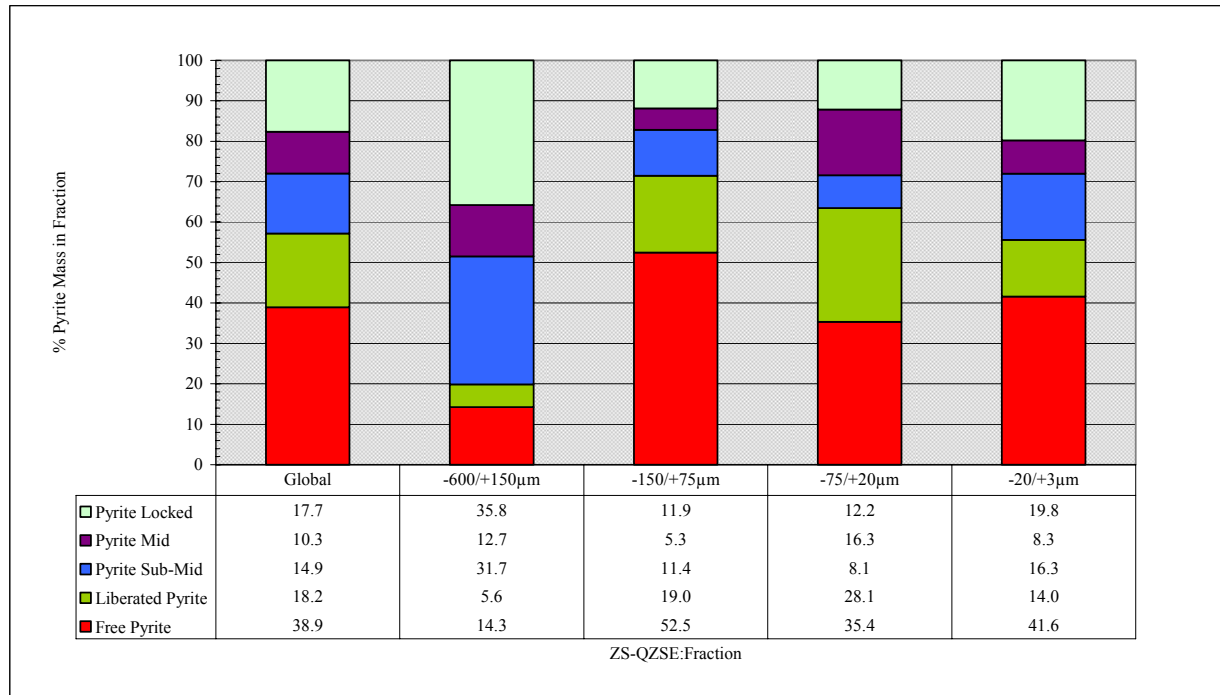
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Midds <80% & >= 50%; Sub-Midds <50% & >=20%; Locked <20%.

		BFP-KH				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Pyrite	Barren	0.00	0.00	0.00	0.00	0.00
	Free Pyrite	0.86	0.28	0.13	0.41	0.05
	Liberated Pyrite	0.59	0.08	0.14	0.33	0.05
	Pyrite Sub-Mid	0.26	0.13	0.06	0.01	0.06
	Pyrite Mid	0.29	0.17	0.05	0.04	0.04
	Pyrite Locked	0.44	0.11	0.06	0.16	0.12
	Total	2.45	0.78	0.43	0.94	0.31

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MI5019-MAR07
Morrison Copper

Pyrite Liberation



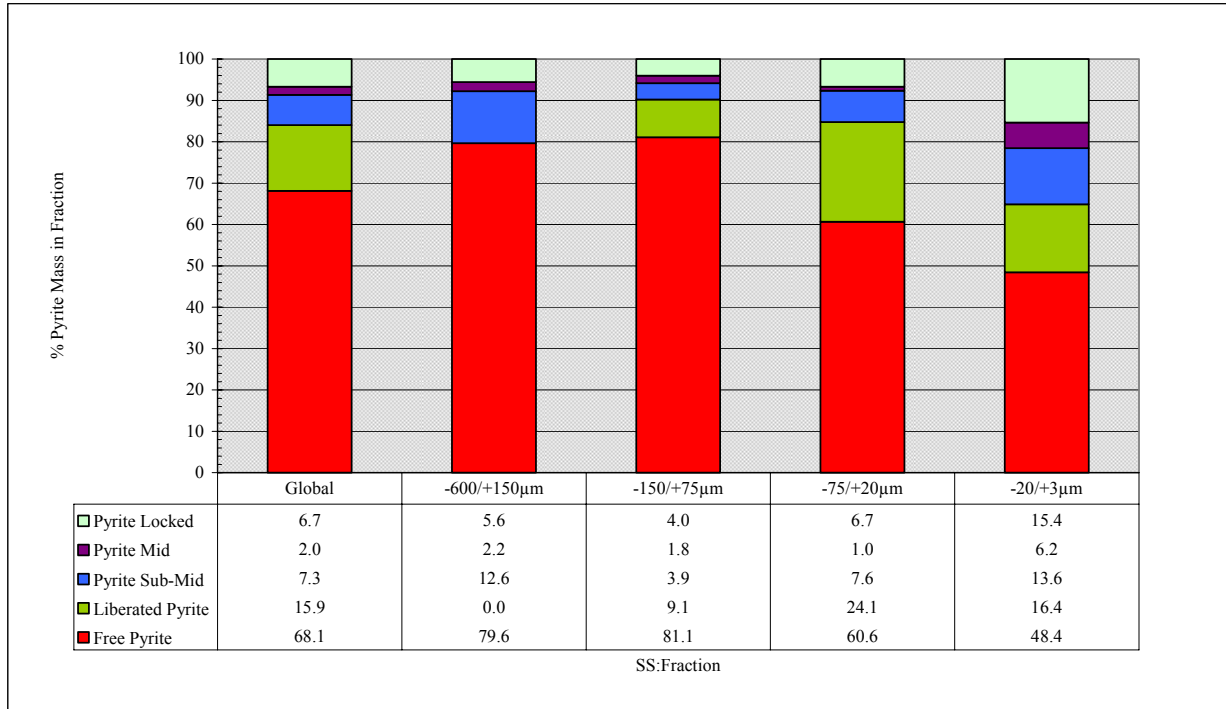
Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Midds <80% & >= 50%; Sub-Midds <50% & >= 20%; Locked <20%.

		ZS-QZSE				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Pyrite	Barren	0.00	0.00	0.00	0.00	0.00
	Free Pyrite	1.27	0.07	0.54	0.33	0.33
	Liberated Pyrite	0.60	0.03	0.19	0.26	0.11
	Pyrite Sub-Mid	0.49	0.16	0.12	0.08	0.13
	Pyrite Mid	0.34	0.07	0.05	0.15	0.07
	Pyrite Locked	0.58	0.18	0.12	0.11	0.16
	Total	3.27	0.52	1.03	0.93	0.79

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 MI5019-MAR07
 Morrison Copper

Pyrite Liberation



Categories are based on particle area percent:

Free >= 95%; Lib <95% & >= 80%; Midds <80% & >= 50%; Sub-Midds <50% & >=20%; Locked <20%.

		SS				
		Global	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Mass of Pyrite	Barren	0.00	0.00	0.00	0.00	0.00
	Free Pyrite	3.41	0.28	1.52	1.31	0.30
	Liberated Pyrite	0.79	0.00	0.17	0.52	0.10
	Pyrite Sub-Mid	0.37	0.04	0.07	0.16	0.08
	Pyrite Mid	0.10	0.01	0.03	0.02	0.04
	Pyrite Locked	0.34	0.02	0.08	0.15	0.09
	Total	5.00	0.35	1.87	2.17	0.61

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 MI5019-MAR07
 Morrison Copper

Examples of Notable Cu-Sulphide Textures

BFP-KH: Cu-Sulphide Complex (-20/+3µm)



ZS-QZSE: Binary Cu-Sulphide and Pyrite (-20/+3µm)



BFP-KH: Binary Cu-Sulphide and Qtz-Flds (-75/+20µm)



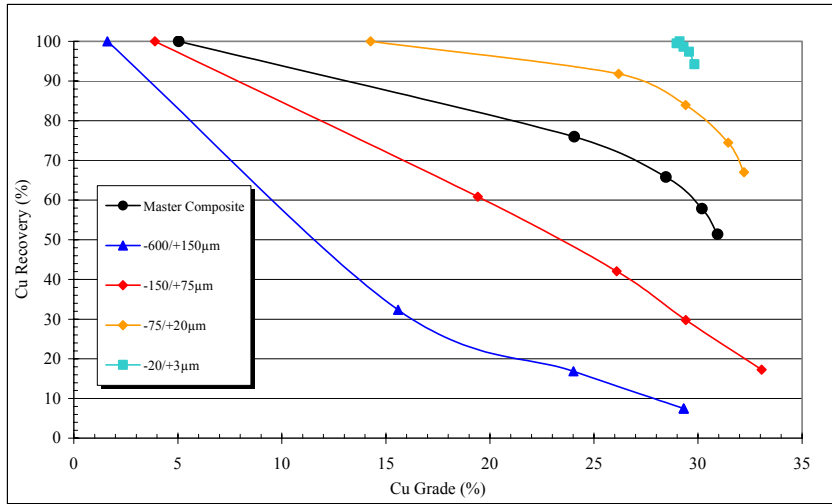
SS: Cu-Sulphide Complex (-75/+20µm)



- Background
- Pyrite
- Pyrrhotite
- Cu-Sulphide
- Other Sulphides
- Sulphates
- Quartz-Feldspars
- Micas-Clays
- Other Silicate Gangue
- Carbonates
- Fe-Ti Oxides
- Other

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 Morrison Copper

Cu Grade vs. Recovery

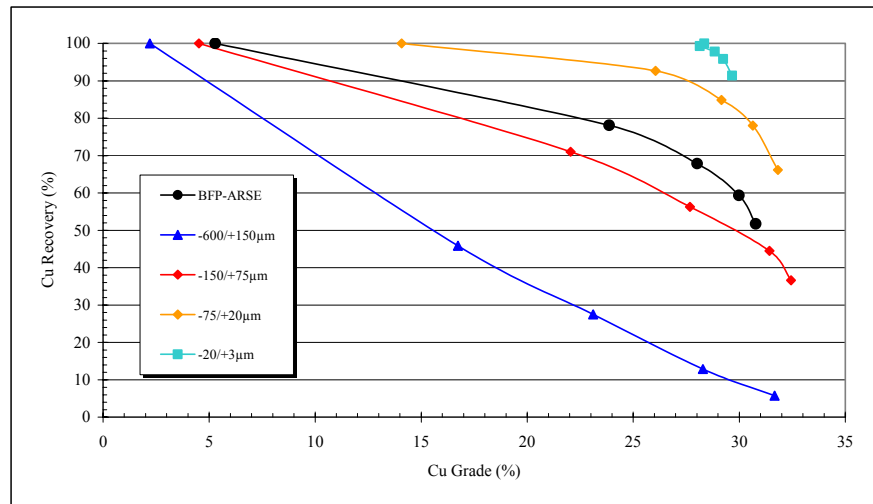


	Master Composite			
	Grade of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	29.31	33.06	32.21	29.83
60<=CuA<80	-	25.51	25.93	23.30
40<=CuA<60	21.00	20.50	19.42	17.57
20<=CuA<40	11.27	12.34	12.08	12.25
0<CuA<20	1.13	1.74	2.34	3.41
Barren	0.00	0.00	0.00	0.00

	Master Composite			
	Elemental Mass of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	0.02	0.15	1.93	5.27
60<=CuA<80	0.00	0.11	0.21	0.17
40<=CuA<60	0.02	0.11	0.27	0.07
20<=CuA<40	0.03	0.16	0.23	0.05
0<CuA<20	0.15	0.34	0.24	0.03
Barren	0.00	0.00	0.00	0.00

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 MI5019-MAR07
 Morrison Copper

Cu Grade vs. Recovery

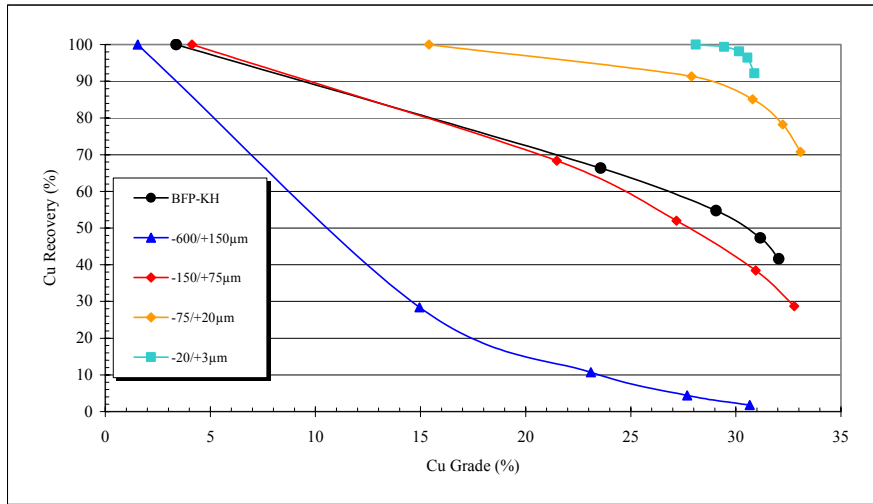


	BFP-ARSE			
	Grade of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	31.67	32.44	31.82	29.67
60<=CuA<80	26.05	27.43	25.43	22.44
40<=CuA<60	19.90	19.09	18.82	17.54
20<=CuA<40	11.84	12.40	12.01	10.80
0<CuA<20	1.27	1.53	2.07	3.46
Barren	0.00	0.00	0.01	0.00

	BFP-ARSE			
	Elemental Mass of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	0.03	0.33	1.37	5.37
60<=CuA<80	0.03	0.07	0.25	0.26
40<=CuA<60	0.07	0.11	0.14	0.12
20<=CuA<40	0.09	0.13	0.16	0.09
0<CuA<20	0.25	0.26	0.15	0.04
Barren	0.00	0.00	0.00	0.00

CALR-11474-001
 MI5019-MAR07
 Morrison Copper

Cu Grade vs. Recovery

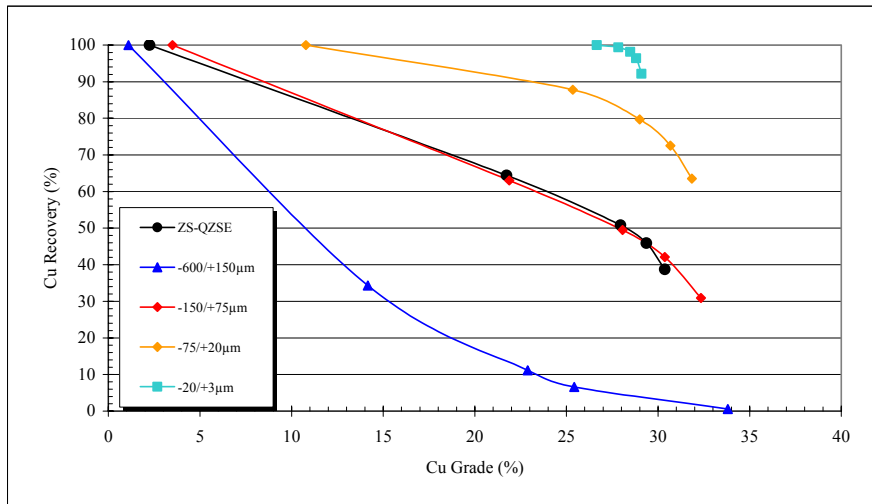


	BFP-KH			
	Grade of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	30.66	32.77	33.08	30.89
60<=CuA<80	25.96	26.55	25.93	24.19
40<=CuA<60	20.72	20.20	20.47	18.32
20<=CuA<40	12.32	12.89	12.20	10.97
0<CuA<20	1.14	1.50	2.68	4.31
Barren	0.00	0.00	0.00	0.00

	BFP-KH			
	Elemental Mass of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	0.01	0.22	1.87	3.54
60<=CuA<80	0.01	0.07	0.20	0.14
40<=CuA<60	0.03	0.10	0.18	0.08
20<=CuA<40	0.07	0.12	0.17	0.05
0<CuA<20	0.30	0.24	0.23	0.03
Barren	0.00	0.00	0.00	0.00

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 Morrison Copper

Cu Grade vs. Recovery

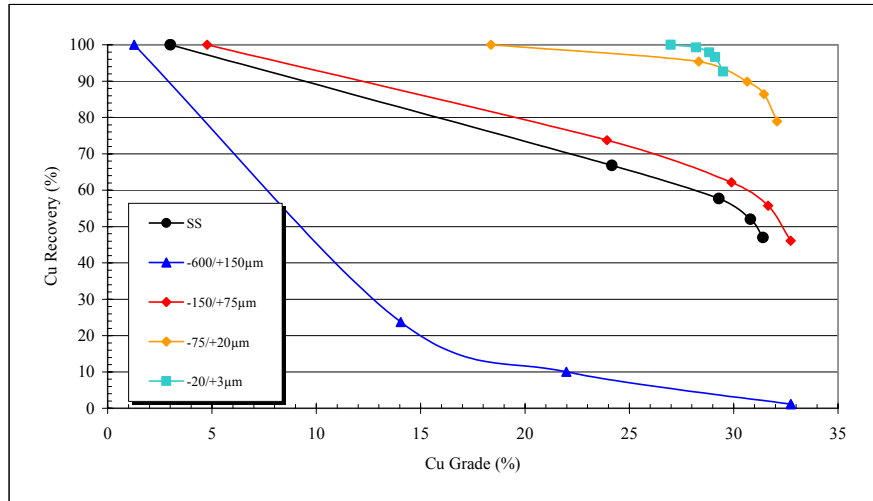


	ZS-QZSE			
	Grade of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	33.81	32.34	31.85	29.09
60<=CuA<80	24.84	26.01	24.34	23.76
40<=CuA<60	20.00	19.59	18.64	17.50
20<=CuA<40	11.97	12.12	11.34	9.96
0<CuA<20	0.74	1.44	2.10	3.31
Barren	0.00	0.00	0.00	0.00

	ZS-QZSE			
	Elemental Mass of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	0.00	0.16	0.96	3.81
60<=CuA<80	0.02	0.06	0.14	0.17
40<=CuA<60	0.02	0.04	0.11	0.07
20<=CuA<40	0.09	0.07	0.12	0.05
0<CuA<20	0.25	0.19	0.18	0.02
Barren	0.00	0.00	0.00	0.00

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 MI5019-MAR07
 Morrison Copper

Cu Grade vs. Recovery

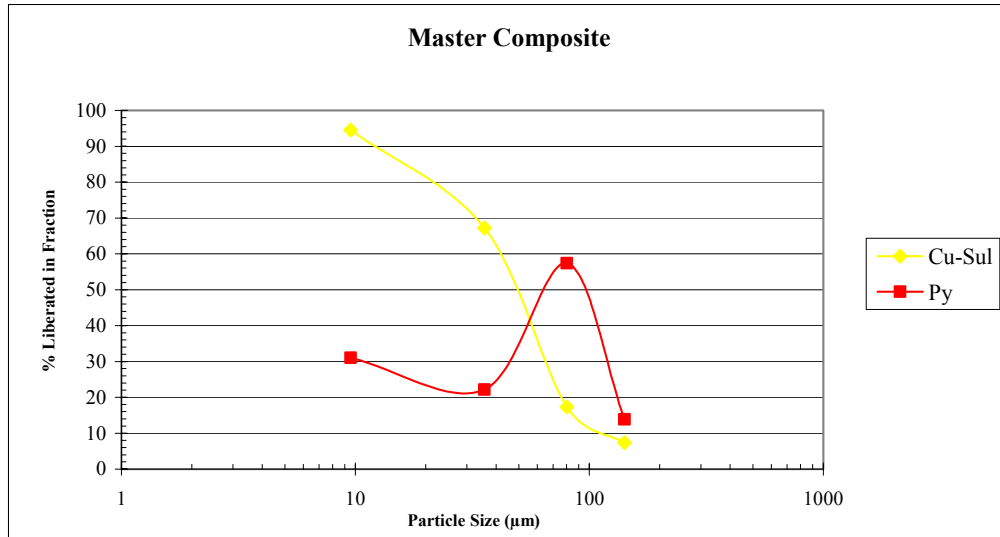


	SS			
	Grade of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	32.74	32.73	32.08	29.50
60<=CuA<80	0.00	27.33	26.12	22.27
40<=CuA<60	21.10	20.13	18.66	16.75
20<=CuA<40	11.11	11.59	12.63	10.92
0<CuA<20	0.99	1.46	2.23	4.01
Barren	0.00	0.00	0.00	0.00

	SS			
	Elemental Mass of Cu by Category and Fraction			
	-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
CuA>=80	0.00	0.36	2.42	2.58
60<=CuA<80	0.00	0.07	0.23	0.11
40<=CuA<60	0.03	0.05	0.11	0.04
20<=CuA<40	0.05	0.09	0.17	0.04
0<CuA<20	0.27	0.20	0.14	0.02
Barren	0.00	0.00	0.00	0.00

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 MI5019-MAR07
 Morrison Copper

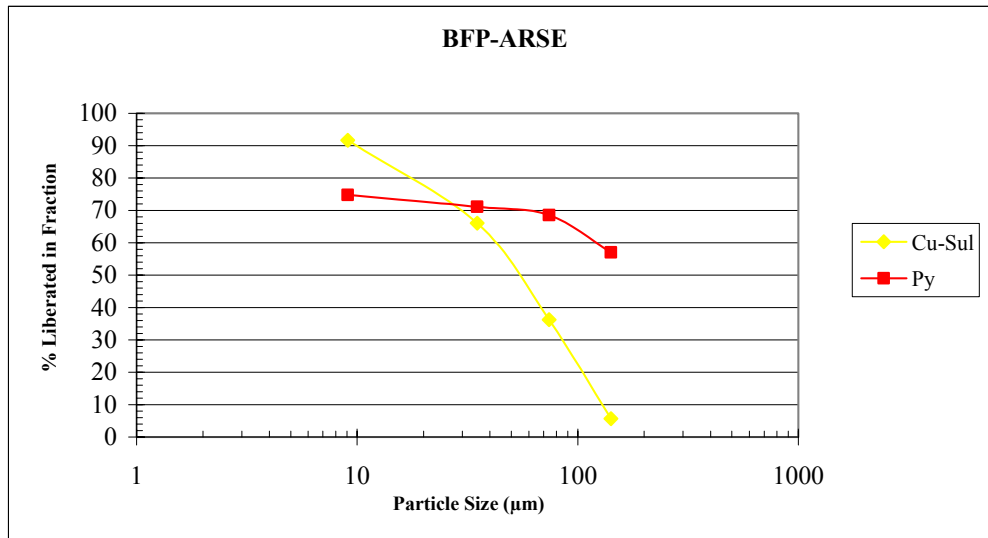
Mineral Release Curve



Sample		Master Composite			
		-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
	Fraction				
	Average Particle Size (µm)	141	80	36	10
Cu-Sul	Lib Cp (mass %)	0.05	0.45	5.84	17.32
	Total	0.65	2.60	8.69	18.32
	% Lib	7.35	17.31	67.20	94.54
Py	Lib Py (mass %)	0.02	0.39	0.28	0.53
	Total	0.10	0.29	0.97	1.17
	% Lib	13.87	57.37	22.17	31.05

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MI5019-MAR07
Morrison Copper

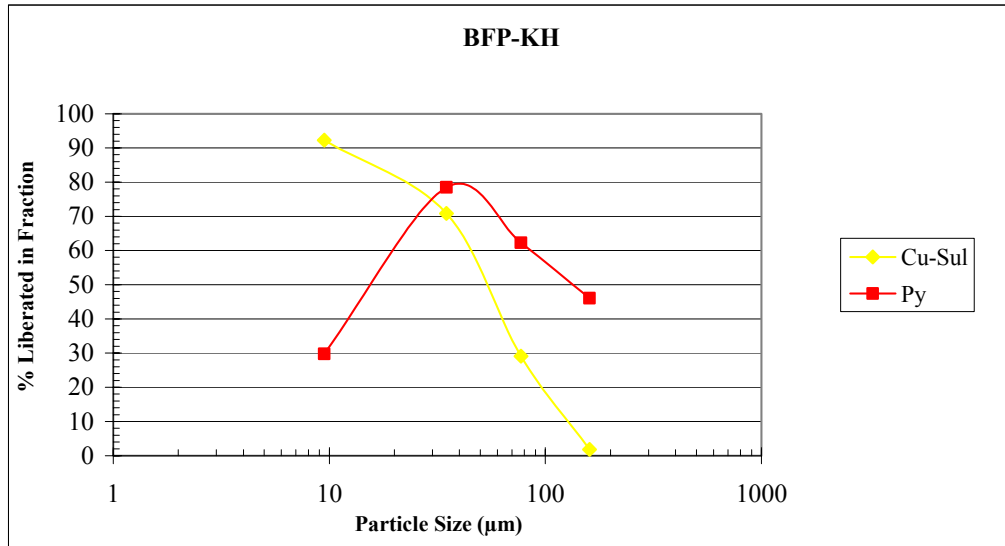
Mineral Release Curve



Sample		BFP-ARSE			
		-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
	Fraction				
	Average Particle Size (µm)	141	74	35	9
Cu-Sul	Lib Cp (mass %)	0.08	0.97	4.14	17.65
	Total	1.39	2.68	6.26	19.26
	% Lib	5.67	36.20	66.12	91.67
Py	Lib Py (mass %)	0.26	1.36	2.16	2.06
	Total	0.46	1.98	3.03	2.76
	% Lib	57.01	68.53	71.09	74.81

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MI5019-MAR07
Morrison Copper

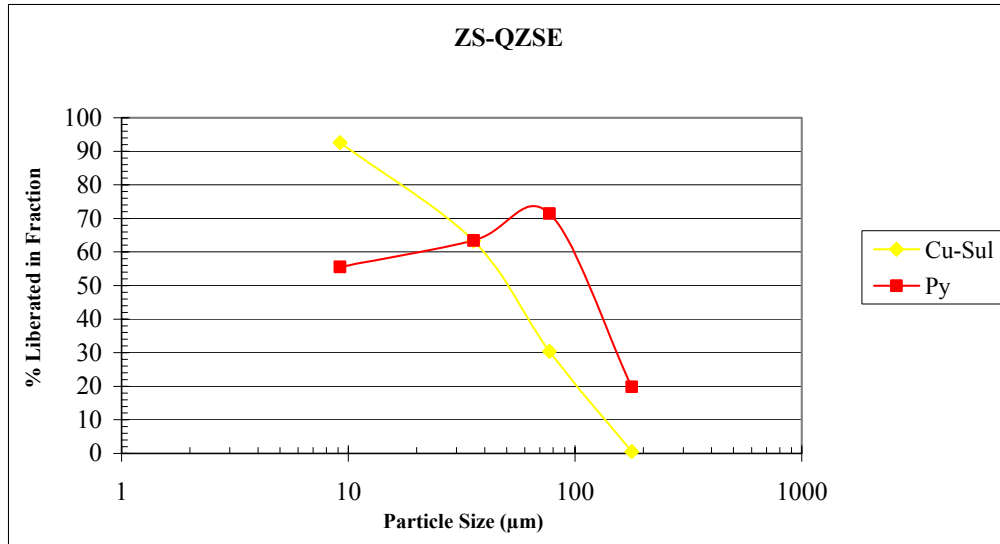
Mineral Release Curve



Sample		BFP-KH			
		-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
	Fraction				
	Average Particle Size (µm)	160	77	35	9
Cu-Sul	Lib Cp (mass %)	0.02	0.65	5.48	11.22
	Total	1.22	2.22	7.73	12.15
	% Lib	1.82	29.08	70.84	92.30
Py	Lib Py (mass %)	0.36	0.27	0.73	0.09
	Total	0.78	0.43	0.94	0.31
	% Lib	46.07	62.29	78.49	29.79

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 MI5019-MAR07
 Morrison Copper

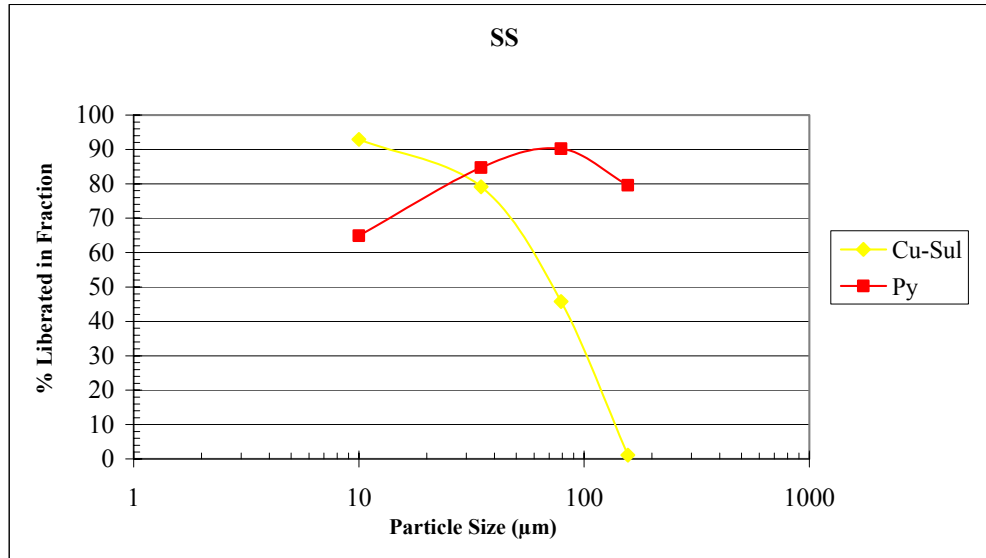
Mineral Release Curve



Sample		ZS-QZSE			
		-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
Fraction					
Average Particle Size (µm)		178	77	36	9
Cu-Sul	Lib Cp (mass %)	0.01	0.46	2.92	12.82
	Total	1.13	1.53	4.61	13.84
	% Lib	0.56	30.41	63.29	92.61
Py	Lib Py (mass %)	0.10	0.73	0.59	0.44
	Total	0.52	1.03	0.93	0.79
	% Lib	19.85	71.45	63.43	55.59

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 MI5019-MAR07
 Morrison Copper

Mineral Release Curve



Sample		SS			
		-600/+150µm	-150/+75µm	-75/+20µm	-20/+3µm
	Fraction				
	Average Particle Size (µm)	156	79	35	10
Cu-Sul	Lib Cp (mass %)	0.01	1.05	7.33	8.57
	Total	1.03	2.30	9.27	9.22
	% Lib	1.14	45.78	79.11	92.90
Py	Lib Py (mass %)	0.28	1.69	1.84	0.40
	Total	0.35	1.87	2.17	0.61
	% Lib	79.63	90.21	84.73	64.88

Appendix 3:

QEMSCAN Modes of Operation

QEMSCAN™ Modes of Operation

QEMSCAN™ is an acronym for Quantitative Evaluation of Materials by Scanning Electron Microscopy, a system which differs from image analysis systems in that it is configured to measure mineralogical variability based on chemistry at the micrometer-scale. QEMSCAN™ utilizes both the back-scattered electron (BSE) signal intensity as well as an Energy Dispersive X-ray Signal (EDS) at each measurement point. It thus makes no simplifications or assumptions of homogeneity based on the BSE intensity, as many mineral phases show BSE overlap. EDS signals are used to assign mineral identities to each measurement point by comparing the EDS spectrum against a mineral species identification program (SIP) or database.

There are two general types of measurement: those using the linear intercept and those based on particle mapping. Bulk mineral analysis (BMA) is performed using the linear intercept method, and is used to provide statistically abundant data for speciation and mineral distribution. Particle mapping modes, including Particle Mineral Analysis (PMA), Specific Mineral Search (SMS) analysis and Trace Mineral Search (TMS) analysis provide information on spatial relationships of minerals, including liberation and association data and provide a visual representation of mineral textures. The particle mapping modes of measurement also allow for advanced analysis of the minerals of interest, including grade vs. recovery relationships and mineral release curves. Specific details of the measurement modes are presented below, while visual examples of these two measurement classes are presented in Figures A and B.

Bulk Mineral Analysis, or BMA, is performed by the linear intercept method, in which the electron beam is rastered at a pre-defined point spacing (nominally 3 micrometers, but variable with particle size) along several lines per field, and covering the entire polished section at any given magnification. An example of a BMA measurement image is shown in Figure A. This measurement provides a robust data set for determination of the bulk mineralogy, with mineral identities and proportions, along with grain size measurements.

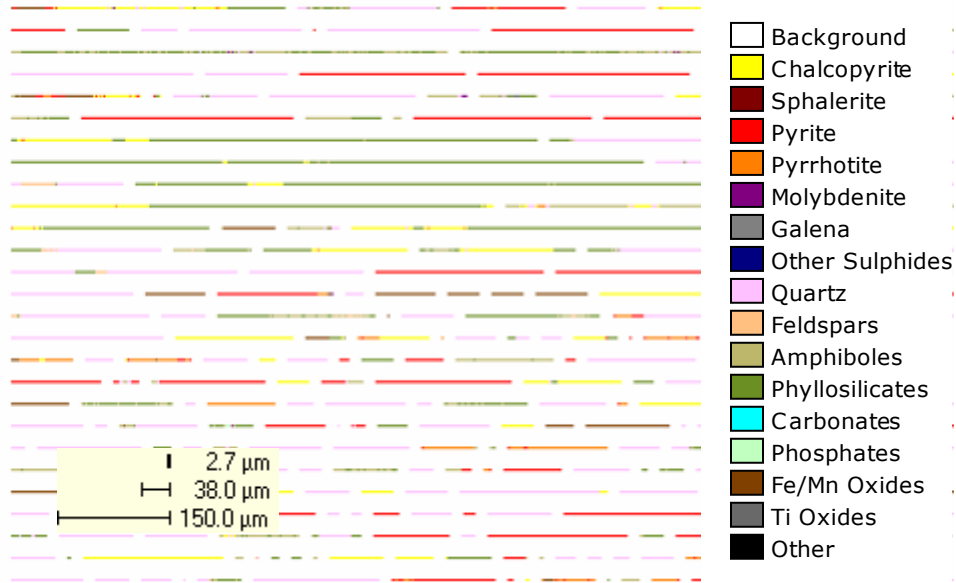


Figure A. BMA Measurement Mode

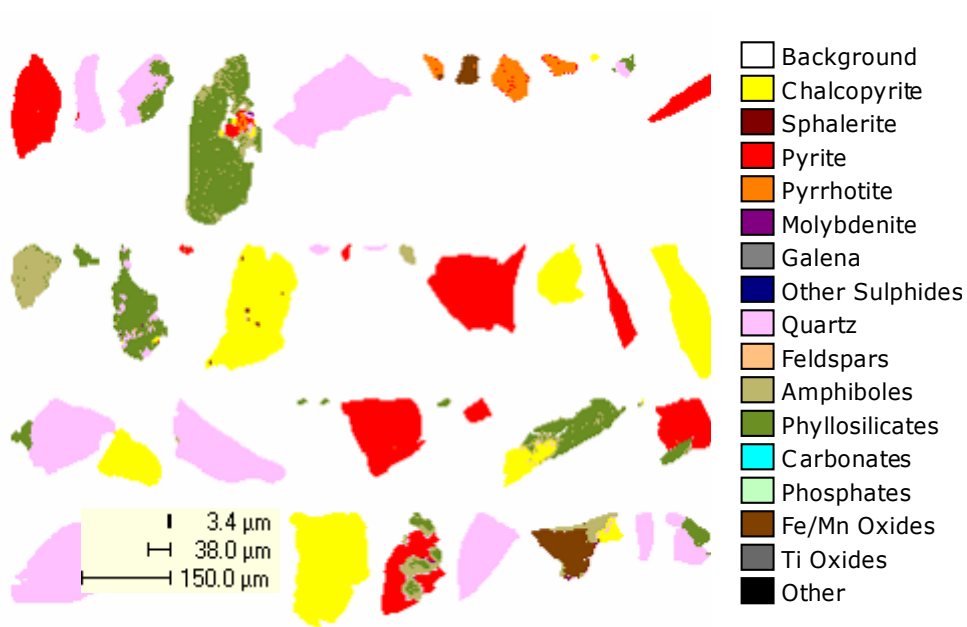


Figure B. Particle Mapping (PMA, SMS or TMS) Measurement Mode

Particle Mineral Analysis (PMA) is a two-dimensional mapping analysis aimed at resolving liberation and locking characteristics of a generic set of particles. A pre-defined number of particles are mapped at a point spacing selected in order to spatially resolve and describe mineral textures and associations. This mode is often selected to characterize concentrate products, as both gangue and value minerals report in statistically abundant quantities to be resolved.

Specific Mineral Search, or SMS, is a modified Particle Mineral Analysis (PMA) routine. However, in an SMS routine, a phase reports as a low-grade constituent and can be located by thresholding of the back-scattered electron intensity. Any accompanying phases of similar and higher brightness are also mapped. For example, this mode of measurement would be selected in ores of low sulphide grade, searching specifically for particles containing sulphide minerals.

Trace Mineral Search (TMS) is an additional mapping routine, where a phase reports as a trace constituent and can be located by thresholding of the back-scattered electron intensity. The objective of this routine is to reject barren fields and increase analysis efficiency. The outputs are otherwise identical to the SMS routine. This mode of measurement is often used for advanced studies of PGE ore types, or trace minerals of interest such as molybdenite.

It is important to note that with regards to SMS and TMS modes, results pertain only to the target minerals. PMA must be selected if quantitative gangue characterization is required. For example, in some sulphide ores, it may be more efficient to reject barren pyrites in favour of copper-bearing minerals. However, it must be noted that data captured in this manner will not reflect the true characteristics of pyrite, as only the pyrite associated with the copper-bearing minerals will be represented.

Appendix C: Comminution Summary

Morrison Grindability Test Summary

Sample ID	SPI Number	SPI (Ci)	SPI (minutes)	BWI (kWh/t)	Mod BWI (kWh/t)	Initial Weight (kg)	~Weight Left (kg)
MO-01-46, 7.62 - 13.72m	1-950	7.5	116.9	17.8	18.0	19.9	10.7
MO-01-46, 13.72 - 19.81m	1-951	3.5	141.6	18.6	18.6	16.1	6.9
MO-01-59, 4.57 - 10.67m	1-952	1.5	143.1	-	19.7	16.2	13.0
MO-01-59, 25.91 - 32.00m	1-953	4.3	134.2	-	21.5	18.5	15.3
MO-01-59, 50.29 - 56.39m	1-954	21.8	80.4	-	17.0	17.0	13.8
MO-01-59, 96.01 - 102.11m	1-955	14.5	173.4	21.0	20.4	14.4	5.2
MO-02-67, 26.52 - 32.00m	1-956	44.6	36.5	-	11.3	10.2	7.0
MO-02-67, 38.10 - 44.20m	1-957	58.5	61.5	-	14.3	11.3	8.1
MO-02-67, 89.92 - 96.01m	1-958	17.1	41.7	-	13.4	6.6	3.4
MO-02-67, 105.16 - 111.25m	1-959	20.8	51.9	-	14.2	10.0	6.8
MO-02-67, 117.35 - 123.44m	1-960	19.7	42.2	-	11.9	9.7	6.5
MO-02-68, 24.38 - 30.48m	1-961	15.4	65.5	-	16.1	9.2	6.0
MO-02-68, 36.58 - 42.67m	1-962	32.7	48.3	-	15.2	6.2	3.0
MO-02-68, 48.77 - 54.86m	1-963	22.9	69.0	-	15.6	6.8	3.6
MO-02-74, 24.38 - 30.48m	1-964	9.9	147.3	-	19.1	13.2	10.0
MO-02-74, 36.38 - 42.67m	1-965	12.4	138.8	-	19.0	18.6	15.4
MO-02-74, 57.91 - 64.01m	1-966	4.9	143.1	-	20.6	16.9	13.7
MO-02-74, 88.39 - 94.49m	1-967	20.5	74.5	-	17.8	12.0	8.8
MO-02-74, 103.63 - 109.73m	1-968	22.1	71.5	-	17.3	16.2	13.0
MO-02-75, 4.57 - 10.67m	1-969	11.7	114.2	-	19.0	16.1	12.9
MO-02-75, 38.10 - 44.20m	1-970	2.4	147.8	-	23.0	17.6	14.4
MO-02-75, 65.53 - 71.63m	1-971	6.3	160.6	-	16.0	16.3	13.1
MO-02-75, 83.82 - 89.92m	1-972	15.4	184.5	-	23.5	16.5	13.3
MO-02-76, 4.57 - 10.67m	1-973	21.6	123.7	-	19.3	13.1	9.9
MO-02-76, 13.72 - 19.81m	1-974	8.3	190.0	22.5	22.8	16.3	7.1
MO-02-76, 44.20 - 50.29m	1-975	33.1	141.9	-	19.5	17.7	14.5
MO-02-76, 80.77 - 86.87m	1-976	11.3	141.5	-	21.3	18.7	15.5
MO-02-76, 129.54 - 135.64m	1-977	11.3	102.7	-	14.7	18.0	14.8
MO-02-76, 160.02 - 166.12m	1-978	8.2	172.0	-	20.8	17.8	14.6
MO-02-76, 184.40 - 190.50m	1-979	20.3	69.4	-	15.3	17.3	14.1
MO-02-76, 205.74 - 211.84m	1-980	9.0	85.3	-	16.3	17.6	14.4
MO-02-76, 239.27 - 245.36m	1-981	7.9	74.5	13.9	16.1	17.1	7.9
MO-02-79, 53.42 - 59.44m	1-982	8.0	58.8	-	14.9	11.9	8.7
MO-02-79, 65.53 - 71.63m	1-983	20.0	88.3	-	16.8	14.9	11.7
MO-02-79, 86.87 - 92.96m	1-984	23.0	70.1	-	15.9	13.4	10.2
MO-02-79, 102.11 - 108.20m	1-985	4.5	127.2	-	15.0	16.7	13.5
MO-02-79, 120.40 - 126.49m	1-986	7.5	104.5	-	17.6	16.6	13.4
MO-02-79, 135.64 - 141.73m	1-987	11.0	106.0	-	15.4	17.4	14.2
MO-02-79, 153.92 - 160.02m	1-988	8.4	80.5	-	15.4	20.8	17.6
MO-02-79, 190.50 - 196.60m	1-989	19.5	104.1	17.2	16.5	13.9	4.7
MO-02-79, 224.03 - 227.08m	1-990	6.8	115.3	-	16.7	7.7	4.5
MO-02-79, 251.51 - 257.56m	1-991	8.1	117.3	-	14.4	17.2	14.0
MO-02-80, 13.72 - 19.81m	1-992	9.6	65.3	-	13.5	14.1	10.9
MO-02-80, 25.91 - 32.00m	1-993	15.4	106.1	-	14.7	16.2	13.0
MO-02-80, 44.20 - 50.20m	1-994	11.9	80.1	-	13.1	15.7	12.5
MO-02-80, 68.58 - 74.68m	1-995	19.3	83.4	13.9	15.2	16.0	6.8
MO-02-80, 80.77 - 86.87m	1-996	12.0	116.9	-	14.7	17.4	14.2
MO-02-80, 96.01 - 102.11m	1-997	18.3	124.9	-	14.0	15.2	12.0
MO-02-80, 114.30 - 120.40m	1-998	23.4	91.5	-	15.2	14.3	11.1
MO-02-80, 135.64 - 141.73m	1-999	10.7	102.6	16.7	15.8	14.9	5.7
MO-02-80, 147.83 - 153.92m	1-1000	6.1	91.1	-	16.3	12.2	9.0
MO-02-80, 156.97 - 163.07m	1-1001	3.1	108.8	-	16.3	15.3	12.1

Morrison Grindability Test Summary

Sample ID	SPI Number	SPI (Ci)	SPI (minutes)	BWI (kWh/t)	Mod BWI (kWh/t)	Initial Weight (kg)	~Weight Left (kg)
MO-02-81, 19.81 - 25.91m	1-1002	8.4	111.2	-	14.2	15.8	12.6
MO-02-81, 44.20 - 50.29m	1-1003	20.4	79.4	-	10.8	15.8	12.6
MO-02-81, 56.39 - 62.48m	1-1004	15.0	112.5	-	15.8	14.9	11.7
MO-02-81, 86.87 - 92.96m	1-1005	8.4	61.2	-	12.9	16.1	10.9
MO-02-81, 117.35 - 123.44m	1-1006	8.0	105.3	-	13.1	17.5	14.3
MO-02-81, 138.68 - 144.78m	1-1007	10.0	99.3	-	14.9	15.4	12.2
MO-02-81, 156.97 - 163.07m	1-1008	10.2	157.0	-	20.6	15.2	12.0
MO-02-81, 187.45 - 193.55m	1-1009	18.7	101.2	-	16.7	13.8	10.6
MO-02-82, 82.30 - 88.39m	1-1010	8.1	83.7	-	12.5	13.9	8.7
MO-02-82, 94.49 - 100.58m	1-1011	10.7	93.0	-	13.9	13.8	10.6
MO-02-82, 106.68 - 112.78m	1-1012	5.0	85.9	-	13.0	14.7	11.5
MO-02-82, 121.92 - 128.02m	1-1013	15.0	72.8	-	12.1	14.8	11.6
MO-02-82, 152.40 - 158.50m	1-1014	23.1	100.0	-	13.6	16.9	13.7
MO-02-82, 173.74 - 179.83m	1-1015	9.6	85.8	-	13.7	18.0	14.8
MO-02-82, 195.07 - 201.19m	1-1016	4.1	127.5	-	14.4	18.4	13.2
MO-03-83, 13.72 - 19.81m	1-1017	12.4	93.7	-	17.9	18.1	14.9
MO-03-83, 28.96 - 35.05m	1-1018	21.8	135.4	18.6	17.5	18.3	9.1
MO-03-83, 47.24 - 53.34m	1-1019	6.4	134.8	-	19.0	18.5	15.3
MO-03-83, 62.48 - 68.58m	1-1020	13.8	147.3	-	18.5	14.8	11.6
MO-03-83, 80.77 - 86.87m	1-1021	10.6	70.2	-	16.0	17.1	13.9
MO-03-83, 102.11 - 108.20m	1-1022	18.4	50.5	12.4	11.7	14.3	5.1
MO-03-83, 123.44 - 129.54m	1-1023	16.1	100.6	-	15.2	17.0	13.8
MO-03-83, 144.78 - 150.88m	1-1024	10.2	85.2	-	15.5	13.8	10.6
MO-03-83, 169.16 - 175.26m	1-1025	3.0	117.9	-	16.5	16.8	13.6
MO-03-83, 193.55 - 199.64m	1-1026	10.5	117.9	-	16.4	19.1	15.9
MO-03-89, 74.68 - 80.77m	1-1027	7.0	125.4	-	18.0	10.5	7.3
MO-03-89, 102.11 - 108.20m	1-1028	23.4	79.5	-	17.4	8.7	5.5
MO-03-89, 129.54 - 135.64m	1-1029	3.8	207.9	-	18.2	10.5	7.3
MO-03-89, 147.83 - 153.92m	1-1030	16.8	126.7	-	18.7	10.3	7.1
MO-03-89, 193.55 - 199.64m	1-1031	9.7	125.6	-	21.0	10.1	6.9
Average:		13.7	105.2	17.3	16.4	Total (kg)	
Standard Deviation:		9.2	36.1	3.2	2.8	1223.9	895.5
Relative Standard Deviation (%):		67	34	18	17	-	-
Minimum:		58.5	36.5	12.4	10.8	6.2	3.0
10 th Percentile:		22.8	61.8	13.8	13.1	-	-
25 th Percentile:		19.1	79.6	14.6	14.5	-	-
Median:		11.1	103.4	17.5	16.1	-	-
75 th Percentile:		8.0	127.1	18.6	18.2	-	-
90 th Percentile:		4.6	147.3	21.2	20.6	-	-
Maximum:		1.5	207.9	22.5	23.5	20.8	17.6

Min and Max refer to ore hardness

SAG Power Index Test Summary

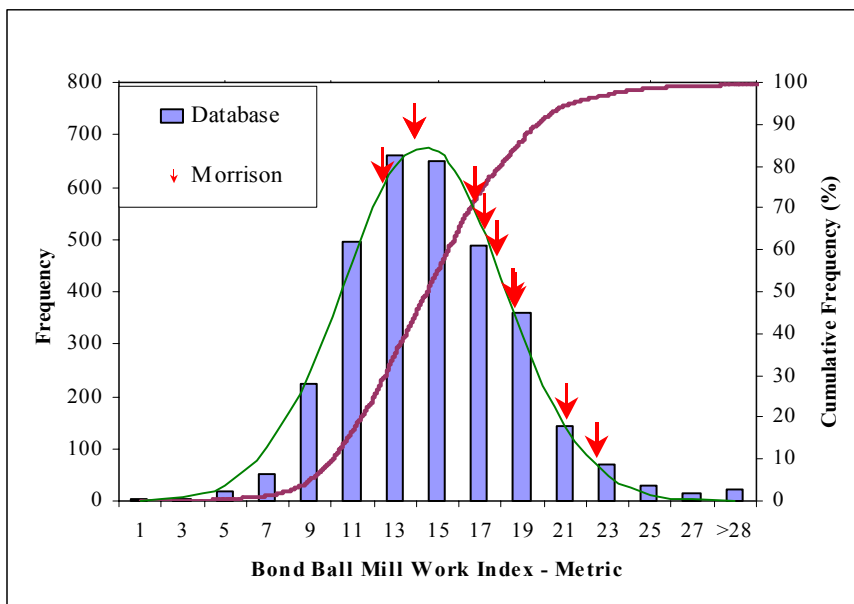
Sample Name	SPI Number	Crusher Index	SPI (minutes)	Hardness Percentile
MO-01-46, 7.62 - 13.72m	1-950	7.5	116.9	75
MO-01-46, 13.72 - 19.81m	1-951	3.5	141.6	83
MO-01-59, 4.57 - 10.67m	1-952	1.5	143.1	84
MO-01-59, 25.91 - 32.00m	1-953	4.3	134.2	81
MO-01-59, 50.29 - 56.39m	1-954	21.8	80.4	56
MO-01-59, 96.01 - 102.11m	1-955	14.5	173.4	90
MO-02-67, 26.52 - 32.00m	1-956	44.6	36.5	18
MO-02-67, 38.10 - 44.20m	1-957	58.5	61.5	40
MO-02-67, 89.92 - 96.01m	1-958	17.1	41.7	23
MO-02-67, 105.16 - 111.25m	1-959	20.8	51.9	32
MO-02-67, 117.35 - 123.44m	1-960	19.7	42.2	23
MO-02-68, 24.38 - 30.48m	1-961	15.4	65.5	44
MO-02-68, 36.58 - 42.67m	1-962	32.7	48.3	28
MO-02-68, 48.77 - 54.86m	1-963	22.9	69.0	47
MO-02-74, 24.38 - 30.48m	1-964	9.9	147.3	85
MO-02-74, 36.38 - 42.67m	1-965	12.4	138.8	83
MO-02-74, 57.91 - 64.01m	1-966	4.9	143.1	84
MO-02-74, 88.39 - 94.49m	1-967	20.5	74.5	52
MO-02-74, 103.63 - 109.73m	1-968	22.1	71.5	49
MO-02-75, 4.57 - 10.67m	1-969	11.7	114.2	74
MO-02-75, 38.10 - 44.20m	1-970	2.4	147.8	85
MO-02-75, 65.53 - 71.63m	1-971	6.3	160.6	88
MO-02-75, 83.82 - 89.92m	1-972	15.4	184.5	91
MO-02-76, 4.57 - 10.67m	1-973	21.6	123.7	78
MO-02-76, 13.72 - 19.81m	1-974	8.3	190.0	92
MO-02-76, 44.20 - 50.29m	1-975	33.1	141.9	84
MO-02-76, 80.77 - 86.87m	1-976	11.3	141.5	83
MO-02-76, 129.54 - 135.64m	1-977	11.3	102.7	69
MO-02-76, 160.02 - 166.12m	1-978	8.2	172.0	90
MO-02-76, 184.40 - 190.50m	1-979	20.3	69.4	48
MO-02-76, 205.74 - 211.84m	1-980	9.0	85.3	60
MO-02-76, 239.27 - 245.36m	1-981	7.9	74.5	52
MO-02-79, 53.42 - 59.44m	1-982	8.0	58.8	38
MO-02-79, 65.53 - 71.63m	1-983	20.0	88.3	62
MO-02-79, 86.87 - 92.96m	1-984	23.0	70.1	48
MO-02-79, 102.11 - 108.20m	1-985	4.5	127.2	79
MO-02-79, 120.40 - 126.49m	1-986	7.5	104.5	70
MO-02-79, 135.64 - 141.73m	1-987	11.0	106.0	71
MO-02-79, 153.92 - 160.02m	1-988	8.4	80.5	56
MO-02-79, 190.50 - 196.60m	1-989	19.5	104.1	70
MO-02-79, 224.03 - 227.08m	1-990	6.8	115.3	75
MO-02-79, 251.51 - 257.56m	1-991	8.1	117.3	75
MO-02-80, 13.72 - 19.81m	1-992	9.6	65.3	44

SAG Power Index Test Summary

Sample Name	SPI Number	Crusher Index	SPI (minutes)	Hardness Percentile
MO-02-80, 25.91 - 32.00m	1-993	15.4	106.1	71
MO-02-80, 44.20 - 50.20m	1-994	11.9	80.1	56
MO-02-80, 68.58 - 74.68m	1-995	19.3	83.4	59
MO-02-80, 80.77 - 86.87m	1-996	12.0	116.9	75
MO-02-80, 96.01 - 102.11m	1-997	18.3	124.9	78
MO-02-80, 114.30 - 120.40m	1-998	23.4	91.5	64
MO-02-80, 135.64 - 141.73m	1-999	10.7	102.6	69
MO-02-80, 147.83 - 153.92m	1-1000	6.1	91.1	64
MO-02-80, 156.97 - 163.07m	1-1001	3.1	108.8	72
MO-02-81, 19.81 - 25.91m	1-1002	8.4	111.2	73
MO-02-81, 44.20 - 50.29m	1-1003	20.4	79.4	56
MO-02-81, 56.39 - 62.48m	1-1004	15.0	112.5	73
MO-02-81, 86.87 - 92.96m	1-1005	8.4	61.2	40
MO-02-81, 117.35 - 123.44m	1-1006	8.0	105.3	71
MO-02-81, 138.68 - 144.78m	1-1007	10.0	99.3	68
MO-02-81, 156.97 - 163.07m	1-1008	10.2	157.0	87
MO-02-81, 187.45 - 193.55m	1-1009	18.7	101.2	69
MO-02-82, 82.30 - 88.39m	1-1010	8.1	83.7	59
MO-02-82, 94.49 - 100.58m	1-1011	10.7	93.0	65
MO-02-82, 106.68 - 112.78m	1-1012	5.0	85.9	60
MO-02-82, 121.92 - 128.02m	1-1013	15.0	72.8	50
MO-02-82, 152.40 - 158.50m	1-1014	23.1	100.0	68
MO-02-82, 173.74 - 179.83m	1-1015	9.6	85.8	60
MO-02-82, 195.07 - 201.19m	1-1016	4.1	127.5	79
MO-03-83, 13.72 - 19.81m	1-1017	12.4	93.7	65
MO-03-83, 28.96 - 35.05m	1-1018	21.8	135.4	82
MO-03-83, 47.24 - 53.34m	1-1019	6.4	134.8	81
MO-03-83, 62.48 - 68.58m	1-1020	13.8	147.3	85
MO-03-83, 80.77 - 86.87m	1-1021	10.6	70.2	48
MO-03-83, 102.11 - 108.20m	1-1022	18.4	50.5	30
MO-03-83, 123.44 - 129.54m	1-1023	16.1	100.6	68
MO-03-83, 144.78 - 150.88m	1-1024	10.2	85.2	60
MO-03-83, 169.16 - 175.26m	1-1025	3.0	117.9	75
MO-03-83, 193.55 - 199.64m	1-1026	10.5	117.9	75
MO-03-89, 74.68 - 80.77m	1-1027	7.0	125.4	78
MO-03-89, 102.11 - 108.20m	1-1028	23.4	79.5	56
MO-03-89, 129.54 - 135.64m	1-1029	3.8	207.9	93
MO-03-89, 147.83 - 153.92m	1-1030	16.8	126.7	79
MO-03-89, 193.55 - 199.64m	1-1031	9.7	125.6	78

Bond Ball Mill Grindability Test Summary

Sample Name	SPI #	Mesh of Grind	F ₈₀ (µm)	P ₈₀ (µm)	Gram per Revolution	Work Index (kWh/t)	Hardness Percentile
MO-01-46, 7.62 - 13.72m	1-950	100	2453	114	1.23	17.8	79
MO-01-46, 13.72 - 19.81m	1-951	100	2215	118	1.22	18.6	84
MO-01-59, 96.01 - 102.11m	1-955	100	2421	111	0.99	21.0	95
MO-02-76, 13.72 - 19.81m	1-974	100	2413	116	0.94	22.5	97
MO-02-76, 239.27 - 245.36m	1-981	100	2153	118	1.75	13.9	44
MO-02-79, 190.50 - 196.60m	1-989	100	2213	121	1.36	17.2	76
MO-02-80, 68.58 - 74.68m	1-995	100	2122	118	1.75	13.9	44
MO-02-80, 135.64 - 141.73m	1-999	100	2138	114	1.36	16.7	72
MO-03-83, 28.96 - 35.05m	1-1018	100	2155	122	1.26	18.6	84
MO-03-83, 102.11 - 108.20m	1-1022	100	2011	121	2.08	12.4	29



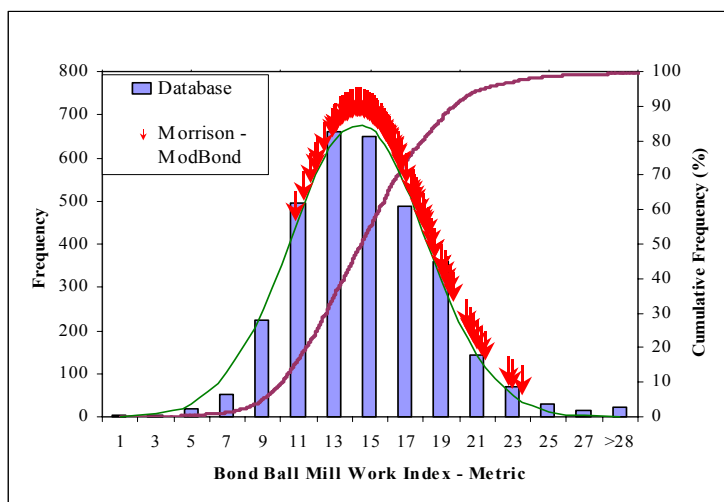
Modified Bond Ball Mill Grindability Test Summary

Sample Name	SPI Number	Mesh of Grind	Work Index (kWh/t)*	Hardness Percentile
MO-01-46, 7.62 - 13.72m	1-950	100	18.0	81
MO-01-46, 13.72 - 19.81m	1-951	100	18.6	84
MO-01-59, 4.57 - 10.67m	1-952	100	19.7	90
MO-01-59, 25.91 - 32.00m	1-953	100	21.5	95
MO-01-59, 50.29 - 56.39m	1-954	100	17.0	74
MO-01-59, 96.01 - 102.11m	1-955	100	20.4	93
MO-02-67, 26.52 - 32.00m	1-956	100	11.3	19
MO-02-67, 38.10 - 44.20m	1-957	100	14.3	48
MO-02-67, 89.92 - 96.01m	1-958	100	13.4	39
MO-02-67, 105.16 - 111.25m	1-959	100	14.2	48
MO-02-67, 117.35 - 123.44m	1-960	100	11.9	24
MO-02-68, 24.38 - 30.48m	1-961	100	16.1	66
MO-02-68, 36.58 - 42.67m	1-962	100	15.2	57
MO-02-68, 48.77 - 54.86m	1-963	100	15.6	61
MO-02-74, 24.38 - 30.48m	1-964	100	19.1	87
MO-02-74, 36.38 - 42.67m	1-965	100	19.0	86
MO-02-74, 57.91 - 64.01m	1-966	100	20.6	93
MO-02-74, 88.39 - 94.49m	1-967	100	17.8	79
MO-02-74, 103.63 - 109.73m	1-968	100	17.3	77
MO-02-75, 4.57 - 10.67m	1-969	100	19.0	86
MO-02-75, 38.10 - 44.20m	1-970	100	23.0	97
MO-02-75, 65.53 - 71.63m	1-971	100	16.0	66
MO-02-75, 83.82 - 89.92m	1-972	100	23.5	98
MO-02-76, 4.57 - 10.67m	1-973	100	19.3	88
MO-02-76, 13.72 - 19.81m	1-974	100	22.8	97
MO-02-76, 44.20 - 50.29m	1-975	100	19.5	89
MO-02-76, 80.77 - 86.87m	1-976	100	21.3	95
MO-02-76, 129.54 - 135.64m	1-977	100	14.7	52
MO-02-76, 160.02 - 166.12m	1-978	100	20.8	94
MO-02-76, 184.40 - 190.50m	1-979	100	15.3	58
MO-02-76, 205.74 - 211.84m	1-980	100	16.3	68
MO-02-76, 239.27 - 245.36m	1-981	100	16.1	66
MO-02-79, 53.42 - 59.44m	1-982	100	14.9	54
MO-02-79, 65.53 - 71.63m	1-983	100	16.8	72
MO-02-79, 86.87 - 92.96m	1-984	100	15.9	64
MO-02-79, 102.11 - 108.20m	1-985	100	15.0	54
MO-02-79, 120.40 - 126.49m	1-986	100	17.6	78
MO-02-79, 135.64 - 141.73m	1-987	100	15.4	59
MO-02-79, 153.92 - 160.02m	1-988	100	15.4	59
MO-02-79, 190.50 - 196.60m	1-989	100	16.5	70
MO-02-79, 224.03 - 227.08m	1-990	100	16.7	72
MO-02-79, 251.51 - 257.56m	1-991	100	14.4	49
MO-02-80, 13.72 - 19.81m	1-992	100	13.5	40
MO-02-80, 25.91 - 32.00m	1-993	100	14.7	52
MO-02-80, 44.20 - 50.20m	1-994	100	13.1	36
MO-02-80, 68.58 - 74.68m	1-995	100	15.2	57
MO-02-80, 80.77 - 86.87m	1-996	100	14.7	52
MO-02-80, 96.01 - 102.11m	1-997	100	14.0	45
MO-02-80, 114.30 - 120.40m	1-998	100	15.2	57
MO-02-80, 135.64 - 141.73m	1-999	100	15.8	63
MO-02-80, 147.83 - 153.92m	1-1000	100	16.3	68
MO-02-80, 156.97 - 163.07m	1-1001	100	16.3	68
MO-02-81, 19.81 - 25.91m	1-1002	100	14.2	48

Modified Bond Ball Mill Grindability Test Summary

Sample Name	SPI Number	Mesh of Grind	Work Index (kWh/t)*	Hardness Percentile
MO-02-81, 44.20 - 50.29m	1-1003	100	10.8	16
MO-02-81, 56.39 - 62.48m	1-1004	100	15.8	63
MO-02-81, 86.87 - 92.96m	1-1005	100	12.9	34
MO-02-81, 117.35 - 123.44m	1-1006	100	13.1	36
MO-02-81, 138.68 - 144.78m	1-1007	100	14.9	54
MO-02-81, 156.97 - 163.07m	1-1008	100	20.6	93
MO-02-81, 187.45 - 193.55m	1-1009	100	16.7	72
MO-02-82, 82.30 - 88.39m	1-1010	100	12.5	29
MO-02-82, 94.49 - 100.58m	1-1011	100	13.9	44
MO-02-82, 106.68 - 112.78m	1-1012	100	13.0	35
MO-02-82, 121.92 - 128.02m	1-1013	100	12.1	25
MO-02-82, 152.40 - 158.50m	1-1014	100	13.6	41
MO-02-82, 173.74 - 179.83m	1-1015	100	13.7	42
MO-02-82, 195.07 - 201.19m	1-1016	100	14.4	49
MO-03-83, 13.72 - 19.81m	1-1017	100	17.9	80
MO-03-83, 28.96 - 35.05m	1-1018	100	17.5	77
MO-03-83, 47.24 - 53.34m	1-1019	100	19.0	86
MO-03-83, 62.48 - 68.58m	1-1020	100	18.5	83
MO-03-83, 80.77 - 86.87m	1-1021	100	16.0	65
MO-03-83, 102.11 - 108.20m	1-1022	100	11.7	22
MO-03-83, 123.44 - 129.54m	1-1023	100	15.2	57
MO-03-83, 144.78 - 150.88m	1-1024	100	15.5	60
MO-03-83, 169.16 - 175.26m	1-1025	100	16.5	70
MO-03-83, 193.55 - 199.64m	1-1026	100	16.4	69
MO-03-89, 74.68 - 80.77m	1-1027	100	18.0	80
MO-03-89, 102.11 - 108.20m	1-1028	100	17.4	77
MO-03-89, 129.54 - 135.64m	1-1029	100	18.2	82
MO-03-89, 147.83 - 153.92m	1-1030	100	18.7	84
MO-03-89, 193.55 - 199.64m	1-1031	100	21.0	95

