

ASX RELEASE

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COMPANY DETAILS

ASX: SNG ACN: 619 211 826

CAPITAL STRUCTURE

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

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PROJECTS



QUARTERLY ACTIVITIES REPORT

FOR THE QUARTER ENDED 30 JUNE 2022

Siren Gold Limited (**Siren** or the **Company**) is pleased to provide the following summary of its activities for the three months ended 30 June 2022.

Highlights

- AX85 drilled in the McVicar West shoot intersected 2.1m @ 19.3g/t Au, including a 0.4m quartz reef at 14.5g/t Au, and 0.9m of acicular arsenopyrite mineralisation that assayed 32.1g/t Au.
- AX89 drilled in the McVicar West shoot intersected 2.2m @ 10.2g/t Au. This hole was drilled 100m down plunge from AX85 that intersected 2.5m @ 358g/t Au.
- Maiden Alexander River Inferred Mineral Resource Estimate (MRE) of 1Mt @ 4.1g/t Au for 131koz at a 1.5g/t cut-off and 35g/t top-cap. The MRE has been depleted for historic mining.

Shoot	Tonnes (kt)	Grade (g/t Au)	Ounces (koz)	% MRE
McVicar East	14	6.5	3	2.3
Bull East	355	2.1	24	18.5
Bruno East	32	5.9	6	4.6
Loftus-McKay	218	4.6	32	24.6
McVicar West	382	5.3	65	50.0
Total	1,000	4.1	131	100.0

Tonnages are dry metric tonnes and minor discrepancies may occur due to rounding.

- BR37 at Big River drilled into the A2 Shoot and intersected 5.2m @ 6.3g/t Au from 213m. This zone comprised of 2.3m of quartz and massive pyrite breccia that averaged 5g/t Au, 21% sulphur and 460ppm antinomy, followed by 2.9m of disseminated acicular arsenopyrite mineralisation that averaged 7.6g/t Au.
- A 100m long mineralised zone was identified at Lyell based on sub-crop and float samples. Samples with disseminated acicular arsenopyrite assayed up to 4.8g/t Au, while samples that also contained thin <4mm grey quartz veinlets included assays of 37g/t Au, 22g/t Au and 6g/t Au.
- At Auld Creek the Bonanza and Fraternal reefs can be traced for 700m. Trenching across these anomalies encountered strongly brecciated gold and stibnite mineralisation, returning results of 2m @ 8.6g/t Au and 1.7%Sb across the Bonanza reef, and 2m @ 5.6g/t Au and 2.3%Sb across the Fraternal reef. Drillhole intersections in the Fraternal Reef include true widths of 6m @ 4.14g/t Au, 3m @ 3.02g/t Au and 3.2% Sb.
- Siren pegged the Langdons area containing 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.
- Purchase of the Sams Creek Project, which has a significant JORC (2012) Mineral Resource of 7.5Mt @ 2.43g/t Au for 588koz of contained gold, with a significant potential for expansion.



BACKGROUND

Western New Zealand was originally part of Gondwana and lay adjacent to eastern Australia until around 80 Ma ago (Figure 1). The NW of the South Island of New Zealand comprises an area of predominantly early Paleozoic rocks in broad northerly trending belts which terminate at the Alpine Fault (Figure 2). The Paleozoic sequence is divided into the Buller Terrane, Takaka Central and Takaka Eastern belts. These belts are interpreted to correspond with the Western, Central and Eastern belts of the Lachlan Fold Belt. The Buller and Western Lachlan belts contain the orogenic gold deposits like Bendigo, Ballarat and Fosterville in Australia and the Reefton Goldfields in New Zealand. The Sams Creek porphyry dyke deposit is located in the Eastern Takaka Terrane, which is equivalent to the Eastern Lachlan belt that hosts porphyry copper-gold deposits like Cadia and Ridgeway.

Siren already has a large strategic tenement holding in the Reefton and Lyell Goldfields, which historically produced over **2Moz** of gold at an average recovered grade of **16g/t**. This includes the key projects of Alexander River, where Siren recently intersected **2.5m @ 358g/t Au** in diamond hole AX84 (*refer announcement dated 31 March 2022*), and Big River where BR04 intersected **6.6m @ 21.4g/t Au** (*refer announcement dated 19 April 2021*).

Gold mineralisation at **Reefton** also occurred in two distinct events, with the first stage comprising gold mineralised quartz veins and a second characterised by quartz, stibnite, arsenopyrite, pyrite and gold. Stibnite was found in many of the quartz lodes at **Reefton**, locally making up 10–30% of some veins. Stibnite was reported from mines at **Blackwater**, **Globe Progress**, **Crushington**, **Capleston**, **Specimen Hill**, **Big River**, **Ajax**, **Murray Creek**, **Blacks Point–Painkiller**, **Merrijigs** and **Alexander River**. At **Big River** a stockpile of stibnite ore was left at the historic battery, as stibnite caused some metallurgical issues during the gold recovery process.

