

15/2-0086

Charles Sturt University

CLIENT:	Macquarie Gold (Challenger Mines)		ANALYTES REQUIRED Complete & tick as required													
	CONTACT:	/Ramon Atayde / Sandra Burgess		Alkalinity, BOD, CN, Ec, pH	Hardness, SAR	TSS, Turbidity	Al, As, B, Cd, Ca, Cr, Co, Cu	Fe, Pb, Mg, Mn, Hg, Mo, Ni, R	K, Se, Na, S, Zn	Oil & Grease	Cl, F					
ADDRESS:	65 Golden Gully Road Adelong NSW 2729		E-mail	TIME SAMPLED	DATE SAMPLED	NATURE OF SAMPLE	CONTAINER TYPE	NUMBER OF CONTAINERS								
TELEPHONE:	02 6946 2266															
SAMPLE IDENTIFICATION	Goodwin Spillway		Water	10.03am	3/12/15	Water	Plastic/glass	2								
SAMPLE IDENTIFICATION	Goodwin Spillway		Water	10.03am	3/12/15	Water	Plastic/glass	2								

Please supply a brown glass O&G bottle if Oil and grease is required as well as a 1L plastic

RELINQUISHED BY:	NAME	SIGNATURE	ORGANISATION	DATE	TII
Mode of Transport Include Consignment Note # if applicable					
RECEIVED BY:					
			Challenger Mines	3/12/15	

Name: Sandra Burgess Signature: [Signature]  
www.kafopra.com.au

Macquarie Gold Ltd  
c/- 'Willowie' Delegate Road  
Bombala NSW 2632  
Attention: Mike Walcott

Wednesday, December 16, 2015



NATA Accredited Laboratory  
Number: 9597

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## LABORATORY ANALYSIS REPORT

Report Number: 1512-0036

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*For all enquiries related to this report please quote document number: 1512-0036*

<b>Facility:</b>	<b>Order #</b>	Job Works Order 152
<b>Sample Type</b>	<b>Collected By</b>	<b>Date Received</b>
Water	Client	04-December-2015

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
15Dec-0122	Goodwin Spillway 03.12.15 10:08am	Alkalinity, Total as CaCO3	113 mg/L	APHA 2320 B	2
		Aluminium (acid extractable)	0.27 mg/L	APHA 3030 E/3120 B	0.03
		Arsenic (acid extractable)	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		Biochemical Oxygen Demand	<2 mg/L	APHA 5210 B/4500-O G	2
		Boron (acid extractable)	<0.02 mg/L	* APHA 3030 E/3120 B	0.02
		Cadmium (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Calcium (acid extractable)	37.0 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	6.2 mg/L	APHA 4110 B	0.1
		Chromium (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Cobalt (acid extractable)	<0.003 mg/L	* APHA 3030 E/3120 B	0.003
		Copper (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Cyanide	<0.002 mg/L	* APHA 4500-CN E	0.002
		Conductivity	441 µS/cm	APHA 2510 B	1
		Fluoride	0.5 mg/L	APHA 4110 B	0.1
		Total Hardness as CaCO3	166 mg/L	APHA 2340 B	2
		Iron (acid extractable)	0.41 mg/L	APHA 3030 E/3120 B	0.01
		Lead (acid extractable)	<0.01 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	17.9 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.025 mg/L	APHA 3030 E/3120 B	0.001
		Mercury	<0.001 mg/L	Analysis by Ecowise, Melbourne (acc no: 992)	
		Molybdenum (acid extractable)	<0.01 mg/L	* APHA 3030 E/3120 B	0.01
		Nickel (acid extractable)	<0.01 mg/L	APHA 3030 E/3120 B	0.01

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<b>Facility:</b>	<b>Order #</b> Job Works Order 152
<b>Sample Type</b>	<b>Collected By</b>
Water	Client
	<b>Date Received</b> 04-December-2015

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
15Dec-0122	Goodwin Spillway 03.12.15 10:08am	Oil & Grease	2 mg/L	APHA 5520 D	1
		Phosphorus	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		pH	8.7 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	2.6 mg/L	APHA 3030 E/3120 B	0.2
		Sodium Adsorption Ratio	1 Ratio	LTM-W-039	
		Selenium (acid extractable)	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		Sodium (acid extractable)	19.0 mg/L	APHA 3030 E/3120 B	0.05
		Sulphur (acid extractable)	34.1 mg/L	* APHA 3030 E/3120 B	0.06
		Total Suspended Solids	4 mg/L	APHA 2540 D	2
		Turbidity	4 NTU	APHA 2130 B	1
		Zinc (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002

Note:

*NATA accreditation not held for tests marked with \**

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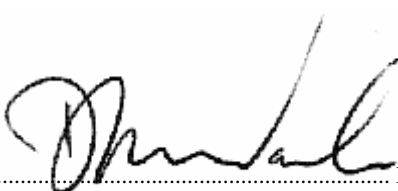
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<b>Facility:</b>	<b>Order #</b> Job Works Order 152	
<b>Sample Type</b>	<b>Collected By</b>	<b>Date Received</b>
Water	Client	04-December-2015

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
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Signed .....  ..... David Wade, Laboratory Manager.

*All samples analysed as received.  
All soil results are reported on a dry basis.  
The EAL takes no responsibility for the end use of results within this report.  
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