



# Mineral Process Control (MPC) Pty Ltd

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## LeachWELL™ 60X

### Introduction

LeachWELL™ 60X is a reagent grade catalyst formulated for fast cyanide leach gold assaying. When used with 5% cyanide the dissolution rate of gold, copper and silver is increased more than sixty fold. The leach rate for gold under appropriate conditions for example, is approximately 1 micron per minute!

Large samples can now be assayed accurately and very quickly (same time frame as Aqua Regia).

Poor reproducibility (scatter) when coarse gold is present is minimised - meaningful results can be consistently produced.

### Implementation

Laboratories already performing 24-hour bottle roll assays need only purchase some LeachWELL™ 60X.

Small laboratories doing mill assays in CIP/CIL plants usually have an AAS and appropriate glassware. A bottle roll or tumbler is also required.

Large on-site laboratories or commercial laboratories intending to do hundreds of assays per day would benefit from using specially designed orbital tumblers and solution dispensing equipment or even one of our PAL1000 machines.

### Benefits

Large samples can be assayed quickly.

Gold, silver and copper can be read from the same sample.

Preg-robbing by organics or clays is practically eliminated.

The procedure is simple and requires no special skills.

Coarse gold is dissolved quickly.

LeachWELL™ 60X has built in oxidising agents so that sealed jars can be used when leaching.

### Procedure

Samples are dried, pulverised and weighed into jars or bottles in the normal way. An equal or greater known weight of solution containing sodium cyanide (5%), LeachWELL™ 60X (2%) and NaOH (0.7%) is then added to the jar or bottle.

The bottle or jar is then rolled or tumbled for at least an hour then allowed to stand for approximately ten minutes until a layer of clear solution is available for sampling and reading by Atomic Absorption Spectrometry. The grade of the original solid is calculated from the solid/solution ratio and the AAS reading.

### Costs

The cost of implementing LeachWELL™ assaying into existing laboratories is very low. LeachWELL™ 60X granules cost \$40\* per kg or 4 cents per gram.

The assay cost is proportional to sample size. For example; a 200g sample at 50% solids and a 1 hour leach would have a reagent cost of around 16 cents. A 500g sample under similar conditions would have a reagent cost of approximately \$0.40.

For very large samples the LeachWELL™ concentration can be lowered and the leach time extended to keep the assay cost even lower.

\* Price correct as at December 2008 but may change without notice