At **Fosterville** the gold associated with disseminated acicular arsenopyrite is thought to be an earlier event that was later overprinted by gold-stibnite mineralisation. The gold hosted arsenopyrite is pervasive throughout the deposit but a narrow window of vein hosted gold-stibnite mineralisation exists from ~800m to 1,350m depth, below which there is vein hosted gold mineralisation only (Figure 3). The two gold mineralisation events are thought to have occurred around 430 and 370 million years (Ma) ago ~60Ma apart (*refer to announcement dated 25 March 2022*).

The acicular arsenopyrite mineralisation at **Alexander River** looks very similar to the **Fosterville** mineralisation and probably represents that same initial gold mineralisation event. The visible gold at **Alexander River** is often associated with styolitic seams as is probably part of the initial gold mineralisation event at **Reefton**. The acicular arsenopyrite and later gold-stibnite at **Reefton** also indicates that it was emplaced in the relatively shallow epizonal environment.

The similarities between Siren's **Alexander River** project and **Fosterville** at this early stage are particularly compelling, with the structural setting and age being very similar.





Figure 1. Gondwanaland showing the Lachlan Fold Belt and Reefton Goldfield (Cooper 1992).



Figure 2. Fold belt Paleozoic rocks at the top of the South Island that host the Epizonal gold mineralisation shown in red.



REEFTON PROJECTS AND ACTIVITIES

Siren holds a large, strategic package of tenements along the under-explored 40km long Reefton and Lyell Goldfields, with permits covering a further 40kms of buried unmined Greenland Group rocks that potentially host gold mineralisation to the south of Blackwater (Figure 4). Key projects include Alexander River, Big River, St George, Golden Point and Lyell. Siren has also applied for a permit over the Langdons Sb-Au Reef located in a belt of Greenland Group rocks further to the west (Figure 3).

During the quarter Siren had three diamond rigs operating with two at Alexander River and one at Big River. A total of 12 holes for 3,453.5m was completed at Alexander River and 6 holes for 1,787.6m at Big River for a total of 18 holes and 5,106.2m.



Figure 3. Reefton Tenement Map.



Alexander River

During the quarter a total of 12 diamond drillholes for a total of 3,453.5m metres was completed at Alexander River. This included diamond drillhole AX85 (2.1m @ 19.3 g/t Au) and AX89 (3.3m @ 7.4g/t Au, including 2.2m @ 10.2g/t Au) in the McVicar West Shoot. AX85 included 0.4m quartz reef at 14.5g/t Au, and 0.9m of acicular arsenopyrite mineralisation that assayed 32.1g/t Au (Figure 4). AX89 intersection comprised a 2.2m strongly mineralised zone with a 0.6m quartz reef with visible gold on the hangingwall, followed by 1.6m of disseminated acicular arsenopyrite mineralisation. Again, this disseminated acicular arsenopyrite mineralisation had higher grade than the quartz reef with visible gold (Figure 5).

Diamond drillhole AX89 was drilled 100m down plunge of AX84 and intersected **3.3m @ 7.4g/t Au** on the other side of an interpreted fault (Figure 6). The mineralisation was intersected around 40m west of AX84, but down plunge, indicating that displacement across the fault is strike slip. If this interpretation is correct, then the Loftus-McKay shoot should have a similar displacement across the fault. This would put the surface expression of the reef track to the west of Pad 29 and Pad 45 (Figure 1) and holes drilled from those pads (AX39, AX42, AX43, AX51, AX53 and AX56) would have been drilled into the footwall. Holes drilled from Pad 44 (AX71, 73, 76 and 78) would have been drilled into the Loftus-McKay and McVicar West shoots.



Figure 4. AX85 intersection in the McVicar West shoot: 2.1m @ 19.3g/t Au





Figure 5. AX89 intersection in the McVicar West shoot: 2.3m @ 10.2g/t Au.



Figure 6. Alexander River schematic Long Section.



The Maiden Mineral Resource Statement (MRE) for the Alexander River Gold Project was prepared by independent consultant Entech Pty Ltd (Entech) during July 2022 and is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition (*refer to announcement dated 20 July 2022*).

This MRE includes 15,675m of drilling from 100 diamond (DD) drillholes completed up to 9 May 2022 by the Company. The depth from surface to the current vertical limit of the Mineral Resources is approximately 260m.

The Inferred Mineral Resources comprise transitional and fresh rock. The Mineral Resource Statement is presented in Table 1 at various cut-offs and in Table 2 by material type. Table 3 shows the resource by geological domain (shoot).

A longitudinal section of the MRE with the shoot domains and block grades is shown in Figure 7. This section shows that the grade of the McVicar West and Loftus-McKay shoots appears to be increasing with depth.

