

ASX Release

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**Avanco – Copper
with 2 projects in
world class Carajas,
Brazil**

STAGE I - METALLURGICAL TESTING EXHIBITS EXCELLENT COPPER RECOVERIES

The Company is pleased to advise that preliminary testing confirms that the Stage I (Antas North) Project is very amenable to **traditional Froth Flotation**. **Excellent copper recoveries coupled with high-grade concentrate are a feature of results.**

- **Metallurgical testing demonstrates that Stage I (Antas North) is extremely amenable to conventional Froth Flotation for the beneficiation of the Copper sulphides.**
- **97% Copper recovery was recorded in Rougher-Scavenger (R-S) stages.**
- **R-S Flotation performed very well at coarse grind sizes (up to 212µm) indicating that processing will not require intensive grinding.**
- **A common reagent suit was applied with typical consumption rates.**
- **A final concentrate of ~32.4% Copper was generated from Cleaner stage flotation which confirms ease and ability to produce saleable concentrates from Stage I.**
- **Interpretation of results provides confidence in predicting Overall Copper recoveries in excess of 90% for Antas North.**
- **These tests form part of a comprehensive metallurgical programme. Current results will be integrated into the Stage I Scoping Study.**
- **The high-grade Antas North Deposit is Avanco's most advanced development target – Antas North SULPHIDE JORC Reported Mineral Resource stands at:**

**9.27M tonnes at 1.83% Copper and 0.44g/t Au for
169,000 tonnes of copper and 131,000Ozs of Gold**

- **Stage II (Pedra Branca) metallurgy is expected to be similar to Stage I. Historical test work has reported Stage II R-S recoveries between 92% and 95% Copper.**
- **The Company expects further resource growth at Pedra Branca, metallurgical testing of Stage II will commence and run concurrently with drilling during the 4th quarter.**
- **Stage I and II combined, JORC Reported Mineral Resource currently stands at:**

661,000 tonnes of Copper and 572,000Ozs of Gold



Lab Scale tests have confirmed Antas North as being very amenable to the application of froth flotation as a process for copper recovery

STAGE I - METALLURGY

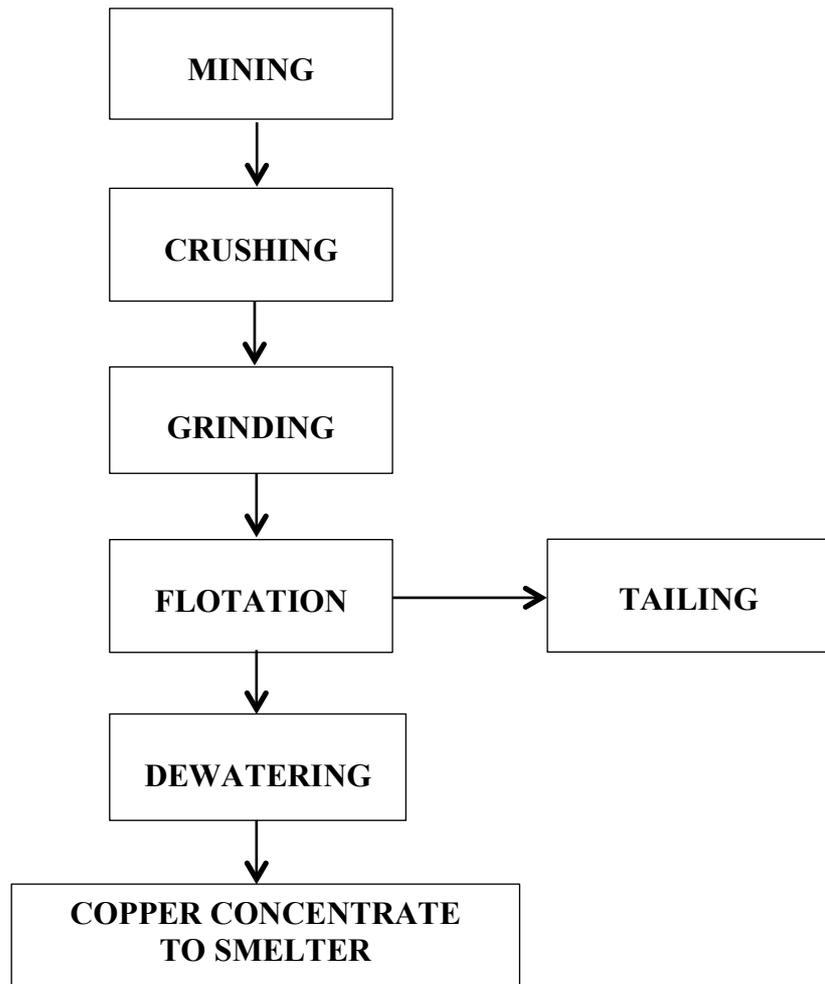
The mineralogy of Antas North is similar to other Carajas IOCG (Iron Oxide Copper Gold) deposits, such as Avanco's Pedra Branca (Stage II) and Vales SA's Sossego Copper Mine. These deposits are characterised by chalcopyrite as the dominant copper mineral, with very low levels of deleterious elements.

