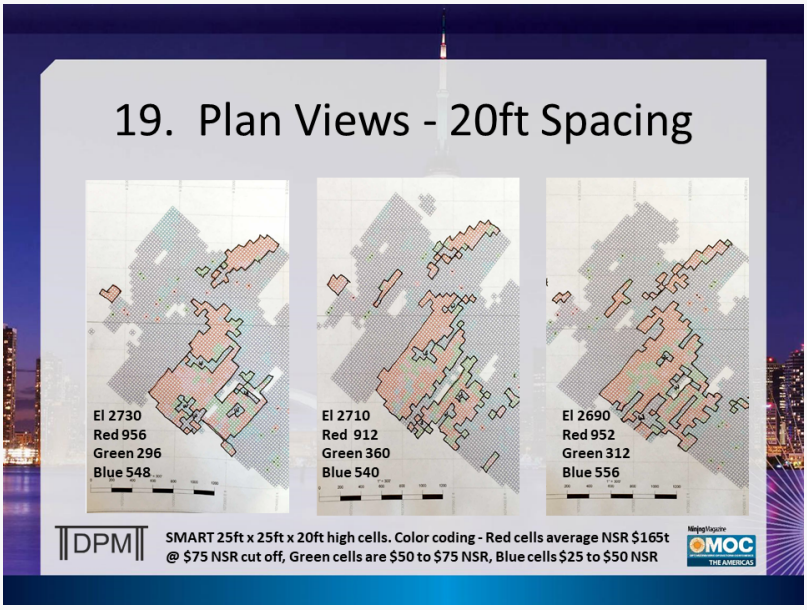
DPM Mining Inc. Announces the First of 3 EIN Press Releases for a SMART redesign of the South32 Hermosa Taylor Project.

Taylor was redesigned to optimize productivity of SMART panel mining via a triple ramp system using 65t trolley trucks and Clark open pit waste rock for CRF.

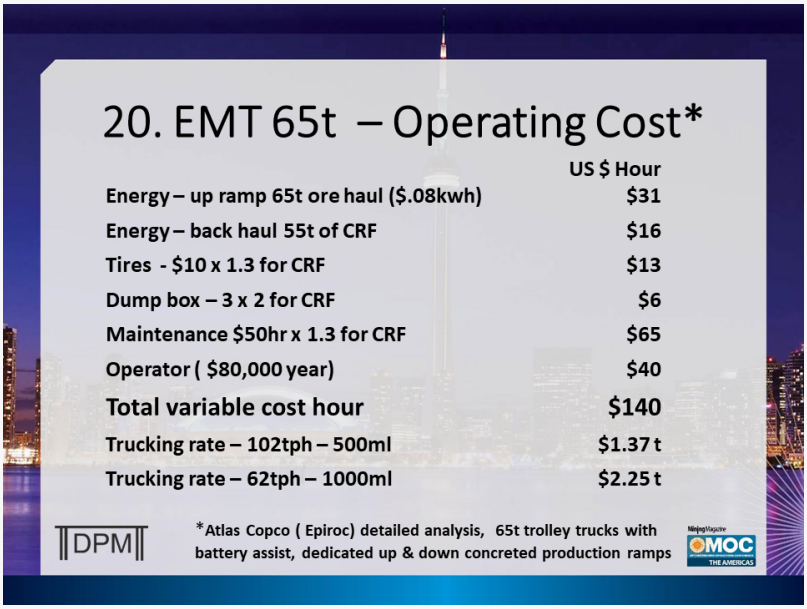


19. Plan Views - 20ft Spacing

TORONTO, ONTARIO, CANADA, July 29, 2021 /EINPresswire.com/ -- DPM Mining Inc is pleased to announce that 3 EIN press releases will be issued which evaluate a SMART technical and economic audit of the Arizona Mining - now South32 owned Taylor sulphide orebody. The patented SMART platform coverts mining of a large orebody to a set of linked spreadsheets using ~1,140t SMART cells rather than a series of stopes and pillars. Penoles test mining proved that 15m wide SMART panels can be safety mined under CRF when confined by a concrete roof and posts. A Golder FLAC 3D analysis will calculate post and concrete roof loading using the results of CRF test program to make 500MPa bulk strength CRF from minesite sourced aggregate. Technical risks can be reduced by test mining 4 SMART cells under a concrete roof to confirm post and roof loading. Also, initial SMART panels can be mined by driving a 5m wide drift then controlled slashing to a 15m panel width while monitoring post loading. See EIN DPM press releases #1 to #6 for technical details.

