

APPENDIX H

DETAILS AND EXPERTISE OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

According to regulation 23(2) of the EIA regulations (2010), “A basic assessment report must.... include-

- a) Details of –
 - i. The EAP who prepared the report; and
 - ii. The expertise of the EAP to carry out basic assessment procedures”

In fulfilment of the above-mentioned legislative requirement, as well as Section 18 of the EIA Regulations (2010), which states that, “an EAP must have expertise in conducting environmental impact assessments, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity”, provided below are the details of the Environmental Assessment Practitioner (EAP) who prepared this Basic Assessment Report, as well as the expertise of the individual members of the study team.

DETAILS OF THE EAP AND THE NEW COMPANY

EOH Coastal and Environmental Services (CES)

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Expertise of the EAP

Kim Brent (Report Production)

Kim is an Environmental Consultant with CES and is based in Port Elizabeth. Kim holds a BSc degree with majors in Botany and Geography as well as a BSc (Hons) degree, both from NMMU. Her honours year focussed on Environmental impact assessments, environmental management and Geographic Information systems. Kim's research projects in her honours year focussed on Plant physiology and Biological factors of the Velddrif Solar Saltworks. Kim's interests include Basic assessments, Environmental impact assessments, Environmental management plans, Environmental auditing, Geographic information systems and Botanical assessments. Kim has over 4 years' experience in the consultancy environment.

Additional Team Members

Dr Chantel Bezuidenhout (Reviewer)

Principal Environmental Consultant, holds MSc and PhD degrees in Botany (estuarine ecology) and a BSc degree in Botany and Geography from NMMU. Chantel's main focus is estuarine ecology and she has done extensive work on 13 systems from the Orange River Mouth in the Northern Cape to the Mngazi Estuary in the Transkei. As a result she has been involved in a number of ecological reserve determination studies including the Kromme, Seekoei and Olifants systems. Chantel has been an Environmental Consultant for approximately 5.5 years and as such has been focused on environmental management and impact assessment. Chantel is well versed in environmental legislation and has been involved in number of environmental impact assessments and management plans in South

Africa, Zambia and Madagascar. She is currently employed in the Grahamstown office of CES.

Company profile

CES is one of the largest specialist environmental consulting firms in southern Africa. Established in 1990, and with offices in Grahamstown, Port Elizabeth, Cape Town, Johannesburg and East London, we primarily specialise in assessing the impacts of development on the natural, social and economic environments. CES's core expertise lies in the fields of environmental impact assessment, strategic environmental assessment, environmental management plans, environmental management systems, environmental risk assessment, environmental auditing and monitoring, integrated coastal zone management, social impact assessment and state of environment reporting. In addition to adhering to all relevant national legislative requirements, which we are often required to review and summarise for specific projects, acquisition of equity funding from the majority of financial institutions demands that developments must meet certain minimum standards that are generally benchmarked against the Policies and Performance Standards of the International Finance Corporation, and the World Bank Operational Directives and Policies. The quality of our work has been acknowledged by international lenders such as the World Bank and the International Finance Corporation. Provided above are abbreviated *curriculum vitae* (CVs) of each of the team members involved in the Basic Assessment studies for the proposed development.

EOH COASTAL & ENVIRONMENTAL SERVICES



Specialist Environmental & Social Consultants
Grahamstown, Cape Town, East London, Port Elizabeth, Gauteng, South Africa
Maputo, Mozambique

COMPANY PROFILE



EOH Coastal & Environmental Services

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1 EOH COASTAL & ENVIRONMENTAL SERVICES



1.1. GENERAL OVERVIEW

Coastal and Environmental Services (Pty) Ltd is a South African based company, with its head office in Grahamstown, and offices in Cape Town, Port Elizabeth, East London and Johannesburg, South Africa, as well as a wholly owned subsidiary in Maputo, Mozambique (CES is registered as an Environmental Practitioner with the Mozambican authorities). CES was established in 1990, to service a then fledgling market in the field of Environmental Management and Impact Assessment. The Company has grown apace with the increased market demand for environmental and social advisory services, both in South Africa as well as many African countries. Our principal area of expertise is in assessing the impacts of development on the natural, social and economic environments through, among other instruments, the environmental impact assessment process, and in so doing contribute towards sustainable development.

