



Cluff Resources Pacific NL

ABN 72 002 261 565

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CLUFF MADAGASCAR : AMMTEC REPORT RECEIVED FOR LARGE GOLD SAMPLE

Cluff Resources Pacific NL (Cluff) announces today receipt of the detailed report from Ammtec laboratories in Perth regarding the detailed metallurgical testwork on the 565kg sample of gold bearing material recently brought back from Madagascar.

Highlights of the attached report are as follows:

1. The gold head assay of the sample was calculated at 12.3 grams per tonne.
2. The gravity recoverable gold (GRG) content of the overall sample was very high (92.55%)
3. The majority of the GRG was coarse as seen by the high gold recovery (82.28%) in the 850 micron stage.
4. A further 10.01% of the gold in the sample was collected as GRG in the 212 micron stage.
5. The remainder of the gold content (up to a total of 99.9% total recovery) is recoverable via cyanide leaching.
6. Gold dissolution kinetics were moderate with the cyanidable gold content being solubilised within 24 hours from the start of cyanidation leach processing.
7. The total recovery of gold in the Overall Composite was extremely high, with 99.9% of total gold being recovered with the combination of GRG testwork and direct cyanidation of the GRG tailings.

The company regards the results detailed in the report to be very encouraging. In particular, the opportunity to recover the majority of gold in a concentrate from the vein material at the Vatovorona Gold Project using cost-effective means of crushing, processing and recovery must be regarded as a major positive.

The company has been investigating processing equipment options with plant and equipment manufacturers since our first announcement on the suitability of the rock materials for processing. Considerations such as rock type and wear and tear on machinery and parts, energy efficiency, processing time and security of product are all of major importance. OH & S standards must also be maintained.

Small laboratory scale "Knelson" concentrators were used at Ammtec for the GRG stages, indicating that a centrifugal concentrator system would be more than adequate to recover a high yield concentrate. Research is being conducted regarding this style of processing being successfully implemented in Madagascar. Crushing the raw material to a very small size is not necessary, indicating that the use of high energy-consuming crushing equipment such as ball mills is not essential. With crushing to 0.2 mm via less intensive means, utilising a jaw crusher followed by a Vertical Shaft Impactor (VSI) for example, processing times and complexity of processing will be greatly reduced, and the costs of processing minimised.

The company looks forward to continuing the development of the Vatovorona Gold Project.

Yours faithfully,

Scott Enderby, Company Secretary / Executive Director

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Metallurgical Testwork
conducted upon
Gold Ore Samples from
Madagascar Gold Project
for
Cluff Resources Limited

Report No. A13425

April 2011

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FIGURE

Figure 1 Metallurgical Test Program Flowsheet – GRG Testwork

APPENDICES

Appendix I Head Assay

Appendix II Gravity Recoverable Gold (GRG) Testwork – Details and Results

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Appendix IV Overall Distribution – Details and Results

SUMMARY

A defined program of metallurgical testwork was carried out on three (3) gold ore samples from the Madagascar Gold Project for Cluff Resources Limited.

Salient test data are summarised below:

- Head Assays**

Gold screen fire assay testwork was carried out on each of the three (3) ore samples and also on a 1 kg sub-sample of the Overall Composite. Comprehensive analysis of the Overall Composite including silver, arsenic, mercury, carbon, sulphur, antimony and tellurium was carried out as well as a general elemental scan.

| Sample No. | +75 µm | | -75 µm | | | Calc'd Head Au (g/t) |
|-------------------|------------|----------|------------|-----------|-----------|----------------------|
| | Weight (g) | Au (g/t) | Weight (g) | Au1 (g/t) | Au2 (g/t) | |
| Q1 | 4.2 | 646 | 1008.9 | 7.90 | 7.90 | 10.5 |
| Q2 | 2.2 | 1356 | 1036.1 | 7.15 | 8.07 | 10.4 |
| Q3 | 4.9 | 348 | 981.2 | 4.27 | 4.13 | 5.92 |
| Overall Composite | 13.0 | 387 | 988.7 | 7.31 | 7.47 | 12.3 |

- Gravity Recoverable Gold (GRG) Testwork**

A bulk 50 kg sub-sample from the Overall Composite was subjected to gravity-recoverable-gold (GRG) testwork adopting the procedure described by Andre Laplante (McGill University, Canada) and *Knelson* Concentrators of Canada/ConSep Australia Pty Ltd.

| Sample ID | Material/Stage | Weight | | Gold | | |
|-------------------|---|---------|-------|-------------|------------|------------|
| | | (g) | (%) | Assay (g/t) | Total (µg) | Dist'n (%) |
| Overall Composite | Gravity Concentrate : GRG Stage 1 (Grade calc'd from size-by-size gold assay on gravity concentrate) | 92.7 | 0.19 | 4441 | 411653 | 82.28 |
| | Gravity Concentrate : GRG Stage 2 (Grade calc'd from size-by-size gold assay on gravity concentrate) | 80.9 | 0.16 | 619 | 50086 | 10.01 |
| | Gravity Concentrate : GRG Stage 3 (Grade calc'd from size-by-size gold assay on gravity concentrate) | 94.2 | 0.19 | 13.7 | 1292 | 0.26 |
| | Gravity Tailing - GRG Stage 3 (Duplicate gold assay) | 49732.2 | 99.46 | 0.75 | 37299 | 7.45 |

- Direct Cyanidation Time Leach Testwork**

The tailings from the GRG testwork were subjected to direct cyanidation testwork to determine the gold leach rate recovery.

