

## Study Services

Year	Client	Project	Location	Completion Year	Ore	Process	STUDIES		CAPEX		OTHER	
							Study Input	Study Management	Project Capital Costs	Project Scheduling	Contract Prep. Ests. & Awards	CapEx/Est. & Mgmt. Procurement & Expense
2019	Rio Tinto Kennecott Copper	Bingham Canyon Next Pushback Order of Magnitude	USA	2020	Copper Gold	Underground	•	•	•	•	•	•
2019	Rio Tinto Kennecott Copper	Bingham Canyon Integrated Skarns Order of Magnitude	USA	2020	Copper Gold	Underground	•	•	•	•	•	•
2018	Copper Mountain Mining Corp.	Eva Copper Project	Australia	2018	Copper Gold	•	•	•	•	•	•	•
2018	Serengeti Resources Inc.	Krasnaya Copper Project	Canada & Arctic	2019	Copper Gold	•	•	•	•	•	•	•
2016	Continental Gold	Burtica Project Services	Central & S America	2020	Gold	•	•	•	•	•	•	•
2016	Twin Metals Mining	Business Case 2016 Capex	USA	2018	Copper Gold	•	•	•	•	•	•	•
2015	Canadian Zinc Corporation	Praine Creek Project Capex Review	Canada & Arctic	2015	Zinc Copper Lead	Mill	•	•	•	•	•	•
2014	Kangaroo Ashland	Confidential CAPEX Review	confidential	2014	Gold	•	•	•	•	•	•	•
2014	Avanti Mining Inc.	Kissault Moly CM	Canada & Arctic	2015	Moly	•	•	•	•	•	•	•
2014	BMC Westralia Ltd.	Kutcho Copper Project	Canada & Arctic	2014	Copper Gold	•	•	•	•	•	•	•
2014	Copper North	Carmacks Project Review	Canada & Arctic	2014	Copper Gold	•	•	•	•	•	•	•
2014	Dundee Precious Metals	Krumnagrad Gold Project Pre-Construction	Europe	2015	Gold	•	•	•	•	•	•	•
2014	Lafarge Cement	Exshaw Plant Expansion	Canada & Arctic	2015	Miscellaneous	•	•	•	•	•	•	•
2013	Copper Mountain Mining Corp.	Secondary Crusher Project	Canada & Arctic	2014	Copper Gold	•	•	•	•	•	•	•
2013	Ontario Graphite Ltd.	Kearney Mine Restart Project	Canada & Arctic	On Hold	Coal Graphite Iron	Mill	•	•	•	•	•	•
2012	AGM Copper	Zafrenat Copper Project PFS	Central & S America	2012	Copper Gold	•	•	•	•	•	•	•
2012	EMED Mining	Project Rio Tinto Restart	Europe	2012	Copper Gold	Heap Leach / SX-EW	•	•	•	•	•	•
2012	Hudbay Minerals	Lator Project Review	Canada & Arctic	2013	Copper Gold	Heap Leach / SX-EW	•	•	•	•	•	•
2012	Kiska Metals	Whistler Project	USA	2012	Copper Gold	•	•	•	•	•	•	•
2012	Labrador Iron Mines	Houston Project Plant Study	Canada & Arctic	2012	Coal Graphite Iron	Mill	•	•	•	•	•	•
2012	Rainy River Gold Corp.	Rainy River Project FS	Canada & Arctic	2012	Gold	•	•	•	•	•	•	•
2012	Trevi Mining	Santander Project	Central & S America	2012	Zinc Copper Lead	Mill	•	•	•	•	•	•
2011	Inmet Mining	Mina De Cobra Panama Project	Central & S America	2011	Copper Gold	•	•	•	•	•	•	•
2011	Jayden Resources	Silver Coin Project Pre Development	Canada & Arctic	2011	Silver Tin	•	•	•	•	•	•	•
2011	Kinross Gold Corporation	Dromovye Gold Project	Europe	2011	Gold	•	•	•	•	•	•	•
2011	Kinross Copper Corp.	Pumpkin Hollow Shaft Support Work	USA	2012	Copper Gold	•	•	•	•	•	•	•
2011	Norsonmont Mining	Constancia Copper CAPEX Review	Central & S America	2011	Copper Gold	•	•	•	•	•	•	•
2011	Summit Coal	Summit Coal Project CM	Canada & Arctic	2013	Coal Graphite Iron	•	•	•	•	•	•	•
2011	Thompson Creek	Confidential CAPEX Review	confidential	2011	Gold	•	•	•	•	•	•	•