The McVicar West Shoot contains 50% of the MRE, with an average grade of 5.3g/t Au when a top-cap of 35g/t Au is used (i.e. 1m tonnes of gold composites capped to a maximum of 35g/t Au in the MRE). The McVicar West Shoot contains diamond drillhole AX84, which intersected 2.5m @ 358g/t Au. The 35g/t top-cap has had a significant impact on the average grade of the McVicar West Shoot. If a top-cap of 200g/t Au is used the average declustered and capped mean grade increases from 5.4g/t to around 8.3g/t (>50% increase). Given the style of deposit, it is likely that further infill drilling may present additional statistical outliers and will help assess whether these values are true outliers, or a higher tenor sub-population (sub-domain). In the latter case, top-cuts upwards of 50–200g/t Au may be considered appropriate.

The MRE drillhole cut-off for the McVicar West Shoot has been extended a further 100m down plunge, with AX89 drilled on the NE side of the fault intersection 3.3m @ 7.4g/t Au.

Cut-off Grade	Tonnes (kt)	Grade (g/t Au)	Ounces (koz)
1.0	1,200	3.6	139
1.1	1,192	3.6	139
1.2	1,164	3.7	138
1.3	1,096	3.8	135
1.4	1,038	4.0	133
1.5	1,000	4.1	131
2.0	832	4.5	122

Table 1. Inferred Resource Summary at different cut-off grades

Tonnages are dry metric tonnes and minor discrepancies may occur due to rounding.

Table 2: Inferred Resource b	y Material Type – 1.5 g/t Au Cut-off
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Material Type	Tonnes (kt)	Grade (g/t Au)	Ounces (koz)	% MRE
Transition	302	2.9	28	21.4
Fresh	699	4.6	103	78.6
Total	1,000	4.1	131	

Tonnages are dry metric tonnes and minor discrepancies may occur due to rounding.



Tonnes(kt)	Grade (g/t Au)	Ounces (koz)	% MRE
14	6.5	3	2.2
355	2.1	24	18.6
32	5.9	6	4.6
218	4.6	32	24.7
382	5.3	65	49.7
1,000	4.1	131	100.0
	14 355 32 218 382	14 6.5 355 2.1 32 5.9 218 4.6 382 5.3	14 6.5 3 355 2.1 24 32 5.9 6 218 4.6 32 382 5.3 65

Table 3: Inferred Resource by Geological domain at a 1.5 g/t Au Cut-off

Tonnages are dry metric tonnes and minor discrepancies may occur due to rounding



Figure 7. Long Section showing shoot domains (top) and MRE block grades (bottom).



The McVicar West shoot extends below the MRE with AX89 intersecting 2.3m @ 10.2g/t Au a further 100m down plunge (Figure 6). Over the rest of 2022 the McVicar West Shoot will be targeted around 500m below the MRE (Figure 8). Targeting the Bull West Shoot on the SE side of the fault and targeting the Loftus-McKay Shoot on the NE side of the fault will also be undertaken. Siren still considers that the Alexander River Exploration target of 500-700koz @ 5-7g/t Au inclusive of the Inferred Resource, is still valid¹ and this drilling, if successful, will increase the confidence in that target.



Figure 8. Target areas for the remainder of 2022 drilling shown by white ellipses.

Big River

Siren recommenced drilling in March 2022, with 6 holes for 1,767m completed to date. Initial drilling has focussed on testing the A2 shoot at deeper levels. **BR37** intersected **5.2m @ 6.3g/t Au** from **213m** (Figure 9). This zone comprised of 2.3m of quartz and massive pyrite breccia that averaged 5g/t Au, 21% sulphur and 460ppm antimony, followed by 2.9m of disseminated acicular arsenopyrite mineralisation that averaged 7.6g/t Au (Figure 10) (*refer to announcement dated 11 July 2022*).

BR39 drilled 50m below BR37 and intersected 10m @ 1.2g/t from 271m, including 3m @ 2.5g/t Au from 278m while BR40, drilled a further 50m down plunge, intersected a 16m wide zone of elevated arsenic from 271m with massive sulphide between 280m and 282m. Results for BR40 are awaited. BR41 was drilled a further 50m to the west between BR37 and BR39 (Figure 1) and again intersected a 17m wide zone of mineralisation similar to BR40, with results awaited.

The results to date indicate that the A2 shoot is plunging around 55° to the NNE, similar to Shoots 1 to 4. The A2 shoot can now be traced from outcrop to 280m down plunge or 200m below surface. BR42 is now being drilled 50m NW of BR38.

¹ The potential quantity and grade of the exploration target is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource beyond what is reported in this announcement. The Company refers to the announcements dated 19/08/2021, 23/09/2021 and 3/05/2022 where further information is set out in respect to the exploration target.





Figure 9. Big River schematic long section.





Figure 10. A2 shoot intersected in BR37. Quartz and pyrite breccia in the hangingwall with higher Au grades in the footwall acicular arsenopyrite mineralisation.





Figure 10b. Continuation of A2 shoot intersected in BR37.

