

Triple/S Dynamics
Lab Test Report

Customer: [REDACTED]

Date of Test: [REDACTED]

Sales Representative: [REDACTED]

Objective: Separate copper and aluminum from plastic, rocks and other foreign material.

Procedure: Six sized samples were received from the customer. Each was run on a V-135 gravity separator. The V-135 was equipped with aspirating hood and a variable speed feeder. The discharge chutes were placed such that five fractions were retained.

Results and Discussion

Gravity Separation -8+12m course

<u>Spout #</u>	<u>Bulk Density (lb/ft³)</u>	<u>% Wt Distribution</u>
1 (heavy)	296.0	21.5
2	130.1	18.8
3	70.6	46.9
4	44.5	11.3
5 (light)	43.4	1.5

Deck #201C Feed Rate 474 lb/hr

Gravity Separation -12+20 course

<u>Spout #</u>	<u>Bulk Density (lb/ft³)</u>	<u>% Wt Distribution</u>
1 (heavy)	220	30.0
2	92.8	6.3
3	75.7	23.8
4	61.0	28.8
5 (light)	46.0	11.3

Deck #201C Feed Rate 99.4 lb/hr

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Gravity Separation +8 fines

<u>Spout #</u>	<u>Bulk Density (lb/ft³)</u>	<u>% Wt Distribution</u>
1 (heavy)	60.1	8.2
2	48.2	5.4
3	39.5	45.5
4	34.5	21.3
5 (light)	29.4	19.6

Deck #201C Feed Rate 152 lb/hr

Gravity Separation +20 fines

<u>Spout #</u>	<u>Bulk Density (lb/ft³)</u>	<u>% Wt Distribution</u>
1 (heavy)	81.1	26.1
2	65.6	18.3
3	50.5	30.7
4	43.8	6.8
5 (light)	35.0	18.2

Deck #201C Feed Rate 136 lb/hr

Gravity Separation +30 fines

<u>Spout #</u>	<u>Bulk Density (lb/ft³)</u>	<u>% Wt Distribution</u>
1 (heavy)	163.3	34.4
2	100.3	3.4
3	82.0	20.1
4	62.7	13.8
5 (light)	44.0	28.4

Deck #200 Feed Rate 241 lb/hr

Gravity Separation +60-60 fines

<u>Spout #</u>	<u>Bulk Density (lb/ft³)</u>	<u>% Wt Distribution</u>
1 (heavy)	184.7	43.2
2	146.6	5.8
3	81.1	10.8
4	67.3	7.2
5 (light)	61.5	33.0

Deck #200 Feed Rate 328.5 lb/hr

Each of the six runs displayed basically the same discharge products. Depending on concentration, the discharge products were typically as follows:

Spout #1: A clean cut of copper wire (when in significant concentrations) that varied to copper and irregular shaped aluminum. This was sometimes contaminated with unliberated copper wire.

Spout #2: A clean aluminum fraction, sometimes contaminated with unliberated copper.

Spout #3: The "mid" fraction usually was free of copper, but contained all the other constituents aluminum, plastic, and rock.

Spout #4: The "light" fractions of plastic and rocks. These and #5 were virtually free of all copper and aluminum.

Disposition of sample: Representative samples have been shipped to the customer for further analysis.