Chalcopyrite is the most common sulphide Copper mineral and is present in high concentrations at the Antas North Deposit.

Froth Flotation has been successfully used for commercial extraction of Cu, Pb, Zn, Ni sulphide ores for more than 100 years and is the preferred beneficiation process for treating Chalcopyrite.

The Froth Flotation technique of separating valuable sulphides from waste material¹ requires initial crushing and grinding of the ore in preparation for flotation. A number of unit operations are envisaged for the processing of Stage I ore, and will likely replicate process designs operating successfully at neighbouring mines, see Fig 1, 2 & 3.

Fig 1: UNIT OPERATIONS FOR STAGE I

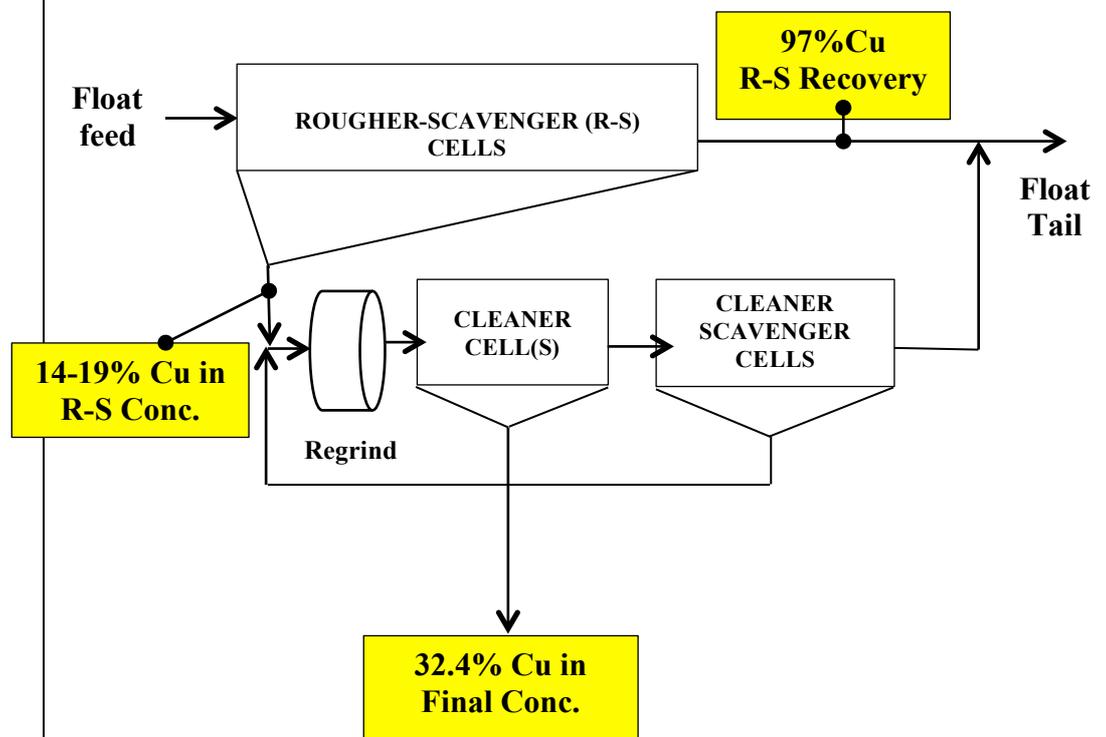


Representative samples between 1.5% Copper and 3.5% Copper (largely comprising disseminated sulphides) were collected by the Company for Bench Scale testing. Testing and analysis was undertaken and supervised at an international recognised facility in Brazil².

To crush/grind Antas North ores ahead of flotation, a simple jaw crusher followed by a single SAG mill, or SAG-Secondary ball mill configuration is proposed. (See Fig 1 & 3).

A classic Flotation Circuit configuration (known to be effective for Carajas sulphide ores) represents the preferred design for the metallurgical process - see Fig 2.

**Fig 2: SIMPLIFIED FLOTATION SCHEMATIC DIAGRAM
(current results in yellow)**



In preparing for flotation the samples were crushed and milled. Samples were then subjected to a series of “kinetic” sighter flotation tests aimed at studying the effects of: Reagent Selection, Grind Size and pH on the copper recovery across the Rougher-Scavenger (R-S) cell.

Concentrate generated by the R-S flotation was then subjected to “Open Circuit Cleaning” (OCC) with the objective of obtaining a commercial acceptable final copper concentrate (normally considered as being above 28%Cu).

The following summary of results represents the basis for ongoing testing:

- A series of seven Sighter Kinetic Flotation Tests³ identified flotation response to various grind sizes. The exercise yielded excellent recoveries of ~97% including at very coarse ($212\mu\text{m}^4$) grinds, see Table 1 & 2. A coarse grind is highly desirable offering opportunities to reduce unit energy costs

(lower OPEX) and selection of smaller, less capital intensive grinding mills.

TABLE 1		