| Sample Identity | Test No. | Grind Size P ₈₀ (µm) | % Au Extraction @ Hours | | | | | Consumption (kg/t) | |
|-------------------------------------|----------|---------------------------------|-------------------------|-------|-------|-------|-------|--------------------|------|
| | | | 2 | 4 | 8 | 24 | 48 | Lime | NaCN |
| Overall Composite (Gravity Tailing) | HS24997 | 75 | 77.45 | 79.23 | 80.12 | 85.46 | 98.81 | 0.41 | 0.94 |

- Overall Distribution**

An overall distribution table has been created to provide a summary of the GRG testwork as well as the cyanidation of the gravity tail in order to determine the overall gold extraction of the testwork program.

| Sample ID | Material/Stage | Weight (g) | Volume (ml) | Gold | | | |
|-------------------|---|------------|-------------|-------|--------|------------|------------|
| | | | | Assay | | Total (µg) | Dist'n (%) |
| | | | | (g/t) | (mg/l) | | |
| Overall Composite | Gravity concentrate: GRG Stage 1 | 92.7 | | 4441 | | 411653 | 81.53 |
| | Gravity concentrate: GRG Stage 2 | 80.9 | | 619 | | 50086 | 9.92 |
| | Gravity concentrate: GRG Stage 3 | 94.2 | | 13.7 | | 1292 | 0.26 |
| | Cyanidation Leach Residue: GRG Stage 3 Tailings | 49732.2 | | 0.01 | | 497 | 0.10 |
| | Cyanidation Leach Liquor: GRG Stage 3 Tailings | | 74598.3 | | 0.555 | 41402 | 8.20 |
| | TOTAL RECOVERY | | | | | | |

1. INTRODUCTION

Mr Todd Axford, representing Cluff Resources Limited, requested that ALS Ammtec conduct a defined program of metallurgical testwork in conjunction with three (3) samples of gold ore from the Madagascar Gold Project.

This work included the following:

- Sample preparation
- Head assays
- Grind establishment testwork
- GRG testwork
- Direct cyanidation time leach testwork

The test program is presented as a flow diagram in Figure 1.

The testwork was controlled by Mr Todd Axford on behalf of Cluff Resources Limited. Jack Smith supervised the program on behalf of ALS Ammtec. Test results were communicated between ALS Ammtec and the client as they became available, in this way the program progressed on a fully informed basis.

RON GROGAN
Chief Executive - Metallurgy

JACK SMITH
Metallurgist

2. THE SAMPLES

ALS Ammtec received three (3) samples of gold ore from the Madagascar Gold Project.

The samples were designated as follows:

| Sample ID | Weight (kg) |
|-----------|-------------|
| Q1 | 192.0 |
| Q2 | 93.0 |
| Q3 | 189.5 |

3. SAMPLE PREPARATION

The Madagascar gold samples were control crushed to <3.35 mm and thoroughly homogenised by passing the entire sample three times through a rotary sample splitting device. A 1.0 kg sub-sample was prepared using the rotary splitter and submitted for gold analysis via screen fire assay.

The remaining sample was utilised to prepare an Overall Composite using the recipe provided by the client as follows:

| Sample ID | Ratio by Weight |
|-----------|-----------------|
| Q1 | 2 |
| Q2 | 1 |
| Q3 | 2 |

The Overall Composite was thoroughly homogenised by passing the entire sample three times through a rotary sample splitting device and prepared into 1 kg charges for the testwork program.

4. TESTWORK WATER

Perth tap water was utilised for all of the testwork in the program.

5. ANALYTICAL

All of assay samples, generated during the course of the test program, were submitted to ALS Ammtec's assay laboratory for analysis.

The following analytical methods were employed:

| | |
|-------------------------|-------------------------------------|
| Gold in ores: | Screen fire assay/ICP-MS finish |
| Gold in leach residues: | Fire assay/ICP-MS finish |
| Gold in solution: | ICPMS |
| General element scan: | Mixed acid digestion/ICP-OES finish |

6. HEAD ASSAYS

Gold screen fire assay testwork was carried out on each of the three (3) ore samples and also on a 1 kg sub-sample of the Overall Composite. Comprehensive analysis of the Overall Composite was also carried out which included silver, arsenic, mercury, carbon, sulphur, antimony and tellurium as well as a general elemental scan.

6.1 Test Procedure

The screen fire assay procedure was as follows:

- (1) A cloth screen (75 μm) is assembled in a plastic holder prior to sample addition.
- (2) The pulverised sample is added incrementally to the screen. The entire sample is screened, if the screen oversize is greater than 50 g in mass it is re-pulverised for 5 seconds and re-screened.
- (3) The final masses of the screen oversize and undersize are recorded.
- (4) The entire screen oversize sample (including the screening cloth) is sent to fire assay.
- (5) The screen undersize is homogenised with duplicate sub-samples split for fire assay.

