

## Otago Pioneer Quartz (OPQ) Gold Exploration Project - Arsenic and Visible Gold Highlight Potential

### HIGHLIGHTS

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- Additional high-grade gold prospects identified from recent field work
  - Coarse visible gold found in float samples close to historic workings
  - Target lengths significantly extended to >6km along the highly prospective OPQ fault zone, capable of hosting significant gold deposits
  - Re-processed geophysics identified new targeting methodology for structures hosting high-grade gold lodes
  - Several prospects within the OPQ Gold Project area now have high priority drill ready previously untested targets
  - Assays pending from recently collected samples
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**New Age Exploration Limited** (ASX:NAE) (**NAE** or the **Company**) is pleased to provide an update on the Company's Central Otago Gold Project New Zealand (Figure 1). Recent field work has expanded the pool of highly prospective gold targets in the Otago Pioneer Quartz (OPQ) Gold Exploration Project area. Sampling old working has demonstrated the high-grade potential of the OPQ Fault Zone and adjacent narrow vein quartz lodes. NAE considers its OPQ Gold Exploration Project to potentially host structurally controlled, high-grade quartz lode systems, as well as bulk tonnage Macraes and Bendigo-Ophir orogenic gold deposits.

#### **New Age Exploration CEO and Executive Director, Joshua Wellisch, commented:**

*"The OPQ project represents an exciting drill ready, high grade gold opportunity within our New Zealand portfolio. The utilisation of modern exploration techniques including the latest geophysical review has highlighted a significant increase in the overall target horizon for high grade gold deposits. We look forward to conducting our maiden drill programme following the pending results and required field preparations."*

## Background

The **Central Otago Schist Belt** is renowned for the famous Otago gold rush that began in the 1860s, when alluvial gold was discovered in extremely rich Gabriel's Gully, an area located less than 15km to the east of **OPQ Gold Exploration Project**. Hard rock gold mining followed but stopped in the early 1900s. Since then, very little focused modern exploration has been applied and no drill has ever been completed within the OPQ Gold Exploration Project area. This combination of historically productive ground in an under-explored area presents an exciting opportunity for NAE to make a significant discovery.

