

APPENDICES

APPENDIX D PERSONAL QUALIFICATIONS AND EXPERIENCE

APPENDIX D | Personnel Qualifications and Experience

D. Personnel Qualifications and Experience

Table D-1: EIS Executive Team

Company	Name	Title	Experience
Nitro Solutions	Ngaire Tranter	Chief Executive Officer	Masters of Natural Resource Governance, Bachelor of Environmental Science Ngaire Tranter is an experienced Environmental Director with a passion for delivering resourceful and practical environmental solutions for our clients from all sectors of industry. As a qualified Environmental Scientist, Ngaire has over a decade of technical experience in the mining and resources industry. She is a fourth-generation miner who has worked in an in-house Environment & Approvals Manager role. In summary, Ngaire understands the technical elements of the resource sector and the associated project delivery requirements in this space.
	Megan Sharp	Principal Consultant	Megan’s career in the mining industry kicked off 20 years ago in the environmental regulatory arm of the then Queensland Department of Mines and Energy, working her way up to Principal Environmental Officer. Following her roles in Government, Megan moved to site-based work by setting up her own boutique environmental consultancy business. Over the 12 years of operating the business, the staff base grew to 17 with offices in Brisbane and Mackay, servicing clients throughout Queensland and New South Wales.
Harrington Hawes & Associates Pty Ltd	Phillip Hawes	Director	Phillip has over 30 years’ experience as a Principal Environmental Scientist and Executive Project Manager within many industries, managing both environmental and engineering teams. He has extensive experience in both private and public sectors in Australia and internationally. With Phillips' superior level of expertise in communication, stakeholder

		<p>engagement and team development skills, he is an excellent collaborator to the NITRO Solutions Team.</p> <p>Phillip's extensive and broad experience in geology and environmental science has led to a long-standing reputable career in many diverse areas such as EIA, Project Management, climate change, risk assessment, water quality, cultural heritage and habitat modification. He has successfully led and authored complex and large environmental and social impact assessments within the mining, construction and infrastructure industries.</p> <p>Phillip's success internationally has strengthened his reputation with funding agencies such as World Bank, IFC, UNDP, ADB, and DFAT investing in his leadership and expertise in many environmental and Social Expert developing climate change projects.</p>
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Table D-2: EIS Section Primary Authors

EIS Section	Company	Primary Author(s)	Title
Executive Summary	Nitro Solutions	Ngairé Tranter Megan Sharp	Chief Executive Officer Principal Consultant
1. Introduction	Nitro Solutions	Ngairé Tranter Megan Sharp	Chief Executive Officer Principal Consultant
2 Description of the project	Nitro Solutions	Megan Sharp	Principal Consultant
3 Existing Environment			
3.1 Physical environment	Harrington Hawes & Associates Pty Ltd	Phillip Hawes	Director
3.2 Biological environment	Gaia Environmental Consulting	Melody Stoneham	Principal Ecologist
3.3 Cultural and historic environment	Nitro Solutions	Megan Sharp	Principal Consultant
3.4 Socio-economic environment	Nitro Solutions	Megan Sharp	Principal Consultant
4 Impact assessment			

EIS Section	Company	Primary Author(s)	Title
4.1 Terrestrial flora and vegetation	Gaia Environmental Consulting	Melody Stoneham	Principal Ecologist
4.2 Terrestrial environmental quality	Harrington Hawes & Associates Pty Ltd	Phillip Hawes	Director
4.3 Terrestrial fauna	Gaia Environmental Consulting	Melody Stoneham	Principal Ecologist
4.4 Hydrological processes	Harrington Hawes & Associates Pty Ltd	Phillip Hawes	Director
4.5 Inland waters environmental quality	Harrington Hawes & Associates Pty Ltd	Phillip Hawes	Director
4.6 Air quality and greenhouse gases	Gaia Environmental Consulting	Melody Stoneham	Principal Ecologist
	Nitro Solutions	Megan Sharp	Principal Consultant
4.7 Social, economic and cultural surrounds	Nitro Solutions	Megan Sharp	Principal Consultant
4.8 Human health	Nitro Solutions	Xuanyu Yang	Technical Advisor - Environment & Geology
		Megan Sharp	Principal Consultant
4.10 Cumulative Impacts	Nitro Solutions	Ngairé Tranter	Chief Executive Officer
5 Environmental management			
Environmental Management Plan	Nitro Solutions	Ngairé Tranter	Chief Executive Officer
draft Mine Rehabilitation and Closure Plan	Nitro Solutions	Xuanyu Yang	Technical Advisor - Environment & Geology
draft Biodiversity Management Plan	Gaia Environmental Consulting	Melody Stoneham	Principal Ecologist
draft Erosion and Sediment Control Plan	WRM Water & Environment	Rhys Cullen	Principal Engineer
draft Water Management Plan	WRM Water & Environment	Rhys Cullen	Principal Engineer
Draft Groundwater Management Plan	Environmental Geochemistry International Pty Ltd	Dr Warwick Stewart	Managing Director
draft Social Impact Management Plan	True North Strategic Communications	Jo Madin	Senior Consultant
		Claire Butler	Senior Consultant