6.2 Results

Comprehensive assay data are presented in Appendix I, whilst selected data are presented in the following table:

| Sample No. | +75 µm | | -75 µm | | | Calc'd Head Au (g/t) |
|-------------------|------------|----------|------------|-----------|-----------|----------------------|
| | Weight (g) | Au (g/t) | Weight (g) | Au1 (g/t) | Au2 (g/t) | |
| Q1 | 4.2 | 646 | 1008.9 | 7.90 | 7.90 | 10.5 |
| Q2 | 2.2 | 1356 | 1036.1 | 7.15 | 8.07 | 10.4 |
| Q3 | 4.9 | 348 | 981.2 | 4.27 | 4.13 | 5.92 |
| Overall Composite | 13.0 | 387 | 988.7 | 7.31 | 7.47 | 12.3 |

7. GRIND ESTABLISHMENT TESTWORK

7.1 Test Procedure

The test procedure was as follows:

- (1) A 1.0 kg sub-sample of the Overall Composite was ground in a laboratory stainless steel rod mill at 50% solids (w/w) for various times.
- (2) The ground solids were wet screened at 850 µm.
- (3) The plus 850 µm screen oversize fractions were dried and then rescreened at 1400, 1180, 1000 and 850 microns.
- (4) The resultant sizing data was utilised to determine the grinding time necessary to realise the target grind size P₈₀ 850 µm.
- (5) Another 1.0 kg sub-sample of the Overall Composite was ground in a laboratory stainless steel rod mill at 50% solids (w/w) for various times.
- (6) The ground solids were wet screened at 75 µm.
- (7) The plus 75 µm screen oversize fractions were dried and then rescreened at 250, 212, 180, 150, 125, 106, 90 and 75 microns in order to determine the grind time necessary to realise the target sizes P₈₀ 212 and 75 microns.

7.2 Grind Times

| Composite Identity | Feed Particle Size (mm) | Target Grind Size P ₈₀ (µm) | Requisite Grind Time* (min' sec") |
|--------------------|-------------------------|--|-----------------------------------|
| Overall Composite | <3.35 | 850 | 1' 10" |
| | | 212 | 6' 52" |
| | | 75 | 22' 02" |

* 1.0 kg sample

8. GRAVITY RECOVERABLE GOLD (GRG) TESTWORK

A bulk 50 kg sub-sample from the Overall Composite was subjected to gravity-recoverable-gold (GRG) testwork adopting the procedure described by Andre Laplante (McGill University, Canada) and *Knelson* Concentrators of Canada/ConSep Australia Pty Ltd.

8.1 Test Procedure – GRG Content Determination

The test procedure was as follows:

- (1) The GRG test itself consists of three sequential liberation and recovery stages.
- (2) The progressive grinding is necessary in order to obtain an accurate GRG value, an indication of the size distribution of the GRG and a measure of progressive liberation.
- (3) The GRG test was based on the treatment of a sub-sample of each Gold Fields samples using a laboratory 3" *Knelson* concentrator.
- (4) The procedure involves three stages of grinding, *Knelson* concentration, total sample size-by-size gold analysis on each concentrate and total fire assay of each sized fraction.
- (5) Gold analysis was also carried out on the final tailing from stage 3.

The following table summarises the test procedure:

| Sample ID | GRG Stage | GRG Test Conditions | | |
|-------------------|-----------|---------------------|---|--|
| | | Grind Size (µm) | <i>Knelson</i> Operation | Sample Collection/Analysis |
| Overall Composite | Stage 1 | P ₈₀ 850 | Feed Rate: 800-1000 g/min Fluid'n Water: 3.5 lpm | Total concentrate size-by-size Au analysis on gravity concentrate. |
| | Stage 2 | P ₈₀ 212 | Feed Rate: 600-900 g/min Fluid'n Water: 3.5 lpm | Total concentrate size-by-size Au analysis on gravity concentrate. |
| | Stage 3 | P ₈₀ 75 | Feed Rate: 400-800 g/min Fluid'n Water: 3.5 lpm | Total concentrate size-by-size Au analysis on gravity concentrate. |

8.2 Results

The following table summarises the test procedure:

| Sample ID | Material/Stage | Weight | | Gold | | |
|-------------------|---|---------|-------|-------------|------------|------------|
| | | (g) | (%) | Assay (g/t) | Total (µg) | Dist'n (%) |
| Overall Composite | Gravity Concentrate : GRG Stage 1 (Grade calculated from size-by-size gold assay on gravity concentrate) | 92.7 | 0.19 | 4441 | 411653 | 82.28 |
| | Gravity Concentrate : GRG Stage 2 (Grade calculated from size-by-size gold assay on gravity concentrate) | 80.9 | 0.16 | 619 | 50086 | 10.01 |
| | Gravity Concentrate : GRG Stage 3 (Grade calculated from size-by-size gold assay on gravity concentrate) | 94.2 | 0.19 | 13.7 | 1292 | 0.26 |
| | Gravity Tailing - GRG Stage 3 (Duplicate gold assay) | 49732.2 | 99.46 | 0.75 | 37299 | 7.45 |

Detailed test report sheets are presented in Appendix II.

8.3 Comments

- The gravity recoverable gold (GRG) content of the overall composite was very high (92.55%).
- The majority of the GRG was coarse as seen by the high gold recovery (82.28%) in the P₈₀ 850 µm stage. This conclusion is confirmed by the size-by-size analysis of the gravity concentrate from this stage.
- A further 10.01% of the gold in the sample was collected in the P₈₀ 212 µm stage.
- Duplicate gold assays taken from the GRG stage 3 tailing indicate that 7.45% of the total gold in the Overall Composite remained unrecovered.

9. DIRECT CYANIDATION TIME LEACH TESTWORK

The tailings from the GRG testwork were subjected to direct cyanidation testwork to determine the gold leach rate recovery.

