

INTERNATIONAL CYANIDE MANAGEMENT CODE VERIFICATION AUDIT

COWAL GOLD MINE

prepared for

BARRICK GOLD OF AUSTRALIA LIMITED

SUMMARY AUDIT REPORT

30 March 2007

KMH Environmental Pty Ltd PO Box 307 Belrose, NSW 2085, Australia

Name of Mine:

Cowal Gold Mine

Name of Mine Owner:

Barrick Gold of Australia

Name of Mine Operator:

Barrick Gold of Australia

Name of Responsible Manager:

Larry Radford General Manager

Address:

PO Box 210 West Wyalong

State/ Country:

New South Wales 2671 Australia

Telephone:

(61-2) 6975 4700

Fax:

(61-2) 6975 4740

Location and Description of Process

The Cowal Gold Mine is located in Central New South Wales, Australia, approximately 32 kilometres north of West Wyalong and approximately 350 kilometres west of Sydney.

The Cowal Gold Mine is an open cut mine located adjacent to Lake Cowal. The process facilities are designed to treat ore with conventional carbon-in-leach and sulphide flotation technologies. The process does not involve heap leaching and only liquid cyanide solution is held on-site. The broad characteristics and exclusions of the process were evident in documentation, site observations and interviews.

The mine began production in the first quarter of 2006 and the plant was in full operation at the time of the audit. Gold production is expected to average approximately 230,000 ounces per annum over the first three years.

Cowal Gold Mine

fmes

30 March 2007

Name of Mine

Signature of Lead Auditor

Date

Auditors Finding This operation is in full compliance X in substantial compliance *(see below) not in compliance with the International Cyanide Management Code. The Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within on year of the date of this audit. **KMH Environmental Pty Ltd** Audit Company: Audit Team Leader: **Ken Holmes** ken@kmh.com.au E-mail: Names and Signatures of Other Auditors: 30 March 2007 **Tony Williams** 30 March 2007 **Geoff Mance** Name of Auditor Signature of Auditor Date Cowal Gold Mine 30 March 2007 Name of Mine Signature of Lead Auditor Date

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Date

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.

Cowal Gold Mine	Shee	30 March 2007
Name of Facility	Signature of Lead Auditor	Date
Declared At: Palvose	New Australia	
This 4 th day of July 2007		
BRACE CLARKE (Signature of person before whom the de	declaration has been made) (Si	gnature of Declarant – Ken Holmes)
,		
Cowal Gold Mine	Spice	30 March 2007