EIS Section	Company	Primary Author(s)	Title
draft Waste Management Plan	Nitro Solutions	Xuanyu Yang	Technical Advisor - Environment & Geology
draft Fire Management Plan	SLR	Loren Yallop	Senior Consultant – Environmental Permitting & Compliance

Table D-3: Core EIS Team Experience and Qualifications

Company	Primary Author(s)	Title	Experience
Nitro Solutions	Ngaire Tranter	Chief Executive Officer	Ngaire Tranter is an experienced Environmental Director with a passion for delivering resourceful and practical environmental solutions for our clients from all sectors of industry. As a qualified Environmental Scientist (Bachelor of Environmental Science), Ngaire has over a decade of technical experience in the mining and resources industry. She is a fourth-generation miner who has worked in an in-house Environment & Approvals Manager role. In summary, Ngaire understands the technical elements of the resource sector and the associated project delivery requirements in this space.
	Megan Sharp	Principal Consultant	Megan’s career in the mining industry kicked off 20 years ago in the environmental regulatory arm of the then Queensland Department of Mines and Energy, working her way up to Principal Environmental Officer. Following her roles in Government, Megan moved to site-based work by setting up her own boutique environmental consultancy business. Over the 12 years of operating the business, the staff base grew to 17 with offices in Brisbane and Mackay, servicing clients throughout Queensland and New South Wales.
	Xuanyu Yang	Technical Advisor - Environment & Geology	Xuanyu is a qualified and experienced exploration geologist with 14 years’ experience in the mineral and coal industry and holds a master’s degree in environmental management. She has been an integral part of both the management and operation of many projects in both Australia and abroad. Xuanyu has extensive experience throughout all stages of the mining lifecycle; including exploration target generation, project management, tenement management, feasibility studies and mine development. Throughout her

Company	Primary Author(s)	Title	Experience
			<p>career, she has developed strong technical knowledge, project management and communication skills in a multi-cultural context.</p> <p>Fluent in English, Mandarin and Cantonese, Xuanyu serves as a key translator & communicator for various projects across the mining industry, for both major international Mining Houses and Junior Explorers.</p>
	Salome Nyangari	Environmental Advisor	<p>Master of Environmental Management in Mining, BSc Honours Environmental Science, PGDiploma Project Management.</p> <p>Salome has significant experience in the resource sector. Salome has proven experience in addressing environmental legislative requirements within the mining sector and has demonstrated ability in managing and liaising with internal and external stakeholders to ensure compliance and drive effective environmental management on a site level.</p> <p>With a Master's in environmental management in mining; Salome is a very capable individual with practical experience in the resource sector. Salome is an independent and reliable advisor able to work on diverse tasks both in the office and field settings</p>
	Tony Lunnon	Graphic Designer	<p>Diploma of Graphic Design (Billy Blue College of Design, Torrens University) 3 years' experience in creative industry in both volunteer and freelance capacities.</p> <p>Tony's role is to maintain consistency in the styling of documents and develop formatting standards.</p>
	Alex Fairbrother		<p>With a background centered on client services and all things logistics and administration Alex ensures that Nitro HQ not only runs efficiently but that we also deliver excellence in customer service.</p> <p>Alex brings her extensive knowledge of computer software and high level of organisational skills to our team. As well as her passion for all things HR and Administration.</p> <p>Her role is all about providing support to our clients, keeping our team on track and maintaining a strong focus upon efficient project delivery.</p>