9.1 Cyanidation Time Leach Testwork on Gravity Tailing

The test procedure was as follows:

- (1) A 3.0 kg sub-sample of the gravity tail (P₈₀ 75 µm) was transferred into a six-litre baffled Perspex mechanically agitated vat. (two separate vat for each sample)
- (2) Perth tap water was added to establish a slurry density of 40% solids (w/w).
- (3) Sufficient hydrated lime (60% CaO) was added to each slurry to establish a pH of approximately 10.5.
- (4) An addition of solid sodium cyanide was made to each slurry to establish initial nominal cyanide solution strength of 0.10% (w/v).
- (5) The vat was sparged with oxygen to provide elevated dissolved oxygen content to the slurry.
- (6) At intervals (2, 4, 8 and 24 hours) during the leach 100 ml of leach pulp was dipped out and filtered to provide sufficient solution for gold analysis. A 10 ml aliquot of the filtered solution sample was titrated for cyanide with silver nitrate and if required further lime and cyanide were added to maintain desired pH and cyanide solution strength (0.05%).
- (7) At the termination of the tests (48 hours) the terminal pH, oxygen and cyanide levels were determined and a solution sample was taken for gold analysis.
- (8) The residual slurries were filtered, washed and dried to provide leach residue solids. A sub-sample of the leach residue solids was submitted for gold analysis.

9.2 Results

A summary of extraction results is presented in the following table:

| Sample Identity | Test No. | Grind Size P ₈₀ (µm) | % Au Extraction @ Hours | | | | | Consumption (kg/t) | |
|-------------------------------------|----------|---------------------------------|-------------------------|-------|-------|-------|-------|--------------------|------|
| | | | 2 | 4 | 8 | 24 | 48 | Lime | NaCN |
| Overall Composite (Gravity Tailing) | HS24997 | 75 | 77.45 | 79.23 | 80.12 | 85.46 | 98.81 | 0.41 | 0.94 |

Detailed test report sheets are presented in Appendix III.

9.3 Comments

- Direct cyanidation leaching of the Overall Composite gravity tailing, resulted in excellent gold extraction levels (98.81%).
- Gold dissolution kinetics were moderate with the bulk of the cyanidable gold content being solubilised within 24 hours from the start of cyanidation leach processing.
- Reagent consumption levels were low; lime consumption levels were 0.41 kg/t whilst sodium cyanide consumption levels were 0.94 kg/t.

10. OVERALL DISTRIBUTION

An overall distribution table has been created to provide a summary of the GRG testwork as well as the cyanidation of the gravity tail in order to determine the total gold extraction of the testwork program for the Overall Composite.

10.1 Results

| Sample ID | Material/Stage | Weight (g) | Volume (ml) | Gold | | | |
|-------------------|---|------------|-------------|-------|--------|------------|------------|
| | | | | Assay | | Total (µg) | Dist'n (%) |
| | | | | (g/t) | (mg/l) | | |
| Overall Composite | Gravity concentrate: GRG Stage 1 | 92.7 | | 4441 | | 411653 | 81.53 |
| | Gravity concentrate: GRG Stage 2 | 80.9 | | 619 | | 50086 | 9.92 |
| | Gravity concentrate: GRG Stage 3 | 94.2 | | 13.7 | | 1292 | 0.26 |
| | Cyanidation Leach Residue: GRG Stage 3 Tailings | 49732.2 | | 0.01 | | 497 | 0.10 |
| | Cyanidation Leach Liquor: GRG Stage 3 Tailings | | 74598.3 | | 0.555 | 41402 | 8.20 |
| | TOTAL RECOVERY | | | | | | |

Detailed test report sheets are presented in Appendix IV.

