



International Cyanide Management Institute

Auditor Credentials Form

Facility Audited: Mapai
Date: August 2023

Auditor and Technical Specialist Credentials

Auditor: Edward Clerk
Auditor Certification No: 105995 (Lead Environmental and Lead Occupational Health and Safety)
Certifying Organisation: Exemplar Global
Telephone Number: +61 2 4728 4600
Address: Suite 12, 308 High Street, Penrith NSW, Australia 2750
Website Address: www.exemplarglobal.org

Year	Type of Facility, Type of Audit Led	Country & State/Province
Transportation - International Cyanide Code Certification Audits		
2024	Lead Auditor and Technical Specialist for PCTT Transport	PNG
2023	Technical Specialist for Orica PNG Supply Chain	PNG
2023	Lead Auditor and Technical Specialist for Mapai Transport	PNG
2021	Lead Auditor and Technical Specialist for Lihir Supply Chain	PNG
2021	Lead Auditor and Technical Specialist for Toll Resources	Australia
2021	Lead Auditor and Technical Specialist for Lake Fox Transportation	Queensland
2020	Lead Auditor and Technical Specialist for Orica Marine Supply Chain Amendment	Global
2020	Lead Auditor and Technical Specialist for Orica West Africa Supply Chain	West Africa
2018	Lead Auditor and Technical Specialist for Alistair logistics Limited	Tanzania
2018	Lead Auditor and Technical Specialist for Movis Ghana Limited	Ghana
2018	Lead Auditor and Technical Specialist for Orica Global Marine Supply Chain Amendment	Global
2018	Lead Auditor and Technical Specialist for Heibi Chengxin Co Ltd Global Ocean Supply Chain Amendment	Global
2017	Lead Auditor and Technical Specialist for Heibi Chengxin Co Ltd Global Ocean Supply Chain	Global
2016	Lead Auditor and Technical Specialist for FP Du Toit Transport Pty Ltd	Namibia

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Year	Type of Facility, Type of Audit Led	Country & State/Province
2016	Lead Auditor and Technical Specialist for Newcrest's Lihir Gold Mine Transportation Supply Chain	Papua New Guinea
2016	Lead Auditor and Technical Specialist for Allships Limited	Ghana
2016	Lead Auditor and Technical Specialist for CSTT-AO Senegal	Senegal
2016	Lead Auditor and Technical Specialist for Bollore Senegal	Senegal
2016	Lead Auditor and Technical Specialist for Bollore Ghana	Ghana
2015	Lead Auditor and Technical Specialist for Trident Shipping	Ivory Coast
2015	Lead Auditor and Technical Specialist for Movis Ghana Limited	Ghana
2015	Lead Auditor and Technical Specialist for Bollore Ivory Coast	Ivory Coast
2014	Lead Auditor and Technical Specialist for Stellar Logistics	Ghana
2014	Lead Auditor and Technical Specialist for Satellite Trans	Ghana
2014	Lead Auditor and Technical Specialist for Orica Australia's West Africa Supply Chain Amendment	West Africa
2014	Lead Auditor and Technical Specialist for Toll (PNG) Ltds Supply Chain	Papua New Guinea
2014	Lead Auditor and Technical Specialist for AGR Ocean Supply Chain	Global
2014	Lead Auditor and Technical Specialist for AGR Argentina Supply Chain	Argentina
2014	Lead Auditor and Technical Specialist for United Mining Services Certification Audit	Republic of Guinea
2014	Lead Auditor and Technical Specialist for AGR Asia Supply Chain	Thailand
2014	Lead Auditor and Technical Specialist for Orica Asia Supply Chain	Thailand
2014	Lead Auditor and Technical Specialist for Pioneer Ocean Freight Supply Chain, Thailand	Thailand
2014	Lead Auditor and Technical Specialist for AGR Brazil Supply Chain	Brazil
2013	Lead Auditor and Technical Specialist for Stellar Logistics	Ghana
2013	Lead Auditor and Technical Specialist for Hidden Valley Transport	Papua New Guinea
2013	Lead Auditor and Technical Specialist for Kinross Gold's Russian Supply Chain	Russia
2013	Lead Auditor and Technical Specialist for Toll's Australian Supply Chain	Australia
2013	Lead Auditor and Technical Specialist for Orica's Australian Supply Chain	Australia
2013	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Namibia	Namibia, West Africa
2013	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Ghana, Burkina Faso and Mali	Ghana, Burkina Faso and Mali, West Africa
2013	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Guinea	Guinea, West Africa