* Calibrated Work Index



Appendix D: Flotation Test Details

Test No.: F1

Project No.: 11474-001

Operator: RG

Date: Feb. 21st, 2007

Purpose: Rougher Kinetics - Collector

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3418A			MIBC		Grind	Cond.	Froth		
Grind	-	15	5			-		24			7.7	
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-	-			15			1	0.5		
Bulk Rougher 2	-	-	-							0.5		
Bulk Rougher 3	-	-	-			-				2		
Bulk Rougher 4	-	10	5			15			1	3		
Bulk Rougher 5	-	10	-			5			1	3		
Bulk Rougher 6	-	10	-			5			1	3		
Bulk Rougher 7	-	10	-			5			1	5		
Total	0	55	10	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	3.90	0.20	20.5	0.150	30.2	8.33	46.4	10.4	5.62	7.32	8.23	6.21
Rougher 2	6.60	0.33	19.2	0.130	27.4	6.71	45.1	16.5	8.25	11.2	11.2	10.2
Rougher 3	12.7	0.64	13.6	0.120	23.2	4.46	34.2	22.5	14.7	18.3	14.4	14.9
Rougher 4	32.9	1.66	5.61	0.054	14.0	2.17	17.3	24.1	17.1	28.6	18.1	19.5
Rougher 5	21.0	1.06	2.71	0.039	7.35	1.29	11.1	7.43	7.87	9.59	6.87	8.00
Rougher 6	24.8	1.25	1.17	0.022	2.88	0.70	5.90	3.79	5.24	4.44	4.40	5.02
Rougher 7	33.0	1.66	0.78	0.018	1.60	0.48	3.90	3.36	5.71	3.28	4.01	4.41
Rougher Tail	1850.1	93.2	0.05	0.002	0.15	0.07	0.50	11.8	35.6	17.2	32.8	31.7
Head (calc.) (direct)	1985.0	100.0	0.39	0.005	0.81	0.20	1.47	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Rougher 1	3.90	0.20	20.5	0.150	30.2	8.33	46.4	10.4	5.62	7.32	8.23	6.21
Rougher 1-2	10.5	0.53	19.7	0.137	28.4	7.31	45.6	27.0	13.9	18.5	19.5	16.4
Rougher 1-3	23.2	1.17	16.4	0.128	25.6	5.75	39.4	49.5	28.5	36.8	33.8	31.3
Rougher 1-4	56.1	2.83	10.1	0.085	18.8	3.65	26.4	73.6	45.6	65.5	51.9	50.8
Rougher 1-5	77.1	3.88	8.05	0.072	15.7	3.01	22.2	81.0	53.5	75.0	58.8	58.8
Rougher 1-6	101.9	5.13	6.38	0.060	12.6	2.45	18.3	84.8	58.7	79.5	63.2	63.9
Rougher 1-7	134.9	6.80	5.01	0.050	9.88	1.97	14.8	88.2	64.4	82.8	67.2	68.3
Ro Tail + Ro Conc 6-7	1907.9	96.1	0.08	0.003	0.21	0.09	0.63	19.0	46.5	25.0	41.2	41.2
Ro Tail + Ro Conc 7	1883.1	94.9	0.06	0.002	0.18	0.08	0.56	15.2	41.3	20.5	36.8	36.1
Rougher Tail	1850.1	93.2	0.05	0.002	0.15	0.07	0.50	11.8	35.6	17.2	32.8	31.7
Head (calc.)	1985.0	100.0	0.39	0.0052	0.81	0.20	1.47	100.0	100.0	100.0	100.0	100.0

Test No.: F2

Project No.: 11474-001

Operator: RG

Date: Feb. 21st, 2007

Purpose: Rougher Kinetics - Collector

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes			pH	Ep
	Lime	PEX	Cytec 3894				MIBC		Grind	Cond.	Froth		
Grind	-	15	5				-		24			7.7	
<i>Rougher Kinetics</i>													
Bulk Rougher 1	-	-	-				15			1	0.5		
Bulk Rougher 2	-	-	-								0.5		
Bulk Rougher 3	-	-	-				-				2		
Bulk Rougher 4	-	10	5				15			1	3		
Bulk Rougher 5	-	10	-				5			1	3		
Bulk Rougher 6	-	10	-				5			1	3		
Bulk Rougher 7	-	10	-				5			1	5		
Total	0	55	10	0	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
Rougher 1	6.70	0.34	21.4	0.2300	27.3	7.38	46.9	18.8	13.8	11.9	12.5	10.6	
Rougher 2	4.80	0.24	18.2	0.2300	25.7	5.79	41.7	11.5	9.90	8.04	7.02	6.76	
Rougher 3	13.6	0.69	13.1	0.1100	20.7	4.35	33.1	23.4	13.4	18.4	15.0	15.2	
Rougher 4	35.5	1.79	4.69	0.0540	13.4	2.06	16.8	21.9	17.2	31.0	18.5	20.1	
Rougher 5	21.3	1.08	2.20	0.027	6.26	1.15	9.80	6.15	5.16	8.69	6.19	7.05	
Rougher 6	20.5	1.03	1.38	0.021	3.01	0.79	6.60	3.72	3.86	4.02	4.09	4.57	
Rougher 7	33.3	1.68	0.78	0.012	1.61	0.49	4.00	3.41	3.58	3.50	4.12	4.50	
Rougher Tail	1845.0	93.1	0.05	0.002	0.12	0.07	0.50	11.1	33.1	14.4	32.6	31.2	
Head (calc.) (direct)	1980.7	100.0	0.38	0.006	0.77	0.20	1.49	100.0	100.0	100.0	100.0	100.0	
Combined Products													
Not sufficient sample													
Rougher 1	6.70	0.34	21.4	0.230	27.3	7.38	46.9	18.8	13.8	11.9	12.5	10.6	
Rougher 1-2	11.5	0.58	20.1	0.230	26.6	6.72	44.7	30.3	23.7	20.0	19.5	17.4	
Rougher 1-3	25.1	1.27	16.3	0.165	23.4	5.43	38.4	53.7	37.1	38.3	34.5	32.6	
Rougher 1-4	60.6	3.06	9.49	0.100	17.5	3.46	25.8	75.6	54.3	69.3	53.0	52.7	
Rougher 1-5	81.9	4.13	7.60	0.081	14.6	2.86	21.6	81.7	59.5	78.0	59.1	59.8	
Rougher 1-6	102.4	5.17	6.35	0.069	12.3	2.44	18.6	85.4	63.3	82.1	63.2	64.3	
Rougher 1-7	135.7	6.85	4.99	0.055	9.67	1.96	15.0	88.9	66.9	85.6	67.4	68.8	
Ro Tail + Ro Conc 6-7	1898.8	95.9	0.07	0.002	0.18	0.09	0.63	18.3	40.5	22.0	40.9	40.2	
Ro Tail + Ro Conc 7	1878.3	94.8	0.06	0.002	0.15	0.08	0.56	14.6	36.7	17.9	36.8	35.7	
Rougher Tail	1845.0	93.1	0.05	0.002	0.12	0.07	0.50	11.1	33.1	14.4	32.6	31.2	
Head (calc.)	1980.7	100.0	0.38	0.0056	0.7742	0.20	1.49	100.0	100.0	100.0	100.0	100.0	

Test No.: F3

Project No.: 11474-001

Operator: RG

Date: Feb. 21st, 2007

Purpose: Rougher Kinetics - Collector

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302			MIBC	Grind	Cond.	Froth		
Grind	-	15	5			-	24			7.7	
<i>Rougher Kinetics</i>											
Bulk Rougher 1	-	-	-			15		1	0.5		
Bulk Rougher 2	-	-	-						0.5		
Bulk Rougher 3	-	-	-						2		
Bulk Rougher 4	-	10	5			15		1	3		
Bulk Rougher 5	-	10	-			5		1	3		
Bulk Rougher 6	-	10	-			5		1	3		
Bulk Rougher 7	-	10	-			5		1	5		
Total	0	55	10	0	0	0	45	0			

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	5.90	0.30	22.6	0.530	29.4	8.41	50.0	17.7	27.7	11.1	12.9	9.8
Rougher 2	7.10	0.36	20.1	0.380	27.5	6.45	44.4	18.9	23.9	12.5	11.9	10.4
Rougher 3	14.7	0.75	11.6	0.120	21.3	4.39	31.6	22.6	15.6	20.1	16.8	15.4
Rougher 4	19.6	0.99	4.68	0.054	17.0	2.23	16.9	12.2	9.37	21.4	11.4	11.0
Rougher 5	22.5	1.14	2.65	0.020	8.17	1.45	12.0	7.90	3.99	11.8	8.48	8.93
Rougher 6	23.4	1.19	1.66	0.008	3.66	0.92	9.20	5.15	1.66	5.49	5.59	7.12
Rougher 7	31.5	1.60	0.81	0.005	1.67	0.51	6.60	3.38	1.39	3.37	4.18	6.88
Rougher Tail	1848.4	93.7	0.05	0.001	0.12	0.06	0.50	12.2	16.4	14.2	28.8	30.6
Head (calc.) (direct)	1973.1	100.0	0.38	0.006	0.79	0.20	1.53	100.0	100.0	100.0	100.0	100.0
Combined Products Not sufficient sample												
Rougher 1	5.90	0.30	22.6	0.530	29.4	8.41	50.0	17.7	27.7	11.1	12.9	9.8
Rougher 1-2	13.0	0.66	21.2	0.448	28.4	7.34	46.9	36.6	51.6	23.7	24.8	20.2
Rougher 1-3	27.7	1.40	16.1	0.274	24.6	5.77	38.8	59.2	67.2	43.7	41.6	35.5
Rougher 1-4	47.3	2.40	11.4	0.183	21.5	4.31	29.7	71.3	76.6	65.1	52.9	46.5
Rougher 1-5	69.8	3.54	8.57	0.130	17.2	3.39	24.0	79.2	80.6	76.9	61.4	55.4
Rougher 1-6	93.2	4.72	6.83	0.100	13.8	2.77	20.3	84.4	82.2	82.4	67.0	62.6
Rougher 1-7	124.7	6.32	5.31	0.076	10.7	2.20	16.8	87.8	83.6	85.8	71.2	69.4
Ro Tail + Ro Conc 6-7	1903.3	96.5	0.08	0.001	0.19	0.08	0.71	20.8	19.4	23.1	38.6	44.6
Ro Tail + Ro Conc 7	1879.9	95.3	0.06	0.001	0.15	0.07	0.60	15.6	17.8	17.6	33.0	37.4
Rougher Tail	1848.4	93.7	0.05	0.001	0.12	0.06	0.50	12.2	16.4	14.2	28.8	30.6
Head (calc.)	1973.1	100.0	0.38	0.0057	0.7901	0.20	1.53	100.0	100.0	100.0	100.0	100.0

Test No.: F4

Project No.: 11474-001

Operator: RG

Date: Feb. 22nd, 2007

Purpose: Rougher Kinetics - Collector

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 141µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Fuel oil			MIBC		Grind	Cond.	Froth		
Grind	-	15	5			-		24			7.7	
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-	-			15			1	0.5		
Bulk Rougher 2	-	-	-							0.5		
Bulk Rougher 3	-	-	-			-				2		
Bulk Rougher 4	-	10	5			15			1	3		
Bulk Rougher 5	-	10	-			5			1	3		
Bulk Rougher 6	-	10	-			5			1	3		
Bulk Rougher 7	-	10	-			5			1	5		
Total	0	55	10	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	2.10	0.11	20.7	1.220	29.6	8.10	48.6	6.12	24.8	3.66	4.68	3.36
Rougher 2	2.90	0.15	21.9	0.550	27.9	7.67	46.0	8.94	15.4	4.76	6.12	4.40
Rougher 3	10.0	0.51	18.0	0.180	23.8	6.48	40.7	25.3	17.4	14.0	17.8	13.4
Rougher 4	50.2	2.54	5.16	0.039	16.3	2.05	17.5	36.5	19.0	48.1	28.3	29.0
Rougher 5	22.7	1.15	2.10	0.015	6.39	1.13	9.70	6.71	3.30	8.53	7.06	7.26
Rougher 6	16.3	0.82	1.13	0.007	2.72	0.69	5.90	2.59	1.10	2.61	3.10	3.17
Rougher 7	20.5	1.04	0.71	0.005	1.62	0.40	4.10	2.05	0.99	1.95	2.26	2.77
Rougher Tail	1855.0	93.7	0.05	0.001	0.15	0.06	0.60	11.8	18.0	16.4	30.6	36.7
Head (calc.) (direct)	1979.7	100.0	0.36	0.005	0.86	0.18	1.53	100.0	100.0	100.0	100.0	100.0
Combined Products			Not sufficient sample, calculated from Ag assay									
Rougher 1	2.10	0.11	20.7	1.220	29.6	8.10	48.6	6.12	24.8	3.66	4.68	3.36
Rougher 1-2	5.00	0.25	21.4	0.831	28.6	7.85	47.1	15.1	40.3	8.41	10.8	7.76
Rougher 1-3	15.0	0.76	19.13	0.397	25.4	6.94	42.8	40.4	57.7	22.4	28.6	21.2
Rougher 1-4	65.2	3.29	8.37	0.121	18.4	3.17	23.3	76.9	76.6	70.5	57.0	50.1
Rougher 1-5	87.9	4.44	6.75	0.094	15.3	2.65	19.8	83.6	79.9	79.1	64.0	57.4
Rougher 1-6	104.2	5.26	5.87	0.080	13.3	2.34	17.6	86.2	81.0	81.7	67.1	60.6
Rougher 1-7	124.7	6.30	5.03	0.068	11.4	2.02	15.4	88.2	82.0	83.6	69.4	63.3
Ro Tail + Ro Conc 6-7	1891.8	95.6	0.06	0.001	0.19	0.07	0.68	16.4	20.1	20.9	36.0	42.6
Ro Tail + Ro Conc 7	1875.5	94.7	0.05	0.001	0.17	0.06	0.64	13.8	19.0	18.3	32.9	39.4
Rougher Tail	1855.0	93.7	0.05	0.001	0.15	0.06	0.60	11.8	18.0	16.4	30.6	36.7
Head (calc.)	1979.7	100.0	0.36	0.0052	0.86	0.18	1.53	100.0	100.0	100.0	100.0	100.0

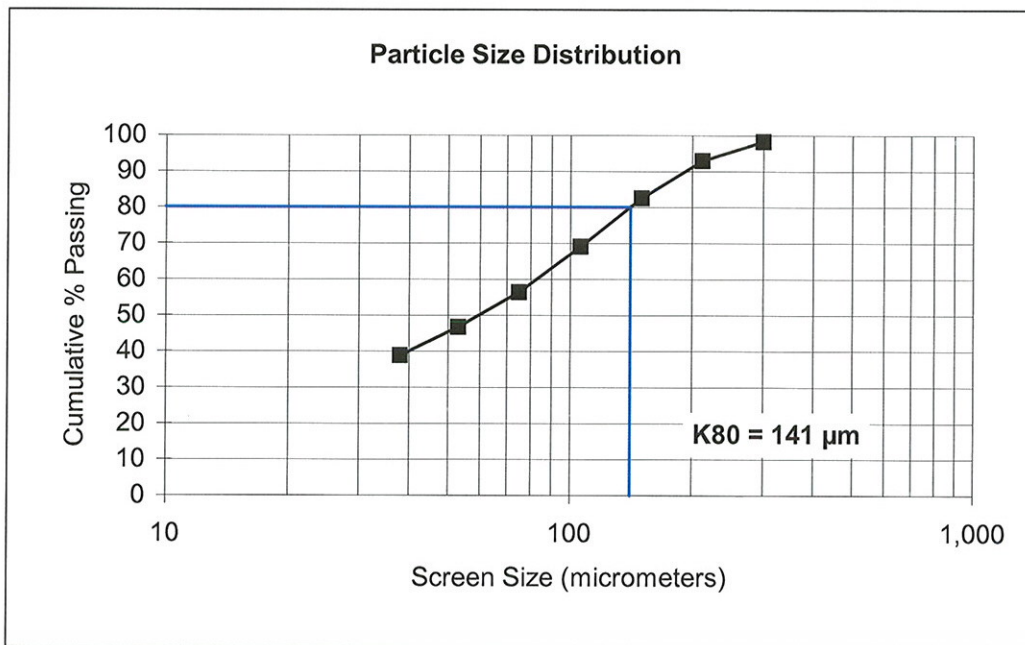
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F4**

Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
48	300	1.7	1.7	1.7	98.3
65	212	5.3	5.3	7.0	93.0
100	150	10.4	10.4	17.4	82.6
150	106	13.5	13.5	30.9	69.1
200	75	12.7	12.7	43.6	56.4
270	53	9.6	9.6	53.2	46.8
400	38	7.9	7.9	61.1	38.9
Pan	-38	38.9	38.9	100.0	0.0
Total	-	100.0	100.0	-	-
K80	141				



Test No.: F5

Project No.: 11474-001

Operator: RG

Date: Feb. 22nd, 2007

Purpose: Rougher Kinetics - Primary grind

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 119µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Line	PEX	Cytec 3418A			MIBC		Grind	Cond.	Froth		
Grind	-	15	5			-		28			7.7	
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-	-			15			1	0.5		
Bulk Rougher 2	-	-	-							0.5		
Bulk Rougher 3	-	-	-							2		
Bulk Rougher 4	-	10	5			15			1	3		
Bulk Rougher 5	-	10	-			5			1	3		
Bulk Rougher 6	-	10	-			5			1	3		
Bulk Rougher 7	-	10	-			5			1	5		
Total	0	55	10	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	6.00	0.30	19.5	0.240	26.8	5.38	42.7	16.3	13.0	9.56	9.11	9.02
Rougher 2	6.90	0.35	18.1	0.440	29.7	8.45	45.2	17.4	27.3	12.2	16.4	11.0
Rougher 3	9.90	0.50	13.7	0.110	20.9	3.54	32.6	18.9	9.80	12.3	9.89	11.4
Rougher 4	34.2	1.73	5.33	0.029	16.7	2.02	16.8	25.3	8.93	33.9	19.5	20.2
Rougher 5	24.1	1.22	2.35	0.018	8.02	1.18	10.4	7.87	3.90	11.5	8.02	8.83
Rougher 6	15.2	0.77	1.25	0.014	3.29	0.71	7.20	2.64	1.92	2.97	3.04	3.85
Rougher 7	17.3	0.88	0.76	0.011	2.04	0.52	4.90	1.83	1.71	2.10	2.54	2.99
Rougher Tail	1859.0	94.2	0.04	0.002	0.14	0.06	0.50	9.82	33.5	15.47	31.47	32.7
Head (calc.) (direct)	1972.6	100.0	0.36	0.006	0.85	0.18	1.44	100.0	100.0	100.0	100.0	100.0
			0.45	0.006	0.89	0.21	1.40					
Combined Products												
Not sufficient sample												
Rougher 1	6.00	0.30	19.5	0.240	26.8	5.38	42.7	16.3	13.0	9.56	9.11	9.02
Rougher 1-2	12.9	0.65	18.8	0.347	28.4	7.02	44.0	33.6	40.3	21.7	25.6	20.0
Rougher 1-3	22.8	1.16	16.6	0.244	25.1	5.51	39.1	52.5	50.1	34.0	35.4	31.4
Rougher 1-4	57.0	2.89	9.82	0.115	20.1	3.42	25.7	77.8	59.0	68.0	54.9	51.6
Rougher 1-5	81.1	4.11	7.60	0.086	16.5	2.75	21.2	85.7	62.9	79.5	63.0	60.4
Rougher 1-6	96.3	4.88	6.60	0.075	14.4	2.43	19.0	88.4	64.8	82.4	66.0	64.3
Rougher 1-7	113.6	5.76	5.71	0.065	12.5	2.14	16.8	90.2	66.5	84.5	68.5	67.3
Ro Tail + Ro Conc 6-7	1891.5	95.9	0.05	0.002	0.18	0.07	0.59	14.3	37.1	20.5	37.0	39.6
Ro Tail + Ro Conc 7	1876.3	95.1	0.04	0.002	0.16	0.06	0.54	11.6	35.2	17.6	34.0	35.7
Rougher Tail	1859.0	94.2	0.04	0.002	0.14	0.06	0.50	9.82	33.5	15.5	31.5	32.7
Head (calc.)	1972.6	100.0	0.36	0.0056	0.85	0.1797	1.4396	100.0	100.0	100.0	100.0	100.0

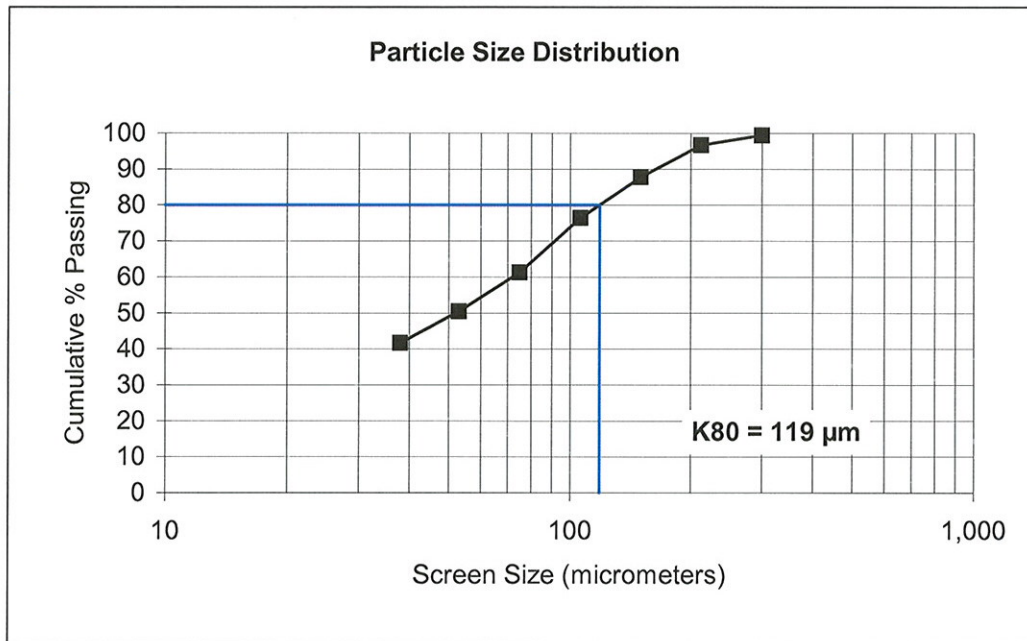
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F5**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.5	0.5	0.5	99.5
65	212	2.8	2.8	3.3	96.7
100	150	8.9	8.9	12.2	87.8
150	106	11.3	11.3	23.5	76.5
200	75	15.2	15.2	38.7	61.3
270	53	10.8	10.8	49.5	50.5
400	38	8.8	8.8	58.3	41.7
Pan	-38	41.7	41.7	100.0	0.0
Total	-	100.0	100.0	-	-
K80	119				



Test No.: F6

Project No.: 11474-001

Operator: RG

Date: Feb. 22nd, 2007

Purpose: Rougher Kinetics - Primary grind

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 18 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 206µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3418A			MIBC		Grind	Cond.	Froth		
Grind	-	15	5			-		18			7.7	
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-	-			15			1	0.5		
Bulk Rougher 2	-	-	-							0.5		
Bulk Rougher 3	-	-	-							2		
Bulk Rougher 4	-	10	5			15			1	3		
Bulk Rougher 5	-	10	-			5			1	3		
Bulk Rougher 6	-	10	-			5			1	3		
Bulk Rougher 7	-	10	-			5			1	5		
Total	0	55	10	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

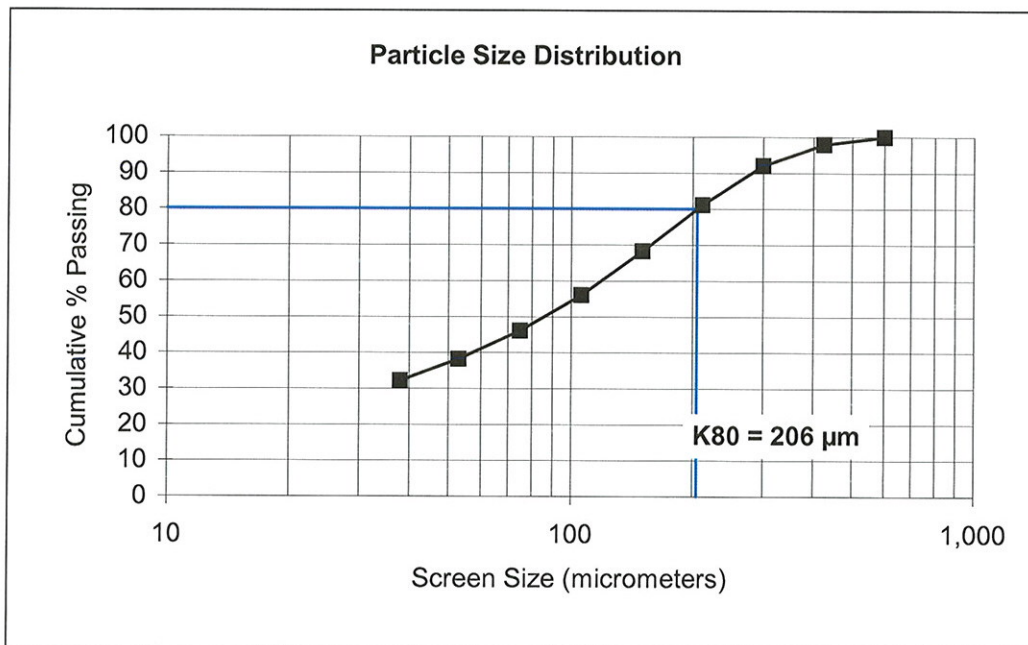
Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	4.10	0.21	14.5	0.110	29.8	4.72	30.7	8.23	4.50	7.00	5.35	4.20
Rougher 2	5.20	0.26	14.8	0.160	31.1	5.20	32.7	10.7	8.30	9.26	7.48	5.68
Rougher 3	13.4	0.68	12.9	0.130	27.3	4.31	32.9	23.9	17.4	20.9	16.0	14.7
Rougher 4	36.1	1.83	4.89	0.049	12.5	1.83	13.7	24.4	17.6	25.8	18.3	16.5
Rougher 5	21.0	1.06	2.78	0.035	6.87	1.21	11.0	8.08	7.33	8.26	7.03	7.72
Rougher 6	19.2	0.97	1.45	0.022	3.27	1.22	6.40	3.85	4.21	3.60	6.48	4.10
Rougher 7	25.5	1.29	0.90	0.015	1.97	0.52	4.50	3.18	3.81	2.88	3.67	3.83
Rougher Tail	1848.0	93.7	0.07	0.002	0.21	0.07	0.70	17.6	36.9	22.2	35.8	43.2
Head (calc.) (direct)	1972.5	100.0	0.37	0.005	0.89	0.18	1.52	100.0	100.0	100.0	100.0	100.0
Combined Products Not sufficient sample												
Rougher 1	4.10	0.21	14.5	0.110	29.8	4.72	30.7	8.23	4.50	7.00	5.35	4.20
Rougher 1-2	9.30	0.47	14.7	0.138	30.5	4.99	31.8	18.9	12.8	16.3	12.8	9.88
Rougher 1-3	22.7	1.15	13.6	0.133	28.6	4.59	32.5	42.8	30.2	37.2	28.8	24.6
Rougher 1-4	58.8	2.98	8.26	0.082	18.7	2.89	20.9	67.2	47.8	63.0	47.1	41.1
Rougher 1-5	79.8	4.05	6.82	0.069	15.6	2.45	18.3	75.3	55.1	71.3	54.1	48.8
Rougher 1-6	99.0	5.02	5.78	0.060	13.2	2.21	16.0	79.2	59.3	74.9	60.6	53.0
Rougher 1-7	124.5	6.31	4.78	0.051	10.9	1.87	13.7	82.4	63.1	77.8	64.2	56.8
Ro Tail + Ro Conc 6-7	1892.7	96.0	0.09	0.002	0.26	0.09	0.81	24.7	44.9	28.7	45.9	51.2
Ro Tail + Ro Conc 7	1873.5	95.0	0.08	0.002	0.23	0.08	0.75	20.8	40.7	25.1	39.4	47.0
Rougher Tail	1848.0	93.7	0.07	0.002	0.21	0.07	0.70	17.6	36.9	22.2	35.8	43.2
Head (calc.)	1972.5	100.0	0.37	0.005	0.89	0.18	1.52	100.0	100.0	100.0	100.0	100.0

Sample: **Comb Prod**

Test No.: **F6**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.0	0.0	0.0	100.0
35	425	2.0	2.0	2.0	98.0
48	300	5.9	5.9	7.9	92.1
65	212	10.9	10.9	18.8	81.2
100	150	12.9	12.9	31.7	68.3
150	106	12.2	12.2	43.9	56.1
200	75	10.0	10.0	53.9	46.1
270	53	7.9	7.9	61.8	38.2
400	38	6.0	6.0	67.8	32.2
Pan	-38	32.2	32.2	100.0	0.0
Total	-	100.0	100.0	-	-
K80	206				



Test No.: F7

Project No.: 11474-001

Operator: RG

Date: Feb. 22nd, 2007

Purpose: Rougher Kinetics - pH

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

$K_{80} \sim 140\mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Ep
	Lime	PEX	Cytec 3418A			MIBC		Grind	Cond.	Froth			
Grind	200	15	5			-		24			8.4		
<i>Rougher Kinetics</i>													
Bulk Rougher 1	60	-	-			15			1	0.5	9.0		
Bulk Rougher 2	25	-	-							0.5	9.0		
Bulk Rougher 3	30	-	-			-				2	9.0		
Bulk Rougher 4	40	10	5			15			1	3	9.0		
Bulk Rougher 5	20	10	-			5			1	3	9.0		
Bulk Rougher 6	25	10	-			5			1	3	9.0		
Bulk Rougher 7	30	10	-			5			1	5	9.0		
Total	430	55	10	0	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	9.30	0.47	14.0	0.110	33.7	5.07	34.4	17.0	8.9	17.8	14.1	8.35
Rougher 2	15.0	0.76	13.10	0.130	30.1	4.21	31.7	25.6	16.9	25.7	18.9	12.4
Rougher 3	17.3	0.87	8.69	0.092	20.5	3.15	25.0	19.6	13.8	20.2	16.3	11.3
Rougher 4	26.8	1.35	4.06	0.063	7.17	1.47	14.5	14.2	14.6	10.9	11.8	10.1
Rougher 5	19.8	1.00	1.76	0.032	3.12	0.90	8.50	4.54	5.48	3.52	5.32	4.39
Rougher 6	14.5	0.73	1.16	0.033	2.21	0.64	6.40	2.19	4.14	1.83	2.77	2.42
Rougher 7	24.6	1.24	0.77	0.020	1.45	0.45	4.20	2.47	4.26	2.03	3.31	2.70
Rougher Tail	1851.0	93.6	0.06	0.002	0.17	0.05	1.00	14.5	32.0	17.9	27.6	48.3
Head (calc.) (direct)	1978.3	100.0	0.39	0.006	0.89	0.17	1.94	100.0	100.0	100.0	100.0	100.0
Combined Products Not sufficient sample												
Rougher 1	9.30	0.47	14.0	0.110	33.7	5.07	34.4	17.0	8.85	17.8	14.1	8.35
Rougher 1-2	24.3	1.23	13.4	0.122	31.5	4.54	32.7	42.6	25.7	43.6	32.9	20.8
Rougher 1-3	41.6	2.10	11.5	0.110	26.9	3.96	29.5	62.2	39.5	63.8	49.2	32.0
Rougher 1-4	68.4	3.46	8.56	0.091	19.2	2.99	23.6	76.3	54.1	74.7	61.0	42.2
Rougher 1-5	88.2	4.46	7.04	0.078	15.6	2.52	20.2	80.9	59.6	78.2	66.3	46.6
Rougher 1-6	102.7	5.19	6.21	0.072	13.7	2.25	18.3	83.1	63.7	80.0	69.1	49.0
Rougher 1-7	127.3	6.43	5.16	0.062	11.3	1.90	15.6	85.5	68.0	82.1	72.4	51.7
Ro Tail + Ro Conc 6-7	1890.1	95.5	0.08	0.002	0.20	0.06	1.08	19.1	40.4	21.8	33.7	53.4
Ro Tail + Ro Conc 7	1875.6	94.8	0.07	0.002	0.19	0.06	1.04	16.9	36.3	20.0	30.9	51.0
Rougher Tail	1851.0	93.6	0.06	0.002	0.17	0.05	1.00	14.5	32.0	17.9	27.6	48.3
Head (calc.)	1978.3	100.0	0.39	0.01	0.89	0.17	1.94	100.0	100.0	100.0	100.0	100.0

Test No.: F8

Project No.: 11474-001

Operator: RG

Date: Feb. 22nd, 2007

Purpose: Rougher Kinetics - pH

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~ 140µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Fp
	Lime	PEX	Cytec 3418A			MIBC		Grind	Cond.	Froth			
Grind	500	15	5			-		24			9.1		
<i>Rougher Kinetics</i>													
Bulk Rougher 1	110	-	-			15			1	0.5	10.0		
Bulk Rougher 2	50	-	-							0.5	10.0		
Bulk Rougher 3	50	-	-			-				2	10.0		
Bulk Rougher 4	40	10	5			15			1	3	10.0		
Bulk Rougher 5	65	10	-			5			1	3	10.0		
Bulk Rougher 6	70	10	-			5			1	3	10.0		
Bulk Rougher 7	50	10	-			5			1	5	10.0		
Total	935	55	10	0	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	16.8	0.85	17.3	0.045	30.6	6.50	38.5	38.3	6.11	29.3	27.5	14.6
Rougher 2	10.6	0.54	10.9	0.071	25.9	3.78	28.9	15.2	6.08	15.6	10.1	6.94
Rougher 3	15.9	0.81	7.00	0.120	21.1	3.26	24.2	14.7	15.4	19.1	13.0	8.71
Rougher 4	20.8	1.06	3.26	0.081	9.18	1.62	14.3	8.93	13.6	10.9	8.48	6.74
Rougher 5	24.0	1.22	1.77	0.043	3.63	1.37	8.50	5.60	8.34	4.96	8.27	4.62
Rougher 6	15.3	0.78	1.04	0.027	1.99	0.67	5.60	2.10	3.34	1.73	2.58	1.94
Rougher 7	24.0	1.22	0.67	0.013	1.22	0.39	4.20	2.12	2.52	1.67	2.35	2.28
Rougher Tail	1838.0	93.5	0.05	0.003	0.16	0.06	1.30	13.1	44.6	16.7	27.7	54.1
Head (calc.) (direct)	1965.4	100.0	0.39	0.006	0.89	0.20	2.25	100.0	100.0	100.0	100.0	100.0
Combined Products			Not sufficient sample									
Rougher 1	16.8	0.85	17.3	0.045	30.6	6.50	38.5	38.3	6.11	29.3	27.5	14.6
Rougher 1-2	27.4	1.39	14.8	0.055	28.8	5.45	34.8	53.5	12.2	44.9	37.5	21.6
Rougher 1-3	43.3	2.20	12.0	0.079	26.0	4.64	30.9	68.2	27.6	64.0	50.6	30.3
Rougher 1-4	64.1	3.26	9.13	0.080	20.5	3.66	25.5	77.1	41.2	74.9	59.1	37.0
Rougher 1-5	88.1	4.48	7.13	0.070	15.9	3.04	20.9	82.7	49.6	79.9	67.3	41.7
Rougher 1-6	103.4	5.26	6.23	0.063	13.9	2.69	18.6	84.8	52.9	81.6	69.9	43.6
Rougher 1-7	127.4	6.48	5.18	0.054	11.5	2.26	15.9	86.9	55.4	83.3	72.3	45.9
Ro Tail + Ro Conc 6-7	1877.3	95.5	0.07	0.003	0.19	0.07	1.37	17.3	50.4	20.1	32.7	58.3
Ro Tail + Ro Conc 7	1862.0	94.7	0.06	0.003	0.17	0.06	1.34	15.2	47.1	18.4	30.1	56.4
Rougher Tail	1838.0	93.5	0.05	0.003	0.16	0.06	1.30	13.1	44.6	16.7	27.7	54.1
Head (calc.)	1965.4	100.0	0.39	0.006	0.89	0.20	2.25	100.0	100.0	100.0	100.0	100.0

Test No.: F9

Project No.: 11474-001

Operator: RG

Date: Feb. 28th, 2007

Purpose: Rougher Kinetics - Collector

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes				
	Lime	PEX	Cytec 3302				MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	5				-		24			7.7	
<i>Rougher Kinetics</i>													
Bulk Rougher 1	-	-	-				15			1	0.5		
Bulk Rougher 2	-	-	-								0.5		
Bulk Rougher 3	-	10	5				-			1	2		
Bulk Rougher 4	-	10	5				15			1	3		
Bulk Rougher 5	-	15					5			1	3		
Bulk Rougher 6	-	15	-				5			1	3		
Bulk Rougher 7	-	15	-				5			1	5		
Total	0	80	15	0	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	8.10	0.41	20.9	0.410	29.7	7.39	45.6	21.3	26.6	14.3	15.1	11.8
Rougher 2	7.10	0.36	19.0	0.350	27.1	6.93	41.6	17.0	19.9	11.4	12.4	9.43
Rougher 3	33.9	1.70	7.48	0.110	18.8	2.88	22.2	31.9	29.8	37.8	24.6	24.0
Rougher 4	26.7	1.34	2.75	0.026	7.66	1.52	12.0	9.23	5.55	12.1	10.2	10.2
Rougher 5	27.9	1.40	1.50	0.008	3.43	0.89	7.70	5.26	1.79	5.67	6.25	6.86
Rougher 6	21.8	1.10	1.09	0.004	2.41	0.62	6.00	2.99	0.70	3.11	3.40	4.18
Rougher 7	31.5	1.58	0.68	0.004	1.41	0.64	4.20	2.69	1.01	2.63	5.07	4.23
Rougher Tail	1831.6	92.1	0.04	0.001	0.12	0.05	0.50	9.67	14.7	13.0	23.0	29.2
Head (calc.) (direct)	1988.6	100.0	0.40	0.006	0.85	0.20	1.57	100.0	100.0	100.0	100.0	100.0
			0.45	0.006	0.89	0.21	1.40					
Combined Products												
Not sufficient sample												
Rougher 1	8.10	0.41	20.9	0.410	29.7	7.39	45.6	21.3	26.6	14.3	15.1	11.8
Rougher 1-2	15.2	0.76	20.0	0.382	28.5	7.18	43.7	38.3	46.5	25.7	27.4	21.2
Rougher 1-3	49.1	2.47	11.4	0.194	21.8	4.21	28.9	70.1	76.3	63.4	52.0	45.3
Rougher 1-4	75.8	3.81	8.33	0.135	16.8	3.26	22.9	79.4	81.9	75.6	62.2	55.5
Rougher 1-5	103.7	5.21	6.49	0.101	13.2	2.62	18.8	84.6	83.6	81.2	68.5	62.4
Rougher 1-6	125.5	6.31	5.55	0.084	11.3	2.28	16.6	87.6	84.3	84.3	71.9	66.5
Rougher 1-7	157.0	7.90	4.57	0.068	9.35	1.95	14.1	90.3	85.3	87.0	77.0	70.8
Ro Tail + Ro Conc 6-7	1884.9	94.8	0.06	0.001	0.17	0.07	0.63	15.4	16.4	18.8	31.5	37.6
Ro Tail + Ro Conc 7	1863.1	93.7	0.05	0.001	0.14	0.06	0.56	12.4	15.7	15.7	28.1	33.5
Rougher Tail	1831.6	92.1	0.04	0.001	0.12	0.05	0.50	9.67	14.7	13.0	23.0	29.2
Head (calc.)	1988.6	100.0	0.40	0.006	0.85	0.20	1.57	100.0	100.0	100.0	100.0	100.0

Test No.: F10

Project No.: 11474-001

Operator: RG

Date: March 2nd, 2007

Purpose: Test Cu cleaner

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 20 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302				MIBC	Grind	Cond.	Froth	pH	Ep
Grind	-	15	5				-	24			7.7	
<i>Rougher</i>												
Bulk Rougher 1	-	-	-				15		1	3		
Bulk Rougher 2	-	20	10				15		1	5		
Bulk Rougher 3	-	45					10		1	8		
<i>Cu Cleaner</i>												
Regrind	250	5	5					15			11.0	
Cu 1st Cleaner	130	-	-				5		1	4	11.0	
Cu 1st Cleaner Scav	-	5	-				5		1	2		
Cu 2nd Cleaner	50	-	-				5		1	3.5	11.5	
Total	430	90	20	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	22.7	1.14	28.3	0.420	31.6	8.74	78.5	80.4	68.9	42.8	50.9	57.3
Cu 2nd Cleaner Tail	3.90	0.20	3.08	0.210	18.5	2.85	14.3	1.50	5.92	4.31	2.85	1.79
Cu 1st Cleaner Scav Conc	0.90	0.05	4.63	0.310	25.0	4.33	21.7	0.52	2.02	1.34	1.00	0.63
Cu 1st Cleaner Scav Tail	82.0	4.11	0.22	0.016	6.62	0.54	3.80	2.26	9.49	32.4	11.4	10.0
Rougher Tail	1883.8	94.5	0.07	0.001	0.17	0.07	0.50	15.3	13.6	19.1	33.9	30.3
Head (calc.) (direct)	1993.3	100.0	0.40	0.007	0.84	0.20	1.56	100.0	100.0	100.0	100.0	100.0
Not sufficient sample												
Cu 2nd Cleaner Conc	22.7	1.14	28.3	0.420	31.6	8.74	78.5	80.4	68.9	42.8	50.9	57.3
Cu 1st Cleaner Conc	26.6	1.33	24.6	0.389	29.7	7.88	69.1	81.9	74.9	47.1	53.8	59.1
Cu 1st Cleaner Conc + Scav Conc	27.5	1.38	23.9	0.387	29.5	7.76	67.5	82.4	76.9	48.5	54.8	59.7
Rougher Conc	109.5	5.49	6.18	0.109	12.4	2.35	19.8	84.7	86.4	80.9	66.1	69.7
Combined Tail	1965.8	98.6	0.07	0.002	0.44	0.09	0.64	17.6	23.1	51.5	45.2	40.3
Rougher Tail	1883.8	94.5	0.07	0.001	0.17	0.07	0.50	15.3	13.6	19.1	33.9	30.3
Head (calc.)	1993.3	100.0	0.40	0.007	0.8403	0.20	1.5605	100.0	100.0	100.0	100.0	100.0

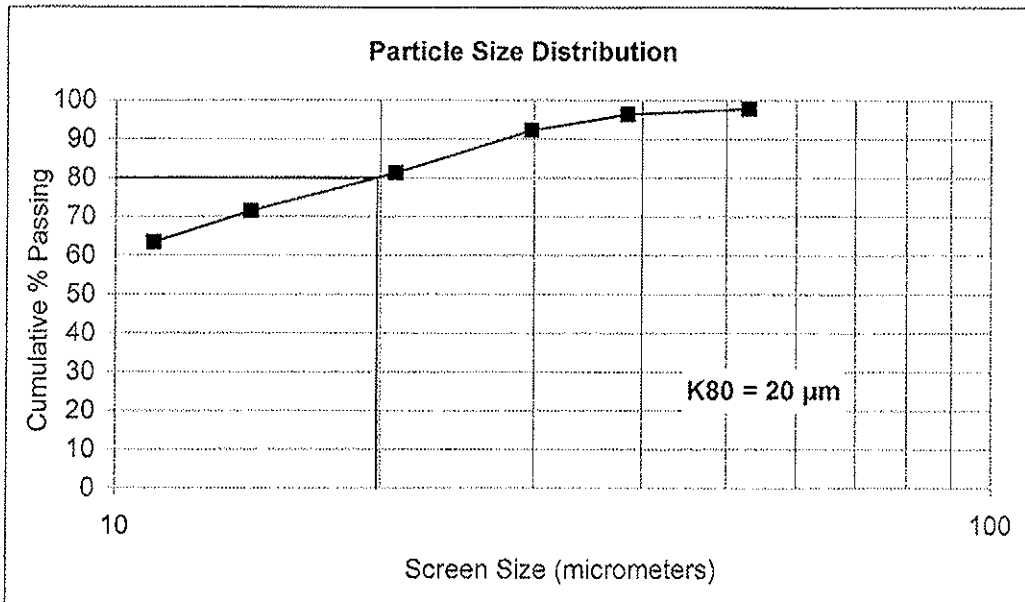
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F10**

Dry Solids S.G.=		3.08		Water Temperature =		10.00 C°	
Mesh	Size	Weight grams	% Retained		% Passing Cumulative		
	µm		Individual	Cumulative			
270	53	0.54	2.16	2.16	97.8		
	38	0.34	1.36	3.52	96.5		
	30	1.04	4.16	7.68	92.3		
	21	2.75	11.0	18.7	81.3		
	14	2.45	9.80	28.5	71.5		
	11	2.01	8.04	36.5	63.5		
Total	-11	15.9	63.5	100.0	0.0		
K80	20	25.0	100.0	-	-		



Test No.: F11

Project No.: 11474-001

Operator: RG

Date: March 9th, 2007

Purpose: Test Cu cleaner, higher mass pull to rougher concentrate

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 20 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302			MIBC		Grind	Cond.	Froth		
Grind	-	15	5			-		24			7.7	
<i>Rougher</i>												
Bulk Rougher 1	-	-	-			15			1	3		
Bulk Rougher 2	-	10	5			15			1	4		
Bulk Rougher 3	-	15				10			1	5		
<i>Cu Cleaner</i>												
Regrind	250	5	5					15			11.0	
Cu 1st Cleaner	90	-	-			5			1	4	11.0	
Cu 1st Cleaner Scav	-	5	-			5			1	2		
Cu 2nd Cleaner	45	-	-			5			1	3	11.5	
Total	385	50	15	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	23.1	1.16	26.5	0.450	29.8	8.39	67.7	77.5	74.8	42.2	46.7	41.8
Cu 2nd Cleaner Tail	6.00	0.30	2.22	0.066	11.2	2.02	16.5	1.69	2.85	4.12	2.92	2.65
Cu 1st Cleaner Scav Conc	4.80	0.24	5.00	0.210	23.4	2.39	16.8	3.04	7.26	6.89	2.76	2.15
Cu 1st Cleaner Scav Tail	143.2	7.22	0.16	0.002	3.18	0.37	2.60	2.90	2.06	27.9	12.8	9.95
Rougher Tail	1807.0	91.1	0.07	0.001	0.17	0.08	0.90	14.9	13.0	18.8	34.8	43.5
Head (calc.) (direct)	1984.1	100.0	0.40	0.007	0.82	0.21	1.89	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	23.1	1.16	26.5	0.450	29.8	8.39	67.7	77.5	74.8	42.2	46.7	41.8
Cu 1st Cleaner Conc	29.1	1.47	21.5	0.371	26.0	7.08	57.1	79.2	77.7	46.3	49.6	44.4
Cu 1st Cleaner Conc + Scav Conc	33.9	1.71	19.2	0.348	25.6	6.41	51.4	82.2	84.9	53.2	52.4	46.6
Rougher Conc	177.1	8.93	3.80	0.068	7.47	1.53	11.9	85.1	87.0	81.2	65.2	56.5
Combined Tail	1950.2	98.3	0.07	0.001	0.39	0.10	1.02	17.8	15.1	46.8	47.6	53.4
Rougher Tail	1807.0	91.1	0.07	0.001	0.17	0.08	0.90	14.9	13.0	18.8	34.8	43.5
Head (calc.)	1984.1	100.0	0.40	0.007	0.82	0.21	1.89	100.0	100.0	100.0	100.0	100.0

Test No.: F12

Project No.: 11474-001

Operator: RG

Date:

Purpose: Rougher Kinetics - Collector distribution

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302				MIBC	Grind	Cond.	Froth		
Grind	-	20	10				-	24			7.7	
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-	-				15		1	1		
Bulk Rougher 2	-	15	5				-		1	2		
Bulk Rougher 3	-	15	5				15		1	3		
Bulk Rougher 4	-	15	-				5		1	3		
Bulk Rougher 5	-	15	-				5		1	3		
Bulk Rougher 6	-	15	-				5		1	5		
Total	0	95	20	0	0	0	45	0				

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
Rougher 1	13.6	0.69	19.6	0.500	26.0	8.59	44.2	33.3	54.8	21.5	25.5	19.5	
Rougher 2	28.4	1.44	8.12	0.087	19.4	3.30	21.2	28.8	19.9	33.5	20.5	19.6	
Rougher 3	39.8	2.02	2.78	0.022	7.99	1.57	11.4	13.8	7.06	19.4	13.6	14.7	
Rougher 4	42.9	2.18	1.25	0.005	2.67	0.65	6.00	6.71	1.73	6.97	6.09	8.36	
Rougher 5	29.7	1.51	0.78	0.005	1.59	0.52	4.20	2.90	1.20	2.87	3.37	4.05	
Rougher 6	73.9	3.75	0.38	0.002	0.67	0.27	2.30	3.51	1.19	3.01	4.36	5.52	
Rougher Tail	1740.3	88.4	0.05	0.001	0.12	0.07	0.50	10.9	14.0	12.7	26.6	28.3	
Head (calc.) (direct)	1968.6	100.0	0.41	0.006	0.83	0.23	1.56	100.0	100.0	100.0	100.0	100.0	
Combined Products													
Not sufficient sample													
Rougher 1	13.6	0.69	19.6	0.500	26.0	8.59	44.2	33.3	54.8	21.5	25.5	19.5	
Rougher 1-2	42.0	2.13	11.8	0.221	21.5	5.01	28.6	62.2	74.8	55.1	46.0	39.1	
Rougher 1-3	81.8	4.16	7.43	0.124	14.9	3.34	20.3	76.0	81.8	74.4	59.6	53.8	
Rougher 1-4	124.7	6.33	5.30	0.083	10.7	2.41	15.4	82.7	83.6	81.4	65.7	62.2	
Rougher 1-5	154.4	7.84	4.43	0.068	8.97	2.05	13.2	85.6	84.8	84.3	69.1	66.2	
Rougher 1-6	228.3	11.60	3.12	0.047	6.28	1.47	9.68	89.1	86.0	87.3	73.4	71.7	
Ro Tail + Ro Conc 5-6	1843.9	92.2	0.06	0.001	0.14	0.08	0.57	14.4	15.2	15.7	30.9	33.8	
Ro Tail + Ro Conc 6-7	1814.2	88.4	0.05	0.001	0.12	0.07	0.50	10.9	14.0	12.7	26.6	28.3	
Rougher Tail	1740.3	88.4	0.05	0.001	0.12	0.07	0.50	10.9	14.0	12.7	26.6	28.3	
Head (calc.)	1968.6	100.0	0.41	0.006	0.83	0.23	1.56	100.0	100.0	100.0	100.0	100.0	

Test No.: F13

Project No.: 11474-001

Operator: RG

Date:

Purpose: Rougher Kinetics - As F12, pH 9.0 in grind

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ ~140 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302			MIBC	Grind	Cond.	Froth			
Grind	300	20	10			-	24			9.0		
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-	-			15		1	1			
Bulk Rougher 2	-	15	5			-		1	2			
Bulk Rougher 3	-	15	5			15		1	3			
Bulk Rougher 4	-	15	-			5		1	3			
Bulk Rougher 5	-	15	-			5		1	3			
Bulk Rougher 6	-	15	-			5		1	5			
Total	300	95	20	0	0	45	0					

* as required to maintain pH

Stage	Bulk Ro
Flotation Cell	1000g-D1
Speed: rpm	1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Rougher 1	33.2	1.65	12.5	0.230	26.6	4.70	31.4	50.3	62.7	52.8	39.5	29.8
Rougher 2	24.6	1.22	5.98	0.075	13.3	2.54	20.1	17.8	15.1	19.6	15.8	14.1
Rougher 3	26.8	1.33	2.21	0.018	4.06	0.84	9.60	7.18	3.96	6.51	5.70	7.36
Rougher 4	38.1	1.90	1.09	0.006	1.82	0.47	5.40	5.03	1.88	4.15	4.53	5.89
Rougher 5	26.8	1.33	0.79	0.003	1.25	0.49	4.10	2.57	0.66	2.00	3.33	3.14
Rougher 6	49.1	2.44	0.44	0.002	0.65	0.29	2.40	2.62	0.81	1.91	3.61	3.37
Rougher Tail	1810.5	90.1	0.07	0.001	0.12	0.06	0.70	14.5	14.9	13.0	27.5	36.3
Head (calc.) (direct)	2009.1	100.0	0.41	0.006	0.83	0.20	1.74	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Rougher 1	33.2	1.65	12.5	0.230	26.6	4.70	31.4	50.3	62.7	52.8	39.5	29.8
Rougher 1-2	57.8	2.88	9.73	0.164	20.9	3.78	26.6	68.1	77.8	72.4	55.3	44.0
Rougher 1-3	84.6	4.21	7.34	0.118	15.6	2.85	21.2	75.3	81.8	78.9	61.0	51.3
Rougher 1-4	122.7	6.11	5.40	0.083	11.3	2.11	16.3	80.3	83.7	83.1	65.6	57.2
Rougher 1-5	149.5	7.44	4.58	0.069	9.51	1.82	14.1	82.9	84.3	85.1	68.9	60.4
Rougher 1-6	198.6	9.89	3.55	0.052	7.32	1.44	11.2	85.5	85.1	87.0	72.5	63.7
Ro Tail + Ro Conc 5-6	1886.4	92.6	0.08	0.001	0.13	0.07	0.74	17.1	15.7	14.9	31.1	39.6
Ro Tail + Ro Conc 6-7	1859.6	90.1	0.07	0.001	0.12	0.06	0.70	14.5	14.9	13.0	27.5	36.3
Rougher Tail	1810.5	90.1	0.07	0.001	0.12	0.06	0.70	14.5	14.9	13.0	27.5	36.3
Head (calc.)	2009.1	100.0	0.41	0.0061	0.83	0.20	1.7396	100.0	100.0	100.0	100.0	100.0

Test No.: F14

Project No.: 11474-001

Operator: RG

Date: March 9th, 2007

Purpose: Test Cu cleaner, lower pH in cleaning

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). Ro Tail $K_{80} = 162 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM). $K_{80} = 22 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Ep
	Lime	PEX	Cytec 3302			MIBC		Grind	Cond.	Froth			
Grind	-	15	10			-		24			7.7	20	
<i>Rougher</i>													
Bulk Rougher 1	-	-				15			1	3		20	
Bulk Rougher 2	-	10				15			1	4		60	
Bulk Rougher 3	-	15				10			1	5		60	
<i>Cu Cleaner</i>													
Regrind	100	5	5					15			8.8	40	
Cu 1st Cleaner	100	-	-			5			1	4	10.0	40	
Cu 1st Cleaner Scav	-	5	-			5			1	2			
Cu 2nd Cleaner	50	-	-			5			1	3	10.5	20	
Total	250	50	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	32.1	1.62	20.0	0.300	30.5	6.17	58.5	76.3	79.5	61.0	53.1	58.7
Cu 2nd Cleaner Tail	14.7	0.74	0.94	0.029	8.30	1.03	6.90	1.64	3.52	7.61	4.06	3.17
Cu 1st Cleaner Scav Conc	10.9	0.55	1.13	0.012	12.2	1.67	9.90	1.46	1.08	8.29	4.88	3.38
Cu 1st Cleaner Scav Tail	185.9	9.40	0.15	0.001	0.59	0.20	1.30	3.31	1.54	6.84	10.0	7.56
Rougher Tail	1735.0	87.7	0.08	0.001	0.15	0.06	<0.50	17.3	14.3	16.2	27.9	27.1
Head (calc.) (direct)	1978.6	100.0	0.43	0.006	0.81	0.19	1.62	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	32.1	1.62	20.0	0.300	30.5	6.17	58.5	76.3	79.5	61.0	53.1	58.7
Cu 1st Cleaner Conc	46.8	2.37	14.0	0.215	23.5	4.56	42.3	77.9	83.1	68.6	57.2	61.9
Cu 1st Cleaner Conc + Scav Conc	57.7	2.92	11.6	0.177	21.4	4.01	36.2	79.4	84.1	76.9	62.1	65.3
Rougher Conc	243.6	12.3	2.86	0.043	5.52	1.10	9.56	82.7	85.7	83.8	72.1	72.9
Combined Tail	1920.9	97.1	0.09	0.001	0.19	0.07	0.58	20.6	15.9	23.1	37.9	34.7
Rougher Tail	1735.0	87.7	0.08	0.001	0.15	0.06	0.50	17.3	14.3	16.2	27.9	27.1
Head (calc.)	1978.6	100.0	0.43	0.0061	0.81	0.19	1.62	100.0	100.0	100.0	100.0	100.0

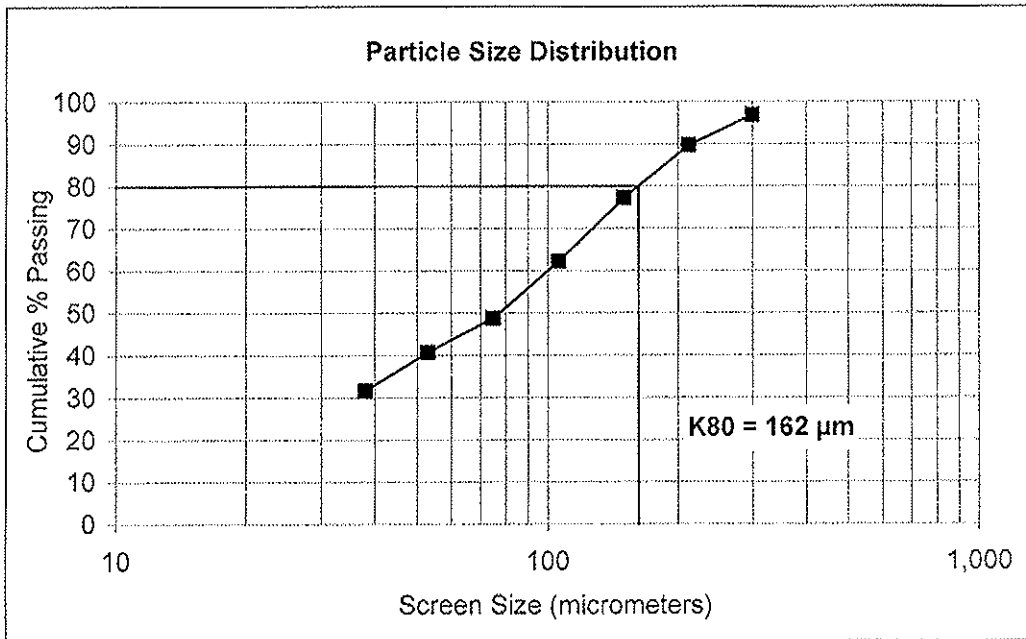
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F 14**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	5.60	3.10	3.10	96.9
65	212	12.9	7.13	10.2	89.8
100	150	22.5	12.4	22.7	77.3
150	106	27.3	15.1	37.8	62.2
200	75	24.2	13.4	51.1	48.9
270	53	14.6	8.07	59.2	40.8
400	38	16.5	9.12	68.3	31.7
Pan	-38	57.3	31.7	100.0	0.00
Total	-	180.9	100.0	-	-
K80	162				



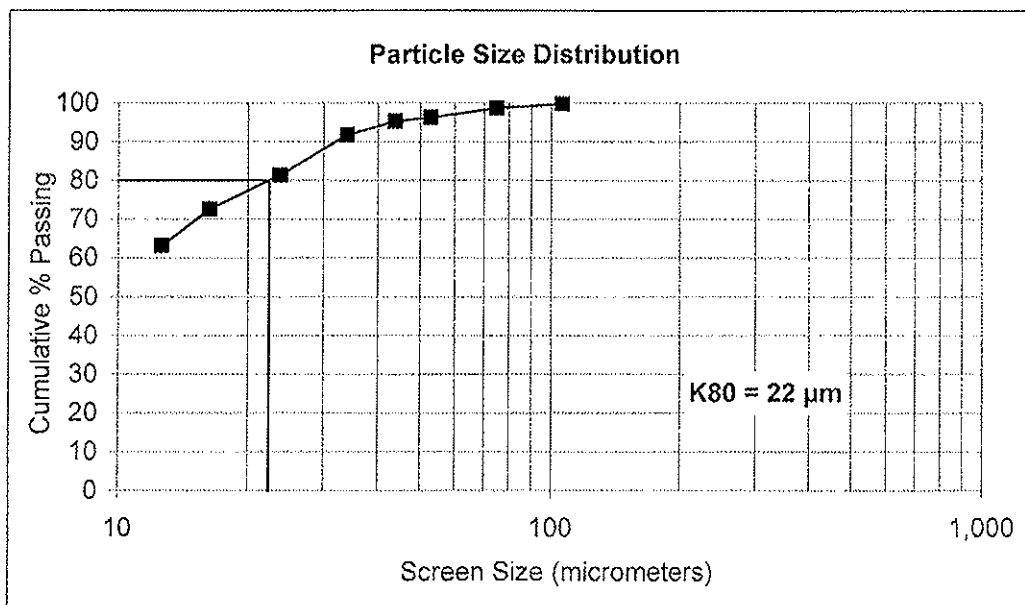
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F14**

Dry Solids S.G.=		2.86	Water Temperature =		5.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
150	106	0.11	0.22	0.22	99.8
200	75	0.57	1.13	1.34	98.7
270	53	1.20	2.37	3.71	96.3
	44	0.50	0.99	4.70	95.3
	34	1.78	3.51	8.21	91.8
	24	5.26	10.4	18.6	81.4
	16	4.42	8.73	27.3	72.7
	13	4.80	9.48	36.8	63.2
	-13	32.0	63.2	100.0	0.00
Total	-	50.7	100.0	-	-
K80	22				