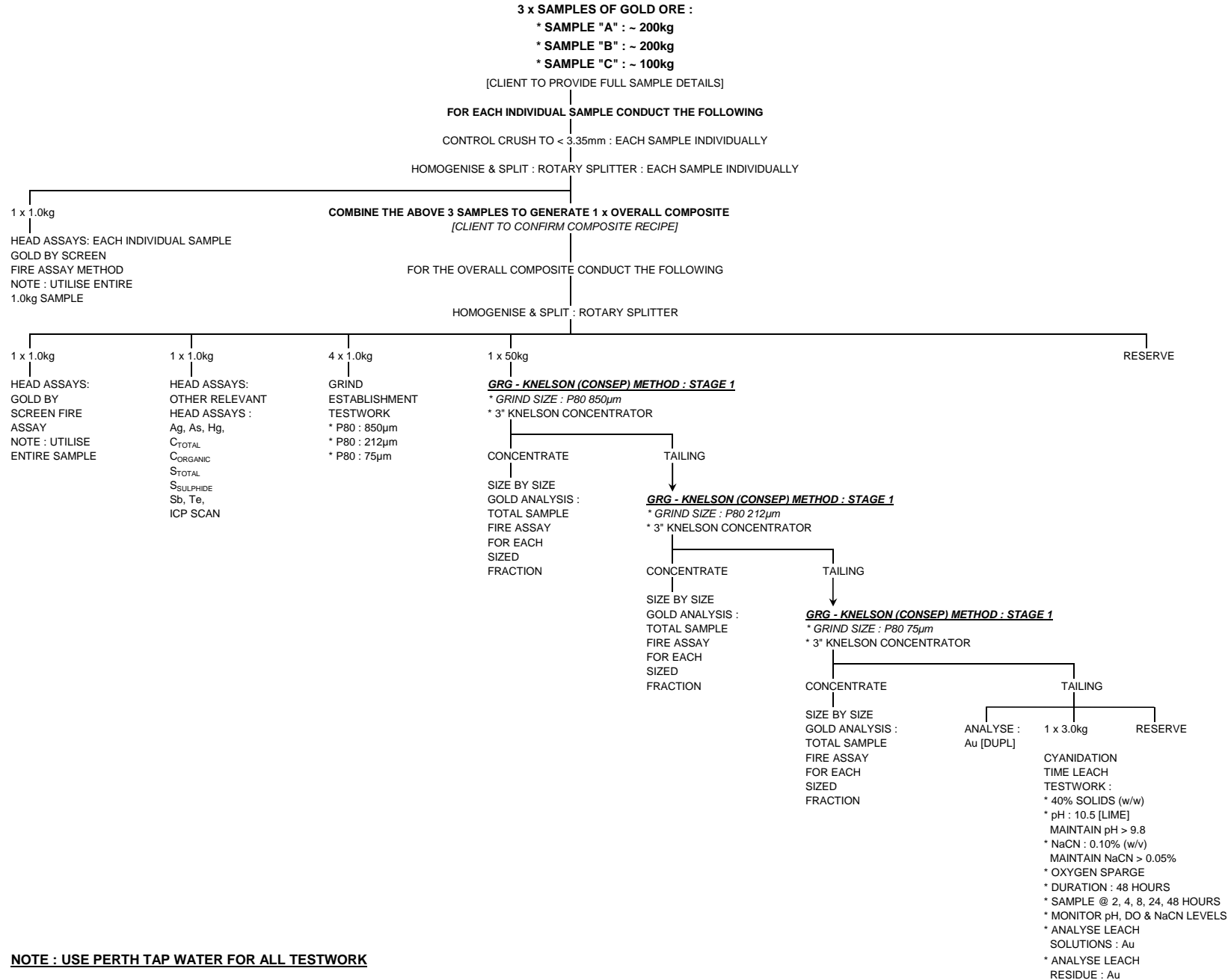
10.2 Comments

- The total recovery of gold in the Overall Composite was extremely high, with 99.9% of total gold being recovered with the combination of GRG testwork and direct cyanidation of the GRG tailing.
- Whilst the gravity recoverable gold in the Overall Composite sample is very high (>90%) the bulk of the remaining gold in the sample is recoverable by conventional cyanidation leaching in an agitated vat.

FIGURE

FIGURE 1 : METALLURGICAL TEST PROGRAM FLOWSHEET

CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT



APPENDICES

APPENDIX I

Head Assays

CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

HEAD ASSAYS

| ANALYTE | UNIT | OVERALL COMPOSITE |
|-----------------------|-------------|--------------------------|
| Au _{SFA} | g/t | 12.3 |
| Ag | g/t | <0.3 |
| Al | % | 3.04 |
| As | ppm | <10 |
| Ba | ppm | 400 |
| Be | ppm | 1.2 |
| Bi | ppm | <10 |
| C _{TOTAL} | % | <0.03 |
| C _{ORG} | % | <0.03 |
| Ca | ppm | 5000 |
| Cd | ppm | <5 |
| Co | ppm | 5 |
| Cr | ppm | 40 |
| Cu | ppm | 32 |
| Fe | ppm | 2.66 |
| Hg | ppm | 0.2 |
| K | ppm | 1.4 |
| Li | ppm | 10 |
| Mg | ppm | 4800 |
| Mn | ppm | 200 |
| Mo | ppm | <5 |
| Na | % | 4920 |
| Ni | ppm | 60 |
| P | ppm | <100 |
| Pb | ppm | <5 |
| S _{TOTAL} | % | 0.02 |
| S _{SULPHIDE} | % | <0.02 |
| Sb | ppm | 0.2 |
| SiO ₂ | % | 75.2 |
| Sn | ppm | 50 |
| Sr | ppm | 76 |
| Te | ppm | 0.8 |
| Th | ppm | 4 |
| Ti | ppm | 1600 |
| U | ppm | 1.4 |
| V | ppm | 40 |
| Y | ppm | 24 |
| Zn | ppm | 26 |
| Zr | ppm | 20 |

CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

SCREEN FIRE ASSAY DETAILS

| Sample No | +75 µm | | -75 µm | | | Calc'd Head Au (g/t) |
|--------------------------|---------------|-------------|---------------|--------------|--------------|-------------------------------|
| | Weight (g) | Au (g/t) | Weight (g) | Au1 (g/t) | Au2 (g/t) | |
| OVERALL COMPOSITE | 13.0 | 387 | 988.7 | 7.31 | 7.47 | 12.3 |

CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

SCREEN FIRE ASSAYS - HEAD SAMPLES

SCREEN FIRE ASSAY DETAILS

| Sample No | +75 µm | | -75 µm | | | Calc'd Head Au (g/t) |
|-----------|------------|----------|------------|-----------|-----------|----------------------|
| | Weight (g) | Au (g/t) | Weight (g) | Au1 (g/t) | Au2 (g/t) | |
| Q1 | 4.2 | 646 | 1008.9 | 7.90 | 7.90 | 10.5 |
| Q2 | 2.2 | 1356 | 1036.1 | 7.15 | 8.07 | 10.4 |
| Q3 | 4.9 | 348 | 981.2 | 4.27 | 4.13 | 5.92 |

