




# Platinum

CSA Global's team of consultants has considerable experience in Platinum Group Elements exploration and development, ranging from regional targeting using early stage, multi-disciplinary data sets to resource estimation, mine planning and scheduling.

We offer global experience incorporating a diverse range of geological environments and mineralization styles. Wherever your project is located and whatever style of mineralization you have encountered, CSA Global can bring together the right team to provide you with the best solution.

## Recent Platinum Group Elements (PGE) Projects

NATION	PROJECT	COMMODITY	WORK COMPLETED	
	Canada	Mayville Project (Manitoba)	PGE	Data compilation and interpretation of airborne electromagnetic survey leading to discovery of new PGE mineralisation.
		Turnagain Project (Northern BC)	PGE, Nickel, copper	Review of PGE exploration potential.
		Baffin Island (Nunavut)	PGE, Nickel, copper	Regional targeting, prospecting and review.
		Lac Des Iles Project (NW Ontario)	Palladium	Review of exploration and mine data, structural synthesis and technical support for trenching, drilling and geochemical programs.
		Rainy River Project (NW Ontario)	PGE, Nickel, copper	Review of existing geophysical, geochemical and drill hole data, and 3D inversion of airborne magnetic data.
		Central Raglan Belt (Quebec)	PGE, Nickel, copper, gold	Management of a \$23 million drilling and exploration program that led to the discovery of the "Echo 1 Ni-Cu-PGE zone".
		West Raglan (Quebec)	PGE, Nickel, copper	Operation of a \$4.8 million exploration program which included drilling, prospecting, geophysics and geochemistry.
	USA	Cheyenne Belt (Wyoming)	PGE, Nickel, copper, gold	Technical support for regional stream sediment program, airborne geophysical surveys and preparation of in-house technical review.
	Russia	Amur (Kondyor Placer)	Platinum	Review of mine planning and scheduling, and completed an audit of a geological model.
		Amur (Kondyor Platinum bearing massif)	Platinum	Geological modelling of Kondyor massif and recommendations for research and exploration.
	Finland	Kevitsa	PGE	Mineral Resource estimation.
	Madagascar	Madagascar Nickel Project	PGE, Nickel	Exploration studies and sampling programs.
	South Africa	Nickel Property Review	PGE, Nickel	Independent review of nickel / PGE properties.

## Platinum Group Elements - Experience within CSA

PROJECT STAGE	PROCESS	HIGH LEVEL EXPERIENCE
Exploration	Exploration	<ul style="list-style-type: none"> <li>Exploration strategy and drilling program design</li> <li>Exploration program management</li> <li>Specification and monitoring of sampling procedures</li> <li>Resource modelling, characterisation and estimation</li> </ul>
	Conceptual	<ul style="list-style-type: none"> <li>Independent project reviews and economic evaluations</li> <li>Development of project concepts</li> </ul>
Evaluation	Mining	<ul style="list-style-type: none"> <li>Cost estimates and scheduling</li> </ul>
	Processing	<ul style="list-style-type: none"> <li>Testwork and flowsheet development and process design</li> <li>Testwork supervision and results analysis</li> <li>Equipment selection</li> </ul>
Operations	Mining	<ul style="list-style-type: none"> <li>Mining operations management</li> <li>Mine design and surveying</li> <li>Long term planning and scheduling</li> </ul>



Resource  
Industry  
Consultants

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 region's cultural diversity, political background, sovereign risk, workforce and technical capability. The key to delivering positive outcomes for our clients is by understanding their goals, collaborating with their teams, incorporating our expert knowledge and developing practical solutions which add value to the project. This promotes the overall success of the projects in which we are engaged.

Our offices in Perth, Brisbane, Darwin, Adelaide, Jakarta, Horsham (UK), Johannesburg and Vancouver provide an ideal base of operations for our consultants to provide round the clock service for our clients across the globe.

### About CSA Global

We are a leading geological, mining and management consulting company with over 25 years experience in the international mining industry.

#### Exploration & Evaluation

- Research & targeting studies
- Exploration planning & supervision
- Field investigations
- Project reviews & evaluation
- Technical & expert reporting

#### Resources & Mine Geology

- Data collection & QA/QC audits
- Geological modelling & Mineral Resource estimation (*JORC, NI.43-101, PERC, China, Russia, etc*)
- Resource assessment & expert reporting
- Mine geology reviews & contract services
- Grade control & dilution management

#### Community Development & Sustainability

- Impact assessment & sustainability programs
- Stakeholder liaison & community engagement
- Landscape interpretation & geotourism
- Educational workshops & training courses
- Sustainability benchmarking & certification

#### Data Management & Mapping

- Data capture & validation
- Database design & management
- GIS & mapping services
- Database hosting, security & audits
- Intranet design & setup

#### Mining & Projects

- Ore reserve reporting & classification
- Mine & operations design & strategy
- Engineering studies (*concept & PFS to BFS*)
- Due diligence & operational audits
- Strategic planning & productivity improvement

#### [www.csaglobal.com](http://www.csaglobal.com)

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