Rougher-Scavenger Kinetic Sighter Testing Summary of Grind vs Copper Recovery		
Test	Grind Size (µm)	Cu Recovery %
A	212	~97
B	150	~97
C	106	~97
D	75	~99
Using a 1.7% Copper Sample		

- In grinding, a Bond Work Index (BWI) of 15kw/hr/tonne (for a 75µm product) was recorded. This is indicative of a moderately-hard ore type and typical of IOCG deposits in the district.
- Flotation reagents (collectors, promoters and frothers) trailed were those commonly used in the industry (See Table 2). Reagent consumption was typical for the ore type.
- The effect of alkalinity on flotation adjusted to a pH-10.0 yielded no apparent benefit over a natural pH of 8.5. However, exclusion of lime handling facilities from plant design may not be prudent as lime addition is necessary at neighbouring mines.
- As there was no apparent improvement in flotation due to the addition of a sulphidizing reagent (NaSH), it suggests that surface oxidation of ores at Antas North is unlikely to cause metallurgical difficulties and is therefore a most advantageous characteristic.
- The very high efficiency and effectiveness of the R-S float is evident from the 10:1 Concentration Ratio⁵ (i.e ten tonnes of ore is concentrated into a single tonne of R-S concentrate).
- The highly selective nature of flotation is also clearly seen by reference to the R-S concentrate grades in Table 2 (14% to 19% Copper⁶) confirming Antas North to be very amenable to concentration by flotation. (This relatively high grade R-S concentrate suggests that subsequent “Cleaning” will comfortably upgrade to +28% Copper as a final concentrate)
- To test the performance of the Cleaner Stage a bulk R-S concentrate was re-floated in two stages of Open Circuit Cleaning (OCC)⁷. To achieve a high grade final product re-grinding of the R-S Concentrate (to 35µm) was undertaken prior to Cleaner flotation.
- The Cleaning exercise was highly successful, resulting in a 32.4% Copper concentrate grade. This quality is well above the 28%Cu target and provides ample scope for optimising of Cleaner recoveries. Achieving such high grade (32.4%Cu) in the lab bodes well for the likely production of saleable concentrates in future mining operations

Interpretation of these preliminary results suggests that saleable concentrates can be produced with Overall⁸ Copper recoveries in excess of 90% from flotation operations. This expectation is supported by a similar results reported by neighbouring mines treating similar ores.