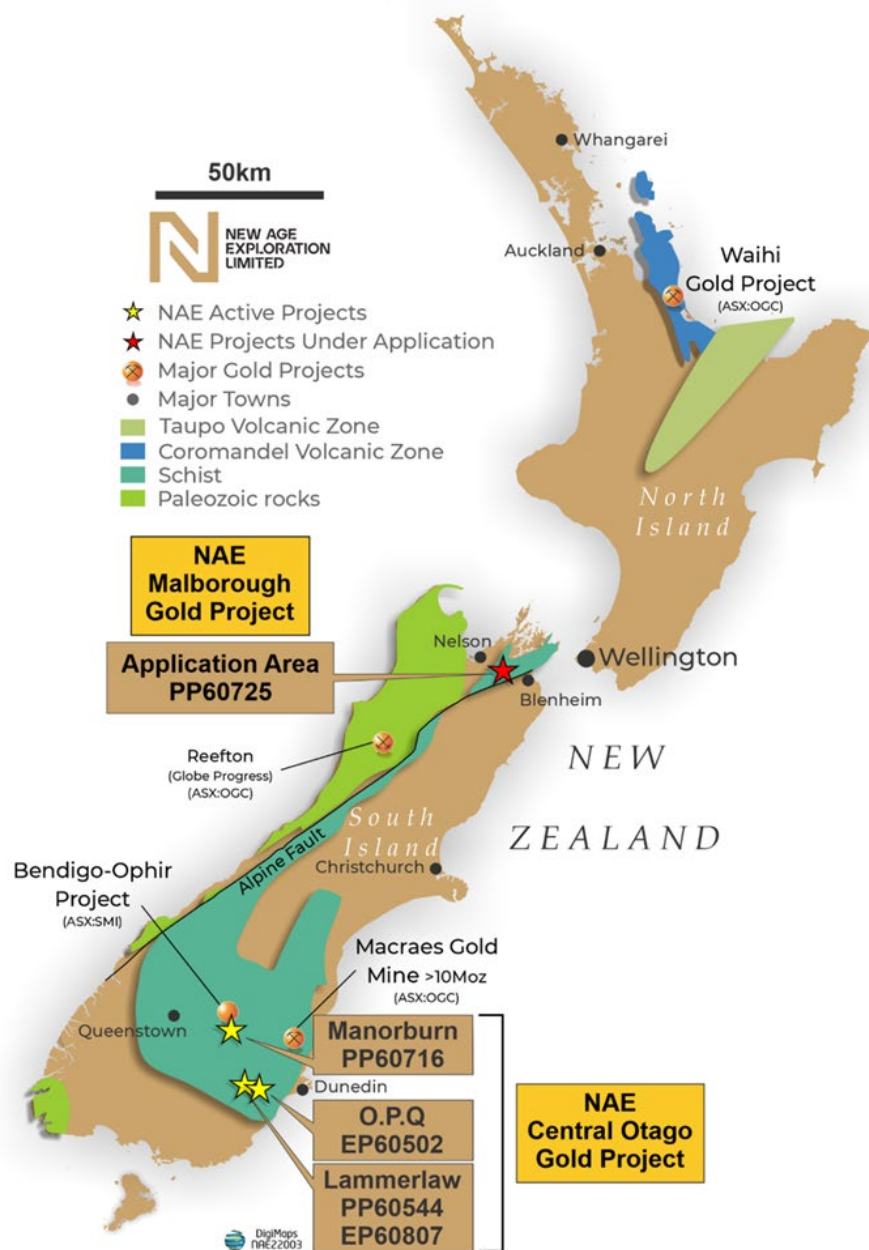


Figure 1 Location of NAE New Zealand gold projects in relation to major gold resources.

### Anomalous Arsenic and Visible Gold

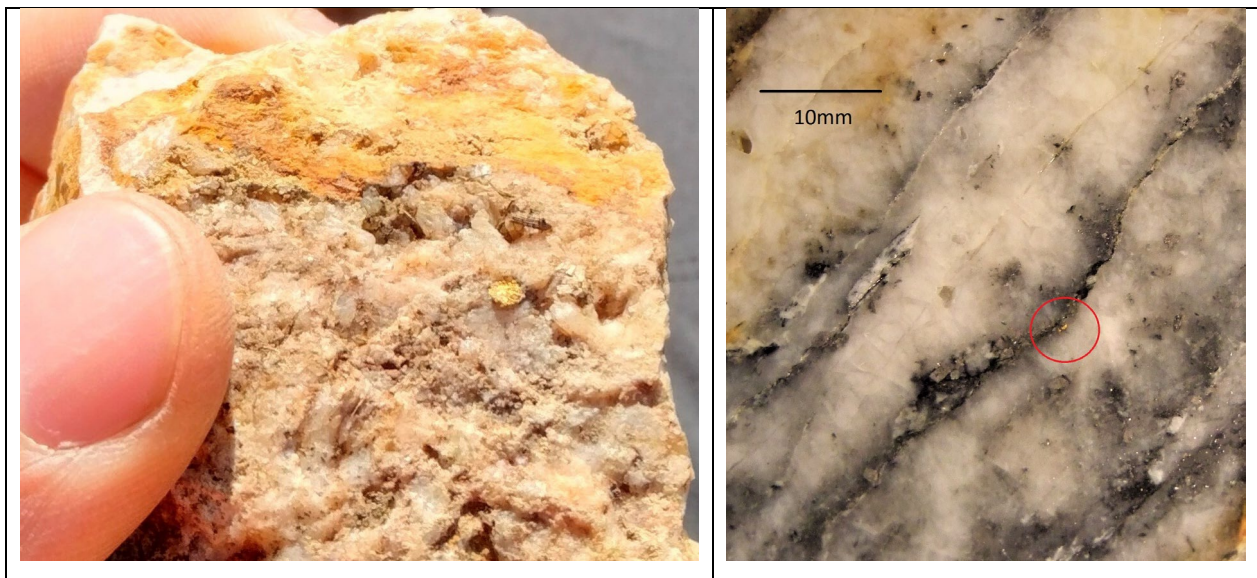
Ongoing field activity in OPQ Gold Exploration Project has accurately located numerous historic mines and prospects hosting high-grade gold mineralisation. Review of historic aerial photography was used to locate surface prospecting pits and shafts dug from the 1860. Some locations have not been visited or sampled in the past 120 years.

Recent samples collected from quartz lodes and geochemical trends were tested with pXRF and recorded highly anomalous arsenic, antimony, and tungsten geochemistry – all common pathfinder elements associated with gold mineralisation. Field work has greatly extended target lengths to scales capable of hosting significant gold deposits. Geochemical samples collected in May 2022 have been submitted for gold assay and are currently being processed.

Visible gold was noted in float samples found close to old workings (Figure 2). Quartz veins have a laminar, multi-phase appearance and can contain rhombic arsenopyrite and free gold. Historic records indicate mined quartz lodes typically had grades of ~15g/t Au. This does not include gold contained within sulphide that could not be recovered at the time.

Geological structures hosting gold in the OPQ Gold Exploration Project contain both mineralised fault breccia and high-grade quartz veins. There is currently no modern information on the potential grade of mineralised fault breccia hosting quartz veins, representing a significant up-side for the OPQ Gold Exploration Project.

Re-processed geophysics and recently collected field data has greatly increased the geological understanding of gold mineralisation within the OPQ Gold Exploration Project area, resulting in exciting new exploration targets that are yet to be field checked (Figure 3).