APPENDIX II

Gravity Recoverable Gold (GRG) Testwork Details and Results

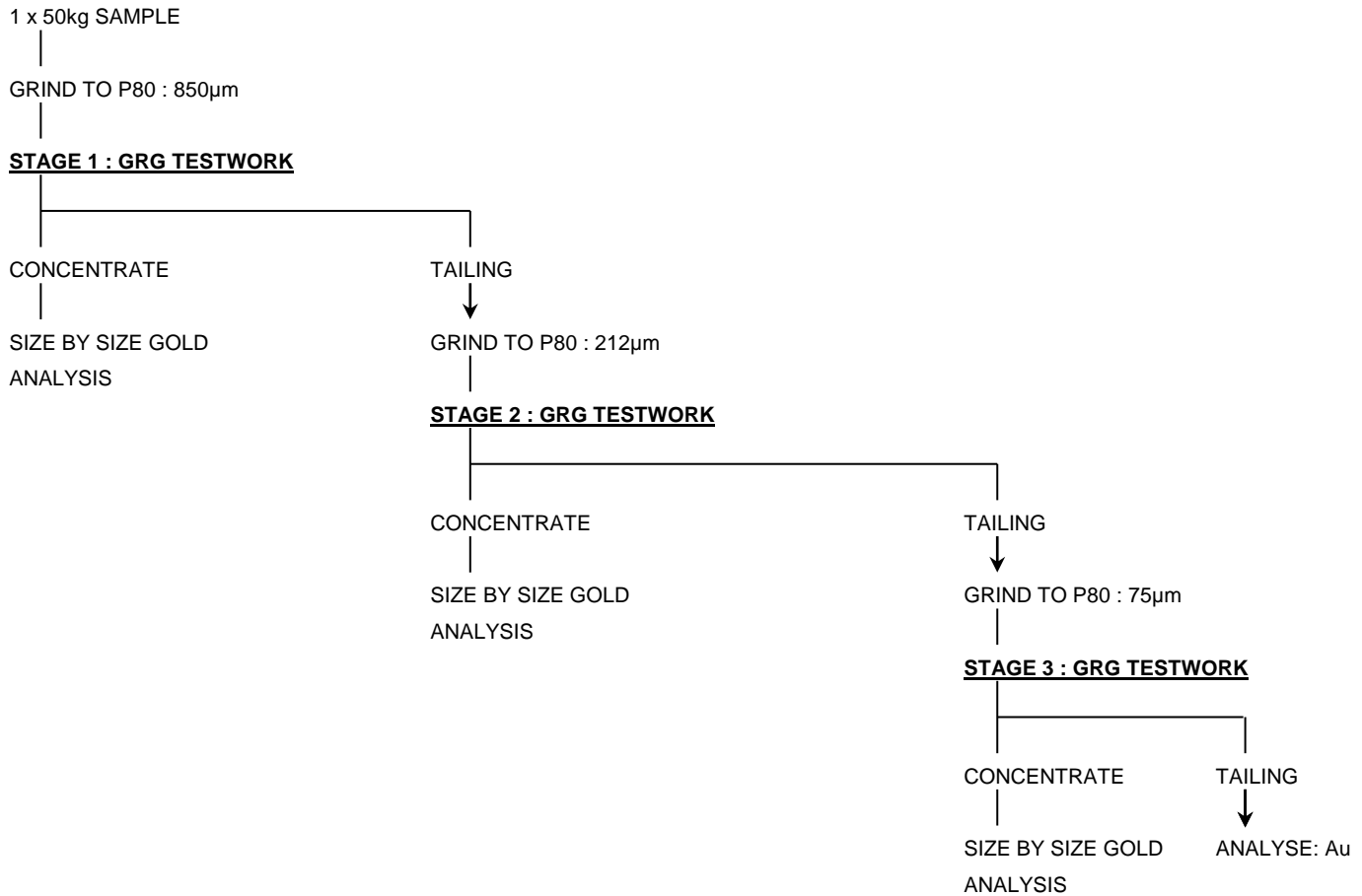
SAMPLE IDENTITY : OVERALL COMPOSITE

GRAVITY RECOVERABLE GOLD [GRG] CONTENT DETERMINATION : OVERALL DISTRIBUTION

TESTS HS24945, HS24946, HS24654

| Material / Stage | Weight | | GOLD | | | |
|---|---------|--------|-------|-------|---------------|---------------|
| | (g) | (%) | ASSAY | | TOTAL (µg) | DIST'N (%) |
| | | | | (g/t) | | |
| Gravity concentrate : GRG Stage 1 [Grade calculated from size by size gold assay on gravity concentrate] | 92.7 | 0.19 | | 4441 | 411653 | 82.28 |
| Gravity concentrate : GRG Stage 2 [Grade calculated from size by size gold assay on gravity concentrate] | 80.9 | 0.16 | | 619 | 50086 | 10.01 |
| Gravity concentrate : GRG Stage 3 [Grade calculated from size by size gold assay on gravity concentrate] | 94.2 | 0.19 | | 13.7 | 1292 | 0.26 |
| Gravity tailing - GRG Stage 3 [Duplicate gold assay] | 49732.2 | 99.46 | | 0.75 | 37299 | 7.45 |
| TOTAL GRG | | | | | | 92.55 |
| TOTAL | 50000.0 | 100.00 | | | 500329 | 100.00 |
| CALCULATED HEAD | | | 10.0 | | | |
| ASSAY HEAD | | | 12.3 | | | |

GRG TESTWORK FLOWSHEET : KNELSON METHOD



CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

SIZE BY SIZE GOLD ANALYSIS

SAMPLE IDENTITY : GRG STAGE 1 CONCENTRATE [TEST HS24945]

[OVERALL COMPOSITE]

| Operation | Size (µm) | Weight (g) | Weight (%) | Weight % < | Gold | |
|--------------|--------------|---------------|---------------|---------------|------|----------|
| | | | | | g/t | Dist'n % |
| Screening | 850 | 14.0 | 15.10 | 84.90 | 4120 | 14.01 |
| | 600 | 6.5 | 7.01 | 77.89 | 7256 | 11.46 |
| | 450 | 5.6 | 6.04 | 71.84 | 8178 | 11.13 |
| | 300 | 7.9 | 8.52 | 63.32 | 6913 | 13.27 |
| | 212 | 9.5 | 10.25 | 53.07 | 5226 | 12.06 |
| | 150 | 7.6 | 8.20 | 44.88 | 5136 | 9.48 |
| | 106 | 13.7 | 14.78 | 30.10 | 3540 | 11.78 |
| | 75 | 11.0 | 11.87 | 18.23 | 3314 | 8.86 |
| | 53 | 8.5 | 9.17 | 9.06 | 2046 | 4.22 |
| | 38 | 5.3 | 5.72 | 3.34 | 1833 | 2.36 |
| | 25 | 1.7 | 1.83 | 1.51 | 1719 | 0.71 |
| | -25 | 1.4 | 1.51 | | 1956 | 0.67 |
| | | | | | | |
| Total | | 92.7 | | | | 100.00 |
| Calc'd Grade | | | | | 4441 | |