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	in a saj Purche practio	onsible cyanide manufacturing by fe and environmentally protective nase cyanide from manufacturers and procedures to limit exposible, and to prevent releases of cyanid	nanner. employing appropriate ure of their workforce to
	x	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 1.1
		not in compliance with	
Pty Ltd. Barrick Gold of Authat require Orica and any obehalf to be certified as fu (ICMC) by 30 May 2007. T	stralia hother fa lly com he Orice	old Mine sources its cyanide exclusion as prepared contractual documents cilities from which Orica may sout a pliant under the International Cyan facility has been certified as being Gold Mine is in full compliance of	for the supply of Cyanide arce cyanide on Barrick's anide Management Code g in full compliance with
2. TRANSPORTATION:	Protec transp	t communities and the enviro ort.	nment during cyanide
Standard of Practice 2.1:	preven	ish clear lines of responsibility for tion, training and emergency respo roducers, distributors and transport	nse in written agreements
	x	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 2.1
		not in compliance with	
of the ICMC Standard of Pr	actice 2	nce provided to the auditors address 1 and if fully implemented, monit compliance with Standard of Practi	ored and enforced would
Standard of Practice 2.2:	-	re that cyanide transporters ency response plans and capabiliti res for cyanide management.	implement appropriate ies and employ adequate
Cowal Gold Mine		Jmes .	30 March 2007
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	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 2.2
		not in compliance with	
transportation contractor pro	ovided ited, m	ontractual documents and evidence to the auditors address all of the re onitored and enforced should ensured of Practice 2.2.	quirements of the SOP 2.2
3. HANDLING AND STOR	RAGE:	Protect workers and the envi	ronment during cyanide
Standard of Practice 3.1:	consi contr	gn and construct unloading, stor istent with sound, accepted engin col/quality assurance procedures, ainment measures.	neering practices, quality
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 3.1
		not in compliance with	
Process circuit. No dry or mixing have been designed surface waters. The facilities been established to respon	other c and co es lie v d to a	le solution is held in the day tank yanide is stored on-site. Facilities instructed appropriately and are local within adequate secondary containing the remediate potential accidental lly with Standard of Practice 3.1.	for unloading, storing and ated away from people and nents and procedures have
Standard of Practice 3.2: preventive maintenance and respond to worker exposure	d conti	rate unloading, storage and mixing j ngency plans to prevent or contain	0 1
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Name of Mine		Signature of Lead Auditor	Date
Cowal Gold Mine		Ames	30 March 2007
Standard of Practice 4.2		uce management and operating systemetry limiting concentrations of cya	
operating systems. These in relevant inspection and prev procedures are being impler by the auditors were comp	clude oventive in mented. lete wit	peration has developed comprehe perating procedures and contingen- maintenance regimes. Furthermore The inspection and preventive mai h respect to the scheduled frequen- s fully to Standard Of Practice 4.1.	cy procedures as well as records indicate that the ntenance records sighted
		not in compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.1
	X	in full compliance with	
Standard of Practice 4.1:	human	nent management and operating sy. health and the environment utilist spection and preventive maintenanc	ing contingency planning
•	-	ide process solutions and waste si e environment.	reams to protect human
and delivered as solution into No other containers (e.g. druby the transporter. All cyallocated in fully contained at releases and to control and rare subjected to an appropriate and 4.7 support the conclusion maintained and there are suitspections and programmed	to the mans, box nide hareas. Pespond ate regind on that fficient dipreventations are to the mans of t	nide arrives at the site in isotanks value and transferred to a day sees, bags) are received. The isotank andling and storage facilities, pipe rocedures are implemented to prevato worker exposures. All cyanide reme of testing and inspections. Consideration and storage facilities are derecords demonstrating reliable impative maintenance apply to these facorm to Standard of Practice 3.2.	tank for operational use. is returned to the supplier lines and equipment are ent and contain potential agent tanks and pipelines derations under SOP's 4.1 constructed, operated and lementation of scheduled
		not in compliance with	
The operation is		in substantial compliance with	Standard of Practice 3.2
	X	in full compliance with	

Standard of Practice 4.4: The operation is Basis for Audit Finding consistently below 50mg/L	from x The and a	in full compliance with in substantial compliance with not in compliance with operation maintains cyanide levels maintains effective fencing to edemonstrate that these measures a	Standard of Practice 4.4 els in open water bodies exclude terrestrial wildlife.
Standard of Practice 4.4: The operation is Basis for Audit Finding consistently below 50mg/L	from x The and a	in full compliance with in substantial compliance with not in compliance with operation maintains cyanide levels maintains effective fencing to e	Standard of Practice 4.4 els in open water bodies exclude terrestrial wildlife.
Standard of Practice 4.4:	from x	adverse effects of cyanide process s in full compliance with in substantial compliance with	olutions.
Standard of Practice 4.4:	from x	adverse effects of cyanide process s in full compliance with	olutions.
•	from	adverse effects of cyanide process s	
•	_	-	
The operation is considered			
is reviewed regularly and n Inspections are conducted releases. A minimum freebo	nodified of tail pard of	orehensive, probabilistic water balard if improvements to the integrity of ings storage facilities and storage 500mm is maintained above the deconformity with SOP 4.3 of the Cool	of the model can be made. ponds to protect against esign storage requirements.
		not in compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.3
	x	in full compliance with	
Standard of Practice 4.3:		ement a comprehensive water mana ast unintentional releases.	gement program to protect
conducts daily laboratory te the processing plant provide of rates of cyanide additio	est worl e inform n. A p	operation established a standard of to evaluate this in near real-time. nation, on both an hourly and daily process has been implemented by riate rates. The operation is consi	Operating practices within basis, for the modification which cyanide addition is
Rosis for Audit Finding.		not in compliance with	
Basis for Audit Finding			Stational of Fraction 1.2
The operation is Basis for Audit Finding:		in substantial compliance with	Standard of Practice 4.2

cyanide related wildlife deaths. The operation has no heap leach facility and is considered to conform fully to this Standard Of Practice 4.4.

