

Safety milestone reached at Resolution Copper Mining construction site

Small-business partner praised

Links: www.resolutioncopper.com
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Bret Clausen, regional health and safety manager, presents the 50,000 Safe Man-Hour Award to Wayne Jonovich, secretary and treasurer of subcontractor Jonovich Companies.

CH2M HILL and Arizona client Resolution Copper Mining recently recognized small-business partner Jonovich Companies for logging 50,000 safe work hours at a water treatment plant construction site.

"It's critically important that each of our subcontractors has the same priority on health and safety as we do," said CH2M HILL's Bret Clausen. "Jonovich has done a terrific job of keeping their employees safe as part of their efforts to maintain an injury-free project site while delivering a quality project for our client."

When the CH2M HILL team, which includes Jonovich as the primary subcontractor, reached the safety milestone at the mine's \$16 million treatment facility east of Phoenix, CH2M HILL and Resolution showed their appreciation by presenting Jonovich the award at a special luncheon attended by the client and all subcontracting staffs.

Jonovich is headquartered in Globe, Arizona, which the U.S. Small Business Administration considers a historically underutilized business zone, or HUBZone. The program encourages economic development and employment growth in such areas.

The project inside out

Project manager Jim Schneider and senior construction manager Ken Hillman are leading CH2M HILL's design/build services for the \$16 million project that, upon completion, will treat water resulting from the draining and re-opening of an existing underground copper mine, which is located in the historic Pioneer Mining District. There are approximately 1 billion gallons of water in the mine that will be pumped out and treated to remove metals prior to discharging it on the surface before mining operations can resume.

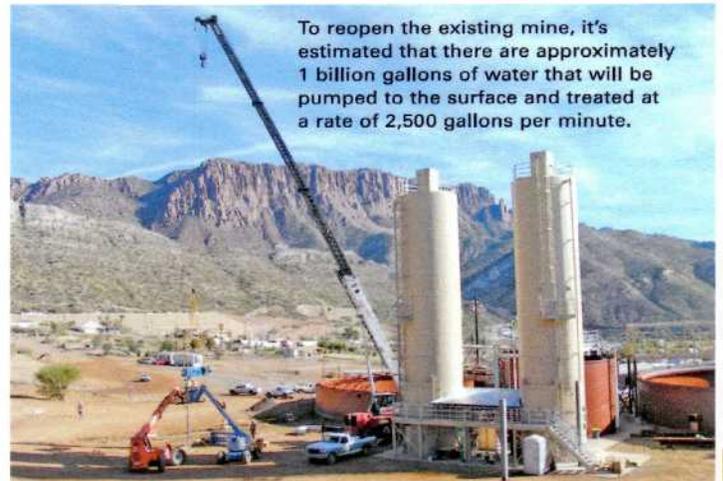
The facility will use a high-density sludge process to reduce the volume of storage required for the solids. The plant also incorporates concurrent softening with soda ash to reduce dissolved solids in the treated effluent. Monomedia sand filtration will be used to meet water quality criteria.

The plant is designed for an initial capacity of 2,500 gallons per minute as the mine is drained, but then capacity will be reduced to 300 to 800 gallons per minute for the operation phase. The reduction will be done without mechanical modification; only process control system adjustments will be needed. Once the mine is drained, the plant will continue to operate at the reduced flow rate to treat the mine's ongoing groundwater inflow.

Overall plant cost was reduced substantially by renovating a concrete thickener, constructing an additional thickener on an existing foundation, and reusing tunnels and a pump house. Associated facilities included



The project team (from left): Tom McLean, George Latour, Jim Schneider, Bret Clausen, Richard Peck, Jeff Hilgaertner, Tatiana Wozniak, Ken Hillman, Bill Cameron, and Bobby Horan. Not pictured are: John Butler, Jim Stefanoff, Kim Anderson, and Tom Paige.



To reopen the existing mine, it's estimated that there are approximately 1 billion gallons of water that will be pumped to the surface and treated at a rate of 2,500 gallons per minute.

The Resolution mine is located in the rugged mountains 60 miles east of Phoenix, Arizona.

in the design are an equalization basin, influent pipeline, two miles of effluent pipeline, and two impoundments for storage of treatment solids.

This project is a good example of selling multiple CH2M HILL services, as the initial assignment was to provide air permitting assistance in connection with the closure of unused facilities at the mine.

"Careful listening by the air permit staff led to other environmental work, which in turn led to discussing water treatment that then led to selling the project as design/build to meet the client's aggressive schedule," Schneider said. "This is also an excellent example of how doing a good job on a small assignment can lead to bigger and better things."

The water treatment project began in December 2004 and will be completed in March.