Siren has estimated an Exploration Target of between 100koz and 125koz at a gold grade between 7-9g/t Au for Shoot 4, based on existing drillholes. With additional drilling, similar exploration targets could potentially be estimated on the other shoots. The Company considers Big River has upside potential of 250koz to 500koz.

St George

St George is in the southern half of the Big River exploration permit and lies 1.6kms south of the Big River mine that produced 136koz at an average grade of 34.1g/t Au and 4kms east of the historic Blackwater mine that produced 740koz at an average grade of 14.2g/t Au (Figure 11). The St George area comprised the Golden Hill, Big River South and St George historical mine areas.

Mapping has confirmed that the Sunderland Anticline that hosts the Big River mine extends for 5kms south, where it is cut off by younger granite intrusion (Figure 11). The main reef track that runs through the St George and Big River South mines is parallel and 250m to the west of the anticline hinge and appears to link into the Big River mine. These structures are prime target areas for Big River mine style mineralisation.

Soil geochemistry has now been completed for over 6kms from Big River North to around 2kms south of St George. The arsenic soil geochemistry shows large anomalies at Big River mine and a 3km long anomaly from Golden Hill to south of St George (Figure 11). The results clearly show that the arsenic anomaly continues strongly to the south until it is cut off by younger granite and extends into a broad zone south of St George into an area that has not been historically mined. Anomalous arsenic also extends for 1.5kms NE of Big River to the contact with overlying Eocene coal measures.

Gold soils have been sent to LabWest in Perth, where they are being analysed using the new UltraFine+ soil technique method developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and LabWest. Ultrafine has low detection limits and can potentially detect gold in areas covered by glacial till. The gold results are lagging the arsenic, but results received to date largely mirror the arsenic results (Figure 12).





Figure 11. Plan of arsenic soil geochemistry at Big River - St George.





Figure 12. Plan of arsenic soil geochemistry at Big River – St George.



Lyell

Recent soil sampling at Lyell shows a NW trending gold anomaly that intersects the anticline around the Alpine United mine. The anomaly extends for over 3kms, as shown by the red dotted line in Figure 13, where it potentially intersects a syncline around the **United Victory** mine. The **Break of Day** mine is also located along this anomaly. The soil samples along the NW gold trend identify several anomalous areas shown by the black circles in Figure 13. These may represent mineralised shoots similar to **Alexander River**.



Figure 13. Lyell gold soil geochemistry.



As previously reported, an outcrop of acicular arsenopyrite mineralisation was found along this gold anomaly at Mt Lyell (Figure 13). The outcropping mineralised zone extends for around 50m along strike and may be up to **10m thick**. This mineralisation looks very similar to the disseminated acicular arsenopyrite mineralisation found at **Alexander River**. Rock chip results ranging from **0.7 to 8.6g/t Au**, along with **visible gold**, were found in quartz float at the **Break of Day** mine 1km to the south.

The gold soil anomaly at Mt Lyell North was mapped. Outcrop is poor, but a 100m long mineralised zone was identified based on sub-crop and float samples. Samples with disseminated acicular arsenopyrite assayed up to 4.8g/t Au, while samples that also contained thin <4mm grey quartz veinlets, included assays of **37g/t Au**, **22g/t Au** and **6g/t Au** (*refer to announcement dated 3 June 2022*).

These results, along with the similarities to Alexander River, are very encouraging. Siren has applied to the Department of Conservation (DoC) for an Access Agreement to allow drilling.

Auld Creek

The Auld Creek Prospect is contained within Siren's Golden Point exploration permit and is situated between the highly productive Globe Progress mine, which historically produced 418koz @ 12.2g/t Au, and the Crushington group of mines that produced 515koz @ 16.3 g/t Au (Figure 14). More recently OGL mined an open pit and extracted an additional 600koz from lower grade remnant mineralisation around the historic Globe Progress mine (*refer to announcement dated 9 June 2022*).

The Auld Creek mineralisation extends for over 2kms and appears to represent a block that was potentially offset to the west, along NE-SE trending faults between Globe Progress and Crushington. Arsenic soil geochemistry from Big River to Crushington, shown in Figure 14, appears to confirm this interpretation. The gap in soil geochemistry north of Big River is due to the presence of coal measures that overly the Greenland Group sediments that host the gold mineralisation

Gold in Auld Creek was first discovered in the early 1870s. Two claims, Fraternal and Bonanza, were worked intermittently from the 1880s. A 2.4m wide quartz reef was mined from a shallow shaft at Bonanza and was reported to return an average grade of 23.3 g/t Au. In 1914, a drive beneath the Bonanza Shaft was revitalised and extended, returning grades up to 21.7 g/t Au. The Fraternal claim was mined in a series of shallow adits situated along a 400m north-south oriented strike length, but no additional information or production records from these mines are available.

