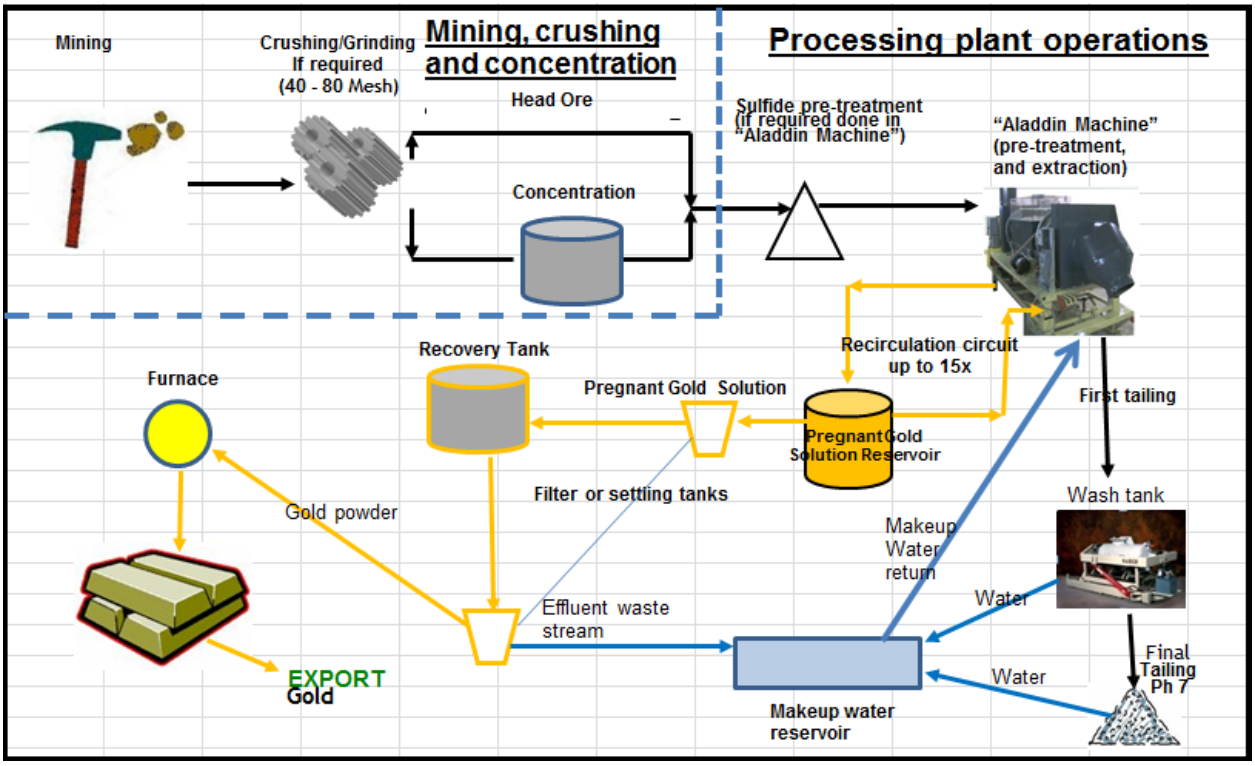
LOGI GOLD

The Haber Gold Process - HGP4

Simple, Fast, Efficient.

Haber Corporation has teamed with Logi Gold to design, build and operate the first US gold ore processing facility using the environmentally green "Haber Gold Process". The importance of this green facility goes beyond this project as it can have a major positive impact on the lives of more than 30 million small scale and "artisan" miners using mercury for the extraction of gold; it will prove that there is a safer and more profitable way for them to operate. Haber intends to play a major role in ameliorating the global threat of the irresponsible use of mercury and cyanide by small and medium scale gold mining.

The Haber Gold Process is unique for several reasons. It effectively is capable of yielding extraction efficiencies with complex ores in the high 90% range with gold purity in the +99% range. It delivers these results with extraction times of approximately 1 to 3 hours and gold recovery in minutes. Most importantly, this is all accomplished without using mercury or cyanide or harming the environment in any way. This is a stunning feat of chemical engineering and was no overnight success. The Haber team has been working almost a decade perfecting these new chemical engineering technologies.



The Haber Gold Process (HGP4) system is comprised of three major steps, pre-processing, extraction and recovery.

Pre-Processing -- Prior to the process, we carefully analyze the ore for the content of other minerals and ore constituents. With the results of the full spectrum assay, we experiment using our chemical mixtures to optimize our chemicals for this specific ore type. Our goal is near complete removal (98+%) and high purity (99+%) gold, in the fastest possible time. Once we understand the reactions and the timing, we are ready to modify our plant software to begin processing the ore.

Extraction -- In this step of the operation, we inject our custom designed chemical mixture into the tank with our ore and do some low speed stirring. We carefully monitor the reaction and then add additional chemical components, as needed, to keep the extraction process moving in an optimal manner. At this stage a determination is made as to the potency of the pregnant gold solution if enough potency is present in the pregnant gold solution it is introduced into a second batch of ore and so on until the potency is depleted or saturation has been reached. When fresh chemicals are required in the next load of ore the pregnant gold solution is ready for recovery.

Recovery – The recovery process is just as important as the extraction process. Once the gold is dissolved into our chemical mixture and the extraction process is complete, it's time to take the gold from solution and turn it back into gold metal. We use a formulation that allows our gold to drop out in our recovery tank as small particles of high purity powdered gold. We then drain the tank and sweep the gold from the bottom.

With Haber's recovery system, simple equipment can be used to produce gold metal in minutes. Conventional recovery methods such as carbon towers, Merrill Crowe, or electrowinning, are not necessary.

Approximately 100 tons of over 200 types of gold ore have been successfully processed in HGP pilot tests. The authenticity of the extraction technology has also been independently verified by several respected mining engineering firms. The HGP4 system is effective with micro fine gold, sulfides, and telluride and other ore types where cyanide becomes uneconomical or very inefficient. It has also been effective on limestone and hematitic ores and can be used to extract gold from tailings.

Because HGP does not rely on cyanide, it is not burdened with the chemical costs of detoxifying effluent cyanide solutions or tailings. Processing expenses are also reduced because there is no need for the highly alkaline systems that conventional leaching operations must maintain in order to keep cyanide gases at bay.

In addition to reduced environmentally-based expenses, HGP processing does not require very fine grinding, vigorous agitation, or aeration, thereby eliminating the need for some of the costly capital that must be used with conventional operations. HGP is also uniquely economical in that it will not extract other precious metals, which often accompany gold in ores. This is an advantage because the presence of other precious metal contamination necessitates additional purification processes that would add to the complexity. We keep it simple.