**Figure 2A) Chunky visible gold found in quartz float ~20m from Coxes Lode. The ragged gold grain measures 2mm in diameter and sits on a seam coated in limonite and additional fine gold. B) Example of visible gold and sulphide bearing quartz vein found in float 80m below the Nuggety Gully Mine. Dominant sulphide mineral is 1-3mm rhombic arsenopyrite crystals hosted on seams subparallel to vein margins. This sample likely comes from the Nuggety Gully Mine workings due to preservation of un-oxidized sulphide.**

## Rich History of Historic Mining

Refined desk-top and field work has greatly improved the understanding of prospects within the OPQ Gold Exploration Project. There are now ten or more prospects progressing towards a drill ready status, with additional prospects requiring further test work (Figure 3 below and Table 1 at the end of this report). NAE is now confidently advancing towards drill testing the highest-ranking targets.

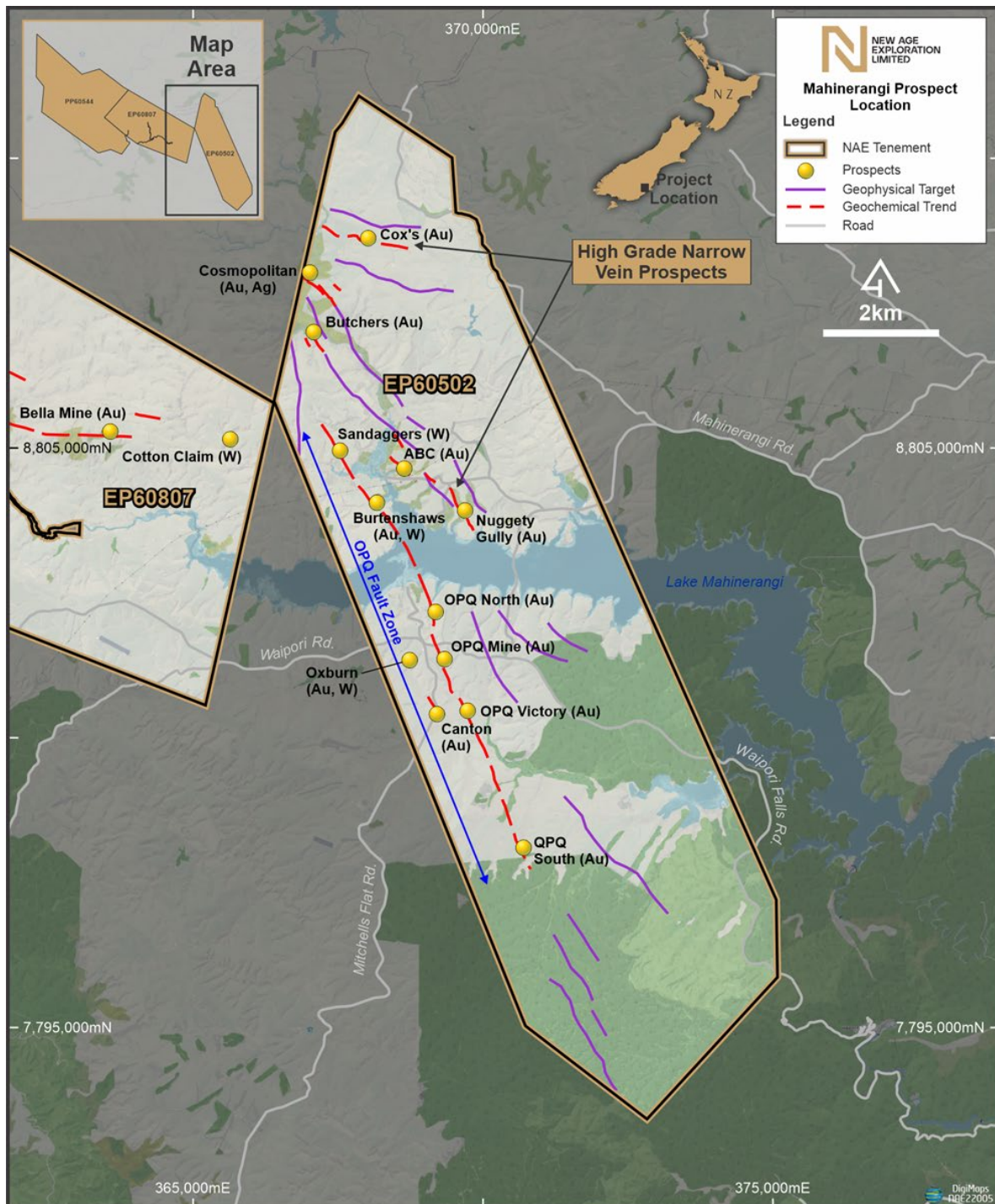


Figure 3 Overview of prospects locations within the OPQ Gold Exploration Project.