In 2013 EOH Mthombo (Pty) Ltd acquired all the shares in CES (Pty) Ltd, and CES (www.cesnet.co.za) now operates as EOH Coastal & Environmental Services. We are proud to be associated with EOH (www.eoh.co.za) which is one of the largest providers of enterprise applications, technology, outsourcing, cloud and managed services, as well as consulting services in a range of disciplines. The group is active in South Africa and Africa and has a strong Black Economic Empowerment profile. This acquisition has enabled CES to combine EOH's great reach and reputation with CES's recognized excellence in environmental and social advisory services. It has allowed us to maximize our strengths and our comprehensive offerings in the environmental and social fields. The existing Management Team of CES continues to be the driving force behind our product and service offering.

We adopt a scientific approach to our studies, underpinned by an informed and holistic view of the environment and a pragmatic approach to sustainable development. We believe that a balance between development and environmental protection can be achieved by skillful and careful planning. Our success rate in achieving this balance in a variety of approved developments is evidence of our capability.

Our staff is usually comprised of over 30 consultants and approximately 10 support staff. All professional staff members are well qualified, and many have advanced postgraduate qualifications, including PhD degrees in the biological, social and environmental sciences.

In addition, CES has well-developed working relationships with a number of other individual specialist and specialist consulting companies who provide us with expertise in disciplines such as air quality impact assessments, noise impacts, heritage assessments, radiation hazard assessments, groundwater studies and health impact.

1.2. AREAS OF EXPERTISE

CES offers the following advisory services:

- Environmental Impact Assessments and Basic Assessments
- Due Diligence and compliance auditing.
- Strategic Environmental Assessments
- Social Impact Assessments
- Resettlement Action Plans
- Climate Change Adaptation & Mitigation
- Environmental Monitoring
- Integrated Coastal Zone Management
- Training
- Rehabilitation of Disturbed Environments

CES specialises in the following sectors:

- Mineral mining sector
- Biofuel and Agro Industrial sector
- Ports and Harbours
- Renewable Energy
- Mining and extractive industries
- Infrastructure sector
- Industrial Facilities
- Aquaculture

We have a demonstrated ability to manage ESIA's for large and complex projects. This experience was initially gained during the undertaking of integrated environmental management studies, as well as the management of large and complex environmental and social impact assessments. CES has managed numerous large ESIA's from pre-feasibility through to operation for international clients in six southern African countries. These have been rigorously reviewed by parties such as the World Bank, MIGA, European Investment Bank, IFC, German Investment Bank (KfW), African Development Bank, BHP Billiton international peer review team, the Dutch Development Bank (FMO).

1.3. RECENT MAJOR PROJECT EXPERIENCE

During the last 15 years or so CES has undertaken a large number of EIAs, ESIA's and ESHIA's and related studies to international standards, as benchmarked against the World Bank, IFC and AfDB standards. We are therefore familiar with the requirements of the safeguard policies and performance standards of the major international financing

organisations. Most of the studies involved mobilising and coordinating large teams of specialists in a wide range of disciplines, and many of them included the development of resettlement action plans and/or resettlement frameworks. A selection of some of our larger projects is briefly described below.

❖ **Zirco Resources – Northern Cape Province South Africa (2013–ongoing):** EOH CES is currently in the process of completing the ESIA for a heavy minerals mine in the Northern Cape Province of South Africa. In addition to this, the majority of specialist assessments are being conducted internally. The project is currently in the EIA Phase.

