



The Great Sacandaga Lake Deepening Project  
gsldeepening.com • info@gsldeepening.com

### **Magnetite Ore in a 20' Deepening**

$7.2 \times 10^8 \text{ m}^3 = 720,000,000 \text{ m}^3$  (cubic meters removed in a 20' deepening)

$720,000,000 \text{ m}^3 \times 0.01$  (1%  $\text{Fe}_3\text{O}_4$  [magnetite]) =  $7,200,000 \text{ m}^3$

$7,200,000 \text{ m}^3 \times 6,000 \text{ lb/m}^3$  (weight of  $\text{m}^3$  of magnetite) =  $43,200,000,000 \text{ lb}$

$43,200,000,000 \text{ lb} / 2,200 \text{ lb/m}_T$  ( $\text{m}_T$  = metric ton) =  $19,636,364 \text{ m}_T$

$19,636,364 \text{ m}_T \times \$100/\text{m}_T = \$1,963,636,400$  or ~ \$2 Billion Dollars

*Note:* 40  $\text{mi}^2$  deepening @ 20' deep costs \$1.5 Billion Dollars over 20 years.  
So, just one mineral, magnetite, completely pays for the 20' deepening and more. Add 100-150 jobs for the neighborhood.

### **Beneficiating Magnetite Ore into Steel**

$19,636,364 \text{ m}_T$  is about  $1,000,000 \text{ m}_T$  per year ore to turn into steel.

$1,000,000 \text{ m}_T$  equals after smelting, approximately  $700,000 \text{ m}_T$  of steel/yr

Producing steel costs \$400 per  $\text{m}_T \times 700,000 \text{ m}_T$  which equals \$280,000,000

$700,000 \text{ m}_T$  of steel sells for \$600/ $\text{m}_T$  which equals \$420,000,000 per year

A steel mill sized for  $700,000 \text{ m}_T/\text{yr}$  costs about \$300,000,000 to build

At \$140,000,000 profit per/yr, it would payback investment in  $2 \frac{1}{4}$  years

*Note:* add another 100-150 jobs.

Arthur M. Ambrosino, E.M. • President & Lead Engineer  
3511 William Penn Drive • San Antonio, Texas 78230  
Phone: 210-451-8165 • Cell: 562-537-1902



## **Turning steel into products**

Think another 100-150 jobs and another \$250,000,000 in profits or more.

Arthur M. Ambrosino, E.M. • President & Lead Engineer  
3511 William Penn Drive • San Antonio, Texas 78230  
Phone: 210-451-8165 • Cell: 562-537-1902