Test work is ongoing and will focus on: Gold recovery, Higher grade massive sulphide ore types, Quantify/qualify levels of deleterious elements (if any), Evaluate coarser grinding/regrinding, Complete Locked Cycle Cleaner Testing⁹, and determining Overall Copper and Gold recoveries.

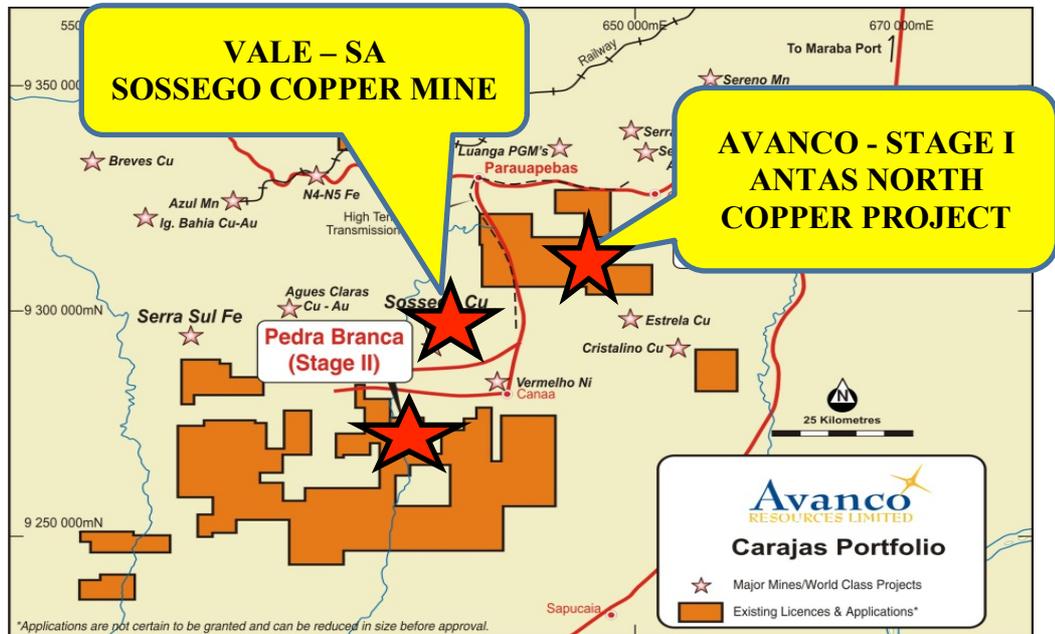
The economics of Antas North (Stage I) are being evaluated in a Scoping Study. . The Study examines open-pit mining of ~400,000tpa of ROM ore, concentrated in a flotation plant to produce ~10,000tpa of copper (and associated gold) in concentrates. These preliminary metallurgical results will be interpreted and used in the Study to assist in process equipment selection and to forecast metallurgical performance. Equipment selection for Stage I will be supported by reference to neighbouring Copper mines where conventional tank/trough type flotation cells are used for Rougher-Scavenging while columns are employed for producing final concentrates. Fig. 3 represents flow-sheet development to date.

STAGE II

The Company is achieving substantial resource growth at Pedra Branca and collection of samples for metallurgical testing has commenced. The mineralogy of Stage II is believed similar to Stage I, this concept is supported by limited historical test work wherein Rougher-Scavenger recoveries of 92% to 95% Copper (with similarly trending gold recoveries) have been reported for previous explorers¹⁰.