The Auld Creek Prospect has been sporadically explored since the 1980s. CRA Exploration (CRAE) and OGL completed several soil sampling, rock chip sampling and trenching programs between 1984-2000, with most of the work focused around the historic mining areas. Two north-south trending gold and arsenic soil anomalies were defined along the strike of the Bonanza and Fraternal reefs for around 700m¹. Trenching across these anomalies encountered strongly brecciated gold and stibnite mineralisation, returning results of 2m @ 8.6g/t Au and 1.7%Sb in trench No2 (ACT-2) across the Bonanza reef, and 4m @ 3.3g/t Au and 1.2%Sb in ACT-5 across the Fraternal reef (Table 4). Rock chip sampling of the mullock dumps at Fraternal and Bonanza workings returned peak grades of 63g/t Au and 29%Sb and 47g/t Au and 42%Sb respectively.

Between 1996 and 2013, OGL drilled 17 diamond holes for 2,016m, defining a mineralised zone up to 13m true width (Table 5). The Fraternal mineralisation strikes north-south for over 100m, hosted in a steeply west-dipping shear zone parallel to a small anticline hinge. RDD0085 intersected a true width of 13m @ 1.6g/t Au from 30m, including 3m @ 3.0g/t Au and 3.2% Sb, and 3.7m @ 2.6g/t Au. RDD0087 intercepted a true width of 6m @ 4.1g/t Au from 63m including 3m @ 5.7g/t Au. The highest grades in the deposit are generally associated with strong stibnite mineralisation remains open at depth and along strike. The highest grades in the deposit are associated with strong stibnite mineralisation in the hangingwall contact. The deepest drillhole intersected gold mineralisation less than 100m below surface, and 100m below surface, and mineralisation remains open at depth and along strike. At present, there is insufficient drilling information to determine the plunge of the mineralised shoot.



The historically more successfully Bonanza Lode has been almost totally untouched by modern exploration, with the focus in recent times placed on the outcropping Fraternal mineralisation to the east.

Exploration efforts to date have proved substantial gold mineralisation exists in the Auld Creek Prospect area. High grade gold and stibnite has been historically mined near surface from quartz reefs and mineralised breccias at the Bonanza and Fraternal claims. Modern exploration has extended gold and arsenic anomalism to 700m in length, with evidence of parallel narrow, north-south striking anomalism located in the southwest of the Prospect, suggesting the possibility of structural repeats throughout the prospect area.

Trench ID	Prospect	Total length (m)	Interval (m)	Gold (g/t	As (ppm)	Sb (ppm)
ACT-1	Fraternal	5.0	2.0	2.4	2,100	1,600
ACT-2	Bonanza	2.0	2.0	8.6	5,910	17,025
ACT-3	Fraternal	13.0	5.0	2.4	2,725	309
ACT-4	Fraternal	2.5	2.5	1.8	1,760	6,504
ACT-5	Fraternal	8.0	4.0	3.3	988	12,140
ACT-6	Bonanza	7.0	6.0	1.8	5,417	11,130
ACT-7	Bonanza	2.7	2.7	4.2	1,744	3,483
ACT-8	Bonanza	8.0	1.0	3.6	3,300	60
ACT-9	Fraternal	2.0	2.0	6.0	8,025	110

Table 4. Significant Auld Creek trench intercepts.

Hole ID	Prospect	From	То	Interval (m)	True Width (m)	Grade (g/t Au)	As (ppm)	Sb (ppm)
96DDAC001	Fraternal	52.3	52.7	0.4		2.52	607	223,000
96DDAC003	Bonanza	34.0	35.0	1.0		4.65	5679	70
RDD0081	Fraternal	45.0	51.0	6.0	1.5	1.73	n/a	n/a
RDD0081	Fraternal	55.0	67.0	12.0	2.9	2.11	n/a	n/a
Incl		56.0	61.0	5.0	1.2	3.18	n/a	n/a
RDD0081a	Fraternal	57.0	67.0	10.0	2.6	1.71	1645	527
RDD0084	Auld Creek	77.0	78.0	1.0	0.7	2.54	233	5
RDD0085	Fraternal	30.0	66.0	36.0	13.2	1.56	1230	6,851
Incl		30.0	37.0	7.0	3.0	3.02	1966	31,850
Incl		43.0	51.0	8.0	3.7	2.62	2184	1,660
RDD0086	Fraternal	90.0	96.0	6.0	0.8	4.14	3642	41,094
RDD0087	Fraternal	63.0	98.0	35.0	6.0	4.11	n/a	n/a
Incl		63.0	81.0	18.0	3.1	5.74	n/a	n/a





Figure 14. Regional arsenic soil geochemistry from Crushington to Big River.



Langdons

The prospecting permit application (PPA) area is located on the West Coast of the South Island, approximately 50km SW of Reefton (Figure 3). 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 mine (*refer to announcement dated 10 May 2022*).

The PPA area contains Langdons Reef, which is exposed in a small 5km long by 1km wide block of exposed Greenland Group rock, which is surrounded, and unconformably overlain, by younger tertiary mudstones and coal measures. The main target is the Langdons Reef, but other mineralised Greenland Group rocks could be hidden under the cover.