The Hermosa project is an ideal project to evaluate DPM - SMART economics vs a modern 10,000tpd mine designed for blasthole stoping using paste fill with mine access via a shaft and service ramp to a 1,100m depth. The engineering firm AMC was in the process of completing an updated PEA level Technical Report – which was posted on Sedar Jan 16th, 2018. C. Gryba meet with then AZM President Jim Gowans. Jim approved re-blocking the Taylor 100 million ton PEA sulphide orebody. The AMC principal geologist, within 1 week, re-blocked the entire Taylor orebody to the SMART 25ft x 25ft x 20ft high cell size and generated a color coded NSR table for

each 20ft lift. The Taylor orebody has 80,000 red SMART cells between the 400ml and 1000ml. Outlining the red and green cells, indicates that 90% of the cells are grouped suitable for SMART paneling and 10% indicate smaller ore zones. Mining 8 SMART cells per day fills the planned 10,000tpd mill. See Image 19 for typical 20ft high lifts of SMART cells and NSR color coding.



The AMC PEA report indicated 2 SMART design hurdles. The AZM shaft design would require SMART ore and CRF to be re-handled multiple times. Secondly, SMART mines 15m wide panels using cemented rock fill not paste fill. Asarco had planned an oxide open pit for the Central Zone thus rock aggregate is available on site to manufacture CRF. SMART mining productivity is optimized when an ore truck is loaded at a panel face, trucked directly to surface with CRF backhauled to fill a nearby panel. A ramp capable of hauling 10,000tpd was required. Gryba meet with Atlas Copco (now Epiroc) and Sandvik. Sandvik was concentrating on designing tele-remote diesel and battery powered equipment. Atlas Copco had added a lithium battery assist to their proven Kiruna electric trolley trucks; this provided a potential solution for ramp haulage to a 1500m depth.

> “The SMART redesign of the Taylor project will use a traditional ROI NPV approach to calculate the NPV benefits from eliminating dilution, increasing ore recovery while minimizing ESG mining risks.”
>
> *Charles Gryba, Mining Engineer, Inventor quotes*

Gryba then designed an autonomous SMART triple ramp system to optimize the productivity and design limitations of 65t trolley – battery assist truck. Only the dedicated up and down production ramps are equipped with trolley lines. The third ramp was designed for 2 way service traffic using battery or future hydrogen powered equipment. Ramp interchanges were designed every 100m vertically to provide secondary production ramp access to 30m levels. Only lithium battery power is used to access SMART panels, loaded trucks drive down ramp to the next lower interchange to re-attach to the trolley line.

Atlas Copco detail costed the ramp haulage system to the 500ml and 1,000ml based on the EM654 truck. Each trolley truck is capable of hauling 65tph or ~1,000tpd from the 1,000ml. Based on the PEA $.08 kwh power cost, a round trip of ore plus CRF backhaul costs $47hr or $.72t. Hoisting 10,000tpd of ore from 1,000ml in 18 hours requires a peak horsepower of 4,860kw and

RMS of 3,624kw. Skipping 555tph x $.08kwh costs $.52t skipped vs $.48t for up ramp trolley power cost from the same depth. SMART panel mining costs were then calculated at $25.15t as per EIN DPM #6 press release. See Image 20 for trolley truck costs.

21. Smart - Innovative Equipment

SMART mining combined with the triple ramp – trolley system allows for many incremental Smart productivity and cost improvements. Three interconnected ramps reduce congestion plus allows concrete floors and trolley lines to be installed while advancing the 3 ramp faces via the 2 other ramps. The third ramp also allows equipment such as the CEMI roof system and a SMART ITH drill to be stored near the face. The SMART posthole drill can drill a .5m diameter cut thus longer rounds can be taken. The CEMI designed roof allows ground control work to proceed in parallel with face drilling. The advance rate for all 3 ramps can increase by 1m or more per day. See Image 21 for pictures.

The ramp system has to be cost competitive. The PEA 10,000tpd shaft was estimated by AMC to cost $162.3 million. The 8,000 meter long, 5.5m x 5.5m service ramp at $4,500m boosts the Capex cost to $198.3 million. A SMART trolley ramp requires $1,000m for concrete floors and shotcreting plus $1,000m for each trolley line increasing costs to $6,500m. The SMART ramp design to the 1,000ml requires 24,000m of 5.5m x 5.5m ramp plus 10 ramp interchanges at 400m each. The SMART Capex cost for 28,000m of ramp is estimated at $168m plus $35m for 10 trolley trucks or $203m. Basically the same CAPEX cost as shaft option to the 1,000ml but a much more flexible and production scalable design.

Rather than keeping the SMART technology confidential 10 EIN press releases will be issued to explain SMART mining to both the financial and mining communities. A SMART financial evaluation of the AZM Taylor orebody will highlight some of the financial and technical advantages of the DPM patented technology.

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