Test No.: F15

Project No.: 11474-001

Operator: RG

Date: 21-Mar-07

Purpose: As F14, SIPX instead of PEX

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). Ro Tail $K_{80} = 170 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM). $K_{80} = 23 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	SIPX	Cytec 3302			MIBC	Grind	Cond.	Froth			
Grind	-	15	10			-	24			7.7	60	
<i>Rougher</i>												
Bulk Rougher 1	-	-				15		1	3		60	
Bulk Rougher 2	-	10				15		1	4		50	
Bulk Rougher 3	-	15				10		1	5		30	
<i>Cu Cleaner</i>												
Regrind	200	5	5				15			10.0		
Cu 1st Cleaner	50	-	-			5		1	4	10.0	20	
Cu 1st Cleaner Scav	-	5	-			5		1	2			
Cu 2nd Cleaner	50	-	-			5		1	3	10.5	40	
Total	300	50	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	31.3	1.58	20.3	0.300	31.9	7.22	52.6	77.2	77.4	61.1	58.6	57.8
Cu 2nd Cleaner Tail	14.2	0.72	1.29	0.034	8.53	1.13	8.80	2.23	3.98	7.41	4.16	4.38
Cu 1st Cleaner Scav Conc	12.0	0.61	1.30	0.028	15.3	1.60	9.90	1.90	2.77	11.2	4.98	4.17
Cu 1st Cleaner Scav Tail	175.7	8.88	0.14	0.001	0.49	0.31	0.50	2.99	1.45	5.27	14.1	3.08
Rougher Tail	1745.0	88.2	0.07	0.001	0.14	0.04	<0.50	15.7	14.4	15.0	18.1	30.6
Head (calc.) (direct)	1978.2	100.0	0.42	0.006	0.83	0.19	1.44	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	31.3	1.58	20.3	0.300	31.9	7.22	52.6	77.2	77.4	61.1	58.6	57.8
Cu 1st Cleaner Conc	45.5	2.30	14.4	0.217	24.6	5.32	38.9	79.4	81.4	68.5	62.8	62.1
Cu 1st Cleaner Conc + Scav Conc	57.5	2.91	11.6	0.178	22.7	4.54	32.9	81.3	84.2	79.8	67.8	66.3
Rougher Conc	233.2	11.8	2.98	0.045	5.96	1.35	8.48	84.3	85.6	85.0	81.9	69.4
Combined Tail	1920.7	97.1	0.08	0.001	0.17	0.06	0.50	18.7	15.8	20.2	32.2	33.7
Rougher Tail	1745.0	88.2	0.07	0.001	0.14	0.04	0.50	15.7	14.4	15.0	18.1	30.6
Head (calc.)	1978.2	100.0	0.42	0.006	0.83	0.19	1.44	100.0	100.0	100.0	100.0	100.0

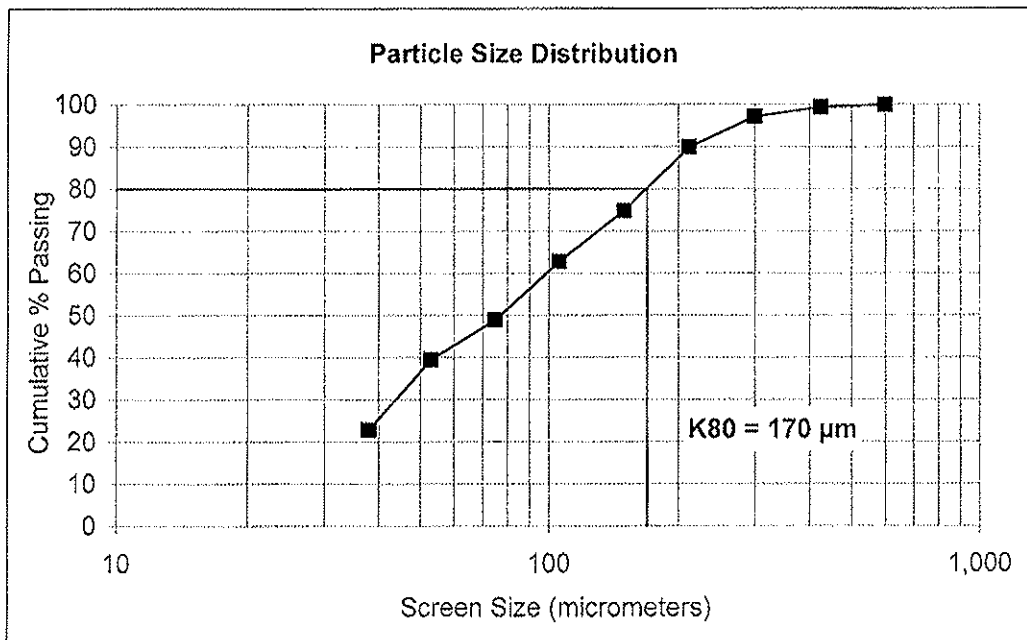
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F 15**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.00	0.00	0.00	100.0
35	425	1.10	0.64	0.64	99.4
48	300	3.90	2.26	2.90	97.1
65	212	12.3	7.13	10.0	90.0
100	150	25.9	15.0	25.1	74.9
150	106	20.9	12.1	37.2	62.8
200	75	23.8	13.8	51.0	49.0
270	53	16.3	9.45	60.4	39.6
400	38	28.9	16.8	77.2	22.8
Pan	-38	39.3	22.8	100.0	0.00
Total	-	172.4	100.0	-	-
K80	170				



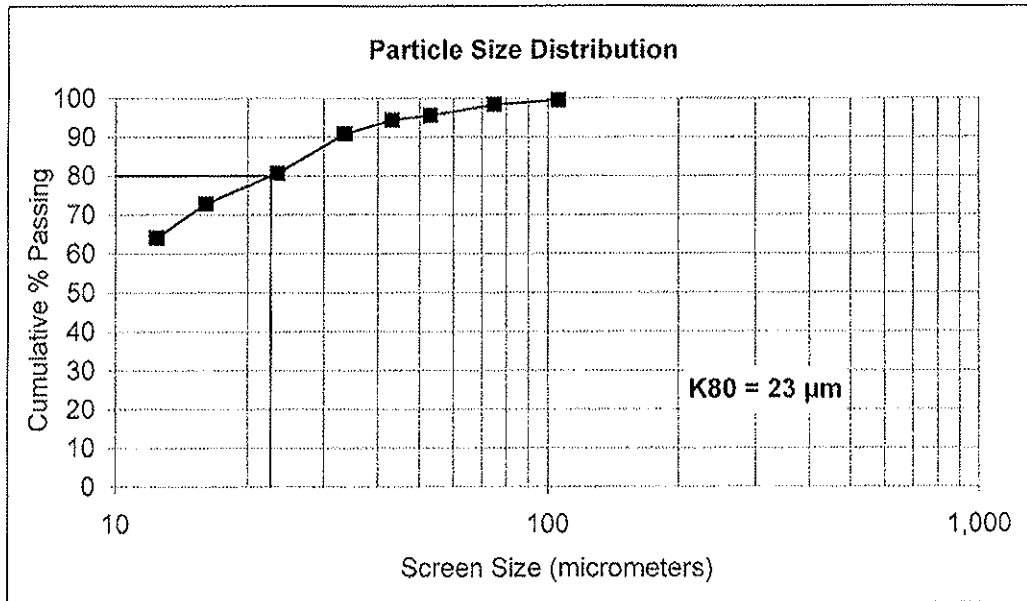
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F15**

Dry Solids S.G.=		2.91	Water Temperature =		5.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
150	106	0.20	0.40	0.40	99.6
200	75	0.56	1.12	1.52	98.5
270	53	1.46	2.91	4.43	95.6
	43	0.56	1.12	5.54	94.5
	34	1.82	3.63	9.17	90.8
	23	5.04	10.0	19.2	80.8
	16	3.97	7.91	27.1	72.9
	12	4.40	8.77	35.9	64.1
	-12	32.2	64.1	100.0	0.00
Total	-	50.2	100.0	-	-
K80	23				



Test No.: F16

Project No.: 11474-001

Operator: RG

Date: 22-Mar-07

Purpose: As F14, PAX instead of PEX

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). Ro Tail $K_{80} = 155 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM). $K_{80} = 26 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PAX	Cytec 3302				MIBC	Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-	24			7.7	60
<i>Rougher</i>												
Bulk Rougher 1	-	-					15		1	3		
Bulk Rougher 2	-	10					15		1	4		50
Bulk Rougher 3	-	15					10		1	5		20
<i>Cu Cleaner</i>												
Regrind	200	5	5					15			10.0	
Cu 1st Cleaner	50	-	-				5		1	4	10.0	30
Cu 1st Cleaner Scav	-	5	-				5		1	2		
Cu 2nd Cleaner	60	-	-				5		1	3	10.5	50
Total	310	50	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	28.7	1.45	21.4	0.370	28.3	6.38	52.9	77.1	77.0	50.8	49.6	52.5
Cu 2nd Cleaner Tail	27.9	1.41	1.41	0.024	6.89	0.97	7.20	4.94	4.85	12.0	7.33	6.95
Cu 1st Cleaner Scav Conc	16.6	0.84	1.68	0.025	16.5	1.25	10.8	3.50	3.01	17.1	5.62	6.21
Cu 1st Cleaner Scav Tail	182.6	9.21	0.13	0.002	0.62	0.19	0.70	2.98	2.65	7.08	9.40	4.42
Rougher Tail	1726.0	87.1	0.05	0.001	0.12	0.06	<0.50	11.5	12.5	13.0	28.1	29.9
Head (calc.) (direct)	1981.8	100.0	0.40 0.45	0.007 0.006	0.81 0.89	0.19 0.21	1.46 1.40	100.0	100.0	100.0	100.0	100.0
Combined Products Not sufficient sample												
Cu 2nd Cleaner Conc	28.7	1.45	21.4	0.370	28.3	6.38	52.9	77.1	77.0	50.8	49.6	52.5
Cu 1st Cleaner Conc	56.6	2.86	11.5	0.199	17.7	3.71	30.4	82.0	81.8	62.8	56.9	59.5
Cu 1st Cleaner Conc + Scav Conc	73.2	3.69	9.31	0.160	17.5	3.15	25.9	85.5	84.8	80.0	62.6	65.7
Rougher Conc	255.8	12.9	2.76	0.047	5.44	1.04	7.92	88.5	87.5	87.0	71.9	70.1
Combined Tail	1908.6	96.3	0.06	0.001	0.17	0.07	0.52	14.5	15.2	20.0	37.4	34.3
Rougher Tail	1726.0	87.1	0.05	0.001	0.12	0.06	0.50	11.5	12.5	13.0	28.1	29.9
Head (calc.)	1981.8	100.0	0.40	0.007	0.81	0.19	1.4579	100	100	100	100	100

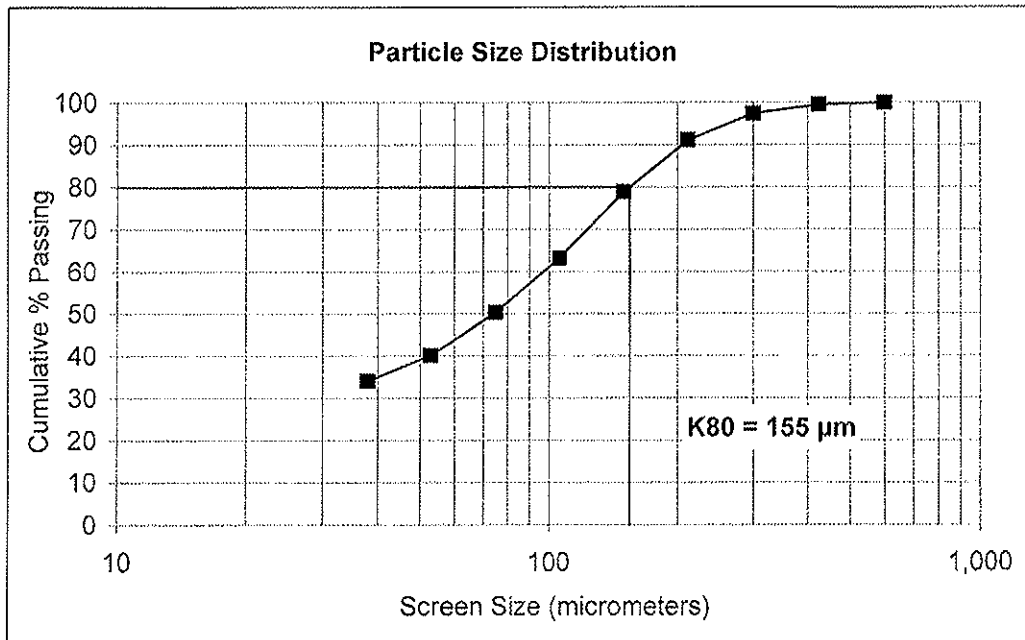
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F 16**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.00	0.00	0.00	100.0
35	425	1.00	0.52	0.52	99.5
48	300	3.90	2.04	2.56	97.4
65	212	12.0	6.26	8.82	91.2
100	150	23.4	12.2	21.0	79.0
150	106	30.0	15.7	36.7	63.3
200	75	24.7	12.9	49.6	50.4
270	53	19.6	10.2	59.8	40.2
400	38	11.7	6.11	65.9	34.1
Pan	-38	65.3	34.1	100.0	0.00
Total	-	191.6	100.0	-	-
K80	155				



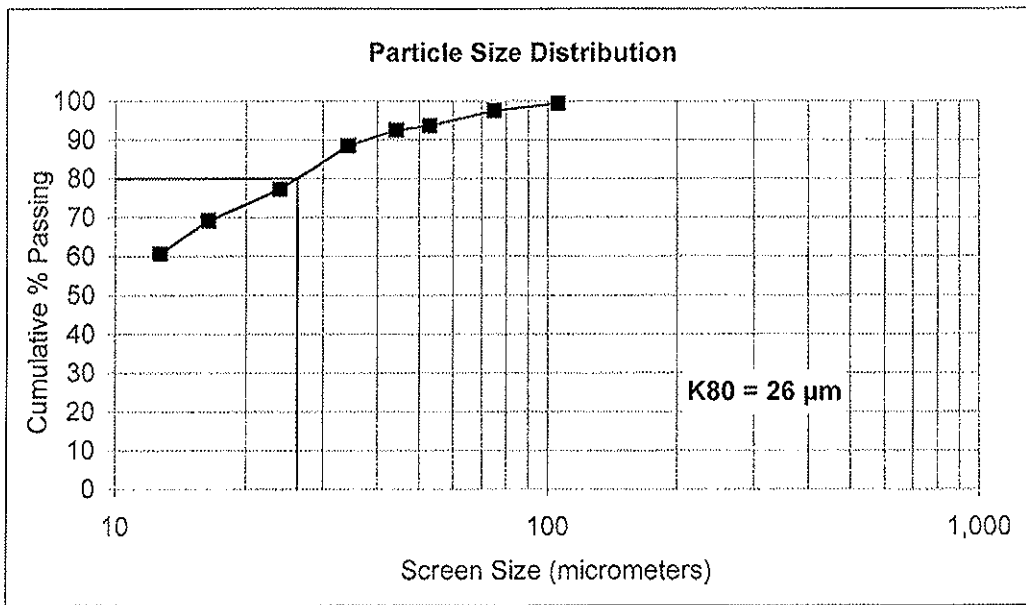
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F16**

Dry Solids S.G.=		2.83	Water Temperature =		5.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
150	106	0.27	0.54	0.54	99.5
200	75	0.94	1.89	2.43	97.6
270	53	1.94	3.90	6.33	93.7
	44	0.57	1.15	7.48	92.5
	34	2.00	4.02	11.5	88.5
	24	5.56	11.2	22.7	77.3
	16	4.03	8.10	30.8	69.2
	13	4.24	8.52	39.3	60.7
	-13	30.2	60.7	100.0	0.0
Total	-	49.8	100.0	-	-
K80	26				



Test No.: F17

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Effect of regrind size

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 158 µm

Regrind: 10 minutes in laboratory pebble mill (PM).

K₈₀ = 29 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Ep
	Lime	PEX	Cytec 3302			MIBC		Grind	Cond.	Froth			
Grind	-	15	10			-		24			7.7		
<i>Rougher</i>													
Bulk Rougher 1	-	-	-			15			1	3			
Bulk Rougher 2	-	15	-			15			1	4			
Bulk Rougher 3	-	15				10			1	5			
<i>Cu Cleaner</i>													
Regrind	400	5	5					10			10.9	0	
Cu 1st Cleaner	25	-	-			5			1	4	11.0	0	
Cu 1st Cleaner Scav	-	5	-			5			1	2			
Cu 2nd Cleaner	150	-	-			5			1	3.5	11.5	0	
Total	575	55	15	0	0	55	0						

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	29.6	1.49	21.4	0.620	27.9	7.78	57.8	78.9	80.1	51.4	49.1	55.5
Cu 2nd Cleaner Tail	13.3	0.67	1.50	0.110	13.4	1.52	10.2	2.49	6.39	11.1	4.31	4.40
Cu 1st Cleaner Scav Conc	9.50	0.48	1.45	0.065	12.8	1.44	9.50	1.72	2.70	7.57	2.92	2.93
Cu 1st Cleaner Scav Tail	180.6	9.10	0.14	0.004	1.11	0.26	1.50	3.15	3.15	12.5	10.0	8.79
Rougher Tail	1751.1	88.3	0.06	0.001	0.16	0.09	<0.5	13.7	7.6	17.4	33.6	28.4
Head (calc.) (direct)	1984.1	100.0	0.40	0.012	0.81	0.24	1.55	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	29.6	1.49	21.4	0.620	27.9	7.78	57.8	78.9	80.1	51.4	49.1	55.5
Cu 1st Cleaner Conc	42.9	2.16	15.2	0.462	23.4	5.84	43.0	81.4	86.5	62.5	53.4	59.9
Cu 1st Cleaner Conc + Scav Conc	52.4	2.64	12.7	0.390	21.5	5.04	37.0	83.1	89.2	70.1	56.4	62.8
Rougher Conc	233.0	11.7	2.97	0.091	5.69	1.34	9.48	86.3	92.4	82.6	66.4	71.6
Combined Tail	1931.7	97.4	0.07	0.001	0.25	0.11	0.59	16.9	10.8	29.9	43.6	37.2
Rougher Tail	1751.1	88.3	0.06	0.001	0.16	0.09	0.50	13.7	7.64	17.4	33.6	28.4
Head (calc.)	1984.1	100.0	0.40	0.012	0.8096	0.24	1.55	100.0	100.0	100.0	100.0	100.0

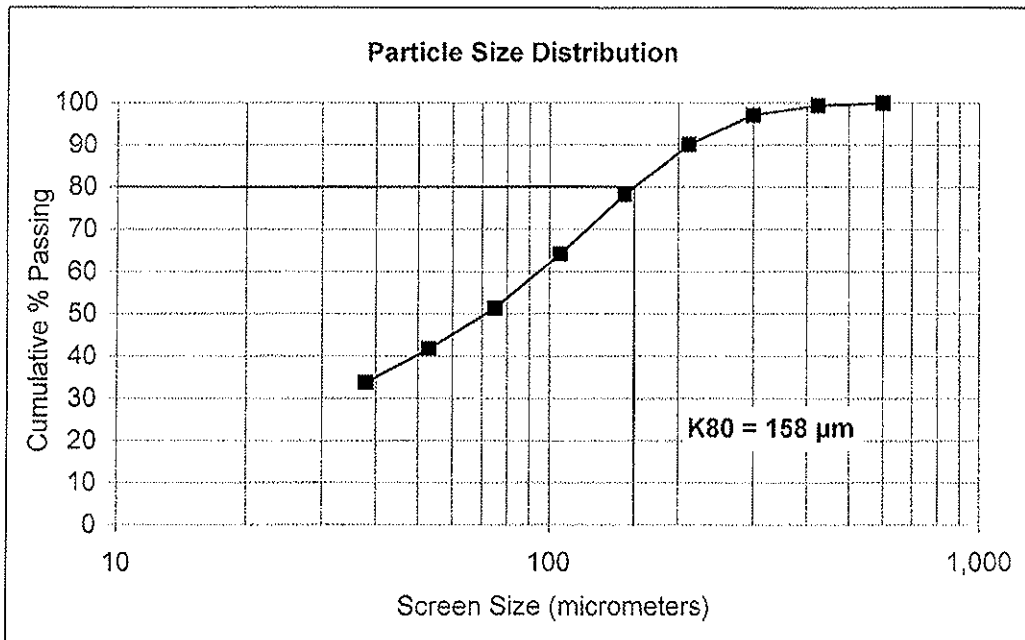
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F17**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.00	0.00	0.00	100.0
35	425	1.10	0.57	0.57	99.4
48	300	4.50	2.33	2.90	97.1
65	212	13.4	6.94	9.83	90.2
100	150	22.9	11.9	21.7	78.3
150	106	27.3	14.1	35.8	64.2
200	75	24.7	12.8	48.6	51.4
270	53	18.7	9.68	58.3	41.7
400	38	15.4	7.97	66.3	33.7
Pan	-38	65.2	33.7	100.0	0.00
Total	-	193.2	100.0	-	-
K80	158				



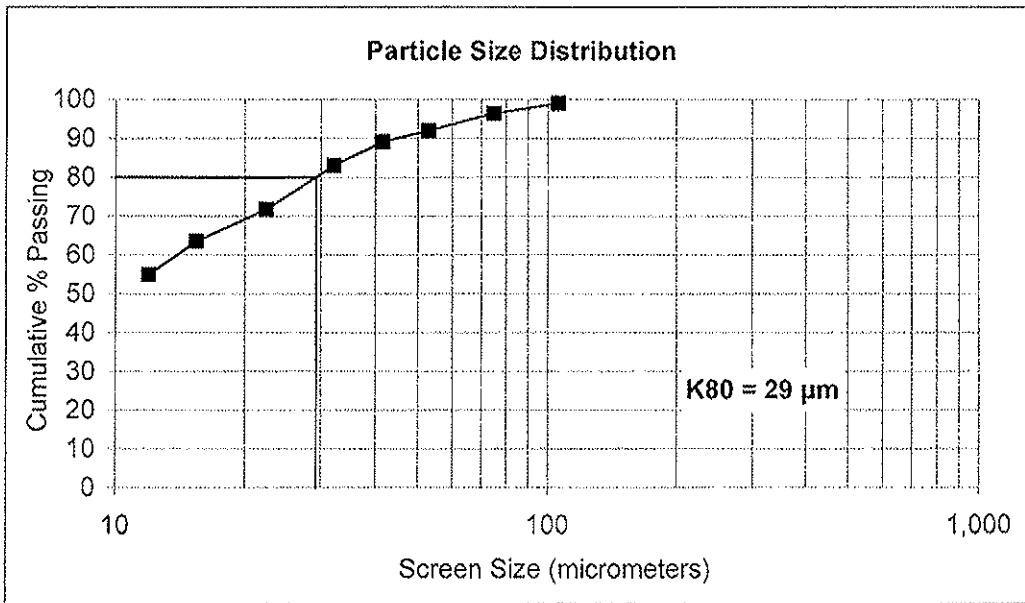
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F17**

Dry Solids S.G. = 2.90		Water Temperature = 8.00 C°			
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
150	106	0.24	0.96	0.96	99.0
200	75	0.63	2.52	3.48	96.5
270	53	1.12	4.48	7.97	92.0
	42	0.71	2.84	10.8	89.2
	32	1.51	6.04	16.9	83.1
	22	2.82	11.3	28.1	71.9
	15	2.08	8.33	36.5	63.5
	12	2.14	8.57	45.0	55.0
	-12	13.7	55.0	100.0	0.00
Total	-	25.0	100.0	-	-
K80	29				



Test No.: F18

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Effect of regrind size**Procedure:** As outlined below.**Feed:** 2 kg of minus 10 mesh Master Comp**Grind:** 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). $K_{80} = 155 \mu\text{m}$ **Regrind:** 5 minutes in laboratory pebble mill (PM). $K_{80} = 35 \mu\text{m}$ **Conditions:**

Stage	Reagents added, grams per tonne								Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302			MIBC			Grind	Cond.	Froth		
Grind	-	15	10			-			24			7.7	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-			15				1	3		
Bulk Rougher 2	-	15	-			15				1	4		
Bulk Rougher 3	-	15				10				1	5		
<i>Cu Cleaner</i>													
Regrind	350	5	5						5			10.6	0
Cu 1st Cleaner	50	-	-			5				1	4	11.0	0
Cu 1st Cleaner Scav	-	5	-			5				1	2		
Cu 2nd Cleaner	150	-	-			5				1	3.5	11.5	0
Total	550	55	15	0	0	55	0						

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	42.1	2.12	15.6	0.270	26.1	5.34	40.0	80.2	81.8	66.6	56.5	56.5
Cu 2nd Cleaner Tail	14.8	0.74	1.17	0.019	6.60	0.99	8.40	2.11	2.02	5.92	3.68	4.17
Cu 1st Cleaner Scav Conc	10.8	0.54	1.37	0.012	6.60	1.20	8.60	1.81	0.93	4.32	3.26	3.11
Cu 1st Cleaner Scav Tail	200.4	10.1	0.15	0.002	0.53	0.21	1.10	3.67	2.88	6.44	10.6	7.39
Rougher Tail	1721.4	86.5	0.058	0.001	0.16	0.06	0.50	12.2	12.4	16.7	26.0	28.9
Head (calc.) (direct)	1989.5	100.0	0.41	0.007	0.83	0.20	1.50	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	42.1	2.12	15.6	0.270	26.1	5.34	40.0	80.2	81.8	66.6	56.5	56.5
Cu 1st Cleaner Conc	56.9	2.86	11.8	0.205	21.0	4.21	31.8	82.3	83.8	72.5	60.2	60.6
Cu 1st Cleaner Conc + Scav Conc	67.7	3.40	10.2	0.174	18.7	3.73	28.1	84.1	84.7	76.9	63.5	63.7
Rougher Conc	268.1	13.5	2.68	0.045	5.12	1.10	7.91	87.8	87.6	83.3	74.0	71.1
Combined Tail	1921.8	96.6	0.07	0.001	0.20	0.08	0.56	15.9	15.3	23.1	36.5	36.3
Rougher Tail	1721.4	86.5	0.06	0.001	0.16	0.06	0.50	12.2	12.4	16.7	26.0	28.9
Head (calc.)	1989.5	100.0	0.41	0.007	0.83	0.20	1.499	100.0	100.0	100.0	100.0	100.0

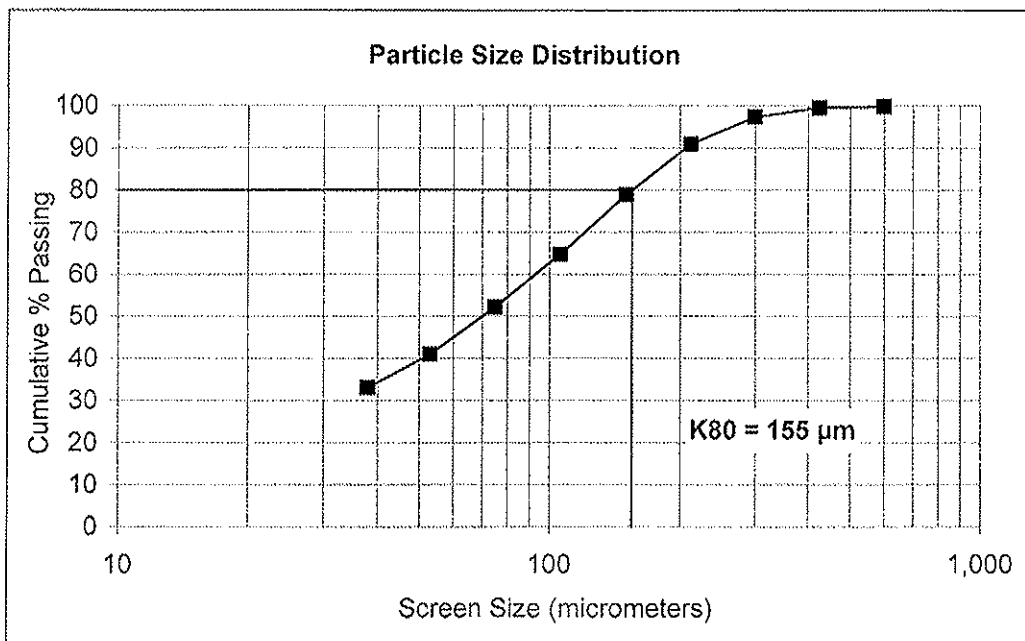
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F18**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.30	0.16	0.16	99.8
35	425	0.60	0.33	0.49	99.5
48	300	3.90	2.12	2.60	97.4
65	212	11.9	6.46	9.06	90.9
100	150	22.1	12.0	21.1	78.9
150	106	26.0	14.1	35.2	64.8
200	75	23.2	12.6	47.7	52.3
270	53	20.8	11.3	59.0	41.0
400	38	14.5	7.87	66.9	33.1
Pan	-38	61.0	33.1	100.0	0.00
Total	-	184.3	100.0	-	-
K80	155				



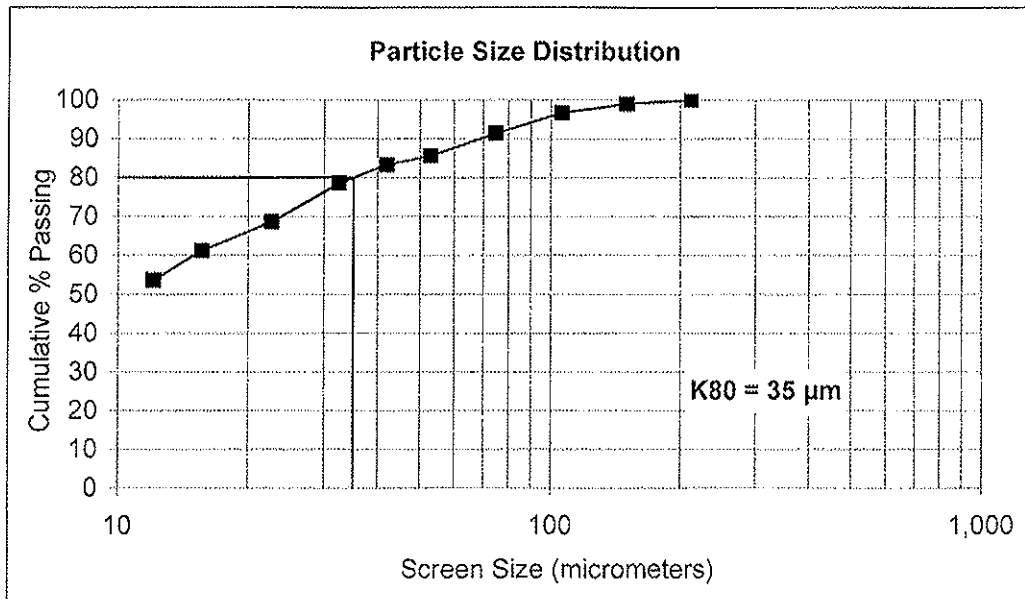
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F18**

Dry Solids S.G.=		2.86	Water Temperature =		8.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
65	212	0.00	0.00	0.00	100.0
100	150	0.24	0.96	0.96	99.0
150	106	0.58	2.32	3.28	96.7
200	75	1.31	5.24	8.52	91.5
270	53	1.46	5.84	14.4	85.6
	42	0.56	2.24	16.6	83.4
	33	1.20	4.80	21.4	78.6
	23	2.48	9.92	31.3	68.7
	16	1.86	7.44	38.8	61.2
	12	1.89	7.56	46.3	53.7
	-12	13.4	53.7	100.0	0.00
Total	-	25.0	100.0	-	-
K80	35				



Test No.: F19

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Test Flash Flotation

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Flash Grind: 6 minutes / 2 kg @ 65% solids in mild steel rod mill.

$K_{80} = 685 \mu\text{m}$

Grind: 18 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

$K_{80} = 147 \mu\text{m}$

Regrind: 10 minutes in laboratory pebble mill (PM).

$K_{80} = 22 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302			MIBC	Grind	Cond.	Froth	pH	Ep	
Flash Grind	-	10	5			-	6			7.9	80	
<i>Flash Rougher</i>												
Flash Rougher	-	-	-			15		1	2			
<i>Flash Cleaner</i>												
Flash Cleaner	-		2.5			10		1	1	7.5	100	
Grind (Flash Ro Tail + Flash Cl Tail)		5	5			-	18			7.9	60	
<i>Rougher</i>												
Bulk Rougher 1	-	-	-			15		1	3	7.9	60	
Bulk Rougher 2	-	15	-			15		1	4	7.9	60	
Bulk Rougher 3	-	15	-			10		1	5	7.9	60	
<i>Cu Cleaner</i>												
Regrind	400	5	5				10			11.2	-10	
Cu 1st Cleaner	25	-	-			5		1	4	11.2	-10	
Cu 1st Cleaner Scav	-	5	-			5		1	2			
Cu 2nd Cleaner	135	-	-			5		1	3.5	11.5	0	
Total	560	55	17.5	0	0	0	80	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaners
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Flash Cleaner Conc	10.1	0.53	16.5	0.440	34.1	6.54	35.6	21.3	33.3	20.6	17.5	12.6
Cu 2nd Cleaner Conc	23.0	1.20	19.0	0.260	30.6	6.34	47.5	55.8	44.8	42.0	38.6	38.4
Cu 2nd Cleaner Tail	10.0	0.52	1.25	0.046	8.10	1.22	11.0	1.59	3.45	4.84	3.23	3.87
Cu 1st Cleaner Scav Conc	8.40	0.44	1.43	0.032	10.8	1.48	12.3	1.53	2.01	5.42	3.29	3.63
Cu 1st Cleaner Scav Tail	164.1	8.56	0.15	0.003	0.90	0.24	2.00	3.14	3.69	8.82	10.4	11.5
Rougher Tail	1702.2	88.8	0.08	0.001	0.18	0.06	0.50	16.7	12.8	18.3	27.0	29.9
Head (calc.)	1917.8	100.0	0.41	0.007	0.87	0.20	1.48	100.0	100.0	100.0	100.0	100.0
(direct)			0.45	0.006	0.89	0.21	1.40					
Combined Products												
Not sufficient sample												
Flash Cl Conc	10.1	0.53	16.5	0.440	34.1	6.54	35.6	21.3	33.3	20.6	17.5	12.6
Flash Cl + 2nd Cl Conc	33.1	1.73	18.2	0.315	31.7	6.40	43.9	77.0	78.1	62.6	56.0	51.0
Flash Cl + 1st Cl Conc	43.1	2.25	14.3	0.253	26.2	5.20	36.2	78.6	81.5	67.5	59.3	54.9
Flash Cl + 1st Cl + Scav Conc	51.5	2.69	12.20	0.217	23.7	4.59	32.3	80.1	83.6	72.9	62.6	58.5
Flash Cl + Ro Conc	215.6	11.2	3.03	0.054	6.34	1.28	9.25	83.3	87.2	81.7	73.0	70.1
Rougher Tail	1702.2	88.8	0.08	0.001	0.18	0.06	0.50	16.7	12.8	18.3	27.0	29.9
Head (calc.)	1917.8	100.0	0.41	0.007	0.87	0.20	1.48	100.0	100.0	100.0	100.0	100.0

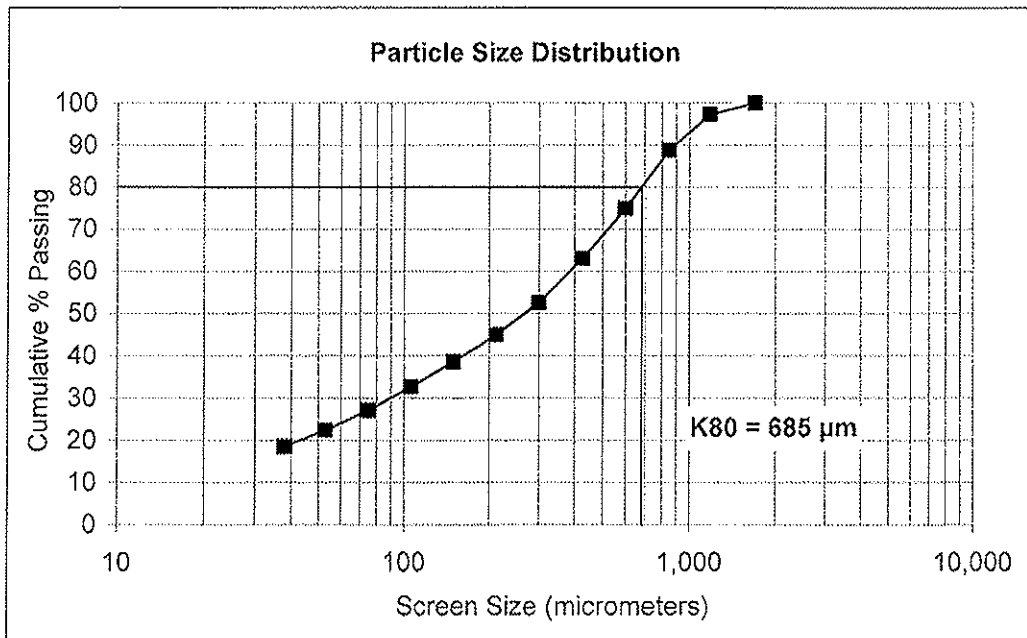
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Flash Feed**

Test No.: **F19**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
10	1,700	0.00	0.00	0.00	100.0
14	1,180	1.10	2.62	2.62	97.4
20	850	3.60	8.57	11.2	88.8
28	600	5.80	13.8	25.0	75.0
35	425	5.00	11.9	36.9	63.1
48	300	4.40	10.5	47.4	52.6
65	212	3.20	7.62	55.0	45.0
100	150	2.70	6.43	61.4	38.6
150	106	2.50	5.95	67.4	32.6
200	75	2.30	5.48	72.9	27.1
270	53	2.00	4.76	77.6	22.4
400	38	1.60	3.81	81.4	18.6
Pan	-38	7.80	18.6	100.0	0.00
Total	-	42.0	100.0	-	-
K80	685				



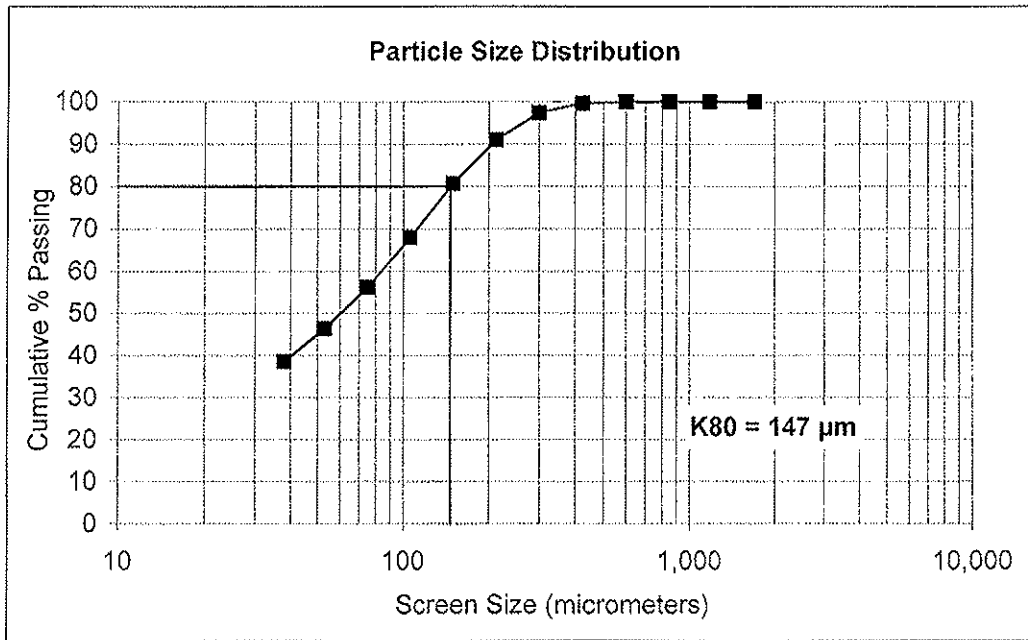
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F19**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
10	1,700	0.00	0.00	0.00	100.0
14	1,180	0.00	0.00	0.00	100.0
20	850	0.00	0.00	0.00	100.0
28	600	0.00	0.00	0.00	100.0
35	425	0.60	0.33	0.33	99.7
48	300	4.00	2.20	2.53	97.5
65	212	11.6	6.38	8.91	91.1
100	150	18.7	10.3	19.2	80.8
150	106	23.2	12.8	31.9	68.1
200	75	21.6	11.9	43.8	56.2
270	53	17.7	9.73	53.5	46.5
400	38	14.3	7.86	61.4	38.6
Pan	-38	70.2	38.6	100.0	0.00
Total	-	181.9	100.0	-	-
K80	147				



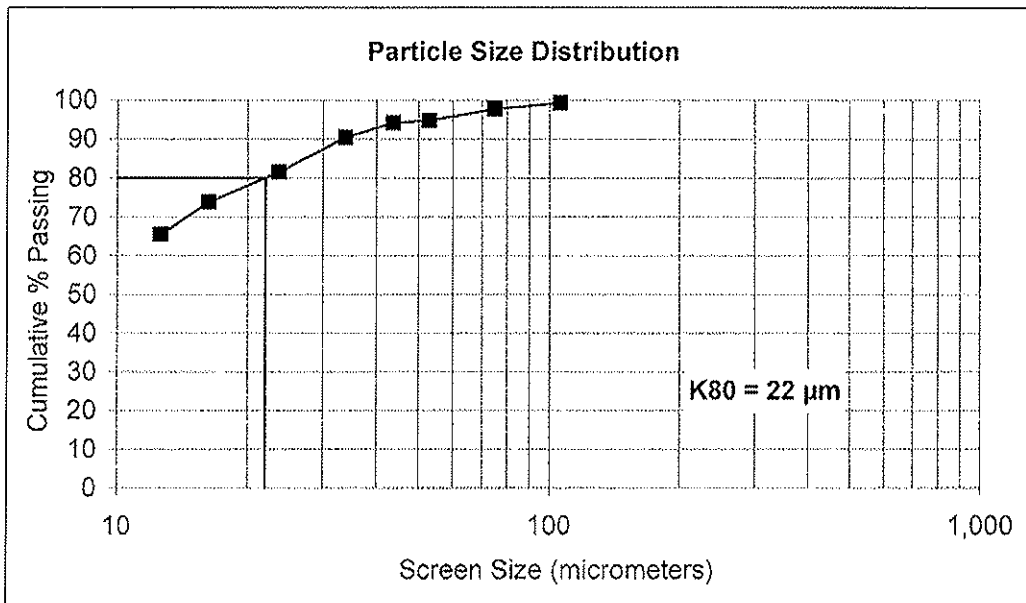
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F19**

Dry Solids S.G.=		2.72	Water Temperature =		8.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
150	106	0.35	0.69	0.69	99.3
200	75	0.75	1.49	2.18	97.8
270	53	1.49	2.96	5.14	94.9
	44	0.31	0.61	5.75	94.2
	34	1.91	3.79	9.54	90.5
	24	4.50	8.93	18.5	81.5
	16	3.87	7.68	26.1	73.9
	13	4.20	8.33	34.5	65.5
	-13	33.0	65.5	100.0	0.00
Total	-	50.4	100.0	-	-
K80	22				



Test No.: F20

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Effect of regrind size

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 25 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 147 µm

Regrind: no regrind

K₈₀ = 92 µm

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302				MIBC		Grind	Cond.	Froth		
Grind	-	15	10				-		25			7.9	10
<i>Rougher</i>													
Bulk Rougher 1	-	-	-				15			1	3	7.9	10
Bulk Rougher 2	-	15	-				15			1	4	7.9	80
Bulk Rougher 3	-	15					10			1	5	7.7	70
<i>Cu Cleaner</i>													
Cu 1st Cleaner	140	5	5				5			1	4	11.0	0
Cu 1st Cleaner Scav	-	5	-				5			1	2		
Cu 2nd Cleaner	150	-	-				5			1	3.5	11.5	0
Total	290	55	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	55.7	2.81	11.1	0.200	21.3	4.12	29.9	76.0	81.5	69.5	54.5	56.1
Cu 2nd Cleaner Tail	12.0	0.61	2.29	0.032	5.95	1.33	11.6	3.38	2.81	4.18	3.79	4.69
Cu 1st Cleaner Scav Conc	7.80	0.39	2.53	0.015	5.69	1.41	11.3	2.43	0.86	2.60	2.61	2.97
Cu 1st Cleaner Scav Tail	125.3	6.32	0.24	0.002	0.53	0.18	1.50	3.70	1.83	3.89	5.35	6.33
Rougher Tail	1780.4	89.9	0.07	0.001	0.19	0.08	<0.50	14.5	13.0	19.8	33.8	30.0
Head (calc.) (direct)	1981.2	100.0	0.41	0.007	0.86	0.21	1.50	100.0	100.0	100.0	100.0	100.0
Combined Products			Not sufficient sample									
Cu 2nd Cleaner Conc	55.7	2.81	11.1	0.200	21.3	4.12	29.9	76.0	81.5	69.5	54.5	56.1
Cu 1st Cleaner Conc	67.7	3.42	9.54	0.170	18.6	3.63	26.7	79.4	84.3	73.7	58.2	60.7
Cu 1st Cleaner Conc + Scav Conc	75.5	3.81	8.81	0.154	17.2	3.40	25.1	81.8	85.1	76.3	60.9	63.7
Rougher Conc	200.8	10.1	3.46	0.059	6.82	1.39	10.4	85.5	87.0	80.2	66.2	70.0
Combined Tail	1905.7	96.2	0.08	0.001	0.21	0.09	0.57	18.2	14.9	23.7	39.1	36.3
Rougher Tail	1780.4	89.9	0.07	0.001	0.19	0.08	0.50	14.5	13.0	19.8	33.8	30.0
Head (calc.)	1981.2	100.0	0.4104	0.007	0.86	0.21	1.50	100.0	100.0	100.0	100.0	100.0

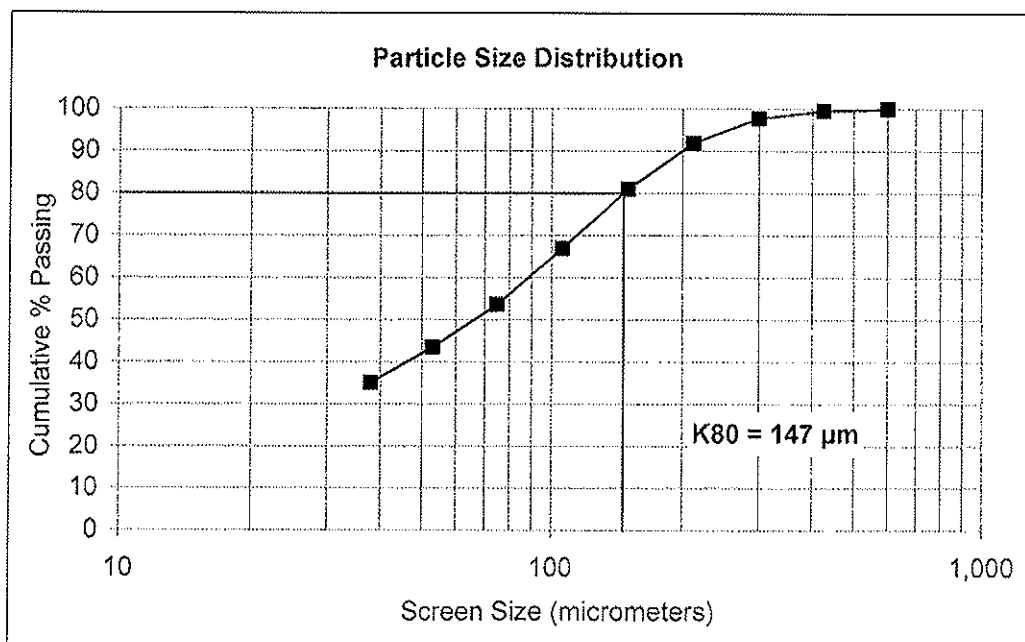
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F20**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.00	0.00	0.00	100.0
35	425	0.80	0.48	0.48	99.5
48	300	3.00	1.78	2.26	97.7
65	212	9.80	5.82	8.08	91.9
100	150	18.4	10.9	19.0	81.0
150	106	23.6	14.0	33.0	67.0
200	75	22.4	13.3	46.3	53.7
270	53	17.0	10.1	56.4	43.6
400	38	14.1	8.37	64.8	35.2
Pan	-38	59.3	35.2	100.0	0.00
Total	-	168.4	100.0	-	-
K80	147				



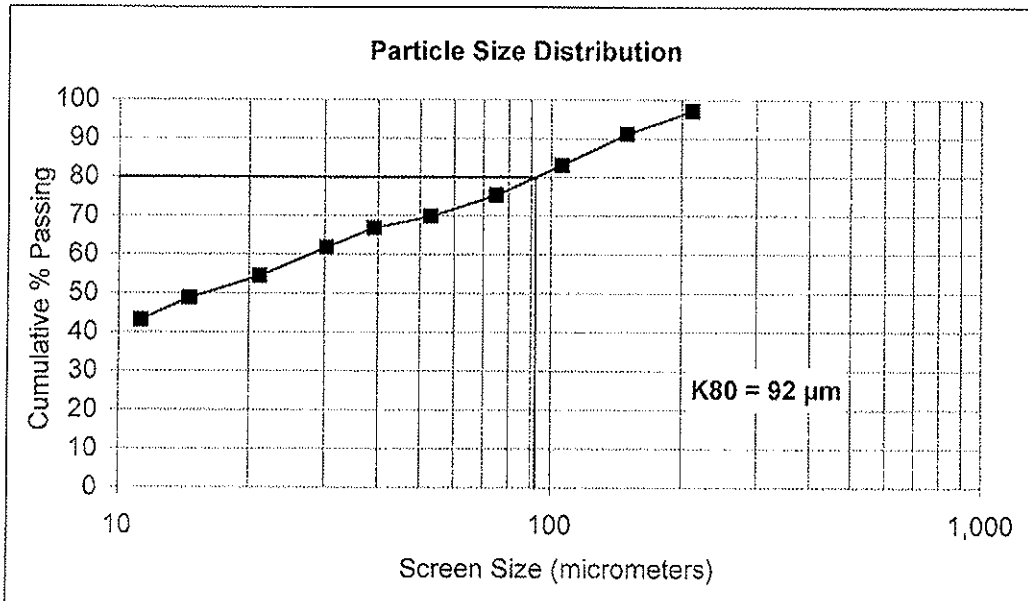
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F20**

Dry Solids S.G.=		2.96	Water Temperature =		11.00 C°
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
65	212	1.40	2.79	2.79	97.2
100	150	2.99	5.96	8.75	91.3
150	106	4.06	8.09	16.8	83.2
200	75	3.91	7.79	24.6	75.4
270	53	2.79	5.56	30.2	69.8
	39	1.51	3.01	33.2	66.8
	30	2.50	4.98	38.2	61.8
	21	3.70	7.37	45.5	54.5
	15	2.85	5.68	51.2	48.8
	11	2.84	5.66	56.9	43.1
Total	-11	21.7	43.1	100.0	0.00
K80	92	50.2	100.0	-	-



Test No.: F21

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Test desliming and pyrite flotation from combined tails

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 25 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 147 µm

Regrind: 10 minutes in laboratory pebble mill (PM).

K₈₀ = 31 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Ep
	Lime	PEX	Cytec 3302	H ₂ SO ₄	PAX		MIBC	Grind	Cond.	Froth			
Grind	-	15	10				-	25			7.9	20	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-				15		1	3	7.9	20	
Bulk Rougher 2	-	15	-				15		1	4	7.9	80	
Bulk Rougher 3	-	15	-				10		1	5	7.8	80	
<i>Cu Cleaner</i>													
Regrind	400	5	5					10			10.9	0	
Cu 1st Cleaner	25	-	-				5		1	4	11.0	0	
Cu 1st Cleaner Scav	-	5	-				5		1	2			
Cu 2nd Cleaner	150	-	-				5		1	3.5	11.5	0	
<i>Tailings Flotation - Combined Ro Tail + 1st Cl Scav Tail</i>													
Deslime										3x			
Pyrite Rougher	30						20		1	4	8.5	200	
Total	605	55	15	0	20	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	Cleaners	Deslime	Py Ro
Flotation Cell	1000g-D1	250g-D1	14L tank	1000g-D1
Speed: rpm	1800	1200		1800

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	28.5	1.44	22.0	0.350	31.7	6.66	60.6	79.4	80.2	52.9	49.1	56.8
Cu 2nd Cleaner Tail	9.20	0.47	2.29	0.038	11.2	1.68	13.6	2.67	2.81	6.04	4.00	4.11
Cu 1st Cleaner Scav Conc	6.10	0.31	2.03	0.029	15.1	1.75	13.5	1.57	1.42	5.40	2.76	2.71
Pyrite Tails (Py Ro conc + slimes)	704.6	35.7	0.08	0.001	0.62	0.12	0.70	7.40	5.67	25.6	21.9	16.2
Low 'S' Tails (Py Ro Tail)	1226.0	62.1	0.06	0.001	0.14	0.07	<0.50	9.00	9.86	10.1	22.2	20.2
Head (calc.) (direct)	1974.4	100.0	0.40	0.006	0.86	0.20	1.54	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	28.5	1.44	22.0	0.350	31.7	6.66	60.6	79.4	80.2	52.9	49.1	56.8
Cu 1st Cleaner Conc	37.7	1.91	17.2	0.274	26.7	5.44	49.1	82.0	83.0	59.0	53.1	60.9
Cu 1st Cleaner Conc + Scav Conc	43.8	2.22	15.1	0.240	25.1	4.93	44.2	83.6	84.5	64.4	55.9	63.6
Combined Tails	1930.6	97.8	0.07	0.001	0.32	0.09	0.57	16.4	15.5	35.6	44.1	36.4
Pyrite Tails	704.6	35.7	0.08	0.001	0.62	0.12	0.70	7.40	5.67	25.6	21.9	16.2
Low 'S' Tail	1226.0	62.1	0.06	0.001	0.14	0.07	0.50	9.00	9.86	10.1	22.2	20.2
Head (calc.)	1974.4	100.0	0.40	0.006	0.86	0.20	1.5401	100.0	100.0	100.0	100.0	100.0

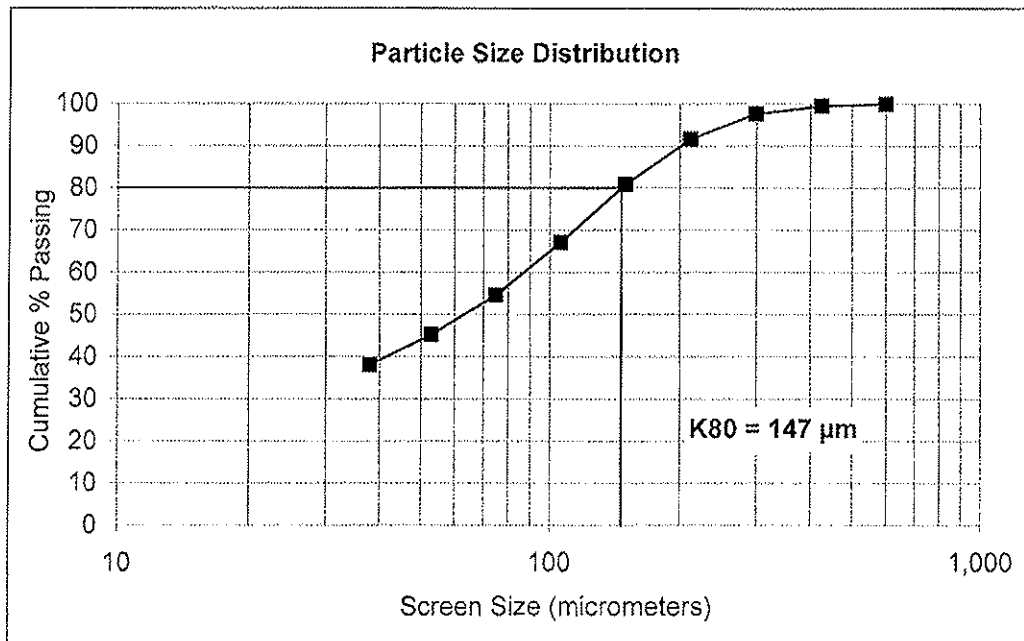
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F21**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.00	0.00	0.00	100.0
35	425	0.50	0.47	0.47	99.5
48	300	2.00	1.90	2.37	97.6
65	212	6.30	5.98	8.35	91.7
100	150	11.4	10.8	19.2	80.8
150	106	14.5	13.8	32.9	67.1
200	75	13.1	12.4	45.4	54.6
270	53	9.90	9.39	54.7	45.3
400	38	7.50	7.12	61.9	38.1
Pan	-38	40.2	38.1	100.0	0.00
Total	-	105.4	100.0	-	-
K80	147				



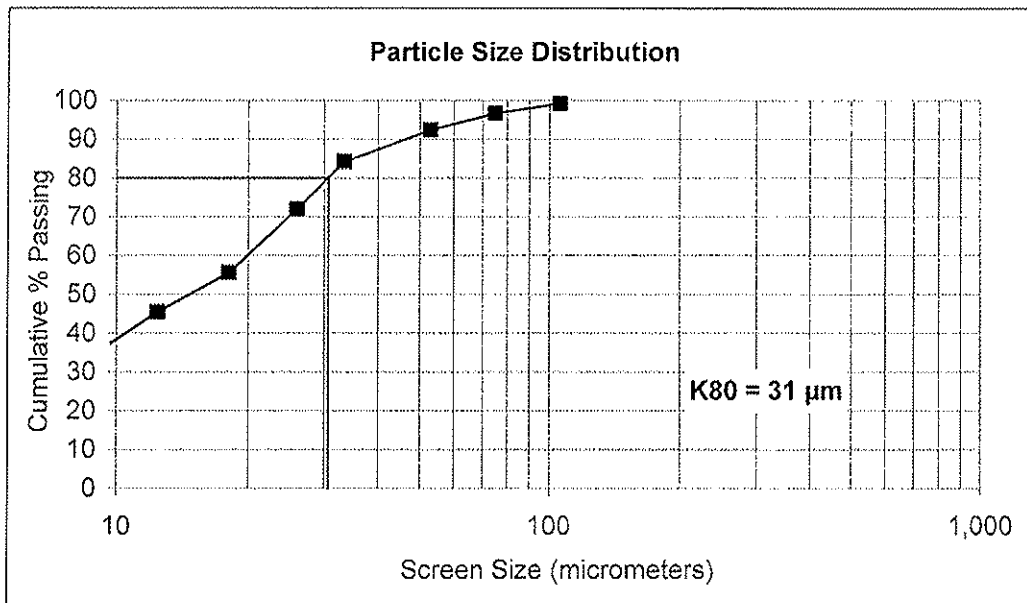
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F21**

Dry Solids S.G.=		3.64	Water Temperature =		11.00 C°
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
150	106	0.19	0.75	0.75	99.3
200	75	0.65	2.55	3.30	96.7
270	53	1.09	4.28	7.57	92.4
	33	2.07	8.12	15.69	84.3
	26	3.14	12.3	28.0	72.0
	18	4.17	16.4	44.4	55.6
	12	2.60	10.2	54.6	45.4
	10	2.12	8.32	62.9	37.1
	-10	9.46	37.1	100.0	0.00
Total	-	25.5	100.0	-	-
K80	31				



Test No.: F22

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Effect of cleaner pH

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp

Grind: 25 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 164 µm

Regrind: 10 minutes in laboratory pebble mill (PM).

K₈₀ = 27 µm

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes				
	Lime	PEX	Cytec 3302				MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-		25			7.8	-30
<i>Rougher</i>													
Bulk Rougher 1	-	-	-				15			1	3	7.8	80
Bulk Rougher 2	-	15	-				15			1	4	7.8	
Bulk Rougher 3	-	15					10			1	5		
<i>Cu Cleaner</i>													
Regrind	600	5	5						10			11.3	0
Cu 1st Cleaner	130	-	-				5			1	4	11.5	0
Cu 1st Cleaner Scav	-	5	-				5			1	2		
Cu 2nd Cleaner	225	-	-				5			1	3.5	11.8	0
Total	955	55	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution					
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
Cu 2nd Cleaner	27.6	1.39	23.4	0.430	30.9	7.25	61.6	79.6	79.8	48.5	46.0	49.0	
Cu 2nd Cleaner Tail	10.8	0.54	2.20	0.035	12.4	1.54	10.7	2.93	2.54	7.62	3.82	3.33	
Cu 1st Cleaner Scav Conc	6.70	0.34	2.15	0.032	12.0	1.83	13.7	1.78	1.44	4.58	2.82	2.64	
Cu 1st Cleaner Scav Tail	156.5	7.86	0.16	0.004	2.58	0.29	2.00	3.09	4.21	23.0	10.4	9.01	
Rougher Tail	1789.4	89.9	0.06	0.001	0.16	0.09	0.70	12.6	12.0	16.3	37.0	36.1	
Head (calc.) (direct)	1991.0	100.0	0.41	0.007	0.88	0.22	1.74	100.0	100.0	100.0	100.0	100.0	
			0.45	0.006	0.89	0.21	1.40						
Combined Products													
Not sufficient sample													
Cu 2nd Cleaner Conc	27.6	1.39	23.4	0.430	30.9	7.25	61.6	79.6	79.8	48.5	46.0	49.0	
Cu 1st Cleaner Conc	38.4	1.93	17.4	0.319	25.7	5.64	47.3	82.6	82.3	56.2	49.8	52.3	
Cu 1st Cleaner Conc + Scav Conc	45.1	2.27	15.2	0.276	23.7	5.08	42.3	84.3	83.8	60.7	52.6	54.9	
Rougher Conc	201.6	10.1	3.52	0.065	7.30	1.36	11.0	87.4	88.0	83.7	63.0	63.9	
Combined Tail	1945.9	97.7	0.07	0.001	0.35	0.11	0.80	15.7	16.2	39.3	47.4	45.1	
Rougher Tail	1789.4	89.9	0.06	0.001	0.16	0.09	0.70	12.6	12.0	16.3	37.0	36.1	
Head (calc.)	1991.0	100.0	0.41	0.007	0.8826	0.22	1.74	100.0	100.0	100.0	100.0	100.0	

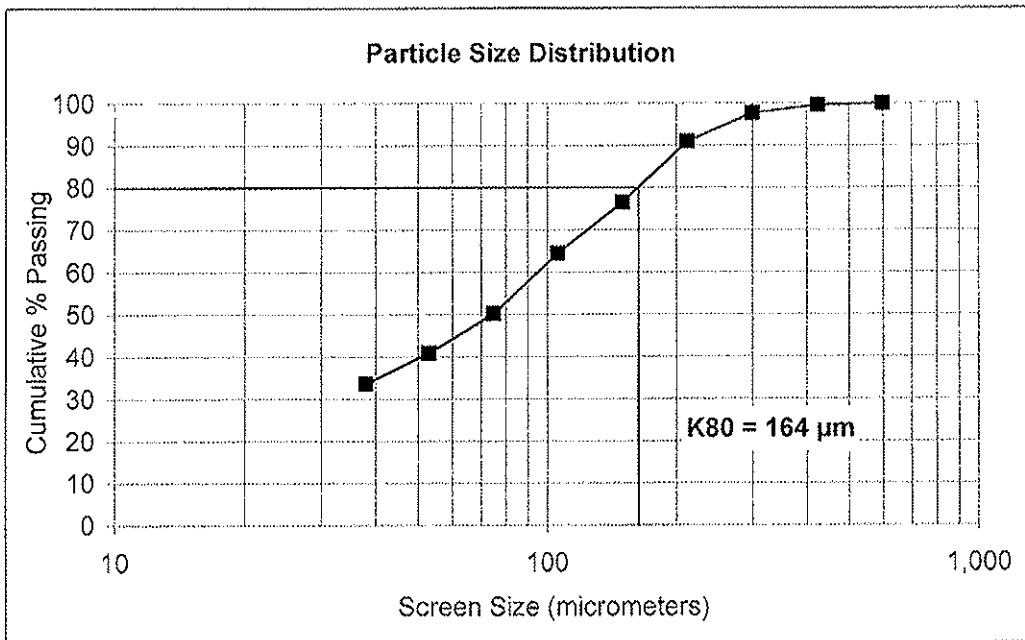
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F22**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.00	0.00	0.00	100.0
35	425	0.70	0.46	0.46	99.5
48	300	2.80	1.84	2.30	97.7
65	212	10.3	6.77	9.07	90.9
100	150	21.8	14.3	23.4	76.6
150	106	18.4	12.1	35.5	64.5
200	75	21.7	14.3	49.8	50.2
270	53	14.2	9.34	59.1	40.9
400	38	11.0	7.23	66.3	33.7
Pan	-38	51.2	33.7	100.0	0.00
Total	-	152.1	100.0	-	-
K80	164				



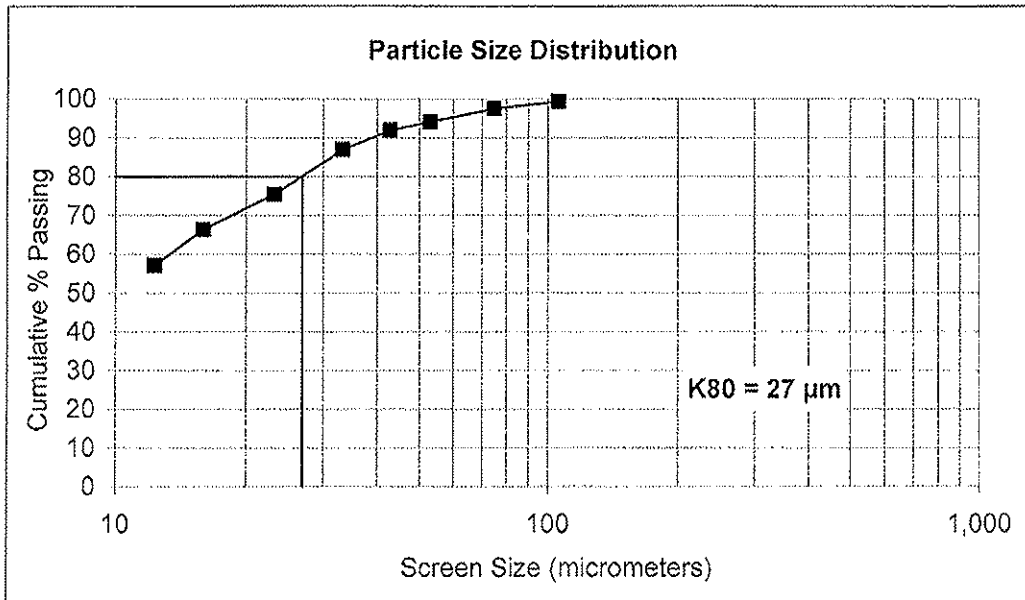
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F22**

Dry Solids S.G.=		2.89	Water Temperature =		6.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
150	106	0.17	0.68	0.68	99.3
200	75	0.44	1.77	2.45	97.5
270	53	0.86	3.46	5.91	94.1
	43	0.52	2.09	8.00	92.0
	33	1.24	4.98	13.0	87.0
	23	2.87	11.5	24.5	75.5
	16	2.25	9.04	33.6	66.4
	12	2.30	9.24	42.8	57.2
	-12	14.2	57.2	100.0	0.00
Total	-	24.9	100.0	-	-
K80	27				



Test No.: F23

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Test LCT flowsheet at finer primary grind

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Master Comp 2

Grind: 29 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

 $K_{80} = 141 \mu\text{m}$

Regrind: 10 minutes in laboratory pebble mill (PM).

