

#### ASX RELEASE

10 May 2022

#### COMPANY

ASX: SNG  
ACN: 619 211 826

#### CAPITAL STRUCTURE

Shares: 95,925,475  
Options: 14,293,262

#### BOARD

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#### PROJECTS



## Siren Pegs High Grade Langdons Reef at Reefton

Siren Gold Limited (ASX: SNG) (Siren or the Company) is pleased to announce that it has applied for a new prospecting permit over **Langdons Reef** near Reefton.

### Highlights

- The **Langdons** area contains a number of **high-grade Au-Sb reefs** ranging from 0.6 to 2.7m wide that were mined with a recovered grade of **60g/t Au**.
- Early reported grades were up to **2,610g/t Au** and **1,120g/t Ag**.
- Only one hole has been drilled in the area to date (in 1936) and it intersected the **Victory Reef (1m @ 30g/t)**.
- Thin quartz veinlets with **stringers of stibnite** were also found at Langdons Reef and were reported to return “**no less than two ounces of gold**”.
- Anomalous gold, stibnite and arsenic soil geochemistry have been found over a strike length of **500m** to date.
- Gold and arsenopyrite were also found in the wall rock, suggesting a similar **As-Au** relationship to that observed at Siren’s **Alexander River Project**.

### Background

The prospecting permit application (PPA) area is located on the West Coast of the South Island, approximately **50km SW of Reefton** (Figure 1). The Greenland Group rocks that host the mineralisation in the **Reefton Goldfield** also outcrop in a NE trending belt, 25kms to the west of the goldfield. This belt of Greenland Group rocks hosts the historical **Langdons** and **Croesus** gold mines.

The PPA area contains **Langdons Reef**, which is exposed in a **5km long by 1km** wide block of exposed Greenland Group rock, which is surrounded, and unconformably overlain, by younger tertiary mudstones and coal measures (Figure 2).

The main target is the **Langdons Reef**, but other mineralised Greenland Group rocks could be hidden under the cover.

### Mining History

The **Langdons Reef**, or Langdons Antimony Lode was discovered in 1879. Several mines were opened on various reefs, including **Langdons, Victory, Julian, Bonanza, Antimony** and **Wilson**s. A battery was established in Langdons Creek in **1885**. Early reported grades were up to **2,610g/t Au** and **1,120g/t Ag**. The **Langdon** and **Victory** reefs were mined successfully for five years with a reported production of 1,586oz of gold from 809 tons of ore for an average grade of **60g/t Au**. A second battery was constructed in Stoney Creek to the SW of the reefs in **1890**. This processed ore was conveyed by an aerial ropeway, but no production figures are available<sup>1</sup>.

After WWII, the **Langdons** and **Victory** mines were revitalised. A new aerial ropeway was constructed, 60m of new drive mined and 105m of existing drive rehabilitated. **Work ceased in 1952** due to insufficient ore. No production data is available from this period<sup>1</sup>.