Year	Type of Facility, Type of Audit Led	Country & State/Province
2013	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Senegal and Mali	Senegal and Mali, West Africa
2013	Technical Specialist for AGR East Africa Supply Chain – Tanzania	Tanzania
2013	Lead Auditor and Technical Specialist for Wesbank Transport Recertification Audit	Namibia
2013	Lead Auditor and Technical Specialist for TTM Recertification Audit	Republic of Guinea
2013	Lead Auditor and Technical Specialist for Hidden Valley Transport Certification Audit	Papua New Guinea
2012	Lead Auditor and Technical Specialist for Orica’s New Zealand Supply Chain (Amendment)	New Zealand
2012	Lead Auditor and Technical Specialist for Orica’s Papua New Guinea Supply Chain Audit Amendment	Papua New Guinea
2012	Lead Auditor and Technical Specialist for Newcrest’s Lihir Gold Mine Transportation Supply Chain	Papua New Guinea
2012	Lead Auditor and Technical Specialist for Pioneer Ocean Freight’s Transport Recertification Audit	Thailand
2011	Lead Auditor and Technical Specialist for PT Transcontinent’s Indonesian Supply Chain	Indonesia
2011	Lead Auditor and Technical Specialist for Toll Mining Services Papua New Guinea Supply Chain	Papua New Guinea
2011	Lead Auditor and Technical Specialist for PT Nusa Halmahera Minerals Gosowong Supply Chain	Indonesia
2011	Lead Auditor and Technical Specialist for Orica’s West Africa Supply Chain Audit	Côte d’Ivoire, Guinea, Senegal, Mauritania, Ghana
2011	Lead Auditor and Technical Specialist for Orica’s Papua New Guinea Supply Chain Audit	Papua New Guinea
2011	Lead Auditor and Technical Specialist for Orica’s East Africa Supply Chain Audit	Tanzania and Kenya
2011	Lead Auditor and Technical Specialist for Orica’s Asia Supply Chain Audit	Thailand
2011	Lead Auditor and Technical Specialist for Orica’s Latin America Supply Chain Audit	Peru, Argentina and Brazil, South America
2011	Lead Auditor and Technical Specialist for Pioneer Ocean Freight’s Transport Certification Audit	Bangkok, Thailand
2011	Lead Auditor and Technical Specialist for AGR Ocean Freight Supply Chain	Global
2011	Lead Auditor and Technical Specialist for Barbex Technical Services	Ghana, West Africa
2010	Lead Auditor and Technical Specialist for Orica’s New Zealand Supply Chain	New Zealand
2010	Lead Auditor and Technical Specialist for Orica’s Australian Supply Chain	Australia



Year	Type of Facility, Type of Audit Led	Country & State/Province
2010	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Namibia	Namibia, West Africa
2010	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Ghana, Burkina Faso and Mali	Ghana, Burkina Faso and Mali, West Africa
2010	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Guinea	Guinea, West Africa
2010	Lead Auditor and Technical Specialist for AGR West Africa Supply Chain – Senegal and Mali	Senegal and Mali, West Africa
2010	Lead Auditor and Technical Specialist for Burkina Logistics Mining Services in Ghana.	Burkina Faso, West Africa
2010	Lead Auditor and Technical Specialist for Allship Logistics in Ghana.	Ghana, West Africa
2009	Lead Auditor and Technical Specialist for TTM in Guinea.	Guinea, West Africa
2009	Lead Auditor and Technical Specialist for SDV in Senegal.	Senegal, West Africa
2008	Lead Auditor for Freight Forwarders Tanzania’s transportation activities.	Tanzania, East Africa
2008	Lead Auditor for Freight Forwarders Kenya’s transportation activities.	Tanzania and Kenya, East Africa
2007	Lead Auditor for Barbex Technical Services transportation activities.	Ghana, West Africa
Transportation - International Cyanide Code Equivalent Non-Certification Audits		
2010	Lead Auditor and Technical Specialist for Orica Australia Limited’s transportation activities.	Queensland, Australia
2009	Lead Auditor and Technical Specialist for Orica Australia Limited’s transportation activities.	Queensland, Australia
2009	Lead Auditor and Technical Specialist for Orica Australia Limited’s transportation activities.	Northern Territory, Australia
2009	Lead Auditor and Technical Specialist for Orica Australia Limited’s transportation activities.	New South Wales, Australia
2009	Lead Auditor and Technical Specialist for CSBP Wesfarmers’ transportation activities.	Namibia, Southern Africa
2008	Lead Auditor for Orica Australia Limited’s transportation activities.	Peru
2008	Lead Auditor for Orica Australia Limited’s transportation activities.	Argentina
2008	Lead Auditor for Orica Australia Limited’s transportation activities.	Thailand
2008	Lead Auditor for Orica Australia Limited’s transportation activities.	New Zealand
2007	Lead Auditor for Orica Australia Limited’s transportation activities.	Peru
2007	Lead Auditor for Orica Australia Limited’s transportation activities.	Ghana, West Africa
2006	Lead Auditor for Orica Australia Limited’s transportation activities.	Queensland, Australia
2006	Lead Auditor for Orica Australia Limited’s transportation activities.	Townsville, Australia
2006	Lead Auditor for Orica Australia Limited’s transportation activities.	Northern Territory, Australia