Company	Primary Author(s)	Title	Experience
Harrington Hawes & Associates Pty Ltd	Phillip Hawes	Director	<p>Phillip has over 30 years' experience as a Principal Environmental Scientist and Executive Project Manager within many industries, managing both environmental and engineering teams. He has extensive experience in both private and public sectors in Australia and internationally. With Phillips' superior level of expertise in communication, stakeholder engagement and team development skills, he is an excellent collaborator to the NITRO Solutions Team.</p> <p>Phillip's extensive and broad experience in geology and environmental science has led to a long-standing reputable career in many diverse areas such as EIA, Project Management, climate change, risk assessment, water quality, cultural heritage and habitat modification. He has successfully led and authored complex and large environmental and social impact assessments within the mining, construction and infrastructure industries.</p> <p>Phillip's success internationally has strengthened his reputation with funding agencies such as World Bank, IFC, UNDP, ADB, and DFAT investing in his leadership and expertise in many environmental and Social Expert developing climate change projects.</p>
Gaia Environmental Consulting	Melody Stoneham	Principal Ecologist	<p>Melody Stoneham is the Principal Consultant at Gaia Environmental Consulting. She has over 16 years' experience as an environmental professional within both government and private industry. Melody has attained Certification as an Environmental Practitioner (CEnvP) with the Environmental Institute of Australia & New Zealand (EIANZ), which recognises practitioners that meet high standards of professional and ethical conduct. Melody participates in the assessment and management of terrestrial and aquatic ecosystems. With a persistent drive to achieve benefits for her clients, the community and the environment; Melody's project management philosophy is a collaborative approach which draws upon a combination of her ecological foundations and excellence from across disciplines. Melody's high level of experience often means that she participates in projects as a technical</p>

Company	Primary Author(s)	Title	Experience
			<p>lead and project manager, but she frequently enjoys being part of an ecological team to participate in field survey work.</p> <p>Melody has participated in the management and delivery of many projects in Queensland, New South Wales and Victoria with government and private clients. Her project experience includes environmental impact statements for linear infrastructure (particularly road and rail), water infrastructure and the resources sector; ecological assessments for residential development, ecotourism facilities and coastal development; conservation and management plans for the establishment of conservation areas; and rehabilitation programs.</p>

Table D-4 Detailed Technical Studies

Detailed Technical Study	Company	Primary Author(s)	Title(s)	Experience
C-1 Acid Mine Drainage (AMD)	EGI	Dr Warwick Stewart	Managing Director	BSc Hons, Grad Dip Env.Mgt. PhD, Dr Warwick Stewart has 27 years' experience in the mining industry spanning consulting, mine site environmental management and geology in Australia and Indonesia. His expertise is in acid rock drainage management, including measurement; prediction; cover design; strategies for selective placement; and performance monitoring. His background includes 3 years' experience in environmental management at KPC Mine, Indonesia, implementing the design and construction of covers for controlling sulphide oxidation and acid drainage.
C-2 Traffic and Transport	Pekol Traffic and Transport	Adam Pekol	Director	BE MEngSc GradDipMgt MIEAust FITE RPEQ. Adam is a Director of PTT and the CTEE. He is also an Associate Professor at the University of Queensland, School of Civil Engineering. Adam has over 30 years' experience in transport planning and traffic engineering, having worked

				throughout Australia and overseas in both the public and private sectors. During his career, Adam has developed expertise in data fusion, freight transport and demand forecasting.
		Matt Young	Traffic Engineer	<p>Matt Young is an Engineer with PTT and has previously worked at Hayes Traffic Engineering and RoadPro Development. He holds a degree in Civil Engineering from Queensland University of Technology. His previous experience includes regional transport strategies, traffic impact assessments, pavement impact assessments, car parking design and data analysis.</p> <p>He has been involved in a number of traffic impact assessments for rural and industrial uses. Matt has excellent understanding of the technical aspects of the project such as traffic engineering design advice and reporting.</p>
C-3 Air, GHG and Noise	ANE (Air Noise Environment)	Claire Richardson	Managing Director and Principal Consultant	<p>BSc Hons, Post Graduate Diploma in Air Pollution Control Post Graduate Diploma in Acoustics and Noise Control Certificate of Competence in Workplace Noise Assessment. Claire is an Environmental Scientist with key expertise in the fields of air quality and acoustics. Claire has been involved in technical assessments, auditing, environmental monitoring, environmental modelling and policy studies throughout her career both in Australia and overseas.</p> <p>A noted expert in the field of air quality, Claire is regularly called upon to provide Expert Advice, and Expert Evidence concerning Planning and Environment Court related matters, and has completed a number of research projects on behalf of industry and government.</p>
		Samuel Wong	Senior Environmental Engineer	<p>Bachelor of Engineering (Chemical) Samuel Wong is an Environmental Engineer with over 11 years' experience in air quality, acoustic and vibration</p>