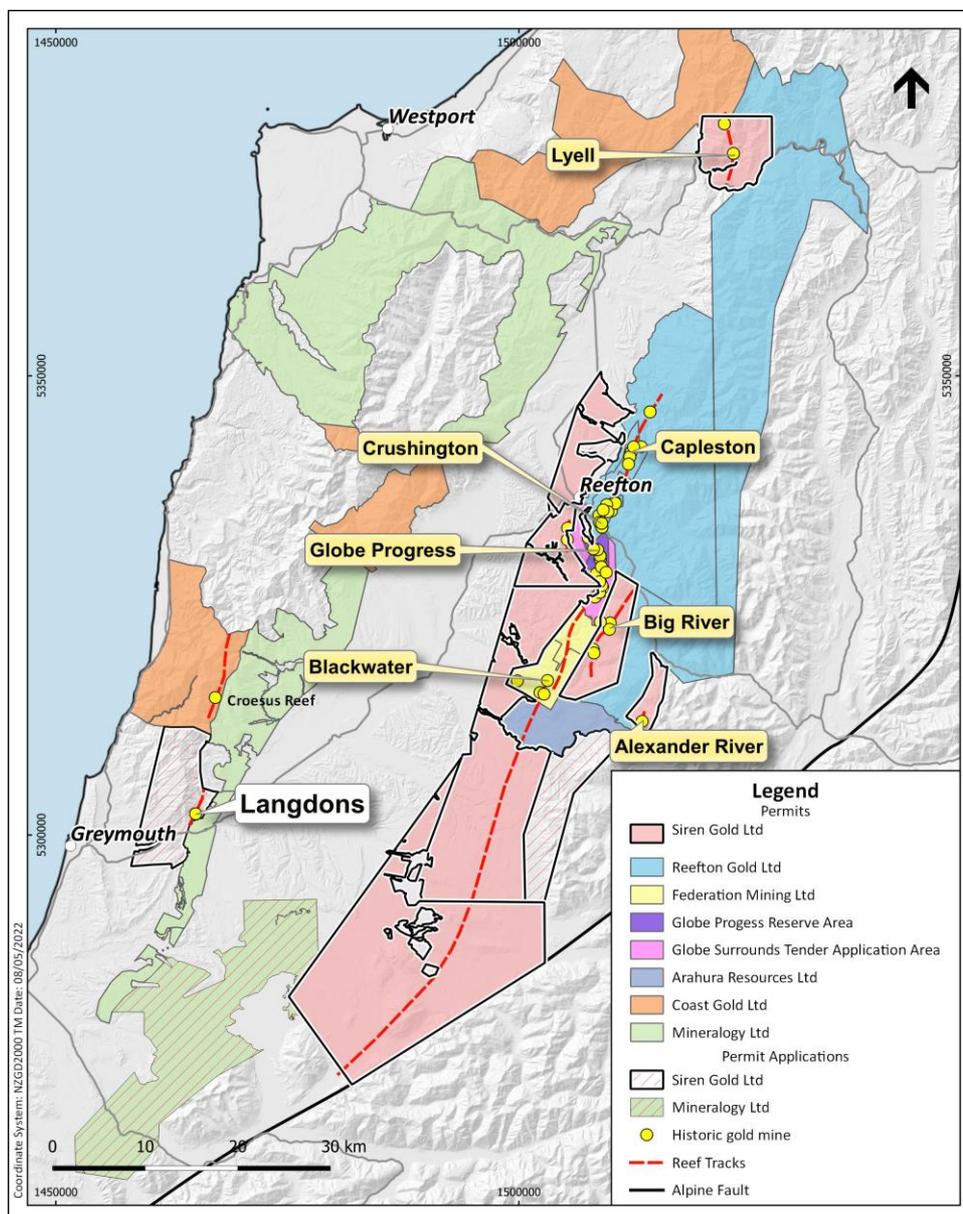
## ASX ANNOUNCEMENT

Early descriptions described a 0.6m - 2.7m thick quartz vein intruding Greenland Group metasedimentary rocks. This included up to 0.6m thick **massive stibnite mineralisation** that could exceed **20%**.

A description of the nearby **Victory Reef** noted that gold could be observed in white quartz, stibnite and pyrite<sup>2</sup>. Thin quartz veinlets with stringers of stibnite were also found at **Langdons Reef** and reported to return “**no less than two ounces of gold**”. Gold and arsenopyrite were also found in the wall rock suggesting a similar **As-Au** relationship to that observed in the **Reefton Goldfield**. Some unnamed reefs mined around **Langdons Reef** also contained Cu sulphides.

An outcrop of the **Langdons Lode** was sampled by Morgan in **1911** and Dominion Laboratories in **1933**<sup>1</sup>. No thickness was given but Morgan’s sample assayed **8.8g/t Au, 2.9g/t Ag** and **14.1% Sb**, and Dominion Laboratories’ sample assayed **89.9g/t Au, 6.9g/t Ag** and **64.1% Sb**.

The **Victory Reef** was mined over three levels. A 1936 plan shows a drillhole into the No 3 Level that intersected a 1m thick reef assaying **30g/t Au**<sup>1</sup>.