Standard of Practice 4.5:		ment measures to protect fish an ect discharges of cyanide process so	
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.5
		not in compliance with	
discharges of water from s Furthermore groundwater s	ite, in samplin	eration has effective measures to order to meet its regulatory requi g has not detected any elevation is considered to comply fully wit	irement of zero discharge. n of cyanide levels down
Standard of Practice 4.6:	-	ment measures designed to mand ties to protect the beneficial uses of	
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.6
		not in compliance with	
design, supervise construction storage facilities associated monitoring program that hat and cyanide handling areas program is in place. There are monitoring of ground and operation was in full complete.	on and d with s demo s are f are sign surfact liance v	commissioned professional geotech prepare operations and maintenance this operation. The operation has natrated that no seepage has been of fully contained and a rigorous manificant regulatory requirements related with all of these requirements at the bein full compliance with Standar	ce plans for the two tailing as implemented a routine detected. The process plant onitoring and maintenance lating to the protection and age facilities. The Cowal ne time of the audit. The
Standard of Practice 4.7:		de spill prevention or containment ipelines.	measures for process tanks
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·	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.7
		not in compliance with	
and pipelines at the operati and generally appropriate releases report along design	on. Th size. ated di	ntainment measures have been proving the see have been demonstrated to be Where the secondary containment rainage routes to an emergency pontain. The operation is therefore consideration is the secondary consideration in the secondary consideration is the secondary consideration in the secondary consideration is the secondary consideration in the secondary consideration in the secondary consideration in the secondary contains the se	of acceptable construction is insufficient, potential d and established response
Standard of Practice 4.8:	that	ement quality control/quality assurd cyanide facilities are constructed neering standards and specifications	d according to accepted
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.8
		not in compliance with	
GHD Pty Ltd to assess the containments (i.e. bunds), a technical judgement wheth operation. The cyanide cor	e cond as well er the ataining	owal Gold Mine appointed an indepolition of cyanide containing plant, as design, engineering and operatifacilities reviewed are in a suitable plant was reported to be fully colly with Standard of Practice 4.8.	structures and secondary onal controls, and make a le condition for continued
Standard of Practice 4.9:		ement monitoring programs to eval on wildlife surface and ground water	
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.9
		not in compliance with	
2		groundwater and surface water process undertaken to evaluate the effects	
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surface and ground water quality for the Cowal Gold Mine. Surface water monitoring is programmed when surface is present and includes cyanide testing therefore the operation is considered to fully conform with Standard of Practice 4.9.

5. DECOMMISSIONING:	deve	ect communities and the environm lopment and implementation of d ide facilities.	•
Standard of Practice 5.1:		and implement procedures for eff ide facilities to protect human healt	0 0
	x	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 5.1
		not in compliance with	
and Closure Plan and the Denumber of issues are address. These plans are reviewed a policies. This review is desiste operations, economic or A schedule for decommissiplanned decommissioning atthrough to clearing and decommissionid and decomm	econtar sed in seannual gned to other to oning activition	the site. These commitments are demination and Decommissioning Plansuch a plan all of which have been ally in accordance with Cowal Goldo identify changes in closure scope factors. of the plant has been developed the starting from prior to the time nation of the process plant site and a Cowal Gold Mine is deemed to be	n. The Code requires that a dequately addressed. d Mine corporate and site and costs due to changes in that shows the order of the that the operations cease rehabilitation of the tailings
Standard of Practice 5.2		blish an assurance mechanism capa ed decommissioning activities.	ble of fully funding cyanide
	x	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 5.2
		not in compliance with	
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Basis for Audit Finding: Cowal Gold Mine has commissioned a number of independent reviews (HLA Envirosciences) of costs to decommission and decontaminate the cyanide facilities. In accordance with the Cyanide Code, these reviews have been undertaken on the basis that the works would be outsourced to a 3rd party contractor for implementation. The cost estimate (+/-30%) will be reviewed annually in accordance with Cowal Gold Mine policies.