				<p>assessments. Sam has specific expertise in air and noise monitoring and modelling for major commercial, industrial and infrastructure developments (such as the Western Distributor, West Connex and Perth Freight Link Tunnel). He also has extensive experience in construction monitoring, acting as the project manager for environmental monitoring projects (air, noise and vibration) at various Scentre Group construction sites (Westfield Carindale, Westfield Garden City, Westfield Chermside and Pacific Fair). Sam has received accredited training in air quality modelling, including CALPUFF and AERMOD, and has significant experience in the application of state-of-the-art dispersion modelling techniques for a range of transport, industrial and commercial applications.</p>
C-4 Soils	VPS Land Assessment and Planning	Graeme Owen	Principal Consultant	<p>Graeme has over 15 years' experience in natural resource management and was a Soil Landscape Scientist with the Northern Territory Department of Land Resource Management. He has extensive experience in land suitability assessment to identify constrained and unconstrained land, soil survey and mapping and geographic information systems (GIS). Having been involved in assessing and reviewing development and clearing applications from 2 lot subdivisions to whole suburbs whilst working for the NT Government, Graeme has sound knowledge and understanding of development assessment process</p>

C-5 Surface Water	WRM Water	Rhys Cullen	Associate / Senior Engineer	BE (Env) (Hons) MIEAust Rhys has 11 years' experience in water and wastewater engineering. Rhys has developed hydrological and hydraulic models for large-scale catchment studies, urban developments and mining projects. He has delivered surface-water studies for numerous open-cut and underground mining projects, comprising detailed conceptual and operational water balance modelling, sediment and erosion control, and design of diversion and flood protection/mitigation structures.
C-6 Groundwater	CloudGMS Pty Ltd	Anthony Knapton	Principal Groundwater Modeller / Hydrogeologist	Honours Geophysics (Minerals & Groundwater), Curtin University, 1994 BSc Geophysics, Curtin University, 1993 Anthony has 23+ years' experience as a hydrogeologist, groundwater modeller and geophysicist working on water resources projects across Australia and internationally, with specialist expertise on surface and groundwater interactions and water resources planning and allocation management. He has developed two of the few fully integrated surface water and groundwater models at the catchment scale as part of the Northern Australia Sustainable Yield study with CSIRO (for the Daly River using Feflow-Mike11) and the NWC funded Gulf Water Study, and he has also been involved with trialing applications of eWater Source packages for catchment scale water assessment. He has also been asked to be a co-author of the surface water and groundwater interaction chapter for the 2012 Australian groundwater modelling guidelines.
C-7 Flora and fauna	Low Ecological Services P/L	Dr Bill Low	Director Environmental Consultant	PhD, Zoology, Wildlife Biology and Ecology, Bachelor of Science (Honours) Zoology, Botany.

	Low Ecological Services P/L			Director and Senior Environmental Consultant at Low Ecological Services P/L. Bill worked 11 years as a Research Officer with CSIRO in Alice Springs and has over 39 years of consulting experience in Central Australia. He has written numerous scientific publications, technical reports, book chapters and conference papers
		Lauren Young	Senior Environmental Consultant	PhD candidate, Bachelor of Science (Honours), Bachelor of Conservation Biology and Ecology Experienced in flora and fauna surveys and research, report preparation, preparation of EMPs, NOIs and Biodiversity Impact Assessment Reports, audit of environmental impacts against Management Plans for pipelines and petroleum exploration, GIS data interrogation and map preparation, and small mammal ecology and distribution. Currently, 80 % finished PhD at the University of Sydney on refuge ecology of the threatened plains mouse, <i>Pseudomys australis</i> .
		Jeremy Snowdon-James	Senior Environmental Consultant	Bachelor of Civil and Environmental Engineering Experienced in site contamination assessments, environmental risk identification and management, water and soil sampling and analysis, fauna and flora surveys and data analysis, flora and fauna identification, Erosion Sediment and Control Planning (ESCP), report preparation, drinking and waste water sample collection, GIS and map preparation.
		Katie Degnian	Environmental Consultant	Master of Environmental Management, Bachelor of Environmental Science. Experienced in flora and fauna surveys and data analysis, flora and fauna identification, report preparation and approvals applications, Land Suitability Assessment, reporting and GIS mapping.