**Figure 1. Reefton tenement map with the Langdons PPA area shown.**

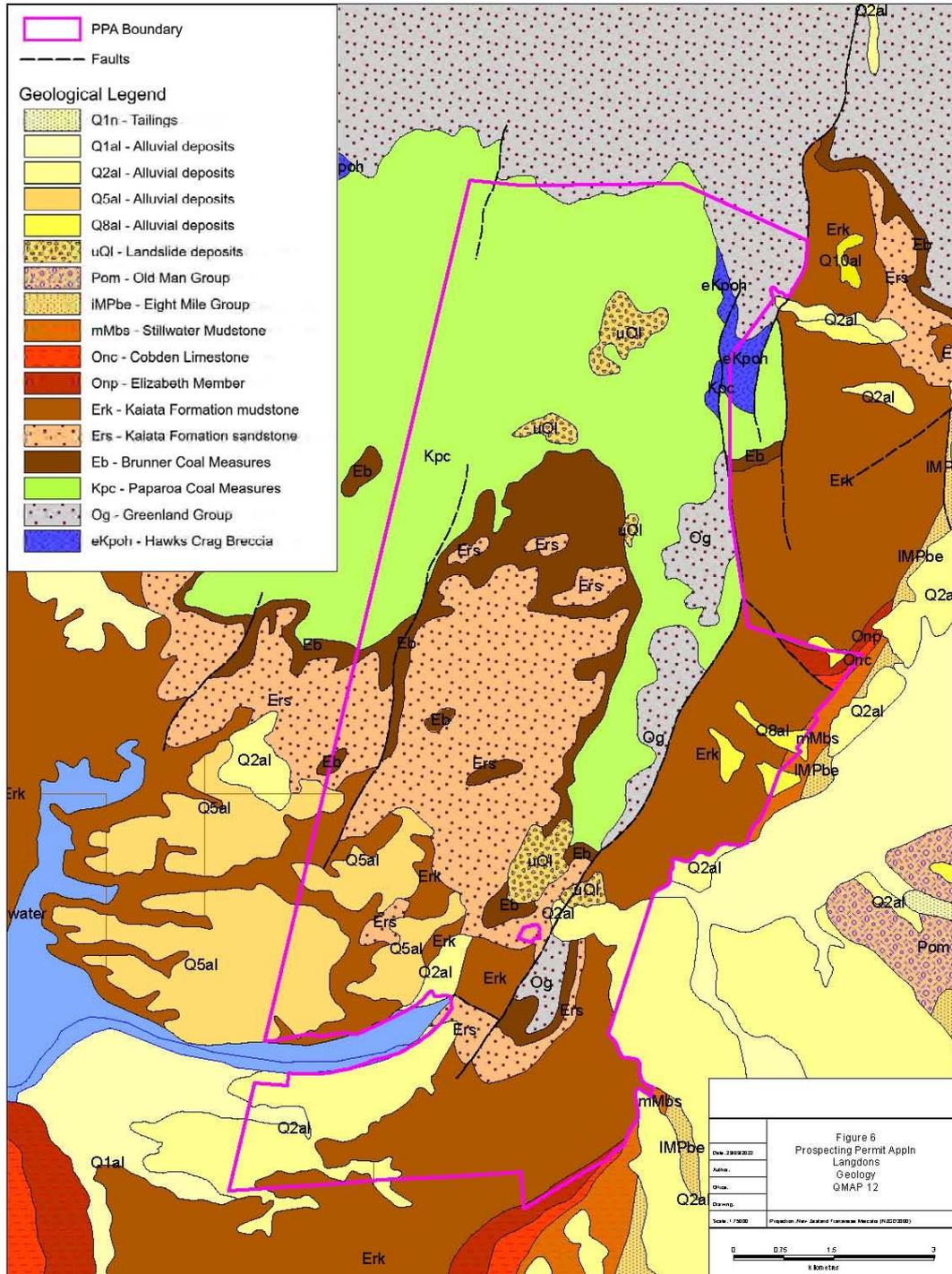


Figure 2. Geology map of the Langdons PPA. Prospective Greenland Group rocks shown in grey (Og) which are overlain by the Paparoa Coal Measures (Kpc) and the Kaiata Formation (Erk and Era).

### Exploration History

Outcrop in the area is sparse and only minor quartz vein development not removed by historic mining can be identified<sup>3</sup>.

Since mining finished in **1952** there has only been very limited exploration in the **1980's**, which included mapping, rockchip, stream sediment and soil sampling completed by Tasman Gold Developments (Tasman). Anomalous gold, stibnite and arsenic soil geochemistry have been found over a **strike length of 500m**.

Gold and arsenopyrite were also reported in the wall rock. Tasman sampled silicified sheared sandstone with minor quartz stringers and sulphide that assayed 1.1m @ **7.0g/t Au**, which may be similar to the disseminated arsenopyrite-gold mineralisation found Siren's **Alexander River project**.

### Exploration – Next Steps

Once the permit is granted **Siren** intends to conduct mapping and rock chip sampling over the exposed reefs as well as conducting a **UFF** Soil sample programme over the **5km x 1km** area of exposed prospective Greenland Group rocks.

