

Robert E Cameron, Ph.D.
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Dr. Cameron has over 40 years of experience in geostatistical analysis of ore reserves, computerized mine planning, mine design, computerized studies for mine production optimization, ultimate pit limit optimization, mine efficiency studies, equipment selection and utilization and operations research. He has completed geostatistical estimations or resource and reserve reviews or audits on over 350 mining properties worldwide during his career. He meets the requirements for “Competent Person,” as defined in the Australasian JORC Code and the requirements for “Qualified Person,” as defined in Canadian National Instrument (NI) 43-101 for the purpose of Mineral Resource and Ore Reserve estimation and reporting. Currently, Dr. Cameron is a Registered Member of the Society of Mining, a Qualified Person of the Mining and Metallurgical Society of America in mining and ore reserves and an Associate Certified Minerals Appraiser with the International Institute of Mineral Appraisers.

Dr. Cameron served as both an Assistant and Associate Professor of Mining Engineering at the Colorado School of mines. He has lectured and instructed courses in geostatistics, mine planning, mine systems analysis, mine valuation and engineering economics at both the Colorado School of Mines and South Dakota School of Mines and Technology. He routinely reviews and audits geostatistical calculations, ore reserves statements, minerals resources statements, computerized minerals models, mine designs and their forward-looking cash flow projections and mineral valuation techniques. He has presented seminars and instruction on mineral deposit valuation to multiple mineral companies, stock exchanges, and other entities. Dr. Cameron has been involved in several (independent) technical reports for the Stock Exchange of Hong Kong (SEHK), the United States markets under the Securities and Exchange Commission (SEC), Singapore Exchange (SGX), Alternate Investment Market (AIM) of the London Stock Exchange, Toronto Stock Exchange (TSX) and Vancouver Stock Exchange (VSE) in recent years.

Dr. Cameron served as the Vice President, Technical Services for Frontier Mining Ltd. and was responsible for overseeing all technical, engineering and review for project development for Frontier Mining in Kazakhstan. His responsibilities also included ex-pat oversight of the day-to-day operations of the Naimanjal Mine, a heap leach gold project in Kazakhstan as well as initial geostatistical resource and reserve assessment of potential mine acquisitions for Frontier Mining in China, Indonesia and Central Asia. Dr. Cameron also had responsibility for supervising, reviewing and quality assurance of all ore reserve work performed by Behre Dolbear as their Director and Vice President of Geostatistics and Mine Planning. He has extensive experience in geostatistics, computerized mine planning and ore reserve estimation using classical and geostatistical ore reserve modeling, selection of mining related computer software, ore reserve audits, computer applications, mineral commodity studies, computer modeling of commodities, and remediation of abandoned mine sites. Additionally, he has a vast knowledge of the full range of mine planning and resource/reserve computer software.

Dr. Cameron holds B.S., M.S., and Ph.D. degrees in Mining Engineering from the University of Utah and wrote his M.S. thesis on the geostatistical analysis of coal quality and his Ph.D. thesis on the development of the oil shale industry in Utah.

CORPORATE EXPERIENCE

2007 – Present	Robert Cameron Consulting, President and CEO
2008 – Present	Behre Dolbear & Company (USA), Inc., Consultant to and Senior Associate
2007 – 2008	Frontier Mining Ltd., Vice President, Technical Services

1999 – 2007	Robert Cameron Consulting, President and CEO
1992 – 1999	Behre Dolbear & Company, Inc., Vice President and Director of Geostatistics and Mine Planning
1989 – 1992	Colorado School of Mines, Department of Mining Engineering, Associate Professor
1990 – 1991	U.S. Bureau of Mines, Pittsburgh Research Center – Mining engineer (Faculty member)
1985 – 1989	Colorado School of Mines, Department of Mining Engineering – Assistant Professor
1984 – 1985	Terra Tek, Inc., Research Engineer
1980 – 1984	Robert Cameron Consulting, Computer Consultant
1979 – 1984	The University of Utah, Computer Specialist
1978 – 1984	The University of Utah, Teaching and Research Assistant, Mining Engineering

