

Gold Cyanidation Report

GTA Resources and Mining Inc

(A16-08000)

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1. Objective

Cyanide bottle roll tests were used to determine the % extraction of gold by cyanide and provide leach kinetic data as well as the cyanide and the lime consumption for two composite samples.

2. Procedure

2.1. Sample Preparation

Two composite samples were prepared using assay reject sample. The samples used to produce the composites are listed in the Appendix.

Approximately 500 g of each composite sample was representatively split and pulverized to 95% - 105 micron to perform the cyanidation tests.

Duplicate head splits were also taken for fire assay.

2.2. Cyanidation

The tests were performed at 50% solids with approximately 500 g of sample added to ± 500 g of Ca(OH)_2 (hydrated lime) solution. The pH was measured to ensure the solution pH remained above 10.5 and additional lime was subsequently added to sample A to achieve this. NaCN was added at an initial concentration of 1.0 g/L NaCN.

The samples were rolled for a total of 48 hours. At 2, 4, 6, 8, 24 and 48 hour intervals a sample of solution was removed and a portion was titrated to measure free cyanide, evaluate CN^- and lime consumption. An aliquot of the solution sample was retained for Au analysis. Appropriate additions of lime solution or lime were added to the bottle to restore volume and maintain pH and NaCN was added to maintain the initial NaCN concentration.

After the leach time had elapsed, the slurry was filtered and a solution sample taken. The solid residue was washed, filtered and dried.

The leach solutions were analyzed using atomic absorption for gold. A sample of the leach solid residue was assayed using 1A2 fire assay and atomic absorption for gold.

3. Results

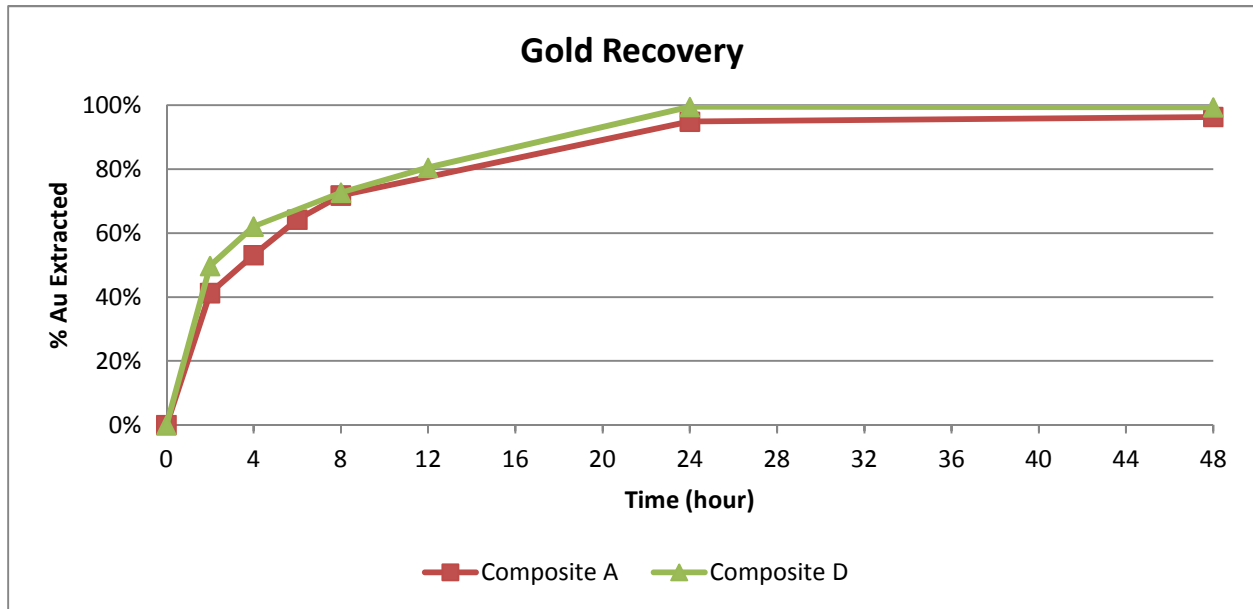
The assayed head grades are shown with duplicate values within 10%.

Sample	Dup 1 Au (g/t)	Dup 2 Au (g/t)
Composite A	2.65	2.93
Composite D	11.6	10.9

The bottle roll test results show that 96.3% and 99.3% of the gold was leached within 48 hours.

Sample	Time (hour)	Au ppm	% Recovery
Composite A	0	0	0.0%
	2	1.68	41.3%
	4	2.05	53.1%
	6	2.36	64.2%
	8	2.50	71.8%
	24	3.27	94.8%
	48	3.10	96.3%
	Leach Residue	0.15	---
Composite D	0	0	0.0%
	2	5.67	49.7%
	4	6.70	62.1%
	8	7.46	72.7%
	12	7.83	80.4%
	24	9.47	99.5%
	48	8.83	99.3%
	Leach Residue	0.077	---

The solution profile below indicates that at least 24 hours is required to recover the majority of the gold with incremental changes after this period.



The cyanide and lime consumption can be summarized as:

Sample	Cyanide Consumption (kg/ton)	Lime Consumption (kg/t)
Composite A	2.02	0.46
Composite D	1.77	0.22

The cyanide and lime consumption is considered fairly average.

4. Discussion of Results

This result indicates that the ore is free milling and excellent recoveries can be made using conventional cyanidation.

The tests were conducted using a cyanide concentration of 1g/L to ensure that adequate cyanide was used for these initial tests. The residual cyanide titrations indicate that a comparable recovery is likely also achievable using a lower initial/maintained cyanide concentration.

5. Appendix

The samples making up the two composite samples are as follows:

Composite A

Client Name	Actlabs #	Mass (g)
178503	A16-05951-3	2460
178504	A16-05951-4	1932
178505	A16-05951-5	1724
178506	A16-05951-6	1770
178508	A16-05951-8	2884
178509	A16-05951-9	2846
178510	A16-05951-10	3156
178511	A16-05951-11	3058
178512	A16-05951-12	3058
178513	A16-05951-13	2988
178515	A16-05951-15	3018
178516	A16-05951-16	2954
178517	A16-05951-17	3136
178518	A16-05951-18	3036
178519	A16-05951-19	3054
178520	A16-05951-20	2772

Composite D

Client Name	Actlabs #	Mass (g)
179124	A16-06678-70	3154
179125	A16-06678-71	2578
179126	A16-06678-72	2358
179128	A16-06678-74	1538