The Langdons Reef, or Langdons Antinomy Lode was discovered in 1879. Several mines were opened on various reefs, including Langdons, Victory, Julian, Bonanza, Antimony and Wilsons. 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.

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.

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.

SAMS CREEK PROJECT AND ACTIVITIES

Siren has entered into an agreement to acquire Sandfire Resources Limited's (Sandfire) 82% interest in the Sams Creek Gold project in New Zealand for a consideration of A\$250k. OceanaGold Limited (OGL) will retain their 18% interest in the project. The transaction is subject to due diligence and approval by New Zealand Petroleum and Minerals (NZPaM), with a target completion date of 30 September 2022 (*refer to announcement dated 3 June 2022*).

The Sams Creek Gold Project is located 140kms NE of Reefton and 100kms NE of Lyell (Figure 2). The Project comprises two exploration tenements: EP 54454, which is 100% held by Sams Creek Gold Limited (SCGL) a wholly owned subsidiary of Sandfire, and EP40338, which is 81.9% held by SCGL under a joint-venture agreement with New Zealand's largest gold miner, OGL, who own the remaining 18.1% interest.

The Sams Creek Gold Project is divided into several exploration prospects along the strike of the Sams Creek Dyke (SCD), and includes Riordans, Western Outcrops, Doyles, SE Traverse, Carapace, Main Zone, Anvil and Barrons Flat. The SCD is up to 60m thick and can be traced E-W over 7kms along strike. The dyke generally dips steeply (~60°) to the north, where it intrudes quartzite and sandstone dominated lithologies, but dips more shallowly to the NW and SE between the Carapace and Western Outcrops, where it intrudes argillite.

The SCD has been folded into gentle NE plunging folds, with the gold veins preferentially forming in the fold hinges, resulting in NE plunging mineralised shoots as shown in Figure 15.



The SCD 3D wireframe from the Main Zone to Western Outcrops (approx. 3kms) is shown in Figure 16. This figure clearly shows the NE plunging F3 anticline hinges and associated high grade mineralisation (red and magenta) along the hinge zones at the Main Zone and Carapace.

Golder completed a resource estimate in 2013. The resource is broken into three spatially separated block models; Main Zone, Bobby Dazzler and Carapace, with separate models produced for each deposit. Ordinary Kriging with a three-pass plan was completed on an unfolded model. Each of the three block models was divided into oxide or sulphide domains based on the weathering profile with appropriate densities applied to each zone. A density of 2.59t/m³ was used for oxide and 2.70t/m³ for sulphide mineralisation.

The 2013 model contains a combined resource estimate of 7.5Mt @ 2.43g/t Au for 588koz at a 1.5g/t Au cut-off (Table 6).

2013 Sams Creek Mineral Resource Estimate						
Category	Tonnes (Mt)	Grade (g/t Au)	Contained Gold (koz)			
Indicated	5.0	2.48	402			
Inferred	2.5	2.33	187			
Total 7.5 2.43 588						

Table 6. 2013 Resource estimate at a 1.5g/t cut-off.

The 2013 resource estimate doesn't include the SE Traverse prospect. The SE Traverse is an isolated section of dyke approximately 600m long and 200m wide that is interpreted to be a continuation of the A1 anticline hinge that extends from Main Zone for over 1.5kms and is open at depth. Drillhole intersections in the SE Traverse are summarised in Table 7 and confirm the continuation of the higher-grade mineralisation in the A1 anticline hinge (Figure 15).

Hole ID	From (m)	To (m) Interval (m)		Gold (g/t)
SCDDH094	7.7	14.7	7.0	3.1
SCDDH096	39.8	48.8	8.6	3.2
SCDDH100	53.5	57.5	4.0	4.5
SCDDH101	43.9	47.5	3.6	3.2
SCDDH102	13.4	26.0	12.6	5.5

Table 7. SE Traverse significant drill hole intersections.

To date the drilling has been focussed around the Main Zone and Carapace (resource model area) and SE Traverse area with little or no drilling at Doyles, Anvil West and Anvil East. To date only around 15% of the SCD has been drill tested. Rock chip samples along the SCD are shown in Figure 17. These show that Roirdans, Western Outcrops, Doyles, Anvil West and Anvil East all have high grade rock chips, interpreted to be associated with NE trending anticline hinges and have the potential to contain additional mineralisation.





Figure 15. Plan view from Doyle's to Main Zone showing A1 anticline and drillhole results. Mineralised shoots shown orange.





Figure 16: Sams Creek Dyke plan view.



Figure 17. Rock chip samples along the SCD.



Strategy

Siren's strategy is to grow its Exploration Targets organically with continued drill-focused exploration on the Company's key projects over the next 24 months. Exploration over the next 12 months will focus on Alexander River and Big River in Reefton, where Exploration Targets and an Inferred Resource (*refer to announcement dated 19 July 22*) have already been estimated, and Main Zone and SE Traverse at Sams Creek, where an Inferred and Indicated Resource has been estimated (*refer to announcement dated 3 June 2022*).