 $K_{80} = 22 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302				MIBC	Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-	29			7.8	-30
<i>Rougher</i>												
Bulk Rougher 1	-	-	-				15		1	3	7.8	80
Bulk Rougher 2	-	15	-				15		1	4	7.8	
Bulk Rougher 3	-	15					10		1	5		
<i>Cu Cleaner</i>												
Regrind	650	5	5					10			11.5	0
Cu 1st Cleaner	130	-	-				5		1	3	11.5	0
Cu 1st Cleaner Scav	-	5	-				5		1	1		
Cu 2nd Cleaner	225	-	-				5		1	2	11.8	0
Total	1005	55	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	20.9	1.06	30.6	0.400	31.0	8.48	82.8	67.1	56.8	36.0	43.7	36.7
Cu 2nd Cleaner Tail	5.90	0.30	3.86	0.200	12.5	2.83	32.4	2.39	8.01	4.10	4.12	4.05
Cu 1st Cleaner Scav Conc	0.50	0.03	5.67	0.320	12.0	3.00	30.0	0.30	1.09	0.33	0.37	0.32
Cu 1st Cleaner Scav Tail	102.9	5.21	0.29	0.013	6.12	0.61	7.30	3.13	9.08	35.0	15.5	15.9
Rougher Tail	1844.2	93.4	0.14	0.002	0.24	0.08	1.10	27.1	25.0	24.6	36.4	43.0
Head (calc.) (direct)	1974.4	100.0	0.48	0.007	0.91	0.21	2.39	100.0	100.0	100.0	100.0	100.0
			0.40	0.004	0.83	0.21	1.50					
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	20.9	1.06	30.6	0.400	31.0	8.48	82.8	67.1	56.8	36.0	43.7	36.7
Cu 1st Cleaner Conc	26.8	1.36	24.7	0.356	26.9	7.24	71.7	69.5	64.8	40.1	47.8	40.7
Cu 1st Cleaner Conc + Scav Conc	27.3	1.38	24.4	0.355	26.7	7.16	70.9	69.8	65.9	40.4	48.2	41.1
Rougher Conc	130.2	6.59	5.34	0.085	10.43	1.98	20.6	72.9	75.0	75.4	63.6	57.0
Combined Tail	1947.1	98.6	0.15	0.003	0.55	0.11	1.43	30.2	34.1	59.6	51.8	58.9
Rougher Tail	1844.2	93.4	0.14	0.002	0.24	0.08	1.10	27.1	25.0	24.6	36.4	43.0
Head (calc.)	1974.4	100.0	0.48	0.007	0.91	0.21	2.39	100.0	100.0	100.0	100.0	100.0

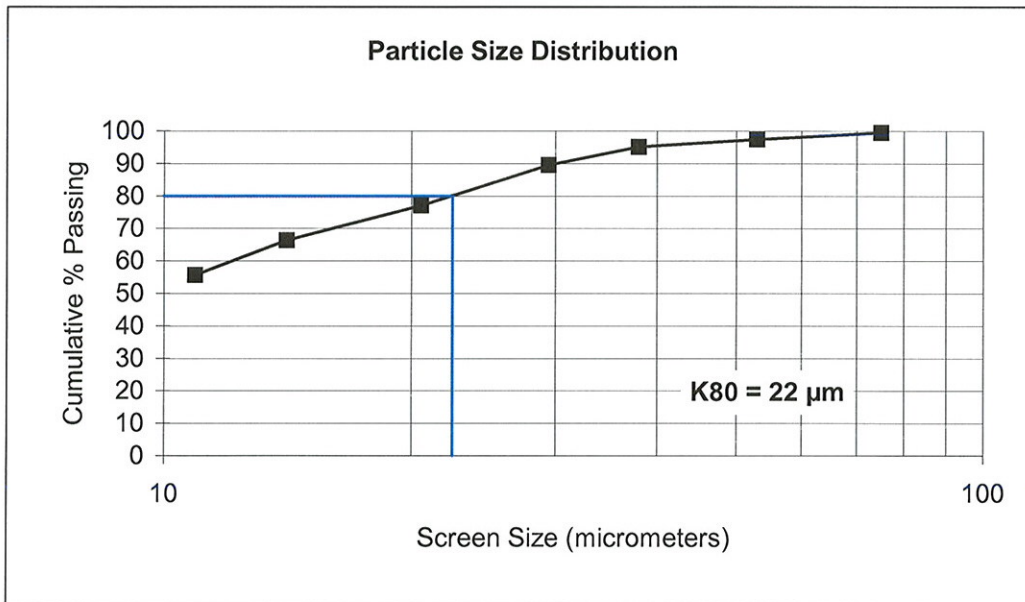
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F23**

Dry Solids S.G.=		2.97	Water Temperature =		13.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
200	75	0.3	0.5	0.5	99.5
270	53	1.0	2.0	2.6	97.4
	38	1.1	2.2	4.8	95.2
	29	2.8	5.7	10.4	89.6
	21	6.2	12.4	22.9	77.1
	14	5.4	10.8	33.6	66.4
	11	5.3	10.7	44.3	55.7
	-11	27.8	55.7	100.0	0.0
Total	-	49.9	100.0	-	-
K80	22				



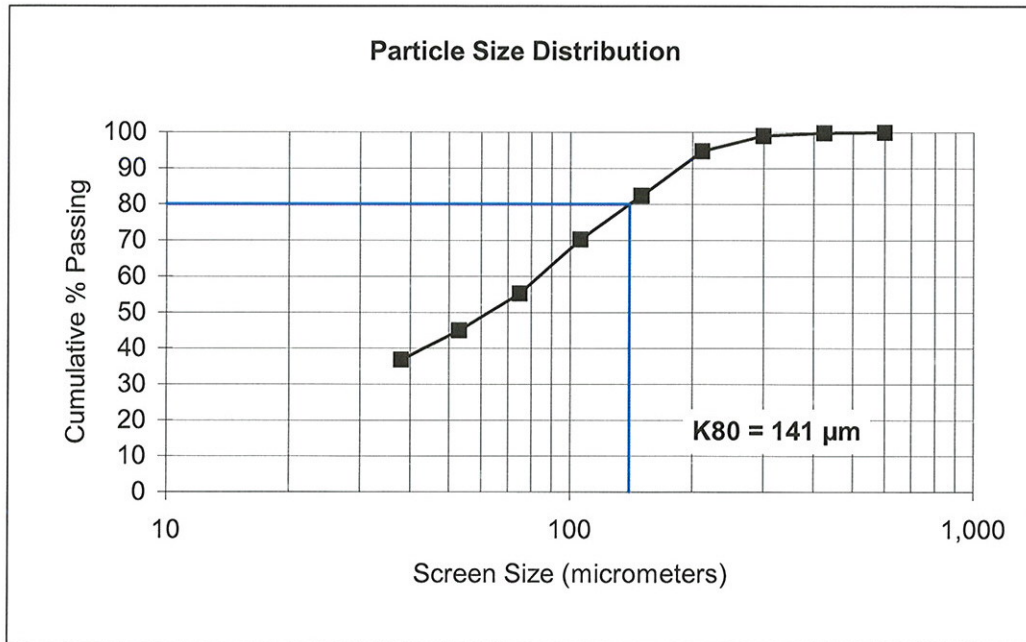
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **F23**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.0	0.0	0.0	100.0
35	425	0.3	0.2	0.2	99.8
48	300	1.5	0.8	1.0	99.0
65	212	7.6	4.2	5.2	94.8
100	150	22.3	12.4	17.6	82.4
150	106	22.0	12.2	29.8	70.2
200	75	26.9	14.9	44.7	55.3
270	53	18.6	10.3	55.0	45.0
400	38	14.7	8.1	63.1	36.9
Pan	-38	66.5	36.9	100.0	0.0
Total	-	180.4	100.0	-	-
K80	141				



Test No.: F24

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Test LCT flowsheet on High-Mo Composite

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh High Mo Comp

Grind: 25 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

K₈₀ = 177 µm

Regrind: 10 minutes in laboratory pebble mill (PM).

K₈₀ = 20 µm

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes				
	Lime	PEX	Cytec 3302				MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-		25			7.8	-30
<i>Rougher</i>													
Bulk Rougher 1	-	-	-				15			1	3	7.8	80
Bulk Rougher 2	-	15	-				15			1	4	7.8	
Bulk Rougher 3	-	15					10			1	5		
<i>Cu Cleaner</i>													
Regrind	650	5	5						15			11.5	0
Cu 1st Cleaner	130	-	-				5			1	4	11.5	0
Cu 1st Cleaner Scav	-	5	-				5			1	2		
Cu 2nd Cleaner	225	-	-				5			1	3.5	11.8	0
Total	1005	55	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-DI	500g-DI	250g-DI
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	24.4	1.22	28.9	0.950	29.4	7.64	87.1	78.7	84.2	38.5	45.7	38.4
Cu 2nd Cleaner Tail	6.50	0.33	2.56	0.220	12.7	2.04	17.4	1.86	5.19	4.43	3.25	2.05
Cu 1st Cleaner Scav Conc	0.80	0.04	3.62	0.180	12.0	3.46	31.6	0.32	0.52	0.52	0.68	0.46
Cu 1st Cleaner Scav Tail	116.7	5.84	0.20	0.008	6.17	0.49	4.20	2.60	3.39	38.7	14.0	8.86
Rougher Tail	1850.8	92.6	0.08	0.001	0.18	0.08	1.50	16.5	6.72	17.9	36.3	50.2
Head (calc.) (direct)	1999.2	100.0	0.45	0.014	0.93	0.20	2.77	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	24.4	1.22	28.9	0.950	29.4	7.64	87.1	78.7	84.2	38.5	45.7	38.4
Cu 1st Cleaner Conc	30.9	1.55	23.4	0.796	25.9	6.46	72.4	80.5	89.4	42.9	49.0	40.5
Cu 1st Cleaner Conc + Scav Conc	31.7	1.59	22.9	0.781	25.5	6.39	71.4	80.9	89.9	43.5	49.7	40.9
Rougher Conc	148.4	7.42	5.04	0.173	10.31	1.75	18.6	83.5	93.3	82.1	63.7	49.8
Combined Tail	1967.5	98.4	0.09	0.001	0.54	0.10	1.66	19.1	10.1	56.5	50.3	59.1
Rougher Tail	1850.8	92.6	0.08	0.001	0.18	0.08	1.50	16.5	6.72	17.9	36.3	50.2
Head (calc.)	1999.2	100.0	0.45	0.014	0.93	0.20	2.77	100.0	100.0	100.0	100.0	100.0

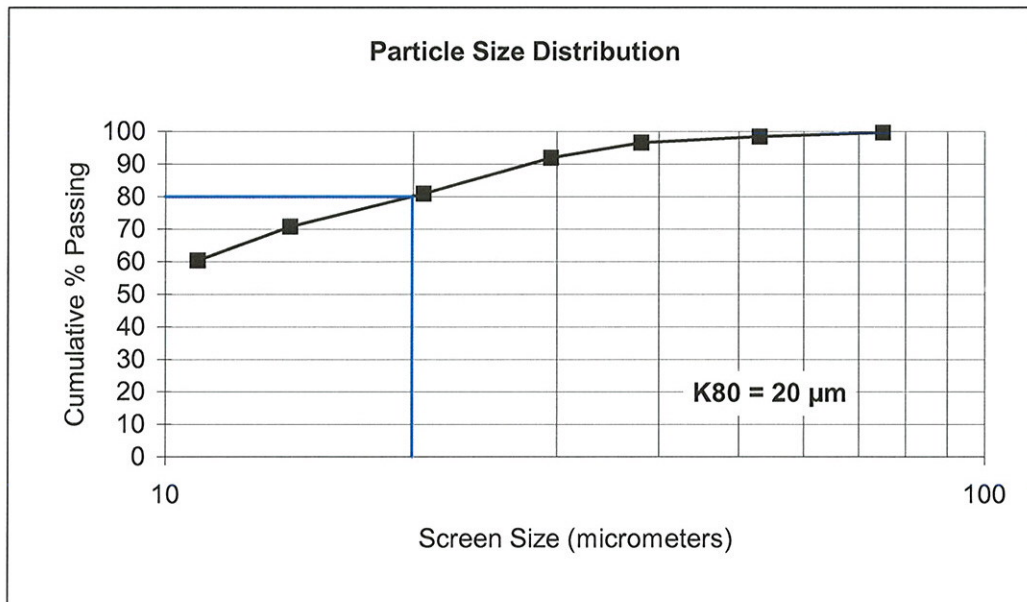
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F24**

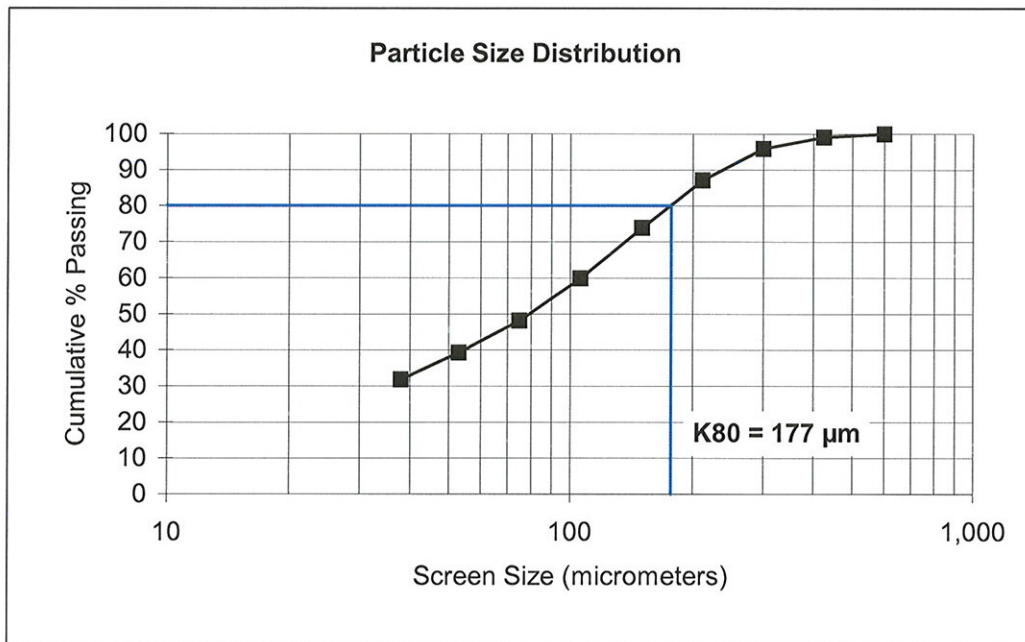
Dry Solids S.G.=		2.96	Water Temperature =		13.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
200	75	0.2	0.3	0.3	99.7
270	53	0.7	1.3	1.6	98.4
	38	0.9	1.8	3.4	96.6
	30	2.3	4.7	8.1	91.9
	21	5.5	11.0	19.1	80.9
	14	5.1	10.1	29.2	70.8
	11	5.2	10.3	39.6	60.4
	-11	30.2	60.4	100.0	0.0
Total	-	50.0	100.0	-	-
K80	20				



Sample: **Ro Tail**

Test No.: **F24**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.0	0.0	0.0	100.0
35	425	1.9	0.9	0.9	99.1
48	300	6.6	3.2	4.1	95.9
65	212	18.1	8.7	12.9	87.1
100	150	27.3	13.2	26.1	73.9
150	106	29.1	14.1	40.1	59.9
200	75	24.2	11.7	51.8	48.2
270	53	18.4	8.9	60.7	39.3
400	38	15.4	7.4	68.1	31.9
Pan	-38	65.9	31.9	100.0	0.0
Total	-	206.9	100.0	-	-
K80	177				



Purpose: Test Cu/Mo Separation
Procedure: Conduct two 10-kg bulk rougher tests
 Combine the Ro conc from both tests to a single regrind and cleaner + Cu/Mo Sep
Feed: 2 x 10 kg of minus 10 mesh Hi Mo Comp
Grind: 36 minutes / 10 kg @ 65% solids in 10kg rod mill. P₈₀ = 118 µm
Regrind: Bulk Ro Conc : 15 minutes in the 10kg rod mill. P₈₀ = 25 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PLEX	Cytec 3302	Fuel oil		MIBC	Grind	Cond.	Froth	pH	Ep	
Grind	-	15	10			-	36			7.8	-30	
Rougher												
Bulk Rougher 1	-	-	-			15		1	8	7.8	80	
Bulk Rougher 2	-	15	-			15		1	10	7.8		
Bulk Rougher 3	-	15				10		1	12			
Cu Cleaner												
Regrind	650	5	5				15			11.5	0	
Cu 1st Cleaner	130	-	-			5		1	8	11.5	0	
Cu 1st Cleaner Scav	-	5	-			5		1	2			
Cu 2nd Cleaner	225	-	-			5		1	6	11.8	0	
cut out sub-sample of 2nd Cl Conc for assay												
<i>Cu/Mo Separation - 4th Cl Conc (Flot with N2- Flowmeter 2-20 LPM set @ 4LPM)</i>												
Mo Rougher 1	-	-	-	1.5	500	-	1			3	11.6	-400
Mo Rougher 2	-	-	-	1.5	300	-	0.5			3	11.8	-420
Mo 1st Cleaner	-	-	-	1	250	-	1			3	11.8	-400
Mo 2nd Cleaner	-	-	-	1.5	300	-	2			2.5	11.8	-380
assay for Cu and Mo only												
Total	1005	55	15	5.5	1350	0	59	0				

Stage	Bulk Ro/Scav	Cu 1st& 2nd Cl	Cu 3rd - 4th Cl	Mo Ro	Mo Cl
Flotation Cell	Titan	1000g-D1	500g-D1	500g-D1	250g-D1
Speed: rpm		1800	1500	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
Cu/Mo 2nd Cl Conc (sub-sample)	354.3	1.78	24.4	0.650	28.4	5.55	87.4	82.6	74.5	49.3	41.1	64.4	
Cu/Mo 2nd Cl Tail	117.5	0.59	0.48	0.049	9.62	1.10	9.40	0.54	1.86	5.53	2.70	2.30	
Cu/Mo 1st Cl Scav Conc	43.3	0.22	1.61	0.380	26.6	3.07	23.0	0.67	5.32	5.64	2.78	2.07	
Cu/Mo 1st Cl Scav Tail	998.3	5.03	0.16	0.020	5.89	0.54	4.00	1.53	6.46	28.8	11.3	8.31	
Ro Tail		92.4	0.08	0.002	0.12	0.110	0.60	14.7	11.9	10.8	42.2	22.9	
Head (calc.)	19863	100.0	0.53	0.016	1.03	0.24	2.42	100.0	100.0	100.0	100.0	100.0	
(direct)			0.54	0.016	1.15	0.21	2.80						
Combined Products Not sufficient sample													
Cu/Mo 2nd Clnr Conc	354.3	1.78	24.4	0.650	28.4	5.55	87.4	82.6	74.5	49.3	41.1	64.4	
Cu/Mo 1st Clnr Conc	471.8	2.38	18.4	0.500	23.7	4.44	68.0	83.1	76.3	54.8	43.8	66.7	
Bulk Ro Conc	1513.4	7.62	5.90	0.180	12.0	1.83	24.5	85.3	88.1	89.2	57.8	77.1	
Combined Tails	19348	97.4	0.09	0.003	0.42	0.13	0.78	16.2	18.3	39.6	53.4	31.2	

Cu/Mo Separation Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo				Cu	Mo				
Mo 2nd Cl Conc	2.30	0.73	0.83	53.6				0.02	69.3				
Mo 2nd Cl Tail	1.40	0.44	14.5	15.2				0.26	12.0				
Mo 1st Cl Tail	23.8	7.51	23.4	1.06				7.05	14.2				
Mo Ro Tail	289.3	91.3	25.3	0.03				92.7	4.55				
Head (calc.)	316.8	100.0	24.9	0.56				100.0	100.0				
(direct)			24.4	0.65									
Combined Products Not sufficient sample													
Mo 2nd Cl Conc	2.30	0.73	0.83	53.6				0.02	69.3				
Mo 1st Cl Conc	3.70	1.17	6.00	39.1				0.28	81.3				
Mo Ro Conc	27.5	8.68	21.1	6.17				7.33	95.4				
Cu Conc (Mo Ro Tail)	289.3	91.3	25.3	0.03				92.7	4.55				

Overall Cu/Mo Mass Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo				Cu	Mo				
Mo 2nd Cl Conc		0.01	0.83	53.6				0.02	51.6				
Flotation Test Rig F25		1.63	25.3	0.03				76.5	3.39				
Combined Cu/Mo Conc													

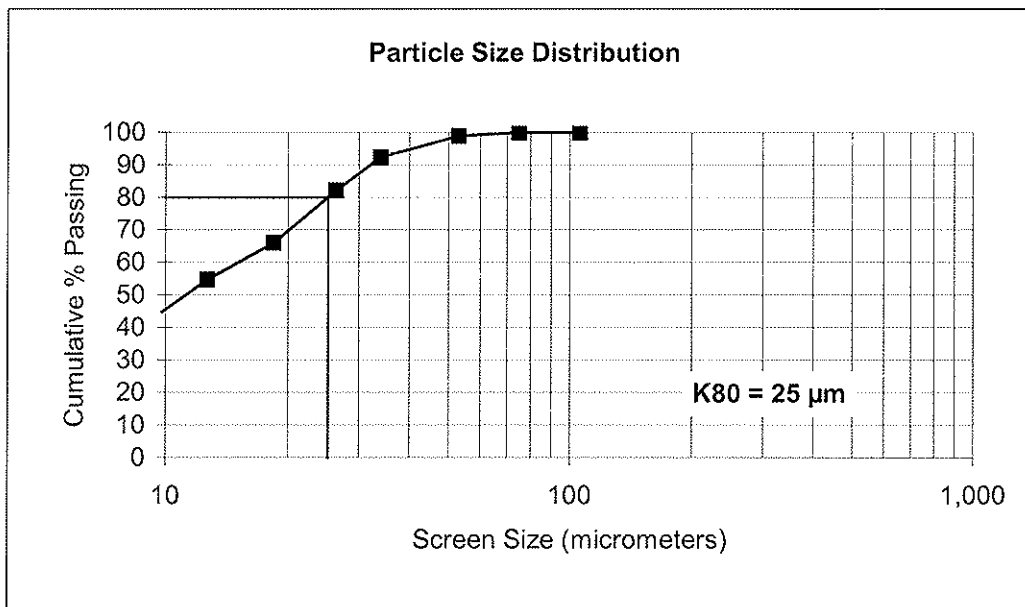
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F25**

Dry Solids S.G.=		3.16	Water Temperature =		17.50 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
150	106	0.0	0.0	0.0	100.0
200	75	0.0	0.0	0.0	100.0
270	53	0.6	1.1	1.1	98.9
	34	3.2	6.5	7.6	92.4
	26	5.1	10.2	17.8	82.2
	18	8.1	16.2	33.9	66.1
	13	5.6	11.3	45.3	54.7
	10	5.0	10.0	55.3	44.7
	-10	22.3	44.7	100.0	0.0
Total	-	49.8	100.0	-	-
K80	25				



Purpose:

Test Cu/Mo Separation

Procedure:

Conduct 4 10-kg bulk rougher tests

Combine the Ro conc from two tests for regrind and cleaner, combine Cl Conc for Cu/Mo Sep

Feed:

4 x 10 kg of minus 10 mesh BFP-KH

Grind:

29 minutes / 10 kg @ 65% solids in 10kg rod mill.

P₈₀ = 150 µm

Regrind:

Bulk Ro Conc : 15 minutes in the 10kg rod mill.

P₈₀ = 25 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302	Fuel oil		MIBC		Grind	Cond.	Froth		
Grind	-	15	10					29			7.8	-30
<i>Rougher</i>												
Bulk Rougher 1	-	-	-			15		1	8		7.8	80
Bulk Rougher 2	-	15	-			15		1	10		7.8	
Bulk Rougher 3	-	15	-			10		1	12			
<i>Cu Cleaner (2 x Ro Conc)</i>												
Regrind	650	5	5					15			11.5	0
Cu 1st Cleaner	130	-	-			5		1	8		11.5	0
Cu 1st Cleaner Scav	-	5	-			5		1	2			
Cu 2nd Cleaner	225	-	-			5		1	6		11.8	0
cut out sub-sample of combined 2nd Cl Conc for assay												
<i>Cu/Mo Separation - 2nd Cl Conc (Plot with N2 - Flowmeter 2-20 LPM set @ 4LPM)</i>												
Mo Rougher 1	-	-	-	1.5	300	-	1		3		11.6	-400
Mo Rougher 2	-	-	-	1.5	300	-	0.5		3		11.8	-420
Mo 1st Cleaner	-	-	-	1	250	-	1		3		11.8	-400
Mo 2nd Cleaner	-	-	-	1.5	300	-	2		2.5		11.8	-380
assay for Cu and Mo only												
Total	1005	55	15	5.5	1350	0	59	0				

Stage	Bulk Ro/Scav	Cu 1st& 2nd Cl	Cu 3rd - 4th Cl	Mo Ro	Mo Cl
Flotation Cell	Titan	1000g-D1	500g-D1	500g-D1	250g-D1
Speed: rpm		1800	1500	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	S	Cu	Mo	S
Cu/Mo 2nd Cl Conc (sub-sample)	832.1	2.18	18.2	0.140	20.8	87.1	55.9	53.1
Cu/Mo 2nd Cl Tail	643.9	1.69	0.22	0.013	5.15	0.81	4.01	10.2
Cu/Mo 1st Cl Scav Conc	83.6	0.22	2.45	0.210	10.8	1.18	8.42	2.77
Cu/Mo 1st Cl Scav Tail	2107.4	5.52	0.15	0.015	3.94	1.82	15.2	25.5
Ro Tail	34497	90.4	0.046	0.001	0.08	9.12	16.5	8.47
Head (calc.) (direct)	38164	100.0	0.46	0.005	0.85	100.0	100.0	100.0
			0.45	0.004	0.83			

Combined Products

Not sufficient sample

Cu/Mo 2nd Clm Conc	832.1	2.18	18.2	0.140	20.8	87.1	55.9	53.1
Cu/Mo 1st Clm Conc	1476.0	3.87	10.4	0.085	14.0	87.9	59.9	63.3
Bulk Ro Conc	3666.9	9.61	4.31	0.047	8.13	90.9	83.5	91.5
Combined Tails	36605	95.9	0.05	0.002	0.30	10.9	31.7	33.9

Cu/Mo Separation Balance

Product	Weight		Assays %, g/t			% Distribution	
	g	%	Cu	Mo		Cu	Mo
Mo 3rd Cl Conc	0.30	0.04	0.45	53.0		0.001	16.1
Mo 3rd Cl Tail	0.60	0.08	2.03	43.0		0.009	26.2
Mo 2nd Cl Tail	3.16	0.41	13.1	0.24		0.29	0.77
Mo 1st Cl Tail	137.7	17.9	16.2	0.17		15.7	23.7
Mo Ro Tail	628.9	81.6	19.0	0.05		84.0	33.2
Head (calc.) (direct)	770.7	100.0	18.5	0.13		100.0	100.0
			18.2	0.14			

Combined Products

Not sufficient sample

Mo 3rd Cl Conc	0.30	0.04	0.45	53.0		0.001	16.1
Mo 2nd Cl Conc	0.90	0.12	1.50	46.3		0.010	42.3
Mo 1st Cl Conc	4.06	0.53	10.5	10.5		0.30	43.1
Mo Ro Conc	141.8	18.4	16.0	0.46		16.0	66.8
Cu Conc (Mo Ro Tail)	628.9	81.6	19.0	0.05		84.0	33.2

Overall Cu/Mo Mass Balance

Product	Weight		Assays %, g/t			% Distribution	
	g	%	Cu	Mo		Cu	Mo
Mo 2nd Cl Conc		0.001	1.50	46.3		0.001	23.6
Combined Cu Conc		1.78	19.0	0.05		73.1	18.5

Test No.: F27

Project No.: 11474-001

Operator: CC

Date: May 29th, 2007

Purpose: Test LCT conditions.**Procedure:** As outlined below.**Feed:** 2 kg of minus 10 mesh Sample I-994**Grind:** 15 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).K₈₀ = 193 µm**Regrind:** 15 minutes in laboratory pebble mill (PM).K₈₀ = 25 µm**Conditions:**

Stage	Reagents added, grams per tonne							Time, minutes				
	Line	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-			15			8.0	-30
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	8.0	-30
Bulk Rougher 2	-	15	-	-	15				1	4	8.0	0
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+40
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.5	-30
Cu 1st Cleaner	-	-	-	2.5	5				1	4	11.5	-30
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.4	-20
Cu 2nd Cleaner	200	-	-	1	5				1	3.5	11.8	-20
Total	800	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Recycle water was not used in the primary grind for this test. I was unaware

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	18.4	0.94	30.5	0.079	31.5	9.31	38.0	76.4	35.3	47.1	42.5	35.6
Cu 2nd Cleaner Tail	9.20	0.47	3.21	0.064	17.0	3.00	17.2	4.02	14.3	12.7	6.84	8.07
Cu 1st Cleaner Scav Conc	8.50	0.43	1.49	0.017	10.2	3.00	9.30	1.72	3.51	7.04	6.32	4.03
Cu 1st Cleaner Scav Tail	88.2	4.49	0.11	0.001	2.55	0.36	1.20	1.32	2.14	18.3	7.87	5.40
Rougher Tail	1838.8	93.7	0.07	0.001	0.10	0.08	<0.50	16.5	44.7	14.9	36.5	46.9
Head (calc.) (direct)	1963.1	100.0	0.37	0.002	0.63	0.21	1.00	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	18.4	0.94	30.5	0.079	31.5	9.31	38.0	76.4	35.3	47.1	42.5	35.6
Cu 1st Cleaner Conc	27.6	1.41	21.4	0.074	26.7	7.21	31.1	80.4	49.6	59.8	49.3	43.7
Cu 1st Cleaner Conc + Scav Conc	36.1	1.84	16.7	0.061	22.8	6.22	25.9	82.2	53.2	66.8	55.6	47.7
Rougher Conc	124.3	6.33	4.93	0.018	8.43	2.06	8.39	83.5	55.3	85.1	63.5	53.1
Combined Tail	1927.0	98.2	0.07	0.001	0.21	0.09	0.53	17.8	46.8	33.2	44.4	52.3
Rougher Tail	1838.8	93.7	0.07	0.001	0.10	0.08	0.50	16.5	44.7	14.9	36.5	46.9
Head (calc.)	1963.1	100.0	0.37	0.002	0.63	0.21	1.00	100.0	100.0	100.0	100.0	100.0

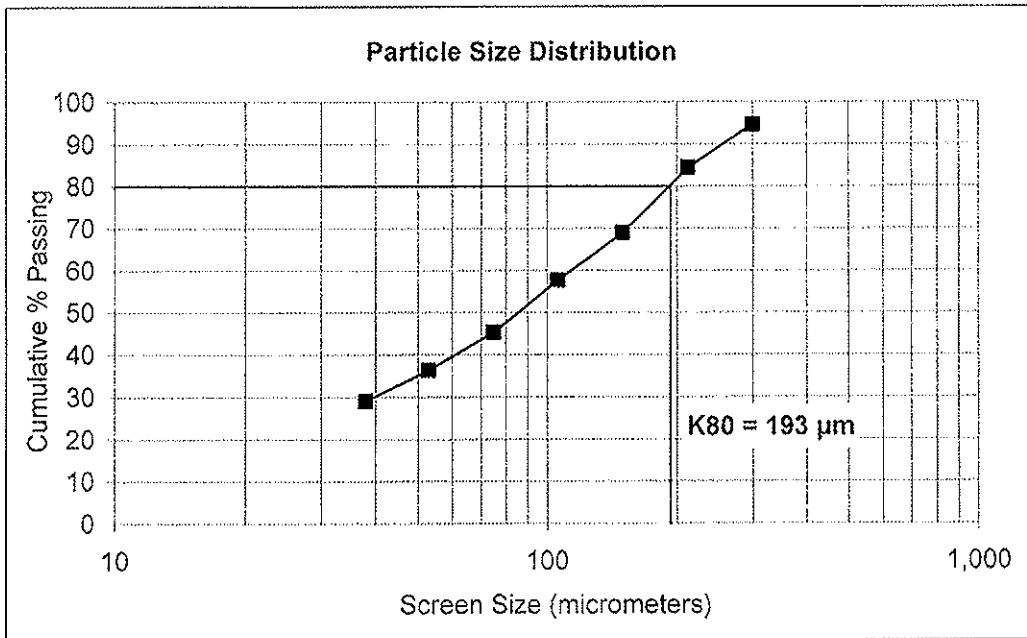
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Cu Ro Tail**

Test No.: **F27**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	8.00	5.33	5.33	94.7
65	212	15.3	10.2	15.5	84.5
100	150	23.2	15.5	31.0	69.0
150	106	16.9	11.3	42.2	57.8
200	75	18.6	12.4	54.6	45.4
270	53	13.5	8.99	63.6	36.4
400	38	10.9	7.26	70.9	29.1
Pan	-38	43.7	29.1	100.0	0.00
Total	-	150.1	100.0	-	-
K80	193				



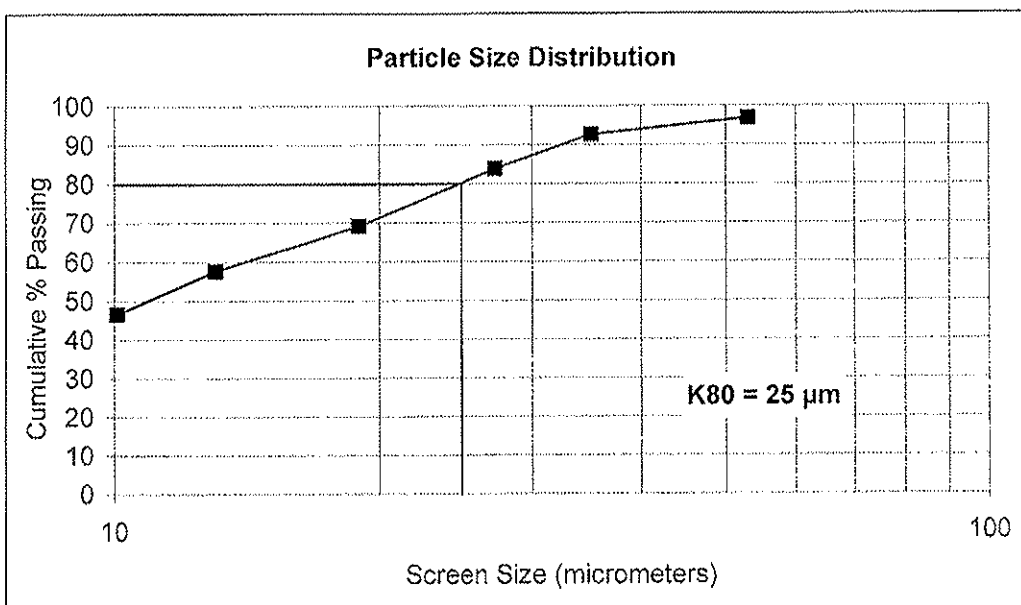
SGS Minerals Services
Size Distribution Analysis

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F27**

Dry Solids S.G.=		2.97	Water Temperature =		19.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
270	53	0.79	3.15	3.15	96.8
	35	1.04	4.15	7.30	92.7
	27	2.20	8.78	16.1	83.9
	19	3.68	14.7	30.8	69.2
	13	2.91	11.6	42.4	57.6
	10	2.76	11.0	53.4	46.6
	-10	11.7	46.6	100.0	0.0
Total	-	25.1	100.0	-	-
K80	25				



Test No.: F28

Project No.: 11474-001

Operator: CC

Date: July 24th, 2007

Purpose: Test LCT conditions on low recovery composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 1

Grind: 18 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1). K₈₀ = 282 µm

Regrind: 15 minutes in laboratory pebble mill (PM). K₈₀ = 24 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-		18			7.8	+20
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	7.8	-40
Bulk Rougher 2	-	15	-	-	15			1	4	7.9	0
Bulk Rougher 3	-	15	-	-	10			1	5	7.9	0
<i>Cu Cleaner</i>											
Regrind	600	5	5	-	-		15			11.1	0
Cu 1st Cleaner	175	-	-	2.5	5			1	4	11.5	0
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.4	-10
Cu 2nd Cleaner	250	-	-	1	5			1	3.5	11.8	-20
Total	1025	55	15	4.5	55	0	0	0			

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test

Metallurgical Balance

Product	Weight		Assays %, g/t				% Distribution				
	g	%	Cu	Mo	S	Au	Cu	Mo	S	Au	
Cu 2nd Cleaner	12.1	0.62	25.2	0.340	25.6	6.64	57.5	64.3	18.6	40.7	
Cu 2nd Cleaner Tail	2.70	0.14	2.36	0.068	19.5	2.75	1.20	2.87	3.17	3.76	
Cu 1st Cleaner Scav Conc	1.80	0.09	1.50	0.031	18.6	2.57	0.51	0.87	2.01	2.34	
Cu 1st Cleaner Scav Tail	96.3	4.90	0.13	0.002	7.37	0.32	2.36	3.01	42.7	15.6	
Rougher Tail	1854.4	94.3	0.11	0.001	0.30	0.04	38.5	29.0	33.5	37.6	
Head (calc.) (direct)	1967.3	100.0	0.27	0.003	0.84	0.10	100.0	100.0	100.0	100.0	
Combined Products			Not sufficient sample								
Cu 2nd Cleaner Conc	12.1	0.62	25.2	0.340	25.6	6.64	57.5	64.3	18.6	40.7	
Cu 1st Cleaner Conc	14.8	0.75	21.0	0.290	24.5	5.93	58.7	67.1	21.8	44.5	
Cu 1st Cleaner Conc + Scav Conc	16.6	0.84	18.9	0.262	23.8	5.57	59.2	68.0	23.8	46.8	
Rougher Conc	112.9	5.74	2.89	0.040	9.79	1.09	61.5	71.0	66.5	62.4	
Combined Tail	1950.7	99.2	0.11	0.001	0.65	0.05	40.8	32.0	76.2	53.2	
Rougher Tail	1854.4	94.3	0.11	0.001	0.30	0.04	38.5	29.0	33.5	37.6	
Head (calc.)	1967.3	100.0	0.2697	0.003	0.84	0.10	100.0	100.0	100.0	100.0	

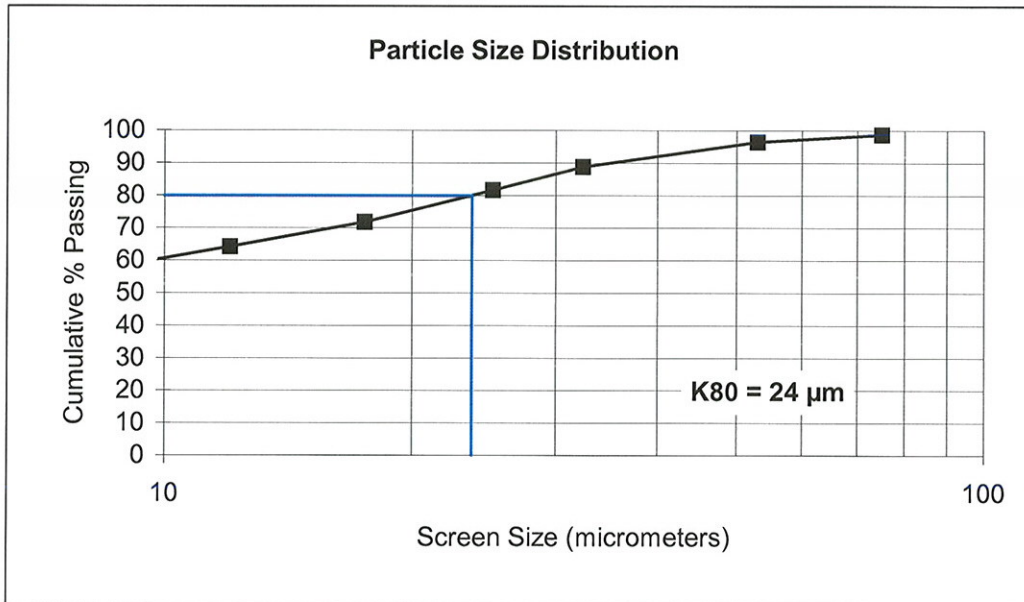
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F28**

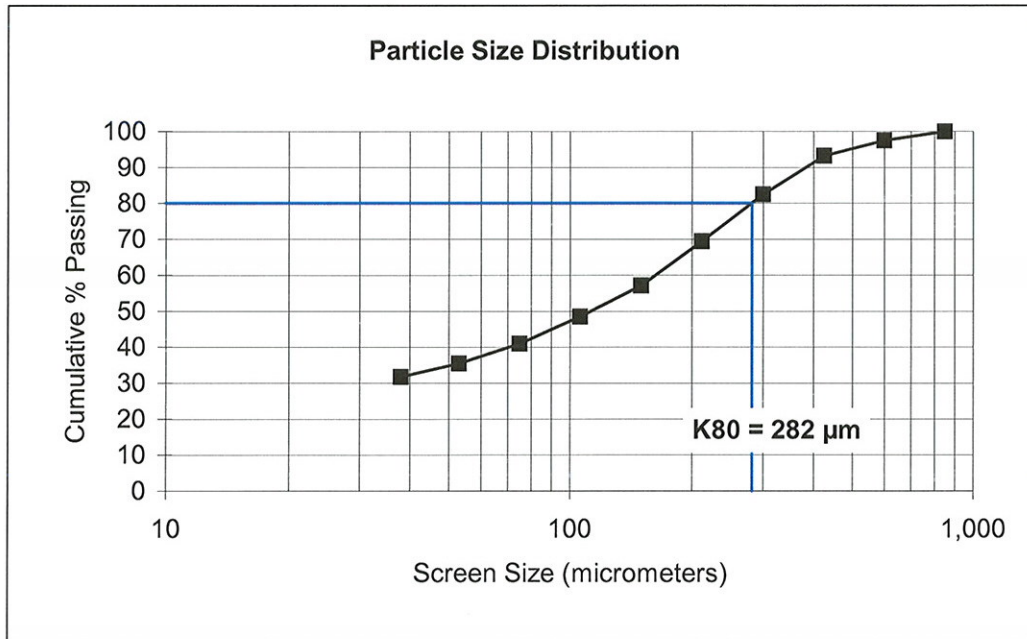
Dry Solids S.G.=		3.00	Water Temperature =		25.00 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
200	75	0.3	1.3	1.3	98.7
270	53	0.6	2.2	3.6	96.4
	32	1.9	7.6	11.2	88.8
	25	1.8	7.2	18.3	81.7
	18	2.5	9.8	28.2	71.8
	12	1.9	7.5	35.7	64.3
	9	1.2	5.0	40.7	59.3
	-9	14.8	59.3	100.0	0.0
Total	-	25.0	100.0	-	-
K80	24				



Sample: **Ro Tails**

Test No.: **F 28**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
20	850	0.0	0.0	0.0	100.0
28	600	4.3	2.5	2.5	97.5
35	425	7.3	4.2	6.8	93.2
48	300	18.5	10.8	17.5	82.5
65	212	22.4	13.0	30.6	69.4
100	150	21.1	12.3	42.8	57.2
150	106	14.8	8.6	51.5	48.5
200	75	13.0	7.6	59.0	41.0
270	53	9.4	5.5	64.5	35.5
400	38	6.4	3.7	68.2	31.8
Pan	-38	54.6	31.8	100.0	0.0
Total	-	171.8	100.0	-	-
K80	282				



Test No.: F29

Project No.: 11474-001

Operator: CC

Date: July 25th, 2007

Purpose: Test I.C.T conditions on low recovery composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 2

Grind: 23 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 166 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 26 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-			23			7.9	-80
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	8.0	-120
Bulk Rougher 2	-	15	-	-	15				1	4	8.0	0
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+20
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.3	-30
Cu 1st Cleaner	75	-	-	2.5	5				1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.4	-20
Cu 2nd Cleaner	250	-	-	1	5				1	3.5	11.8	-20
Total	925	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test

Metallurgical Balance

Product	Weight		Assays %, g/t				% Distribution			
	g	%	Cu	Mo	S	Au	Cu	Mo	S	Au
Cu 2nd Cleaner	22.8	1.15	27.4	0.670	29.8	6.62	82.2	76.8	42.8	53.1
Cu 2nd Cleaner Tail	2.40	0.12	1.98	0.170	14.6	2.00	0.63	2.05	2.21	1.69
Cu 1st Cleaner Scav Conc	3.80	0.19	1.07	0.045	17.7	1.69	0.53	0.86	4.24	2.26
Cu 1st Cleaner Scav Tail	117.4	5.92	0.11	0.003	4.36	0.26	1.70	1.77	32.2	10.7
Rougher Tail	1835.5	92.6	0.06	0.002	0.16	0.05	15.0	18.5	18.5	32.3
Head (calc.) (direct)	1981.9	100.0	0.38	0.010	0.80	0.14	100.0	100.0	100.0	100.0
Combined Products										
Not sufficient sample										
Cu 2nd Cleaner Conc	22.8	1.15	27.4	0.670	29.8	6.62	82.2	76.8	42.8	53.1
Cu 1st Cleaner Conc	25.2	1.27	25.0	0.622	28.4	6.18	82.8	78.9	45.0	54.7
Cu 1st Cleaner Conc + Scav Conc	29.0	1.46	21.8	0.547	27.0	5.59	83.3	79.8	49.3	57.0
Rougher Conc	146.4	7.39	4.42	0.111	8.84	1.32	85.0	81.5	81.5	67.7
Combined Tail	1952.9	98.5	0.06	0.002	0.41	0.06	16.7	20.2	50.7	43.0
Rougher Tail	1835.5	92.6	0.06	0.002	0.16	0.05	15.0	18.5	18.5	32.3
Head (calc.)	1981.9	100.0	0.38	0.010	0.80	0.14	100.0	100.0	100.0	100.0

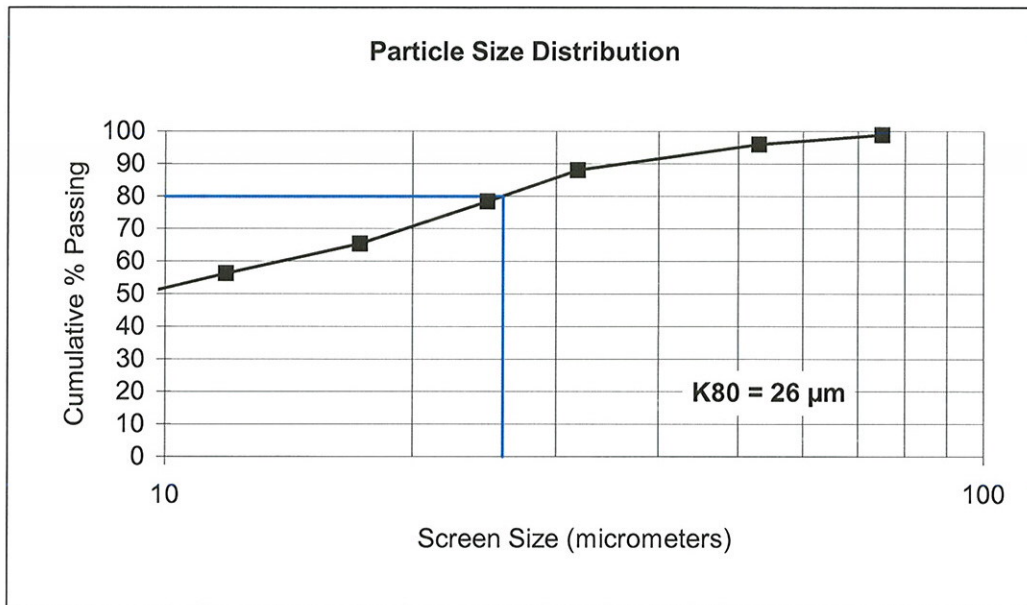
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F29**

Dry Solids S.G.=		3.06	Water Temperature =		25.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
200	75	0.5	1.1	1.1	98.9
270	53	1.5	3.0	4.1	95.9
	32	3.9	7.9	11.9	88.1
	25	4.8	9.7	21.6	78.4
	17	6.4	12.9	34.5	65.5
	12	4.5	9.1	43.7	56.3
	9	3.4	6.8	50.5	49.5
	-9	24.5	49.5	100.0	0.0
Total	-	49.5	100.0	-	-
K80	26				



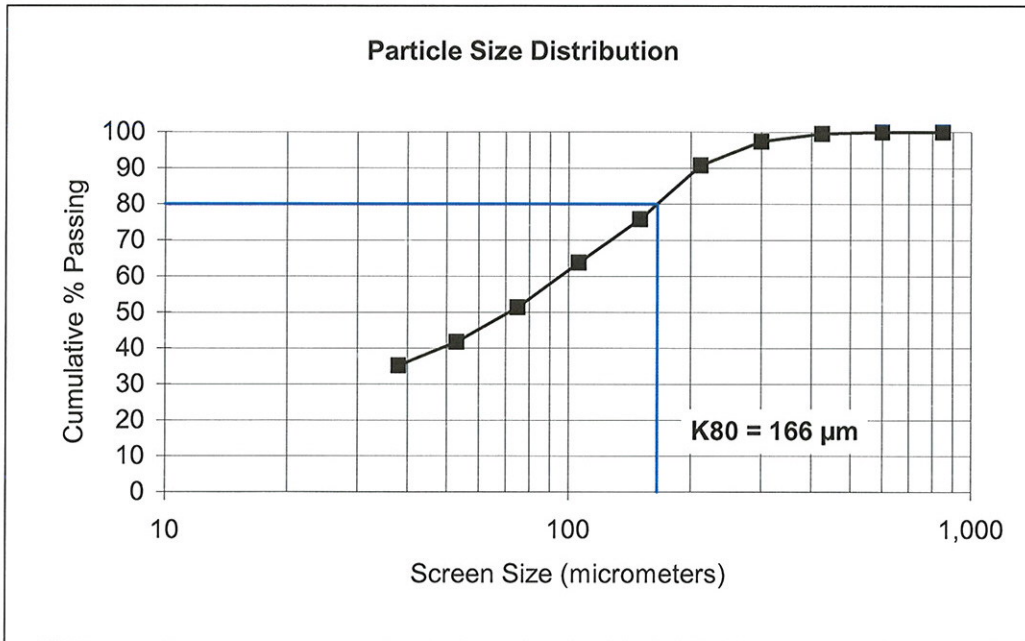
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tails**

Test No.: **F 29**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
20	850	0.0	0.0	0.0	100.0
28	600	0.0	0.0	0.0	100.0
35	425	0.7	0.5	0.5	99.5
48	300	3.2	2.1	2.6	97.4
65	212	10.1	6.6	9.2	90.8
100	150	22.7	14.9	24.1	75.9
150	106	18.5	12.1	36.2	63.8
200	75	18.9	12.4	48.7	51.3
270	53	14.5	9.5	58.2	41.8
400	38	10.1	6.6	64.8	35.2
Pan	-38	53.6	35.2	100.0	0.0
Total	-	152.3	100.0	-	-
K80	166				



Test No.: F30

Project No.: 11474-001

Operator: CC

Date: July 25th, 2007

Purpose: Test LCT conditions on low recovery composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 3

Grind: 22 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 145 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 29 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth		
Grind	-	15	10	-	-			22			8.0	-90
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	8.0	-40
Bulk Rougher 2	-	15	-	-	15				1	4	8.0	+20
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+30
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.4	0
Cu 1st Cleaner	70	-	-	2.5	5				1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.2	0
Cu 2nd Cleaner	250	-	-	1	5				1	3.5	11.8	-20
Total	920	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test

Metallurgical Balance

Product	Weight		Assays %, g/t				% Distribution			
	g	%	Cu	Mo	S	Au	Cu	Mo	S	Au
Cu 2nd Cleaner	31.1	1.58	27.0	0.100	26.5	10.3	81.2	42.8	45.9	49.1
Cu 2nd Cleaner Tail	4.60	0.23	2.26	0.031	12.1	3.10	1.01	1.96	3.10	2.18
Cu 1st Cleaner Scav Conc	6.20	0.31	1.31	0.025	19.3	2.57	0.79	2.13	6.66	2.44
Cu 1st Cleaner Scav Tail	125.3	6.35	0.19	0.002	4.20	0.54	2.30	3.45	29.3	10.4
Rougher Tail	1805.4	91.5	0.08	0.002	0.15	0.13	14.7	49.7	15.1	35.9
Head (calc.) (direct)	1972.6	100.0	0.52	0.004	0.91	0.33	100.0	100.0	100.0	100.0
Combined Products Not sufficient sample										
Cu 2nd Cleaner Conc	31.1	1.58	27.0	0.100	26.5	10.3	81.2	42.8	45.9	49.1
Cu 1st Cleaner Conc	35.7	1.81	23.8	0.091	24.6	9.37	82.2	44.7	49.0	51.2
Cu 1st Cleaner Conc + Scav Conc	41.9	2.12	20.5	0.081	23.9	8.37	83.0	46.9	55.6	53.7
Rougher Conc	167.2	8.48	5.28	0.022	9.13	2.50	85.3	50.3	84.9	64.1
Combined Tail	1930.7	97.9	0.091	0.002	0.41	0.16	17.0	53.1	44.4	46.3
Rougher Tail	1805.4	91.5	0.084	0.002	0.15	0.13	14.7	49.7	15.1	35.9
Head (calc.)	1972.6	100.0	0.52	0.004	0.91	0.33	100.0	100.0	100.0	100.0

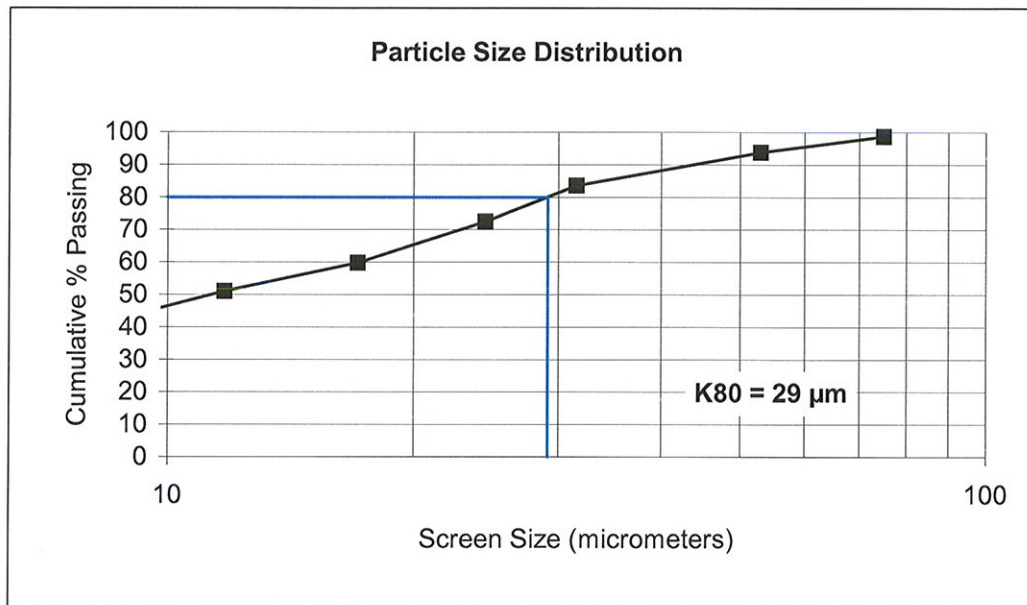
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F30**

Dry Solids S.G.= 3.10		Water Temperature = 25.00 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
200	75	0.7	1.3	1.3	98.7
270	53	2.4	4.8	6.1	93.9
	32	5.1	10.2	16.4	83.6
	24	5.5	11.1	27.5	72.5
	17	6.3	12.7	40.2	59.8
	12	4.4	8.7	48.9	51.1
	9	3.7	7.4	56.2	43.8
	-9	21.8	43.8	100.0	0.0
Total	-	49.8	100.0	-	-
K80	29				



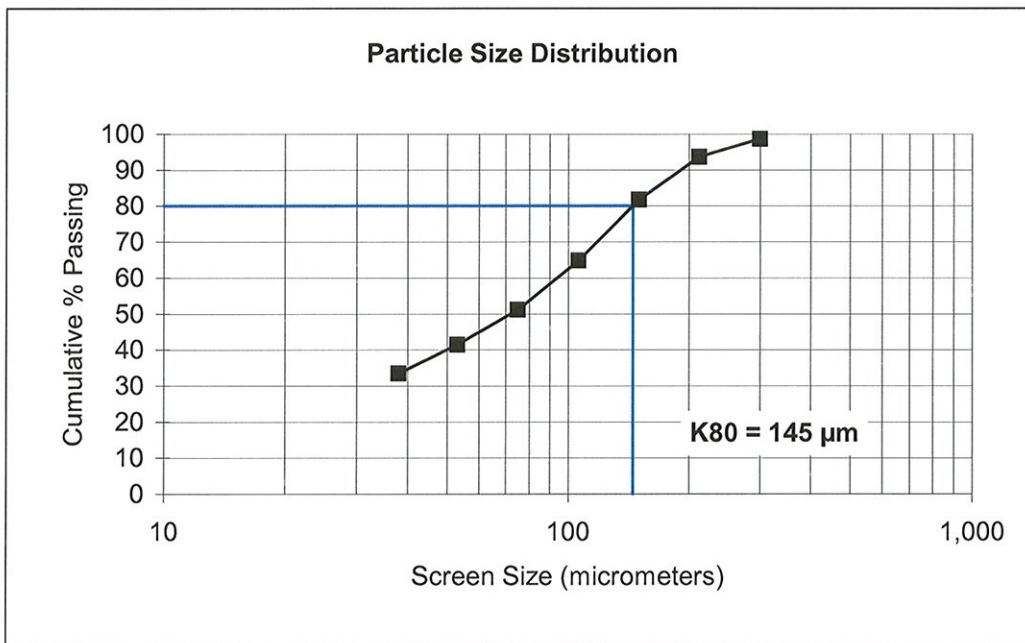
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tails**

Test No.: **F 30**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	2.2	1.4	1.4	98.6
65	212	7.9	4.9	6.3	93.7
100	150	19.0	11.9	18.2	81.8
150	106	27.2	17.0	35.1	64.9
200	75	21.9	13.7	48.8	51.2
270	53	15.5	9.7	58.5	41.5
400	38	12.9	8.0	66.5	33.5
Pan	-38	53.7	33.5	100.0	0.0
Total	-	160.3	100.0	-	-
K80	145				



Test No.: F31

Project No.: 11474-001

Operator: CC

Date: July 25th, 2007

Purpose: Test LCT conditions on low recovery composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 4

Grind: 26 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 104 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 31 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth		
Grind	-	15	10	-	-		26			8.1	-160
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	8.1	-30
Bulk Rougher 2	-	15	-	-	15			1	4	8.1	0
Bulk Rougher 3	-	15	-	-	10			1	5	8.1	+20
<i>Cu Cleaner</i>											
Regrind	600	5	5	-	-		15			11.5	-20
Cu 1st Cleaner	-	-	-	2.5	5			1	4	11.5	-30
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.3	0
Cu 2nd Cleaner	200	-	-	1	5			1	3.5	11.8	-20
Total	800	55	15	4.5	55	0	0	0			

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-DI	500g-DI	250g-DI
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test

Metallurgical Balance

Product	Weight		Assays %, g/t				% Distribution				
	g	%	Cu	Mo	S	Au	Cu	Mo	S	Au	
Cu 2nd Cleaner	44.7	2.27	26.5	0.100	27.1	7.58	89.3	28.0	65.4	58.2	
Cu 2nd Cleaner Tail	4.40	0.22	2.94	0.047	12.8	4.50	0.98	1.30	3.04	3.40	
Cu 1st Cleaner Scav Conc	4.20	0.21	1.64	0.010	12.6	3.74	0.52	0.26	2.86	2.70	
Cu 1st Cleaner Scav Tail	134.3	6.81	0.18	0.004	2.64	0.62	1.82	3.37	19.1	14.3	
Rougher Tail	1783.6	90.5	0.06	0.006	0.10	0.07	7.39	67.1	9.62	21.4	
Head (calc.) (direct)	1971.2	100.0	0.67	0.008	0.94	0.30	100.0	100.0	100.0	100.0	
Combined Products											
Not sufficient sample											
Cu 2nd Cleaner Conc	44.7	2.27	26.5	0.100	27.1	7.58	89.3	28.0	65.4	58.2	
Cu 1st Cleaner Conc	49.1	2.49	24.4	0.095	25.8	7.30	90.3	29.3	68.4	61.6	
Cu 1st Cleaner Conc + Scav Conc	53.3	2.70	22.6	0.089	24.8	7.02	90.8	29.6	71.2	64.3	
Rougher Conc	187.6	9.52	6.55	0.028	8.93	2.44	92.6	32.9	90.4	78.6	
Combined Tail	1917.9	97.3	0.06	0.006	0.28	0.11	9.22	70.4	28.8	35.7	
Rougher Tail	1783.6	90.5	0.06	0.006	0.10	0.07	7.39	67.1	9.6	21.4	
Head (calc.)	1971.2	100.0	0.67	0.008	0.94	0.30	100.0	100.0	100.0	100.0	

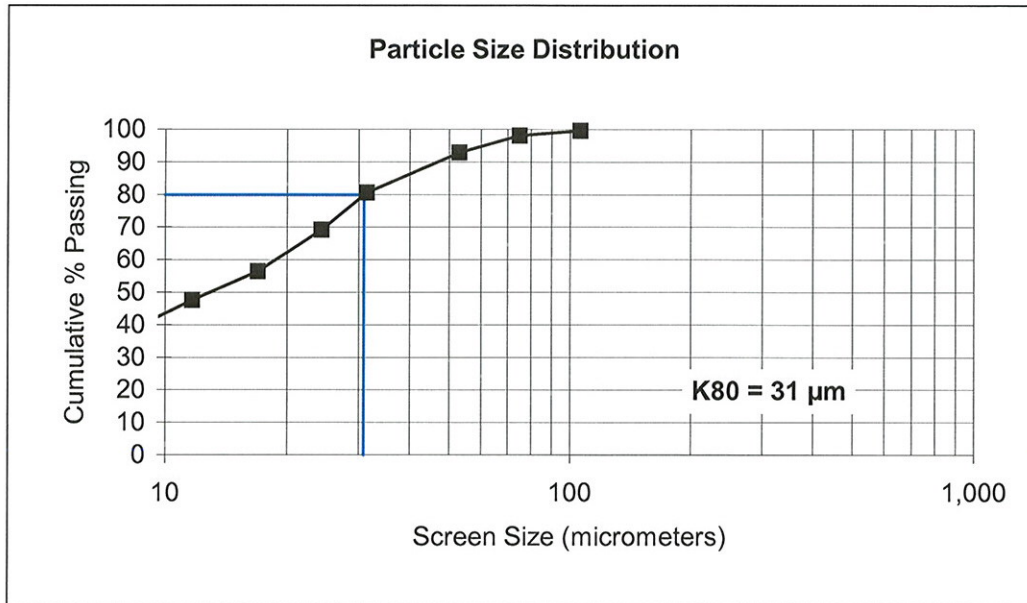
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F31**

Dry Solids S.G.=		3.12	Water Temperature =		25.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
150	106	0.2	0.4	0.4	99.6
200	75	0.7	1.5	1.8	98.2
270	53	2.6	5.2	7.1	92.9
	31	6.1	12.2	19.3	80.7
	24	5.7	11.4	30.7	69.3
	17	6.4	12.8	43.5	56.5
	12	4.4	8.8	52.4	47.6
	9	3.4	6.8	59.1	40.9
	-9	20.4	40.9	100.0	0.0
Total	-	50.0	100.0	-	-
K80	31				



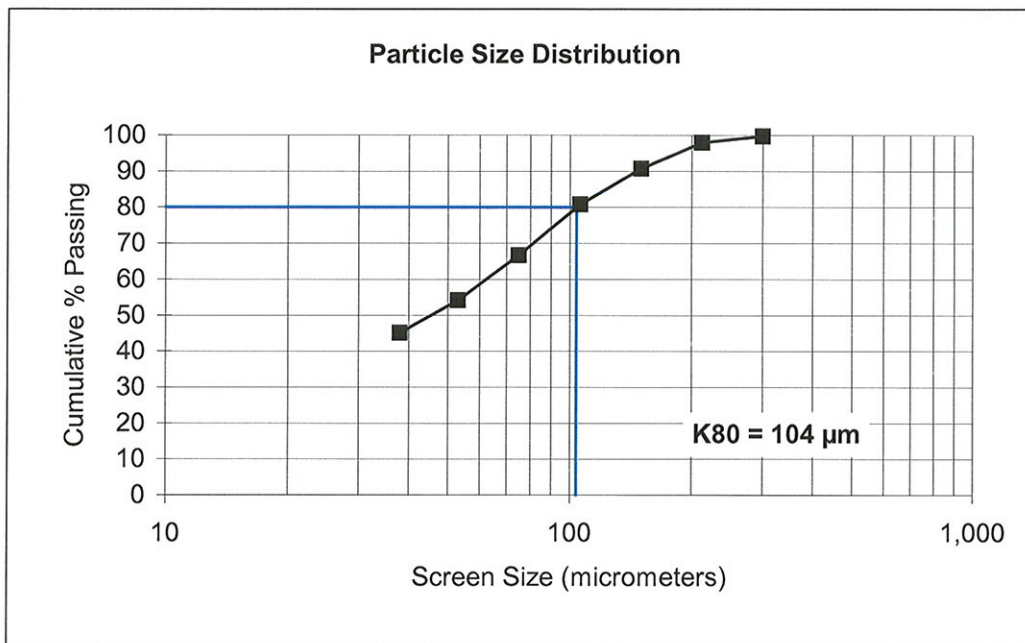
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tails**

Test No.: **F 31**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.5	0.3	0.3	99.7
65	212	3.3	1.8	2.1	97.9
100	150	13.0	7.1	9.2	90.8
150	106	18.2	10.0	19.1	80.9
200	75	25.8	14.1	33.2	66.8
270	53	22.9	12.5	45.8	54.2
400	38	16.6	9.1	54.8	45.2
Pan	-38	82.6	45.2	100.0	0.0
Total	-	182.9	100.0	-	-
K80	104				



Test No.: F32

Project No.: 11474-001

Operator: CC

Date: July 31st, 2007

Purpose: Optimize Cu, Au, and Mo recovery

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 1

Grind: 32 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 120 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 22 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth		
Grind	-	15	10	-	-		32			7.8	-140
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	7.8	-140
Bulk Rougher 2	-	15	-	-	15			1	4	7.9	+40
Bulk Rougher 3	-	15	-	-	10			1	5	7.9	+40
<i>Cu Cleaner</i>											
Regrind	600	5	5	-	-		15			11.2	-20
Cu 1st Cleaner	125	-	-	2.5	5			1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.3	-10
Cu 2nd Cleaner	250	-	-	1	5			1	3.5	11.8	-10
Total	975	55	15	4.5	55	0	0	0			

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-DI	500g-DI	250g-DI
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test but the rougher tail water & 1st Cleaner Scav Tail was saved for further testwork.