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2006	Lead Auditor for Orica Australia Limited's transportation activities.	New South Wales, Australia
2006	Lead Auditor for Orica Australia Limited's transportation activities.	Tasmania, Australia
2006	Lead Auditor for Orica Australia Limited's transportation activities.	Western Australia, Australia
Production - International Cyanide Code Certification Audits		
2022	Lead Auditor and Technical Specialist for Toll Warehouse Facility.	Laverton, Victoria, Australia
2020	Lead Auditor and Technical Specialist for Australian Gold Reagents' Production Facility	Western Australia, Australia
2017	Lead Auditor and Technical Specialist for Australian Gold Reagents' Production Facility	Western Australia, Australia
2016	Lead Auditor and Technical Specialist for Allships Warehouse Facility.	Tarkwa, Ghana
2014	Lead Auditor and Technical Specialist for Orica Australia Limited's production (transfer) facility.	Tarkwa, Ghana
2011	Lead Auditor for Orica Australia Limited's production (transfer) facility.	Ventanilla, Peru
2009	Lead Auditor for Orica Australia Limited's production facility.	Yarwun, Queensland, Australia
2008	Lead Auditor for Orica Australia Limited's production (transfer) facility.	Ventanilla, Peru
2010	Lead Auditor for Certification of Orica Australia Limited's production (transfer) facility.	Tarkwa, Ghana
2006	Lead Auditor for Orica Australia Limited's production facility.	Yarwun, Queensland, Australia
Production - International Cyanide Code Equivalent Non-Certification Audits		
2010	Lead Auditor for Orica Australia Limited's production (transfer) facility.	Tarkwa, Ghana
Mining - International Cyanide Code Certification Audits		
2024	Lead Auditor and Technical Specialist for Hidden Valley Gold Mine	Papua New Guinea
2023	Lead Auditor and Technical Specialist for Porgera Gold Mine	Papua New Guinea
2023	Lead Auditor and Technical Specialist for Lihir Gold Mine	Papua New Guinea
2021	Technical Review Goldfields Ghana Limited Tarkwa Mine	Ghana
2021	Technical Review Goldfields Damang Mine	Ghana
2021	Technical Review Newmont Akyem Gold Mine	Ghana
2019	Lead Auditor Porgera Gold Mine	PNG
2019	Technical Specialist for Lihir Gold Mine	PNG
2018	Lead Auditor and Technical Specialist for Harmony Hidden Valley Gold Mine	PNG
2018	Lead Auditor for Newmonts Ahafo Gold Mine	Ghana
2017	Lead Auditor for Goldfields South Deep Gold Mine	South Africa
2016	Lead Auditor and Technical Specialist for Newcrest's Telfer Gold Mine	Western Australia, Australia
2016	Lead Auditor and Technical Specialist for Goldfields St Ives Gold Mine	Western Australia, Australia