## OPQ Fault Zone

The OPQ group of mines and prospects sit along, or parallel to, the OPQ Fault Zone which trends NW through the OPQ Gold Exploration Project (Figure 3). NW trending structures host both the Macraes and Bendigo-Ophir orogenic gold deposits. The OPQ Fault Zone has a mapped and inferred length >6km and represents a significant opportunity for discovery. Recent advances in understanding of historic mining, including location of old mine plans, have upgraded the **OPQ Mine, OPQ Victory and Burtenshaws Prospect** to drill ready targets. Access negotiation are to proceed towards drill testing these targets in the next phase of exploration.

The **OPQ Mine** was the largest and most productive hard rock gold mine in the area. Recent 3D modelling of old **OPQ Mine** plans demonstrates a known mined strike length of 480m and was developed to a vertical depth of 45m, across three levels.

Mined gold grades were extremely rich at surface, averaging 15g/t at depth, typically from a single quartz vein varying width up to a maximum of 3m. Quartz veining was intermittent along strike, but consistently sits within 3-6m of mineralised fault breccia – the OPQ Fault Zone (Marshall, 1918 and Rickard 1875). Historic mining focused entirely on high-grade lenses of quartz, from which free gold could easily be recovered. Drill testing the **OPQ Mine** now represents a significant opportunity for NAE to test a large structurally hosted target.

South of the OPQ Mine at **OPQ Victory**, the OPQ Fault Zone is masked by shallow swampy cover (6-15m deep). NAE sampling through this cover has demonstrated mineralisation may extend for 2.8km to the OPQ South Prospect (see NAE Announcement 12 December 2019) (Figure 4). NAE now considers this area an outstanding opportunity for new discovery under shallow cover.

On the north side of Lake Mahinerangi at **Burtenshaws Prospect** mined a narrow slot of alluvium that was once the course of an ancient river (Figure 5). At the base of rich alluvial workings, outcropping mineralisation was uncovered (Rickard, 1875). Similar geological situations are common in the Victorian Goldfield, Australia where deep leads often sit above hard rock gold mines.

The alluvial slot at Burtenshaws Prospect (now filled with water) lines up perfectly with OPQ Mine working on the opposite side (south) of Lake Mahinerangi. The **Burtenshaws Prospect** represents a 600m long, highly prospective conceptual drill target, where historic records and NAE's recent sampling in the area provide confidence that the OPQ Fault Zones continue north of Lake Mahinerangi.

Additional prospects associated with the OPQ Fault Zone include **Canton Mine** and **OPQ South**. These prospects are currently considered second phase drill targets.