❖ **Capitol Resources (a Member of The Baobab Group) – Tete Province Nampula (2012-ongoing):** Baobab Resources Plc (Baobab) is an AIM listed explorer with a portfolio of mineral properties in the Republic of Mozambique. The company's flagship asset is the Tete magnetite-ilmenite (Iron) Project located in the Tete Province of Mozambique. Capitol Resources Limitada (Capitol Resources), a subsidiary of Baobab, is proposing to develop the Tete Iron Project. This project is located in the Chiúta and Moatize districts, 30 km north of Tete in the Tete Province.

Capitol Resources will initially focus on the Tenge-Ruoni deposits (Ruoni Flats, Ruoni North, Ruoni South and Tenge) that fall within the cluster of prospects known as the Massamba Group. This is an area of mineralisation that contains magnetite, titanium and vanadium and will be used for the production of pig iron. The Tenge-Ruoni Prospect consists of four resource zones: Ruoni North, Ruoni South, Tenge and Ruoni Flats (Figure 3.1). The JORC^[1] inferred mineral resources for Tenge-Ruoni have been estimated at just over 300 Mt: 93 Mt at Ruoni North, 56 Mt at Ruoni South and 159 Mt at Tenge. At this stage only the Tenge zone will be mined. The mine life is expected to be 36 years (mining at a rate of 1MTPA) EOH CES is currently in the process of completing the ESIA for this mine. Majority of the specialist work has been completed.

❖ **Wind Energy (2009-Ongoing):** We are currently engaged by a number of clients to undertake EIAs for wind

❖ energy developments in South Africa, some of which are very large (200+ turbines). Environmental authorisation has been granted for two developments for which we completed the environmental assessments.

❖ **Kenmare Moma EIA – Nampula Province Mozambique (1997-Ongoing):** EOH CES coordinated and managed the entire EIA process, and also undertook a number of the specialist studies (vegetation, marine and freshwater ecosystems, natural resource use and rehabilitation). The EIA resulted in the production of 5 volumes of reports (namely, Scoping and Terms of Reference, Specialist reports, EIR, Summary report, and Comments report). EOH CES managed and coordinated the production of the specialist volume, and wrote and produced all other volumes.

In 2010, CES was contracted to prepare the Addendum ESIA for the Phase II expansion of the Moma mine which was subsequently approved by MICOA. The associated reports were also reviewed extensively by international lender groups and the Lenders Independent Engineers in the United Kingdom.

^[1] Australasian Joint Ore Reserves Committee (JORC).

Subsequently, CES was responsible for the Environmental and Social Pre-Feasibility assessments and the Scoping studies for the Phase III expansion involving three separate deposits. All three scoping studies were accepted by MICOA.

❖ **Syrah Resources Limited - Cabo Delgado Province, Mozambique (2013-2014):** EOH CES is currently in the process of completing the ESIA for a graphite mine in Cabo Delgado Province Mozambique. In addition to this, the majority of specialist assessments are being conducted internally. The project is currently in the EIA Phase.

❖ **Trident Copper / Nickel Project – North Western Province Zambia (2011-2012):** CES was contracted by Kalumbila Minerals Ltd, a subsidiary of First Quantum Minerals to undertake an Environmental Impact Assessment and prepare an Environmental Impact Statement (EIS) for a copper mine in accordance with Zambian Legislation. The project involves the construction of a large scale copper mine and associated infrastructure in the North Western Province of Zambia, almost mid-way to Mwinilunga from Solwezi. In addition to a large pit (The development of Sentinel will see the construction of a 40 Mtpa copper sulphide concentrator, being one of the largest copper mines in Africa) the EIS also assessed the impacts of two large river diversions, the construction of two large dams (2,400ha in extent), a 10,000ha Tailings Storage Facility, waste rock dumps, internal roads, and a saw mill. CES also completed the following specialist studies as part of the EIS: Surface and Groundwater Assessment, Environmental Water Requirements Assessment (Musangezhi and Chisola Rivers), Botanical Assessment, Land and Resource Use Assessment, Waste Assessment and an Environmental and Social Risk Assessment for the River Diversions and Tailings Storage Facility.