The Department of Mineral Resources has required (and been provided with) an AUS\$12 million bond, that on the basis of the cost estimates produced to date would fully fund the decommissioning and cleanup of the cyanide handling facilities at the mine.

Cowal Gold Mine is deemed to be in full conformity with Standard of Practice 5.2.6.

cowar dota winte is decined	10001	in tun comorning with Standard of	Tactice 3.2.0.
6. WORKER SAFETY:	Prote	ct workers' health and safety from	exposure to cyanide.
Standard of Practice 6.1:	-	fy potential cyanide exposure scenc sary to eliminate, reduce or control	
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 6.1
		not in compliance with	
including those of cyanide mitigate these risks. Barrick procedures and have imple system is designed to ensurand that changes are reflecte in full compliance with Standard of Practice 6.2:	exposure seeks mented that conditions that conditions discontinuity of the conditions of the conditions are seen to be conditions as the conditions are seen to be conditionally as the condition are seen to be conditionally as the conditional are seen to be conditionally as th	nte and monitor cyanide facilities	measures and controls to d review of its operational The change management changes will be reviewed peration is considered to be to protect worker health
and safety and periodically e		the effectiveness of health and safe	ety measures.
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 6.2
	, 🗆	not in compliance with	
the potential for cyanide exp	osures.	fold Mine has identified the areas of They have developed safe work prafety and monitoring equipment and	ocedures for specific areas
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with Standard of Practice 6.2. Standard of Practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide. in full compliance with X The operation is in substantial compliance with Standard of Practice 6.3 not in compliance with Basis for Audit Finding: The operation's has implemented Safety Standards, and first aid and emergency response measures to deal with potential workers exposed to cyanide. The Cyanide Emergency Procedure has been prepared and implemented (CEP GEN-016). This procedure covers all of the elements required by this SOP. Therefore the operation is considered to be in full compliance with Standard of Practice 6.3. 7. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities. Standard of Practice 7.1: Prepare detailed emergency response plans for potential cyanide releases. in full compliance with The operation is in substantial compliance with Standard of Practice 7.1 not in compliance with Basis for Audit Finding: The operation has developed a comprehensive emergency response and management framework comprising several documents that incorporate all the elements required to achieve conformity with this SOP. The Cyanide Emergency Procedure satisfies the requirements so of the SOP. Therefore the operation is considered to be in full compliance with Standard of Practice 7.1. Standard of Practice 7.2: *Involve site personnel and stakeholders in the planning process.* in full compliance with X

training and reference materials. The operation is therefore considered to be in full compliance

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The operation is		in substantial compliance with	Standard of Practice 7.2
		not in compliance with	
There are no communities point was demonstrated that s	tion of otentiall stakeho	operation has developed its cyan the workforce and stakeholders incl y affected by cyanide related releas lders are consulted to maintain it is considered in full conformity v	uding outside responders. es from the operation and the emergency response
Standard of Practice 7.3:		nate appropriate personnel and con sources for emergency response.	nmit necessary equipment
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 7.3
		not in compliance with	
response including equipmer confirmed where relevant by	nt. This intervi mmens	ration has committed the necessary is is documented in the ERP and ew and observation. Outside entities urate with their involvement. The with Standard of Practice 7.3.	implementation has been s have been consulted by
Standard of Practice 7.4:		op procedures for internal an ation and reporting.	ad external emergency
	x	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 7.4
		not in compliance with	
external stakeholders are d	escribe ter Ma	ares and information for communiding the Cyanide Emergency Propagement and Response Plan. The citice 7.4.	ocedure, the Emergency
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Standard of Practice 7.5:	monit	porate into response plans an oring elements that account for cyanide treatment chemicals.	
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 7.5
		not in compliance with	
remediation measures as re	equired	nide related emergency response d and monitoring requirements re fully with Standard of Practice 7.5.	ocumentation incorporates equired by this SoP. The
Standard of Practice 7.6:		dically evaluate response proceda them as needed.	ures and capabilities and
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 7.6
		not in compliance with	
periodic review and such reconducted and evaluated pe	eviews riodical	nide emergency response documen were confirmed by the auditors. Ily and provisions are made for defore considered to conform fully	Exercises are scheduled, ebriefing following actual
8. TRAINING:		workers and emergency respon le in a safe and environmentally p	
Standard of Practice 8.1:	Train use.	workers to understand the hazara	ls associated with cyanide
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 8.1
		not in compliance with	
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Basis for Audit Finding: Cowal Gold Mine has a comprehensive training and induction program that includes detailed discussion on cyanide to ensure that workers understand the hazards associated with cyanide use. This program includes a requirement to complete refresher training. All records of the training are retained in hard copy or in the Risk Information Management System (RIMS). RIMS is used to track the training requirements and records for all site personnel according to their position (i.e. a training needs matrix) and to ensure that refresher training is carried out according to its recommended frequency. Cowal Gold Mine is deemed to be in full conformity with Standard of Practice 8.1.