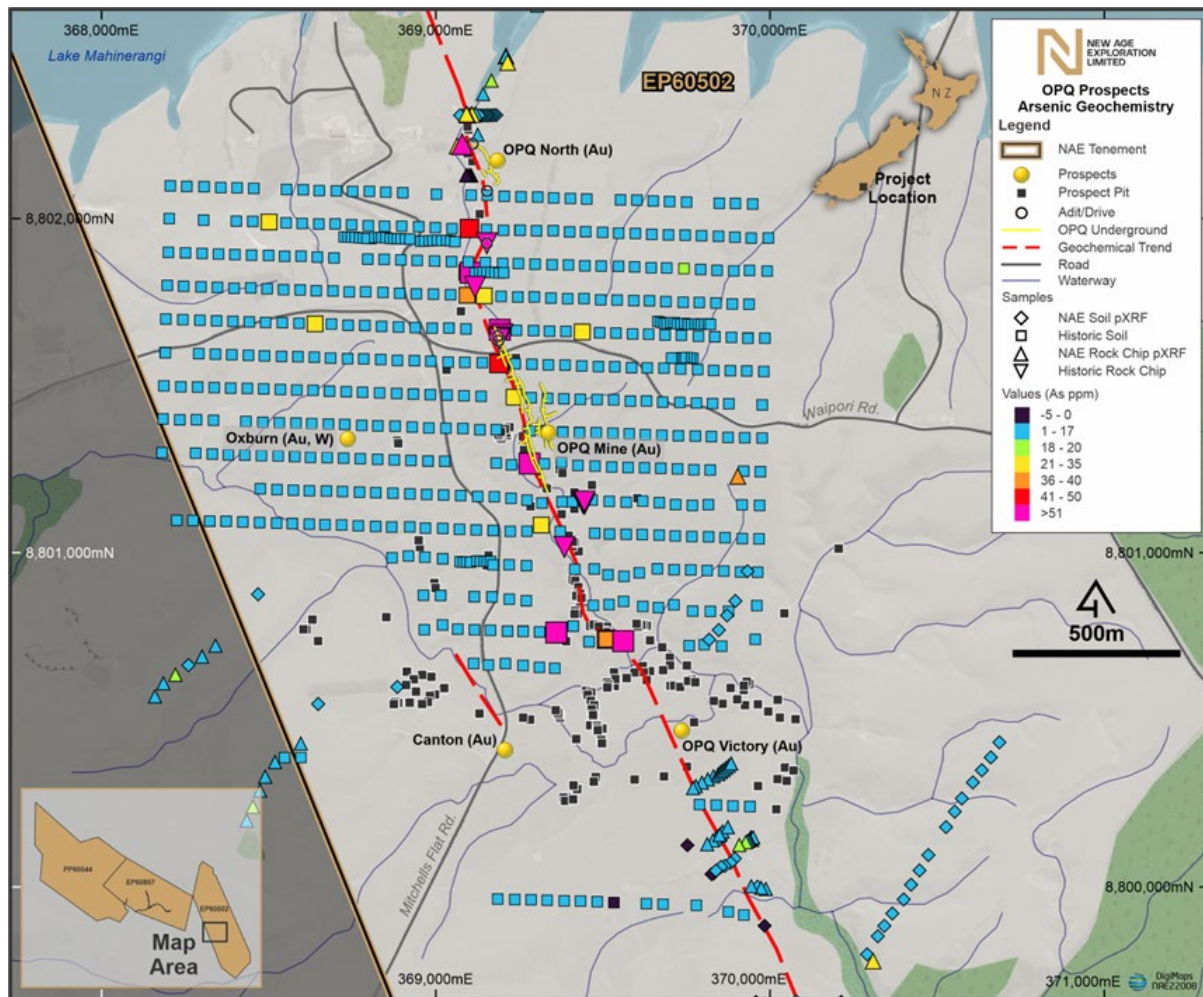


Figure 4 Detailed view of the OPQ Group of prospects.

Note the small arsenic footprint that highlights the OPQ Mine area.

### High-Grade Narrow Vein Prospects

Recent systematic exploration by NAE has located historic prospects and mines on the north side of Lake Mahinerangi for the first time. No previous geochemical sampling has been completed along some of these highly prospective trends.

The **ABC** and **Nuggety Gully** prospects are located on a semi-continuous geochemical trend marked by alluvial and hard rock workings traceable for roughly 2km in a NW direction from the northern shore of Lake Mahinerangi (Figure 5). **ABC** has shallow surface workings over a 250m strike that produced rich specimen gold.

**Nuggety Gully** is associated with 850m long alluvial working. Historic hard rock mining from one level 180m long with a historic test crush averaging 10.25g/t Au. Recent work found visible gold bearing float close to mine workings (Figure 2). The high-grade potential and significant strike length potential of Nuggety Gully make it a worthy target for further testing. Trenching across the **ABC** and **Nuggety Gully** trend is a likely next progression towards drill readiness.