❖ **Lesotho Highlands Water Development Authority (LHDA) Socio-economic - Maseru and Mokhotlong, Lesotho (2013 – ongoing):** As part of Phase II of the Lesotho Highlands Water Project and the construction of the new Polihali Dam in Mokhotlong, CES is currently completing a 20 month Socio-Economic Baseline Study (SEBS) which has been conducted in the rural highlands in eastern Lesotho.

The study has included two extensive survey studies (a comprehensive census survey of all households within the expansive study area - close to 11 200 households, as well as a longitudinal income and expenditure survey of all households within 12 sample villages – each household in each village was surveyed once a month for a full year). In addition to the surveys, the study has collected and collated secondary data, and run approximately 45 focus group discussions utilising a range of participatory rural appraisal techniques across the entire study area.

The two surveys produced a very significant amount of data (including spatial data and photographs), which were captured in two large Access databases. The Comprehensive database contains 11 172 survey instances, 395 088 records, captured in 44 related tables. The Monthly database contains 4290 survey instances, 156 088 records, captured in 30 related tables.

Database management included continued database cleaning and management, as well as running queries for data analysis in the databases and conducting database training for project officials.

❖ **Lesotho Highlands Water Development Authority (LHDA) Biological - Maseru and Mokhotlong, Lesotho – (2013)** As part of Phase II of the Lesotho Highlands Water Project and the construction of the new Polihali Dam in Mokhotlong, CES were

contracted to conduct the pre-EIA biological and archaeological baseline assessment of the proposed inundation area. This study area consisted of approximately 50kms² of the Senqu and Khubela River valleys in the eastern highlands of Lesotho.

The purpose of the study was to:

- Gain further understanding of the terrestrial, wetland and aquatic habitats present on site specific, local and regional scale,
- Qualify the significance of the possible impacts on the receiving biophysical environment and,
- Propose measures to mitigate the possible impacts.
- Design Monitoring programmes
- Provide baseline data on natural environmental elements of the Socio-Economic baseline study

The specialist studies conducted for this project included:

- Botanical Assessment
- Rangeland Assessment
- Terrestrial Fauna Assessment
- Ichthyological Study
- Archaeological and Heritage Survey

- ❖ **Addax Sugarcane to Ethanol Biofuel Project – Sierra Leone (2012):** ESHIA for a large plantation of sugarcane, ethanol processing factory and cogeneration plant, including a Social and Environmental Management Plan, and Resettlement Action Plan. A full-scale baseline monitoring programme is in the course of preparation. Study to IFC, WB and AfDB standards and all reports and supporting documentation reviewed by international lenders.
- ❖ **Kalagadi Manganese Smelter – South Africa (2011):** EIA for a manganese smelter in the Coega Industrial Development Zone, near Port Elizabeth, to produce 210 000 tpa ferro-manganese alloy for the steel industry. The assessment was carried out to South African standards.
- ❖ **Kafue Gorge Lower Hydropower Station – Zambia (2010):** Due Diligence study of previous environmental and social impact assessments for a proposed 600–900MW peaking hydropower station in the Kafue Gorge, including preparation of a detailed Terms of Reference for an Environmental, Social and Health Impact Assessment, determination of social and environmental impacts, and environmental flow requirements, in the lower Kafue River (w\study undertaken with Water for Africa SA). Study done to IFC, World Bank and AfDB standards and all reports reviewed by IFC and WB.
- ❖ **El Burullus Heavy Minerals Mine – Egypt (2009):** Comprehensive EIA for pre-feasibility study and Draft Environmental Management Plan for a proposed heavy minerals mine situated on the western side of the Nile Delta in northern Egypt. Study done to World Bank standards.
- ❖ **Corridor Sands Chibuto EIA – Mozambique (2002):** EIA for a large scale (\$1 billion) integrated heavy mineral sand mining operation. Study done to World Bank standards.