Standard of Practice 8.2:	system	appropriate personnel to operate as and procedures that protect hum e environment.	
	x	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 8.2
		not in compliance with	
personnel to control the opersonsible manner. Person training (and refreshers) and by Senior Managers with daspects discussed in the train	peration nel that are asso emonst ning. I	Gold Mine has developed, imple n of its cyanide facilities in a set are required to undertake tasks of essed to confirm their competency. The crated training experience and confict the training are retained nity with Standard of Practice 8.2.	afe and environmentally n site receive appropriate The training is undertaken appetence in the technical
Standard of Practice 8.3:		appropriate workers and personn ares and environmental releases of a	•
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 8.3
		not in compliance with	
event of worker exposure a	nd/or e	Gold Mine's process personnel are environmental releases of cyanide and instruction in specific procedure	through the training and
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response training and mock drills. In addition Processing personnel have been, or are in the process of being, trained in Senior First Aid.

The Emergency Response Team (ERT) receives training in the Emergency Response Plan and Cyanide Emergency Procedures as well as general emergency response topics.

ERT personnel have completed (and gained necessary accreditation) for the required comprehensive emergency response training in specific areas including Cyanide Spill Response, HAZMAT response and Breathing Apparatus (auditor sighted the competency matrix of the ERT). Cowal Gold Mine is deemed to be in full conformity with Standard of Practice 8.3

9. DIALOGUE:	Engage in	public consultation and disclosure.			
Standard of Practice 9.1:		Provide stakeholders the opportunity to communicate issues of concern.			
	X	in full compliance with			
The operation is	s 🗆	in substantial compliance with	Standard of Practice 9.1		
		not in compliance with			
provide ongoing opp	portunities 1	hedule of forums and the process of for stakeholders to present issues all compliance with this Standard of	to Barrick. Therefore the		
Standard of Practice		ate dialogue describing cyanide management procedures and onsively address identified concerns.			
	x	in full compliance with			
The operation is	s 🗆	in substantial compliance with	Standard of Practice 9.2		
		not in compliance with			
provide an ongoing	mechanism cyanide ma	hedule of forums and the process of through which stakeholders are en agement. Therefore the operation stice 9.2.	ngaged and information is		
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Standard of Practice 9.3:	actice 9.3: Make appropriate operational and environmental information regarding cyanide available to stakeholders.				
	x	in full compliance with			
The operation is		in substantial compliance with	Standard of Practice 9.3		
		not in compliance with			
Basis for Audit Finding: The public consultation processes have been established and implemented. Cyanide management information has been prepared and delivered periodically in written and verbal forums. Incident reporting processes have been drafted or identified in the Cyanide Emergency Management Procedure and Cyanide Management Plan. There is a legal obligation requiring the reporting of all cyanide related incidents to the State Department of Environment and Climate Change. All reports made to this Department are made available to the public by the Department (and are posted on the Department's Web Site www.epa.nsw.gov.au). Therefore it is considered that the operation complies fully with Standard of Practice 9.3.					
,		•			
Cowal Gold Mine		Mus	30 March 2007		
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