Exploration will also be advanced at St George, Lyell and Doyles, with initial drilling planned for 2023.

Metallurgical Testwork

Seven samples from the Reefton Project were submitted to Bureau Veritas (BV), Perth for preliminary evaluation of the metallurgy (*refer MRE announcement dated 20 June 22*). The samples were derived from drill core with six fresh composite samples from Alexander River (Bull East, McVicar West and Loftus McKay) and one from Shoot 4 at Big River (Table 8).

Sample Name	Drilhole ID	From	То	Shoot
Reefton 1	AXDDH0059	127.0	131.0	Bull East
Reenon		132.75	134.35	Bull East
Reefton 2	AXDDH0066	58.0	63.7	McVicar East
Reenon 2		64.9	67.0	NICVICAI East
Reefton 3	AXDDH0050	4.3	12.0	Loftus-McKay
Reefton 4	AXDDH0065	226.0	231.0	McVicar West
		261.1	261.8	
Reefton 5	AXDDH0063	263.1	264.1	McVicar West
		265.5	271.0	
	AXDDH0064	261.8	263.1	
Reefton 6		264.1	265.5	McVicar West
	AXDDH0074	312.8	313.3	we west
		314.9	315.5	
Reefton 7	BRDDH034a	361.7	367.6	Big River Shoot 4

Table 8: Predicted Gold Recovery based on Reefton 1-5 Composite Results

A composite sample of five of the Alexander River intercepts was prepared with an assay of 3.33g/t Au and 0.55% sulphur. A test to assess the free gold recoverable by a laboratory Falcon concentrator followed by an intensive cyanide leach demonstrated 32.2% of the gold in the sample was amenable to simple gravity recovery.

A recleaner flotation concentrate was produced from the Reefton 1 to 5 composite with a grade of 68.7g/t Au, 11.4% sulphur and 5.6% arsenic. Based on the sample tested, a flowsheet with gravity and producing a high-grade flotation concentrate a gold recovery of 94% could be expected.



Parameters	Au g/t	% Au Distribution	Recovery of Au (%)
Feed Sample	4.2	100	
Gravity Recovered Gold		32	
Flotation Concentrate (to market)	64.	62	94%
Flotation Tailings	0.3	6	

Table 9: Predicted Gold Recovery based on Reefton 1-5 Composite Results

A rougher flotation concentrate was produced from the composite sample assaying 26g/t Au. This material was treated by pressure oxidation (POX) to liberate the gold; cyanide leaching of the POX residue gave a gold extraction of 98.5%.

If a POX circuit was added to the flowsheet to treat the flotation concentrate an overall recovery of 92% could be anticipated.

Metallurgical test work on Sams Creek was completed by OGL and reviewed by IMO in Perth. Four samples were collected from drill core *(refer to announcement dated 3 June 2022)*. Direct leach recoveries ranged from 79.5% to 87.5% and averaged 83.8%. If the mineralisation was floated and acid leached, then the total recoveries ranged from 83% to 91.3% for an average of 87.2%. Results reported are based on the samples tested to date and may vary with head grade, free gold content and mineralogy. Further testwork will increase confidence in the prediction of recoveries.

Central Processing Facility

GR Engineering Services (GRES) were engaged by Siren Gold to conduct a Scoping Study (SS) for a processing plant and associated infrastructure to treat mineralisation derived from the Company's exploration properties. GRES will develop a flowsheet based the initial metallurgical testwork from the Alexander River and Big River projects.

The flowsheet includes crushing and grinding ore to 80% passing 75 microns, with a gravity gold recovery circuit and flash flotation in the grinding circuit. The cyclone overflow was then treated by flotation to produce a gold rich sulphide concentrate that could be sold to a third party.

Siren will also investigate other beneficiation processes like ore sorting technologies, to see if Reefton or Sams Creek mineralisation could be upgraded prior to trucking to a central processing plant.

TENEMENT STATUS

The Company confirms that all the Company's tenements remain in good standing and that the Company has applied for two additional prospecting permits, Langdons and Grey River, during the quarter and extensions (EOL) to the Alexander River, Big River and Waitahu permits as these areas became vacant (Figure 3). No tenements were disposed of during the quarter. The Company further confirms that as at the end of the quarter the beneficial interest held by the Company in the various tenements has not changed. Details of the tenements and their locations are set out in in Annexure 1.



CORPORATE

During the quarter, the Company held its Annual General Meeting.

The cash flows relating to the quarter included \$2.442m spent on exploration and evaluation expenditure, which is primarily associated with the costs of exploration activities at the Alexander River and Big River Projects, costs associated with the Mineral Resource Estimate, metallurgical testing, Mill Scoping Study, and Underground Scoping Study.

The Company had a closing cash balance at the end of quarter of \$1.983 million.

FINANCE AND USE OF FUNDS

Pursuant to ASX listing rule 5.3.4, the Company provides a comparison of its actual expenditure against the estimated expenditure on items set out in in section 5.5 of the Company's Prospectus.