2 CES CONSULTING STAFF

Staff members are listed in alphabetical order

Name	Academic Qualifications	Years experience
Dr Ted Avis Managing Director	<ul style="list-style-type: none"> • BSc Rhodes University, 1982 • BSc Honours (Botany) RU, 1983 	27

Name	Academic Qualifications	Years experience
	<ul style="list-style-type: none"> PhD RU, 1993 	
Mr Michael Bailey Principal Consultant	<ul style="list-style-type: none"> B.Sc. Biology and Ecology (University of Ulster, N.Ireland) B.Sc. Honours. Biology and Ecology (University of Ulster, N.Ireland), 1984 M.Sc. Quantitative Conservation Biology (University of the Witwatersrand),1993 	22
Dr Chantel Bezuidenhout Principal Consultant	<ul style="list-style-type: none"> BSc (UPE) BSc Honours (Botany) (UPE) MSc (Botany) (UPE) PhD (Botany) (NMMU) 2010 	7
Mr Lungisa Bosman Senior Consultant	<ul style="list-style-type: none"> Bachelor of Social Science UCT Post Graduate, 1993 Diploma in Organisation and Management UCT, 1997 Certificate in Management RU, 2002 	12
Mrs Kim Brent Consultant	<ul style="list-style-type: none"> BSc (Botany and Geography) (NMMU), 2009 BSc Honours (Botany, Environmental Management) (NMMU), 2010 	4
Ms Lina Buque Senior Consultant	<ul style="list-style-type: none"> BSc. Biology with major on Ecology and Natural Resources Management, (UEM -Mozambique), 2007 MSc. Environmental Science (University of São Paulo, Brazil), 2013 	8
Dr Alan Carter Executive (East London)	<ul style="list-style-type: none"> BSc Plant Science & Zoology RU, 1982 BSc Hons Plant Science RU, 1983 PhD Plant Science RU, 1987 B. Com Financial Accounting RU, 1995 B. Compt Hons Accounting Science UNISA, 1997 	25
Ms Lara Crous Senior Consultant	<ul style="list-style-type: none"> BSc (Geography and Environmental Science) RU,2009 BSc Honours in Environmental Science with distinction, 2010 	3
Mr Peter De Lacy Consultant	<ul style="list-style-type: none"> BSc Zoology and Environmental Science (Rhodes University, 2011) BSc Honours Environmental Science (Rhodes University, 2012) MSc Environmental Science (Rhodes University, 2013 - current) 	1
Ms Caroline Evans Consultant	<ul style="list-style-type: none"> BSc (Environmental Science & Zoology) RU, 2010 BSc Hons (Environmental Science) RU, 2011 MSc Candidate (Environmental Science & Ichthyology) RU 	1.5
Ms Rosalie Evans Consultant	<ul style="list-style-type: none"> BA (Social Dynamics) US, 2011 BA Honours (Geography and Environmental Studies) US 	1
Mr Roy de Kock Senior Consultant	<ul style="list-style-type: none"> BSc (Geology) NMMU, 2008 BSc Honours (Geology) NMMU, 2009 MSc (Botany) NMMU, 2010 	5.5
Mr Justin Green Consultant	<ul style="list-style-type: none"> BSc (Zoology & Entomology) RU, 2010 Post Graduate Diploma in Enterprise Management RU, 2011 	3
Mr Marc Hardy Principal Consultant Country Manager Maputo Office	<ul style="list-style-type: none"> B.Soc.Sci. Development Studies UCT, 2001 B.Soc.Sci. (Hons) Environmental & Geographical Science UCT, 2002 MPhil Environmental Management US, 2009 	12
Dr Greer Hawley Principal Consultant	<ul style="list-style-type: none"> BSc UCT, 1998 BSc (Botany Hons) UCT, 1999 PhD Microbiology RU, 2007 	7.5
Mr Shafick Hoosein Principal Consultant and Branch manager Gauteng office	<ul style="list-style-type: none"> BSc Environmental Science & Zoology (2003) BSc (Hons) Environmental Science (2004) MSc Environmental Science (cum laude) (2008) 	10
Mr Anton Hough Social Scientist	<ul style="list-style-type: none"> BA Sociology University of Stellenbosch BA (Honours) Sociology University of Stellenbosch MA Sociology University of Stellenbosch 	4
Ms Belinda Huddy Environmental Consultant	<ul style="list-style-type: none"> BBuSci Honours in Economics (University of Cape Town, 2012) MPhil Environment, Society and Sustainability (University of Cape Town, 2014) 	0