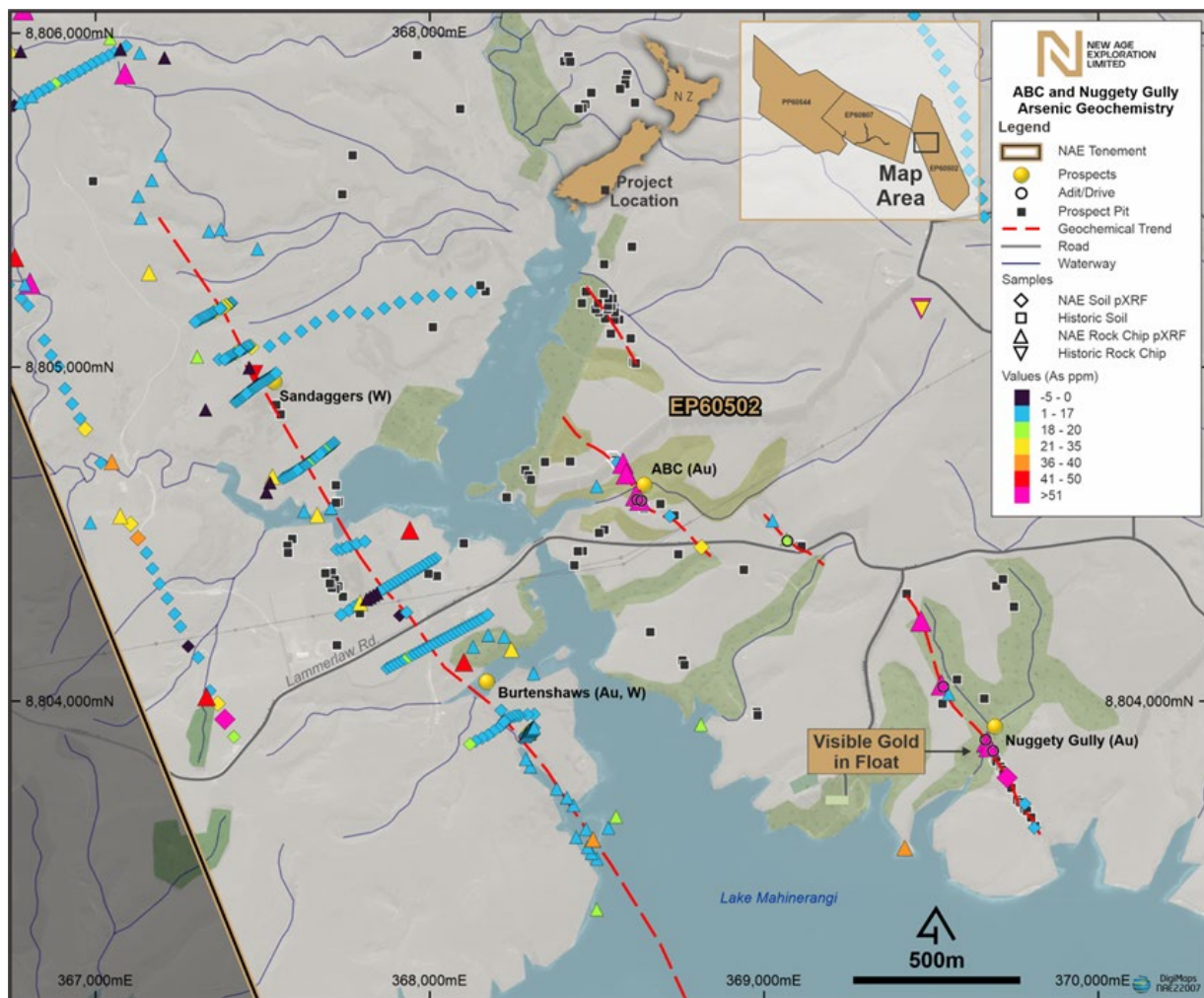


Figure 5 Detailed view of the ABC and Nuggety Gully Prospects. Sandaggers and Burtenshaws Prospects sit along the northern continuation of the OPQ Fault Zone.

The **Cox's** and **Cosmopolitan Prospects** are located in the northern part of the OPQ Gold Exploration Project (Figure 6). Quartz was worked from two steeply dipping shoots at **Cox's**. These shoots were narrow but contained up to 60g/t Au. Large quantities of specimen gold were obtained when first worked, with workings extending off three levels, with quartz still showing at foot along the lowest level (Marshall, 1918). During a recent visit to the **Cox's**, a piece of quartz float found in a field ~20m south of now ploughed in historic prospecting pits contained disseminated visible gold and arsenopyrite/scorodite (Figure 2).

The **Cosmopolitan** group of lodes is located ~1km south of **Cox's**. Historic records are sparse but suggest there were two or three sub-parallel reef lines worked. No production is recorded, historic test work indicate quartz contained 15g/t Au. Recent field work at **Cosmopolitan** found old prospecting pits could be traced over a ~800m strike length. Most of these old workings had been ploughed into fields, but where exposed, sulphide seamed quartz could be sampled.