SPECIFIC PROJECT EXPERIENCE

Client	Project/Mine	Description of Work
Carbones de Colombia, S.A.	Review of Carbocol Operations, Columbia Review of Exxon's Resource Ranking Study	Resource and Reserve Review and Mine Plan Optimization
Societe Generale/Buchalter, Nemer, Fields & Younger	P.W. Gillibran Aggregate and Sand, Ventura CA	Resource, Reserve, Mine Design and Cash Flow Projections
Ryan Lode Mines, Inc.	Ryan Lode Project, Alaska	Resource and Reserve Review
Jeppson and Lee	Beartrack Project Litigation	Resource, Reserve, Mine Design Review and Cash Flow Projections
Independence Mining	Jerritt Canyon Mines	Resource and Reserve Review
Celebration Mining	Vipont Silver Project	Resource and Reserve Review
Viceroy Mining	Castle Mountain Mine – Haulage Study	Mine Design and Haulage Optimization
IL Minerals	Doby George Project	Resource and Reserve Review
Gem River Mining	Dry Cottonwood Creek Sapphire Project	Resource, Reserve, Mine Design review for IPO
Tennessee Mining	Conrich Buffalo Mountain Peewee Jellico/Fork Mountain	Resource, Reserve and Royalty Payment Review
Texaco	McKittrick Oil Bearing Diatomite Deposit	Mine Design, optimization and Resource Review
European Bank for Reconstruction and Development	Baia Mare Gold Tailings Project, Romania	Resource and Reserve Review
ING Capital/Nevada GoldFields	Nixon Fork, McGraff, Alaska	Resource and Reserve Review
Rice, Volland and Gleason	Valuation of State Lands – Mental Health Trust, Alaska	Expert Witness on Royalty and Minerals Value
Osiris Gold	Red Mountain, Silverton, Colorado	Resource, Reserve, Mine Design and Cash Flow Projections
Kennecott Minerals	Red Beryl Project, Utah	Resource Estimate
Barclays Bank	Leonor Copper Project, Chile	Feasibility Study Review

Client	Project/Mine	Description of Work
International Precious Metals Corp.	Black Rock Project, Arizona	Technical Assessment of Projected Processing and Resource
U.S. Steel Minnesota Ore Operations	U.S. Steel, Minnesota	Resource Review
Komis Gold	Komis Gold Project	Resource Estimate
Glencore International AG	Dalpolimetall Due Diligence Dalpolimetall Feasibility Study Endako Cerro De Pasco	Due Diligence, Feasibility Studies, Resource and Reserve Estimates, Mine Design Review and Cash Flow Analysis Support
North American Palladium Ltd.	Lac des Iles Mines PGM Operation, geostatistical calculation of platinum group metals reserves	Resource and Reserve Estimates
Cornucopia Resources Ltd.	Mineral Ridge Gold	Resource and Reserve Review
Banque Paribas	Construction Monitoring	Resource and Reserve Review
Electra Gold Inc.	Pine Cove Project	Resource and Reserve Review
Philex Gold Inc.	Reserve review of all gold operations, Philippines	Resource and Reserve Review
Philippines Gold	Masbate Project, Philippines	Resource and Reserve estimate
Cordilleras Silver Mines	El Ocote Silver Deposit, Honduras	Resource and Reserve Review
Namibian Copper Joint Venture (PTY) Ltd.	Haib Porphyry Copper Project, Namibia	Resource and Reserve Review
Dresdner Kleinwert Benson	Aginskoye Gold Project	Resource and Reserve Review
Philex Gold Inc.	Reserve review of all gold operations, Philippines	Resource and Reserve Review
Philippines Gold	Masbate Project, Philippines	Resource and Reserve estimate
Cordilleras Silver Mines	El Ocote Silver Deposit, Honduras	Resource and Reserve Review
Namibian Copper Joint Venture (PTY) Ltd.	Haib Porphyry Copper Project, Namibia	Resource and Reserve Review
Dresdner Kleinwert Benson	Aginskoye Gold Project	Resource and Reserve Review
Philex Gold Inc.	Reserve Review of all Gold Operations, Philippines	Resource and Reserve Review
Philippines Gold	Masbate Project, Philippines	Resource and Reserve Estimate
Cordilleras Silver Mines	El Ocote Silver Deposit, Honduras	Resource and Reserve Review
Clifton Mining Company	Review of Gold Hill, Reserves and Business Plan	Resource and Reserve Estimates and 43-101 Filing Support
Greater Lenora Resources Corporation	Greater Lenora Box Mine Athona Mine	Resource and Reserve Estimates and Review