Name	Academic Qualifications	Years experience
Ms Amy Hunter Environmental Consultant	<ul style="list-style-type: none"> • BSc. Biochemistry and Zoology (University of Johannesburg), 2010 • BSc. Hons. Zoology (UJ), 2012 • Candidate MSc. Aquaculture (Stellenbosch University), 	2
Dr Eric Igbinigie Senior Consultant	<ul style="list-style-type: none"> • BSc (Hons) Biochemistry Nigeria,1999 • MSc (Environmental Biotechnology) RU, 2004 • PhD (Biotechnology) RU, 2008 	7
Ms Amber Jackson Consultant	<ul style="list-style-type: none"> • BSc ('ecology, conservation and environment' and Zoology) WITS, 2007 • BSc (Hons) (ecology, conservation and environment) WITS, 2008 • MPhil Environmental Management UCT, 2011 	3
Mr Jesse Jegels Senior Consultant	<ul style="list-style-type: none"> • BSc (UPE), 2001 • BSc Honours (Zoology) (UPE), 2002 • MSc (Zoology) (UPE), 2004 	8
Mr Thomas King Consultant	<ul style="list-style-type: none"> • BSc Zoology UP 2009 • BSc (Hons) Biodiversity & Conservation, RU 2010 	4
Dr Cherie-Lynn Mack Principal Consultant	<ul style="list-style-type: none"> • BSc Microbiology & Biochemistry RU, 2001 • BSc Hons Biotechnology RU, 2002 • MSc Environmental Biotechnology RU, 2004 • PhD Environmental Biotechnology RU, 2007 	6
Mr Bill Rowston Executive Director	<ul style="list-style-type: none"> • BSc Honours Class 1 Civil Engineering University of Salford England, 1971 	44
Ms Tarryn Martin Senior Consultant	<ul style="list-style-type: none"> • BSc (Botany & Zoology) RU, 2003 • BSc Hons (African Vertebrate Biodiversity) RU, 2004 • MSc (Botany) RU, 2010 	7
Mr Gideon Raath Consultant	<ul style="list-style-type: none"> • BSc Geography and Environmental Management (University of Johannesburg, 2010) • BSc Honours Ecology, Conservation and Environmental Studies (University of the Witwatersrand, 2011) • MSc Geography and Environmental Studies (Stellenbosch University, 2014) 	1
Ms Carina Saranga	<ul style="list-style-type: none"> • BSc. Public Law (St. Tomas University-Maputo), 2014 	2
Mr Craig Sholto-Douglas Consultant	<ul style="list-style-type: none"> • BSc Rhodes University, 2011 • BSc Honours (Environmental Science) RU, 2012 	1.5
Ms Caitlin Smith Consultant	<ul style="list-style-type: none"> • BSc (NMMU), 2009 • BSc Honours (Geology), 2010 	4
Ms Nande Suka Consultant	<ul style="list-style-type: none"> • BSc (NMMU), 2010 • BSc Hons (Botany) NMMU, 2011 	3
Dr Kevin Whittington-Jones Executive	<ul style="list-style-type: none"> • BSc (Microbiology & Zoology) RU, 1993 • BSc Hons (Marine Biology) RU, 1994 • MSc (Zoology) RU, 1997 • PhD Biotechnology RU, 2000 • Post Graduate Diploma in Higher Education RU, 2004 	15
Ms Ayanda Zide Consultant	<ul style="list-style-type: none"> • BSc Hons Botany (RU) 2013 	1