Calculated P80 :

675

microns

ALS Ammttec
World Class Bankable Metallurgy

CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

SIZE BY SIZE GOLD ANALYSIS

SAMPLE IDENTITY : GRG STAGE 2 CONCENTRATE [TEST HS24946]

[OVERALL COMPOSITE]

| Operation | Size (µm) | Weight (g) | Weight (%) | Weight % < | Gold | |
|--------------|--------------|---------------|---------------|---------------|------|----------|
| | | | | | g/t | Dist'n % |
| Screening | 850 | 0.0 | 0.00 | 100.00 | | |
| | 600 | 0.0 | 0.00 | 100.00 | | |
| | 450 | 0.0 | 0.00 | 100.00 | | |
| | 300 | 6.8 | 8.41 | 91.59 | 475 | 6.45 |
| | 212 | 21.1 | 26.08 | 65.51 | 358 | 15.08 |
| | 150 | 15.2 | 18.79 | 46.72 | 456 | 13.84 |
| | 106 | 16.0 | 19.78 | 26.95 | 987 | 31.53 |
| | 75 | 7.4 | 9.15 | 17.80 | 1498 | 22.13 |
| | 53 | 4.0 | 4.94 | 12.86 | 1255 | 10.02 |
| | 38 | 4.2 | 5.19 | 7.66 | 58.2 | 0.49 |
| | 25 | 2.9 | 3.58 | 4.08 | 35.3 | 0.20 |
| | -25 | 3.3 | 4.08 | | 38.4 | 0.25 |
| | | | | | | |
| Total | | 80.9 | | | | 100.00 |
| Calc'd Grade | | | | | 619 | |

Calculated P80 : 261

microns

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CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

SIZE BY SIZE GOLD ANALYSIS

SAMPLE IDENTITY : GRG STAGE 3 CONCENTRATE [TEST HS24947]

[OVERALL COMPOSITE]

| Operation | Size (µm) | Weight (g) | Weight (%) | Weight % < | Gold | |
|--------------|--------------|---------------|---------------|---------------|------|----------|
| | | | | | g/t | Dist'n % |
| Screening | 850 | 0.0 | 0.00 | 100.00 | | |
| | 600 | 0.0 | 0.00 | 100.00 | | |
| | 450 | 0.0 | 0.00 | 100.00 | | |
| | 300 | 0.0 | 0.00 | 100.00 | | |
| | 212 | 0.0 | 0.00 | 100.00 | | |
| | 150 | 0.0 | 0.00 | 100.00 | | |
| | 106 | 6.3 | 6.69 | 93.31 | 11.2 | 5.46 |
| | 75 | 26.4 | 28.03 | 65.29 | 9.79 | 20.01 |
| | 53 | 34.2 | 36.31 | 28.98 | 6.62 | 17.53 |
| | 38 | 17.5 | 18.58 | 10.40 | 15.9 | 21.54 |
| | 25 | 5.7 | 6.05 | 4.35 | 30.2 | 13.33 |
| | -25 | 4.1 | 4.35 | | 69.7 | 22.13 |
| | | | | | | |
| Total | | 94.2 | | | | 100.00 |
| Calc'd Grade | | | | | 13.7 | |

Calculated P80 :

91

microns

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APPENDIX III

Direct Cyanidation Time Leach Testwork

Details and Results

| | |
|----------------|---|
| PROJECT | A13425 : MADAGASCAR GOLD PROJECT |
| CLIENT | CLUFF RESOURCES LTD |
| TEST No | HS24997 |
| SAMPLE | OVERALL COMPOSITE KNELSON TAIL [EX GRG: HS24947] |
| GRIND | P80 : 75 MICRONS [AS RECEIVED] |
| WATER | PERTH TAP WATER |
| DATE | APRIL 2011 |

DIRECT CYANIDATION TIME LEACH TESTWORK : OXYGEN SPARGED

| TIME (Hours) | ADDITIONS | | | | SOLUTION DATA | | | | EXTRACTION Gold (%) |
|-----------------|---------------|--------------|-------------|-------------|-----------------|------|-------------|-------------|---------------------------|
| | Solids (g) | Water (g) | NaCN (g) | Lime (g) | Oxygen (ppm) | pH | NaCN (%) | Au (ppm) | |
| 0 | 3000.0 | 4500.0 | | | 7.9 | 7.8 | | | |
| 2 | | | 4.50 | 1.22 | 22.3 | 10.5 | 0.100 | 0.000 | 0.00 |
| 4 | | | 0.00 | 0.00 | 33.8 | 10.1 | 0.083 | 0.435 | 77.45 |
| 8 | | | 0.00 | 0.00 | 33.4 | 10.2 | 0.073 | 0.445 | 79.23 |
| 24 | | | 0.00 | 0.00 | 33.9 | 10.4 | 0.070 | 0.450 | 80.12 |
| 48 | | | 0.00 | 0.00 | 32.7 | 10.5 | 0.055 | 0.480 | 85.46 |
| 48 | | | 0.00 | 0.00 | 33.4 | 10.6 | 0.035 | 0.555 | 98.81 |
| TOTAL | | | 4.50 | 1.22 | | | | | |