Tony Polglase
Managing Director

1. In the case of Antas North, gangue material consists mainly of mafic rocks, quartz, and minor minerals
2. SGS Geosol Laboratory's, Belo Horizonte, MG, Brazil
3. In Kinetic Sighter tests the recovery of valuable metal is recorded against time
4. 80% passing size or p80
5. Mass of concentrate divided into mass of the float feed
6. This range excludes concentrate grade form Test E (Table 2) which was run at pH 10.0 and is omitted because using a higher pH is not considered optimal at this time
7. This R-S feed bulk sample has a higher grade (~3% Cu) than that used in the kinetic tests more closely reflective the mill head grade expected at Stage I.
8. "Overall Recovery" represents the recovery of the valuable metal when losses from both the rougher scavenger and the Cleaner Scavenger cells is accounted for
9. Whilst OCC testing does not allow calculation of "Overall" recovery, this is achieved by "Locked Cycle Testing" which is planned. The concept of open-circuit cleaning (ie scavenger tails reports to final tails) is illustrated in FiG2 – this is based on a flow sheet configuration know to be successful on similar Carajas ores
10. Undertaken for Xstrata Copper in 2008, by independent testing group G & T Metallurgical Services Ltd. BC, Canada
11. Grade Tonnage Reported above a Cut-off Grade of 0.4% Cu for Sulphide Resources, and 0.3% Cu for Oxide resources



CARAJAS - TOTAL JORC Mineral Resources¹¹						
September 2012 Update						
DEPOSIT	Category	Million Tonnes	Cu (%)	Au (ppm)	Copper Metal (T)	Gold Metal (Oz)
PEDRA BRANCA	Inferred	30.99	1.27	0.33	393,000	327,000
	Total	30.99	1.27	0.33	393,000	327,000
ANTAS NORTH	Indicated	6.56	1.87	0.46	122,000	98,000
	Inferred	4.48	1.35	0.26	60,000	38,000
	Total	11.04	1.65	0.38	183,000	135,000
ANTAS SOUTH	Measured	0.59	1.34	0.18	8,000	3,000
	Indicated	7.5	0.7	0.2	53,000	49,000
	Inferred	1.99	1.18	0.2	24,000	13,000
	Total	10.08	0.83	0.2	85,000	65,000
GLOBAL TOTAL		52.11	1.27	0.32	661,000	527,000

CARAJAS – SULPHIDE JORC Mineral Resources¹¹						
September 2012 Update						
Ore Type	Category	Million Tonnes	Cu (%)	Au (ppm)	Copper Metal (T)	Gold Metal (Oz)
PEDRA BRANCA	Total	30.99	1.27	0.33	393,000	327,000
ANTAS NORTH	Total	9.27	1.83	0.44	169,000	131,000
ANTAS SOUTH	Total	2.04	1.64	0.32	33,500	21,000
GLOBAL TOTAL		42.3	1.41	0.35	595,500	479,000

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr. Simon Mottram who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr. Mottram is a Director of Avanco Resources Limited. Mr. Mottram has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Mottram consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

The information in this report that relates to Mineral Resources is based on information compiled by Dr. Bielin Shi, who is a member of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists. Dr. Shi is an employee of CSA Global Pty. Ltd. Dr. Shi has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Shi consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