Client	Project/Mine	Description of Work
Atlas Corporation	Commonwealth Mine Prefeasibility Doby George Gold Bar	Resource and Reserve Estimates and Review
American Consolidated Mining	ACU Kiewit Zone Evaluation	Resource and Reserve Review
The Toronto Dominion Bank	Fort Knox	Resource and Reserve Review and Completion Test Technical Support
Servicios Industriales Penoles	La Herradura Project, Mexico	Resource and Reserve Review
CalResources LLC	South Belridge Diatomite Deposit	Resource and Reserve Review
TVX Bohemia Dulni A.S.	Kasperske Hory Gold Project	Resource and Reserve Review
Quest International Management Services	Atlanta Mine Feasibility Study	Resource and Reserve Review
Cornucopia Resources Ltd.	Mineral Ridge II - Dresner	Resource and Reserve Review
U.S. Steel Minnesota Ore Operation	Minntac's East Pit – Haulage Study, MN	Haulage Study
Alumax, Inc.	Venezuela Alumina	Resource and Reserve
Pacific Nickel LTD	NONOC Nickel Technical Due Diligence	Resource and Reserve
South American Gold & Copper	El Pimenton, Chile	Resource and Reserve
Royal Gold Inc	Long Valley Project Review	Resource and Reserve
Wheaton River Minerals Ltd.	Golden Bear Mine – Due Diligence	Resource and Reserve
TVX Gold	Olympias Mine, Greece 1997 Review 1998 Review Skouries Mine, Greece 1997 Review 1998 Review	Resource and Reserve Review to Support Stock Exchange Filings
RFC Services Inc.	RFC-Soledad Mtn	
Lavery Debilly, Barristers & Solicitors	Confidential	Expert Witness Testimony
TVX Bohemia Dulni A.S.	Kasperske Hory Gold Project	Resource and Reserve Review
Quest International Management Services	Atlanta Mine Feasibility Study	Resource and Reserve Review
Cornucopia Resources Ltd.	Mineral Ridge II - Dresner	Resource and Reserve Review
U.S. Steel Minnesota Ore Operation	Minntac's East Pit – Haulage Study, MN	Haulage Study
Alumax, Inc.	Venezuela Alumina	Resource and Reserve
Pacific Nickel LTD	NONOC Nickel Technical Due Diligence	Resource and Reserve
South American Gold & Copper	El Pimenton, Chile	Resource and Reserve
Royal Gold Inc	Long Valley Project Review	Resource and Reserve