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2015	Lead Auditor and Technical Specialist for Newcrest's Gosowong Gold Mine	Halmahera, Indonesia
2015	Lead Auditor and Technical Specialist for Goldfields Darlot Gold Mine	Western Australia, Australia
2014	Technical Specialist for Goldfields Gold Granny Smith Gold Mine	Western Australia, Australia
2013	Lead Auditor and Technical Specialist for New Gold's Peak Gold Mine	New South Wales, Australia
2013	Lead Auditor and Technical Specialist for Morobe Mining Limited's Hidden Valley Gold Mine	Papua New Guinea
2012	Lead Auditor and Technical Specialist for Newcrest's Telfer Gold Mine	Western Australia, Australia
2011	Lead Auditor and Technical Specialist for Recertification of Minera Yanacocha S.R.L	Peru
2011	Lead Auditor and Technical Specialist for Newcrest's Gosowong Gold Mine	Halmahera, Indonesia
2010	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Granny Smith Gold Mine.	Western Australia, Australia
2009	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Plutonic Gold Mine.	Western Australia, Australia
2008	Lead Auditor and Technical Specialist for Newmont's Waihi Gold Mine.	New Zealand
2008	Lead Auditor and Technical Specialist for Newmont's Tanami Gold Mine.	Western Australia, Australia
2008	Lead Auditor and Technical Specialist for Newmont's Jundee Gold Mine in Western Australia, Australia.	Western Australia, Australia
2008	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Darlot Gold Mine.	Western Australia, Australia
2008	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Kanowna Belle Gold Mine.	Western Australia, Australia
2008	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Lawlers Gold Mine.	Western Australia, Australia
2008	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Porgera Gold Mine.	Papua New Guinea
2008	Lead Auditor and Technical Specialist for Kalgoorlie Consolidated Gold Mines' Fimiston and Gidji facilities.	Western Australia, Australia
2008	Pre-Operational Lead Auditor and Technical Specialist for Dundee Precious Mineral's processing facility.	Chelopech, Bulgaria
Mining - International Cyanide Code Pre-Certification Audits (gap analysis)		
2023	Lead Auditor and Technical Specialist for Porgera Gold Mine	Papua New Guinea
2022	Lead Auditor and Technical Specialist for Lihir Gold Mine	Papua New Guinea
2018	Lead Auditor and Technical Specialist for Porgera Gold Mine	Papua New Guinea
2018	Lead Auditor and Technical Specialist for SEMOS Gold Mine	Mali
2017	Lead Auditor and Technical Specialist for Hidden Valley Gold Mine	Papua New Guinea



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2017	Lead Auditor and Technical Specialist for Morobe Mining Limited's Hidden Valley Gold Mine	Papua New Guinea
2015	Lead Auditor and Technical Specialist Goldfields St Ives Gold Mine	Australia
2013	Lead Auditor and Technical Specialist for New Gold's Peak Gold Mine	Australia
2013	Lead Auditor and Technical Specialist for Carpentaria Gold's Ravenswood Gold Mine.	Australia
2012	Lead Auditor and Technical Specialist for Morobe Mining Limited's Hidden Valley Gold Mine	Papua New Guinea
2011	Lead Auditor and Technical Specialist for Akara Mining's Chatree Gold Mine	Thailand
2011	Lead Auditor and Technical Specialist for Newcrest's Lihir Gold Mine	Western Australia
2011	Lead Auditor and Technical Specialist for Newcrest's Telfer Gold Mine	Western Australia
2011	Lead Auditor and Technical Specialist for Morobe Mining Limited's Hidden Valley Gold Mine	Papua New Guinea
2011	Lead Auditor and Technical Specialist for Newgold's Peak Gold Mine	New South Wales
2010	Lead Auditor and Technical Specialist for Newcrest's Gosowong Gold Mine	Halmahera, Indonesia
2010	Lead Auditor and Technical Specialist for Newmont's Boddington Gold Mine	Western Australia, Australia
2010	Lead Auditor and Technical Specialist for Newcrest's Cracow Gold Mine.	Queensland, Australia
2010	Technical Specialist for Newcrest's Telfer Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Newmont's Waihi Gold Mine.	New Zealand
2007	Lead Auditor and Technical Specialist for Newmont's Tanami Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Newmont's Jundee Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Darlot Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Plutonic Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Kanowna Belle Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Lawlers Gold Mine.	Western Australia, Australia
2007	Lead Auditor and Technical Specialist for Barrick Gold of Australia's Porter Gold Mine.	Papua New Guinea
2007	Lead Auditor and Technical Specialist for Kalgoorlie Consolidated Gold Mines' Fimiston and Gidji facilities.	Western Australia, Australia
2007	Pre-Operational Lead Auditor and Technical Specialist for Dundee Precious Mineral's processing facility.	Chelopech, Bulgaria
Due Diligence Auditing		