C-8 Archaeological	Earthsea	Richard Woolfe	Project Archaeologist	Richard holds a Bachelor of Archaeology from the University of New England, a Grad Dip in GIS and Geomatics from Charles Darwin University and a Masters in Heritage Management and GIS from the University of New England. Richard has 16 years' experience in cultural heritage management in the Northern Territory and Queensland. Richard also has extensive experience in community consultation with Aboriginal groups and the wider community. Richard conducted the last public review of the NT Heritage Conservation Act 1991 in 2003-2004 and co-drafted the original instructions for the NT Heritage Act 2011.
	Earthsea	Ben Keys	Project Archaeologist	Ben holds a Bachelor of Archaeology with Honours from Flinders University, South Australia. He has extensive experience in cultural heritage management and community consultation, coupled with the management of largescale developments such a mining projects in the Northern Territory. Ben also has a professional background in land access management and aspects of environmental management, including mining compliance. He has been an author of several published academic archaeological journal articles and has been invited to speak at several mining industry conferences in the Northern Territory.

C-9 Social and Community Engagement	True North Strategic Communications	Jo Madin	Senior Consultant	Jo Madin has a Bachelor of Applied Science (Town Planning) from the Royal Melbourne Institute of Technology and Certificate of Public Participation with the International Association for Public Participation (IAP2). Jo has experience in planning, policy development and communication in both the private and public sectors. She has worked in Indigenous affairs, native title, mining, forestry, national parks and more recently in water, transport and infrastructure.
	True North Strategic Communications	Claire Butler	Senior Consultant	Claire has a Bachelor of International Business, Graduate Diploma of Management and Certificate of Public Participation with the International Association for Public Participation (IAP2). Claire specialises in communication and community engagement and has worked on a number of resources, construction and community projects across the Northern Territory in the past 15 years.
C-10 Economic	Cumming Economic	W S Cummings	Principal	Bill Cummings is a highly experienced regional business economist. He was born and educated in Cairns and took an Economics Degree from the University of Queensland, Brisbane, in 1961, with majors in economics, accounting and maths/statistics/statistical mathematics. This was followed by seven years' experience in economic research in Canberra as a research officer with the Department of Trade and as the research officer of the Australian Chamber of Commerce. He returned north in 1968 and spent five years as Manager of the Ingham District Research & Promotion Bureau followed by eight years as Manager of the Far North Queensland Development Bureau and its Sub Board for Tourism & Travel now Tourism Tropical North Queensland. He set up his own economic and market research business in 1981. Apart from carrying out wide ranging economic and market research

				covering almost all aspects of the economy (especially in Australia's tropical north east), he has served on numerous boards and committees over the years, including as Deputy Chairman of the North Australia Development Council and on the Council of James Cook University of North Queensland.
C-11 Risk Management	Nitro Solutions	Ngaire Tranter	Chief Executive Officer	Ngaire Tranter is an experienced Environmental Director with a passion for delivering resourceful and practical environmental solutions for our clients from all sectors of industry. As a qualified Environmental Scientist (Bachelor of Environmental Science), Ngaire has over a decade of technical experience in the mining and resources industry. She is a fourth-generation miner who has worked in an in-house Environment & Approvals Manager role. In summary, Ngaire understands the technical elements of the resource sector and the associated project delivery requirements in this space.
	Nitro Solutions	Xuanyu Yang	Technical Advisor - Environment & Geology	Xuanyu is a qualified and experienced exploration geologist with 14 years' experience in the mineral and coal industry and holds a master's degree in environmental management. She has been an integral part of both the management and operation of many projects in both Australia and abroad. Xuanyu has extensive experience throughout all stages of the mining lifecycle; including exploration target generation, project management, tenement management, feasibility studies and mine development. Throughout her career, she has developed strong technical knowledge, project management and communication skills in a multi-cultural context. Fluent in English, Mandarin and Cantonese, Xuanyu serves as a key translator & communicator for various projects across the mining industry, for both major international Mining Houses and Junior Explorers.