Client	Project/Mine	Description of Work
Stillwater Mining Company	Stillwater Mine, platinum-palladium reserves 1995 Review 1997 Review 1998 Review 2016 Review	Resource and Reserve Review, Mine Design Review
Francisco Gold Corporation	El Sauzal Conceptual Overview	Project Concept Review
Parker, Poe, Adams, & Bernstein LLP	Valuation Review – MICA Property	Valuation Review
Crowley, Haughey, Hanson, Toole & Dietrich	Crown Butte Mines, Inc.	Resource and Reserve Review, Mine Design Review and Valuation
Newmont Gold Company	Review of Reserves and Valuation of Several Properties	Resource and Reserve Review for SEC Filing Support
Morgan Stanley and Company	Mining Lectures	
AMT (USA) Inc		
COEUR	Kensington Project – Alaska	Resource Evaluation and Mine Design Review
Mayer, Brown & Platt	Pegasus Gold Ore Reserve Group	Resource Evaluation and Support for Litigation
Vaminco Dominica	Las Salinas Mine – Mine Planning	Mine Design
Cyprus Amax	Mount Emmons	Resource Evaluation and Mine Design
Sunshine Mining	Pirquitas	Resource and Mine Design Review
US Cobalt	Jefferson Mine	Resource Evaluation
Frontier Mining	Naimanjal, Baltemir, Yubiliny, etc., Kazakhstan	Resource and Reserve Estimates, Mine Design Review and Cash Flow Analysis. Managed and Provided Oversight of Kazakhstan Operations. Technical Evaluations of Potential Property Acquisitions in Asia
SA Capital	Dongsheng Selian No.2 Coal Mine Miaozhihe Gold Mine	Potential Property Acquisitions in China
St. Genevieve Resources	Emerald Isle	Resource and Reserve Review
US Energy	Mount Emmons, Colorado	Resource and Reserve Review and Support
Kobex	Luck Jack Molybdenum, Colorado	Resource Evaluation and 43-101 Filing Support
Northern Dynasty	Pebble Copper Project, Alaska	Resource and Reserve Review
Southwestern Resources	Sierra Mojada	Resource and Reserve Review

Client	Project/Mine	Description of Work
Duluth Metals	Nokomis Deposit, Other Properties, Minnesota	Resource and Reserve Review, Mine Design, Cash Flow Projections and Technical Review for Property Acquisitions
GLNA	Plum Mine, NV	Property Review
Hidili Industry	Xiangxing, Yangchang, Dahe, Guojiantian, Yunijinhe, Qingping, Yanhe, Xingjian, Jinglang, Zude, etc., China	Resource and Reserve Review on 10 Coal Mines and Reserve and Resource Update on 29 Other Coal Mines
South East Asia Group	Mingxin Mine, China	ITR for Mingxin Coal Mine Acquisition
Sheen Billion	Kuoerzhenkuola and Buerkesidai Mines, China	Resource Review
Comstock Mining	Comstock Mine Project, Nevada	43-101 Support and S-K 1300 Support
Citi	Vinacomin, Vietnam	Resource and Reserve Review for Funding on 63 Coal Mines
Grupo Mexico	All of Asarco's Properties	Reserve Update
Xiang Guang Mining	Copper Project, Chile	Resource Review for Possible Purchase
China Vanadium Titano-Magnetite Mining	Xiushuihe and Baicao Mines, China	Resource and Reserve Updates
PT Prima Energytama	Bumi Enggang Khatulistiwa Coal Mine, Indonesia	Resource and Reserve Review for HKSE
<u>URI</u>	Uranium, New Mexico	Review of Resources for SEC Compliance
Bending Lake	Bending Lake Iron Property, Canada	Review of Third Party Resource and Reserve Reports for NI 43-101 Compliance
Desert Hawk Gold	Clifton Gold Property, Gold Hill, Ut	SEC report for Clifton Gold property
Benxi Iron	Benxi Iron Project, China	Review Drill Hole Spacing for JORC-compliance
Petaquilla, S.A.	Molejon, Botija Abajo Gold Projects, Panama Lomero-Poyatos, Au,Cu,Pb,Zn Project, Spain	Calculate Resources/Reserves, Mine Planning and Review of Third Party Reports for NI 43-101-compliance
Goldspring	Comstock Properties – Dayton, Lucerne, Nevada	Review of Resources and Reserves
Sunshine Mining	Sunshine Mine, USA Los Gatos, Mexico	Review and Calculation of Resources and Reserves
Gold Dragon Resources	Fenn-Gib Gold Property, Canada	Review of Third Party Resource and Reserve Estimates
China Gold	Jiama Gold Property, Tibet	Review of Resource and Reserve Compliance for HKSE and JORC
China Tiambao	Dachang, Tiema, Tiambao Properties, China	Review of Resource and Reserve Compliance for HKSE

