## Resolution Copper Tailings Calculations

## Assumptions:

25 years production (RCC website)
600,000 tons/yr copper producted (RCC website)
110,000 tons/day ore production (D Loring)

## Production:

| 110,000 | tons/day times (x) 365 days/yr equals (=) $40,150,000$ tons/yr ore |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 600,000 | tons/yr Cu divided by (/) $40,150,000$ | tons/yr ore equals (=) | $1.5 \%$ | copper in ore |

## Total Ore Produced:

110,000 tons/day times $(x) 365$ days/yr times $(x) \quad 25$ years equals (=) 1,003,750,000 tons ore

## Total Bulk Tailings:

Assume 33.3\% of the concentrate is copper
110,000 tons/day times (x) 365 days/yr times ( $x$ ) 25 years times ( $x$ ) 95.5\% \% waste equals (=) 958,581,250 tons bulk tailings

## Total Concentrate:

Assume 33.3\% of the concentrate is coppe
110,000 tons/day times (x) 365 days/yr times (x) 25 years times (x) 4.5\% \% waste equals (=) 45,168,750 tons concentrate

## Concentrate Tailings:

If the concentrate is refined onsite (SX-EX or smelting), then there will be concentrate tailings
Assume 33\% of the concentrate is copper

| $45,168,750$ tons concentrate | times $(\mathrm{x})$ | $33.3 \%$ | Cu | equals $(=)$ | $15,056,250$ |
| :--- | :--- | :--- | :--- | :--- | :--- | tons of copper equals (=) 30,112,500,000 pounds of copper

## Tailings Volume:

Assume: tailings density of 95 pounds/cubic foot 1 acre $=43,560$ sq. ft

## Bulk Tailings:

| 958,581,250 tons bulk tailings | times (x) | 95 | $\mathrm{lbs} / \mathrm{ft}^{3}$ | equals (=) | 20,180,657,895 cubic feet of tailings |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assumed depth of tailings $=$ | 200 | feet | equals (=) | 2,316 | acres required for bulk tailings disposal |
| Concentrate Tailings: |  |  |  |  |  |
| 30,112,500 tons concentrate tailings | times (x) | 95 | $\mathrm{lbs} / \mathrm{ft}^{3}$ | equals (=) | 633,947,368 cubic feet of tailings |
| Assumed depth of tailings = | 200 | feet | equals (=) | 73 | acres required for concentrate tailings disposal |