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	15.8	0.80	25.0	0.320	6.03	77.2	33.9	49.0
Cu 2nd Cleaner Tail	3.40	0.17	1.75	0.056	1.75	1.16	1.28	3.06
Cu 1st Cleaner Scav Conc	3.30	0.17	1.18	0.022	1.82	0.76	0.49	3.09
Cu 1st Cleaner Scav Tail	108.9	5.49	0.15	0.003	0.29	3.19	2.19	16.3
Rougher Tail	1851.1	93.4	0.05	0.005	0.03	17.7	62.1	28.6
Head (calc.) (direct)	1982.5	100.0	0.26	0.008	0.10	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	15.8	0.80	25.0	0.320	6.03	77.2	33.9	49.0
Cu 1st Cleaner Conc	19.2	0.97	20.9	0.273	5.27	78.3	35.2	52.1
Cu 1st Cleaner Conc + Scav Conc	22.5	1.13	18.0	0.236	4.77	79.1	35.7	55.2
Rougher Conc	131.4	6.6	3.21	0.043	1.06	82.3	37.9	71.4
Combined Tail	1960.0	98.9	0.05	0.005	0.04	20.9	64.3	44.8
Rougher Tail	1851.1	93.4	0.05	0.005	0.03	17.7	62.1	28.6
Head (calc.)	1982.5	100.0	0.26	0.008	0.10	100.0	100.0	100.0

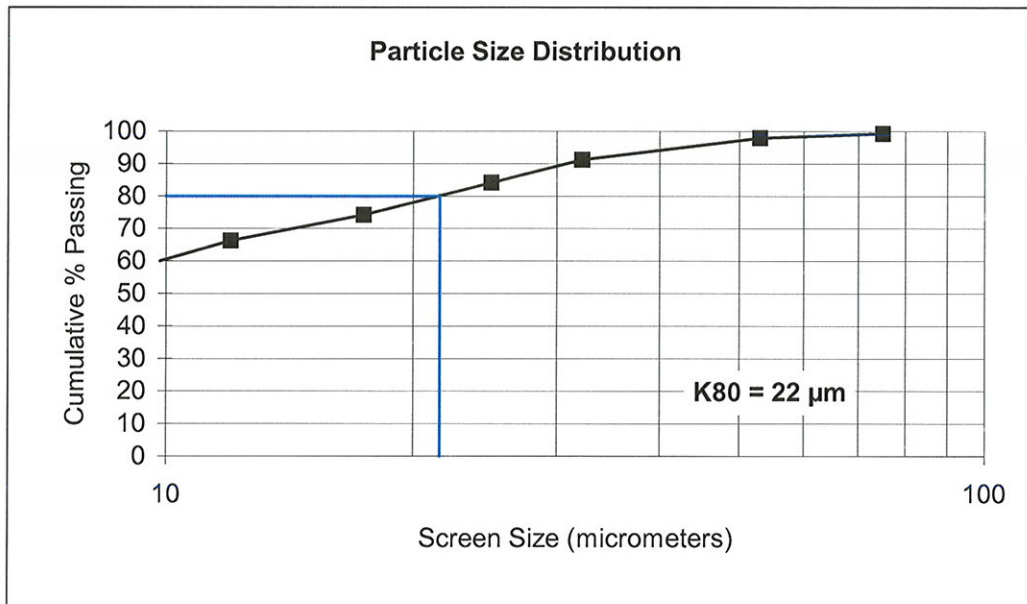
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F32**

Dry Solids S.G.= 2.98		Water Temperature = 26.00 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
200	75	0.3	0.7	0.7	99.3
270	53	0.7	1.4	2.0	98.0
	32	3.4	6.7	8.8	91.2
	25	3.6	7.1	15.9	84.1
	17	5.0	9.9	25.7	74.3
	12	4.0	8.0	33.7	66.3
	9	4.1	8.1	41.9	58.1
	-9	29.3	58.1	100.0	0.0
Total	-	50.3	100.0	-	-
K80	22				



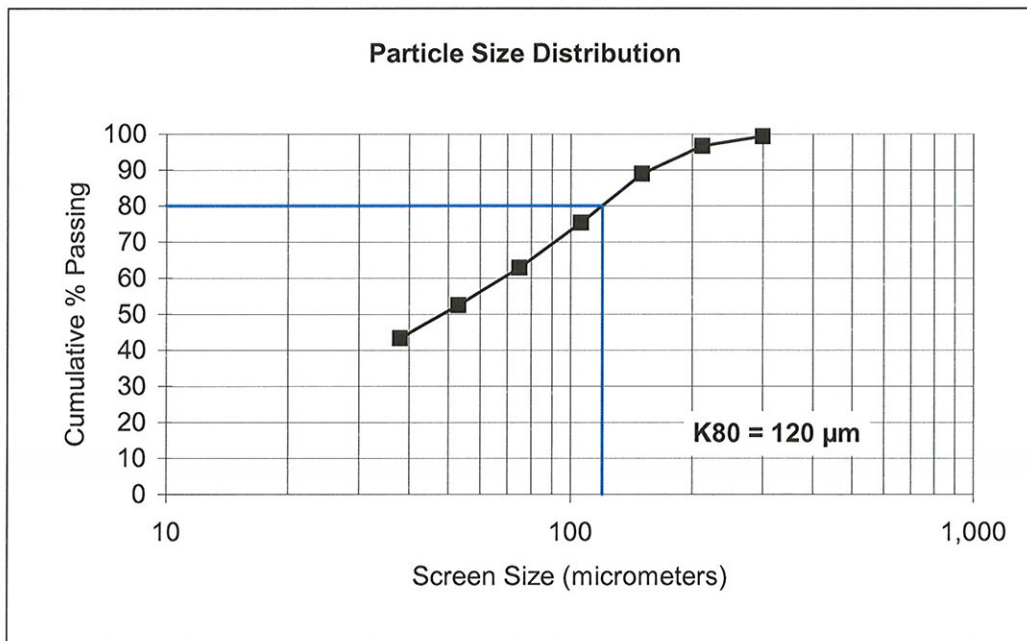
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **B Ro Tail**

Test No.: **F-32**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.0	0.6	0.6	99.4
65	212	4.4	2.7	3.3	96.7
100	150	12.5	7.7	11.0	89.0
150	106	22.2	13.6	24.6	75.4
200	75	20.4	12.5	37.1	62.9
270	53	16.9	10.4	47.5	52.5
400	38	14.9	9.1	56.6	43.4
Pan	-38	70.8	43.4	100.0	0.0
Total	-	163.1	100.0	-	-
K80	120				



Test No.: F33

Project No.: 11474-001

Operator: CC

Date: July 31st, 2007

Purpose: Optimize Cu, Au, and Mo recovery

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 2

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 119 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 21 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-		28			7.8	-80
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	7.8	-120
Bulk Rougher 2	-	15	-	-	15			1	4	7.9	+40
Bulk Rougher 3	-	15	-	-	10			1	5	8.0	+50
<i>Cu Cleaner</i>											
Regrind	600	5	5	-	-		15			11.1	0
Cu 1st Cleaner	175	-	-	2.5	5			1	4	11.5	-10
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.4	-10
Cu 2nd Cleaner	250	-	-	1	5			1	3.5	11.8	-20
Total	1025	55	15	4.5	55	0	0	0			

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test
but the rougher tail water & 1st Cleaner Scav Tail
was saved for further testwork.

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	23.7	1.19	28.1	0.670	6.76	86.5	75.8	50.3
Cu 2nd Cleaner Tail	4.40	0.22	1.63	0.180	2.02	0.93	3.78	2.79
Cu 1st Cleaner Scav Conc	2.10	0.11	1.26	0.064	2.21	0.34	0.64	1.46
Cu 1st Cleaner Scav Tail	117.9	5.93	0.11	0.004	0.29	1.68	2.25	10.7
Rougher Tail	1839.2	92.5	0.04	0.002	0.06	10.5	17.6	34.7
Head (calc.) (direct)	1987.3	100.0	0.39	0.011	0.16	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	23.7	1.19	28.1	0.670	6.76	86.5	75.8	50.3
Cu 1st Cleaner Conc	28.1	1.41	24.0	0.593	6.02	87.5	79.6	53.1
Cu 1st Cleaner Conc + Scav Conc	30.2	1.52	22.4	0.556	5.75	87.8	80.2	54.6
Rougher Conc	148.1	7.45	4.65	0.117	1.40	89.5	82.4	65.3
Combined Tail	1957.1	98.5	0.05	0.002	0.07	12.2	19.8	45.4
Rougher Tail	1839.2	92.5	0.04	0.002	0.06	10.5	17.6	34.7
Head (calc.)	1987.3	100.0	0.39	0.011	0.1602	100.0	100.0	100.0

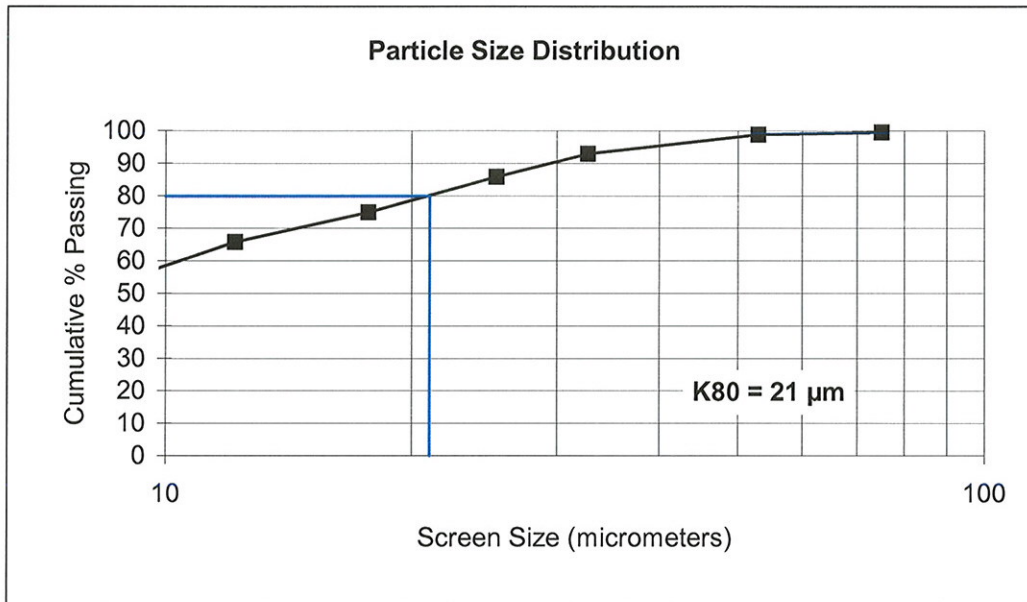
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F33**

Dry Solids S.G.=		2.92	Water Temperature =		26.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
200	75	0.2	0.5	0.5	99.5
270	53	0.4	0.7	1.2	98.8
	33	3.0	5.9	7.1	92.9
	25	3.5	7.0	14.1	85.9
	18	5.5	11.0	25.1	74.9
	12	4.6	9.2	34.2	65.8
	9	4.8	9.5	43.7	56.3
	-9	28.4	56.3	100.0	0.0
Total	-	50.5	100.0	-	-
K80	21				



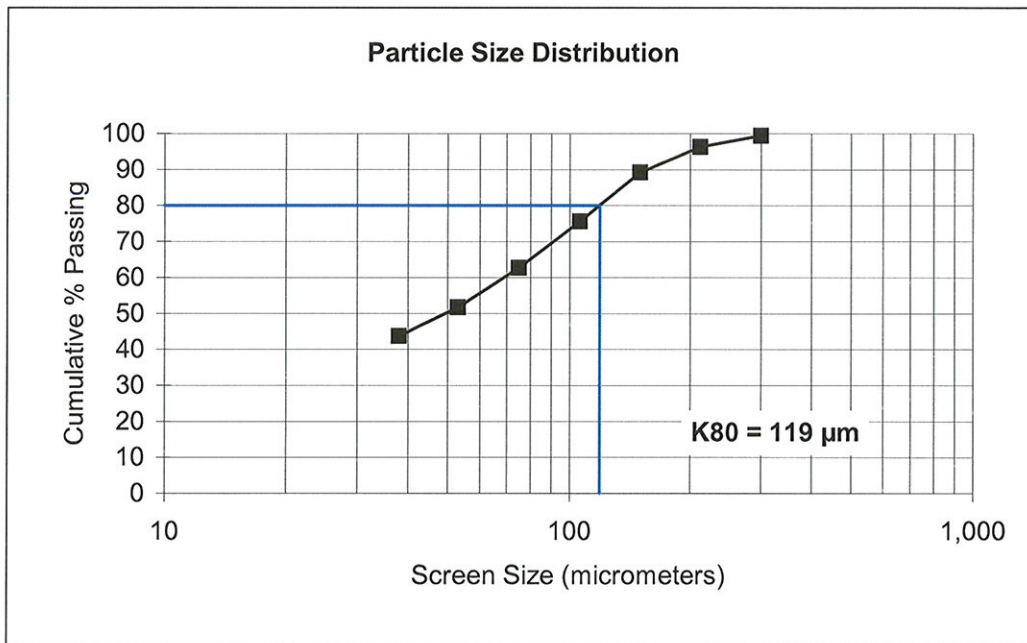
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **B Ro Tail**

Test No.: **F-33**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.8	0.5	0.5	99.5
65	212	5.0	3.1	3.6	96.4
100	150	11.5	7.2	10.8	89.2
150	106	21.8	13.6	24.3	75.7
200	75	20.8	12.9	37.3	62.7
270	53	17.7	11.0	48.3	51.7
400	38	12.8	8.0	56.2	43.8
Pan	-38	70.4	43.8	100.0	0.0
Total	-	160.8	100.0	-	-
K80	119				



Test No.: F34

Project No.: 11474-001

Operator: CC

Date: July 31st, 2007

Purpose: Optimize Cu, Au, and Mo recovery

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 3

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 127 μm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 30 μm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-			24			8.0	-220
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	8.0	-150
Bulk Rougher 2	-	15	-	-	15				1	4	8.0	+20
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+20
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.2	0
Cu 1st Cleaner	130	-	-	2.5	5				1	4	11.5	-10
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.2	0
Cu 2nd Cleaner	250	-	-	1	5				1	3.5	11.8	-20
Total	980	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test but the rougher tail water & 1st Cleaner Scav Tail was saved for further testwork.

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	32.6	1.64	26.7	0.094	10.2	85.0	58.1	53.8
Cu 2nd Cleaner Tail	5.30	0.27	2.50	0.042	3.68	1.29	4.22	3.16
Cu 1st Cleaner Scav Conc	4.10	0.21	1.77	0.011	3.16	0.71	0.85	2.10
Cu 1st Cleaner Scav Tail	122.5	6.17	0.18	0.001	0.58	2.15	2.32	11.5
Rougher Tail	1820.9	91.7	0.06	0.001	0.10	10.8	34.5	29.5
Head (calc.) (direct)	1985.4	100.0	0.52	0.003	0.31	100.0	100.0	100.0
Combined Products								
Not sufficient sample								
Cu 2nd Cleaner Conc	32.6	1.64	26.7	0.094	10.2	85.0	58.1	53.8
Cu 1st Cleaner Conc	37.9	1.91	23.3	0.087	9.29	86.3	62.3	57.0
Cu 1st Cleaner Conc + Scav Conc	42.0	2.12	21.2	0.079	8.69	87.0	63.2	59.0
Rougher Conc	164.5	8.29	5.55	0.021	2.65	89.2	65.5	70.5
Combined Tail	1943.4	97.9	0.07	0.001	0.13	13.0	36.8	41.0
Rougher Tail	1820.9	91.7	0.06	0.001	0.10	10.8	34.5	29.5
Head (calc.)	1985.4	100.0	0.52	0.003	0.31	100.0	100.0	100.0

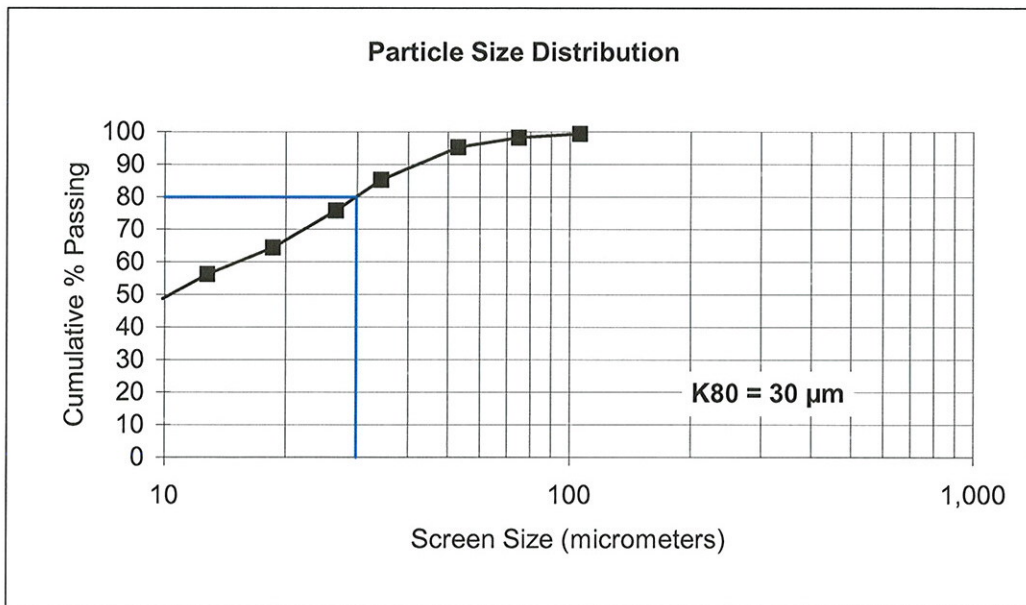
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F34**

Dry Solids S.G.=		2.75	Water Temperature =		26.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
150	106	0.3	0.5	0.5	99.5
200	75	0.6	1.2	1.7	98.3
270	53	1.6	3.0	4.7	95.3
	34	5.1	10.0	14.7	85.3
	27	4.8	9.5	24.2	75.8
	19	5.8	11.4	35.6	64.4
	13	4.2	8.2	43.7	56.3
	10	3.8	7.5	51.2	48.8
	-10	25.0	48.8	100.0	0.0
Total	-	51.2	100.0	-	-
K80	30				



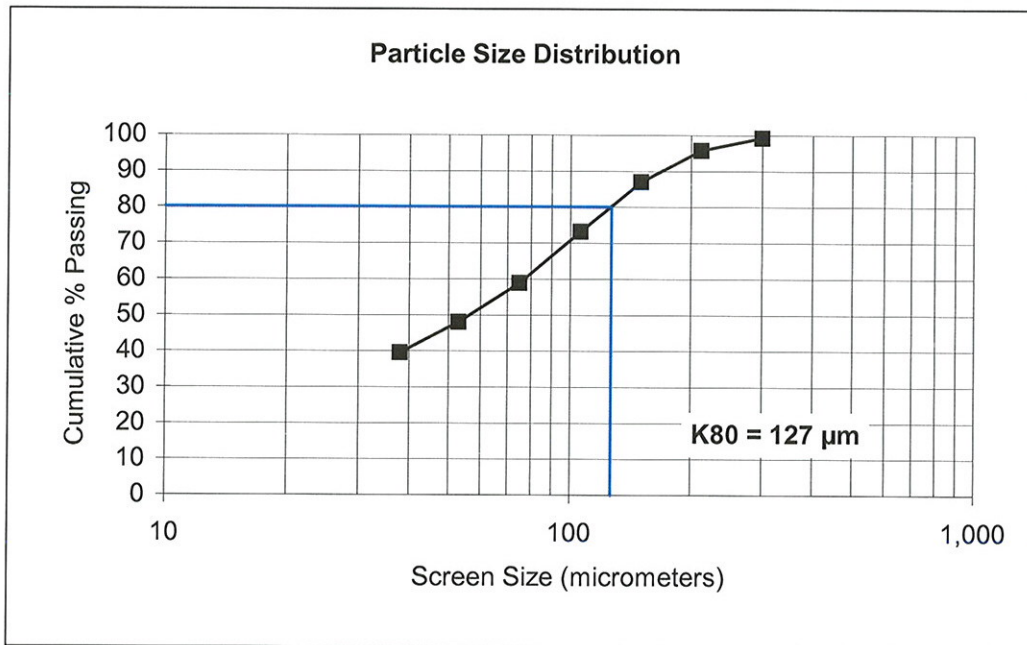
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **B Ro Tail**

Test No.: **F-34**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.1	0.7	0.7	99.3
65	212	5.7	3.5	4.2	95.8
100	150	14.1	8.7	12.9	87.1
150	106	22.4	13.9	26.8	73.2
200	75	23.1	14.3	41.1	58.9
270	53	17.5	10.8	52.0	48.0
400	38	13.7	8.5	60.4	39.6
Pan	-38	63.9	39.6	100.0	0.0
Total	-	161.5	100.0	-	-
K80	127				



Test No.: F35

Project No.: 11474-001

Operator: CC

Date: July 31st, 2007

Purpose: Optimize Cu, Au, and Mo recovery

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 4

Grind: 22 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 132 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 34 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Line	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-			22			7.9	-140
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	7.9	-200
Bulk Rougher 2	-	15	-	-	15				1	4	8.0	+20
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+20
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.2	0
Cu 1st Cleaner	105	-	-	2.5	5				1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.2	0
Cu 2nd Cleaner	250	-	-	1	5				1	3.5	11.8	-20
Total	955	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Note: Recycle water was not used in this test but the rougher tail water & 1st Cleaner Scav Tail was saved for further testwork.

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	41.3	2.09	25.7	0.110	7.40	85.3	67.9	52.2
Cu 2nd Cleaner Tail	6.90	0.35	1.96	0.029	4.19	1.09	2.99	4.94
Cu 1st Cleaner Scav Conc	4.80	0.24	1.37	0.005	2.93	0.53	0.36	2.40
Cu 1st Cleaner Scav Tail	134.0	6.77	0.17	0.001	0.56	1.83	2.00	12.8
Rougher Tail	1792.6	90.6	0.08	0.001	0.09	11.2	26.8	27.6
Head (calc.) (direct)	1979.6	100.0	0.63	0.003	0.30	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	41.3	2.09	25.7	0.110	7.40	85.3	67.9	52.2
Cu 1st Cleaner Conc	48.2	2.43	22.3	0.098	6.94	86.4	70.9	57.2
Cu 1st Cleaner Conc + Scav Conc	53.0	2.68	20.4	0.090	6.58	86.9	71.2	59.6
Rougher Conc	187.0	9.45	5.91	0.026	2.27	88.8	73.2	72.4
Combined Tail	1926.6	97.3	0.08	0.001	0.12	13.1	28.8	40.4
Rougher Tail	1792.6	90.6	0.08	0.001	0.09	11.2	26.8	27.6
Head (calc.)	1979.6	100.0	0.63	0.003	0.30	100.0	100.0	100.0

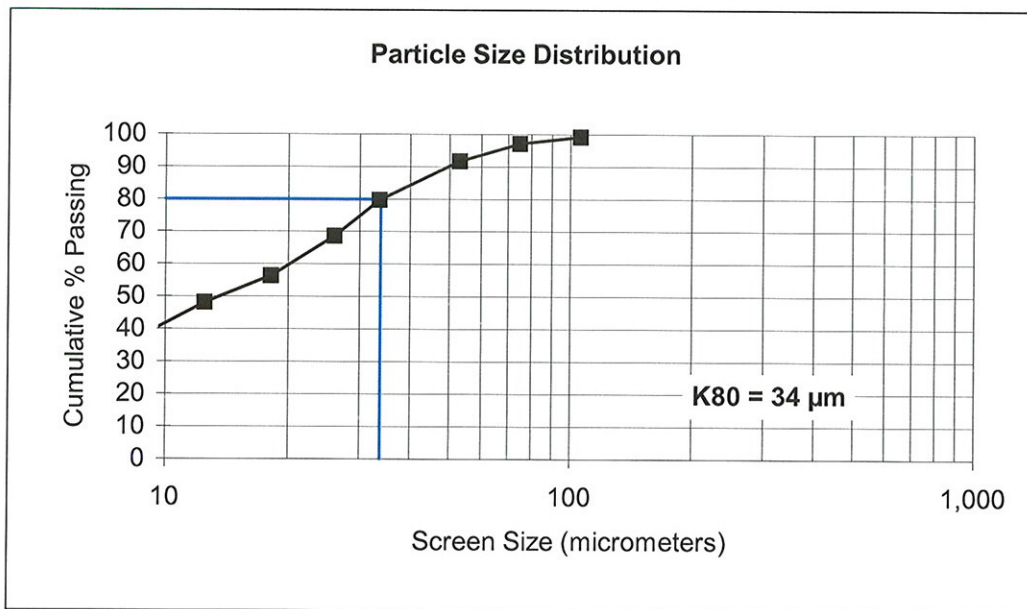
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F35**

Dry Solids S.G.= 2.83		Water Temperature = 26.00 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
150	106	0.4	0.8	0.8	99.2
200	75	1.1	2.0	2.9	97.1
270	53	2.8	5.4	8.3	91.7
	34	6.1	12.0	20.2	79.8
	26	5.7	11.1	31.3	68.7
	18	6.3	12.3	43.6	56.4
	12	4.2	8.3	51.9	48.1
	10	3.8	7.4	59.3	40.7
	-10	20.8	40.7	100.0	0.0
Total	-	51.2	100.0	-	-
K80	34				



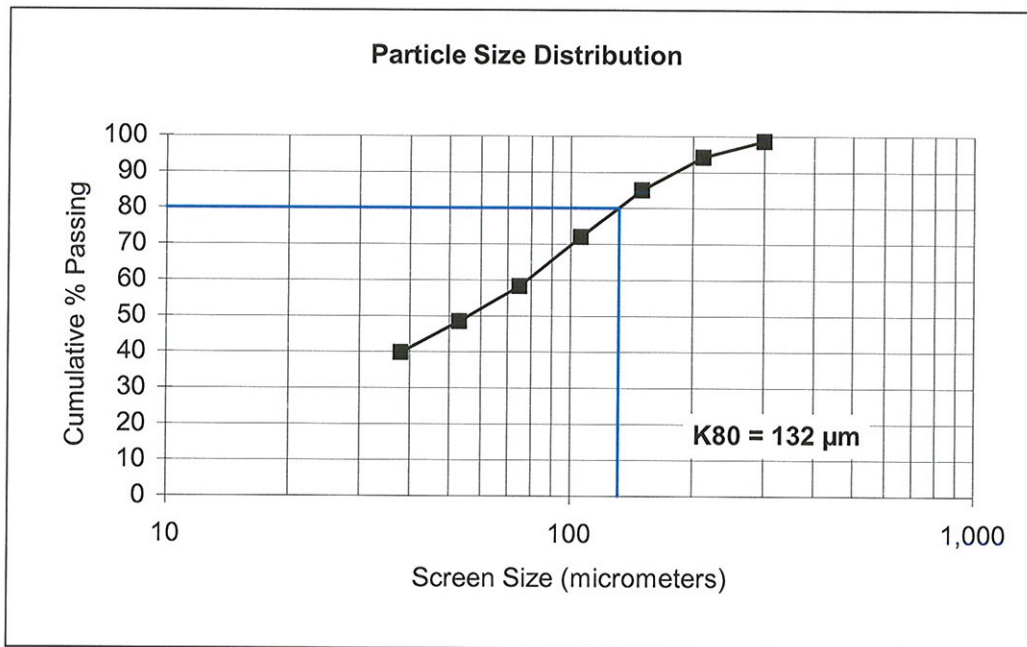
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **B Ro Tail**

Test No.: **F-35**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	2.3	1.4	1.4	98.6
65	212	7.3	4.4	5.7	94.3
100	150	15.4	9.2	14.9	85.1
150	106	21.8	13.0	27.9	72.1
200	75	23.1	13.8	41.7	58.3
270	53	16.3	9.7	51.4	48.6
400	38	14.7	8.8	60.2	39.8
Pan	-38	66.7	39.8	100.0	0.0
Total	-	167.6	100.0	-	-
K80	132				



Test No.: F36

Project No.: 11474-001

Operator: CC

Date: August 1st, 2007

Purpose: Optimize Cu, Au, and Mo recovery
As F32, using recycle water

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 1

Grind: 32 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).
Recycle water from tests F32 - F35 used in primary grind

K₈₀ = 126 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 21 µm**Conditions:**

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-			32			7.8	-80
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	7.8	-100
Bulk Rougher 2	-	15	-	-	15				1	4	7.9	+40
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+40
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.0	-20
Cu 1st Cleaner	200	-	-	2.5	5				1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.3	-10
Cu 2nd Cleaner	250	-	-	1	5				1	3.5	11.8	-10
Total	1050	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	17.4	0.88	23.1	0.310	5.68	78.0	69.5	41.6
Cu 2nd Cleaner Tail	6.80	0.34	1.17	0.032	1.27	1.54	2.80	3.63
Cu 1st Cleaner Scav Conc	3.90	0.20	1.06	0.020	1.52	0.80	1.01	2.49
Cu 1st Cleaner Scav Tail	109.7	5.52	0.13	0.002	0.29	2.77	2.83	13.4
Rougher Tail	1849.7	93.1	0.05	0.001	0.05	16.9	23.8	38.9
Head (calc.) (direct)	1987.5	100.0	0.26	0.004	0.12	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	17.4	0.88	23.1	0.310	5.68	78.0	69.5	41.6
Cu 1st Cleaner Conc	24.2	1.22	16.9	0.232	4.44	79.6	72.3	45.2
Cu 1st Cleaner Conc + Scav Conc	28.1	1.41	14.7	0.202	4.04	80.4	73.3	47.7
Rougher Conc	137.8	6.93	3.11	0.043	1.05	83.1	76.2	61.1
Combined Tail	1959.4	98.6	0.05	0.001	0.06	19.6	26.7	52.3
Rougher Tail	1849.7	93.1	0.05	0.001	0.05	16.9	23.8	38.9
Head (calc.)	1987.5	100.0	0.26	0.004	0.1196	100.0	100.0	100.0

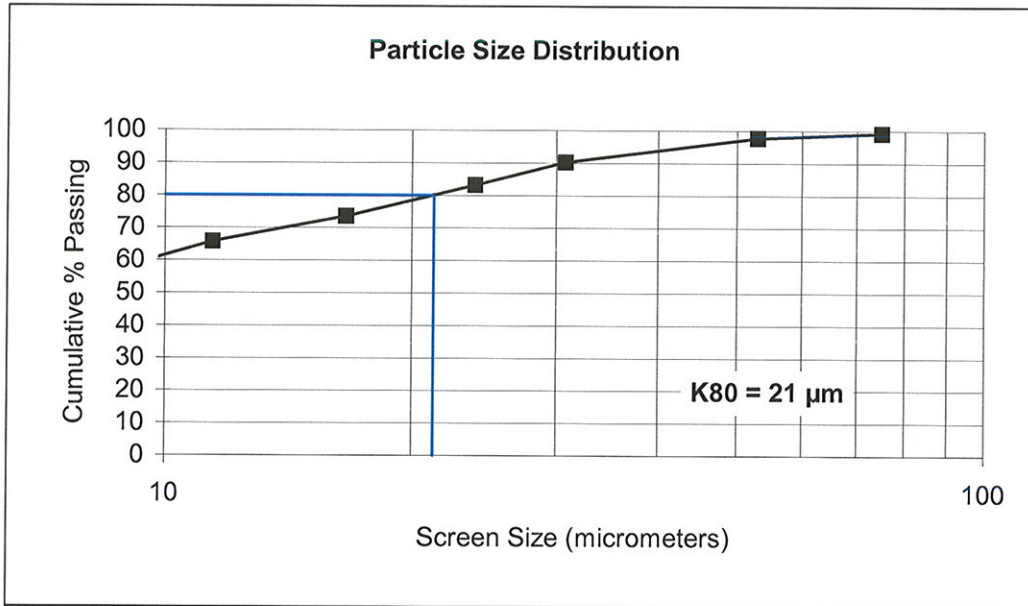
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F36**

Dry Solids S.G.=		3.09	Water Temperature =		27.50 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
200	75	0.4	0.8	0.8	99.2
270	53	0.7	1.4	2.2	97.8
	31	3.8	7.5	9.8	90.2
	24	3.5	7.0	16.8	83.2
	17	4.9	9.6	26.4	73.6
	11	3.9	7.8	34.2	65.8
	9	4.1	8.0	42.2	57.8
	-9	29.2	57.8	100.0	0.0
Total	-	50.5	100.0	-	-
K80	21				



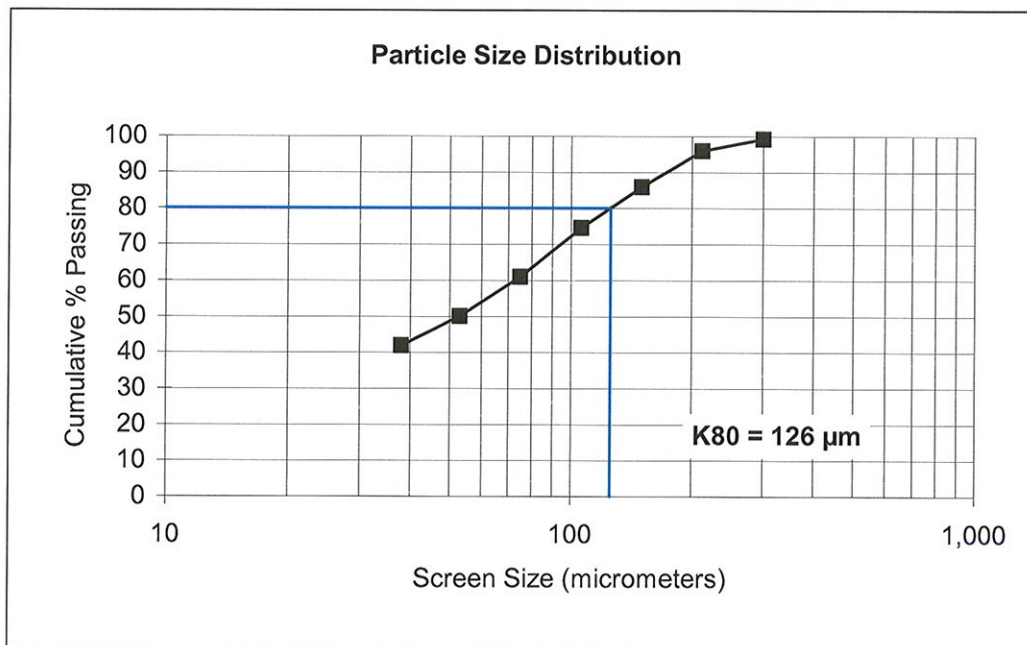
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Blk Ro Tail**

Test No.: **F 36**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.1	0.7	0.7	99.3
65	212	5.0	3.3	4.0	96.0
100	150	15.4	10.1	14.0	86.0
150	106	17.3	11.3	25.3	74.7
200	75	20.8	13.6	38.9	61.1
270	53	16.8	11.0	49.9	50.1
400	38	12.4	8.1	58.0	42.0
Pan	-38	64.3	42.0	100.0	0.0
Total	-	153.1	100.0	-	-
K80	126				



Test No.: F37

Project No.: 11474-001

Operator: CC

Date: August 1st, 2007

Purpose: Optimize Cu, Au, and Mo recovery
As F33, using recycle water

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 2

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

K₈₀ = 121 μm

Recycle water from tests F32 - F35 used in primary grind

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 22 μm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH		
Grind	-	15	10	-	-		28			7.9	-120	
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15			1	3	7.8	-180	
Bulk Rougher 2	-	15	-	-	15			1	4	7.9	+20	
Bulk Rougher 3	-	15	-	-	10			1	5	8.0	+30	
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-		15			11.3	0	
Cu 1st Cleaner	175	-	-	2.5	5			1	4	11.5	-10	
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.4	-20	
Cu 2nd Cleaner	250	-	-	1	5			1	3.5	11.8	-20	
Total	1025	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	25.9	1.30	26.6	0.620	6.49	86.3	83.2	48.1
Cu 2nd Cleaner Tail	5.20	0.26	1.71	0.170	2.06	1.11	4.58	3.07
Cu 1st Cleaner Scav Conc	2.90	0.15	1.35	0.056	1.95	0.49	0.84	1.62
Cu 1st Cleaner Scav Tail	120.3	6.04	0.13	0.003	0.30	1.96	1.87	10.3
Rougher Tail	1837.8	92.3	0.04	0.001	0.07	10.1	9.52	36.8
Head (calc.) (direct)	1992.1	100.0	0.40	0.010	0.18	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	25.9	1.30	26.6	0.620	6.49	86.3	83.2	48.1
Cu 1st Cleaner Conc	31.1	1.56	22.4	0.545	5.75	87.4	87.8	51.2
Cu 1st Cleaner Conc + Scav Conc	34.0	1.71	20.6	0.503	5.43	87.9	88.6	52.8
Rougher Conc	154.3	7.75	4.65	0.113	1.43	89.9	90.5	63.2
Combined Tail	1958.1	98.3	0.05	0.001	0.08	12.1	11.4	47.2
Rougher Tail	1837.8	92.3	0.04	0.001	0.07	10.1	9.52	36.8
Head (calc.)	1992.1	100.0	0.40	0.010	0.18	100.0	100.0	100.0

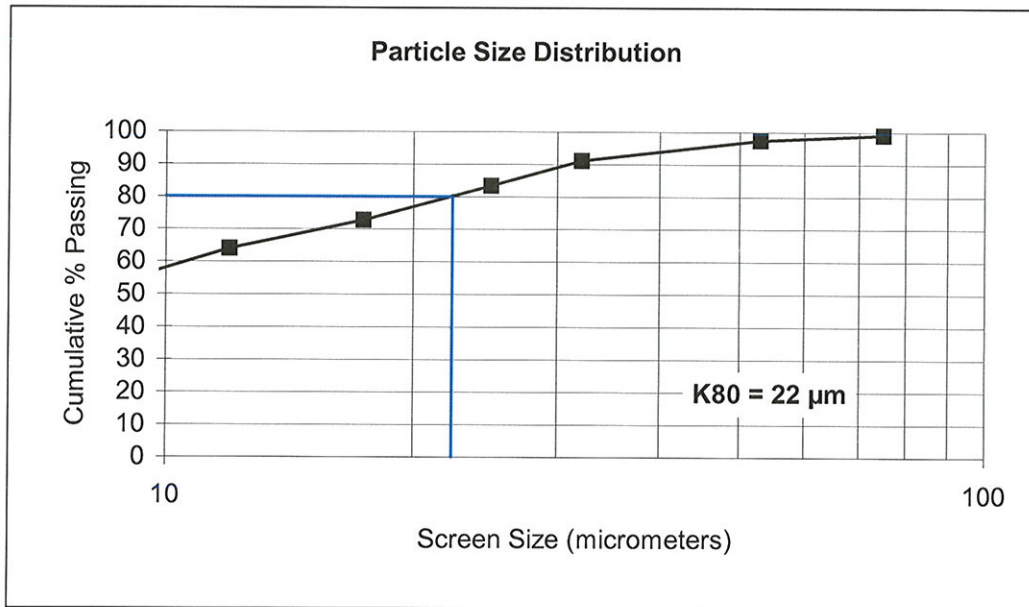
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F37**

Dry Solids S.G.=		2.93	Water Temperature =		27.50 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
200	75	0.5	0.9	0.9	99.1
270	53	0.8	1.6	2.6	97.4
	32	3.2	6.3	8.9	91.1
	25	3.9	7.8	16.6	83.4
	17	5.3	10.6	27.2	72.8
	12	4.4	8.7	35.9	64.1
	9	4.4	8.7	44.6	55.4
	-9	27.9	55.4	100.0	0.0
Total	-	50.4	100.0	-	-
K80	22				



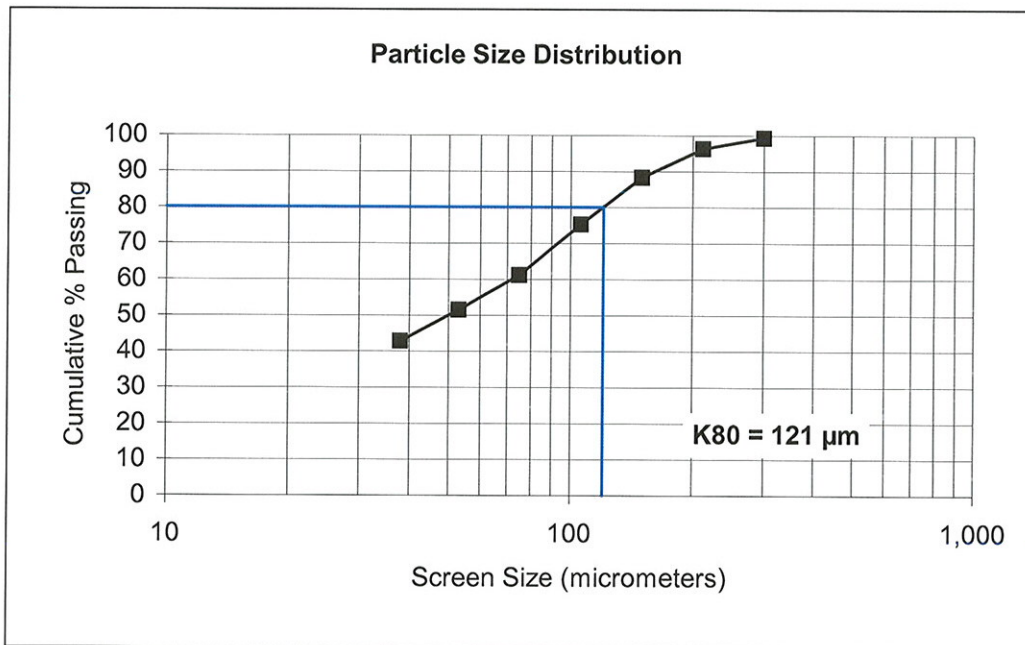
SGS Minerals Services
Size Distribution Analysis

Project No.
11474-001

Sample: **Blk Ro Tail**

Test No.: **F 37**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.1	0.7	0.7	99.3
65	212	5.0	3.0	3.7	96.3
100	150	13.3	8.0	11.7	88.3
150	106	21.6	13.0	24.6	75.4
200	75	23.5	14.1	38.7	61.3
270	53	16.1	9.7	48.4	51.6
400	38	14.5	8.7	57.1	42.9
Pan	-38	71.4	42.9	100.0	0.0
Total	-	166.5	100.0	-	-
K80	121				



Test No.: F38

Project No.: 11474-001

Operator: CC

Date: August 1st, 2007

Purpose: Optimize Cu, Au, and Mo recovery
As F34, using recycle water

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 3

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).
Recycle water from tests F32 - F35 used in primary grind

K₈₀ = 128 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 28 µm**Conditions:**

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-			24			8.0	-120
<i>Rougher</i>												
Bulk Rougher 1	-	-	-	-	15				1	3	8.0	-150
Bulk Rougher 2	-	15	-	-	15				1	4	8.0	+20
Bulk Rougher 3	-	15	-	-	10				1	5	8.0	+30
<i>Cu Cleaner</i>												
Regrind	600	5	5	-	-			15			11.2	0
Cu 1st Cleaner	130	-	-	2.5	5				1	4	11.5	-10
Cu 1st Cleaner Scav	-	5	-	1	5				1	2	11.2	0
Cu 2nd Cleaner	250	-	-	1	5				1	3.5	11.8	-20
Total	980	55	15	4.5	55	0	0	0				

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	33.2	1.67	26.4	0.095	9.76	84.1	59.3	49.0
Cu 2nd Cleaner Tail	4.10	0.21	2.37	0.038	3.51	0.93	2.93	2.17
Cu 1st Cleaner Scav Conc	6.00	0.30	1.46	0.011	2.81	0.84	1.24	2.55
Cu 1st Cleaner Scav Tail	125.3	6.30	0.17	0.001	0.56	2.04	2.36	10.6
Rougher Tail	1819.3	91.5	0.07	0.001	0.13	12.0	34.2	35.7
Head (calc.) (direct)	1987.9	100.0	0.52	0.003	0.33	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	33.2	1.67	26.4	0.095	9.76	84.1	59.3	49.0
Cu 1st Cleaner Conc	37.3	1.88	23.8	0.089	9.07	85.1	62.2	51.1
Cu 1st Cleaner Conc + Scav Conc	43.3	2.18	20.7	0.078	8.21	85.9	63.5	53.7
Rougher Conc	168.6	8.48	5.43	0.021	2.52	88.0	65.8	64.3
Combined Tail	1944.6	97.8	0.08	0.001	0.16	14.1	36.5	46.3
Rougher Tail	1819.3	91.5	0.07	0.001	0.13	12.0	34.2	35.7
Head (calc.)	1987.9	100.0	0.52	0.003	0.33	100.0	100.0	100.0

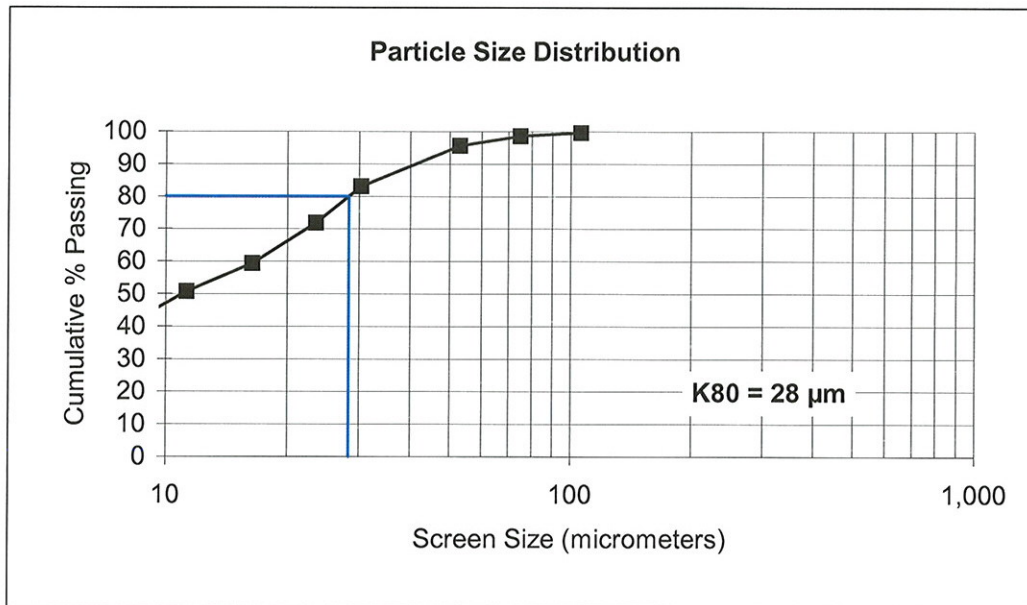
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F38**

Dry Solids S.G.= 3.15		Water Temperature = 27.50 C°			
Size		Weight grams	% Retained		% Passing Cumulative
Mesh	µm		Individual	Cumulative	
150	106	0.2	0.3	0.3	99.7
200	75	0.5	1.0	1.4	98.6
270	53	1.5	3.0	4.3	95.7
	30	6.2	12.6	16.9	83.1
	24	5.5	11.2	28.1	71.9
	16	6.2	12.5	40.6	59.4
	11	4.3	8.7	49.2	50.8
	9	3.9	7.9	57.1	42.9
	-9	21.3	42.9	100.0	0.0
Total	-	49.6	100.0	-	-
K80	28				



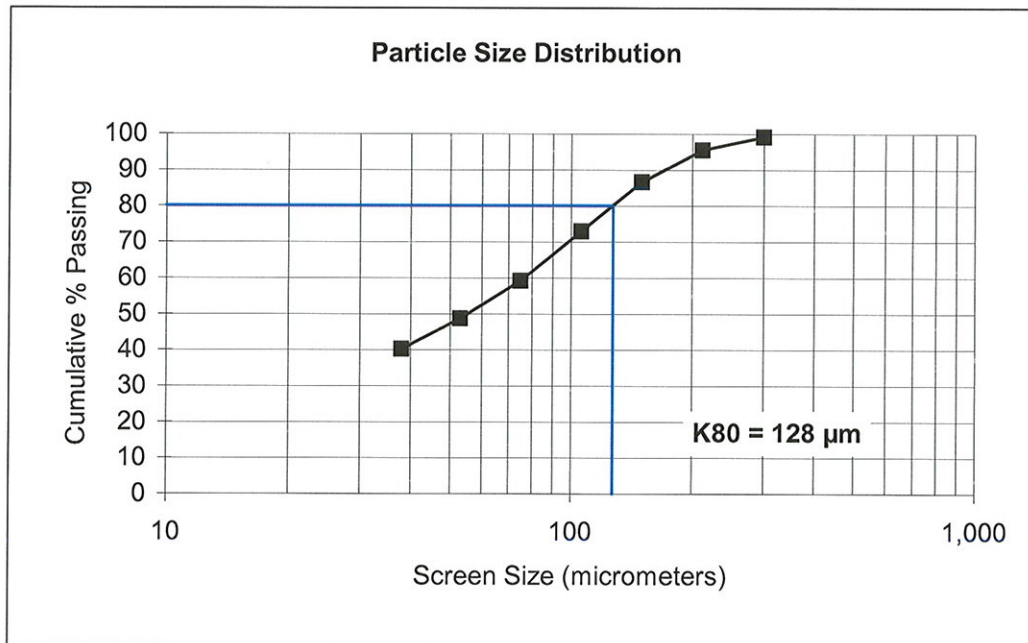
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Blk Ro Tail**

Test No.: **f 38**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.3	0.8	0.8	99.2
65	212	6.1	3.7	4.5	95.5
100	150	14.7	8.9	13.3	86.7
150	106	22.6	13.6	27.0	73.0
200	75	22.7	13.7	40.7	59.3
270	53	17.4	10.5	51.2	48.8
400	38	14.1	8.5	59.7	40.3
Pan	-38	66.7	40.3	100.0	0.0
Total	-	165.6	100.0	-	-
K80	128				



Test No.: F39

Project No.: 11474-001

Operator: CC

Date: August 1st, 2007

Purpose: Optimize Cu, Au, and Mo recovery
As F35, using recycle water

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh Comp 4

Grind: 22 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).
Recycle water from tests F32 - F35 used in primary grind

K₈₀ = 141 μm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 38 μm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-		22			7.9	-140
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	7.9	-200
Bulk Rougher 2	-	15	-	-	15			1	4	8.0	+20
Bulk Rougher 3	-	15	-	-	10			1	5	8.0	+20
<i>Cu Cleaner</i>											
Regrind	600	5	5	-	-		15			11.4	0
Cu 1st Cleaner	105	-	-	2.5	5			1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.4	0
Cu 2nd Cleaner	250	-	-	1	5			1	3.5	11.8	-20
Total	955	55	15	4.5	55	0	0	0			

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
Cu 2nd Cleaner	51.0	2.43	24.5	0.099	7.77	86.4	69.3	54.3
Cu 2nd Cleaner Tail	7.60	0.36	1.84	0.018	4.14	0.97	1.88	4.31
Cu 1st Cleaner Scav Conc	5.50	0.26	1.48	0.013	3.17	0.56	0.98	2.39
Cu 1st Cleaner Scav Tail	141.4	6.74	0.14	0.001	0.54	1.37	1.94	10.5
Rougher Tail	1891.8	90.2	0.08	0.001	0.110	10.7	25.9	28.5
Head (calc.) (direct)	2097.3	100.0	0.69	0.003	0.35	100.0	100.0	100.0
Combined Products			Not sufficient sample					
Cu 2nd Cleaner Conc	51.0	2.43	24.5	0.099	7.77	86.4	69.3	54.3
Cu 1st Cleaner Conc	58.6	2.79	21.6	0.088	7.30	87.3	71.1	58.6
Cu 1st Cleaner Conc + Scav Conc	64.1	3.06	19.8	0.082	6.94	87.9	72.1	61.0
Rougher Conc	205.5	9.80	6.28	0.026	2.54	89.3	74.1	71.5
Combined Tail	2033.2	96.9	0.09	0.001	0.14	12.1	27.9	39.0
Rougher Tail	1891.8	90.2	0.08	0.001	0.11	10.7	25.9	28.5
Head (calc.)	2097.3	100.0	0.6897	0.003	0.35	100.0	100.0	100.0

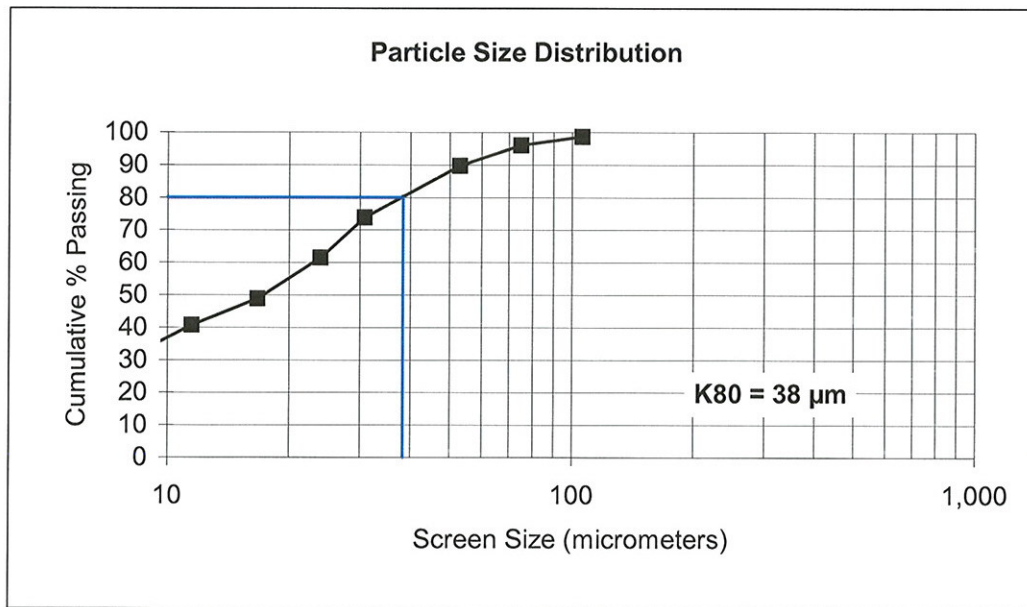
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **F39**

Dry Solids S.G.= 3.08		Water Temperature = 27.50 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
150	106	0.6	1.2	1.2	98.8
200	75	1.4	2.7	3.9	96.1
270	53	3.2	6.3	10.2	89.8
	31	8.0	15.9	26.1	73.9
	24	6.2	12.4	38.5	61.5
	17	6.3	12.6	51.0	49.0
	11	4.1	8.2	59.2	40.8
	9	3.6	7.2	66.4	33.6
	-9	16.9	33.6	100.0	0.0
Total	-	50.2	100.0	-	-
K80	38				



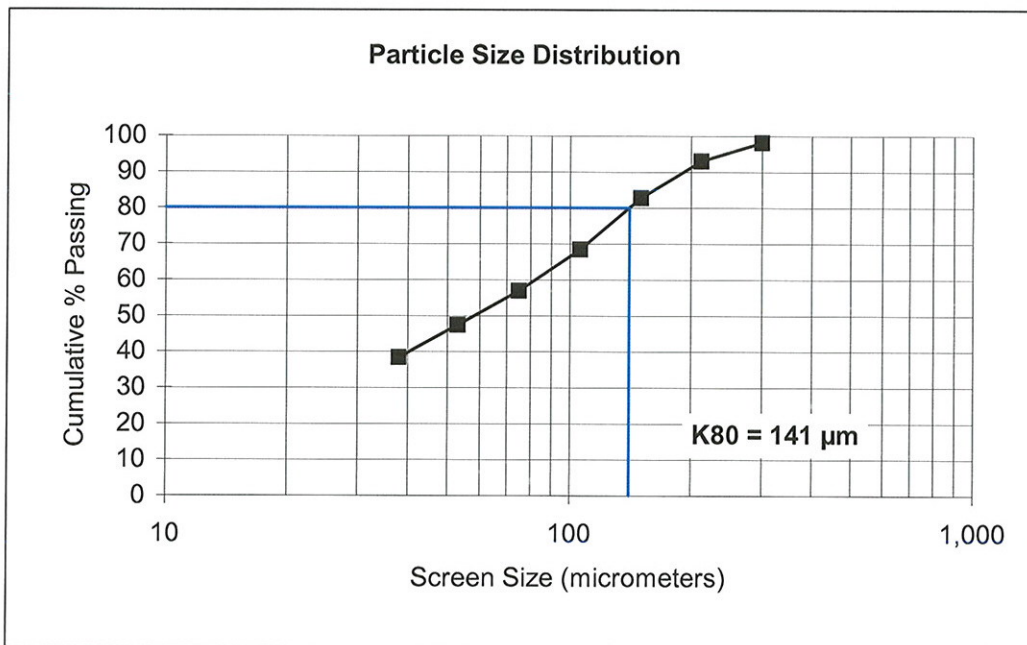
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Blk Ro Tail**

Test No.: **F 39**

Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
48	300	2.8	1.8	1.8	98.2
65	212	8.3	5.2	7.0	93.0
100	150	16.2	10.1	17.1	82.9
150	106	23.0	14.4	31.5	68.5
200	75	18.4	11.5	43.0	57.0
270	53	15.2	9.5	52.5	47.5
400	38	14.5	9.1	61.6	38.4
Pan	-38	61.3	38.4	100.0	0.0
Total	-	159.7	100.0	-	-
K80	141				



Test No.: LC-F1

Project No.: 11474-001

Operator: RG

Date: March 21st, 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh BFP-ARSE Composite

Grind: 27 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

Ro Tail $K_{80} = 119 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

$K_{80} = 23 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302				MIBC	Grind	Cond.	Froth		
Grind	-	15	10				-	27			7.7	80
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-					15		1	3		80
Bulk Rougher 2	-	10					15		1	4		50
Bulk Rougher 3	-	15					10		1	5		-100
<i>Cu Cleaner</i>												
Regrind	100	5	5					15			8.5	40
Cu 1st Cleaner	110	-	-				5		1	4	10.0	50
Cu 1st Cleaner Scav	-	5	-				5		1	2		
Cu 2nd Cleaner	50	-	-				5		1	3	10.5	20
Total	260	50	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	40.8	2.07	20.6	0.160	35.4	6.80	67.0	84.5	74.9	65.9	55.8	66.6
Cu 2nd Cleaner Tail	12.9	0.65	1.11	0.016	10.7	1.29	11.1	1.44	2.37	6.29	3.35	3.49
Cu 1st Cleaner Scav Conc	6.80	0.34	1.94	0.010	14.1	1.91	16.8	1.33	0.78	4.37	2.61	2.78
Cu 1st Cleaner Scav Tail	176.5	8.94	0.15	0.001	0.75	0.23	1.40	2.66	2.03	6.04	8.17	6.02
Rougher Tail	1737.0	88.0	0.06	<0.001	0.22	0.09	<0.50	10.1	19.9	17.4	30.1	21.1
Head (calc.) (direct)	1974.0	100.0	0.50	0.004	1.11	0.25	2.08	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	40.8	2.07	20.6	0.160	35.4	6.80	67.0	84.5	74.9	65.9	55.8	66.6
Cu 1st Cleaner Conc	53.7	2.72	15.9	0.125	29.5	5.48	53.6	85.9	77.3	72.2	59.2	70.1
Cu 1st Cleaner Conc + Scav Conc	60.5	3.06	14.3	0.112	27.7	5.08	49.4	87.2	78.0	76.5	61.8	72.8
Rougher Conc	237.0	12.0	3.77	0.029	7.64	1.47	13.7	89.9	80.1	82.6	69.9	78.9
Rougher Tail	1737.0	88.0	0.06	0.001	0.22	0.09	0.50	10.1	19.9	17.4	30.1	21.1
Head (calc.)	1974.0	100.0	0.50	0.00	1.11	0.25	2.08	100.0	100.0	100.0	100.0	100.0