	Nitro Solutions	Megan Sharp	Principle Consultant	<p>Megan’s career in the mining industry kicked off 20 years ago in the environmental regulatory arm of the then Queensland Department of Mines and Energy, working her way up to Principal Environmental Officer.</p> <p>Following her roles in Government, Megan moved to site-based work by setting up her own boutique environmental consultancy business. Over the 12 years of operating the business, the staff base grew to 17 with offices in Brisbane and Mackay, servicing clients throughout Queensland and New South Wales.</p>
	EcoUrban	Dan Raymond	Director	<p>Bachelor of Civil Engineering</p> <p>Dan has over thirty-five years’ experience in civil, environmental engineering, environmental science, project management, team leadership, public consultation, negotiation, risk assessment and strategic planning in Australia and Internationally. Dan is an acknowledged expert in the field of sustainability and environmental impact assessment.</p>
	Harrington Hawes and Associates	Phillip Hawes	Director	<p>Phillip has over 30 years’ experience as a Principle Environmental Scientist and Executive Project Manager within many industries, managing both environmental and engineering teams. He has extensive experience in both private and public sectors in Australia and internationally. With Phillips' superior level of expertise in communication, stakeholder engagement and team development skills, he is an excellent collaborator to the NITRO Solutions Team.</p> <p>Phillip's extensive and broad experience in geology and environmental science has led to a long-standing, reputable career in many diverse areas such as EIA, Project Management, climate change, risk assessment, water quality, cultural heritage and habitat modification. He has</p>

				<p>successfully led and authored complex and large environmental and social impact assessments within the mining, construction and infrastructure industries.</p> <p>Phillip's success internationally has strengthened his reputation with funding agencies such as World Bank, IFC, UNDP, ADB, and DFAT investing in his leadership and expertise in many environmental and Social Expert developing climate change projects.</p>
	EGI check	Dr Warwick Stewart	Managing Director	<p>BSc Hons, Grad Dip Env.Mgt. PhD, Dr Warwick Stewart has 27 years' experience in the mining industry spanning consulting, mine site environmental management and geology in Australia and Indonesia. His expertise is in acid rock drainage management, including measurement; prediction; cover design; strategies for selective placement; and performance monitoring. His background includes 3 years' experience in environmental management at KPC Mine, Indonesia, implementing the design and construction of covers for controlling sulphide oxidation and acid drainage.</p>
	WRM Water	Rhys Cullen	Associate / Senior Engineer	<p>BE (Env) (Hons) MIEAust</p> <p>Rhys has 11 years' experience in water and wastewater engineering. Rhys has developed hydrological and hydraulic models for large-scale catchment studies, urban developments and mining projects. He has delivered surface-water studies for numerous open-cut and underground mining projects, comprising detailed conceptual and operational water balance modelling, sediment and erosion control, and design of diversion and flood protection/mitigation structures.</p>
C-12 Tailings Storage Facility Design Report	EGI check	Dr Warwick Stewart	Managing Director	<p>BSc Hons, Grad Dip Env.Mgt. PhD, Dr Warwick Stewart has 27 years' experience in the mining industry spanning consulting, mine site environmental management and geology in</p>

				Australia and Indonesia. His expertise is in acid rock drainage management, including measurement; prediction; cover design; strategies for selective placement; and performance monitoring. His background includes 3 years' experience in environmental management at KPC Mine, Indonesia, implementing the design and construction of covers for controlling sulphide oxidation and acid drainage.
C-13 Relevant Legislation				
Draft Fire Management Plan	SLR	Loren Yallop	Senior Consultant – Environmental Permitting & Compliance	Bachelor of Environmental Science and Management, Living Systems. Loren has over five years experience as an Environmental Scientist in the Environmental Management, Planning and Approvals sector. Loren has a wide range of consulting skills working on a wide range environmental management projects including Annual Environmental Management Reports, Mining Operations Plans, Management Plans, Subsidence Management Plans and Pollution Incident Response Management Plans. She also has significant experience in mine closure costing estimates (both close now and close end of mine life scenarios) and detailed risk assessments.