Activity Description	Funds Allocated (\$)	Actual to Date (\$)
Exploration (2 years)	9,125,000	10,419,390
Administration (2 years)	1,300,000	1,798,975
Expenses of the Offer	850,000	749,000

For the purposes of section 6 of the Appendix 5B, all payments made to related parties are for director fees, office rent, administration services and geological consulting services.

It is noted that the Company raised additional funds after the IPO Prospectus. These funds have been used to, amongst other things, expedite exploration at Alexander River, undertake work necessary to complete a Maiden Mineral Resource Estimate, complete metallurgical studies, commission an underground scoping study, and undertake additional activities necessary to achieve these objectives.

The Board has reviewed all expenditures incurred since the Company's admission to the ASX and is satisfied that they are both necessary and reasonable and are effectively allowed for in the separate allocation of funds towards Working Capital included in the IPO budget.

For further information, please visit or contact:

Brian Rodan – Managing Director Phone: +61 (8) 6458 4200 Paul Angus – Executive Director Phone: +64 274 666 526

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.

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



ANNEXURE 1 – TENEMENT SCHEDULE

TENEMENT / STATUS	OPERATION NAME	REGISTERED HOLDER	% HELD	GRANT DATE	EXPIRY DATE	AREA SIZE (HA)
EP 60446	Alexander River	Reefton Resources Pty Limited	100%	10 May 2018	9 May 2023	1,675.459
EP 60448	Big River	Reefton Resources Pty Limited	100%	20 June 2018	19 June 2023	4,847.114
EP 60479	Lyell	Reefton Resources Pty Limited	100%	13 December 2018	12 December 2023	5,424.592
PP 60465	Reefton South	Reefton Resources Pty Limited	100%	7 August 2018	6 August 2022	25,519.0
EP 60648	Golden Point	Reefton Resources Pty Limited	100%	19 March 2021	18 March 2026	4,622.7
PP 60632	Bell Hill	Reefton Resources Pty Limited	100%	15 December 2021	14 December 2023	36,487.0
PP 60758	Waitahu	Reefton Resources Pty Limited	100%	17 December 2021	16 December 2023	4,991.1
PPA 60893.01	Langdons	Reefton Resources Pty Limited	100%	application		8,159.0
PPA 60894.01	Grey River	Reefton Resources Pty Limited	100%	application		7,419.0
EOL 60758.02	Waitahu	Reefton Resources Pty Limited	100%	application		692.1
EOL 60446.02	Alexander River	Reefton Resources Pty Limited	100%	application		2,341.0
EOL 60448.02	Big River	Reefton Resources Pty Limited	100%	application		569.8

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
Siren Gold Limited	
ABN	Quarter ended ("current quarter")
59 619 211 826	30 June 2022

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(2,628)	(3,859)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(75)	(152)
	(e) administration and corporate costs	(199)	(373)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	1
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	459	716
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(2,442)	(3,667)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	(50)	(50)
	(c) property, plant and equipment	(9)	(119)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(59)	(169)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	163
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(5)	(10)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(5)	153

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,528	5,725
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,442)	(3,667)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(59)	(169)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(5)	153

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(39)	(59)
4.6	Cash and cash equivalents at end of period	1,983	1,983

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,972	4,516
5.2	Call deposits	25	25
5.3	Bank overdrafts	-	-
5.4	Other (Corporate Credit Card)	(14)	(13)
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,983	4,528

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(229)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include nation for, such payments.	e a description of, and an

7.	Financing facilities Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	50	(14)
7.4	Total financing facilities	50	(14)
7.5	Unused financing facilities available at quarter end 3		36
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
	Other at item 7.3 represents business credit card facilities with total limits of \$50,000 with Westpac NZ with no maturity date and is secured against a term deposit the Company has with the lender.		

8.	Estimated cash available for future operating activities	\$A'000	
8.1	Net cash from / (used in) operating activities (item 1.9)	(2,442)	
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-	
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(2,442)	
8.4	Cash and cash equivalents at quarter end (item 4.6)	1,983	
8.5	Unused finance facilities available at quarter end (item 7.5) 3		
8.6	Total available funding (item 8.4 + item 8.5) 2,019		
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	0.8	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	Answer: the Company intends to continue exploration at the Reefton Goldfields including updating the Resource estimate at Alexander River; completing a Maiden Resource Estimate at Big River; updating Resource at Sams Creek; undertaking drilling and other exploration at the Lyell, Auld Creek and St George Projects. In any event, the Company is capable of revising exploration expenditure and operations overheads further to maintain sufficient cash reserves.		

8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?
Answe	r: Yes, the Company is currently considering, planning and executing a capital raising as set out in the trading halt request dated 27 July 2022.
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answe	r: Yes. Refer to answer to question 8.2.2 above.
Note: w	here item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 July 2022

Authorised by: By the Board

(Name of body or officer authorising release - see note 4)

Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.