

Gold

CSA Global has a long history assisting our clients with the exploration and development of gold projects. Our team is experienced in all the major gold deposit types and has worked on projects in many parts of the world. From our bases in Australia, Africa, Europe and Canada, CSA Global has applied our expertise to a diverse range of projects range from the earliest conceptual and grassroots phases through resource & reserve estimation, to feasibility study and mine optimisation.

Recent Gold Projects

LOCATION	PROJECT	DEPOSIT TYPE	WORK COMPLETED
	Armenia Lichkvaz	Metasomatic, veins	Mineral Resource estimation.
	Australia WA Telfer	Proterozoic reef, stockwork	Grade control review and dilution management, operator training on geological controls and blast movement analysis.
	White Foil/ Frog's Legs	Archaean mesothermal	Detailed structural interpretation and construction of 3D model, regolith study and depth of cover model.
	Australia Qld Carlton Hill	High sulphidation epithermal	Resource estimation and input into Definitive Feasibility Study.
	Australia SA Challenger	Granulite-hosted gold	Geostatistical study.
	Australia NSW Mineral Hill	Porphyry epithermal	Mine scale integrated targeting studies (Structural geology, alteration mapping and multivariate lithogeochemistry).
	Brazil Antas North, Pedra Branca	Iron-oxide copper-gold	Resource estimation and mining studies.
	Bulgaria Chelopech	High sulphidation Epithermal	Resource estimates; mine planning and optimisation; mine geology support, grade control and dilution studies.
	Burkina Faso Inata	Archaean mesothermal	Resource estimates and mine planning studies.
	Canada Burwash	Regional exploration	Interpretation of airborne geophysical surveys.
	China Caijiying	Granulite hosted zinc-gold	Full service exploration management (including regional targeting, geophysics, mine scale geochemistry and structural geology, drill planning and supervision); mine geology (incl. Alt Chield Geologist and Ops manager), mining engineering, grade optimisation & reconciliation.
	Columbia El Cinco & Las Tias	Vein hosted gold	Project Review.
	DRC Mpokoto	Kibaran structure hosted gold	Structural study, exploration management and Resource estimates.
	Ghana Wa-Lawra	Archaean Greenstone-hosted mesothermal Au	Exploration management and evaluation to identify the gold targets and define geological structural controls and full database management.
	Kazakhstan Dolinnoe	Porphyry-hosted veins	Mineral Resource estimates.
	Kyrgyzstan Shambesai, Obdilla	Carlin-style	Exploration program design, resource estimation, mine scheduling and metallurgical process development and database management.
	Laos Sepon District	Carlin style	Geological evaluation of controls of Carlin style mineralisation in Sepon district.
	Mali Fekola; Yanfolila	Birimian greenstone hosted mesothermal structural gold	Geological and structural targeting review and mining studies.
	Mexico Ixtaca	Epithermal	Mapping and targeting review.
	Peru Regional review	All gold systems	Review of geology, deposit overviews and prospectivity.
	Philippines Mabilo	Skarn-hosted Cu Au	Geological review and Mineral Resource estimation.
	Russia Smeznoe, Zapadny	Proterozoic sediment hosted gold deposits	Independent Geologist's Report.
	Sudan Jebel Ohier	Porphyry Cu Au	Regional targeting and geochemistry; mapping and structural study; isotopes and petrography.
	Suriname Lely, Saramaca	Birimian greenstone hosted mesothermal gold	Geological review, geochemistry, exploration planning, independent technical assessments and valuation.



**Mining
Industry
Consultants**

We draw on our collective experience to customise exploration and mining solutions to our client's requirements. Our advice and services are tailored to respond to the individual advantages and constraints of each project. This approach helps us to provide a holistic approach to operating within the African region. We have worked with all sizes of companies from small businesses to international majors, as well as with governments and NGO's. We make it our business to get to know and understand the cultural diversity, political background, sovereign risk, workforce and technical capability of every country or region we work in. We identify with each region's approach to sustainability and its level of support for our industry.

About CSA Global

We are a leading mining, geological, technology and management consulting company with more than 30 years experience in the international mining industry. We cover all stages of the exploration and mining cycle, including mineral commodities and extraction methods across all regions:

EXPLORATION

- Mineral systems targeting & project generation
- Remote sensing & geophysics
- Geochemistry (traditional & non-destructive methods)
- Mapping & field investigations
- Drill program planning & supervision
- Exploration strategy & project management

MINING

- Mining & engineering studies (concept to feasibility)
- Reserve assessment reviews
- Mine optimisation, scheduling & design
- Ore Reserve estimation & reporting
- Grade control & reconciliation
- Productivity improvement & project management

CORPORATE

- Project reviews
- Due diligence
- Expert valuations
- Independent reports
- Geo-corporate advice
- Secure information hosting (Spring portals & data rooms)

RESOURCES

- Review of data collection techniques & QAQC of data
- Geological & geo-metallurgical modelling
- Geostatistical analysis & variography
- Mineral Resource estimation, validation & classification
- Resource reporting in accordance with international codes
- Resource audits & risk analysis

TECHNOLOGY

- Data management (capture, data warehousing & QAQC of data)
- Data visualisation, analytics & cartography
- GIS plans, sections & 3D plots
- IT Management (health reporting, auditing, cyber security advice)
- Project design & management (Cloud systems design, infrastructure design & implementation)
- Mining specialist IT Helpdesk

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