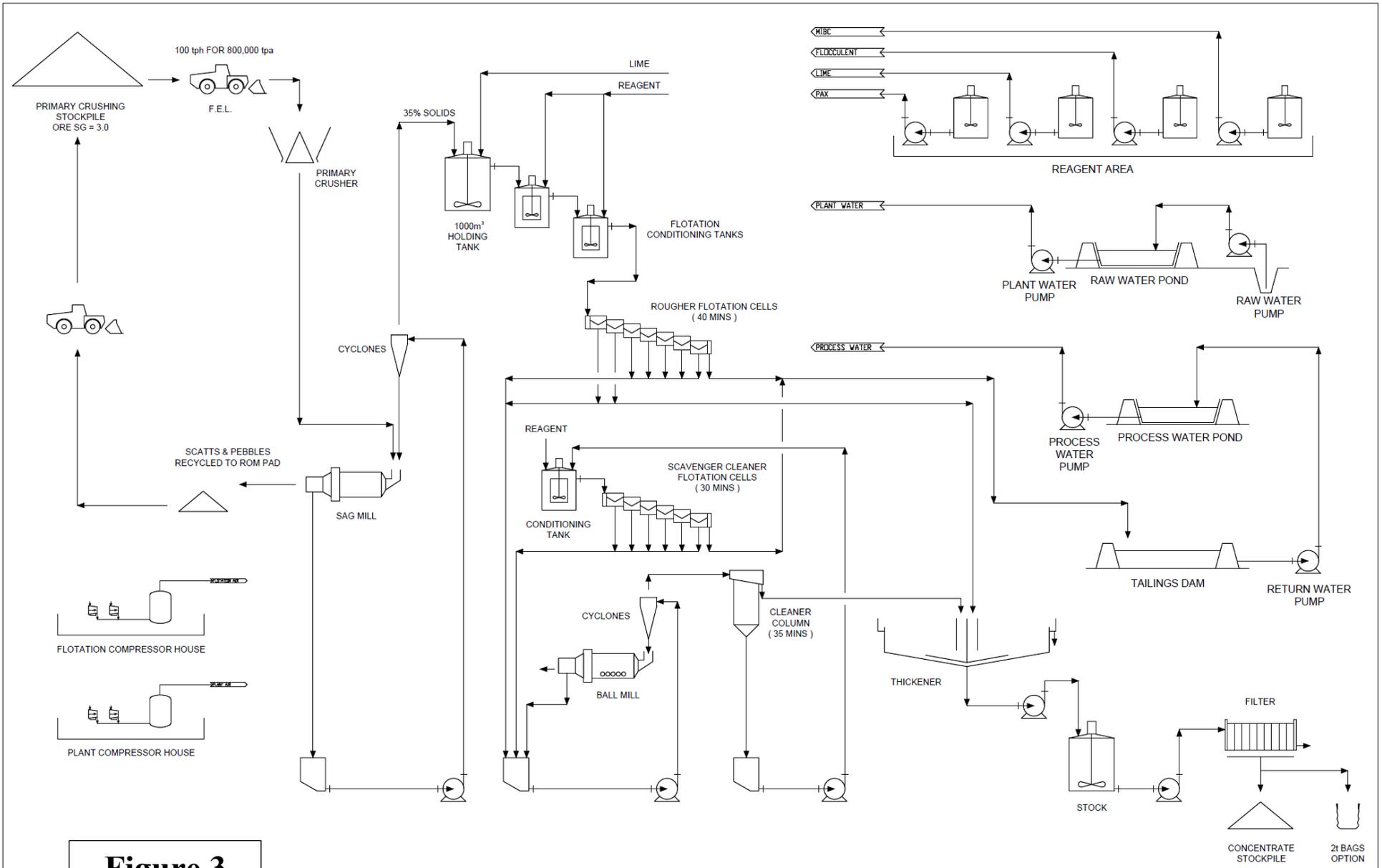


Figure 3

SIMPLIFIED FLOWSHEET OF THE ANTAS PLANT



TABLE 2 - SUMMARY OF KINETIC SIGHTER (ROUGHER-SCAVENGER) TESTS

Test	Grind Size p80	pH	Reagents - ppm						Copper Grade %			Recovery %	
			A350	A330 2	A65	MIBC	NaSH	PAX	Feed	Conc.	Tail	Mass g	Copper
A	212	8.3	9	17	17	17	0	0	1.82	14.5	2.40	12.3	97.6
B	150	8.4	9	17	17	17	0	0	1.76	16.1	2.53	10.7	97.5
C	106	8.3	9	17	17	17	0	0	1.80	19.2	2.52	9.10	97.5
D	75	8.2	9	17	17	17	0	0	1.73	15.6	1.03	11.0	99.0
E	106	10.5	9	17	17	17	0	0	1.79	12.8	1.44	13.9	98.6
F	106	8.5	9	17	17	17	3000	0	1.80	18.5	2.01	9.60	98.0
G	106	8.4	0	0	17	17	0	30	1.75	15.5	2.55	11.0	97.5

All above - flotation initial pulp density 34% solids, using a 2.5l lab cell running at 1000rpm and consuming 2l/min of air.