The Company is very excited to have been able to include the historical and very high-grade Langdon's reef tenement package into **Siren Golds** overall **Reefton Goldfields** Project. The potential of this area which includes very high-grade gold as well as high grade stibnite, bodes well for future exploration success.

### References

1. Aliprantis, M.M., 1988. Progress Report on PL 31-1320 Langdons Creek, Stillwater Westland (to 15 April 1988). Tasman Gold Development Ltd. MR1528.
2. Cotton, R.J., 1987. Preliminary Exploration Report Langdons Creek Au-Sb Reefs, Stillwater, Westland. Mineral Resources NZ Ltd. MR1514.
3. Cotton, R.J., Stewart, M., 1989. Final Report Langdons reefs area, PL31-1320, PLA 31-1848 Grey Valley, Westland, New Zealand. Tasman Gold Development Ltd. MR2589.

For further information, please visit [www.sirengold.com.au](http://www.sirengold.com.au) or contact:

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This announcement has been authorised by the Board of Siren Gold Limited.

### Competent Person Statement

The information in this announcement that relates to mineral resources, exploration results and exploration targets, is based on, and fairly represents, information and supporting documentation prepared by Mr Paul Angus, a competent person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Angus has a minimum of five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Angus is a related party of the Company, being the Technical Director, and holds securities in the Company. Mr Angus has consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

**Note: All information is sourced from three reports written by Tasman Gold Developments Ltd in 1987, 1988 and 1989. See References section in this announcement.**

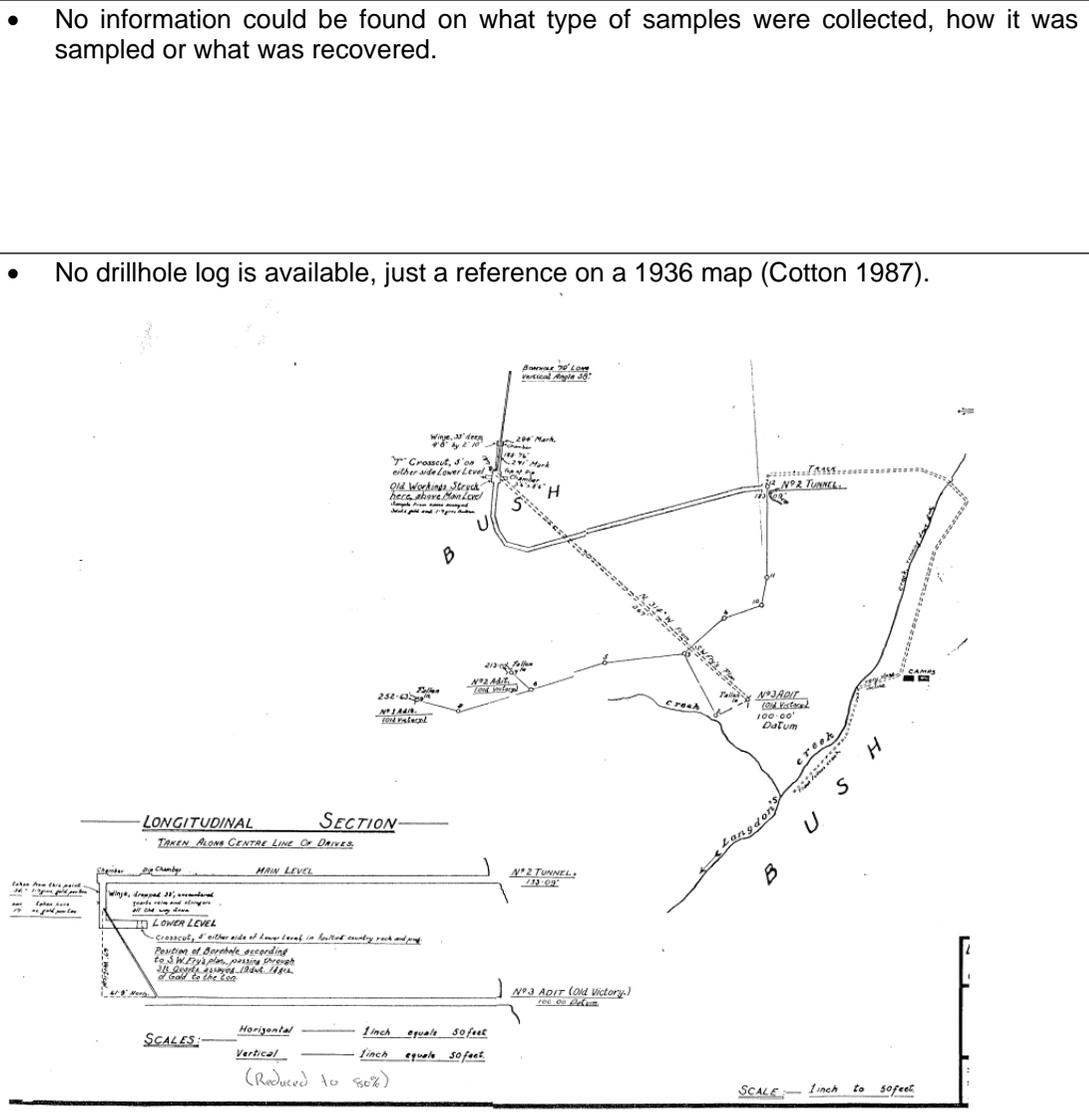
(Criteria in this section apply to all succeeding sections.)

