

## Brent Simpson

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### FIELD GEOLOGY | 3D GEOLOGICAL MODELLING | EXPLORATION PROJECT MANAGEMENT | GIS

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Brent is an exploration geologist with over 14 years' of experience in the minerals industry. His experience includes mineral exploration; from target generation through to exploration project management. The majority of his work has been focused on orogenic style gold mineralisation, but also includes some epithermal, volcanic massive sulphide, and intrusion related, gold system experience. He also has exposure to other commodities such as nickel, copper, iron-ore, mineral sands, as well as platinum and palladium.

During his time working in the minerals industry Brent has gained experience in both brownfields and greenfields exploration, utilising both empirical and conceptual approaches to exploration. He has also developed a high proficiency in handling and evaluating digital datasets. His technical specialisation is in advanced 3D data analysis using geological modelling software to work with geological, geophysical and geochemical datasets in an interpretive environment in which 3D spatial data can be queried, manipulated and represented in a meaningful manner, so as to provide insight into exploration problems.

#### Career Snapshot

- 14 years combined production and exploration experience.
- Highly skilled field geologist with excellent interpretation skills.
- Significant project management experience.
- Strong Leadership qualities; working with and managing medium sized exploration teams.
- Specialising in advanced highly constrained 3D geological modelling, combining geology, geochemistry and geophysics.

#### QUALIFICATION

**Bachelor of Science (Geology, Geography), University of Otago.**

**Master of Science (Geology), University of Otago.**

#### KEY SKILLS

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|--------------------------------|---|--------------------------------|
| • Project management           | • 3D geological modelling               | • Structural interpretation    |
| • Tenement management          | • Target generation and ranking         | • Regolith mapping             |
| • Budgeting                    | • Mineral potential mapping             | • GIS software                 |
| • Short and long term planning | • Geophysical inversion                 | • Mapinfo / Discover           |
| • Land access process          | • Whole rock geochemical interpretation | • Gocad Mining Suite           |
| • Liaison with third parties   | • Spectral mapping techniques           | • Geological logging / mapping |
| • Database management          | • Resource definition                   |                                |

#### CAREER SNAPSHOT

- **Exploration Geologist - Self Employed– August 2011 - Present**
- Exploration Manager - Integra Mining Ltd; January 2010 - July 2011
- Senior Exploration Geologist - Integra Mining Ltd; July 2007 - January 2010
- Senior Exploration Geologist - Aztec Resources / Mt Gibson Iron; October 2006 - July 2007
- Consulting Geologist - Lithofire Consulting Geologists; October 2003 - October 2006
- Contract Exploration Geologist - Tiwest Mineral Sands; February 2003 - September 2003
- Contract Mine Geologist - Harmony Big Bell Gold Operation; September 2002 - February 2003

## PROFESSIONAL MEMBERSHIPS

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Member of Australian Institute of Geologists (AIG)

### Key Roles

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#### SELF EMPLOYED; AUGUST 2011 - CURRENT

##### EXPLORATION GEOLOGIST

Exploration geologist providing geological services to the mineral exploration industry. These services include geological modelling and mineral targeting, field services, and exploration project management.

A large portion of my work involves geological modelling and mineral targeting, carried out utilising Gocad Mining Suite software. This software platform allows me to work with large datasets in an interpretive environment, in which 3D spatial data can be queried, manipulated, and represented in a meaningful manner, so as to provide insight into exploration problems. These models incorporate geological, geophysical, and geochemical data to ensure the interpretation is common to all disciplines. The exploration targeting criteria can also be built into the model and using statistical prediction of mineralisation, quantitative mineral targeting can then be carried out.

Traditionally many companies have been poor at collecting quality field observations with this task typically assigned to the junior geologist. As part of my field services I undertake field mapping and downhole logging to ensure accurate data capture, and use this data to construct 3D geological interpretations of the highest standards, and consistent with all available data. In addition to lithology, alteration, and structure, I am also familiar with Niton XRF and ASD spectral tools that can prove useful in identifying both lithology, alteration and pathfinder geochemistry. Field work and geological interpretation is typically carried out as the exploration program is undertaken to ensure quick turnaround of results.

In addition to geological modelling and field work, I also carry out exploration project management on behalf of clients. Services include, but are not limited to;

- Tenement administration
- Project planning
- Target definition
- Exploration program implementation
- Technical reporting
- Regional generative, evaluation and ranking

#### INTEGRA MINING LIMITED; JANUARY 2010 - JULY 2011

##### EXPLORATION MANAGER

Senior management position involving management of up to 25 direct employees and tenure covering over 2000km<sup>2</sup>. As part of this role, I was heavily involved in the tenement management and land access process, which involved developing relationships with stakeholders to expedite the process as quickly as possible.

This role involved preparation of budgets in conjunction with both short and long term planning; to ensure the company's exploration objectives were met. I was also responsible for significant exploration program review, to ensure each exploration program defined optimal, high quality targets. This process required understanding of mineral exploration tactics designed to minimise risk, and the utilisation of specialist tools for ranking exploration targets / projects.

During my time in this role, I enjoyed working with a wide variety of people with different backgrounds and fields of expertise. I worked closely with field staff to ensure compliance with QA/QC and OH&S best practise, as well as mentoring technical staff in my fields of expertise.

#### INTEGRA MINING LIMITED; JULY 2007 - JANUARY 2010

##### SENIOR EXPLORATION GEOLOGIST

As the Senior Exploration Geologist I was involved in the discovery of both the Salt Creek and Majestic Deposits. During this time a significant amount of drilling sample (RAB/AC, RC, Diamond Core) was logged and multiple interpretations carried out. At this time I also became familiar with spectral logging techniques, and whole rock geochemistry techniques that were routinely utilised to aid geological understanding.

## **AZTEC RESOURCES / MT GIBSON IRON; OCTOBER 2006 - JULY 2007**

### **SENIOR EXPLORATION GEOLOGIST**

As the Senior Exploration Geologist, I was responsible for carrying out a resource definition drilling program, in a near mine environment. This role involved drill program planning, supervision of drilling activities, drillhole logging and interpretation, as well as preparation of reports for ASX release. During this time I worked closely with senior management and the mine planning team to ensure exploration objectives were met.

## **LITHOFIRE CONSULTING GEOLOGISTS; OCTOBER 2003 - OCTOBER 2006**

### **CONSULTING GEOLOGIST**

As a Consultant Geologist, I was involved in all aspects of the exploration, and exploration projects management; including field mapping, project generation, and technical execution. In this position I specialised in structural and regolith interpretations, integrating field and remotely sensed data by utilising a variety of geophysical and geochemical techniques.

## **TIWEST MINERAL SANDS; FEBRUARY 2003 - SEPTEMBER 2003**

### **CONTRACT EXPLORATION GEOLOGIST**

As a Contract Exploration Geologist, I was involved in resource definition and exploration drilling for mineral sands. This role involved drill rig supervision and logging of drill samples.

## **HARMONY BIG BELL GOLD OPERATIONS; SEPTEMBER 2002 - FEBRUARY 2003**

### **GRADUATE MINE GEOLOGIST**

As a Graduate Mine Geologist, I was involved in the production process through supervision of grade control rigs as well as ore mark-ups and ore spotting during the extraction phase. I also carried out geological mapping used to gain a greater understanding of the deposit and define near mine opportunities.

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## **PROFESSIONAL REFEREES**

Numerous professional referees available on request to support capabilities and skills