Year	Type of Facility, Type of Audit Led	Country & State/Province
2013	Equator Principles Assessment of proposed Nickel Smelter	Indonesia
2013	Lead Environmental Auditor for gold mine Due Diligence Audit.	Ghana
2009	Lead Environmental Auditor for gold mine Due Diligence Audit.	South Australia, Australia
2009	Lead Environmental Auditor for gold mine Due Diligence Audit.	Western Australia, Australia
2006	Lead Environmental Auditor for copper mine Due Diligence Audit and review of Bankable Feasibility Study for Macquarie Bank.	Queensland Australia
2006	Lead Environmental Auditor for mineral sands operation Due Diligence Audit.	Western Australia, Australia
2005	Lead Environmental Auditor for manganese mine Due Diligence Audit for Commonwealth Bank.	Western Australia, Australia
2005	Lead Environmental Auditor for fertiliser factory (5) Due Diligence/Compliance Audit in Western Australia, Australia.	Western Australia, Australia
2004	Lead Environmental Auditor for gold mine Due Diligence Audit against Canadian Securities Act – National Instrument 43-101.	Western Australia, Australia
Operational Experience (In-house Auditing)		
2000-2004	Gold Mines Operational Experience (In-house Auditing). Environmental Superintendent for Barrick Gold Tanzania. Conducted internal environmental auditing including compliance and system audits.	Tanzania, East Africa
1998-2000	Nickel Mine and Refining Facility Operational Experience (In-house Auditing). Environmental Superintendent for Anaconda Nickel in Western Australia. Conducted internal environmental auditing including compliance and system audits.	Western Australia, Australia
1996-1998	Gold Mine Operational Experience (In-house Auditing). On-site environmental auditing including compliance and system audits for operational gold mine. Environmental Coordinator for Gold Mines of Australia Reedy Gold Mine. Conducted internal environmental auditing including compliance and system audits.	Queensland, Australia
1994-1996	Queensland Department of Environment. Environmental auditing incorporating emergency response and health and safety issues associated with manufacturing, maintenance, waste, chemical processing, construction, transportation and minor extractive industries.	Queensland, Australia



Cyanide-Related Operations Experience

Each auditor must have at least 3 years; at least one auditor must have at least 7 years experience.

Auditor	Yrs.	Relevant Position Titles	Types of Operations
Ed Clerk	19	Principal, Principal EHS Consultant, Manager Mining EHS, Director Mining	Since August 2004, I have provided over 20% of my environmental consulting time to the mining industry, transport industry and chemical manufacturing industry.
	6	Environmental Superintendent – Tanzania, Environmental Coordinator, Western Australia	Between 1996 to 1998 and 2000 to 2004, Mr Clerk has provided in-house environmental management and auditing services to gold mining companies in both Western Australia (Gold Mines of Australia) and Tanzania (Barrick Gold).
	2	Environmental Inspector	Between 1995 and 1996, approximately >20% of my time was involve in regulator activities for chemical facilities.
	2	Environmental Technician	Between 1993 and 1994, approximately 20% of consulting time was allocated to chemical facilities.

Statement of No Conflict

I certify that I have not audited any component of this facility for which I was responsible for design or development; nor have I within the past year been an employee of the facility, its parent company, or associated affiliates. Excluding audits, I have not derived more than 30% of my income within the past 5 years from the facility, its parent, or associated affiliates. I have not participated in more than two consecutive Cyanide Code audits of this facility. I have participated in at least 3 health, safety, and/or environmental audits in the past 7 years and am familiar with standard audit procedures as well as with the protocols developed by the International Cyanide Management Institute for implementation of the Code.

Signed	Name	Signature	Date
Lead Auditor and Technical Specialist*	Edward Clerk		30-4-24
Auditor 1			
Auditor 2			

Use additional pages if necessary

*The lead auditor's signature must be certified by notarisation or equivalent.

Notarisation

Subscribed and sworn (or affirmed) before me this 30 day, APR 2024 month, _____ year.

By _____ (name of signer) (signature).

FREDERICK LOUIS PAUL CALGINARI
JUSTICE OF THE PEACE
WESTERN AUSTRALIA
NO. 29180

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