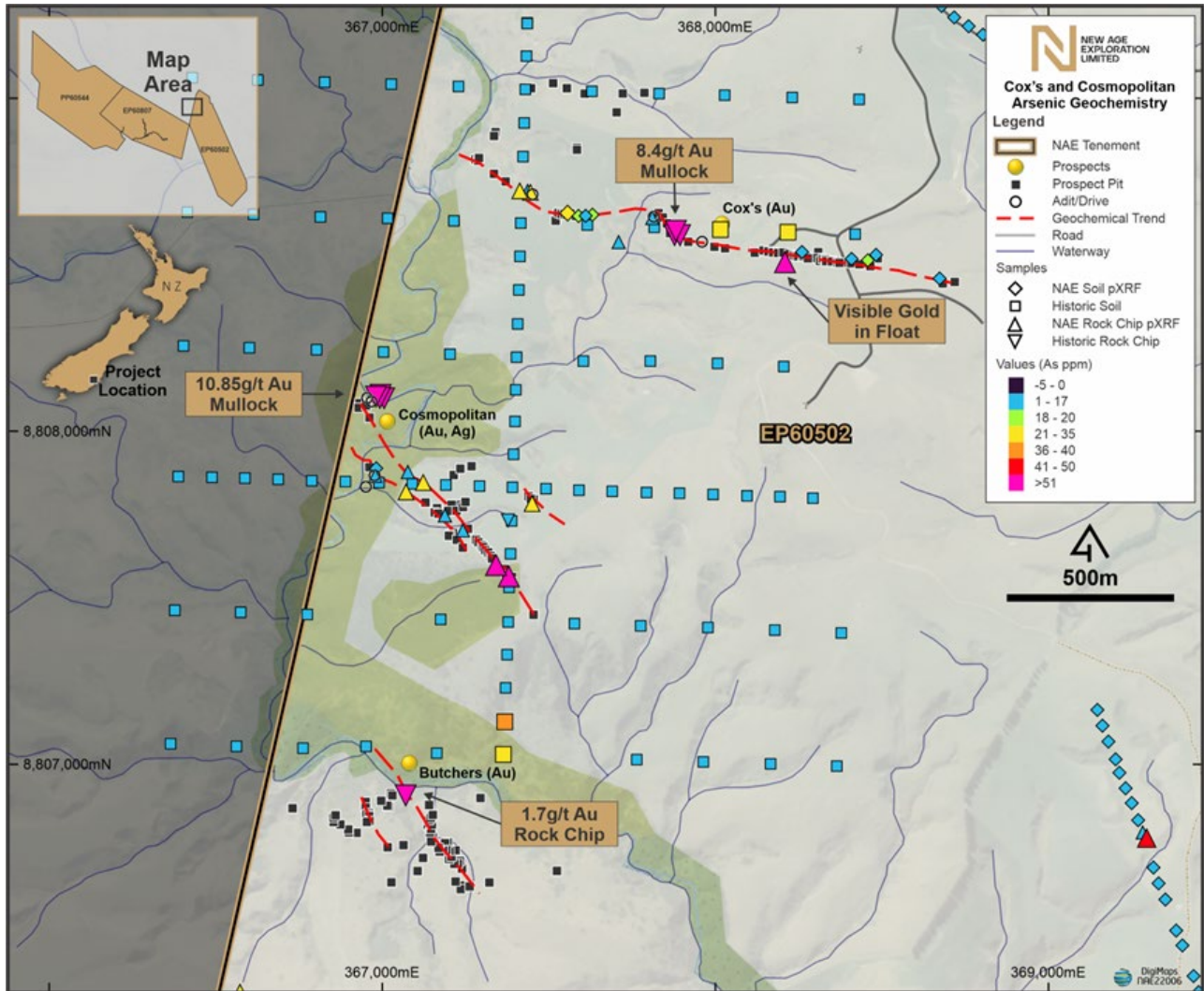


Figure 6 Cox's and Cosmopolitan Prospects in the northern part of the Mahinerangi Permit.

## Future Exploration Work

Ongoing surface sampling and mapping is rapidly moving the prospects within the OPQ Gold Exploration Project towards refining the drill ready targets. Receipt of gold assays and additional field visits during the second half of 2023 will continue to improve target understanding for high-grade narrow vein prospects. The next steps will include trenching across mineralised trends to understand widths and controls on gold mineralisation.

For drill-ready targets along the **OPQ Fault Zone**, access negotiations will be completed shortly to enable drill testing. NAE is very encouraged by the high-grade gold potential of **ABC, Nuggety Gully, Cox's** and **Cosmopolitan**. Positive results will significantly upgrade the scale of these targets and continue to progress them to a drill ready status.

**References:**

- Marshall, p. 1918: The geology of the Tuapeka District, Central Otago Division. Department of Mines Geological Survey Branch. Bulletin 19.
- Rickard 1875. "The Goldfields of Otago", in Trans. Amer. Inst. Min. Eng., vol. xxi, 1983, p.411

**-ENDS-****Authorised for release by the Board.****For more information, please contact:**

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**COMPETENT PERSON'S STATEMENT**

The information in this report that relates to Exploration Results is based on information reviewed by Kyle Howie, who is an exploration geologist and is a Member of the Australian Institute of Geoscientists. Kyle Howie has over 25 years' experience in precious and base metal exploration and resource calculation including gold exploration and resource definition in the Otago region. Kyle Howie has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Kyle Howie consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**FORWARD LOOKING STATEMENTS**

This report contains "forward-looking information" that is based on the Company's expectations, estimates and forecasts as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, objectives, performance, outlook, growth, cash flow, earnings per share and shareholder value, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses, property acquisitions, mine development, mine operations, drilling activity, sampling and other data, grade and recovery levels, future production, capital costs, expenditures for environmental matters, life of mine, completion dates, commodity prices and demand, and currency exchange rates. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as "outlook", "anticipate", "project", "target", "likely", "believe", "estimate", "expect", "intend", "may", "would", "could", "should", "scheduled", "will", "plan", "forecast" and similar expressions. The forward looking information is not factual but rather represents only expectations, estimates and/or forecasts about the future and therefore need to be read bearing in mind the risks and uncertainties concerning future events generally.