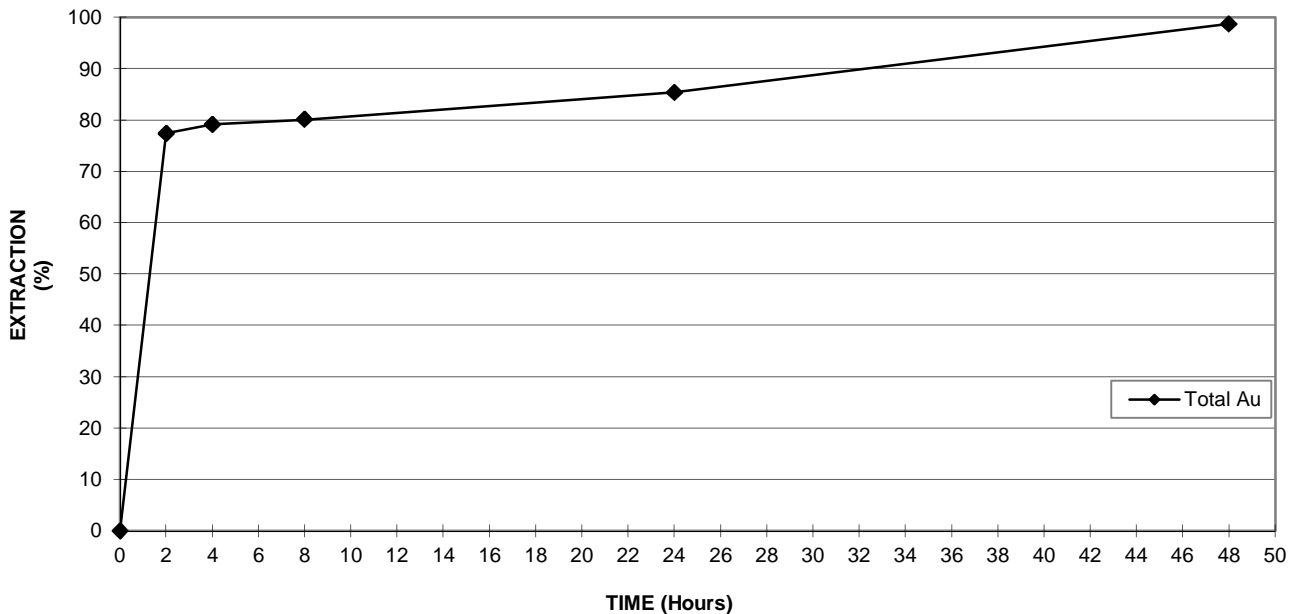
GOLD EXTRACTION CALCULATIONS

| Product | Quantity | GOLD | | |
|-----------------|----------|----------------|---------------|---------------|
| | | Assay (ppm) | Total (µg) | Dist'n (%) |
| Solids (g) | 3000.0 | 0.01 | 30 | 1.19 |
| Solution (mls) | 4500.0 | 0.555 | 2498 | 98.81 |
| Total | | | 2528 | 100.00 |
| Calculated Head | | 0.84 | | |
| Assay Head | | 0.75 | | |

COMMENTS :

- NaCN Addition : 1.50 (Kg/t)
- NaCN Consumption : 0.94 (Kg/t)
- Lime Consumption : 0.41 (Kg/t)
- Perth Water Used : 1.000 (SG)
- Grind Size P 80 : 75 (µm)
- Evaporation losses made up prior to sampling at each period.
- Leach test conducted in mechanically stirred, baffled agitation vat leach.

RATE OF GOLD EXTRACTION



APPENDIX IV

Overall Distribution

Details and Results

CLUFF RESOURCES LTD : MADAGASCAR GOLD PROJECT

SAMPLE IDENTITY : OVERALL COMPOSITE

GRAVITY RECOVERABLE GOLD [GRG] CONTENT DETERMINATION / DIRECT CYANIDATION ON TAILINGS

TESTS HS24945, HS24946, HS24654, HS24997

| Material / Stage | Weight | Volume | GOLD | | | |
|---|---------|---------|-------|--------|--------|--------------|
| | | | ASSAY | | TOTAL | DIST'N |
| | | | (g/t) | (mg/L) | | |
| (g) | (mL) | | | | | |
| Gravity concentrate : GRG Stage 1 [Grade calculated from size by size gold assay on gravity concentrate] | 92.7 | | 4441 | | 411681 | 81.53 |
| Gravity concentrate : GRG Stage 2 [Grade calculated from size by size gold assay on gravity concentrate] | 80.9 | | 619 | | 50077 | 9.92 |
| Gravity concentrate : GRG Stage 3 [Grade calculated from size by size gold assay on gravity concentrate] | 94.2 | | 13.7 | | 1291 | 0.26 |
| Cyanidation Leach Residue [Direct Cyanidation on GRG Stage 3 Knelson Tailing] | 49732.2 | | 0.01 | | 497 | 0.10 |
| Cyanidation Leach Liquor [Direct Cyanidation on GRG Stage 3 Knelson Tailing] | | 74598.3 | | 0.555 | 41402 | 8.20 |
| TOTAL RECOVERY | | | | | | 99.90 |
| TOTAL | 50000.0 | | | | 504948 | 100.00 |
| CALCULATED HEAD | | | 10.1 | | | |
| ASSAY HEAD | | | 12.3 | | | |

GRG TESTWORK FLOWSHEET : KNELSON METHOD