Client	Project/Mine	Description of Work
		and JORC
China Natural Resources	Baiping, Yongsheng, Dayun, Dayuan, Xinsong, Gouchang, Linjiaao Anthracite Coal Mines, China	Review of Resource and Reserve Compliance for HKSE and JORC
Sunward Resources	Titiribi Au-Cu Project, Colombia	Review of Resources for NI 43-101
Kinggold Mining	Beidong and 460 gold projects, China	Review of Resource and Reserve Compliance for HKSE and JORC
Jeddo Coal	Eckley, Foundaryville, Harwood, Honeybrook, Spring Mtn, No. 4 Basin, etc. Anthracite Coal, Pennsylvania	Review of Potential SEC-compliant Reserves and NI 43-101 Resources
Black Range Minerals	Taylor Ranch Uranium Project	Review and Recalculation of Third Party Resource/Reserve Work
Americas Mining Corp	Asarco, Southern Copper, IMMA Properties	Review of Third Party Reporting of All of the Company's Resources and Reserves
AUC	Reno Creek Uranium Project	
CML Metals	C-ML Iron Mine, REX Deposit, Utah	Resource/Reserve Work
Strathmore Minerals	Uranium, New Mexico	
Coeur d'Alene Mines	Kensington Mine, USA	Review of Third Party Resource and Reserve Calculations
Aurcana Corp	La Negra, Ag mine, Mexico	Resource/Reserve work
China Copper	Bainaimiao, China	Review of Resources for HKSE IPO
Chinalco Mining Corp	Two Copper Projects, Peru	Review of Third Party Resource/Reserve Estimates for Acquisition Evaluation
GRS	Deep Sea Nodules	Review of Resources and Categorization
West Mountain Gold	Terra Gold Project, Alaska	
Brazil Resources	Titiribi Project, Colombia	Review of Resources for NI 43-101
Three Crowns Insurance		Insurance Claim Litigation
Eco Oro	Litigation Support	Valuation Review
American Gilsonite	Gilsonite, Utah	Resource Review
Akin Gump	Litigation Support	Valuation Review
Grupo Mexico	Copper and Coal Valuation Support, Mexico	Resource Review and DCF Analysis
Wells Fargo	Financial Model Review	Review of DCF Models for Various Mines
Zurich/York Risk Services		Insurance Claim Litigation
Jiaxin International Resource Investment	Tungsten, Kazakhstan	Resource Review

Client	Project/Mine	Description of Work
Geo Energy Group	Coal, Indonesia	Resource Review and SGX Support
Freshfields	Angostura Gold/Silver Project, Colombia	Review of Resources and Valuation
Lalive	Gold/Silver Project, Romania	Arbitration Support
Dorsey & Whitney	Nevada Gold Mine	Royalty Review and Support
Winston & Strawn	Copper project, Panama	Arbitration Support
Stoel Rives	Sand and Gravel, OR	Royalty Review
SRDL	Deep Sea Nodules	Resource Estimate of Manganese Nodules
Global Sea Mineral Resources	Deep Sea Nodules	Resource Estimate
Native American Land Holdings – South Dakota	Aggregate Inventory on Selected Parcels	Resource Review
Vangold	Gold Project	Resource Review
GoldMining, Inc	Colombia Gold-Copper Porphyry	Resource Review
Wells Fargo	Various Copper Projects	Resource and Cash Flow Review
Splendid Mining	Marble Dimension Stone	Competent Person Report and Resource Review
Bennett Jones LLP	Independent Review of Feasibility Documents	Litigation Support
Franco-Nevada	Review of Royalty Calculations	Litigation Support
NYRSTAR	Lead-Zinc	Open Pit Design
Haynes and Boone LLP	Valuation Review	Litigation Support
Guanajuato Silver Company	Gold and Silver	Mining, Resource and Economic Review - PEA
Sullivan and Cromwell, LLP	Llurimagua Copper Deposit, Ecuador	Litigation Support
Doyon Limited	Support for Royalty Holdings	Resource, conceptual plans and economic review of gold, lead, zinc and other properties
MagIron	Iron Deposit, USA	Mineral Resource and Reserve estimation
Moana Minerals	Cook Islands Manganese Nodules	Review of PFS and S-K 1300 Technical Report Summary
Mackay Metals	Comstock and Occidental Gold Silver properties Nevada	NI 43-101 and S-K 1300 technical report summary
Berger Montague	Uranium	Litigation Support
Foley & Lardner	Copper	Litigation Support