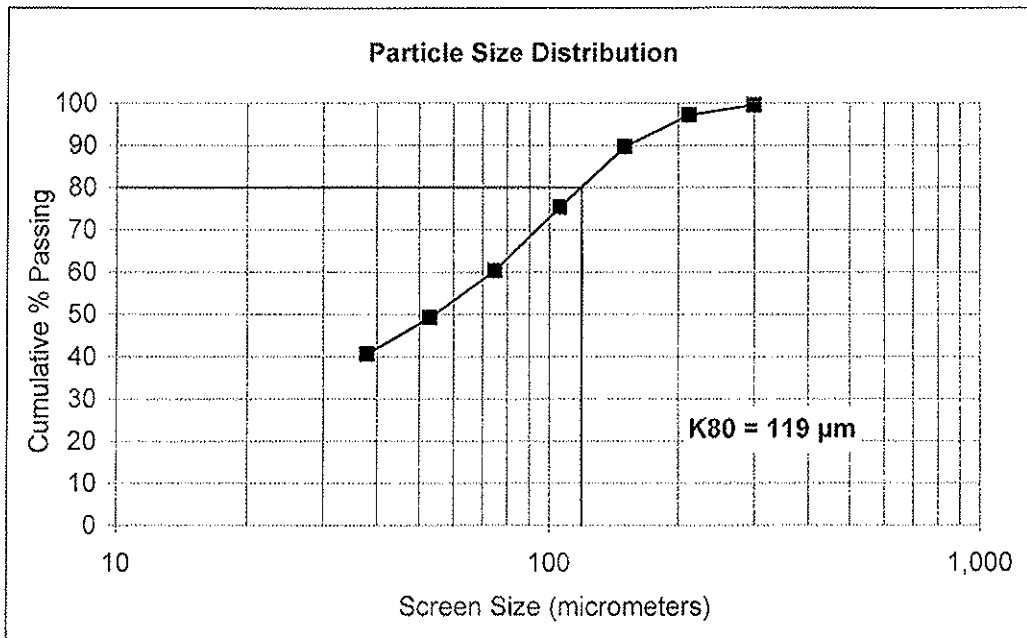
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **LC-F1**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.80	0.42	0.42	99.6
65	212	4.40	2.34	2.76	97.2
100	150	14.2	7.54	10.3	89.7
150	106	26.9	14.3	24.6	75.4
200	75	28.3	15.0	39.6	60.4
270	53	21.0	11.1	50.7	49.3
400	38	16.2	8.60	59.3	40.7
Pan	-38	76.6	40.7	100.0	0.00
Total	-	188.4	100.0	-	-
K80	119				



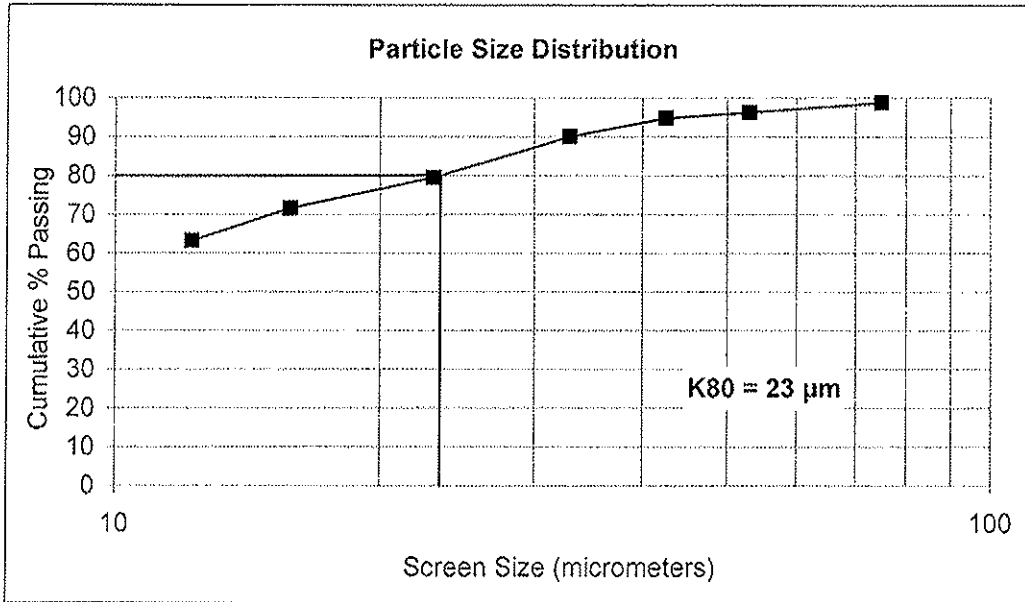
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LC-F1**

Dry Solids S.G.=		2.92	Water Temperature =		6.00 C°
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
200	75	0.57	1.14	1.14	98.9
270	53	1.27	2.54	3.68	96.3
	43	0.76	1.52	5.20	94.8
	33	2.35	4.70	9.89	90.1
	23	5.30	10.6	20.5	79.5
	16	3.96	7.91	28.4	71.6
	12	4.16	8.31	36.7	63.3
	-12	31.7	63.3	100.0	0.00
Total	-	50.0	100.0	-	-
K80	23				



Test No.: LC-F2

Project No.: 11474-001

Operator: RG

Date: March , 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh BFP-KH Composite

Grind: 32 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). K₈₀ ~100 µm

Regrind: 15 minutes in laboratory pebble mill (PM). K₈₀ = 20 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302			MIBC	Grind	Cond.	Froth			
Grind	-	15	10			-	32				7.7	50
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-				15		1	3			50
Bulk Rougher 2	-	10				15		1	4			60
Bulk Rougher 3	-	15				10		1	5			60
<i>Cu Cleaner</i>												
Regrind	100	5	5				15				8.8	100
Cu 1st Cleaner	70	-	-			5		1	4		10.0	80
Cu 1st Cleaner Scav	-	5	-			5		1	2			
Cu 2nd Cleaner	40	-	-			5		1	3		10.5	30
Total	210	50	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	34.6	1.76	20.7	0.240	33.4	8.37	51.7	89.4	79.7	78.6	60.6	54.1
Cu 2nd Cleaner Tail	10.0	0.51	1.03	0.015	8.91	1.44	9.90	1.29	1.44	6.06	3.01	3.00
Cu 1st Cleaner Scav Conc	5.8	0.29	1.01	0.008	8.82	1.46	9.80	0.73	0.45	3.48	1.77	1.72
Cu 1st Cleaner Scav Tail	159.9	8.11	0.07	<0.001	0.32	0.23	1.90	1.30	1.53	3.48	7.70	9.19
Rougher Tail	1761.0	89.3	0.03	<0.001	0.07	0.07	0.60	7.26	16.9	8.38	26.9	32.0
Head (calc.) (direct)	1971.3	100.0	0.41	0.005	0.75	0.24	1.68	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	34.6	1.76	20.7	0.240	33.4	8.37	51.7	89.4	79.7	78.6	60.6	54.1
Cu 1st Cleaner Conc	44.6	2.26	16.3	0.190	27.9	6.82	42.3	90.7	81.1	84.7	63.6	57.1
Cu 1st Cleaner Conc + Scav Conc	50.4	2.56	14.5	0.169	25.7	6.20	38.6	91.4	81.6	88.1	65.4	58.8
Rougher Conc	210.3	10.67	3.53	0.041	6.41	1.66	10.7	92.7	83.1	91.6	73.1	68.0
Rougher Tail	1761.0	89.3	0.03	0.001	0.07	0.07	0.60	7.26	16.9	8.38	26.9	32.0
Head (calc.)	1971.3	100.0	0.41	0.005	0.75	0.24	1.68	100.0	100.0	100.0	100.0	100.0

Test No.: LC-F3

Project No.: 11474-001

Operator: RG

Date: March , 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh SS Composite

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

$K_{80} \sim 100 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

$K_{80} = 20 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				
	Lime	PEX	Cytec 3302				MIBC	Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-	28			7.7	10
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-					15		1	3		10
Bulk Rougher 2	-	10					15		1	4		60
Bulk Rougher 3	-	15					10		1	5		40
<i>Cu Cleaner</i>												
Regrind	100	5	5					15			8.8	40
Cu 1st Cleaner	70	-	-				5		1	4	10.0	40
Cu 1st Cleaner Scav	-	5	-				5		1	2		
Cu 2nd Cleaner	50	-	-				5		1	3	10.5	20
Total	220	50	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	20.8	1.05	21.9	0.130	34.0	7.56	39.7	88.6	57.4	75.0	60.7	41.2
Cu 2nd Cleaner Tail	5.60	0.28	0.76	0.007	5.40	1.06	6.00	0.83	0.83	3.21	2.29	1.68
Cu 1st Cleaner Scav Conc	3.20	0.16	1.19	0.007	7.11	1.96	7.90	0.74	0.48	2.41	2.42	1.26
Cu 1st Cleaner Scav Tail	122.6	6.20	0.07	<0.001	0.60	0.15	1.70	1.67	2.60	7.80	7.10	10.4
Rougher Tail	1825.0	92.3	0.02	<0.001	0.06	0.04	0.50	8.16	38.7	11.6	27.5	45.5
Head (calc.) (direct)	1977.2	100.0	0.26	0.002	0.48	0.13	1.01	100.0	100.0	100.0	100.0	100.0
			0.30	0.002	0.52	0.14	0.70					
Combined Products Not sufficient sample												
Cu 2nd Cleaner Conc	20.8	1.05	21.9	0.130	34.0	7.56	39.7	88.6	57.4	75.0	60.7	41.2
Cu 1st Cleaner Conc	26.4	1.34	17.4	0.104	27.9	6.18	32.6	89.4	58.2	78.2	63.0	42.8
Cu 1st Cleaner Conc + Scav Conc	29.6	1.50	15.7	0.093	25.7	5.72	29.9	90.2	58.7	80.6	65.4	44.1
Rougher Conc	152.2	7.70	3.10	0.019	5.48	1.23	7.18	91.8	61.3	88.4	72.5	54.5
Rougher Tail	1825.0	92.3	0.02	0.001	0.06	0.04	0.50	8.16	38.7	11.6	27.5	45.5
Head (calc.)	1977.2	100.0	0.26	0.002	0.48	0.13	1.01	100.0	100.0	100.0	100.0	100.0

Test No.: LC-F4

Project No.: 11474-001

Operator: RG

Date: March , 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh ZS-QZSE Composite

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). K₈₀ ~100 µm

Regrind: 15 minutes in laboratory pebble mill (PM). K₈₀ = 20 µm

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes				
	Lime	PEX	Cytec 3302				MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-		28			7.7	20
<i>Rougher Kinetics</i>													
Bulk Rougher 1	-	-					15			1	3		0
Bulk Rougher 2	-	10					15			1	4		40
Bulk Rougher 3	-	15					10			1	5		40
<i>Cu Cleaner</i>													
Regrind	100	5	5						15			8.8	60
Cu 1st Cleaner	60	-	-				5			1	4	10.0	60
Cu 1st Cleaner Scav	-	5	-				5			1	2		
Cu 2nd Cleaner	50	-	-				5			1	3	10.5	20
Total	210	50	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	23.5	1.19	15.8	0.420	33.8	3.52	51.4	73.3	80.6	58.6	40.8	48.3
Cu 2nd Cleaner Tail	9.80	0.50	1.18	0.022	9.58	0.78	9.4	2.28	1.76	6.92	3.77	3.68
Cu 1st Cleaner Scav Conc	5.20	0.26	1.24	0.016	10.1	0.93	11.2	1.27	0.68	3.86	2.38	2.33
Cu 1st Cleaner Scav Tail	143.1	7.23	0.13	0.002	0.77	0.15	1.70	3.67	2.34	8.12	10.6	9.73
Rougher Tail	1798.0	90.8	0.06	0.001	0.17	0.05	<0.50	19.5	14.7	22.5	42.5	36.0
Head (calc.) (direct)	1979.6	100.0	0.26	0.006	0.69	0.10	1.26	100.0	100.0	100.0	100.0	100.0
Combined Products Not sufficient sample												
Cu 2nd Cleaner Conc	23.5	1.19	15.8	0.420	33.8	3.52	51.4	73.3	80.6	58.6	40.8	48.3
Cu 1st Cleaner Conc	33.3	1.68	11.5	0.303	26.7	2.71	39.0	75.5	82.3	65.5	44.5	52.0
Cu 1st Cleaner Conc + Scav Conc	38.5	1.94	10.1	0.264	24.4	2.47	35.3	76.8	83.0	69.3	46.9	54.3
Rougher Conc	181.6	9.17	2.25	0.058	5.79	0.64	8.82	80.5	85.3	77.5	57.5	64.0
Rougher Tail	1798.0	90.8	0.06	0.001	0.17	0.05	0.50	19.5	14.7	22.5	42.5	36.0
Head (calc.)	1979.6	100.0	0.26	0.006	0.69	0.10	1.2631	100.0	100.0	100.0	100.0	100.0

Test No.: LC-F5

Project No.: 11474-001

Operator: RG

Date: March 28th, 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh BFP-ARSE Composite

Grind: 27 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-3).

Ro Tail K₈₀ = 104 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 23 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Ep
	Lime	PEX	Cytec 3302		CMC	MIBC		Grind	Cond.	Froth			
Grind	-	15	10			-		27			7.6	20	
<i>Rougher Kinetics</i>													
Bulk Rougher 1	-	-				15			1	3	7.6	20	
Bulk Rougher 2	-	10				15			1	4	7.7	60	
Bulk Rougher 3	-	15				10			1	5	7.7	60	
<i>Cu Cleaner</i>													
Regrind	500	5	5					15			9.7	0	
Cu 1st Cleaner	60	-	-			5			1	4	11.0	0	
Cu 1st Cleaner Scav	-	5	-			5			1	2			
Cu 2nd Cleaner	150	-	-			5			1	3	11.5	0	
Total	710	50	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	38.2	1.93	23.5	0.170	31.1	7.38	74.1	84.6	72.9	55.5	51.4	65.0
Cu 2nd Cleaner Tail	18.2	0.92	0.90	0.019	7.54	1.03	9.60	1.54	3.88	6.41	3.42	4.01
Cu 1st Cleaner Scav Conc	14.4	0.73	1.31	0.011	10.4	1.66	11.5	1.78	1.78	7.00	4.36	3.80
Cu 1st Cleaner Scav Tail	252.7	12.8	0.14	0.001	1.39	0.23	1.40	3.33	2.84	16.4	10.6	8.13
Rougher Tail	1655.7	83.7	0.06	0.001	0.19	0.10	0.50	8.74	18.59	14.7	30.2	19.0
Head (calc.) (direct)	1979.2	100.0	0.54	0.005	1.08	0.28	2.20	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	38.2	1.93	23.5	0.170	31.1	7.38	74.1	84.6	72.9	55.5	51.4	65.0
Cu 1st Cleaner Conc	56.4	2.85	16.2	0.121	23.5	5.33	53.3	86.1	76.8	61.9	54.8	69.0
Cu 1st Cleaner Conc + Scav Conc	70.8	3.58	13.2	0.099	20.8	4.58	44.8	87.9	78.6	68.9	59.2	72.9
Rougher Conc	323.5	16.3	2.99	0.022	5.65	1.18	10.9	91.3	81.4	85.3	69.8	81.0
Rougher Tail	1655.7	83.7	0.06	0.001	0.19	0.10	0.50	8.74	18.6	14.7	30.2	19.0
Head (calc.)	1979.2	100.0	0.54	0.005	1.08	0.28	2.20	100.0	100.0	100.0	100.0	100.0

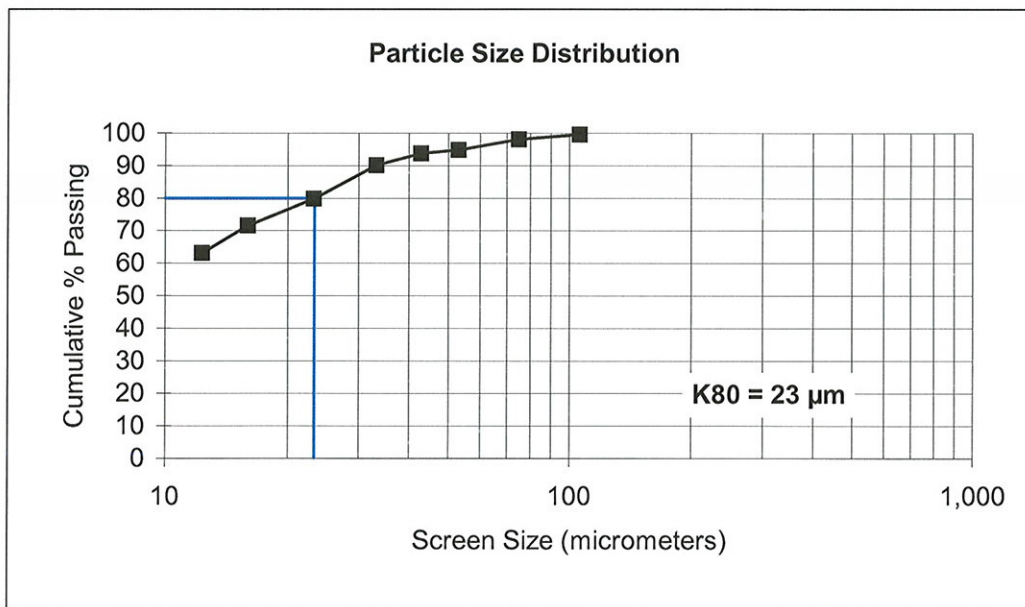
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LC-F5**

Dry Solids S.G.= 2.89		Water Temperature = 6.00 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
150	106	0.2	0.4	0.4	99.6
200	75	0.7	1.4	1.9	98.1
270	53	1.6	3.2	5.1	94.9
	43	0.6	1.1	6.2	93.8
	33	1.8	3.6	9.8	90.2
	23	5.2	10.4	20.2	79.8
	16	4.1	8.2	28.4	71.6
	12	4.2	8.5	36.9	63.1
	-12	31.5	63.1	100.0	0.0
Total	-	49.9	100.0	-	-
K80	23				



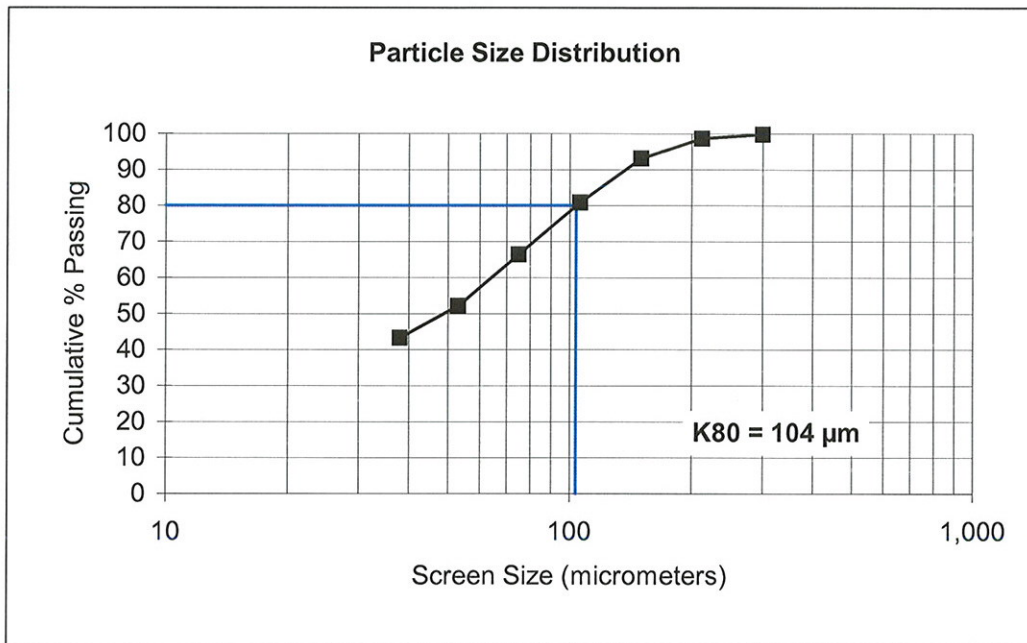
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **LC-F5**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.3	0.2	0.2	99.8
65	212	2.1	1.2	1.4	98.6
100	150	9.7	5.5	6.9	93.1
150	106	21.5	12.2	19.1	80.9
200	75	25.4	14.4	33.5	66.5
270	53	25.2	14.3	47.8	52.2
400	38	15.7	8.9	56.7	43.3
Pan	-38	76.2	43.3	100.0	0.0
Total	-	176.1	100.0	-	-
K80	104				



Test No.: LC-F6

Project No.: 11474-001

Operator: RG

Date: March 28th, 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh BFP-KH Composite

Grind: 32 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

$K_{80} = 96 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

$K_{80} = 21 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes				pH	Ep
	Lime	PEX	Cytec 3302				MIBC	Grind	Cond.	Froth			
Grind	-	15	10				-	32			7.9	-20	
<i>Rougher Kinetics</i>													
Bulk Rougher 1	-	-					15		1	3	7.9	-20	
Bulk Rougher 2	-	10					15		1	4	7.8	0	
Bulk Rougher 3	-	15					10		1	5	7.8	20	
<i>Cu Cleaner</i>													
Regrind	500	5	5					15			11.1	0	
Cu 1st Cleaner	0	-	-				5		1	4	11.1	0	
Cu 1st Cleaner Scav	-	5	-				5		1	2			
Cu 2nd Cleaner	150	-	-				5		1	3	11.5	0	
Total	650	50	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	27.9	1.40	27.4	0.320	30.2	9.72	66.2	88.3	78.8	53.6	54.8	57.9
Cu 2nd Cleaner Tail	10.2	0.51	1.30	0.032	8.12	1.65	9.70	1.53	2.88	5.27	3.40	3.10
Cu 1st Cleaner Scav Conc	7.40	0.37	1.57	0.017	10.8	2.20	11.3	1.34	1.11	5.09	3.29	2.62
Cu 1st Cleaner Scav Tail	203.0	10.17	0.09	0.001	2.10	0.25	1.40	2.18	1.79	27.1	10.3	8.92
Rougher Tail	1747.7	87.6	0.03	<0.001	0.08	0.08	0.50	6.66	15.4	8.90	28.3	27.4
Head (calc.) (direct)	1996.2	100.0	0.43	0.006	0.79	0.25	1.60	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	27.9	1.40	27.4	0.320	30.2	9.72	66.2	88.3	78.8	53.6	54.8	57.9
Cu 1st Cleaner Conc	38.1	1.91	20.4	0.243	24.3	7.56	51.1	89.8	81.7	58.9	58.2	61.0
Cu 1st Cleaner Conc + Scav Conc	45.5	2.28	17.3	0.206	22.1	6.69	44.6	91.2	82.8	64.0	61.5	63.7
Rougher Conc	248.5	12.4	3.25	0.039	5.76	1.43	9.31	93.3	84.6	91.1	71.7	72.6
Rougher Tail	1747.7	87.6	0.03	0.001	0.08	0.08	0.50	6.66	15.4	8.90	28.3	27.4
Head (calc.)	1996.2	100.0	0.43	0.006	0.79	0.25	1.60	100.0	100.0	100.0	100.0	100.0

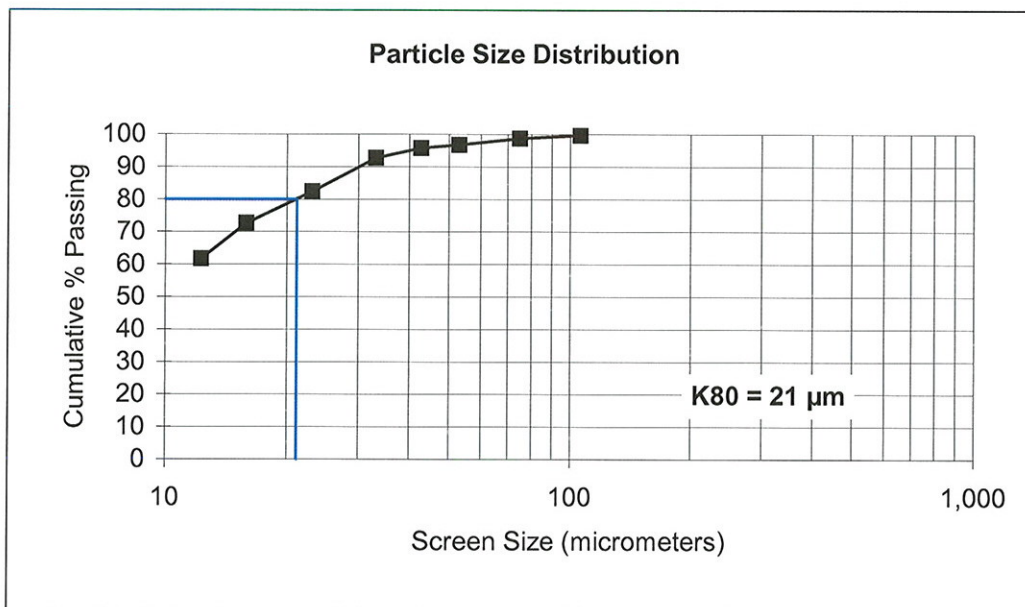
SGS Minerals Services
Size Distribution Analysis

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LC-F6**

Dry Solids S.G.=		2.90	Water Temperature =		6.00 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
150	106	0.2	0.3	0.3	99.7
200	75	0.5	1.0	1.3	98.7
270	53	1.0	1.9	3.3	96.7
	43	0.5	0.9	4.2	95.8
	33	1.5	3.0	7.2	92.8
	23	5.2	10.4	17.6	82.4
	16	4.9	9.7	27.3	72.7
	12	5.4	10.9	38.2	61.8
	-12	30.8	61.8	100.0	0.0
Total	-	49.9	100.0	-	-
K80	21				



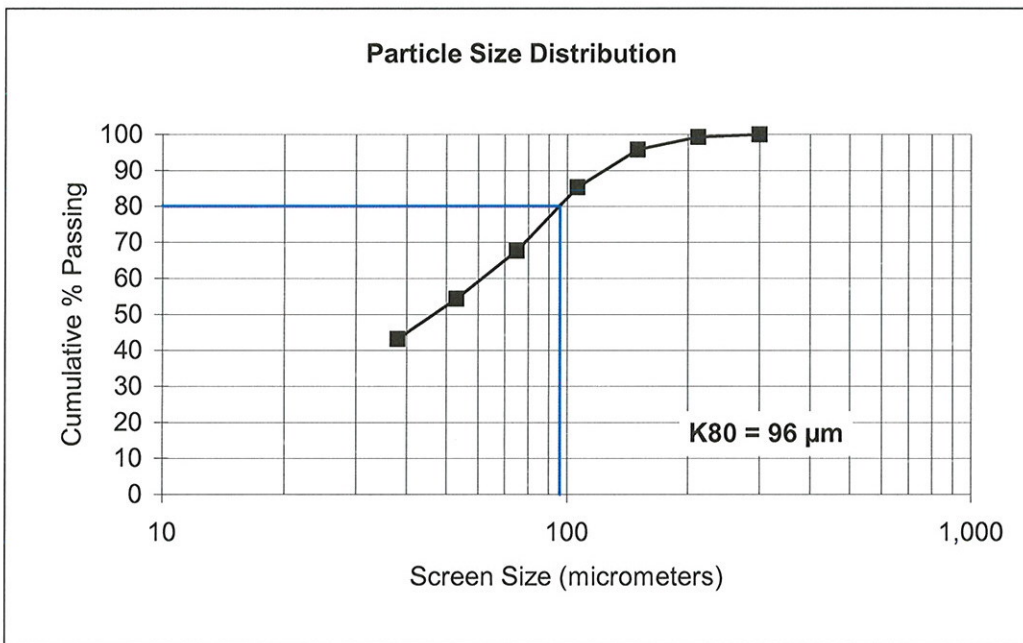
SGS Minerals Services
Size Distribution Analysis

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **LC-F6**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.0	0.0	0.0	100.0
65	212	1.3	0.7	0.7	99.3
100	150	6.0	3.4	4.1	95.9
150	106	18.5	10.5	14.6	85.4
200	75	31.1	17.6	32.3	67.7
270	53	23.5	13.3	45.6	54.4
400	38	19.7	11.2	56.7	43.3
Pan	-38	76.3	43.3	100.0	0.0
Total	-	176.4	100.0	-	-
K80	96				



Test No.: LC-F7

Project No.: 11474-001

Operator: RG

Date: March 28th, 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh SS Composite

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2).

$K_{80} = 97 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

$K_{80} = 15 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne								Time, minutes				
	Lime	PEX	Cytec 3302				MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10				-		28			7.8	-40
<i>Rougher Kinetics</i>													
Bulk Rougher 1	-	-					15			1	3	7.8	-40
Bulk Rougher 2	-	10					15			1	4	7.8	10
Bulk Rougher 3	-	15					10			1	5	7.8	40
<i>Cu Cleaner</i>													
Regrind	500	5	5						15			11.4	-20
Cu 1st Cleaner	0	-	-				5			1	4	11.4	-20
Cu 1st Cleaner Scav	-	5	-				5			1	2		
Cu 2nd Cleaner	170	-	-				5			1	3	11.5	-20
Total	670	50	15	0	0	0	55	0					

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
Cu 2nd Cleaner	17.3	0.87	28.9	0.150	31.9	8.94	54.0	89.3	55.1	47.2	52.2	45.8	
Cu 2nd Cleaner Tail	6.20	0.31	1.06	0.018	7.02	1.46	6.90	1.17	2.37	3.72	3.06	2.10	
Cu 1st Cleaner Scav Conc	2.80	0.14	1.31	0.016	10.2	3.45	9.00	0.65	0.95	2.44	3.26	1.23	
Cu 1st Cleaner Scav Tail	145.0	7.30	0.07	<0.001	2.89	0.22	0.90	1.79	3.08	35.8	10.8	6.39	
Rougher Tail	1816.0	91.4	0.02	<0.001	0.07	0.05	0.50	7.13	38.5	10.9	30.7	44.5	
Head (calc.) (direct)	1987.3	100.0	0.28 0.30	0.002 0.002	0.59 0.52	0.15 0.14	1.03 0.70	100.0	100.0	100.0	100.0	100.0	
Combined Products													
Not sufficient sample													
Cu 2nd Cleaner Conc	17.3	0.87	28.9	0.150	31.9	8.94	54.0	89.3	55.1	47.2	52.2	45.8	
Cu 1st Cleaner Conc	23.5	1.18	21.6	0.115	25.3	6.97	41.6	90.4	57.4	50.9	55.3	47.9	
Cu 1st Cleaner Conc + Scav Conc	26.3	1.32	19.4	0.105	23.7	6.59	38.1	91.1	58.4	53.3	58.6	49.1	
Rougher Conc	171.3	8.62	3.04	0.017	6.09	1.20	6.61	92.9	61.5	89.1	69.3	55.5	
Rougher Tail	1816.0	91.4	0.022	0.001	0.07	0.050	0.50	7.13	38.5	10.9	30.7	44.5	
Head (calc.)	1987.3	100.0	0.2819	0.002	0.5888	0.149	1.0269	100.0	100.0	100.0	100.0	100.0	

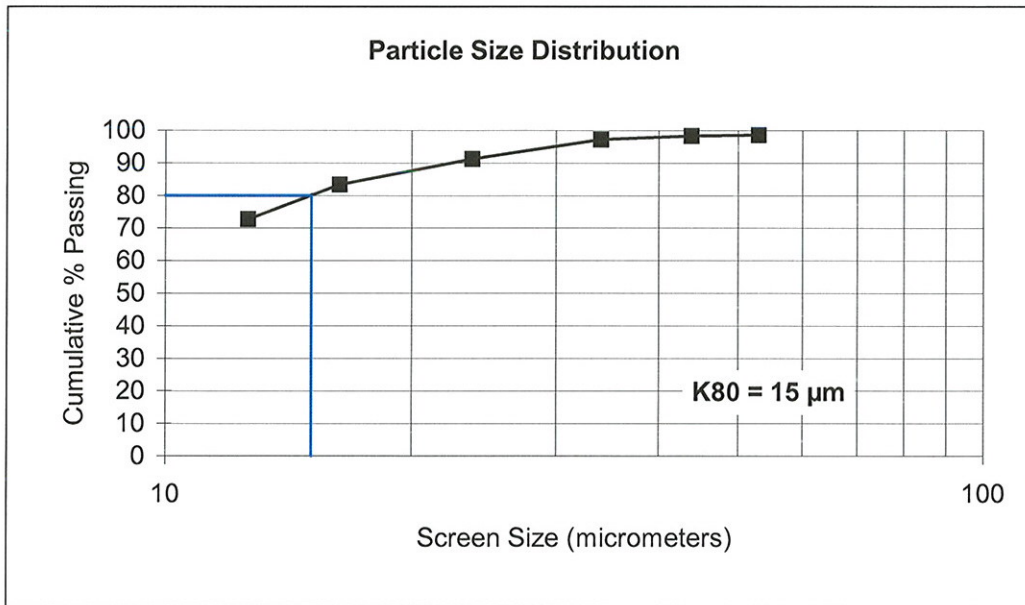
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LC-F7**

Dry Solids S.G.=		2.81	Water Temperature =		6.00 C°
Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
270	53	0.6	1.3	1.3	98.7
	44	0.1	0.3	1.6	98.4
	34	0.5	1.1	2.7	97.3
	24	2.5	6.0	8.7	91.3
	16	3.3	7.9	16.6	83.4
	13	4.5	10.6	27.2	72.8
	-13	30.5	72.8	100.0	0.0
Total	-	42.0	100.0	-	-
K80	15				



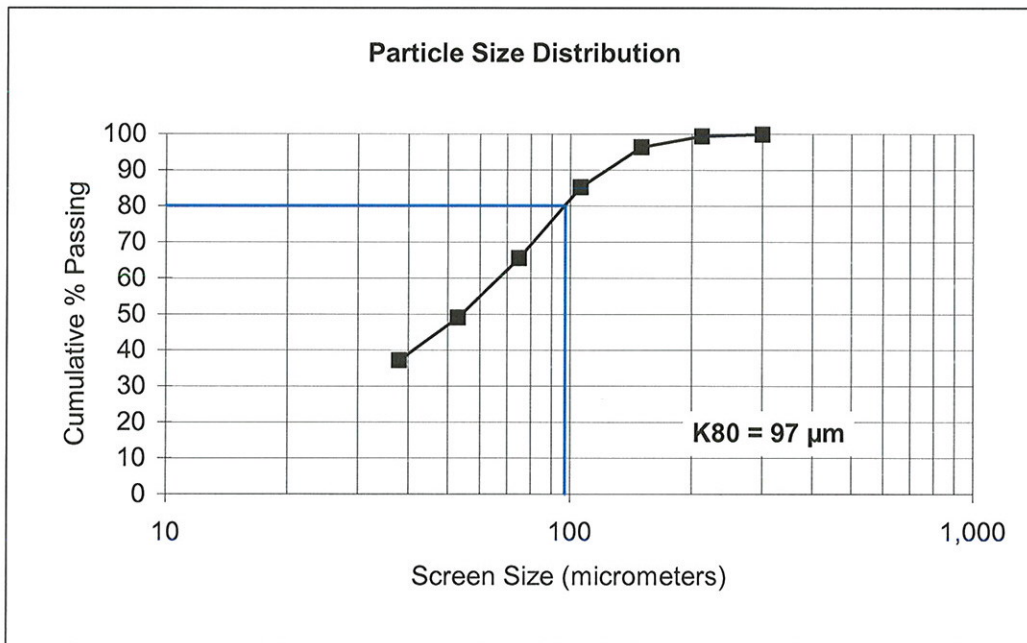
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **LC-F7**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.1	0.0	0.0	100.0
65	212	1.2	0.5	0.6	99.4
100	150	6.6	3.0	3.6	96.4
150	106	24.3	11.1	14.7	85.3
200	75	43.2	19.7	34.4	65.6
270	53	36.0	16.4	50.9	49.1
400	38	26.1	11.9	62.8	37.2
Pan	-38	81.4	37.2	100.0	0.0
Total	-	218.9	100.0	-	-
K80	97				



Test No.: LC-F8

Project No.: 11474-001

Operator: RG

Date: March 28th, 2007

Purpose: Test Cu cleaner on lithology composites

Procedure: As outlined below.

Feed: 2 kg of minus 10 mesh ZS-QZSE Composite

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). K₈₀ = 147 µm

Regrind: 15 minutes in laboratory pebble mill (PM). K₈₀ = 16 µm

Conditions:

Stage	Reagents added, grams per tonne							Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302			MIBC		Grind	Cond.	Froth		
Grind	-	15	10			-		28			7.5	-60
<i>Rougher Kinetics</i>												
Bulk Rougher 1	-	-				15			1	3	7.5	-60
Bulk Rougher 2	-	10				15			1	4	7.5	0
Bulk Rougher 3	-	15				10			1	5	7.5	20
<i>Cu Cleaner</i>												
Regrind	500	5	5					15			11.1	-20
Cu 1st Cleaner	*	-	-			5			1	4	11.1	-20
Cu 1st Cleaner Scav	-	5	-			5			1	2		
Cu 2nd Cleaner	125	-	-			5			1	3	11.5	-20
Total	625	50	15	0	0	0	55	0				

* as required to maintain pH

Stage	Bulk Ro	Cleaners
Flotation Cell	1000g-D1	250g-D1
Speed: rpm	1800	1200

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
Cu 2nd Cleaner	16.8	0.84	23.2	0.610	30.1	4.42	69.0	71.5	78.1	33.7	32.0	45.5
Cu 2nd Cleaner Tail	12.3	0.61	1.24	0.048	8.37	0.84	10.0	2.80	4.50	6.86	4.46	4.83
Cu 1st Cleaner Scav Conc	6.50	0.32	1.33	0.022	12.3	3.53	10.0	1.58	1.09	5.33	9.90	2.55
Cu 1st Cleaner Scav Tail	173.2	8.66	0.14	0.002	2.83	0.20	1.75	4.45	2.64	32.6	14.9	11.9
Rougher Tail	1792.1	89.6	0.06	0.001	0.18	0.05	0.50	19.7	13.7	21.5	38.7	35.2
Head (calc.) (direct)	2000.9	100.0	0.27	0.007	0.75	0.12	1.27	100.0	100.0	100.0	100.0	100.0
Combined Products												
Not sufficient sample												
Cu 2nd Cleaner Conc	16.8	0.84	23.2	0.610	30.1	4.42	69.0	71.5	78.1	33.7	32.0	45.5
Cu 1st Cleaner Conc	29.1	1.45	13.9	0.372	20.9	2.91	44.1	74.3	82.6	40.5	36.5	50.4
Cu 1st Cleaner Conc + Scav Conc	35.6	1.78	11.6	0.308	19.3	3.02	37.8	75.8	83.7	45.9	46.4	52.9
Rougher Conc	208.8	10.4	2.10	0.054	5.65	0.68	7.90	80.3	86.3	78.5	61.3	64.8
Rougher Tail	1792.1	89.6	0.06	0.001	0.18	0.05	0.50	19.7	13.7	21.5	38.7	35.2
Head (calc.)	2000.9	100.0	0.27	0.007	0.7503	0.12	1.27	100.0	100.0	100.0	100.0	100.0

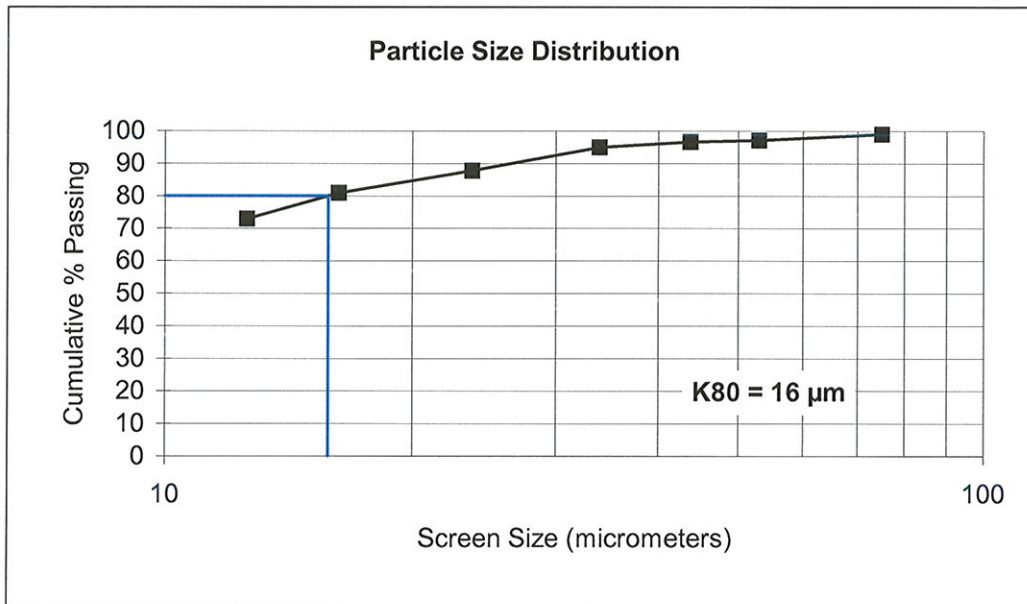
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LC-F8**

Dry Solids S.G.=		2.82	Water Temperature =		6.00 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
200	75	0.4	1.0	1.0	99.0
270	53	0.8	1.9	2.9	97.1
	44	0.2	0.4	3.3	96.7
	34	0.7	1.7	5.0	95.0
	24	3.1	7.1	12.1	87.9
	16	3.0	6.9	19.1	80.9
	13	3.4	7.9	27.0	73.0
	-13	31.2	73.0	100.0	0.0
Total	-	42.8	100.0	-	-
K80	16				



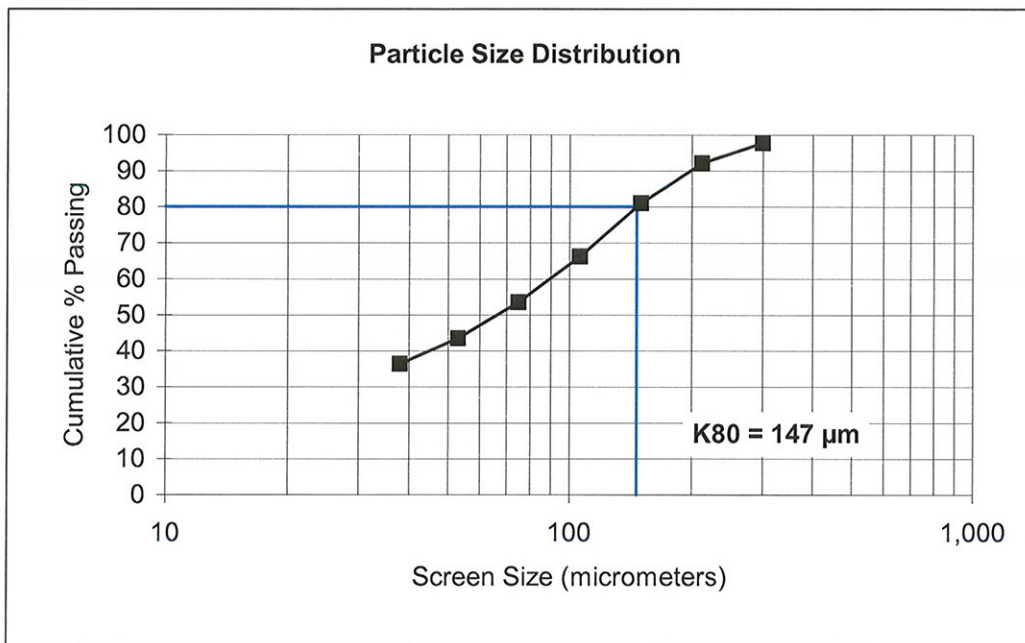
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Ro Tail**

Test No.: **LC-F8**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	5.0	2.2	2.2	97.8
65	212	12.5	5.6	7.8	92.2
100	150	25.1	11.2	18.9	81.1
150	106	33.2	14.8	33.7	66.3
200	75	28.7	12.8	46.4	53.6
270	53	22.4	10.0	56.4	43.6
400	38	16.1	7.2	63.6	36.4
Pan	-38	82.0	36.4	100.0	0.0
Total	-	225.0	100.0	-	-
K80	147				



Test No.: LCT-1

Project No.: 11474-001

Operator: RG/CC

Date: April 16th, 2007

Purpose: Test flowsheet in Locked Cycle

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Master Comp

Grind: 25 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1). Ro Tail $K_{80} = 131 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM). Cu Concentrate $K_{80} = 25 \mu\text{m}$
Cu 1st Cl Scav Tail $K_{80} = 17 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Ej
	Lime	PEX	Cytec 3302	MIBC			Grind	Cond.	Froth				
Grind	-	15	10	-			25				7.8	-30	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-	15				1	3		7.8	80	
Bulk Rougher 2	-	15	-	15				1	4		7.8		
Bulk Rougher 3	-	15	-	10				1	5				
<i>Cu Cleaner</i>													
Regrind (PM)	785	5	5	-			15				11.4	-20	
Cu 1st Cleaner	150	-	-	5				1	4		11.5	-20	
Cu 1st Cleaner Scav	-	5	-	5				1	2		11.4	-10	
Cu 2nd Cleaner	175	-	-	5				1	2.5		11.8	-20	
Total	1110	55	15	55									

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	111.2	1.40	25.7	0.39	28.5	8.80	72.2	83.5	80.3	45.2	58.0	60.8
1st Cleaner Scavenger Tail	671.7	8.43	0.11	0.005	4.08	0.31	1.56	2.11	6.42	39.1	12.2	7.93
Rougher Tail	7184.0	90.2	0.069	0.001	0.15	0.07	0.58	14.4	13.3	15.6	29.8	31.3
Combined Tail	7855.7	98.6	0.072	0.001	0.49	0.09	0.66	16.5	19.7	54.8	42.0	39.2
Head	7966.9	100.0	0.43	0.007	0.88	0.21	1.66	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	24.9	0.21	28.2	0.370	28.3	9.80	72.0	13.6	11.5	6.80	9.56	9.13
2nd Cleaner Conc B	28.2	0.24	25.6	0.350	27.9	8.38	69.5	14.0	12.4	7.60	9.26	10.0
2nd Cleaner Conc C	27.6	0.23	26.2	0.370	28.7	8.17	71.5	14.0	12.8	7.65	8.83	10.1
2nd Cleaner Conc D	29.5	0.25	24.9	0.370	29.5	8.92	68.8	14.2	13.7	8.40	10.3	10.3
2nd Cleaner Conc E	26.1	0.22	26.3	0.400	28.6	8.75	75.5	13.3	13.1	7.21	8.95	10.0
2nd Cleaner Conc F	28.0	0.23	25.6	0.420	27.1	9.31	73.4	13.9	14.7	7.33	10.2	10.5
2nd Cleaner Tail F	9.20	0.08	2.20	0.140	11.2	2.57	15.7	0.39	1.61	0.99	0.93	0.74
1st CI Scav Conc F	7.10	0.06	1.61	0.048	10.6	2.39	14.2	0.22	0.43	0.73	0.66	0.51
1st CI Scav Tail A	165.8	1.39	0.09	0.005	3.44	0.27	1.30	0.30	1.04	5.51	1.75	1.10
1st CI Scav Tail B	169.1	1.42	0.11	0.004	3.31	0.30	1.40	0.36	0.85	5.40	1.99	1.21
1st CI Scav Tail C	145.3	1.22	0.10	0.007	4.58	0.35	1.50	0.28	1.28	6.43	1.99	1.11
1st CI Scav Tail D	182.8	1.53	0.10	0.005	3.06	0.28	1.20	0.35	1.15	5.40	2.01	1.12
1st CI Scav Tail E	162.1	1.36	0.11	0.005	4.80	0.27	2.20	0.35	1.02	7.51	1.71	1.82
1st CI Scav Tail F	181.5	1.52	0.12	0.004	4.06	0.33	1.40	0.42	0.91	7.11	2.35	1.29
Ro Tail A	1786.0	15.0	0.073	0.001	0.17	0.08	<0.50	2.52	2.24	2.93	5.60	4.55
Ro Tail B	1787.0	15.0	0.066	<0.001	0.14	0.06	0.60	2.28	2.24	2.42	4.20	5.46
Ro Tail C	1820.0	15.2	0.071	<0.001	0.16	0.07	0.70	2.50	2.28	2.81	4.99	6.49
Ro Tail D	1776.0	14.9	0.065	<0.001	0.14	0.07	0.60	2.23	2.23	2.40	4.87	5.43
Ro Tail E	1805.0	15.1	0.068	<0.001	0.15	0.07	0.50	2.38	2.26	2.61	4.95	4.60
Ro Tail F	1783.0	14.9	0.071	<0.001	0.16	0.07	<0.50	2.45	2.24	2.75	4.89	4.54
Head (calc.) (direct)	11944	100.0	0.43	0.007	0.87	0.21	1.64	100.0	100.0	100.0	100.0	100.0
Combined Products	Not sufficient sample											
3rd Cleaner Conc A-F	164.3	1.38	26.1	0.38	28.4	8.87	71.7	83.0	78.2	45.0	57.1	60.0
1st CI Scav Tail A-F	1006.6	8.43	0.11	0.005	3.84	0.30	1.49	2.06	6.23	37.4	11.8	7.64
Ro Tail A-F	10757.0	90.1	0.069	0.001	0.15	0.07	0.57	14.4	13.5	15.9	29.5	31.1
Combined Tail A-F	11763.6	98.5	0.072	0.001	0.47	0.09	0.65	16.4	19.7	53.3	41.3	38.7

Stability Check

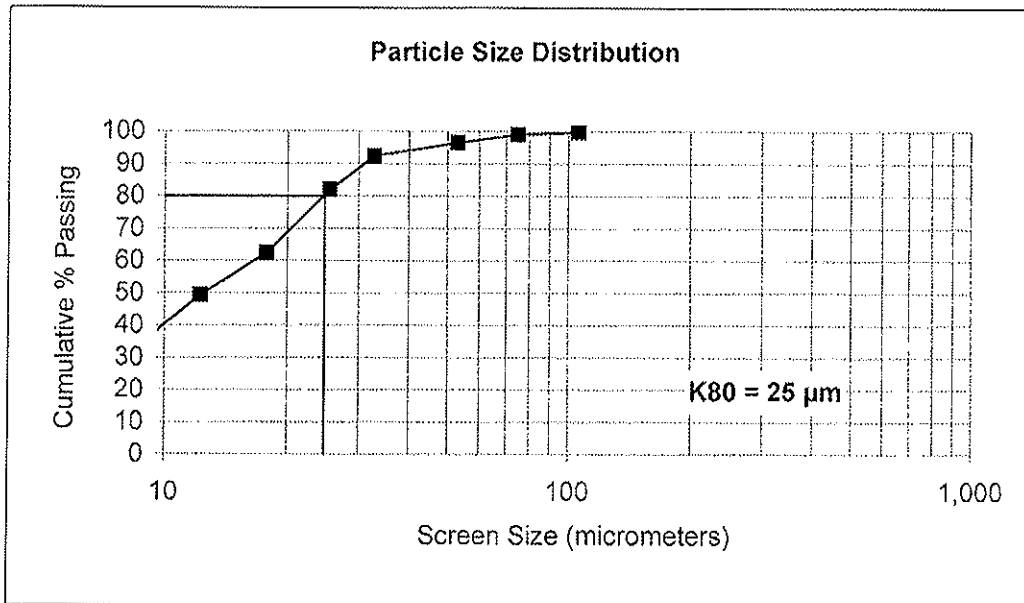
Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.3	98.5	89.0	91.5	101.5	88.7
B	99.7	99.7	92.8	92.5	92.7	99.9
C	100.1	100.7	98.2	101.3	94.9	105.9
D	99.9	100.9	102.3	97.2	103.1	101.3
E	100.1	96.1	98.2	104.0	93.7	98.7
F	100.1	100.5	107.3	103.2	104.7	97.9
ave C-F	100.1	99.5	101.5	101.4	99.1	101.0
ave D-F	100.0	99.1	102.6	101.5	100.5	99.3
ave E-F	100.1	98.3	102.8	103.6	99.2	98.3

**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb 2nd CI Conc** Test No.: **LCT 1**

Dry Solids S.G.=		3.88	Water Temperature =		9.00 C°
Size		Weight grams	% Retained		% Passing Cumulative
Mesh	µm		Individual	Cumulative	
150	106	0.09	0.18	0.18	99.8
200	75	0.38	0.76	0.94	99.1
270	53	1.25	2.51	3.46	96.5
	33	2.05	4.12	7.57	92.4
	25	5.22	10.5	18.1	81.9
	18	9.71	19.5	37.6	62.4
	12	6.52	13.1	50.7	49.3
	9	5.75	11.6	62.2	37.8
	-9	18.8	37.8	100.0	0.00
Total	-	49.8	100.0	-	-
K80	25				

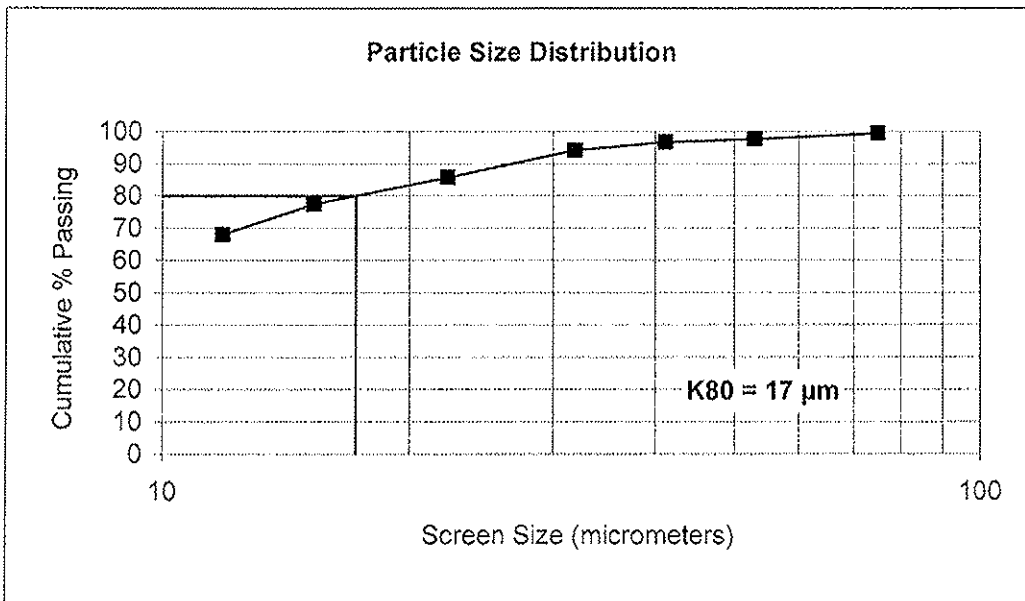


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb 1st CI Sc TI** Test No.: **LCT 1**

Dry Solids S.G.=		2.88	Water Temperature =		9.00 C°
Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
200	75	0.31	0.61	0.61	99.4
270	53	0.91	1.79	2.40	97.6
	41	0.43	0.85	3.24	96.8
	32	1.30	2.56	5.80	94.2
	22	4.32	8.49	14.3	85.7
	15	4.19	8.24	22.5	77.5
	12	4.78	9.39	31.9	68.1
	-12	34.6	68.1	100.0	0.00
Total	-	50.9	100.0	-	-
K80	17				

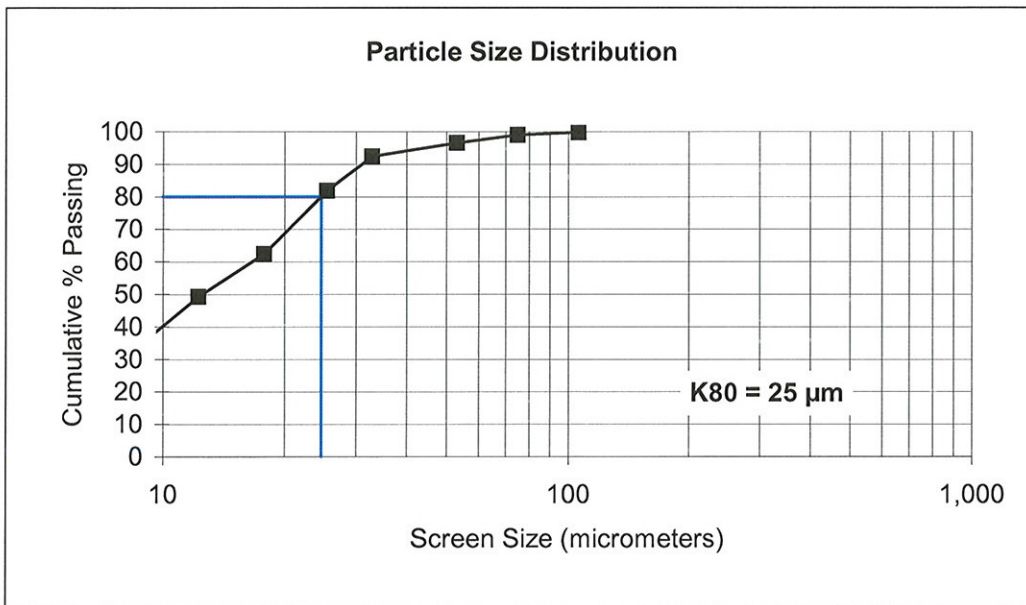


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb 2nd CI Conc** Test No.: **LCT 1**

Dry Solids S.G.= 3.88		Water Temperature = 9.00 C°			
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
150	106	0.1	0.2	0.2	99.8
200	75	0.4	0.8	0.9	99.1
270	53	1.3	2.5	3.5	96.5
	33	2.1	4.1	7.6	92.4
	25	5.2	10.5	18.1	81.9
	18	9.7	19.5	37.6	62.4
	12	6.5	13.1	50.7	49.3
	9	5.8	11.6	62.2	37.8
	-9	18.8	37.8	100.0	0.0
Total	-	49.8	100.0	-	-
K80	25				



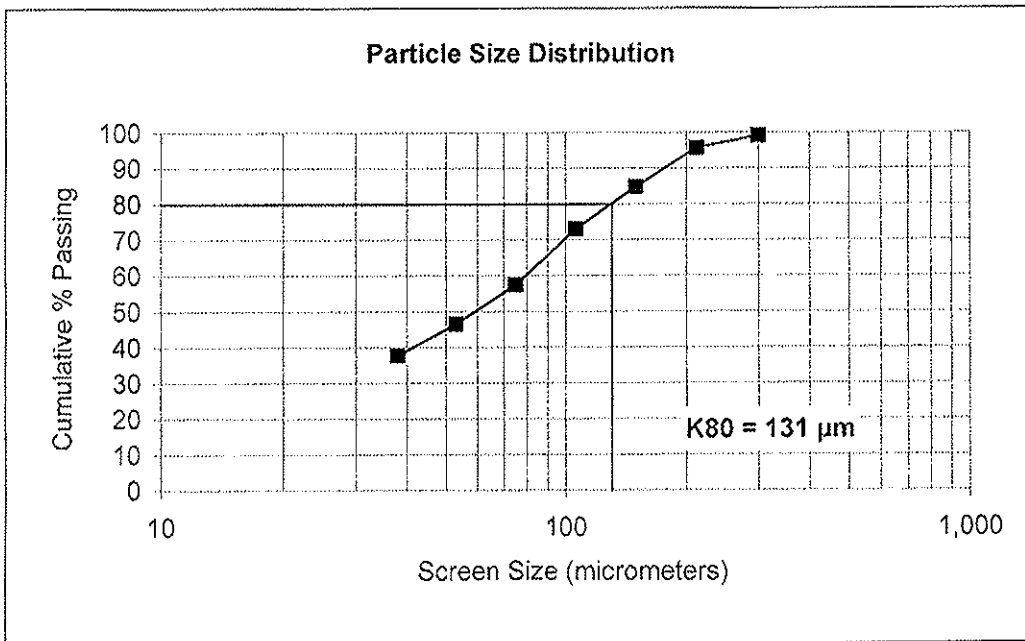
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Ro Tail**

Test No.: **LCT 1**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.80	0.80	0.80	99.2
65	212	3.50	3.50	4.30	95.7
100	150	10.80	10.8	15.1	84.9
150	106	11.90	11.9	27.0	73.0
200	75	15.60	15.6	42.6	57.4
270	53	10.80	10.8	53.4	46.6
400	38	8.80	8.80	62.2	37.8
Pan	-38	37.8	37.8	100.0	0.00
Total	-	100.0	100.0	-	-
K80	131				



Test No.: LCT-2

Project No.: 11474-001

Operator: RG

Date: Apr. 24 2007

Purpose: Locked cycle test on lithology composites

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh BFP-ARSE Composite

Grind: 20 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-3).