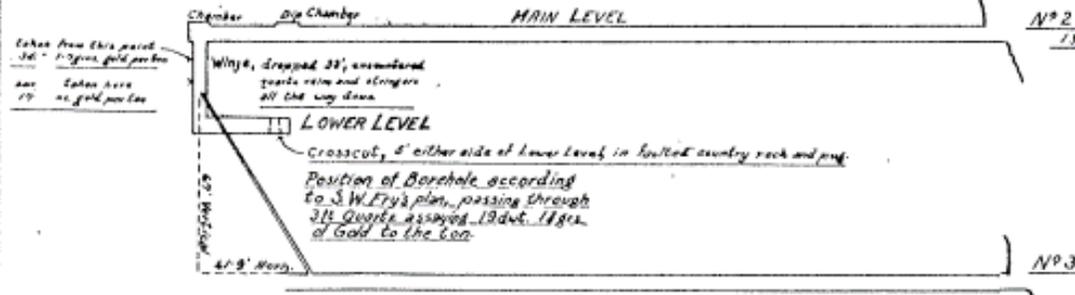
Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>• Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>• In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>• Tasman Developments Limited (Tasman) completed stream sediment, soil and rock sampling in the 1980's.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>• Only one hole was drilled in 1936 but there is no information on the type of drilling completed.</li> </ul>

Criteria	JORC Code Explanation	Commentary
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<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>• No information could be found on what type of samples were collected, how it was sampled or what was recovered.</li> </ul>
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<p><i>Logging</i></p>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• No drillhole log is available, just a reference on a 1936 map (Cotton 1987).</li> </ul>
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Criteria	JORC Code Explanation	Commentary
		 <p>The map states that the drillhole passed through 3-foot quartz reef, assaying 19dwt 11 grains per ton (30g/t).</p>
<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• No information on any sub-sampling is available.</li> </ul>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy</li> </ul>	<ul style="list-style-type: none"> <li>• Stream sediment, pan concentrates and rock chip samples were submitted to W Grayson &amp; Associates (Auckland) for fire assay of gold and wet assay for silver, copper, lead, zinc, arsenic, antimony and mercury (only 13 samples were assayed for mercury).</li> <li>• No information on whether standards or blanks were used.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<i>(i.e. lack of bias) and precision have been established.</i>	
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 37 soil samples were submitted to both Grayson's and Independent Service Laboratories (ISL) in Nelson. A comparison of assay results for Au, As and Sb was reported in Aliprantis 1988. Similar values were obtained for the various elements.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample points were located or set using a tape and compass.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Soil samples were collected on 50 spaced lines at 20m intervals.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Soil lines were orientated NE-SW orthogonal to the mineralisation.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No information available.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No information available.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Prospecting Permit application (PP60893.01) was applied for on 31 March 2022 and has not yet been granted.</li> <li>The Prospecting Permit application (PPA) is over land administered by a mixture of private and public land ownership. Department of Conservation (DoC) areas include Roa – Blackball conservation land, Brunner Forest Conservation Area, Sewell Peak Conservation Area, McLeans Creek Conservation Area, Kaiata Creek Reserve, Kaiata Creek Marginal Strip and Grey River Marginal Strip.</li> <li>If the PP is granted it is for a period of two years with the right of renewal for an additional 2 years. After 4 years the permit can be progressed to an Exploration Permit (EP) which can extend to 5 + 5 years.</li> <li>A PP allows low impact exploration only i.e. aerial or hand held methods. An EP is required for drilling. The PP can be converted to an EP at any stage.</li> <li>A Minimum Impact Activity (MIA) access agreement will be required to undertake exploration on DoC land. A full Access Agreement (DoC AA) is required for drilling. Siren already has MIA's for Alexander River EP, Big River EP, Reefton South PP, Lyell EP and Golden Point RP. Siren has Doc AA's for Alexander River, Big River and Golden Point.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>All exploration results to date have been completed by Tasman between 1987 and 1989.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Langdons reef is located in the Greenland group that host the significant gold deposits in the Reefton Goldfield 25kms to the east. The Reefton Goldfield lies in late Cambrian to early Ordovician Greenland Group sedimentary rocks. These are interbedded, massive to thinly bedded, quartz rich sediments comprising gradational psammitic (greywacke) and pelitic (argillite) rock types. These are interpreted to be a proximal turbidite succession derived from the erosion of a mature continental landmass, which lay to the east and southeast.</li> <li>The Greenland Group sediments are moderately deformed and have undergone a late Silurian to mid Devonian, low grade metamorphic event. Metamorphism is to sub/low greenschist facies, with illite clay predominating (Gage, M. 1948). Widespread folding was probably synchronous with metamorphism, and this deformation predates granitoid emplacement.</li> </ul>