ACADEMIC EXPERIENCE

Courses Taught	Research Projects
• Mine Surveying Theory and Practice • Mine Safety • Mining Engineering Laboratory • Mine Valuation • Mine Systems Analysis • Geostatistical Ore Reserve Estimation • Microcomputers in Mining • Computer Graphics • Advanced OR Techniques in Mining • Geostatistical Estimation Theory • Advanced Mining Geostatistics • Advanced Ore Reserve Estimation • Introduction to Programming (Fortran) • Introduction of AutoCAD • Introduction to Database Design for Mining • Senior Mine Design • Engineering Economics • Mine Investment Evaluation	• Modified Tree Graph Algorithm for Ultimate Pit Limit Analysis • Dynamic Network Planning to Define Optimal Production Time Completion • Heuristic Nonlinear Constrained Maximization of Ore Reserve Tonnage by Blending for Multiple Mining Areas Using Cutoff Grade as the Discriminator • Probabilistic Risk Analysis in Evaluation of Gold Placer Deposits in Puno Peru • Cokriging Gold-Silver Auriferous Mineralization – A Multivariate Geostatistics Approach • Optical Discrimination of Ore Veins • Optimizing Ultimate Pit Limits by Using Transportation Algorithm • Development of an Automatic Time Study System for a Jeffrey 1060 Drum Miner • Mine Management Decision Support Using Existing Monitoring Systems • Development of an Underground In Situ Stope Leaching Site at the Edgar Experimental Mine
Short Courses • Pit Optimization Methods • Introduction to Mining • Introduction to Reserve Estimation Methods • Geostatistical Ore Reserves and Mine Planning • Due Diligence and Project Review • ABC's of Mining – Resource/Reserves, Surface and Underground Mining and Miner Safety	Selected Webinars and Presentations • Cash Flow Models – Evaluation versus Valuation • Observations of Discounted Cash Flow Models Used in Regulatory Filings • Simplified Comparison of the Major Ore Reserve and Mineral Resource Systems for Mineral Appraisers • MMSA's Recent Comments on the SEC's Proposed Rule Changes for Reporting of Mineral Resources and Reserves • Simplified Guide for Mineral Appraisers to Ore Reserve and Mineral Resource Classifications • Mineral Resources and Ore Reserves – Thoughts and Observations • S-K 1300 Simplified for Consultants

PROFESSIONAL ASSOCIATIONS

- International APCOM Executive Committee Member, 1985-1992
- SME Book Publishing Committee, 1989-1993
- Reviewer for SME in Geostatistics, 1989-1992
- Reviewer for SME in Operations Research, 1987-1996, 2015
- Society for Mining, Metallurgy and Exploration, Qualified Person and Registered Member – #473584RM
- Mining and Metallurgical Society of America, Member and Qualified Person in Mining and Ore Reserves – #01357QP
- International Institute of Mineral Appraisers – Associate Member #2014-3
- Colorado Mining Association – Member
- Prospectors & Developers Association of Canada – Member

EDUCATION

- The University of Utah, Ph.D. Mining Engineering – 1985
- The University of Utah, M.S. Mining Engineering – 1980
- The University of Utah, B.S. Mining Engineering – 1977