2011	Yukon Gold Corp.	Eagle Gold 2011 & 2016 FS	Canada & Arctic	2016	Gold	•	•	•	•	•	•	•
2010	Crocodile Gold	Cosmo Project	Australia	2010	Gold	•	•	•	•	•	•	•
2010	Kinross Gold Corporation	Fort Knox Expansion Project	USA	2012	Gold	•	•	•	•	•	•	•
2010	North American Tungsten	Cartung Plant Evaluation	Canada & Arctic	2010	Miscellaneous	•	•	•	•	•	•	•
2010	Confidential Capital	Confidential Plant Evaluation	confidential	2020	Miscellaneous	•	•	•	•	•	•	•
2010	Thyee Development Corp.	Yellowknife Gold Project	Canada & Arctic	2010	Gold	•	•	•	•	•	•	•
2010	Yellowhead Mining	Harper Creek FS	Canada & Arctic	2012	Copper Gold	•	•	•	•	•	•	•
2009	Copper Mountain Mining Corp.	Copper Mountain Project	Canada & Arctic	2011	Copper Gold	Mill	•	•	•	•	•	•
2009	Yukon Government	Yard Mine Reclamation Project	Canada & Arctic	2014	Reclamation	•	•	•	•	•	•	•
2009	North American Tungsten	Maclung Project	Canada & Arctic	2010	Miscellaneous	•	•	•	•	•	•	•
2009	Yukon Government	Faro Mine Remediation Project	Canada & Arctic	2010	Reclamation	•	•	•	•	•	•	•
2008	Kinross Gold Corporation	Manicouga	Central & S America	2010	Gold	Mill Expansion	•	•	•	•	•	•
2008	Kinross Gold Corporation	Backhorn Mountain Project	USA	2010	Gold	Mill Expansion	•	•	•	•	•	•
2008	Selwyn Chihong (Selwyn Resources)	FS and 2011 & 2013 FS updates	Canada & Arctic	2013	Zinc Copper Lead	Mill	•	•	•	•	•	•
2007	Barroch Gold	Confidential CAPEX Review	confidential	2015	Gold	Mill	•	•	•	•	•	•
2007	Bellavista Copper & Gold Inc.	Bellavista Plant Evaluation	Central & S America	2007	Copper Gold	•	•	•	•	•	•	•
2007	Corriente Resources Inc.	Panamita San Carlos Project	Central & S America	2008	Copper Gold	Mill	•	•	•	•	•	•
2007	Miramar Hope Bay Ltd.	Con Mine Equipment Inspection	Canada & Arctic	2007	Gold	•	•	•	•	•	•	•
2007	Nughavica	Nui Phao Project (Vietnam)	Asia	Suspended	Miscellaneous	Mill	•	•	•	•	•	•
2007	Siva Resources	Central Project CAPEX	Central & S America	Suspended	•	•	•	•	•	•	•	•
2007	Sunridge Gold Corp.	Debarwa VMS Project Capex	Africa	2007	Copper Gold	Mill	•	•	•	•	•	•
2007	Teck Cominco	Galore Creek	Canada & Arctic	2007	Copper Gold	•	•	•	•	•	•	•
2007	Yukon Zinc Corporation	Wolverine Zinc Project	Canada & Arctic	2012	Zinc Copper Lead	Mill	•	•	•	•	•	•
2008	Atlantic Gold	Touquoy Gold Project CAPEX	Canada & Arctic	2008	Gold	•	•	•	•	•	•	•
2006	Bangui (Asian American)	Goabo Coal Project	Asia	2012	Coal Graphite Iron	Coal / Washplant	•	•	•	•	•	•
2006	bcMetals Corporation	Red Chris Copper-Gold FS	Canada & Arctic	2006	Copper Gold	Crushing, Grinding, Flotation	•	•	•	•	•	•
2006	Davik Diamond Mine	Davik Diamond Mine Expansion	Canada & Arctic	2012	Diamonds	•	•	•	•	•	•	•
2006	Cartota Mining	Cartota Project	USA	2009	Copper Gold	Heap Leach, SX-EW	•	•	•	•	•	•
2006	Terrane Metals Corp.	ML Milligan Project FS	Canada & Arctic	2007	Copper Gold	Mill	•	•	•	•	•	•
2006	Tournaion Gold Corporation	Kremnica Gold Project	Europe	2006	Gold	•	•	•	•	•	•	•
2006	TVI Pacific Inc.	Cananhan Project	Asia	2007	Zinc Copper Lead	•	•	•	•	•	•	•