**Table 1: Summary of prospects in the OPQ tenement.**

Prospect Name	Ranking	Current understanding	Status and Work Planned
<b>OPQ Mine</b>	1	<ul style="list-style-type: none"> <li>- History of mining spanning 1861-1915. Quartz veining intermittent and up to 3m thick in 3-6m thick mineralised fault zone, quartz grading on avg. 15g/t Au.</li> <li>- OPQ Mine surface working strike length ~1000m, lode mined from three levels up to 480m long by 45m deep.</li> </ul>	<ul style="list-style-type: none"> <li>- Geological 3D modelling and drill targeting complete.</li> <li>- Initial drill target size 500m long x open at depth x 6m wide.</li> <li>-Drill ready. Access negotiations to proceed.</li> </ul>
<b>Burtenshaws (OPQ Northern continuation)</b>	2	<ul style="list-style-type: none"> <li>- Extension of the OPQ Fault Zone north of Lake Mahinerangi</li> <li>- Historic alluvial mining located gold mineralisation at base of deep-lead.</li> <li>- Deep channel cut by alluvial workings is 600m long before becoming obscured by Lake Mahinerangi</li> </ul>	<ul style="list-style-type: none"> <li>- Drill targeting reliant on historic record as old alluvial working filled with water restricting access.</li> <li>- Initial drill target size 600m long x open at depth x 6m wide.</li> <li>-Drill ready. Access negotiations to proceed.</li> </ul>
<b>OPQ Victory</b>	3	<ul style="list-style-type: none"> <li>- Immediately south and extending the OPQ Mine portion of the OPQ Fault Zone.</li> <li>- Pits sunk on quartz lodes in swampy ground. No historic record of production. Target completely blind.</li> <li>- Recent work by NAE has identified positive Au anomalism up to 2510ppb Au in percussion samples at OPQ Victory, indicating the OPQ Fault Zone can be extended a substantial distance.</li> </ul>	<ul style="list-style-type: none"> <li>- Use aircore drilling to locate OPQ Fault Zone and potential quartz veining undercover.</li> <li>- Target strike length to test roughly 1.5km.</li> <li>-Drill ready. Access negotiations to proceed.</li> </ul>
<b>OPQ South</b>	4	<ul style="list-style-type: none"> <li>- Identified by NAE percussion sampling in 2018, with Au results up to 740ppb. OPQ South is located ~3km south of the OPQ Mine.</li> <li>- The area is covered by a 2-5m thick surface cover making surface prospecting difficult. Target completely blind.</li> </ul>	<ul style="list-style-type: none"> <li>- Target strike length to test roughly 1.5km.</li> <li>- Second phase drilling</li> </ul>
<b>Canton Lode</b>	5	<ul style="list-style-type: none"> <li>- Historic mining from 1888 to 1912 with quartz providing similar results to OPQ Lode. Shaft sunk to 46m work from two levels over 50m strike length.</li> <li>-Exceedingly rich specimen gold hosted in quartz and mineralised fault breccias.</li> <li>- Currently no surface exposure. Shaft and workings now covered by swamp.</li> </ul>	<ul style="list-style-type: none"> <li>-- Initial drill target size 100m long x open at depth x 2m wide.</li> <li>- Field mapping and sampling of prospect surrounds.</li> <li>- Second phase drilling</li> </ul>
<b>ABC - Nuggety Gully Lode</b>	6	<ul style="list-style-type: none"> <li>- Intermittent 2km long line of alluvial and hard rock workings.</li> </ul>	<ul style="list-style-type: none"> <li>- Collect further samples</li> <li>-Plan surface trenching to increase understanding of strike length.</li> </ul>

		<ul style="list-style-type: none"> <li>- ABC has shallow surface workings over a 250m strike that produced rich specimen gold.</li> <li>- Nuggety Gully is associated with 850m long alluvial working. Historic hard rock mining from one level 180m long with test crush averaging 10.25g/t Au.</li> <li>-Recent work finds high-grade Au float close to mine workings (Figure 5)</li> </ul>	
<b>Coxes Lode</b>	7	<ul style="list-style-type: none"> <li>- Two quartz lodes located on 1.5km structure demarcated by surface workings.</li> <li>- Historic mining from three levels. Records of work scares but not a 0.3m wide lode containing 30-60g/t Au. Modern rock chip samples from mullock up to 8.4g/t Au</li> <li>-Recent work finds high-grade Au float close to surface workings (Figure 6)</li> </ul>	<ul style="list-style-type: none"> <li>- Collect further samples</li> <li>-Plan surface trenching to increase understanding of strike length.</li> </ul>
<b>Cosmopolitan</b>	8	<ul style="list-style-type: none"> <li>- Two subparallel lodes worked from various points.</li> <li>- Limited historic record of production with trial crushing of vein material crushing 20 tons and averaged 10.85g/t Au. Gold in sulphide not recovered.</li> <li>-Modern rock chip samples from battery site up to 9.88g/t Au</li> <li>- Recent field visit traces surface workings ~800m with quartz and fault zone intermittently exposed.</li> </ul>	<ul style="list-style-type: none"> <li>- Locate old battery location</li> <li>- Collect further samples</li> <li>-Plan surface trenching to increase understanding of strike length.</li> </ul>
<b>Butchers</b>	9	<ul style="list-style-type: none"> <li>- Area of intense alluvial workings, with outcropping quartz vein noted.</li> <li>- Single modern rock chip sample records 1.7g/t Au</li> </ul>	<ul style="list-style-type: none"> <li>- Visit prospect and collect further samples</li> </ul>
<b>Geophysical targets</b>	10	<ul style="list-style-type: none"> <li>- Recent re-processing of legacy geophysics has highlighted structures with similar trends to known gold occurrences.</li> </ul>	<ul style="list-style-type: none"> <li>- Visit locations of interest and collect further samples</li> </ul>