		<ul style="list-style-type: none"> <li>• Deformation due to east – west compression resulted in the formation of close – tight, upright, north – south trending fold axes with a single pervasive and penetrative steeply-dipping, axial – planar cleavage (Rattenbury and Stewart, 1996). As deformation progressed, fold hinges were commonly sheared out by high angle reverse faults and bedding concordant quartz veins formed between discrete bedding planes. These discordant shear zones now host the bulk of the gold mineralisation in the Reefton Goldfield and are thought to have formed as a late-stage, partially strike-slip, event at the culmination of the deformation.</li> <li>• Gold mineralisation in the Reefton Goldfield is structurally controlled; the formation of the different deposit types is interpreted to be due to focussing of the same hydrothermal fluid into different structural settings during a single gold mineralisation event. However, some of the deposits (e.g., Globe-Progress to the north) appear to have been reworked with gold and sulphide mineral remobilisation having occurred during a later phase of brittle deformation.</li> <li>• Regionally the goldfield, on the basis of a geophysical interpretation of airborne magnetic data (Craven 1996), can be divided into a number of structural elements. Central within the area is a northwest trending feature informally titled the Globe-Progress Corridor. This corridor is fault bounded and is speculated to have some control on arsenic anomalism. This corridor, which contains the highly deformed Globe-Progress deposit, appears to have displaced two anticlinoriums. These major folds have been defined by magnetic stratigraphy with the major historical producers forming a corridor on the western limbs of these anticlinoriums.</li> <li>• In general, two end members of mineralisation styles exist, which are possibly related to the structural setting outlined above. The Blackwater style is comprised of relatively undeformed quartz lodes; while the Globe-Progress style comprises highly deformed quartz – pug breccia material.</li> </ul>
<p><i>Drillhole Information</i></p>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drillhole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Only one hole has been drilled in 1936. The hole was drilled azimuth of ~210 degrees and a dip of -58 degrees. Hole depth measure of a 1936 plan was approximately 80 feet or 25m.</li> <li>• The intercept depth is not provided other than a 3 ft quartz reef was intersected.</li> </ul>

<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No sampling or assay data has been found other than reference on a 1936 mine plan that states the drillhole passed through 3-foot quartz reef assaying 19dwt 11 grains per ton (30g/t).</li> </ul>
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The drillhole results are report as downhole intercept.</li> </ul>
<p><i>Diagrams</i></p>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See above</li> </ul>
<p><i>Balanced reporting</i></p>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<p><i>Other substantive exploration data</i></p>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

	<i>contaminating substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Complete a literature review of all relevant data and compile existing geological data into a GIS database.</li> <li>Review all coal drillholes to see if the Greenland Group (GG) rocks were intersected to determine the thickness of the coal measures and any potential mineralisation in the GG.</li> <li>Undertake structural mapping of the exposed GG rocks.</li> <li>Undertake a soil &amp; rock geochemistry sampling program of the exposed GG rocks.</li> <li>Review and filter the aerial magnetic data that has already been collected.</li> <li>Complete a geophysical survey which may include passive seismic and Deep Ground Penetrating Radar (DPGR) to determine the thickness cover overlying the GG.</li> </ul>