2005	Canariote Resources	Canariote Project FS Mgmt	Central & S America	2009	Copper Gold	•	•	•	•	•	•	•
2005	Cumberland Resources	Meadowbank Project CAPEX	Canada & Arctic	2005	Gold	TBA	•	•	•	•	•	•
2005	Pacific Resources	Selwyn (Howards Pass) Scoping Study	Canada & Arctic	2007	Zinc Copper Lead	•	•	•	•	•	•	•
2005	Placer Dome	Pueblo Viejo CAPEX Review	Central & S America	2005	Gold	Open Pit	•	•	•	•	•	•
2005	Tudorqah Inc.	Tudorqah Chest Project	Canada & Arctic	2008	Miscellaneous	•	•	•	•	•	•	•
2004	Bethlehem Resources	Goldstream Project Plant Study	Canada & Arctic	2004	Copper Gold	Crushing, Grinding, Flotation	•	•	•	•	•	•
2004	Constellation Copper	Libon Valley Project	USA	2006	Copper Gold	Crushing, Conveying, SX-EW, Heap Leach	•	•	•	•	•	•
2004	Constellation Copper	Tomajah Copper Plant Dismantling	USA	2005	Copper Gold	Crushing, SX-EW	•	•	•	•	•	•
2004	Constiote Rees Inc.	Minador Project Capex, FS & Power Plant	Central & S America	2010	Mill	•	•	•	•	•	•	•
2004	Falls Mountain Coal Inc.	Willow Creek Coal Project	Canada & Arctic	2005	Coal Graphite Iron	Crushing, Loadout	•	•	•	•	•	•
2004	Glamis Gold Ltd.	Marlin Gold Project	Central & S America	2004	Gold	Crushing, Grinding, CIP	•	•	•	•	•	•
2004	Glamis Gold Ltd.	El Sauzal Gold Project	Mexico	2002	Gold	Crushing, Conveying, CIL, CIP	•	•	•	•	•	•
2003	Cochenour Mine	Reclamation Project	Canada & Arctic	2005	Reclamation	•	•	•	•	•	•	•
2003	Goldcorp Inc.	Cochenour Mine Bio-Reaction Tailings	Canada & Arctic	2005	Reclamation	•	•	•	•	•	•	•
2003	Leader Mining	Cogburn Magnesium Project	Canada & Arctic	2003	Miscellaneous	•	•	•	•	•	•	•
2002	Crew Development Corp.	Naturun Project FS	Canada & Arctic	2003	Gold	Mining & Process	•	•	•	•	•	•
2002	Harzinc	Huastec Project FS	Europe	2002	Miscellaneous	Crushing, Grinding, Flotation, Drying	•	•	•	•	•	•
2002	Golden Reward Mining	Reclamation Project	USA	2002	Reclamation	•	•	•	•	•	•	•
2001	Compliance Coal Corp.	Basin Coal Project	Canada & Arctic	2005	Coal Graphite Iron	Washplant	•	•	•	•	•	•
2001	Minera Yanacocha S.R.L.	Yanacocha Carbon Plant	Central & S America	2001	Gold	Carbon Plant	•	•	•	•	•	•
2001	Newmont Mining Corp.	Plexis Gold Project FS	USA	2001	Gold	•	•	•	•	•	•	•
2001	Zarafshan-Newmont	Muruntus Project	Europe	2001	Gold	Plant Expansion Conveyor	•	•	•	•	•	•
2000	Copper Ridge	Howards Pass Scoping Study	Canada & Arctic	2001	Zinc Copper Lead	Crushing, Grinding, Press Ox, Flt. Leach/Electrowin	•	•	•	•	•	•
2000	Corriente Resources Inc.	Copper Belt Scoping Study	Central & S America	2000	Copper Gold	Crushing, Conveying, Grind, Flot	•	•	•	•	•	•
2000	Gibraltar	Gibraltar Expansion FS	Canada & Arctic	2001	Copper Gold	Crushing, Grinding, Flotation, SX-EW	•	•	•	•	•	•
2000	Goldcorp Inc.	Red Lake Mine Expansion Projects	Canada & Arctic	2007	Gold	Shaft, Sinking, Truck Dump, Conveying, Crushing, Grinding, CIL	•	•	•	•	•	•
2000	Manhattan Minerals	Tambo Grande FS	Central & S America	2001	Copper Gold	Crushing, Grinding, Leaching, Merrel Crowe	•	•	•	•	•	•
2000	North American Palladium	Lac des Iles FS	Canada & Arctic	2000	Miscellaneous	Crushing, Grinding, Flotation, Drying	•	•	•	•	•	•