Ro Tail $K_{80} = 142 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

Cu Concentrate $K_{80} = 25 \mu\text{m}$
Cu 1st Cl Scav Tail $K_{80} = \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Ep
	Lime	PEX	Cytec 3302	MIBC	CMC	Grind	Cond.	Froth					
Grind	-	15	10	-		20					7.8	-30	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-	15			1	3			7.8	80	
Bulk Rougher 2	-	15	-	15			1	4			7.8		
Bulk Rougher 3	-	15	-	10			1	5					
<i>Cu Cleaner</i>													
Regrind (PM)	750	5	5	-		15					11.3	-20	
Cu 1st Cleaner	150	-	-	5			1	4			11.5	-20	
Cu 1st Cleaner Scav	-	5	-	5			1	2			11.4	-10	
Cu 2nd Cleaner	175	-	-	5			1	2.5			11.8	-20	
Total	1075	55	15	55									

* 3 g/t in the first cycle and 4 g/t in the last 5 cycles

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, %, g/t						% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
2nd Cleaner Conc	124.1	1.56	27.4	0.173	29.9	8.62	80.2	81.6	66.7	43.9	46.7	62.5	
1st Cleaner Scavenger Tail	674.3	8.49	0.24	0.005	4.38	0.51	3.04	3.95	11.0	35.0	15.1	12.9	
Rougher Tail	7141.2	89.9	0.084	0.001	0.25	0.12	0.55	14.4	22.3	21.1	38.2	24.7	
Combined Tail	7815.5	98.4	0.098	0.001	0.61	0.16	0.76	18.4	33.3	56.1	53.3	37.5	
Head	7939.6	100.0	0.52	0.004	1.06	0.29	2.01	100.0	100.0	100.0	100.0	100.0	

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	33.7	0.28	25.3	0.170	31.5	7.56	72.8	13.7	11.7	8.34	7.47	10.4
2nd Cleaner Conc B	30.2	0.25	27.5	0.180	29.3	8.70	78.8	13.3	11.1	6.95	7.70	10.1
2nd Cleaner Conc C	29.9	0.25	28.6	0.180	30.6	8.44	80.0	13.7	11.0	7.19	7.40	10.1
2nd Cleaner Conc D	30.2	0.25	27.8	0.160	30.2	8.62	77.1	13.5	9.87	7.17	7.63	9.83
2nd Cleaner Conc E	32.4	0.27	26.6	0.170	29.0	9.16	81.2	13.8	11.2	7.38	8.70	11.1
2nd Cleaner Conc F	31.6	0.27	26.7	0.180	29.7	8.24	82.2	13.5	11.6	7.38	7.63	11.0
2nd Cleaner Tail F	13.0	0.11	2.68	0.059	10.9	2.21	19.2	0.56	1.57	1.11	0.84	1.05
1st Cl Scav Conc F	3.60	0.03	4.28	0.082	17.1	2.26	28.2	0.25	0.60	0.48	0.24	0.43
1st Cl Scav Tail A	192.7	1.62	0.15	0.002	2.38	0.34	1.60	0.46	0.79	3.60	1.92	1.30
1st Cl Scav Tail B	195.4	1.64	0.20	0.004	4.33	0.51	2.60	0.63	1.60	6.65	2.92	2.15
1st Cl Scav Tail C	161.5	1.36	0.26	0.005	4.67	0.54	3.30	0.67	1.65	5.93	2.56	2.25
1st Cl Scav Tail D	160.8	1.35	0.27	0.006	4.48	0.53	3.20	0.70	1.97	5.66	2.50	2.17
1st Cl Scav Tail E	176.2	1.48	0.22	0.005	4.50	0.49	3.10	0.62	1.80	6.23	2.53	2.31
1st Cl Scav Tail F	175.8	1.48	0.23	0.005	3.92	0.49	2.60	0.65	1.79	5.42	2.53	1.93
Ro Tail A	1746.4	14.7	0.074	0.001	0.23	0.11	0.50	2.07	3.57	3.16	5.63	3.69
Ro Tail B	1756.2	14.7	0.083	<0.001	0.24	0.12	0.50	2.34	3.59	3.31	6.18	3.71
Ro Tail C	1797.3	15.1	0.087	<0.001	0.26	0.11	0.50	2.51	3.67	3.67	5.80	3.80
Ro Tail D	1791.4	15.0	0.078	<0.001	0.23	0.11	0.50	2.24	3.66	3.24	5.78	3.78
Ro Tail E	1770.9	14.9	0.090	<0.001	0.25	0.13	0.60	2.55	3.62	3.48	6.75	4.49
Ro Tail F	1781.6	15.0	0.081	<0.001	0.26	0.14	0.60	2.31	3.64	3.64	7.31	4.51
Head (calc.) (direct)	11910.8	100.0	0.52	0.004	1.07	0.29	1.99	100.0	100.0	100.0	100.0	100.0
Combined Products			Not sufficient sample									
3rd Cleaner Conc A-F	188.0	1.58	27.0	0.173	30.1	8.44	78.6	81.5	66.5	44.4	46.5	62.4
1st Cl Scav Tail A-F	1062.4	8.92	0.22	0.004	4.01	0.48	2.70	3.73	9.59	33.5	15.0	12.1
Ro Tail A-F	10643.8	89.4	0.082	0.001	0.25	0.12	0.53	14.0	21.7	20.5	37.4	24.0
Combined Tail A-F	11706.2	98.3	0.095	0.001	0.59	0.15	0.73	17.7	31.3	54.0	52.4	36.1

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.4	97.2	96.3	90.6	90.1	92.1
B	99.8	97.6	97.7	101.5	100.8	95.4
C	100.2	101.3	97.8	100.7	94.5	96.9
D	99.9	98.3	93.0	96.4	95.4	94.7
E	99.7	101.9	100.0	102.6	107.9	107.4
F	100.2	98.9	102.3	98.6	104.8	104.5
ave C-F	100.0	100.1	98.3	99.6	100.7	100.9
ave D-F	99.9	99.7	98.4	99.2	102.7	102.2
ave E-F	100.0	100.4	101.1	100.6	106.3	106.0

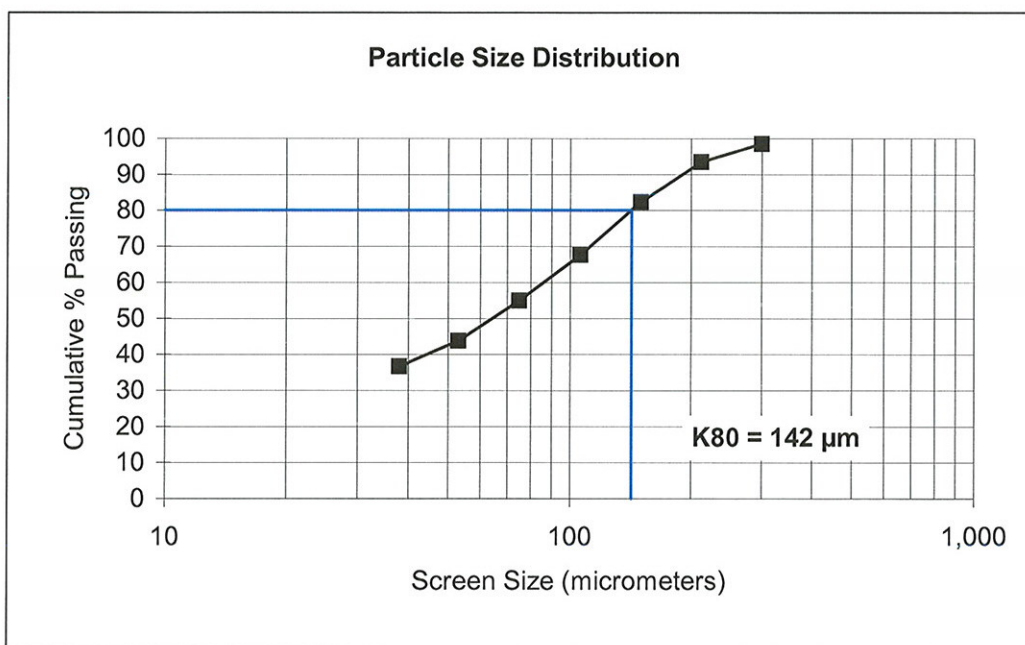
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 2**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.4	1.4	1.4	98.6
65	212	5.1	5.1	6.5	93.5
100	150	11.1	11.1	17.6	82.4
150	106	14.7	14.7	32.3	67.7
200	75	12.7	12.7	45.0	55.0
270	53	11.2	11.2	56.2	43.8
400	38	7.1	7.1	63.3	36.7
Pan	-38	36.7	36.7	100.0	0.0
Total	-	100.0	100.0	-	-
K80	142				

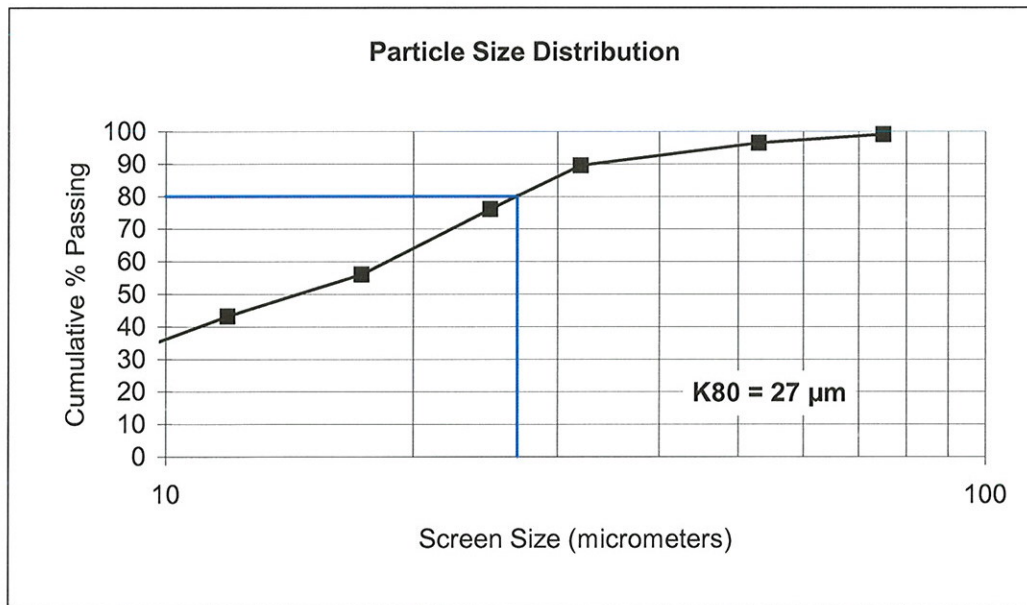


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Conc Prod** Test No.: **LCT 2**

Dry Solids S.G.= 3.91		Water Temperature = 10.50 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
200	75	0.5	0.9	0.9	99.1
270	53	1.3	2.6	3.5	96.5
	32	3.4	6.9	10.4	89.6
	25	6.7	13.5	23.9	76.1
	17	10.0	20.0	43.9	56.1
	12	6.4	12.9	56.8	43.2
	9	5.1	10.3	67.1	32.9
	-9	16.4	32.9	100.0	0.0
Total	-	49.9	100.0	-	-
K80	27				



Test No.: LCT-3

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Locked cycle test on lithology composites

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh BFP-KH Composite

Grind: 23 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-3).

Ro Tail $K_{80} = 139 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

Cu Concentrate $K_{80} \sim 25 \mu\text{m}$
Cu 1st Cl Scav Tail $K_{80} = \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	MIBC			Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-			23			7.8	-30
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	15				1	3	7.8	80
Bulk Rougher 2	-	15	-	15				1	4	7.8	
Bulk Rougher 3	-	15	-	10				1	5		
<i>Cu Cleaner</i>											
Regrind (PM)	600	5	5	-			15			11.5	-20
Cu 1st Cleaner	150	-	-	5				1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	5				1	2	11.4	-10
Cu 2nd Cleaner	175	-	-	5				1	2.5	11.8	-20
Total	925	55	15	55							

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	91.2	1.15	29.2	0.326	29.7	10.3	70.0	80.2	75.1	43.8	49.6	54.0
1st Cleaner Scavenger Tail	493.0	6.23	0.22	0.005	5.06	0.53	2.99	3.25	6.48	40.3	13.8	12.5
Rougher Tail	7333.0	92.6	0.075	0.001	0.13	0.09	0.54	16.5	18.5	15.9	36.6	33.6
Combined Tail	7826.0	98.8	0.084	0.001	0.45	0.12	0.70	19.8	24.9	56.2	50.4	46.0
Head	7917.2	100.0	0.42	0.005	0.78	0.24	1.49	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t						% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag	
2nd Cleaner Conc A	21.9	0.18	32.0	0.330	31.3	10.8	72.2	13.7	12.0	7.30	8.23	8.87	
2nd Cleaner Conc B	23.6	0.20	30.2	0.320	30.1	10.0	68.9	14.0	12.5	7.57	8.21	9.12	
2nd Cleaner Conc C	17.8	0.15	28.8	0.340	29.0	10.3	69.0	10.0	10.0	5.50	6.38	6.89	
2nd Cleaner Conc D	24.5	0.21	29.3	0.340	29.9	10.4	69.5	14.1	13.8	7.80	8.87	9.55	
2nd Cleaner Conc E	25.1	0.21	28.7	0.320	30.0	10.3	70.7	14.1	13.3	8.02	9.00	9.95	
2nd Cleaner Conc F	23.8	0.20	30.2	0.310	30.0	10.4	70.9	14.1	12.2	7.60	8.62	9.47	
2nd Cleaner Tail F	6.70	0.06	3.11	0.090	11.2	3.20	22.4	0.41	1.00	0.80	0.75	0.84	
1st Cl Scav Conc F	1.10	0.01	4.16	0.260	14.9	6.14	43.0	0.09	0.47	0.17	0.24	0.27	
1st Cl Scav Tail A	112.6	0.95	0.160	0.005	5.35	0.48	3.26	0.35	0.93	6.42	1.88	2.06	
1st Cl Scav Tail B	123.0	1.03	0.220	0.006	4.85	0.52	2.93	0.53	1.22	6.35	2.23	2.02	
1st Cl Scav Tail C	116.4	0.98	0.230	0.005	5.33	0.58	3.27	0.52	0.96	6.61	2.35	2.14	
1st Cl Scav Tail D	123.1	1.03	0.220	0.006	4.94	0.53	2.85	0.53	1.22	6.48	2.27	1.97	
1st Cl Scav Tail E	135.2	1.14	0.200	0.004	4.46	0.46	2.77	0.53	0.90	6.42	2.17	2.10	
1st Cl Scav Tail F	118.3	0.99	0.230	0.006	5.65	0.57	3.15	0.53	1.18	7.12	2.35	2.09	
Ro Tail A	1851.0	15.6	0.085	<0.001	0.13	0.10	0.50	3.08	3.07	2.56	6.44	5.19	
Ro Tail B	1839.0	15.5	0.074	<0.001	0.14	0.09	0.50	2.67	3.05	2.74	5.76	5.16	
Ro Tail C	1845.0	15.5	0.072	<0.001	0.13	0.10	0.50	2.60	3.06	2.55	6.42	5.17	
Ro Tail D	1825.0	15.3	0.078	<0.001	0.15	0.09	0.60	2.79	3.02	2.92	5.72	6.14	
Ro Tail E	1825.0	15.3	0.066	<0.001	0.14	0.09	0.50	2.36	3.02	2.72	5.72	5.12	
Ro Tail F	1838.0	15.5	0.084	<0.001	0.12	0.10	0.57	3.02	3.05	2.35	6.40	5.88	
Head (calc.) (direct)	11896.1	100.0	0.43	0.005	0.79	0.24	1.5	100.0	100.0	100.0	100.0	100.0	
Combined Products			Not sufficient sample										
3rd Cleaner Conc A-F	136.7	1.15	29.9	0.326	30.1	10.4	70.2	80.0	73.8	43.8	49.3	53.9	
1st Cl Scav Tail A-F	728.6	6.12	0.21	0.005	5.08	0.52	3.03	3.00	6.42	39.4	13.2	12.4	
Ro Tail A-F	11023.0	92.7	0.077	0.001	0.13	0.10	0.53	16.5	18.3	15.8	36.5	32.7	
Combined Tail A-F	11751.6	98.8	0.085	0.001	0.44	0.12	0.68	19.5	24.7	55.2	49.7	45.0	

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	100.1	103.0	95.8	97.7	99.4	96.7
B	100.1	102.9	100.7	100.0	97.2	97.8
C	99.8	79.0	84.3	88.0	90.9	85.2
D	99.5	104.3	108.3	103.2	101.2	106.0
E	100.1	102.0	103.4	103.0	101.3	103.0
F	99.9	105.8	98.7	102.4	104.2	104.6
ave C-F	99.8	97.8	98.7	99.1	99.4	99.7
ave D-F	99.8	104.0	103.4	102.9	102.2	104.5
ave E-F	100.0	103.9	101.0	102.7	102.7	103.8

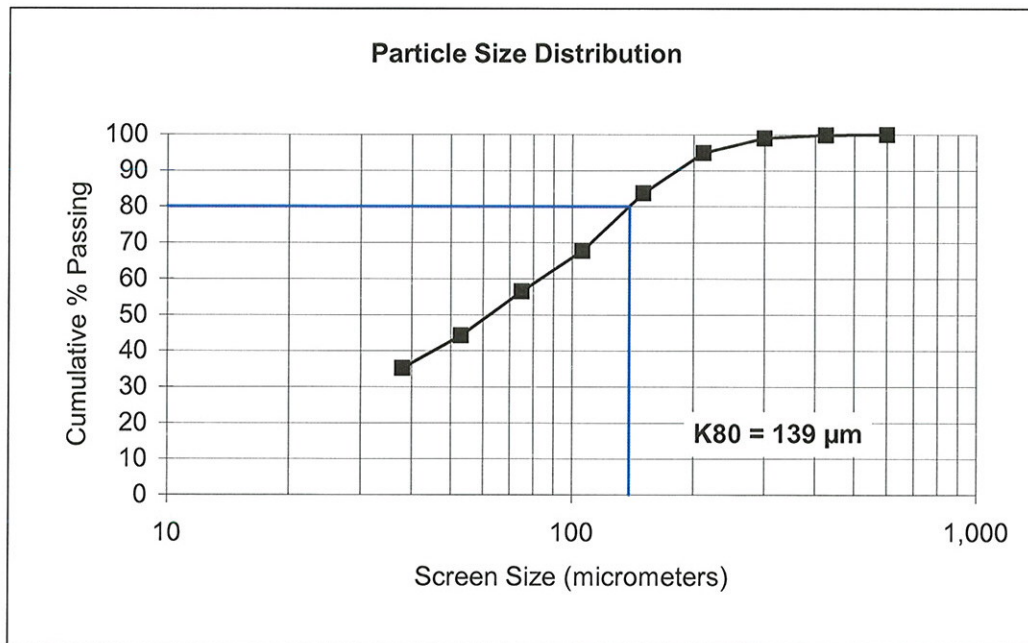
**SGS Minerals Services
Size Distribution Analysis**

Project No.

Sample: **Comb Prod**

Test No.: **LCT 3**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
28	600	0.0	0.0	0.0	100.0
35	425	0.1	0.1	0.1	99.9
48	300	0.9	0.9	1.0	99.0
65	212	4.1	4.1	5.1	94.9
100	150	11.1	11.1	16.2	83.8
150	106	16.0	16.0	32.2	67.8
200	75	11.3	11.3	43.5	56.5
270	53	12.2	12.2	55.7	44.3
400	38	9.1	9.1	64.8	35.2
Pan	-38	35.2	35.2	100.0	0.0
Total	-	100.0	100.0	-	-
K80	139				

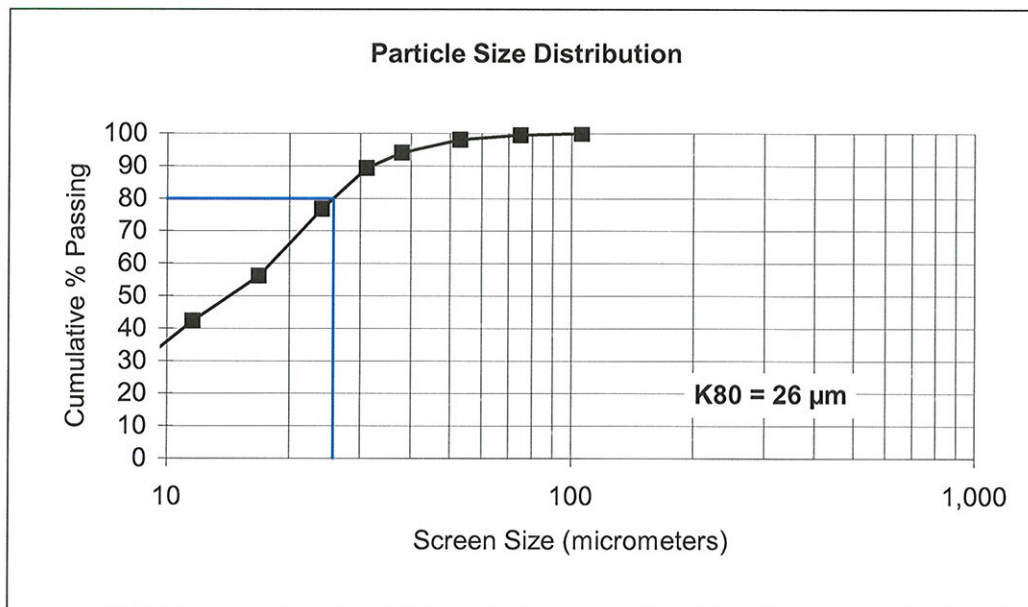


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **2nd CI Conc Comb Prod** Test No.: **LCT3**

Dry Solids S.G.=		4.04	Water Temperature =		11.00 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
150	106	0.0	0.0	0.0	100.0
200	75	0.2	0.5	0.5	99.5
270	53	0.7	1.4	1.8	98.2
400	38	2.1	4.1	5.9	94.1
	31	2.4	4.7	10.6	89.4
	24	6.3	12.5	23.1	76.9
	17	10.4	20.7	43.8	56.2
	12	6.9	13.8	57.6	42.4
	9	5.6	11.2	68.8	31.2
	-9	15.7	31.2	100.0	0.0
Total	-	50.3	100.0	-	-
K80	26				



Test No.: LCT-4

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Locked cycle test on lithology composites

Procedure: As outlined below.

Feed: 5 x 2 kg of minus 10 mesh SS Composite

Grind: 20 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-3). Ro Tail K₈₀ = 126 µm

Regrind: 12.5 minutes in laboratory pebble mill (PM).
 Cu Concentrate K₈₀ ~25 µm
 Cu 1st Cl Scav Tail K₈₀ = µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Esp
	Lime	PIEX	Cytec 3302	MIBC			Grind	Cond.	Froth				
Grind	-	15	10	-			20				7.8	-30	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-	15				1	3		7.8	80	
Bulk Rougher 2	-	15	-	15				1	4		7.8		
Bulk Rougher 3	-	15	-	10				1	5				
<i>Cu Cleaner</i>													
Regrind (PM)	500	5	5	-			12.5				11.5	-20	
Cu 1st Cleaner	150	-	-	5				1	4		11.5	-20	
Cu 1st Cleaner Scav	-	5	-	5				1	2		11.4	-10	
Cu 2nd Cleaner	175	-	-	5				1	2.5		11.8	-20	
Total	825	55	15	55									

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-E)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	50.6	0.85	25.5	0.171	29.6	7.59	40.3	85.9	55.3	50.7	54.9	38.5
1st Cleaner Scavenger Tail	266.9	4.46	0.16	0.007	4.05	0.35	1.98	2.83	12.1	36.6	13.5	10.0
Rougher Tail	5670.5	94.7	0.030	0.001	0.07	0.04	0.48	11.2	32.6	12.7	31.6	51.5
Combined Tail	5937.4	99.2	0.036	0.001	0.25	0.05	0.55	14.1	44.7	49.3	45.1	61.5
Head	5988.0	100.0	0.25	0.003	0.49	0.12	0.88	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	15.3	0.15	30.1	0.170	32.6	9.09	46.7	16.7	9.44	9.20	10.8	7.42
2nd Cleaner Conc B	16.1	0.16	28.3	0.190	33.4	8.75	43.1	16.6	11.1	9.92	10.9	7.20
2nd Cleaner Conc C	16.4	0.16	29.6	0.190	33.0	8.65	45.8	17.6	11.3	10.0	11.0	7.80
2nd Cleaner Conc D	17.0	0.17	27.6	0.220	32.4	8.49	43.2	17.1	13.6	10.2	11.2	7.62
2nd Cleaner Conc E	17.2	0.17	27.8	0.160	33.4	8.17	45.3	17.4	10.0	10.6	10.9	8.09
2nd Cleaner Tail E	5.30	0.05	2.34	0.050	11.0	2.55	13.3	0.45	0.96	1.08	1.05	0.73
1st Cl Scav Conc E	0.70	0.01	3.19	0.050	13.0	3.94	19.7	0.08	0.13	0.17	0.21	0.14
1st Cl Scav Tail A	77.8	0.78	0.160	0.002	4.97	0.42	2.20	0.45	0.57	7.13	2.53	1.78
1st Cl Scav Tail B	84.4	0.85	0.180	0.003	4.51	0.37	2.30	0.55	0.92	7.02	2.42	2.02
1st Cl Scav Tail C	90.7	0.91	0.170	0.003	5.26	0.43	2.30	0.56	0.99	8.80	3.02	2.17
1st Cl Scav Tail D	90.5	0.91	0.190	0.005	4.24	0.40	2.10	0.63	1.64	7.08	2.81	1.97
1st Cl Scav Tail E	85.7	0.86	0.170	0.016	3.98	0.35	2.20	0.53	4.98	6.29	2.33	1.96
Ro Tail A	1901.3	19.0	0.033	<0.001	0.07	0.04	0.50	2.28	6.90	2.45	5.90	9.87
Ro Tail B	1894.1	19.0	0.033	<0.001	0.07	0.04	0.50	2.27	6.88	2.45	5.87	9.83
Ro Tail C	1893.7	19.0	0.032	<0.001	0.10	0.05	0.50	2.20	6.88	3.49	7.34	9.83
Ro Tail D	1892.1	19.0	0.032	<0.001	0.06	0.04	0.60	2.20	6.87	2.09	5.87	11.79
Ro Tail E	1884.7	18.9	0.035	<0.001	0.06	0.04	0.50	2.40	6.84	2.09	5.85	9.78
Head (calc.)	9983	100.0	0.28	0.003	0.54	0.13	0.96	100.0	100.0	100.0	100.0	100.0
(direct)			0.30	0.002	0.52	0.14	0.70					
Combined Products	Not sufficient sample											
3rd Cleaner Conc A-E	82.0	0.82	28.6	0.186	33.0	8.62	44.8	85.4	55.4	49.9	54.8	38.1
1st Cl Scav Tail A-E	429.1	4.30	0.17	0.006	4.59	0.39	2.22	2.72	9.09	36.3	13.1	9.9
Ro Tail A-E	9465.9	94.8	0.033	0.001	0.07	0.04	0.52	11.4	34.4	12.6	30.8	51.1
Combined Tail A-E	9895.0	99.1	0.039	0.001	0.27	0.06	0.59	14.1	43.5	48.9	43.9	61.0

Stability Check

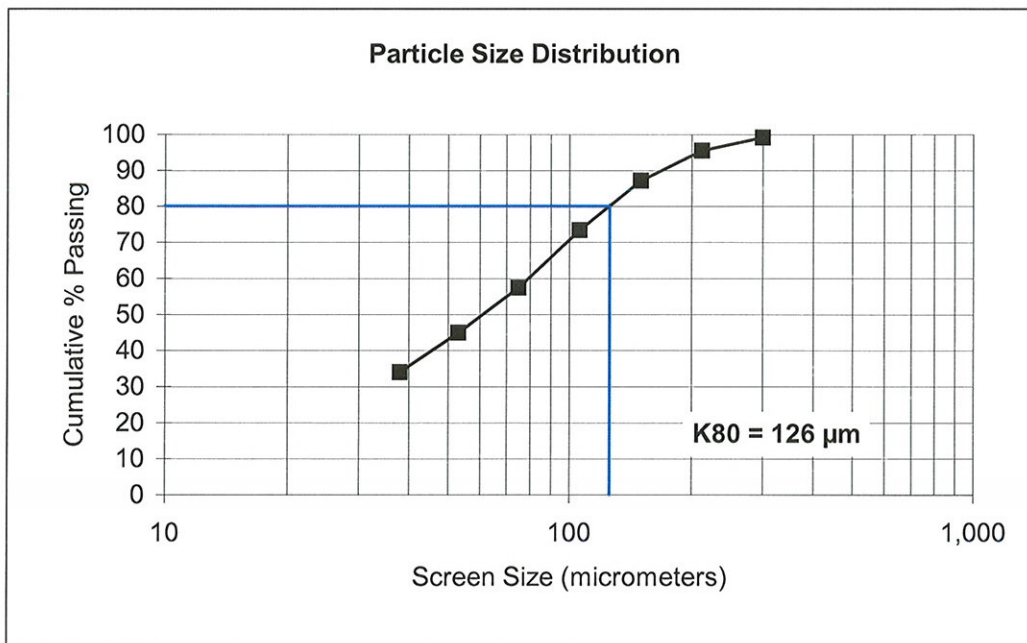
Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.9	97.4	84.6	93.9	96.1	95.3
B	99.9	96.9	94.5	96.9	96.1	95.3
C	100.2	102.1	95.9	111.4	106.8	99.0
D	100.2	99.4	110.5	96.7	99.3	106.9
E	99.5	101.6	109.1	94.9	95.3	99.2
ave C-E	100.0	101.0	105.2	101.0	100.5	101.7
ave D-E	99.8	100.5	109.8	95.8	97.3	103.0

**SGS Minerals Services
Size Distribution Analysis**

Project No.

Sample: **Comb Prod Ro Tls** Test No.: **LCT 4**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.8	0.8	0.8	99.2
65	212	3.6	3.6	4.4	95.6
100	150	8.4	8.4	12.8	87.2
150	106	13.7	13.7	26.5	73.5
200	75	16.0	16.0	42.5	57.5
270	53	12.5	12.5	55.0	45.0
400	38	10.9	10.9	65.9	34.1
Pan	-38	34.1	34.1	100.0	0.0
Total	-	100.0	100.0	-	-
K80	126				

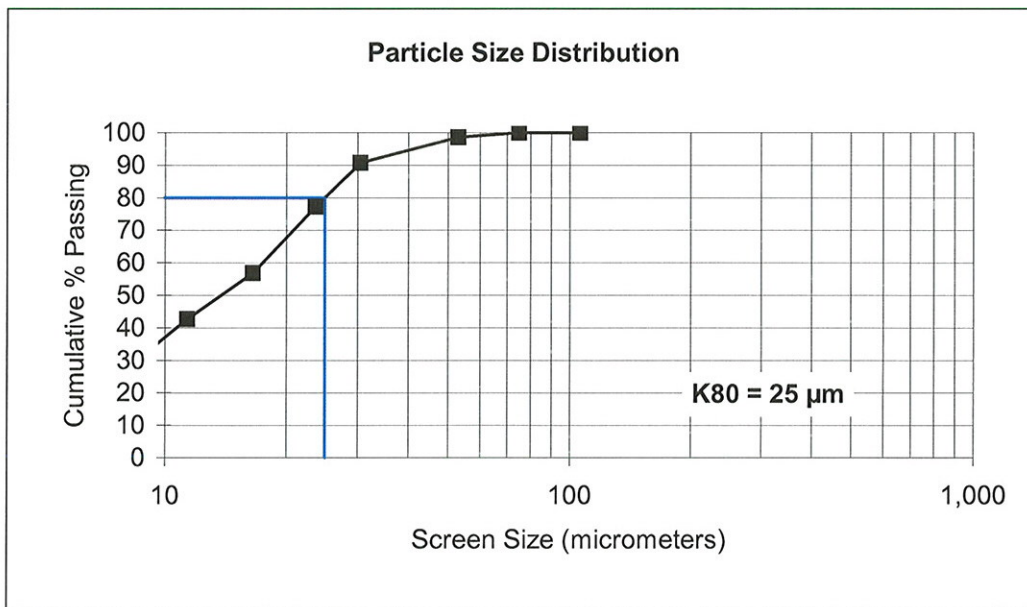


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb 2nd CI Conc** Test No.: **LCT 4**

Dry Solids S.G.= 3.99		Water Temperature = 13.00 C°			
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
150	106	0.0	0.0	0.0	100.0
200	75	0.0	0.0	0.0	100.0
270	53	0.4	1.4	1.4	98.6
	31	1.9	7.8	9.2	90.8
	24	3.4	13.5	22.7	77.3
	17	5.1	20.5	43.2	56.8
	11	3.5	14.1	57.3	42.7
	9	2.8	11.3	68.6	31.4
	-9	7.8	31.4	100.0	0.0
Total	-	24.9	100.0	-	-
K80	25				



Test No.: LCT-5

Project No.: 11474-001

Operator: RG

Date: April , 2007

Purpose: Locked cycle test on lithology composites

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh ZS-QZSE Composite

Grind: 28 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-2). Ro Tail $K_{80} = 161 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM). Cu Concentrate $K_{80} \sim 25 \mu\text{m}$
Cu 1st Cl Scav Tail $K_{80} = \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Esp
	Lime	PEX	Cytec 3302		MIBC		Grind	Cond.	Froth				
Grind	-	15	10		-		28				7.8	-30	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-		15			1	3		7.8	80	
Bulk Rougher 2	-	15	-		15			1	4		7.8		
Bulk Rougher 3	-	15			10			1	5				
<i>Cu Cleaner</i>													
Regrind (PM)	750	5	5		-		15				11.5	-20	
Cu 1st Cleaner	150	-	-		5			1	4		11.5	-20	
Cu 1st Cleaner Scav	-	5	-		5			1	2		11.4	-10	
Cu 2nd Cleaner	175	-	-		5			1	2.5		11.8	-20	
Total	1075	55	15		55								

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	61.3	0.77	25.0	0.655	31.2	5.30	78.8	67.3	73.1	32.4	27.7	43.4
1st Cleaner Scavenger Tail	516.1	6.50	0.20	0.007	5.28	0.33	2.92	4.50	6.88	46.2	14.4	13.6
Rougher Tail	7359.7	92.7	0.087	0.001	0.17	0.09	0.65	28.2	20.1	21.5	57.9	43.0
Combined Tail	7875.8	99.2	0.094	0.002	0.51	0.11	0.80	32.7	26.9	67.6	72.3	56.6
Head	7937.1	100.0	0.29	0.007	0.74	0.15	1.40	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	13.1	0.11	27.4	0.700	30.2	6.76	83.0	10.6	10.9	4.46	4.88	6.66
2nd Cleaner Conc B	15.8	0.13	25.7	0.670	29.6	5.06	77.6	12.0	12.5	5.28	4.40	7.51
2nd Cleaner Conc C	15.3	0.13	25.6	0.670	29.8	5.88	82.2	11.5	12.1	5.14	4.96	7.70
2nd Cleaner Conc D	19.5	0.16	21.2	0.550	33.4	4.70	70.2	12.2	12.7	7.35	5.05	8.38
2nd Cleaner Conc E	15.1	0.13	26.4	0.660	30.0	5.39	82.3	11.7	11.8	5.11	4.48	7.61
2nd Cleaner Conc F	11.4	0.10	28.7	0.810	30.9	5.48	84.7	9.64	10.9	3.97	3.44	5.91
2nd Cleaner Tail F	6.10	0.05	3.36	0.140	11.3	2.35	20.4	0.60	1.01	0.78	0.79	0.76
1st Cl Scav Conc F	1.20	0.01	3.52	0.180	13.7	5.00	40.0	0.12	0.26	0.19	0.33	0.29
1st Cl Scav Tail A	136.3	1.14	0.130	0.004	4.50	0.27	2.20	0.52	0.65	6.92	2.03	1.84
1st Cl Scav Tail B	143.6	1.21	0.170	0.005	5.10	0.33	2.80	0.72	0.85	8.26	2.61	2.46
1st Cl Scav Tail C	136.5	1.15	0.200	0.008	5.10	0.30	3.00	0.80	1.29	7.85	2.26	2.51
1st Cl Scav Tail D	132.6	1.11	0.180	0.004	3.55	0.27	2.60	0.70	0.63	5.31	1.97	2.11
1st Cl Scav Tail E	139.3	1.17	0.190	0.007	6.04	0.35	2.80	0.78	1.16	9.49	2.69	2.39
1st Cl Scav Tail F	107.7	0.90	0.230	0.011	6.69	0.41	3.40	0.73	1.40	8.13	2.43	2.24
Ro Tail A	1826.9	15.3	0.078	0.002	0.19	0.11	0.60	4.20	4.33	3.92	11.07	6.71
Ro Tail B	1835.9	15.4	0.078	<0.002	0.17	0.09	0.50	4.22	4.35	3.52	9.10	5.62
Ro Tail C	1843.1	15.5	0.092	<0.001	0.19	0.09	0.60	5.00	2.18	3.95	9.14	6.77
Ro Tail D	1842.4	15.5	0.077	<0.001	0.15	0.09	0.70	4.18	2.18	3.12	9.14	7.90
Ro Tail E	1837.8	15.4	0.080	<0.002	0.15	0.09	0.50	4.33	4.35	3.11	9.11	5.63
Ro Tail F	1836.4	15.4	0.100	<0.002	0.20	0.10	0.80	5.41	4.35	4.14	10.12	9.00
Head (calc.)	11916	100.0	0.28	0.007	0.74	0.15	1.37	100.0	100.0	100.0	100.0	100.0
(direct)			0.29	0.007	0.77	0.09	1.80					
Combined Products	Not sufficient sample											
3rd Cleaner Conc A-F	90.2	0.76	25.5	0.66	30.8	5.48	79.2	67.7	71.0	31.3	27.2	43.8
1st Cl Scav Tail A-F	796.0	6.68	0.18	0.01	5.12	0.32	2.78	4.26	5.98	46.0	14.0	13.5
Ro Tail A-F	11022.5	92.5	0.084	0.00	0.17	0.09	0.62	27.3	21.8	21.8	57.7	41.6
Combined Tail A-F	11818.5	99.2	0.091	0.00	0.51	0.11	0.76	31.6	27.7	67.7	71.7	55.2

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.5	91.8	95.0	91.8	107.9	91.2
B	100.5	101.4	106.5	102.4	96.7	93.5
C	100.4	104.1	93.7	101.7	98.1	101.9
D	100.4	102.4	93.1	94.7	96.9	110.3
E	100.3	101.2	103.9	106.3	97.7	93.7
F	98.5	94.7	100.2	97.5	96.0	102.9
ave C-F	99.9	100.6	97.7	100.0	97.2	102.2
ave D-F	99.7	99.4	99.1	99.5	96.9	102.3
ave E-F	99.4	97.9	102.0	101.9	96.8	98.3

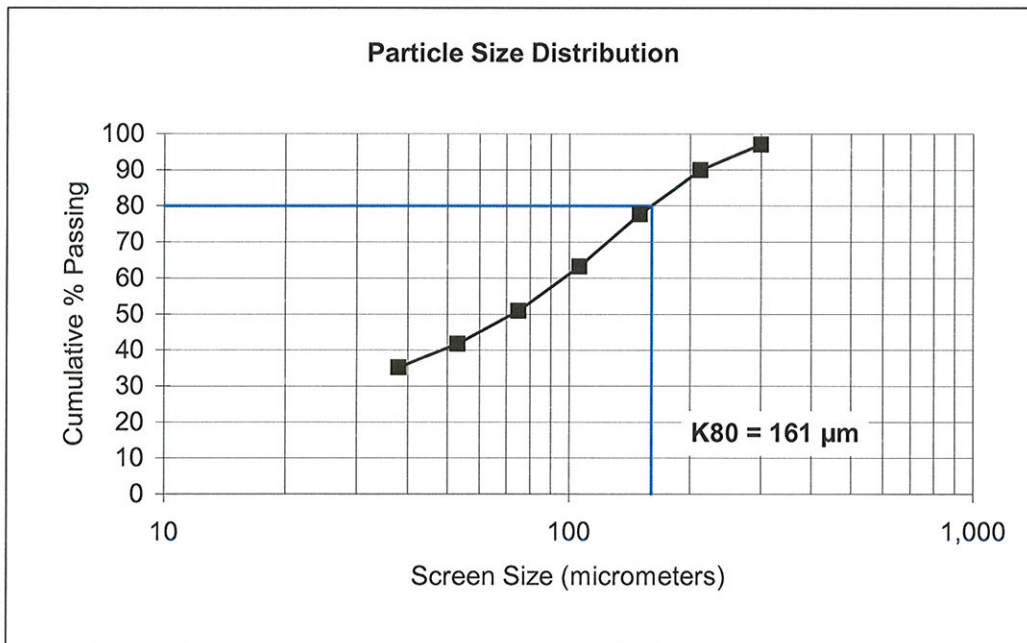
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 5**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	2.9	2.9	2.9	97.1
65	212	7.1	7.1	10.0	90.0
100	150	12.3	12.3	22.3	77.7
150	106	14.4	14.4	36.7	63.3
200	75	12.4	12.4	49.1	50.9
270	53	9.1	9.1	58.2	41.8
400	38	6.6	6.6	64.8	35.2
Pan	-38	35.2	35.2	100.0	0.0
Total	-	100.0	100.0	-	-
K80	161				



Test No.: LCT-6

Project No.: 11474-001

Operator: RG

Date: April, 2007

Purpose: Test flowsheet in Locked Cycle

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Master Comp 2

Grind: 25 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1). Ro Tail $K_{80} = 130 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM). Cu Concentrate $K_{80} = 25 \mu\text{m}$
Cu 1st Cl Scav Tail $K_{80} = 17 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10		-		25			7.8	-30
<i>Rougher</i>											
Bulk Rougher 1	-	-	-		15			1	3	7.8	80
Bulk Rougher 2	-	15	-		15			1	4	7.8	
Bulk Rougher 3	-	15			10			1	5		
<i>Cu Cleaner</i>											
Regrind (PM)	785	5	5		-		15			11.5	-20
Cu 1st Cleaner	150	-	-	*	5			1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	*	5			1	2	11.4	-10
Cu 2nd Cleaner	175	-	-	*	5			1	2.5	11.8	-20
Total	1110	55	15		55						

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, % _w g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	89.9	1.13	27.5	0.360	29.2	8.05	56.8	84.1	76.9	42.6	52.2	49.1
1st Cleaner Scavenger Tail	470.2	5.91	0.22	0.005	5.46	0.47	3.40	3.47	5.55	41.7	15.9	15.4
Rougher Tail	7396.0	93.0	0.049	0.001	0.13	0.06	0.50	12.4	17.6	15.6	32.0	35.5
Combined Tail	7866.2	98.9	0.059	0.001	0.45	0.08	0.67	15.9	23.1	57.4	47.8	50.9
Head	7956.1	100.0	0.37	0.005	0.77	0.17	1.31	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	19.4	0.16	30.0	0.360	29.4	8.66	62.6	13.3	11.2	6.18	8.08	7.77
2nd Cleaner Conc B	21.2	0.18	29.2	0.390	29.4	8.58	57.3	14.1	13.2	6.75	8.74	7.77
2nd Cleaner Conc C	21.5	0.18	28.7	0.370	29.7	8.15	61.6	14.1	12.7	6.92	8.42	8.47
2nd Cleaner Conc D	23.3	0.20	27.0	0.360	29.3	7.75	54.3	14.3	13.4	7.40	8.68	8.09
2nd Cleaner Conc E	22.4	0.19	27.4	0.350	28.5	7.88	55.5	14.0	12.5	6.92	8.48	7.95
2nd Cleaner Conc F	22.7	0.19	27.1	0.360	29.3	8.45	56.1	14.0	13.1	7.21	9.22	8.14
2nd Cleaner Tail F	8.50	0.07	1.87	0.059	10.8	1.92	13.3	0.36	0.80	0.99	0.78	0.72
1st Cl Scav Conc F	1.30	0.01	3.39	0.060	12.7	2.50	21.7	0.10	0.12	0.18	0.16	0.18
1st Cl Scav Tail A	113.2	0.95	0.17	0.004	5.51	0.41	2.50	0.44	0.72	6.76	2.23	1.81
1st Cl Scav Tail B	117.5	0.98	0.21	0.004	5.66	0.46	2.90	0.56	0.75	7.21	2.60	2.18
1st Cl Scav Tail C	114.3	0.96	0.24	0.008	5.80	0.48	3.10	0.62	1.46	7.18	2.64	2.27
1st Cl Scav Tail D	122.5	1.03	0.20	0.004	5.14	0.45	2.90	0.56	0.78	6.82	2.65	2.27
1st Cl Scav Tail E	111.1	0.93	0.22	0.004	5.90	0.50	3.40	0.56	0.71	7.10	2.67	2.42
1st Cl Scav Tail F	122.3	1.02	0.21	0.004	5.08	0.45	4.20	0.58	0.78	6.73	2.65	3.29
Ro Tail A	1847.0	15.5	0.049	<0.001	0.13	0.06	0.50	2.06	2.95	2.60	5.33	5.91
Ro Tail B	1855.0	15.5	0.050	<0.001	0.13	0.06	0.60	2.11	2.97	2.61	5.35	7.12
Ro Tail C	1849.0	15.5	0.050	<0.001	0.12	0.06	0.50	2.11	2.96	2.40	5.33	5.91
Ro Tail D	1843.0	15.4	0.046	<0.001	0.14	0.06	0.50	1.93	2.95	2.80	5.32	5.89
Ro Tail E	1860.0	15.6	0.050	<0.001	0.13	0.06	0.50	2.12	2.97	2.62	5.36	5.95
Ro Tail F	1844.0	15.4	0.052	<0.001	0.13	0.06	0.50	2.18	2.95	2.60	5.32	5.90
Head (calc.) (direct)	11939	100.0	0.37	0.005	0.77	0.17	1.31	100.0	100.0	100.0	100.0	100.0
			0.40	0.004	0.83	0.21	1.50					
Combined Products												
Not sufficient sample												
2nd Cleaner Conc A-F	130.5	1.09	28.2	0.365	29.3	8.23	57.7	83.7	76.1	41.4	51.6	48.2
1st Cl Scav Tail A-F	700.9	5.87	0.21	0.005	5.50	0.46	3.17	3.32	5.21	41.8	15.4	14.2
Ro Tail A-F	11098.0	93.0	0.050	0.001	0.13	0.06	0.52	12.5	17.7	15.6	32.0	36.7
Combined Tail A-F	11798.9	98.8	0.059	0.001	0.45	0.08	0.67	15.8	23.0	57.4	47.4	50.9

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.5	94.5	89.1	93.3	93.8	92.9
B	100.2	100.6	101.6	99.5	100.1	102.4
C	99.7	100.7	102.8	99.1	98.3	99.9
D	99.9	100.9	102.8	102.1	99.9	97.5
E	100.2	99.9	97.3	99.9	99.1	97.9
F	100.0	100.7	100.8	99.2	103.1	104.0
ave C-F	100.0	100.5	100.9	100.1	100.1	99.8
ave D-F	100.0	100.5	100.3	100.4	100.7	99.8
ave E-F	100.1	100.3	99.0	99.5	101.1	100.9

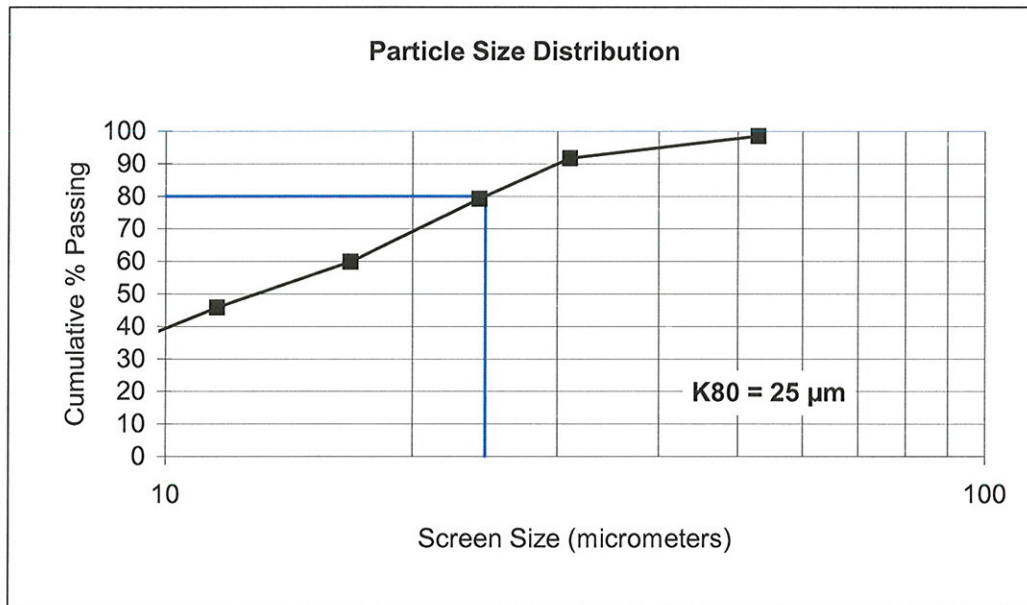
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 6**

Dry Solids S.G.= 3.84		Water Temperature = 13.50 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
270	53	0.4	1.5	1.5	98.5
	31	1.7	6.8	8.3	91.7
	24	3.1	12.5	20.8	79.2
	17	4.8	19.4	40.1	59.9
	12	3.5	14.0	54.1	45.9
	9	2.9	11.4	65.5	34.5
	-9	8.6	34.5	100.0	0.0
Total	-	25.0	100.0	-	-
K80	25				



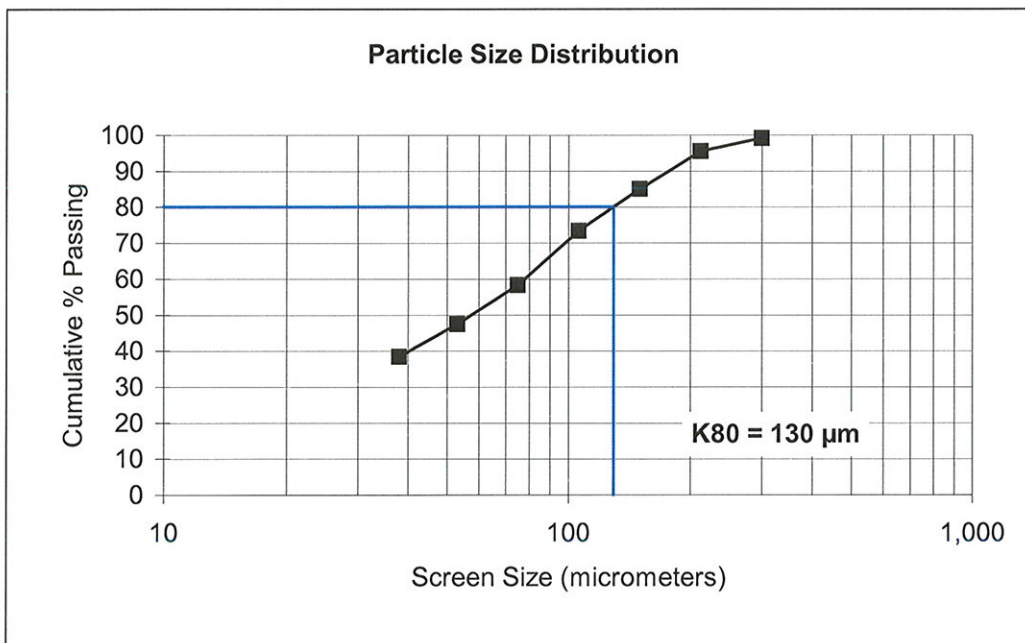
**SGS Minerals Services
Size Distribution Analysis**

Project No.

Sample: **Comb Prod**

Test No.: **LCT-6**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.8	0.8	0.8	99.2
65	212	3.6	3.6	4.4	95.6
100	150	10.5	10.5	14.9	85.1
150	106	11.6	11.6	26.5	73.5
200	75	15.1	15.1	41.6	58.4
270	53	10.8	10.8	52.4	47.6
400	38	9.1	9.1	61.5	38.5
Pan	-38	38.5	38.5	100.0	0.0
Total	-	100.0	100.0	-	-
K80	130				



Test No.: LCT-7

Project No.: 11474-001

Operator: RG

Date: April, 2007

Purpose: Test flowsheet in Locked Cycle

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Master Comp 2

Grind: 35 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

Ro Tail $K_{80} = 68 \mu\text{m}$

Regrind: 12 minutes in laboratory pebble mill (PM).

Cu Concentrate $K_{80} = 29 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth		
Grind	-	15	10		-		35			7.8	-30
<i>Rougher:</i>											
Bulk Rougher 1	-	-	-		15			1	3	7.8	80
Bulk Rougher 2	-	15	-		15			1	4	7.8	
Bulk Rougher 3	-	15			10			1	5		
<i>Cu Cleaner:</i>											
Regrind (PM)	785	5	5		-		12			11.5	-20
Cu 1st Cleaner	150	-	-	*	5			1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	*	5			1	2	11.4	-10
Cu 2nd Cleaner	175	-	-	*	5			1	2.5	11.8	-20
Total	1110	55	15		55						

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C, E-F)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	81.2	1.36	24.3	0.306	30.7	7.76	57.8	85.2	78.7	52.9	53.6	56.6
1st Cleaner Scavenger Tail	431.2	7.21	0.19	0.003	3.71	0.46	1.99	3.53	4.09	34.0	16.9	10.4
Rougher Tail	5464.5	91.4	0.048	0.001	0.11	0.06	0.50	11.2	17.3	13.1	29.5	33.0
Combined Tail	5895.7	98.6	0.058	0.001	0.38	0.09	0.61	14.8	21.3	47.1	46.4	43.4
Head	5976.9	100.0	0.39	0.005	0.79	0.20	1.39	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	21.5	0.18	29.2	0.350	29.6	8.58	65.2	13.6	11.7	6.78	7.89	8.43
2nd Cleaner Conc B	25.1	0.21	26.3	0.360	29.6	9.31	60.6	14.3	14.0	7.92	9.99	9.15
2nd Cleaner Conc C	27.6	0.23	24.0	0.310	30.2	7.67	56.2	14.3	13.3	8.88	9.05	9.33
2nd Cleaner Conc D	29.3	0.24	21.9	0.290	29.5	6.94	54.0	13.9	13.2	9.21	8.69	9.52
2nd Cleaner Conc E	27.2	0.23	24.3	0.300	30.6	7.81	57.9	14.3	12.6	8.87	9.08	9.47
2nd Cleaner Conc F	26.4	0.22	24.7	0.310	31.3	7.82	59.4	14.1	12.7	8.81	8.82	9.43
2nd Cleaner Tail F	10.1	0.08	2.02	0.056	13.6	1.98	13.5	0.44	0.88	1.46	0.85	0.82
1st Cl Scav Conc F	2.10	0.02	3.00	0.100	15.0	2.00	18.1	0.14	0.33	0.34	0.18	0.23
1st Cl Scav Tail A	146.8	1.23	0.150	0.004	4.01	0.34	2.20	0.48	0.91	6.27	2.13	1.94
1st Cl Scav Tail B	146.6	1.23	0.190	0.004	3.80	0.45	2.10	0.60	0.91	5.94	2.82	1.85
1st Cl Scav Tail C	154.8	1.29	0.180	0.003	3.28	0.42	1.90	0.60	0.72	5.41	2.78	1.77
1st Cl Scav Tail D	133.3	1.11	0.220	0.003	3.67	0.42	2.20	0.63	0.62	5.21	2.39	1.76
1st Cl Scav Tail E	140.5	1.17	0.190	0.003	3.77	0.41	1.90	0.58	0.65	5.65	2.46	1.61
1st Cl Scav Tail F	135.9	1.14	0.200	0.003	4.16	0.56	2.20	0.59	0.63	6.03	3.25	1.80
Ro Tail A	1817.7	15.2	0.048	<0.001	0.11	0.07	<0.50	1.89	2.82	2.13	5.44	5.47
Ro Tail B	1819.5	15.2	0.045	<0.001	0.11	0.06	<0.50	1.77	2.82	2.13	4.67	5.47
Ro Tail C	1801.8	15.1	0.039	<0.001	0.11	0.06	<0.50	1.52	2.79	2.11	4.62	5.42
Ro Tail D	1831.8	15.3	0.055	<0.001	0.12	0.06	<0.50	2.18	2.84	2.34	4.70	5.51
Ro Tail E	1826.7	15.3	0.056	<0.001	0.11	0.06	<0.50	2.21	2.83	2.14	4.69	5.49
Ro Tail F	1836.0	15.4	0.048	<0.001	0.12	0.07	<0.50	1.91	2.85	2.35	5.49	5.52
Head (calc.)	11960.7	100.0	0.39	0.005	0.78	0.20	1.39	100.0	100.0	100.0	100.0	100.0
(direct)			0.40	0.004	0.83	0.21	1.50					
Combined Products	Not sufficient sample											
2nd Cleaner Conc A-F	157.1	1.31	24.9	0.318	30.1	7.97	58.6	84.5	77.4	50.5	53.5	55.3
1st Cl Scav Tail A-F	857.9	7.17	0.19	0.003	3.77	0.43	2.08	3.48	4.44	34.5	15.8	10.7
Ro Tail A-F	10933.5	91.4	0.049	0.001	0.11	0.06	0.50	11.5	16.9	13.2	29.6	32.9
Combined Tail A-F	11791.4	98.6	0.059	0.001	0.38	0.09	0.61	15.0	21.4	47.7	45.4	43.6

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.6	95.7	92.3	91.1	92.7	95.1
B	99.9	99.9	106.4	95.9	104.9	98.8
C	99.5	98.7	100.6	98.5	98.7	99.1
D	100.0	100.2	99.7	100.6	94.7	100.7
E	100.0	102.5	96.8	100.0	97.4	99.4
F	100.2	99.6	97.0	103.1	105.4	100.5
ave C-F	100.0	100.2	98.5	100.5	99.0	100.0
ave D-F	100.1	100.8	97.8	101.2	99.2	100.2
ave E-F	100.1	101.1	96.9	101.5	101.4	100.0

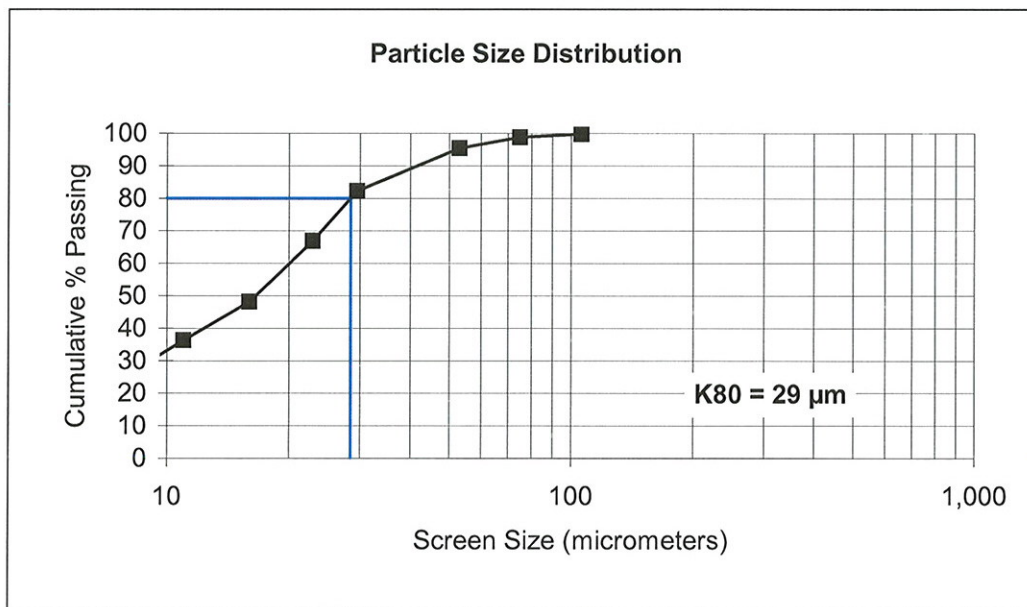
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT7**

Dry Solids S.G.= 3.94		Water Temperature = 16.00 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
150	106	0.1	0.2	0.2	99.8
200	75	0.5	1.0	1.2	98.8
270	53	1.6	3.3	4.5	95.5
	30	6.6	13.2	17.7	82.3
	23	7.6	15.3	33.0	67.0
	16	9.4	18.8	51.8	48.2
	11	5.9	11.9	63.7	36.3
	8	4.3	8.7	72.3	27.7
	-8	13.8	27.7	100.0	0.0
Total	-	49.8	100.0	-	-
K80	29				

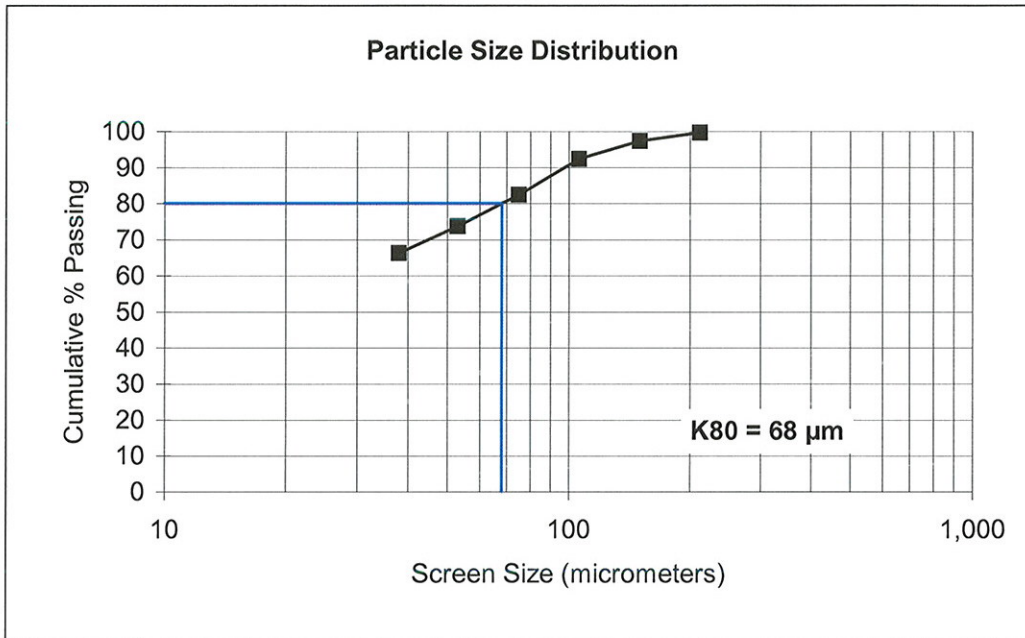


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb prod ro tail a-f** Test No.: **Ict 7**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
65	212	0.4	0.3	0.3	99.7
100	150	3.6	2.3	2.6	97.4
150	106	7.7	5.0	7.5	92.5
200	75	15.5	10.0	17.5	82.5
270	53	13.5	8.7	26.2	73.8
400	38	11.5	7.4	33.6	66.4
Pan	-38	103.1	66.4	100.0	0.0
Total	-	155.3	100.0	-	-
K80	68				



Test No.: LCT-8

Project No.: 11474-001

Operator: RG

Date: 08-May-07

Purpose: Repeat LCT-6

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Master Comp 2

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

Ro Tail $K_{80} = 133 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

Cu Concentrate $K_{80} = 24 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth				
Grind	-	15	10		-		24				7.8	-30	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-		15			1	3		7.8	80	
Bulk Rougher 2	-	15	-		15			1	4		7.8		
Bulk Rougher 3	-	15	-		10			1	5				
<i>Cu Cleaner</i>													
Regrind (PM)	785	5	5		-		15				11.5	-20	
Cu 1st Cleaner	150	-	-	*	5			1	4		11.5	-20	
Cu 1st Cleaner Scav	-	5	-	*	5			1	2		11.4	-10	
Cu 2nd Cleaner	175	-	-	*	5			1	2.5		11.8	-20	
Total	1110	55	15		55								

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, % ₁ g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	82.2	1.03	29.1	0.357	30.7	8.59	67.1	79.2	72.8	39.1	50.3	51.2
1st Cleaner Scavenger Tail	432.2	5.43	0.29	0.008	6.53	0.53	3.55	4.18	8.82	43.7	16.5	14.2
Rougher Tail	7443.0	93.5	0.067	0.001	0.15	0.06	0.50	16.6	18.4	17.3	33.2	34.5
Combined Tail	7875.2	99.0	0.080	0.001	0.50	0.09	0.67	20.8	27.2	60.9	49.7	48.8
Head	7957.4	100.0	0.38	0.005	0.81	0.18	1.35	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays % _w , g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	19.4	0.16	30.6	0.370	31.4	8.87	72.2	13.1	11.7	6.33	8.05	8.68
2nd Cleaner Conc B	20.0	0.17	29.0	0.380	30.5	10.6	64.7	12.8	12.4	6.34	9.92	8.02
2nd Cleaner Conc C	20.8	0.17	28.6	0.340	30.1	8.58	67.7	13.1	11.5	6.50	8.35	8.73
2nd Cleaner Conc D	20.7	0.17	29.6	0.380	31.1	8.84	68.0	13.5	12.8	6.69	8.56	8.73
2nd Cleaner Conc E	20.1	0.17	29.1	0.350	31.1	8.65	66.5	12.9	11.4	6.49	8.13	8.29
2nd Cleaner Conc F	20.6	0.17	29.3	0.360	30.6	8.29	66.3	13.3	12.1	6.55	7.99	8.47
2nd Cleaner Tail F	7.50	0.06	3.98	0.160	12.2	3.16	21.5	0.66	1.95	0.95	1.11	1.00
1st Cl Scav Conc F	1.10	0.01	5.39	0.180	14.5	3.50	32.4	0.13	0.32	0.17	0.18	0.22
1st Cl Scav Tail A	125.1	1.05	0.16	0.004	5.03	0.36	2.10	0.44	0.81	6.54	2.11	1.63
1st Cl Scav Tail B	122.3	1.02	0.26	0.006	5.48	0.47	2.90	0.70	1.19	6.96	2.69	2.20
1st Cl Scav Tail C	110.6	0.93	0.28	0.008	6.43	0.53	3.30	0.68	1.44	7.39	2.74	2.26
1st Cl Scav Tail D	101.2	0.85	0.28	0.009	6.41	0.53	3.60	0.62	1.48	6.74	2.51	2.26
1st Cl Scav Tail E	113.2	0.95	0.31	0.009	6.93	0.54	3.80	0.77	1.66	8.15	2.86	2.67
1st Cl Scav Tail F	107.2	0.90	0.30	0.007	6.33	0.54	3.50	0.71	1.22	7.05	2.71	2.33
Ro Tail A	1842.0	15.4	0.066	<0.001	0.15	0.06	<0.50	2.68	3.00	2.87	5.17	5.71
Ro Tail B	1848.0	15.5	0.069	<0.001	0.14	0.06	<0.50	2.81	3.01	2.69	5.19	5.73
Ro Tail C	1859.0	15.6	0.072	<0.001	0.14	0.06	<0.50	2.95	3.02	2.70	5.22	5.76
Ro Tail D	1867.0	15.6	0.063	<0.001	0.16	0.07	<0.50	2.59	3.04	3.10	6.11	5.79
Ro Tail E	1857.0	15.5	0.065	<0.001	0.14	0.06	<0.50	2.66	3.02	2.70	5.21	5.76
Ro Tail F	1860.0	15.6	0.070	<0.001	0.16	0.06	<0.50	2.87	3.02	3.09	5.22	5.77
Head (calc.)	11943	100.0	0.38	0.005	0.81	0.18	1.35	100.0	100.0	100.0	100.0	100.0
(direct)			0.40	0.004	0.83	0.21	1.50					
Combined Products	Not sufficient sample											
2nd Cleaner Conc A-F	121.6	1.02	29.4	0.36	30.8	8.97	67.5	78.7	71.8	38.9	51.0	50.9
1st Cl Scav Tail A-F	679.6	5.69	0.26	0.007	6.07	0.49	3.17	3.93	7.80	42.8	15.6	13.3
Ro Tail A-F	11133.0	93.2	0.067	0.001	0.15	0.06	0.50	16.6	18.1	17.2	32.1	34.5
Combined Tail A-F	11812.6	98.9	0.079	0.001	0.49	0.09	0.65	20.5	25.9	60.0	47.7	47.9

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.8	97.3	92.9	94.4	91.9	96.1
B	100.0	97.8	99.3	95.9	106.7	95.7
C	100.0	100.5	95.8	99.6	97.8	100.5
D	99.9	100.4	103.8	99.2	103.1	100.6
E	100.0	98.0	96.7	104.1	97.2	100.3
F	99.9	101.3	97.8	100.1	95.5	99.4
ave C-F	99.9	100.0	98.5	100.7	98.4	100.2
ave D-F	99.9	99.9	99.5	101.1	98.6	100.1
ave E-F	99.9	99.7	97.3	102.1	96.3	99.8

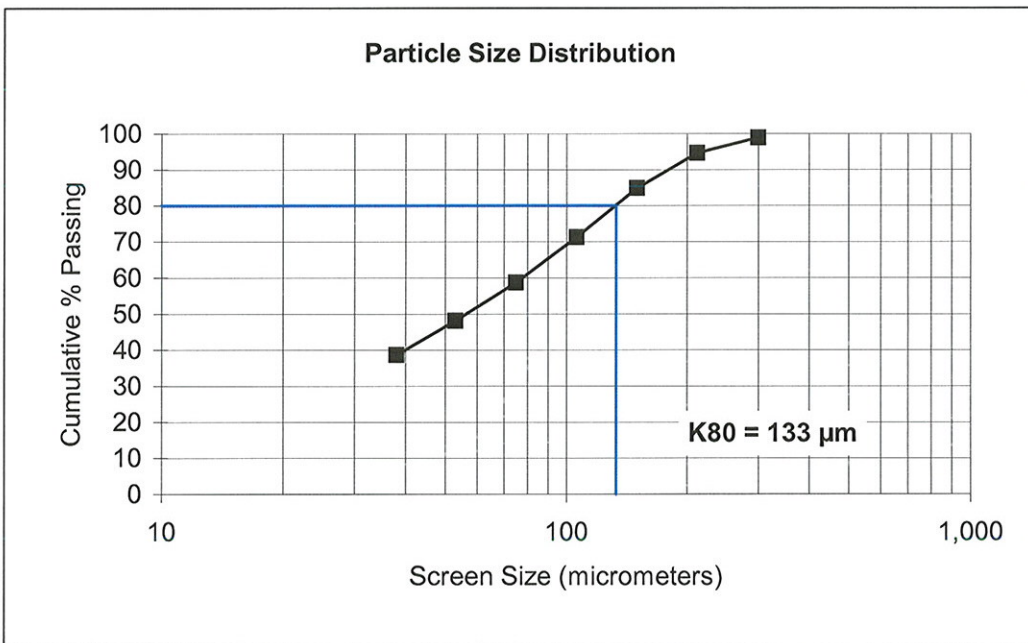
**SGS Minerals Services
Size Distribution Analysis**

Project No.

Sample: **Comb Ro Tls**

Test No.: **LCT 8**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	1.1	1.1	1.1	98.9
65	212	4.2	4.2	5.3	94.7
100	150	9.8	9.8	15.1	84.9
150	106	13.6	13.6	28.7	71.3
200	75	12.6	12.6	41.3	58.7
270	53	10.5	10.5	51.8	48.2
400	38	9.5	9.5	61.3	38.7
Pan	-38	38.7	38.7	100.0	0.0
Total	-	100.0	100.0	-	-
K80	133				

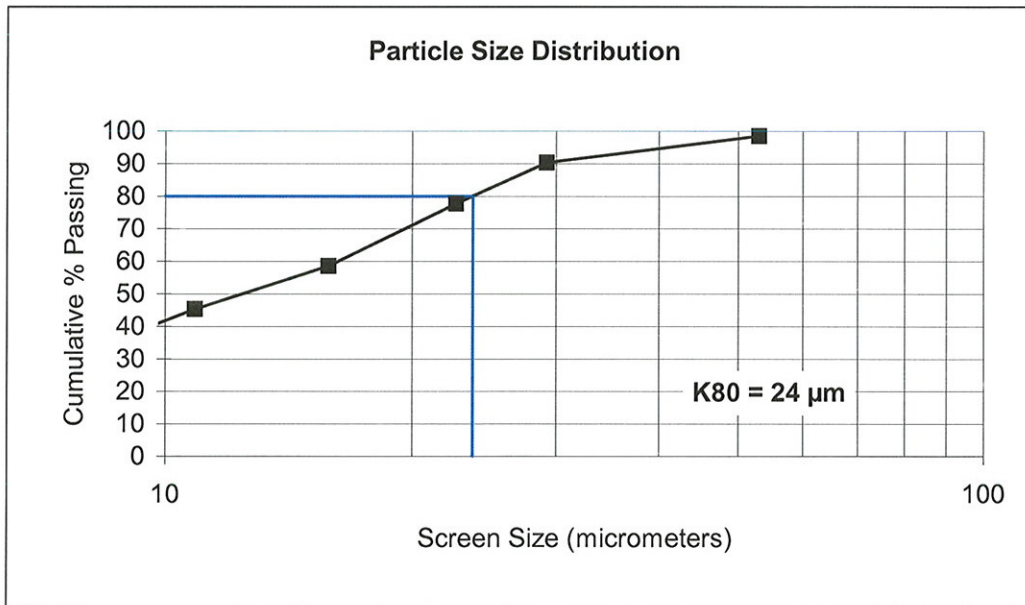


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **2nd CI Conc Comp** Test No.: **LCT8**

Dry Solids S.G.= 3.89		Water Temperature = 17.50 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
270	53	0.4	1.5	1.5	98.5
	29	2.0	8.1	9.6	90.4
	23	3.1	12.5	22.2	77.8
	16	4.8	19.2	41.4	58.6
	11	3.3	13.2	54.6	45.4
	8	2.7	11.0	65.6	34.4
	-8	8.6	34.4	100.0	0.0
Total	-	25.0	100.0	-	-
K80	24				



Test No.: LCT-9

Project No.: 11474-001

Operator: RG

Date: 16-May-07

Purpose: Repeat LCT-8 at coarser grind

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Master Comp 2

Grind: 22 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

Ro Tail $K_{80} = 144 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

Cu Concentrate $K_{80} = 25 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes			pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth		
Grind	-	15	10		-		22			7.8	-30
<i>Rougher</i>											
Bulk Rougher 1	-	-	-		15			1	3	7.8	80
Bulk Rougher 2	-	15	-		15			1	4	7.8	
Bulk Rougher 3	-	15			10			1	5		
<i>Cu Cleaner</i>											
Regrind (PM)	785	5	5		-		15			11.5	-20
Cu 1st Cleaner	150	-	-	*	5			1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	*	5			1	2	11.4	-10
Cu 2nd Cleaner	175	-	-	*	5			1	2.5	11.8	-20
Total	1110	55	15		55						

* as required to maintain pH

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C-D,F)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	60.5	1.02	29.2	0.362	30.6	8.95	76.0	78.8	74.6	39.3	46.1	54.9
1st Cleaner Scavenger Tail	272.7	4.61	0.28	0.007	7.29	0.62	3.65	3.36	6.48	42.2	14.4	11.9
Rougher Tail	5588.1	94.4	0.071	0.001	0.16	0.08	0.50	17.8	19.0	18.5	39.5	33.2
Combined Tail	5860.8	99.0	0.081	0.001	0.49	0.11	0.64	21.2	25.4	60.7	53.9	45.1
Head	5921.3	100.0	0.38	0.005	0.80	0.20	1.42	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	19.3	0.16	29.9	0.360	30.1	8.38	76.2	12.8	11.6	6.11	6.93	8.79
2nd Cleaner Conc B	19.0	0.16	29.8	0.390	30.8	9.11	75.4	12.5	12.4	6.15	7.42	8.56
2nd Cleaner Conc C	19.9	0.17	29.4	0.360	31.3	9.14	76.4	12.9	12.0	6.55	7.80	9.08
2nd Cleaner Conc D	20.6	0.17	29.1	0.360	30.1	9.18	76.6	13.3	12.4	6.52	8.10	9.43
2nd Cleaner Conc E	20.4	0.17	29.2	0.370	30.7	8.72	76.2	13.2	12.6	6.59	7.62	9.29
2nd Cleaner Conc F	20.0	0.17	29.3	0.370	30.7	8.61	75.9	13.0	12.4	6.46	7.38	9.07
2nd Cleaner Tail F	3.20	0.03	4.00	0.160	12.2	3.55	22.0	0.28	0.86	0.41	0.49	0.42
1st Cl Scav Conc F	0.60	0.01	5.50	0.180	14.5	3.50	30.3	0.07	0.18	0.09	0.09	0.11
1st Cl Scav Tail A	85.1	0.72	0.21	0.007	7.29	0.54	3.20	0.40	1.00	6.52	1.97	1.63
1st Cl Scav Tail B	99.7	0.84	0.26	0.007	6.85	0.56	3.40	0.57	1.17	7.18	2.39	2.03
1st Cl Scav Tail C	89.3	0.75	0.28	0.007	7.23	0.61	3.60	0.55	1.05	6.79	2.33	1.92
1st Cl Scav Tail D	95.1	0.80	0.28	0.007	7.30	0.63	3.70	0.59	1.12	7.30	2.57	2.10
1st Cl Scav Tail E	93.7	0.79	0.28	0.008	7.46	0.63	3.80	0.58	1.26	7.35	2.53	2.13
1st Cl Scav Tail F	88.3	0.74	0.27	0.007	7.43	0.62	3.70	0.53	1.04	6.90	2.35	1.95
Ro Tail A	1875.6	15.8	0.066	<0.001	0.13	0.08	<0.50	2.74	3.14	2.56	6.43	5.60
Ro Tail B	1876.3	15.8	0.075	<0.001	0.15	0.08	<0.50	3.11	3.14	2.96	6.43	5.61
Ro Tail C	1868.9	15.7	0.070	<0.001	0.16	0.07	<0.50	2.89	3.13	3.14	5.61	5.58
Ro Tail D	1869.0	15.7	0.073	<0.001	0.16	0.08	<0.50	3.02	3.13	3.15	6.41	5.58
Ro Tail E	1872.3	15.8	0.100	<0.001	0.22	0.09	<0.50	4.14	3.14	4.33	7.22	5.59
Ro Tail F	1850.2	15.6	0.072	<0.001	0.15	0.10	<0.50	2.95	3.10	2.92	7.93	5.53
Head (calc.) (direct)	11886.5	100.0	0.38	0.005	0.80	0.20	1.41	100.0	100.0	100.0	100.0	100.0
Combined Products			Not sufficient sample									
2nd Cleaner Conc A-F	119.2	1.00	29.4	0.368	30.6	8.86	76.1	77.6	73.5	38.4	45.3	54.2
1st Cl Scav Tail A-F	551.2	4.64	0.26	0.007	7.25	0.60	3.57	3.22	6.62	42.1	14.1	11.8
Ro Tail A-F	11212.3	94.3	0.076	0.001	0.16	0.08	0.50	18.8	18.8	19.1	40.0	33.5
Combined Tail A-F	11763.5	99.0	0.085	0.001	0.49	0.11	0.64	22.1	25.4	61.1	54.2	45.3

Stability Check

Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.9	95.3	94.7	91.2	92.0	96.1
B	100.7	97.2	100.4	97.8	97.5	97.1
C	99.8	98.3	97.1	98.9	94.4	99.5
D	100.2	101.1	100.1	101.8	102.5	102.7
E	100.3	107.3	102.3	109.6	104.3	102.1
F	98.9	98.6	99.2	97.7	105.9	99.3
ave C-F	99.8	101.3	99.7	102.0	101.8	100.9
ave D-F	99.8	102.3	100.5	103.0	104.2	101.3
ave E-F	99.6	102.9	100.7	103.6	105.1	100.7

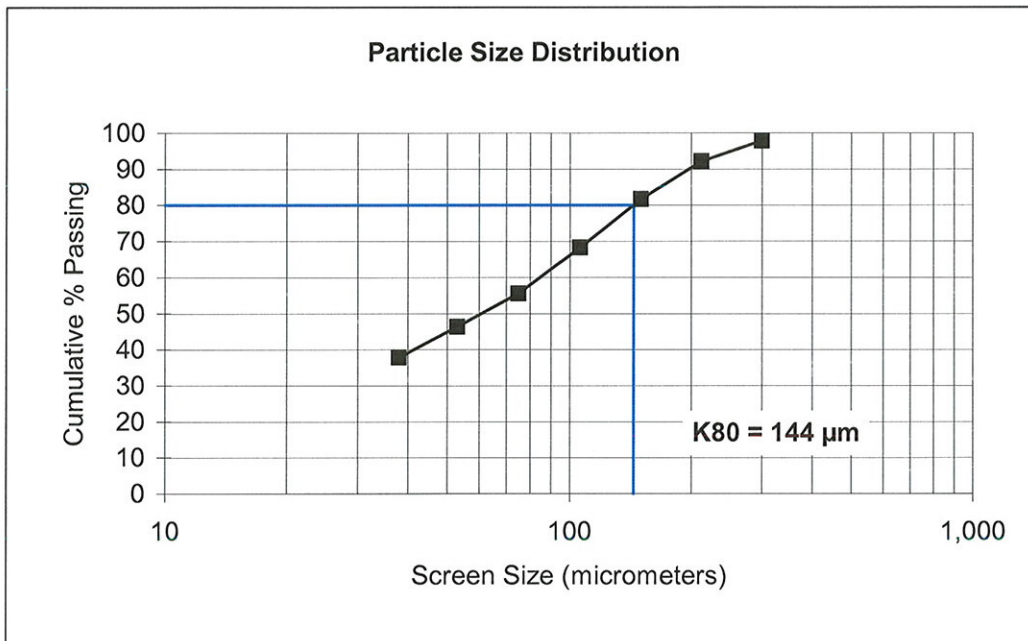
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 9**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	2.1	2.1	2.1	97.9
65	212	5.7	5.7	7.8	92.2
100	150	10.5	10.5	18.3	81.7
150	106	13.4	13.4	31.7	68.3
200	75	12.7	12.7	44.4	55.6
270	53	9.2	9.2	53.6	46.4
400	38	8.5	8.5	62.1	37.9
Pan	-38	37.9	37.9	100.0	0.0
Total	-	100.0	100.0	-	-
K80	144				



Test No.: LCT-10

Project No.: 11474-001

Operator: RG

Date: 22-May-07

Purpose: Repeat LCT-9 higher mass pull

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Master Comp 2

Grind: 21.5 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).

Ro Tail $K_{80} \approx 149 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

Cu Concentrate $K_{80} = 25 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Proth				
Grind	-	15	10		-		21.5				7.8	-30	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-		15			1	3		7.8	80	
Bulk Rougher 2	-	15	-		15			1	4		7.8		
Bulk Rougher 3	-	15			10			1	5				
<i>Cu Cleaner</i>													
Regrind (PM)	785	5	5		-		15				11.5	-20	
Cu 1st Cleaner	150	-	-	*	5			1	4		11.5	-20	
Cu 1st Cleaner Scav	-	5	-	*	5			1	2		11.4	-10	
Cu 2nd Cleaner	175	-	-	*	5			1	3		11.8	-20	
Total	1110	55	15		55								

* as required

Stage	Bulk Ro	1st Cleaner	2nd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1
Speed: rpm	1800	1500	1200

Metallurgical Projection (C, D, F)

Product	Weight		Assays, %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc	81.1	1.36	25.9	0.376	28.2	8.52	65.4	80.8	79.5	44.0	55.9	57.6
1st Cleaner Scavenger Tail	489.3	8.20	0.19	0.005	4.23	0.42	2.46	3.58	6.37	39.8	16.5	13.1
Rougher Tail	5397.4	90.4	0.075	0.001	0.16	0.06	0.50	15.6	14.1	16.2	27.6	29.3
Combined Tail	5886.7	98.6	0.085	0.001	0.50	0.09	0.66	19.2	20.5	56.0	44.1	42.4
Head	5967.8	100.0	0.44	0.006	0.87	0.21	1.54	100.0	100.0	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t					% Distribution				
	g	%	Cu	Mo	S	Au	Ag	Cu	Mo	S	Au	Ag
2nd Cleaner Conc A	24.9	0.21	27.3	0.400	29.4	8.25	70.8	13.0	12.8	6.97	8.32	9.52
2nd Cleaner Conc B	27.3	0.23	25.6	0.370	27.9	7.50	64.8	13.4	13.0	7.26	8.30	9.56
2nd Cleaner Conc C	25.7	0.22	26.9	0.400	27.9	8.03	65.2	13.2	13.2	6.83	8.36	9.05
2nd Cleaner Conc D	27.0	0.23	25.9	0.380	28.7	7.34	66.8	13.4	13.2	7.38	8.03	9.74
2nd Cleaner Conc E	26.4	0.22	26.3	0.410	28.5	9.49	66.1	13.3	13.9	7.17	10.15	9.43
2nd Cleaner Conc F	28.4	0.24	25.0	0.350	28.1	10.1	64.4	13.6	12.8	7.60	11.62	9.88
2nd Cleaner Tail F	16.4	0.14	1.37	0.070	9.14	1.48	10.9	0.43	1.48	1.43	0.98	0.97
1st Cl Scav Conc F	2.30	0.02	3.00	0.100	14.1		19.8	0.13	0.30	0.31	0.00	0.25
1st Cl Scav Tail A	147.2	1.23	0.16	0.003	4.24	0.39	2.20	0.45	0.57	5.95	2.33	1.75
1st Cl Scav Tail B	161.6	1.35	0.17	0.003	4.15	0.38	2.30	0.53	0.62	6.39	2.49	2.01
1st Cl Scav Tail C	157.5	1.32	0.19	0.005	4.70	0.42	2.60	0.57	1.01	7.05	2.68	2.21
1st Cl Scav Tail D	163.0	1.37	0.20	0.006	4.11	0.42	2.40	0.62	1.26	6.38	2.77	2.11
1st Cl Scav Tail E	146.8	1.23	0.22	0.005	4.52	0.45	2.70	0.62	0.95	6.32	2.68	2.14
1st Cl Scav Tail F	168.8	1.41	0.18	0.004	3.92	0.41	2.40	0.58	0.87	6.30	2.80	2.19
Ro Tail A	1801.5	15.1	0.075	0.001	0.16	0.07	<0.50	2.59	2.32	2.75	5.11	4.87
Ro Tail B	1795.9	15.0	0.079	<0.001	0.17	0.07	<0.50	2.72	2.31	2.91	5.09	4.85
Ro Tail C	1808.5	15.2	0.076	0.001	0.17	0.07	<0.50	2.63	2.33	2.93	5.13	4.88
Ro Tail D	1798.9	15.1	0.073	<0.001	0.16	0.06	<0.50	2.51	2.32	2.74	4.37	4.86
Ro Tail E	1818.0	15.2	0.090	0.001	0.17	0.06	<0.50	3.13	2.34	2.94	4.42	4.91
Ro Tail F	1790.0	15.0	0.076	0.001	0.14	0.06	<0.50	2.60	2.31	2.39	4.35	4.83
Head (calc.) (direct)	11936.1	100.0	0.44	0.007	0.88	0.21	1.55	100.0	100.0	100.0	100.0	100.0
			0.40	0.004	0.83	0.21	1.50					
Combined Products	Not sufficient sample											
2nd Cleaner Conc A-F	159.7	1.34	26.1	0.38	28.4	8.47	66.3	79.9	79.0	43.2	54.8	57.2
1st Cl Scav Tail A-F	944.9	7.92	0.19	0.004	4.27	0.41	2.43	3.37	5.28	38.4	15.8	12.4
Ro Tail A-F	10812.8	90.6	0.078	0.001	0.16	0.06	0.50	16.2	13.9	16.7	28.5	29.2
Combined Tail A-F	11757.7	98.5	0.087	0.001	0.49	0.09	0.66	19.6	19.2	55.1	44.2	41.6

Stability Check

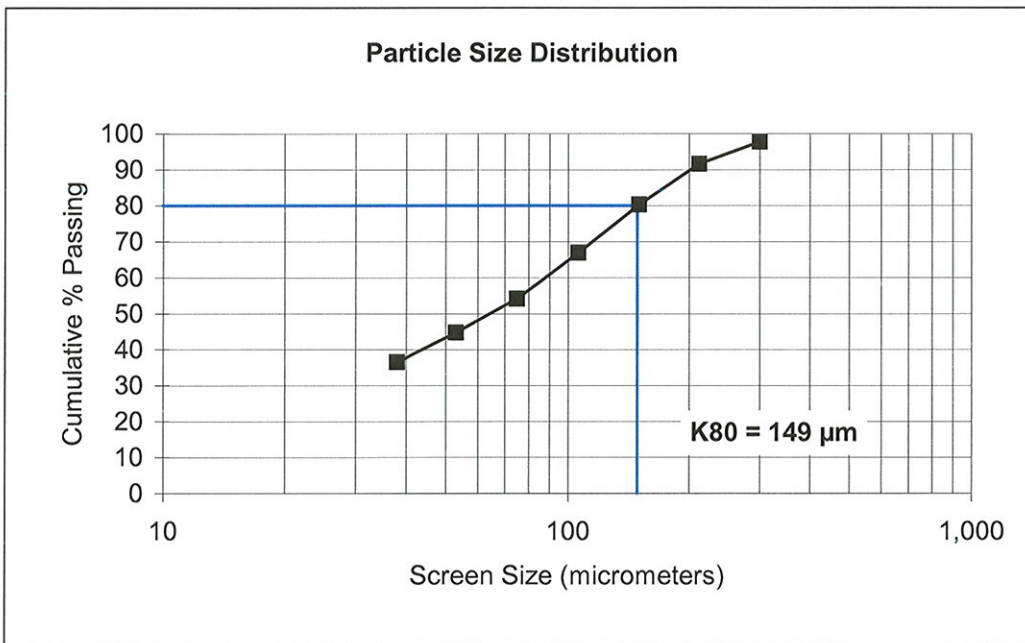
Cycle	Wt. %	Cu	Mo	S	Au	Ag
A	99.2	96.3	94.3	94.0	94.6	96.8
B	99.8	99.7	95.7	99.3	95.3	98.5
C	100.1	98.6	99.5	100.9	97.0	96.9
D	100.0	99.1	100.7	99.0	91.1	100.3
E	100.1	102.2	103.3	98.6	103.5	98.9
F	99.9	100.6	95.8	97.8	112.7	101.4
ave C-F	100.0	100.2	99.9	99.1	101.1	99.4
ave D-F	100.0	100.7	100.0	98.5	102.4	100.2
ave E-F	100.0	101.4	99.6	98.2	108.1	100.1

**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod Ro Tls** Test No.: **LCT 10**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	2.2	2.2	2.2	97.8
65	212	6.1	6.1	8.3	91.7
100	150	11.3	11.3	19.6	80.4
150	106	13.4	13.4	33.0	67.0
200	75	12.8	12.8	45.8	54.2
270	53	9.4	9.4	55.2	44.8
400	38	8.2	8.2	63.4	36.6
Pan	-38	36.6	36.6	100.0	0.0
Total	-	100.0	100.0	-	-
K80	149				

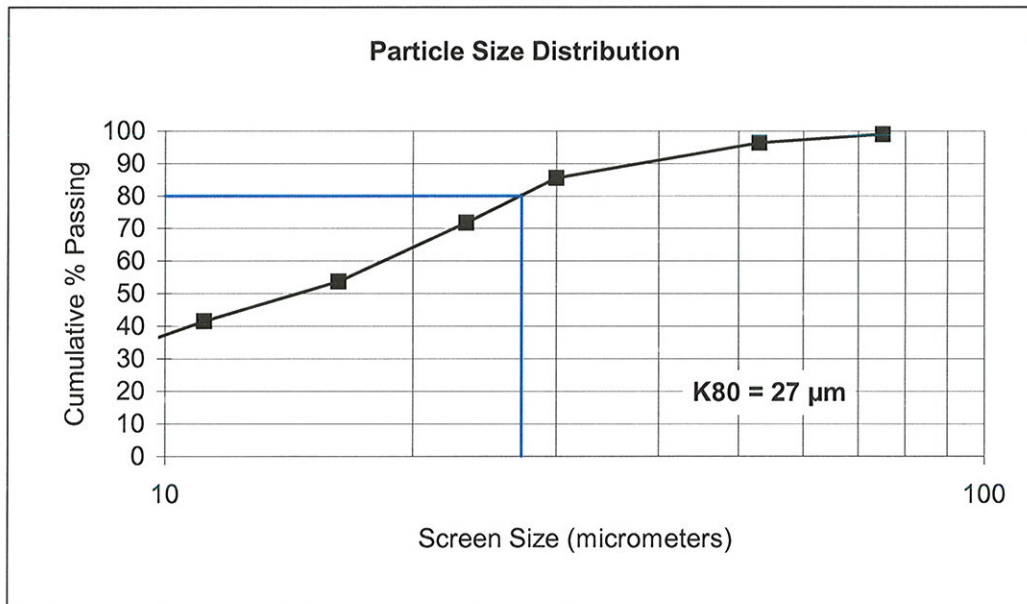


**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb 2nd CI Conc** Test No.: **LCT 10**

Dry Solids S.G.=		3.78	Water Temperature =		17.00 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
200	75	0.2	1.0	1.0	99.0
270	53	0.7	2.7	3.7	96.3
	30	2.7	10.8	14.5	85.5
	23	3.4	13.8	28.2	71.8
	16	4.5	18.1	46.3	53.7
	11	3.0	12.2	58.5	41.5
	9	2.5	9.9	68.4	31.6
	-9	7.9	31.6	100.0	0.0
Total	-	24.9	100.0	-	-
K80	27				



Purpose: Locked cycle test on Variability Composite

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Comp 1

Grind: 32 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1). K₈₀ = 127 µm

Recycle water used in primary grind

Regrind: 15 minutes in laboratory pebble mill (PM). K₈₀ = 18 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-		32			7.8	-80
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	7.8	-100
Bulk Rougher 2	-	15	-	-	15			1	4	7.9	+40
Bulk Rougher 3	-	15	-	-	10			1	5	8.0	+40
<i>Cu Cleaner</i>											
Regrind	700	5	5	-	-		15			11.5	-20
Cu 1st Cleaner	-	-	-	2.5	5			1	4	11.5	-20
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.3	-10
Cu 2nd Cleaner	115	-	-	1	5			1	3.5	11.8	-10
Cu 3rd Cleaner	145	-	-	1	5			1	3	11.8	-10
Total	960	55	15		60						

* as required

Stage	Bulk Ro	1st Cleaner	2nd Cleaner	3rd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1	250g-D1
Speed: rpm	1800	1500	1200	1200

Metallurgical Projection (E-F)

Product	Weight		Assays, %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc	37.6	0.95	21.5	0.305	5.19	78.2	72.9	53.1
1st Cleaner Scavenger Tail	351.1	8.88	0.12	0.002	0.19	4.08	4.46	17.8
Rougher Tail	3564.3	90.2	0.051	0.001	0.03	17.8	22.7	29.1
Combined Tail	3915.4	99.0	0.058	0.001	0.04	21.8	27.1	46.9
Head	3953.0	100.0	0.26	0.004	0.09	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc A	17.2	0.14	22.9	0.300	5.42	12.7	11.1	8.04
3rd Cleaner Conc B	15.8	0.13	24.5	0.330	5.75	12.5	11.2	7.83
3rd Cleaner Conc C	17.8	0.15	22.5	0.310	5.48	12.9	11.9	8.41
3rd Cleaner Conc D	18.7	0.16	21.4	0.310	5.36	12.9	12.5	8.64
3rd Cleaner Conc E	18.4	0.16	22.0	0.310	5.26	13.0	12.3	8.35
3rd Cleaner Conc F	19.2	0.16	21.0	0.300	5.12	13.0	12.4	8.48
3rd Cleaner Tail F	4.30	0.04	1.72	0.043	1.76	0.24	0.40	0.65
2nd Cleaner Tail F	22.2	0.19	0.53	0.015	0.73	0.38	0.72	1.40
1st Cl Scav Conc F	12.5	0.11	0.74	0.010	1.02	0.30	0.27	1.10
1st Cl Scav Tail A	134.4	1.13	0.09	0.001	0.15	0.41	0.29	1.74
1st Cl Scav Tail B	152.7	1.29	0.13	0.002	0.22	0.64	0.66	2.90
1st Cl Scav Tail C	172.8	1.46	0.11	0.002	0.20	0.61	0.75	2.98
1st Cl Scav Tail D	185.4	1.56	0.11	0.002	0.19	0.66	0.80	3.04
1st Cl Scav Tail E	167.4	1.41	0.12	0.002	0.17	0.65	0.72	2.45
1st Cl Scav Tail F	183.7	1.55	0.12	0.002	0.20	0.71	0.79	3.17
Ro Tail A	1802.6	15.2	0.056	<0.001	0.03	3.25	3.89	4.66
Ro Tail B	1806.6	15.2	0.047	<0.001	0.04	2.73	3.90	6.23
Ro Tail C	1781.1	15.0	0.052	<0.001	0.03	2.98	3.84	4.61
Ro Tail D	1766.1	14.9	0.063	<0.001	0.04	3.58	3.81	6.09
Ro Tail E	1783.7	15.0	0.053	<0.001	0.03	3.04	3.85	4.61
Ro Tail F	1780.6	15.0	0.050	<0.001	0.03	2.87	3.84	4.61
Head (calc.) (direct)	11863.2	100.0	0.26	0.004	0.10	100.0	100.0	100.0
Combined Products			Not sufficient sample					
3rd Cleaner Conc A-F	107.1	0.90	22.3	0.31	5.39	77.0	71.5	49.8
1st Cl Scav Tail A-F	996.4	8.40	0.11	0.002	0.19	3.67	4.01	16.3
Ro Tail A-F	10720.7	90.4	0.053	0.001	0.03	18.5	23.1	30.8
Combined Tail A-F	11717.1	98.8	0.059	0.001	0.05	22.1	27.1	47.1

Stability Check

Cycle	Wt. %	Cu	Mo	Au
A	98.8	98.0	91.8	86.7
B	99.9	95.0	94.8	101.8
C	99.7	98.9	98.9	96.0
D	99.6	102.8	102.6	106.6
E	99.6	100.4	101.2	92.5
F	100.3	99.4	102.3	97.5
ave C-F	99.8	100.4	101.3	98.2
ave D-F	99.9	100.8	102.1	98.9
ave E-F	100.0	99.9	101.8	95.0

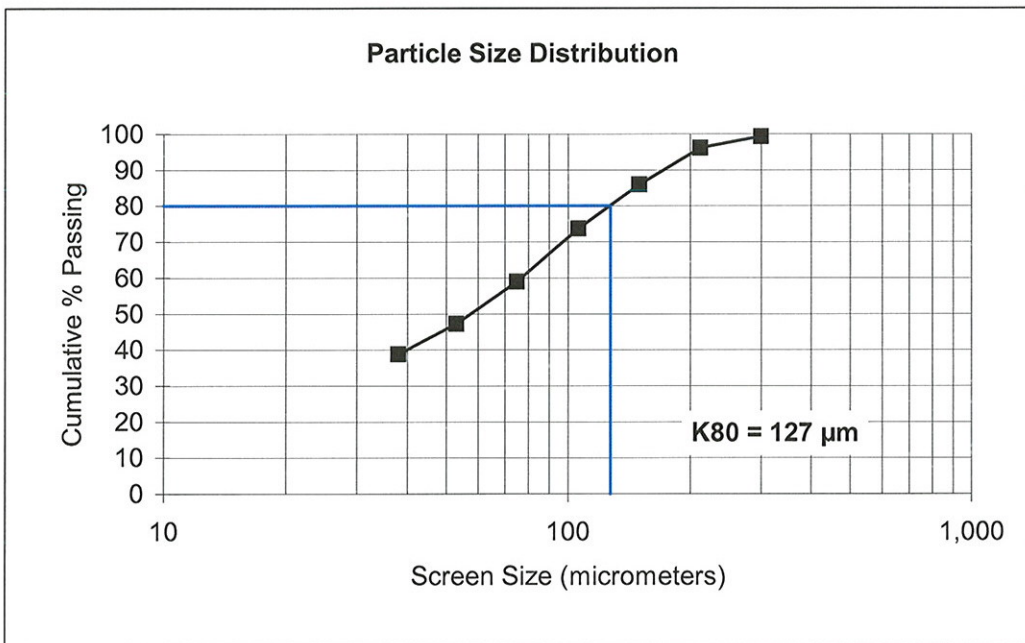
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 11**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.6	0.6	0.6	99.4
65	212	3.2	3.2	3.8	96.2
100	150	10.2	10.2	14.0	86.0
150	106	12.3	12.3	26.3	73.7
200	75	14.7	14.7	41.0	59.0
270	53	11.7	11.7	52.7	47.3
400	38	8.4	8.4	61.1	38.9
Pan	-38	38.9	38.9	100.0	0.0
Total	-	100.0	100.0	-	-
K80	127				



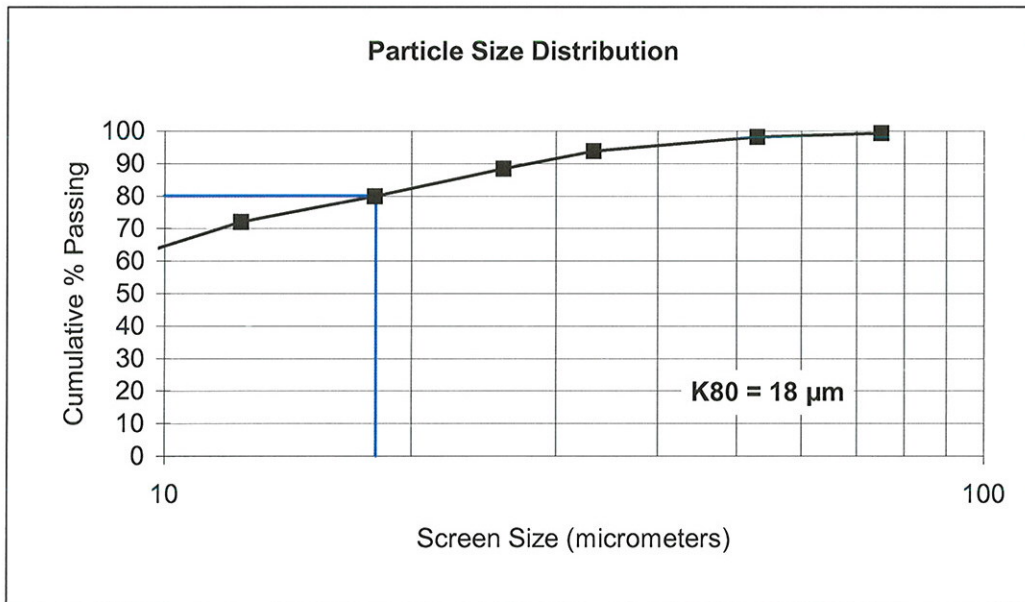
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 11**

Dry Solids S.G.=		2.89	Water Temperature =		25.00 C°
Mesh	Size	Weight grams	% Retained		% Passing
	µm		Individual	Cumulative	Cumulative
200	75	0.4	0.7	0.7	99.3
270	53	0.6	1.2	1.9	98.1
	33	2.2	4.3	6.2	93.8
	26	2.7	5.4	11.6	88.4
	18	4.3	8.5	20.1	79.9
	12	3.9	7.8	27.9	72.1
	10	4.4	8.9	36.8	63.2
	-10	31.6	63.2	100.0	0.0
Total	-	50.0	100.0	-	-
K80	18				



Test No.: LCT-12

Project No.: 11474-001

Operator: CC, BW

Date: Aug 16th, 2007

Purpose: Locked cycle test on Variability Composite

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Comp 2

Grind: 27 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1). K₈₀ = 127 µm
 Recycle water used in primary grind

Regrind: 15 minutes in laboratory pebble mill (PM). K₈₀ = 21 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes				
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth	pH	Ep
Grind	-	15	10	-	-		27			7.9	-120
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	7.8	-180
Bulk Rougher 2	-	15	-	-	15			1	4	7.9	+20
Bulk Rougher 3	-	15	-	-	10			1	5	8.0	+30
<i>Cu Cleaner</i>											
Regrind	625	5	5	-	-		15			11.3	0
Cu 1st Cleaner	-	-	-	2.5	5			1	4	11.5	-10
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.4	-20
Cu 2nd Cleaner	175	-	-	1	5			1	3.5	11.8	-20
Cu 3rd Cleaner	125	-	-	1	5			1	3	11.8	-10
Total	925	55	15	5.5	60	0	0	0			

* as required

Stage	Bulk Ro	1st Cleaner	2nd Cleaner	3rd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1	250g-D1
Speed: rpm	1800	1500	1200	1200

Metallurgical Projection (D,E)

Product	Weight		Assays, %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc	52.1	1.31	25.4	0.655	6.26	84.0	88.2	54.0
1st Cleaner Scavenger Tail	312.2	7.84	0.11	0.003	0.25	2.27	2.42	13.1
Rougher Tail	3617.9	90.9	0.060	0.001	0.05	13.8	9.4	32.9
Combined Tail	3930.1	98.7	0.064	0.001	0.07	16.0	11.8	46.0
Head	3982.2	100.0	0.40	0.010	0.15	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc A	24.5	0.21	26.5	0.650	6.29	13.8	13.7	8.60
3rd Cleaner Conc B	25.2	0.21	26.1	0.680	6.29	13.9	14.7	8.84
3rd Cleaner Conc C	24.9	0.21	26.2	0.670	6.56	13.8	14.3	9.11
3rd Cleaner Conc D	26.2	0.22	25.2	0.650	6.04	14.0	14.6	8.83
3rd Cleaner Conc E	25.9	0.22	25.6	0.660	6.47	14.1	14.7	9.35
3rd Cleaner Conc F	25.8	0.22	25.5	0.650	6.13	13.9	14.4	8.82
3rd Cleaner Tail F	3.30	0.03	3.40	0.210	3.16	0.24	0.59	0.58
2nd Cleaner Tail F	17.0	0.14	1.11	0.079	1.33	0.40	1.15	1.26
1st Cl Scav Conc F	9.10	0.08	1.28	0.040	1.46	0.25	0.31	0.74
1st Cl Scav Tail A	133.5	1.12	0.10	0.002	0.20	0.27	0.23	1.49
1st Cl Scav Tail B	131.8	1.10	0.11	0.003	0.26	0.31	0.34	1.91
1st Cl Scav Tail C	143.1	1.20	0.12	0.004	0.29	0.36	0.49	2.32
1st Cl Scav Tail D	161.8	1.35	0.11	0.003	0.23	0.38	0.42	2.08
1st Cl Scav Tail E	150.4	1.26	0.12	0.003	0.28	0.38	0.39	2.35
1st Cl Scav Tail F	174.3	1.46	0.12	0.003	0.25	0.44	0.45	2.43
Ro Tail A	1810.9	15.2	0.057	0.001	0.05	2.19	1.55	5.05
Ro Tail B	1827.4	15.3	0.058	0.001	0.05	2.25	1.57	5.10
Ro Tail C	1819.9	15.2	0.050	<0.001	0.04	1.93	1.56	4.06
Ro Tail D	1797.9	15.1	0.063	<0.001	0.07	2.40	1.54	7.02
Ro Tail E	1820.0	15.2	0.057	<0.001	0.04	2.20	1.56	4.06
Ro Tail F	1791.0	15.0	0.066	0.001	0.06	2.50	1.54	6.00
Head (calc.)	11943.9	100.0	0.40	0.010	0.15	100.0	100.0	100.0
(direct)			0.41	0.008	0.15			
Combined Products			Not sufficient sample					
3rd Cleaner Conc A-F	152.5	1.28	25.8	0.660	6.29	83.5	86.3	53.6
1st Cl Scav Tail A-F	894.9	7.49	0.11	0.003	0.25	2.15	2.31	12.6
Ro Tail A-F	10867.1	91.0	0.058	0.001	0.05	13.5	9.32	31.3
Combined Tail A-F	11762.0	98.5	0.063	0.001	0.07	15.6	11.6	43.9

Stability Check

Cycle	Wt. %	Cu	Mo	Au
A	98.9	97.3	92.6	90.8
B	99.7	98.9	99.6	95.1
C	99.9	96.7	98.2	92.9
D	99.8	100.6	99.4	107.6
E	100.3	99.8	99.6	94.6
F	100.0	101.3	98.2	103.5
ave C-F	100.0	99.6	98.8	99.6
ave D-F	100.0	100.6	99.1	101.9
ave E-F	100.2	100.6	98.9	99.0

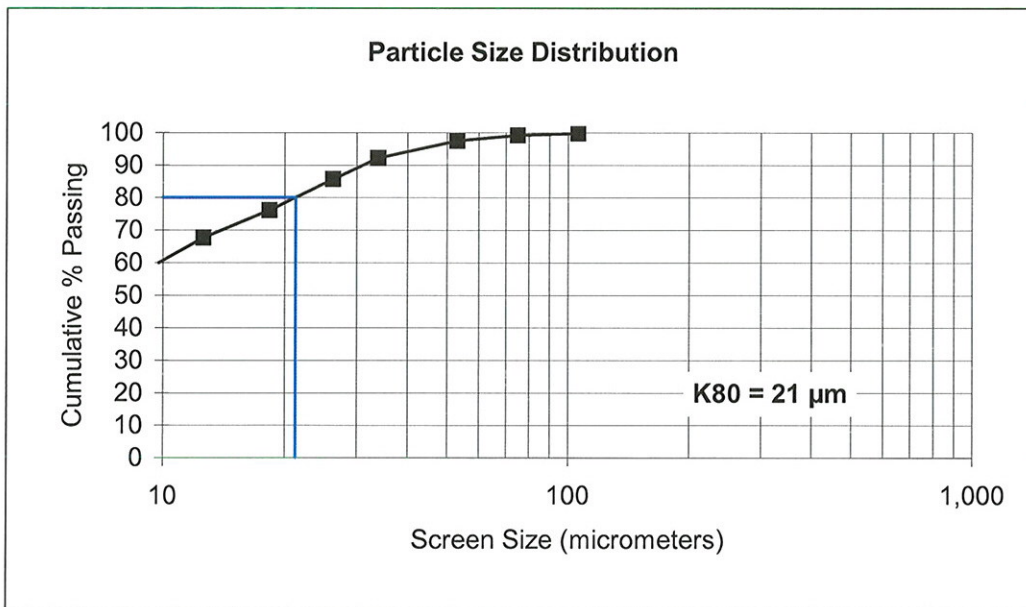
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 12**

Dry Solids S.G.= 2.83		Water Temperature = 25.00 C°			
Mesh	Size µm	Weight grams	% Retained		% Passing
			Individual	Cumulative	Cumulative
150	106	0.1	0.2	0.2	99.8
200	75	0.3	0.6	0.8	99.2
270	53	0.8	1.7	2.5	97.5
	34	2.6	5.3	7.7	92.3
	26	3.3	6.5	14.2	85.8
	18	4.8	9.5	23.8	76.2
	13	4.2	8.4	32.2	67.8
	10	3.9	7.8	40.0	60.0
	-10	30.0	60.0	100.0	0.0
Total	-	50.0	100.0	-	-
K80	21				



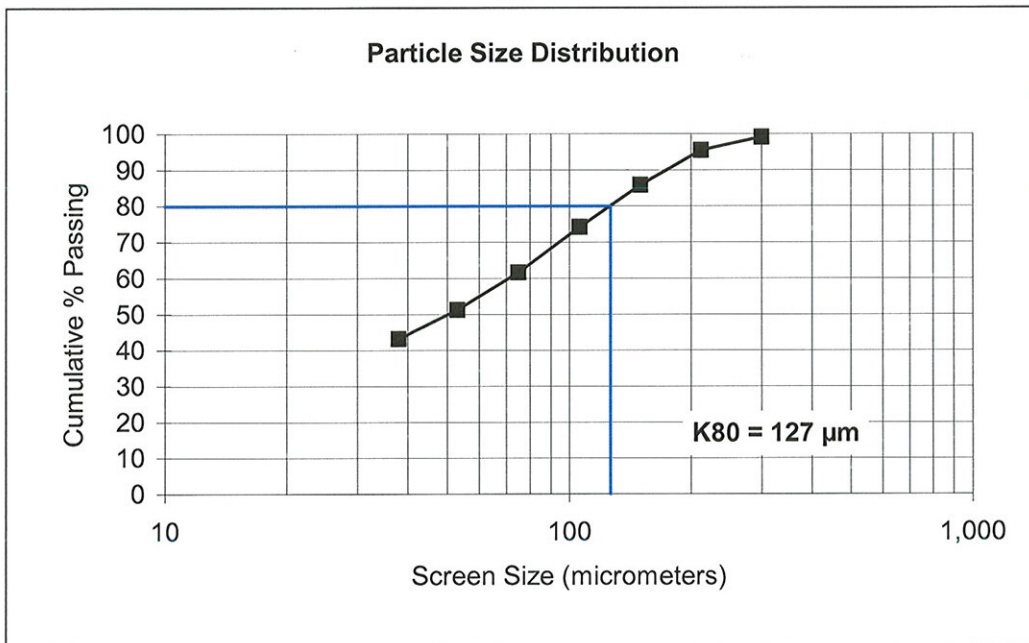
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT 12**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.9	0.9	0.9	99.1
65	212	3.6	3.6	4.5	95.5
100	150	9.6	9.6	14.1	85.9
150	106	11.6	11.6	25.7	74.3
200	75	12.6	12.6	38.3	61.7
270	53	10.4	10.4	48.7	51.3
400	38	8.1	8.1	56.8	43.2
Pan	-38	43.2	43.2	100.0	0.0
Total	-	100.0	100.0	-	-
K80	127				



Test No.: LCT-13

Project No.: 11474-001

Operator: CC, BW

Date: Aug. 21st, 2007

Purpose: Locked cycle test on Variability Composite

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Comp 3

Grind: 24 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).
Recycle water used in primary grind

K₈₀ = 133 µm

Regrind: 15 minutes in laboratory pebble mill (PM).

K₈₀ = 28 µm

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes			pH	Ep
	Lime	PEX	Cytco 3302	CMC	MIBC		Grind	Cond.	Froth		
Grind	-	15	10	-	-		24			8.0	-50
<i>Rougher</i>											
Bulk Rougher 1	-	-	-	-	15			1	3	8.0	-50
Bulk Rougher 2	-	15	-	-	15			1	4	8.0	+20
Bulk Rougher 3	-	15	-	-	10			1	5	8.0	+30
<i>Cu Cleaner</i>											
Regrind	750	5	5	-	-		15			11.5	0
Cu 1st Cleaner	-	-	-	2.5	5			1	4	11.5	-10
Cu 1st Cleaner Scav	-	5	-	1	5			1	2	11.3	0
Cu 2nd Cleaner	150	-	-	1.5	5			1	3.5	11.8	-20
Cu 3rd Cleaner	150	-	-	1.5	5			1	3	11.8	-10
Total	1050	55	15	6.5	60	0	0	0			

* as required

Stage	Bulk Ro	1st Cleaner	2nd Cleaner	3rd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1	250g-D1
Speed: rpm	1800	1500	1200	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc	144.5	1.81	24.2	0.092	10.2	84.2	63.0	58.0
1st Cleaner Scavenger Tail	690.4	8.67	0.17	0.001	0.52	2.78	3.27	14.0
Rougher Tail	7132.6	89.5	0.075	0.001	0.10	13.0	33.7	28.0
Combined Tail	7823.0	98.2	0.084	0.001	0.14	15.8	37.0	42.0
Head	7967.5	100.0	0.52	0.003	0.32	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc A	32.4	0.27	25.7	0.083	10.4	13.4	8.49	8.79
3rd Cleaner Conc B	33.5	0.28	25.4	0.087	9.90	13.7	9.21	8.65
3rd Cleaner Conc C	35.6	0.30	24.7	0.090	10.7	14.2	10.1	9.93
3rd Cleaner Conc D	37.6	0.31	23.2	0.086	10.1	14.1	10.2	9.90
3rd Cleaner Conc E	36.6	0.31	24.0	0.095	9.76	14.2	11.0	9.32
3rd Cleaner Conc F	34.7	0.29	24.8	0.098	10.4	13.9	10.7	9.41
3rd Cleaner Tail F	4.90	0.04	3.54	0.054	4.69	0.28	0.84	0.60
2nd Cleaner Tail F	16.5	0.14	1.54	0.021	2.48	0.41	1.09	1.07
1st Cl Scav Conc F	11.7	0.10	1.44	0.036	2.47	0.27	1.33	0.75
1st Cl Scav Tail A	133.5	1.12	0.14	<0.001	0.46	0.30	0.42	1.60
1st Cl Scav Tail B	160.6	1.34	0.16	<0.001	0.53	0.41	0.51	2.22
1st Cl Scav Tail C	160.2	1.34	0.18	0.001	0.59	0.47	0.51	2.47
1st Cl Scav Tail D	174.4	1.46	0.15	<0.001	0.59	0.42	0.55	2.68
1st Cl Scav Tail E	188.4	1.58	0.16	<0.001	0.43	0.49	0.60	2.11
1st Cl Scav Tail F	167.4	1.40	0.18	<0.001	0.47	0.49	0.53	2.05
Ro Tail A	1801.5	15.1	0.077	<0.001	0.11	2.24	5.69	5.17
Ro Tail B	1790.7	15.0	0.071	<0.001	0.10	2.05	5.66	4.67
Ro Tail C	1796.5	15.0	0.072	<0.001	0.11	2.09	5.67	5.15
Ro Tail D	1777.5	14.9	0.083	<0.001	0.10	2.38	5.61	4.64
Ro Tail E	1764.4	14.8	0.075	<0.001	0.10	2.14	5.57	4.60
Ro Tail F	1794.2	15.0	0.072	<0.001	0.09	2.08	5.67	4.21
Head (calc.)	11952.8	100.0	0.52	0.003	0.32	100.0	100.0	100.0
(direct)			0.55	0.001	0.30			
Combined Products								
Not sufficient sample								
3rd Cleaner Conc A-F	210.4	1.76	24.6	0.090	10.2	83.5	59.8	56.0
1st Cl Scav Tail A-F	984.5	8.24	0.16	0.001	0.51	2.58	3.11	13.1
Ro Tail A-F	10724.8	89.7	0.075	0.001	0.10	13.0	33.9	28.4
Combined Tail A-F	11709.3	98.0	0.082	0.001	0.14	15.6	37.0	41.6

Stability Check

Cycle	Wt. %	Cu	Mo	Au
A	98.8	95.9	87.6	93.3
B	99.6	97.2	92.2	93.2
C	100.0	100.4	97.8	105.3
D	99.9	101.3	98.3	103.3
E	99.9	100.8	102.9	96.2
F	100.2	98.7	101.6	94.1
ave C-F	100.0	100.3	100.1	99.7
ave D-F	100.0	100.3	100.9	97.9
ave E-F	100.0	99.8	102.3	95.1

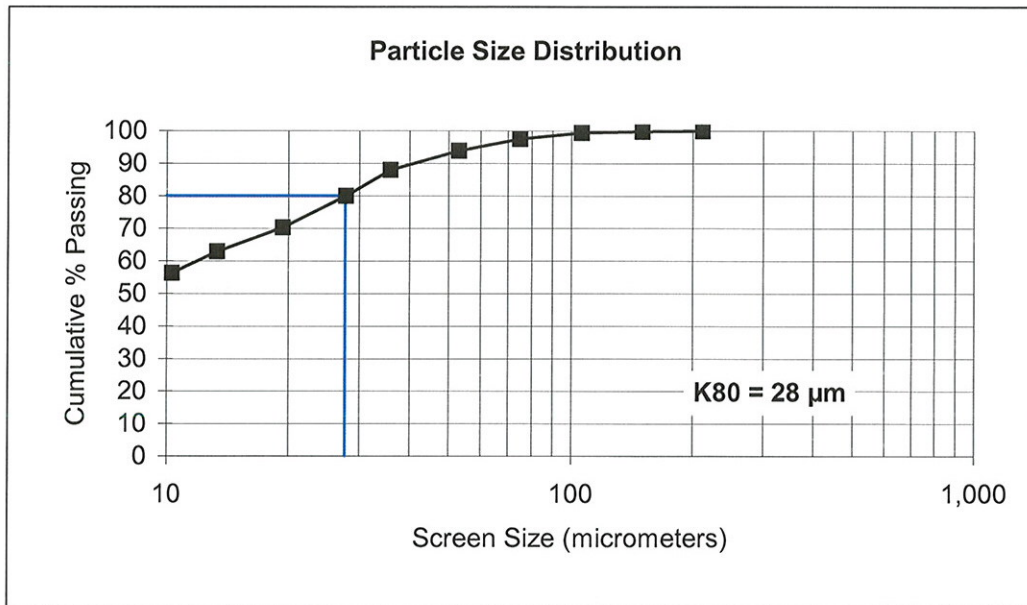
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT13**

Dry Solids S.G.= 2.76		Water Temperature = 22.00 C°			
Size		Weight grams	% Retained		% Passing
Mesh	µm		Individual	Cumulative	Cumulative
65	212	0.0	0.0	0.0	100.0
100	150	0.1	0.2	0.2	99.8
150	106	0.2	0.4	0.6	99.4
200	75	0.9	1.8	2.4	97.6
270	53	1.8	3.7	6.1	93.9
	36	2.9	5.8	12.0	88.0
	28	4.0	7.9	19.9	80.1
	19	4.9	9.8	29.7	70.3
	13	3.7	7.4	37.1	62.9
	10	3.3	6.6	43.6	56.4
	-10	28.2	56.4	100.0	0.0
Total	-	50.0	100.0	-	-
K80	28				



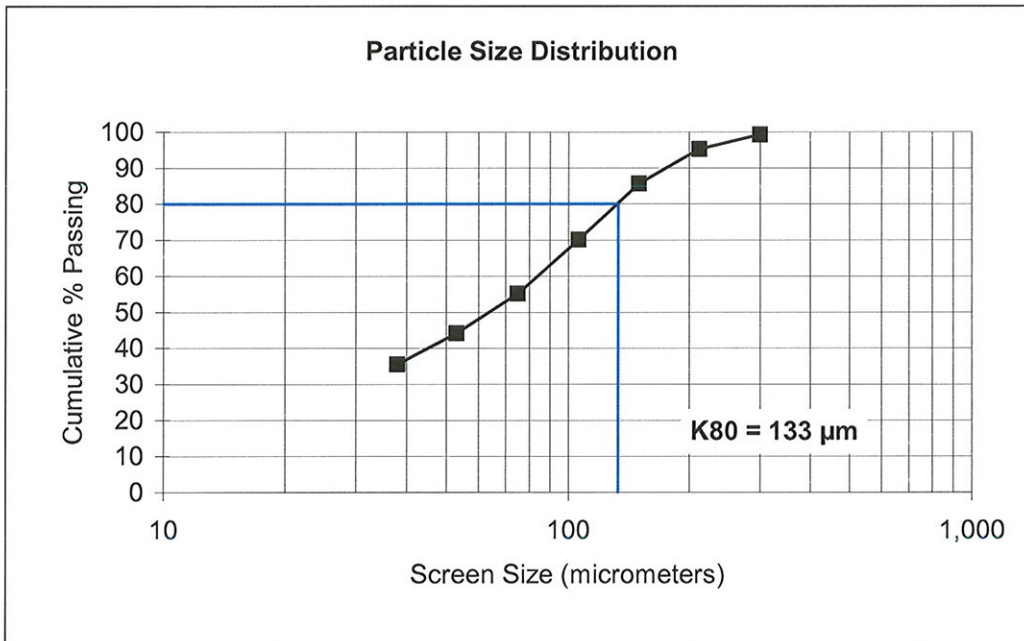
**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Prod**

Test No.: **LCT13**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.7	0.7	0.7	99.3
65	212	4.0	4.0	4.7	95.3
100	150	9.6	9.6	14.3	85.7
150	106	15.5	15.5	29.8	70.2
200	75	15.0	15.0	44.8	55.2
270	53	11.0	11.0	55.8	44.2
400	38	8.6	8.6	64.4	35.6
Pan	-38	35.6	35.6	100.0	0.0
Total	-	100.0	100.0	-	-
K80	133				



Test No.: LCT-14

Project No.: 11474-001

Operator: CC, BW

Date: Aug. 22nd, 2007

Purpose: Locked cycle test on Variability Composite

Procedure: As outlined below.

Feed: 6 x 2 kg of minus 10 mesh Comp 4

Grind: 23 minutes / 2 kg @ 65% solids in laboratory ball mill (BM-1).
Recycle water used in primary grind

$K_{80} = 124 \mu\text{m}$

Regrind: 15 minutes in laboratory pebble mill (PM).

$K_{80} = 38 \mu\text{m}$

Conditions:

Stage	Reagents added, grams per tonne						Time, minutes					pH	Ep
	Lime	PEX	Cytec 3302	CMC	MIBC		Grind	Cond.	Froth				
Grind	-	15	10	-	-		23				7.9	-140	
<i>Rougher</i>													
Bulk Rougher 1	-	-	-	-	15			1	3		7.9	-200	
Bulk Rougher 2	-	15	-	-	15			1	4		8.0	+20	
Bulk Rougher 3	-	15	-	-	10			1	5		8.0	+20	
<i>Cu Cleaner</i>													
Regrind	666	5	5	-	-		15				11.5	0	
Cu 1st Cleaner	-	-	-	2.5	5			1	4		11.5	-20	
Cu 1st Cleaner Scav	-	5	-	1	5			1	2		11.4	0	
Cu 2nd Cleaner	135	-	-	1.5	5			1	3.5		11.8	-20	
Cu 3rd Cleaner	145	-	-	1.5	5			1	3		11.8	-10	
Total	946	55	15	6.5	60	0	0	0					

* as required

Stage	Bulk Ro	1st Cleaner	2nd Cleaner	3rd Cleaner
Flotation Cell	1000g-D1	500g-D1	250g-D1	250g-D1
Speed: rpm	1800	1500	1200	1200

Metallurgical Projection (C-F)

Product	Weight		Assays, %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc	194.8	2.45	25.5	0.110	7.82	87.7	73.4	58.9
1st Cleaner Scavenger Tail	779.0	9.80	0.16	0.001	0.51	2.16	2.67	15.4
Rougher Tail	6972.0	87.7	0.082	0.001	0.10	10.1	23.9	25.7
Combined Tail	7751.0	97.5	0.090	0.001	0.14	12.3	26.6	41.1
Head	7945.8	100.0	0.71	0.004	0.33	100.0	100.0	100.0

Metallurgical Balance

Product	Weight		Assays %, g/t			% Distribution		
	g	%	Cu	Mo	Au	Cu	Mo	Au
3rd Cleaner Conc A	48.3	0.41	24.5	0.100	7.38	14.1	11.0	9.23
3rd Cleaner Conc B	49.2	0.41	24.3	0.110	7.69	14.2	12.3	9.80
3rd Cleaner Conc C	49.1	0.41	24.1	0.120	7.73	14.1	13.4	9.83
3rd Cleaner Conc D	47.8	0.40	28.3	0.110	7.90	16.1	12.0	9.78
3rd Cleaner Conc E	50.1	0.42	25.1	0.110	7.93	15.0	12.6	10.3
3rd Cleaner Conc F	47.8	0.40	24.6	0.100	7.68	14.0	10.9	9.51
3rd Cleaner Tail F	3.40	0.03	3.29	0.06	5.93	0.13	0.46	0.52
2nd Cleaner Tail F	15.9	0.13	1.70	0.02	3.84	0.32	0.72	1.58
1st Cl Scav Conc F	11.7	0.10	1.47	0.007	3.09	0.20	0.19	0.94
1st Cl Scav Tail A	157.7	1.32	0.11	0.001	0.35	0.21	0.36	1.43
1st Cl Scav Tail B	201.0	1.69	0.13	0.001	0.38	0.31	0.46	1.98
1st Cl Scav Tail C	207.6	1.74	0.14	0.001	0.44	0.35	0.47	2.37
1st Cl Scav Tail D	183.0	1.54	0.16	0.001	0.53	0.35	0.42	2.51
1st Cl Scav Tail E	196.1	1.65	0.16	0.001	0.48	0.37	0.45	2.44
1st Cl Scav Tail F	192.3	1.62	0.17	0.001	0.60	0.39	0.44	2.99
Ro Tail A	1751.0	14.7	0.075	0.001	0.09	1.56	3.99	4.08
Ro Tail B	1718.0	14.4	0.069	<0.001	0.08	1.41	3.92	3.56
Ro Tail C	1727.0	14.5	0.076	0.001	0.10	1.56	3.94	4.47
Ro Tail D	1762.0	14.8	0.080	<0.001	0.09	1.68	4.02	4.11
Ro Tail E	1736.0	14.6	0.083	0.001	0.09	1.72	3.96	4.05
Ro Tail F	1747.0	14.7	0.090	0.001	0.10	1.87	3.98	4.53
Head (calc.)	11902.0	100.0	0.71	0.004	0.32	100.0	100.0	100.0
(direct)			0.70	0.003	0.34			
Combined Products			Not sufficient sample					
3rd Cleaner Conc A-F	292.3	2.46	25.1	0.11	7.72	87.6	72.2	58.4
1st Cl Scav Tail A-F	1137.7	9.56	0.15	0.001	0.47	1.98	2.59	13.7
Ro Tail A-F	10441.0	87.7	0.079	0.001	0.09	9.81	23.8	24.8
Combined Tail A-F	11578.7	97.3	0.085	0.001	0.13	11.8	26.4	38.5

Stability Check

Cycle	Wt. %	Cu	Mo	Au
A	98.7	95.2	92.2	88.5
B	99.2	95.8	100.3	92.0
C	100.0	96.1	107.1	100.0
D	100.5	108.9	98.5	98.4
E	99.9	102.4	101.8	100.7
F	100.2	97.6	91.9	102.1
ave C-F	100.1	101.3	99.8	100.3
ave D-F	100.2	103.0	97.4	100.4
ave E-F	100.0	100.0	96.9	101.4

**SGS Minerals Services
Size Distribution Analysis**

Project No.
11474-001

Sample: **Comb Ro Tail**

Test No.: **LCT14**

Mesh	Size	Weight grams	% Retained		% Passing Cumulative
	µm		Individual	Cumulative	
48	300	0.9	0.9	0.9	99.1
65	212	3.7	3.7	4.6	95.4
100	150	8.0	8.0	12.6	87.4
150	106	12.9	12.9	25.5	74.5
200	75	13.3	13.3	38.8	61.2
270	53	10.8	10.8	49.6	50.4
400	38	8.4	8.4	58.0	42.0
Pan	-38	42.0	42.0	100.0	0.0
Total	-	100.0	100.0	-	-
K80	124				

